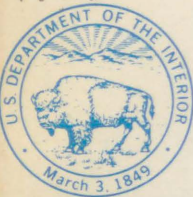
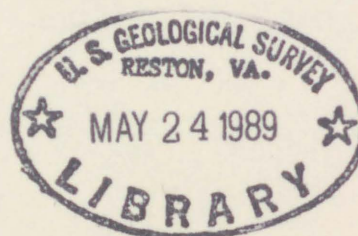


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Water Resources Data Wyoming Water Year 1988



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-88-1
Prepared in cooperation with the State of Wyoming
and with other agencies

CALENDAR FOR WATER YEAR 1988

1987

OCTOBER

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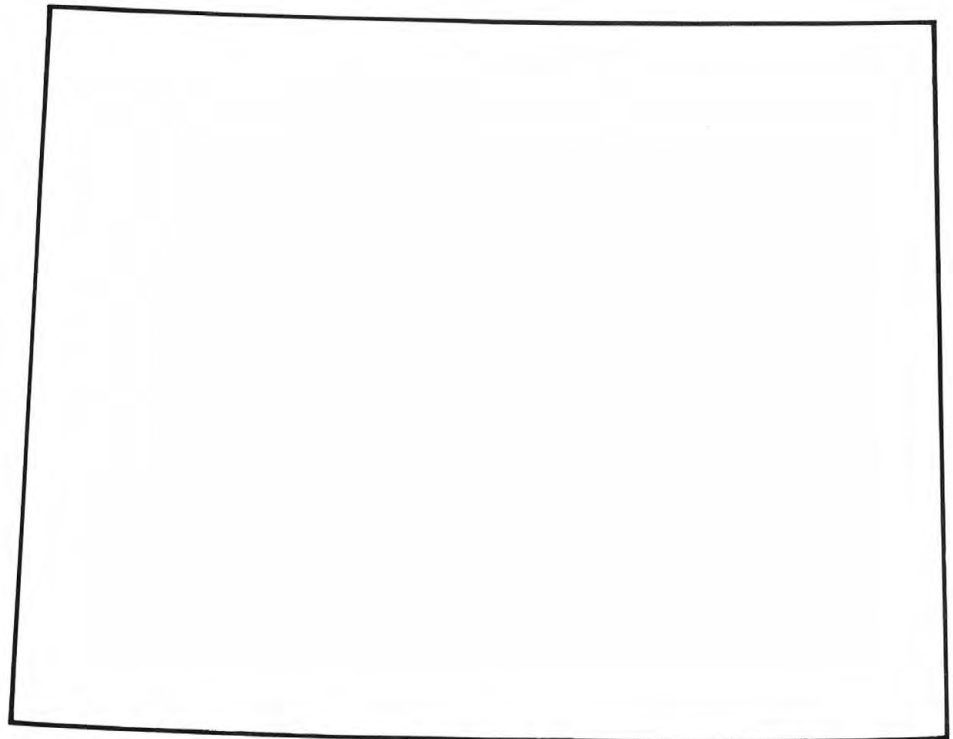
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Water Resources Data Wyoming Water Year 1988

by S.A. Druse, W.R. Glass, P.B. McCollam, and D.A. Peterson



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-88-1
Prepared in cooperation with the State of Wyoming
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

MANUEL LUJAN, JR., Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Wyoming write to
District Chief, Water Resources Division
U.S. Geological Survey
2120 Capitol Avenue
P.O. Box 1125
Cheyenne, Wyoming 82003

1989

WATER RESOURCES DATA - WYOMING, 1988

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:

R. C. Baumann	T. J. Leman	M. C. Rowan	L. J. Sultz
K. D. Becker	G. J. Metzger	N. K. Ruby	G. J. Van Deventer
P. I. Degner	J. F. Meyer	R. J. Sagmeister	J. D. Walgren
S. L. Green	K. A. Miller	K. L. Sattler	K. R. Watson
H. I. Kennedy	D. J. Peyton	M. L. Smalley	T. F. Werth
G. A. Laidlaw			

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 James E. Kircher, District Chief, Wyoming.

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WATER RESOURCES DATA - WYOMING, 1988

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 1988 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 177 gaging stations; stage and contents for 16 lakes and reservoirs; water quality for 66 gaging stations, and 43 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-88-1." 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.

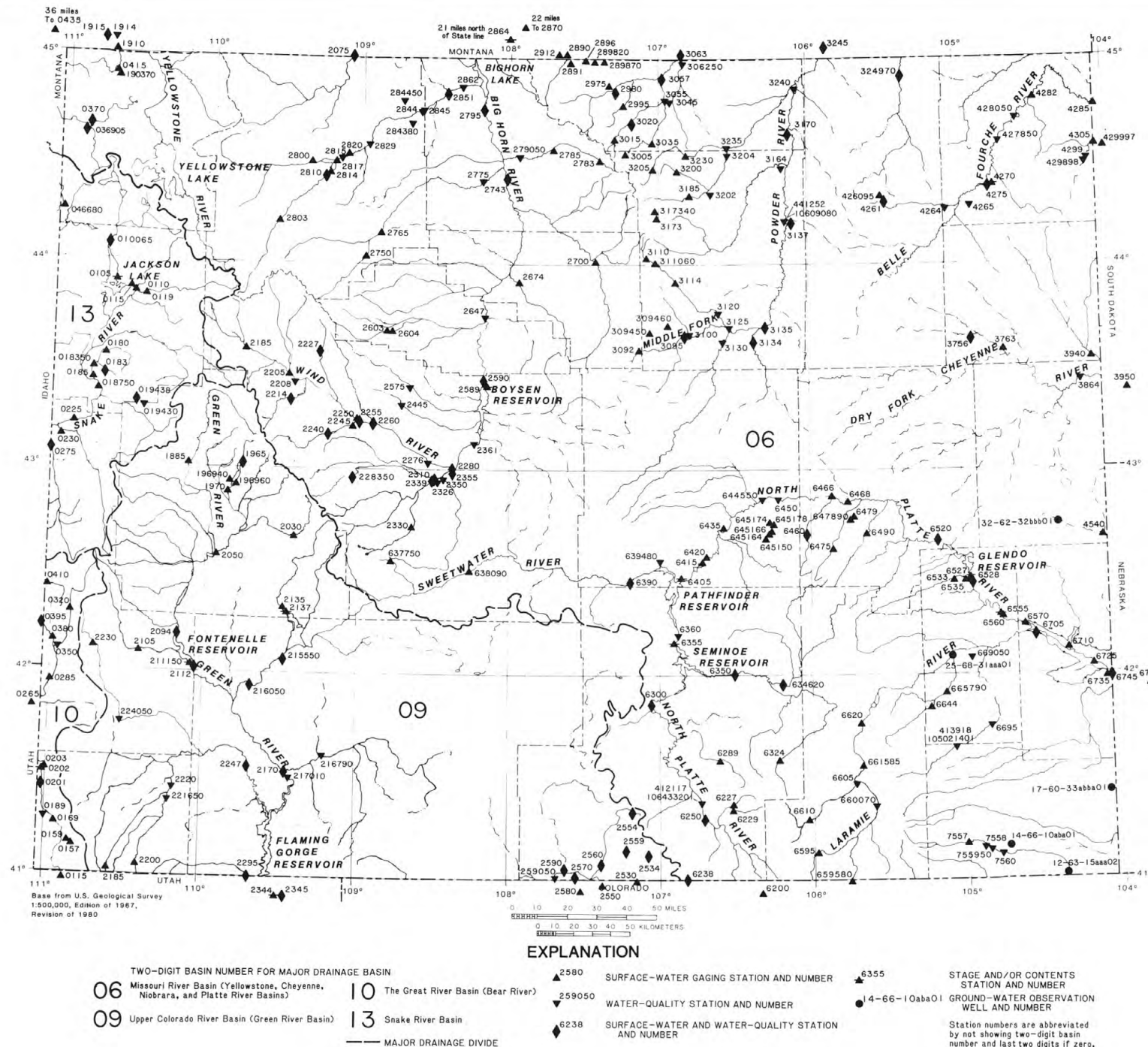


Figure 1.—Location of surface-water gaging stations, water-quality stations, stage and/or content stations, and ground-water observation wells, 1988 water year.

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, Gordon W. Fassett

Wyoming Department of Agriculture, Donald Rolston, Commissioner of Agriculture

Wyoming Water Development Commission, Michael K. Purcell, Administrator

Wyoming Department of Environmental Quality, Randolph Wood, Director

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

Wyoming Attorney General, A. G. McClintock

Wyoming Water Research Center, Steven P. Gloss, Director

Uinta County, County Commissioners

City of Evansville, Lois Ann Nation, Mayor

City of Gillette, H. A. Carter, Mayor

Assistance in the form of funds and services was given by the Bureau of Indian Affairs, U.S. Department of the Interior for 3 streamflow-gaging stations and 9 water-quality stations; Bureau of Reclamation, U.S. Department of the Interior for 7 streamflow-gaging stations, 5 water-quality stations, and 2 reservoir stations; by the Bureau of Land Management, U.S. Department of the Interior for part of a streamflow-gaging station; and by the Corps of Engineers, U.S. Army for 2 streamflow-gaging stations, published in this report.

SUMMARY OF HYDROLOGIC CONDITIONS

Drought conditions prevailed throughout most of Wyoming during water year 1988, with certain areas of the State being less severely or not appreciably affected. The October 5, 1988 issue of the "Casper Star-Tribune" noted that only Big Horn, Hot Springs, Laramie, Park, Sublette, and Sweetwater Counties did not receive a disaster designation from the U.S. Department of Agriculture. However, because those six counties are contiguous to counties that were declared disaster areas, they too qualified for drought-relief assistance in the form of low-interest emergency loans and supplemental feed for livestock. In addition to agricultural problems, the drought also contributed to, and aggravated problems with, forest and grass fires in areas throughout the State--most notably in Yellowstone National Park; the December 29, 1988 issue of the "Wyoming State Tribune" noted that 706,278 acres of the 2.2 million-acre park were burned during the summer and fall of 1988. Other problems attributed to the drought include fish kills in reservoirs with greatly lowered water levels and in streams affected by releases of silty water from reservoirs with low water levels, decreases in numbers of several species of waterfowl because many nesting areas were without water, and the accelerated shrinkage of ancient glaciers. The "Weekly Weather and Crop Bulletin," prepared and published by the National Oceanic and Atmospheric Administration and the U.S. Department of Agriculture Joint Agricultural Weather Facility, noted that the October 1, 1988, drought severity index (Palmer) was extreme and severe in all but extreme southeastern Wyoming, which was considered moist.

Precipitation

Precipitation during water year 1988 was less than the 1951-80 average for all major drainage basins in Wyoming. Only the North Platte River basin was near average (table 1) for the water year--the upper North Platte River basin was 84 percent of average, and the lower North Platte River basin was 95 percent of average. The other major basins, noted in table 1 and in figure 2, received precipitation during the water year that ranged from 57 to 78 percent of average. Precipitation and departures from normal (1951-80 average) for the major divisions (drainage basins) are published monthly by the U.S. Department of Commerce, National Oceanic and Atmospheric Administration.

Drainage-basin precipitation and departures from average (table 1) are cumulated into three groups of months to reflect seasonal variations of precipitation. The only positive departures from average occurred in the upper and lower [North] Platte River basins in southeastern Wyoming during the autumn and winter months (October to March). All the drainage basins received less than average precipitation during the spring (April to June) and summer (July to September) months. On a percentage basis, the most precipitation-deficient basins during the spring and summer months were the Wind River and Green/Bear River basins--each receiving less than one-half the average precipitation for the combined period.

WATER RESOURCES DATA FOR WYOMING 1988

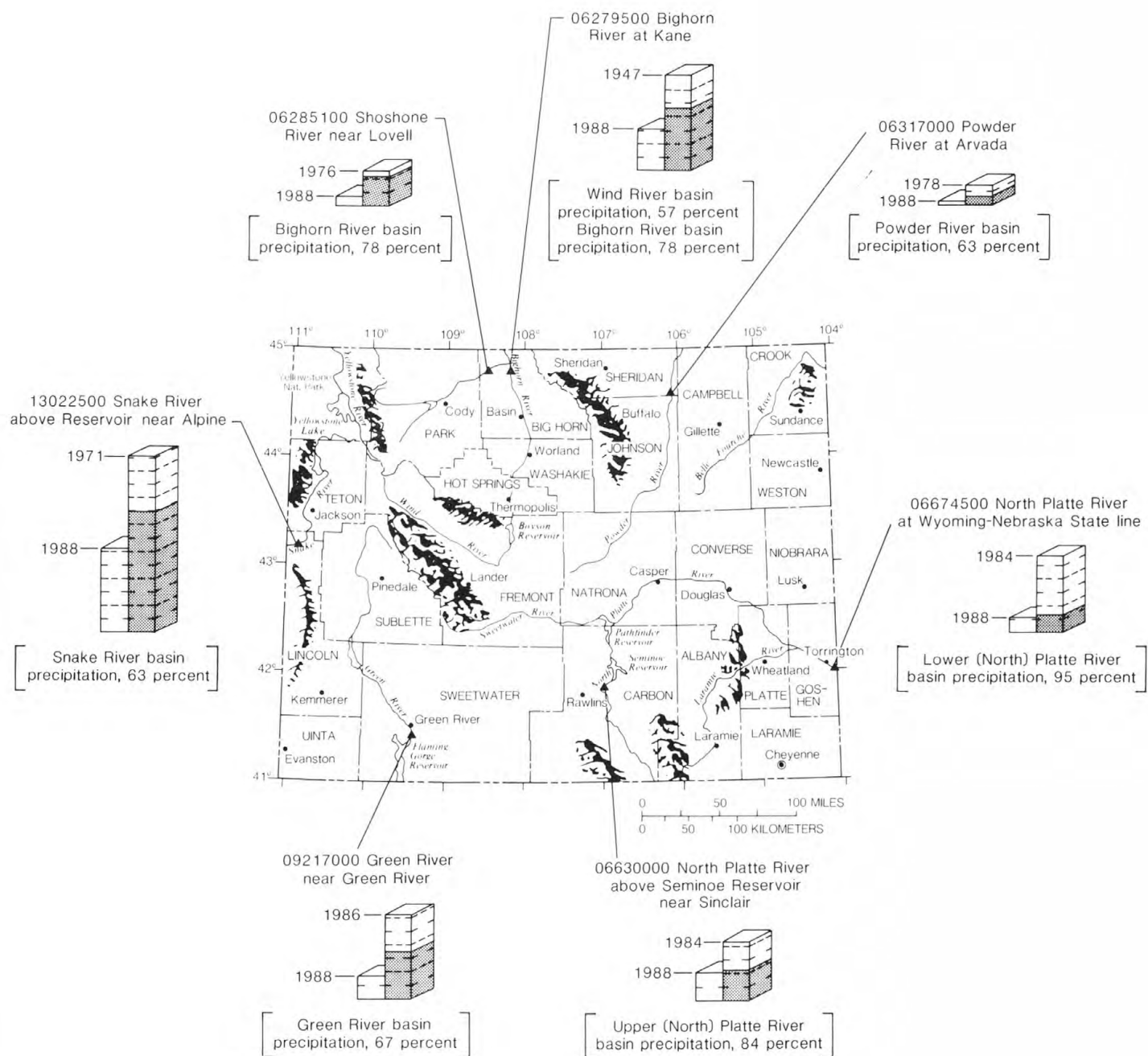
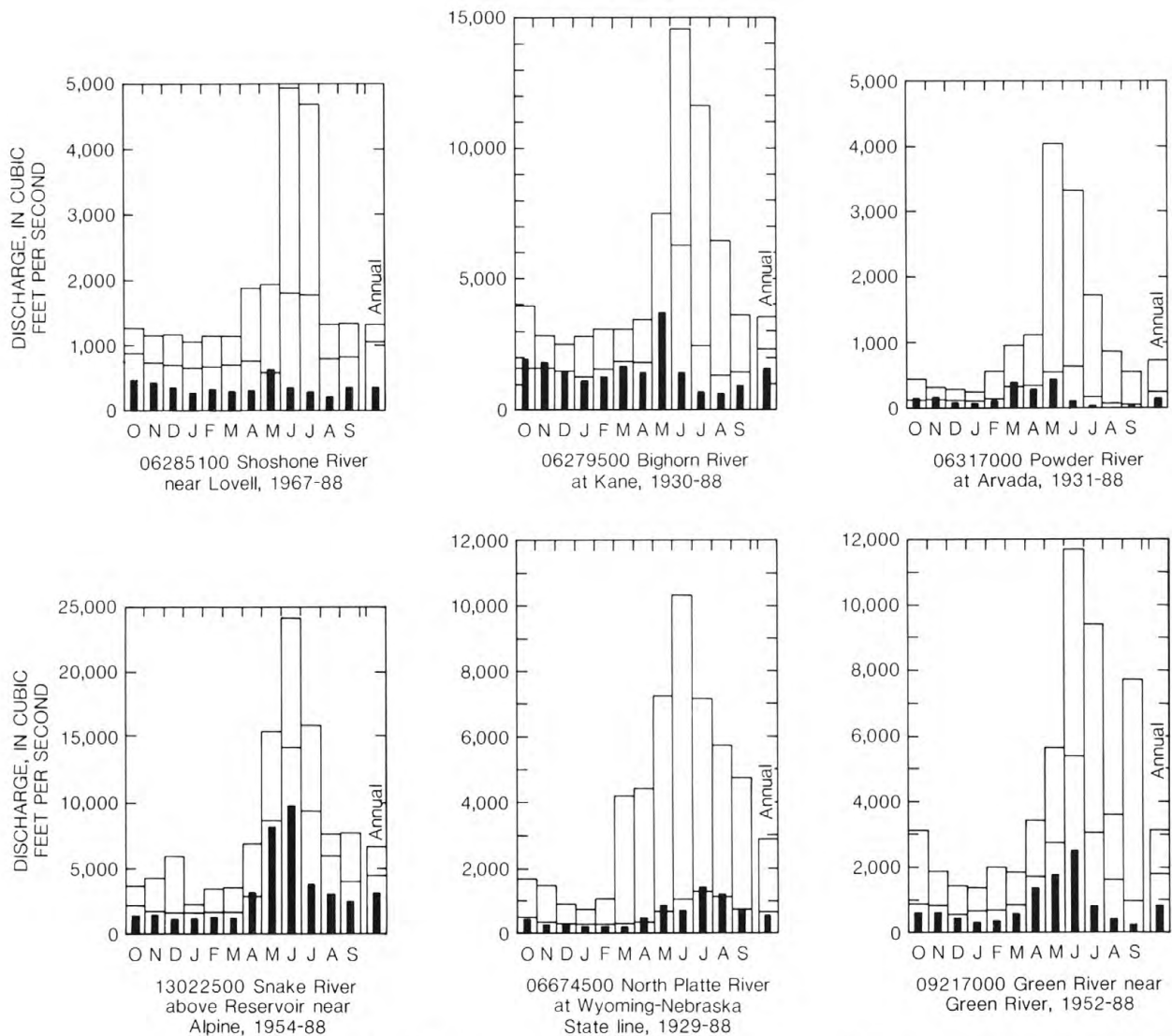
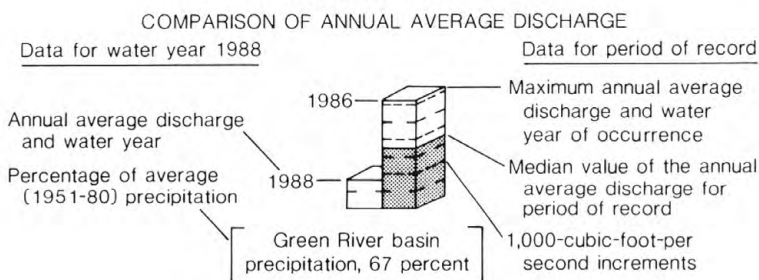


Figure 2.--Percentage of average precipitation, monthly and annual average discharge of major rivers in Wyoming for water year 1988, and monthly and annual maximum and median discharge for period of record.

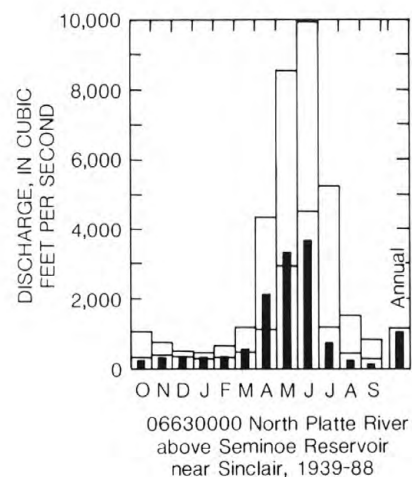
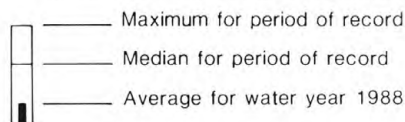


EXPLANATION



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

MONTHLY OR ANNUAL DISCHARGE



Most of the precipitation stations used to compile the data in table 1 and in figure 2 are in nonmountainous areas of the State and may not be indicative of precipitation in the mountains. Precipitation in the mountains, in the form of snow, provides most of Wyoming's annual water supply. The snowpack in the mountains generally was less than average throughout the winter months, with only the Belle Fourche River and Cheyenne River basins (northeastern Wyoming) and the upper [North] Platte River and Little Snake River basins (southcentral Wyoming) being near normal on May 1. The U.S. Department of Agriculture, Soil Conservation Service, noted in their May 1, 1988, issue of "Wyoming Water Supply Outlook" that snowpack melting started 3 to 4 weeks early in 1988 and that streamflow probably would be less than average for all but parts of the North Platte River and the lower Green River basins, which probably would be near normal.

Table 1.--Precipitation for selected periods of water year 1988 and the departures from average (1951-80) 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	2.05	-0.58	2.01	-2.79	1.28	-0.73	5.34	57
Bighorn River	2.01	-.59	4.16	-.35	1.32	-1.14	7.49	78
Powder/Little Missouri/Tongue River	3.32	-.80	3.78	-2.82	1.78	-1.58	8.88	63
Snake River	8.07	-3.96	4.24	-1.40	1.19	-2.64	13.50	63
Green/Bear River	3.74	-.08	1.55	-1.60	1.04	-1.38	6.33	67
Upper [North] Platte River	4.95	.49	2.73	-1.38	2.00	-1.00	9.68	84
Lower [North] Platte River	4.37	.80	5.19	-1.09	3.39	-.38	12.95	95

Streamflow

Annual streamflow in Wyoming was reflective of the drought conditions that was prevalent throughout most of the State. The stations shown in figure 2 typify the streamflow for the State, with only streamflow in the North Platte River basin streamflow (southeastern Wyoming) being near average. Streamflow in the remainder of the State was less than average. The average discharge was in the 10th percentile for many streams during water year 1988; the minimum average discharge for the period of record occurred at some stations--including station 06285100, Shoshone River near Lovell (fig. 2). Seasonally, streamflow decreased to much less than average during June through September. The seasonal variation of the streamflow and the comparison of monthly and annual discharge for water year 1988, with the median and previous maximums for the period of record, are shown for selected stations in figure 2. These stations generally are the most downstream stations on the major rivers of the State and give an indication of the water supply for each river basin. Natural flow at these stations is mostly regulated, with the exception of station 06317000, Powder River at Arvada, and station 06630000, North Platte River above Seminole Reservoir, near Sinclair, which have no large reservoirs upstream and only moderate withdrawals for irrigation.

Floods

Flooding was moderate throughout the State during water year 1988. The smaller maximum discharges can be partially attributed to earlier than normal snowmelt, as well as to the overall drought conditions. The recurrence interval of maximum discharge at most streamflow-gaging stations was less than 2 years. One exception was the May 7 flooding in northeastern Park County. The May 10, 1988, issue of the "Powell Tribune" noted that some rural residents measured 3 to 4 inches of rain during the May 6-7 storm. Bitter Creek was particularly affected by the storm runoff. The peak discharge at the discontinued stream-gaging station 06284500, Bitter Creek near Garland, was estimated to be 2,100 cubic feet per second, exceeding the maximum discharge of record (1,230 cubic feet per second, July 4, 1975).

Chemical Quality of Streamflow

Seven stations were selected to represent the water quality of major drainages in Wyoming. Specific conductance of surface water during water year 1988 was not significantly different from that of the previous 10 years, based on data from five of the seven stations. At the other two stations, specific conductance for water year 1988 was significantly different from the previous 10 years. Specific conductance was chosen as an indicator of dissolved-solids concentration in water, because the conductance varies directly with the concentration and species of ions in the water.

The mean value of specific conductance at each station for water year 1988 was compared to the mean value for the previous 10 water years, 1978-87, using the Wilcoxon-Mann-Whitney rank sum test (table 2). This is a nonparametric counterpart to the common t-test and does not require the data to be normally distributed. The null hypothesis in each case is that the means are equal. A test statistic (t_R) was calculated from the ranks and a pooled standard deviation and compared to a table value (t_{tab}) of "Student's" t-distribution. The table value is $(1 - \alpha/2)$, where α (the level of significance) equals 0.05, at the appropriate degrees of freedom for each sample size. At five of the seven stations, the absolute value of the test statistic was less than the table value, indicating the means for water year 1988 were not significantly different from the means for the previous 10 years.

At station 06285100, Shoshone River near Lovell, and station 09217000, Green River near Green River, the rank sum tests indicated the mean specific conductance for water year 1988 was significantly different from the mean of the previous 10 years. At station 06630000, North Platte River above Seminoe Reservoir, the null hypothesis that the means are equal was accepted; however, the difference between t_R and t_{tab} was small. At all three stations, the mean specific conductance was larger for water year 1988 than for the previous 10 years (table 2). Generally, larger specific-conductance values are associated with low streamflow. As described earlier in this report, streamflow was much less than average at several of the stations considered here, including stations 06285100 and 09217000. However, specific-conductance values were about average at some of the stations where streamflow was less than average during water year 1988. Therefore, if the statistical departures from the average specific conductance described here are related to the less than average streamflow, the relation is indirect, such as through drought-caused changes in water-use practices, which vary from one river basin to another.

Table 2.--Results of t-tests comparing mean values of specific conductance for water year 1988 with mean values for water years 1978-87 at selected water-quality sampling stations

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

Drainage basin and station number	Specific conductance						Wilcoxon-Mann-Whitney		
	Water year 1988			Water years 1978-87			rank sum test		
	Number of values	Mean	Stan- dard devia- tion	Number of values	Mean	Stan- dard devia- tion	t_R	t_{tab}	Null hypothesis
Shoshone River 06285100	10	1,070	193	76	880	243	-2.58	1.99	Rejected
Bighorn River 06279500	10	936	193	104	953	201	0.16	1.96	Accepted
Powder River 06317000	8	2,880	1,540	83	3,040	1,050	.97	1.99	Accepted
Snake River 13022500	10	333	53	123	324	65	-.43	1.96	Accepted
Lower North Platte River 06674500	10	843	92	87	846	142	-.07	1.99	Accepted
Green River 09217000	7	771	166	114	594	157	-2.69	1.96	Rejected
Upper North Platte River 06630000	6	507	192	86	406	120	-1.89	1.99	Accepted

Ground-Water Levels

Water levels in most wells in the observation-well network declined during water year 1988. Most of the 89 wells in the observation-well network are in areas of extensive ground-water withdrawal--mainly in southeastern Wyoming. Water in Niobrara, Goshen, and eastern Laramie Counties is withdrawn from the High Plains aquifer for irrigation; water in Platte County is withdrawn from alluvium for irrigation. Water in central Laramie County is withdrawn extensively from the High Plains aquifer for domestic use.

Water levels in most network wells in Niobrara and Goshen Counties changed less than 1 foot. Measured changes in water levels in 26 network wells in Laramie County ranged from a 5-foot decline to a 1.2-foot rise; the median change for all wells was a 0.2-foot decline. Measured changes in water levels in nine network wells in Platte County ranged from a 5-foot decline to a 2-foot rise; the median change for all wells was a 0.3-foot decline. Hydrographs for representative observation wells in southeastern Wyoming are shown in figure 3. The location 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 most recent water-level report contains data from 1978 through September 1987 and is available for inspection at the U.S. Geological Survey office in Cheyenne.

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 1987 water year that began on October 1, 1986, and ended September 30, 1987. 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.

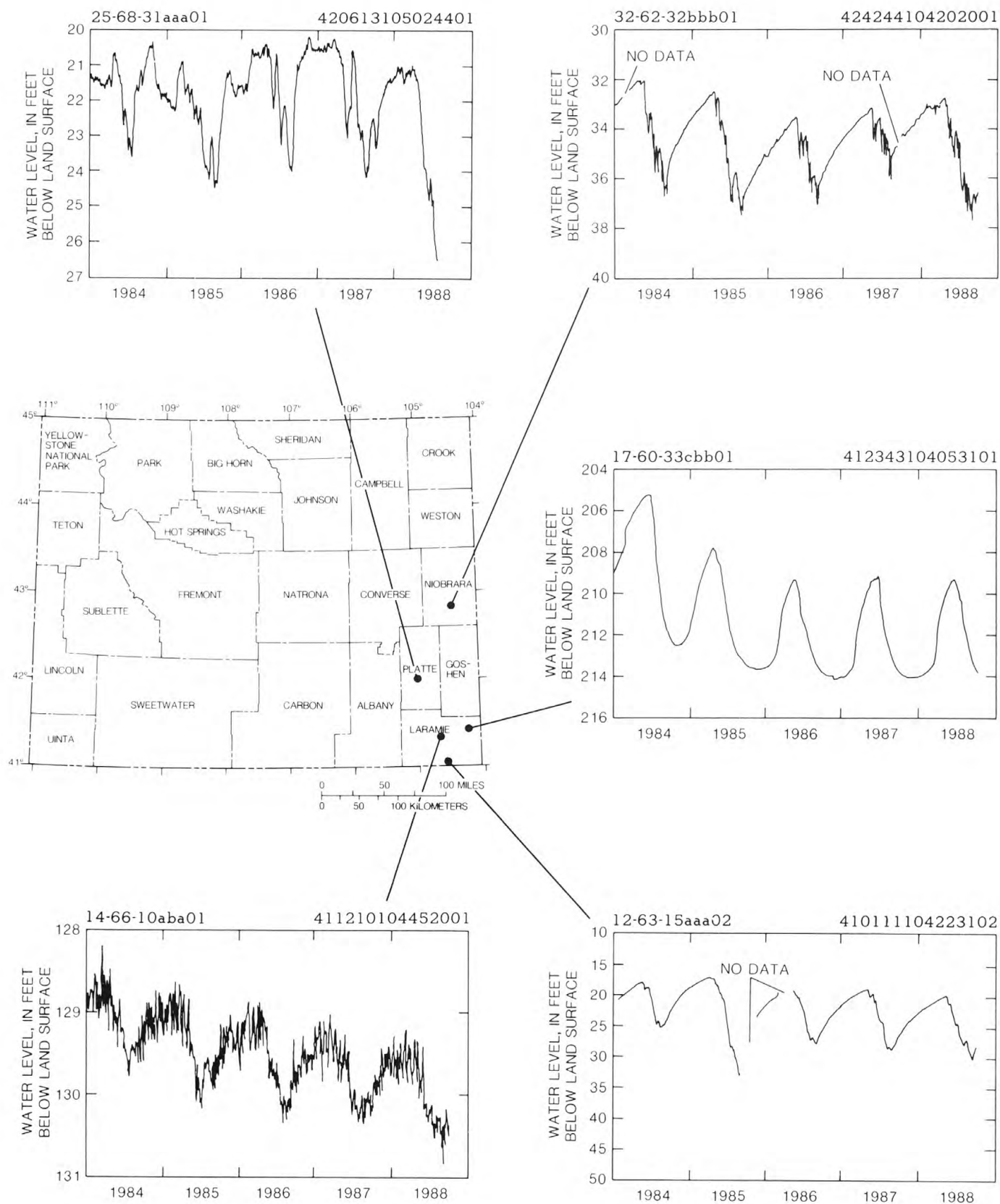
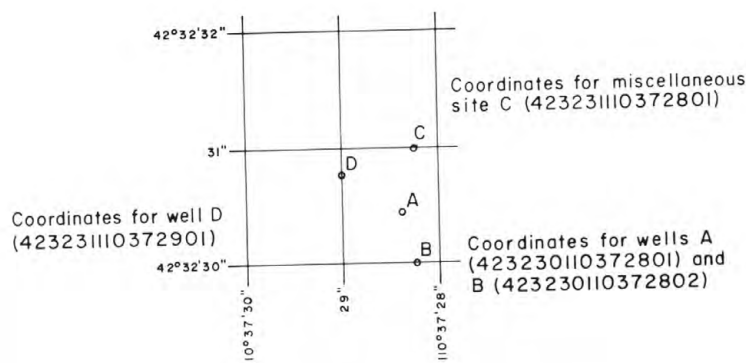


Figure 3.--Water-level hydrographs for observation wells in areas of extensive Ground-water withdrawals, January 1984 to September 1988.

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

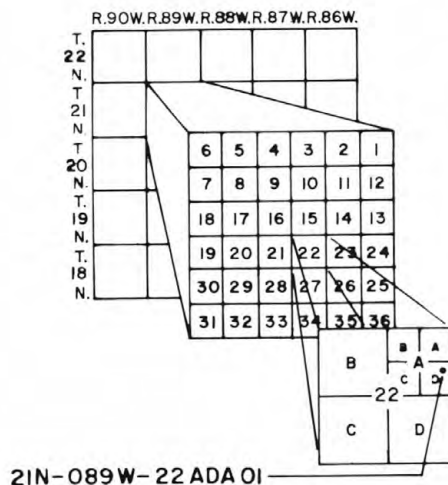
The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, 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 14-66-10aba01 is in the NE1/4 NW1/4 NE1/4 sec.10, T.14 N., R.66 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 or miscellaneous site 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

Samples for suspended sediment, turbidity, indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey National Water Quality Laboratory in Arvada, Colorado or in the Wyoming Department of Agriculture laboratory in Laramie, Wyoming. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chap. C1. Methods used for chemical and biological analyses are given in TWRI, Book 1, Chap. D2; Book 5, Chap. A1, A2, A3, A4, A5, and A6.

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, which is the analytical detection limit
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 a 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/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

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 (ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile [$(\text{ft}^3/\text{s})/\text{mi}^2$] 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.

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

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific 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 (UG/L, $\mu\text{g/L}$) is a unit expressing the concentration of chemical constituents in solution. Milligrams per liter represents the mass 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 (m^2), 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 [mg C/(m².time)] for periphyton and macrophytes and [mg C/(m³.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 [mgO/(m².time)] for periphyton and macrophytes and [mgO/(m³.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 Q₁₀) 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.

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.

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

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.....	Hexagenia
<u>Species.....</u>	<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, 1987, is called the "1987 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.
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- 3-A4. Measurement of peak discharge at width contractions by indirect methods, by H. J. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
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- 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.
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- 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-A16. Measurement of discharge using tracers, by F. A. Kilpatrick and E. D. Cobb: USGS--TWRI Book 3, Chapter A16. 1985. 52 pages.
- 3-A17. Acoustic velocity meter systems, by Antonius Laenen: USGS--TWRI Book 3, Chapter A17. 1985. 38 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 test 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-B5. Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems--An introduction, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.
- 3-B6. The principle of superposition and its application in ground-water hydraulics, by T. E. Reilly, O. L. Franke, and G. D. Bennett: USGS--TWRI Book 3, Chapter B6. 1987. 28 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.
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MADISON RIVER BASIN

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT

LOCATION.--Lat 44°37'13", long 110°51'44", Yellowstone National Park, Hydrologic Unit 10020007, on right bank
1.6 mi south of Madison Junction, 12 mi east of West Yellowstone, and at mile 1.8.

DRAINAGE AREA.--282 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 7,050 ft, from topographic map.

REMARKS.--Estimated daily discharges: Aug. 24 to Sept. 6. Water-discharge records good except those for estimated daily discharges, which are fair. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--5 years, 332 ft³/s, 240,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,520 ft³/s, May 31, 1986, gage height, 5.48 ft; minimum recorded, 202 ft³/s, Aug. 20, 21, 1988, gage height, 2.83 ft, but may have been less during period of no gage-height record, Aug. 24 to Sept. 6, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 780 ft³/s, May 17, gage height, 4.20 ft; minimum recorded, 202 ft³/s, Aug. 20, 21, gage height, 2.83 ft, but may have been less during period of no gage-height record, Aug. 24 to Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242	251	237	232	253	257	259	344	376	231	215	e215
2	241	260	251	234	246	255	274	331	355	229	213	e215
3	239	260	246	235	244	256	303	320	363	227	215	e215
4	241	246	246	231	250	253	296	316	374	231	215	e215
5	241	244	247	248	250	248	276	315	375	235	215	e210
6	243	244	247	243	249	263	290	328	351	226	215	e210
7	243	247	257	239	248	256	319	336	332	225	216	211
8	241	240	243	240	252	251	317	327	316	225	217	210
9	241	239	244	244	258	255	279	331	302	224	213	212
10	238	240	262	246	258	254	275	335	292	225	212	213
11	239	241	245	253	255	248	297	364	287	225	212	220
12	242	246	237	249	255	244	330	411	282	221	220	222
13	246	255	231	251	258	244	354	471	278	220	223	228
14	243	258	222	253	250	248	363	536	270	219	215	225
15	248	238	237	264	260	248	365	510	264	218	211	219
16	241	239	239	255	255	245	374	584	259	219	211	217
17	244	244	251	255	249	242	376	637	257	217	211	216
18	244	233	244	244	254	246	359	548	253	217	210	217
19	239	236	243	238	250	248	345	500	249	217	210	220
20	238	238	237	250	252	256	376	437	249	216	210	222
21	242	238	240	248	248	264	391	444	253	216	209	222
22	242	241	253	244	250	267	351	452	246	215	211	217
23	241	244	247	245	246	264	328	460	241	214	214	216
24	245	236	234	243	245	255	315	465	237	215	e215	216
25	245	239	242	247	247	253	327	468	236	216	e215	215
26	243	239	248	246	248	268	325	466	241	218	e215	215
27	242	234	242	250	249	281	338	455	237	219	e215	216
28	242	236	239	250	251	260	329	444	236	219	e215	221
29	244	236	243	256	256	255	324	436	234	222	e215	216
30	244	232	243	260	---	255	344	489	232	217	e215	217
31	246	---	239	256	---	250	---	464	---	217	e215	---
TOTAL	7510	7274	7536	7649	7286	7889	9799	13324	8477	6855	6633	6503
MEAN	242	242	243	247	251	254	327	430	283	221	214	217
MAX	248	260	262	264	260	281	391	637	376	235	223	228
MIN	238	232	222	231	244	242	259	315	232	214	209	210
AC-FT	14900	14430	14950	15170	14450	15650	19440	26430	16810	13600	13160	12900

CAL YR 1987 TOTAL 102850 MEAN 282 MAX 533 MIN 222 AC-FT 204000
WTR YR 1988 TOTAL 96735 MEAN 264 MAX 637 MIN 209 AC-FT 191900

e Estimated

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 September 1986, October 1987 to September 1988 (discontinued).

WATER TEMPERATURE: August 1983 to current year.

INSTRUMENTATION.--Water-quality monitor Aug. 30, 1983 to Sept. 25 1988. Water temperature recorder since Sept. 26, 1988.

REMARKS.--No specific conductance records Aug. 23 to Sep. 7 (wildfires damaged monitor) and Sep. 23-30 (monitor removed). No temperature records for many days throughout the year (monitor malfunction and damage).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1983-86, 1988): Maximum, 633 microsiemens, Apr. 1, 1988; minimum, 140 microsiemens, June 5, 1986.

WATER TEMPERATURE: Maximum, 30.0°C, June 24, 1988; minimum, 1.0°C, Dec. 24, 1983, Feb. 1, 1985.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 633 microsiemens, Apr. 1; minimum, 243 microsiemens, May 17.

WATER TEMPERATURE: Maximum, 30.0°C, June 24; minimum, 2.5°C, Jan. 19.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	552	544	540	555	543	549	581	566	574	597	564	575
2	548	544	546	555	534	543	579	550	564	595	564	578
3	553	546	547	554	543	548	582	560	572	593	567	577
4	554	545	549	548	535	543	592	570	581	605	566	579
5	554	545	548	558	536	548	592	570	579	596	556	572
6	554	543	548	558	545	550	583	563	571	579	566	572
7	556	533	545	559	546	553	573	551	565	579	575	577
8	556	543	548	557	536	545	579	560	565	588	576	581
9	554	540	545	570	546	553	574	563	569	586	575	578
10	557	534	542	559	545	551	574	552	562	579	566	575
11	555	534	542	559	539	550	576	565	573	577	556	563
12	558	533	545	560	547	555	582	563	572	588	566	576
13	563	536	549	567	556	560	593	554	569	584	557	576
14	559	535	543	572	558	563	598	564	580	585	576	578
15	564	536	551	580	539	551	597	555	566	588	564	577
16	548	528	541	581	559	566	569	549	557	579	558	575
17	557	538	548	563	550	558	557	536	544	586	567	579
18	555	537	545	583	560	566	570	539	551	588	576	581
19	556	537	545	590	562	574	570	557	562	589	568	580
20	561	538	548	590	571	576	576	557	564	589	566	576
21	562	531	549	584	572	579	571	557	563	578	559	569
22	560	540	549	584	566	575	571	559	565	586	565	570
23	562	540	550	583	564	572	569	551	562	584	569	576
24	552	540	547	576	564	571	592	551	572	587	574	578
25	553	540	546	586	574	579	598	550	570	585	566	573
26	559	540	546	587	567	576	574	549	561	588	567	577
27	561	541	547	597	575	582	580	553	568	587	566	580
28	562	541	550	596	576	583	592	563	577	589	569	584
29	562	541	549	584	567	576	590	560	575	596	575	588
30	564	550	554	585	569	576	584	571	578	596	554	576
31	561	543	552	---	---	---	576	564	572	585	546	572
MONTH	564	528	547	597	534	562	598	536	568	605	546	576

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	595	568	585	619	609	616	633	602	614	494	473	481
2	596	586	588	619	606	613	622	596	609	511	490	499
3	588	567	582	619	605	615	604	580	593	513	497	505
4	584	565	578	615	596	604	580	547	560	513	497	506
5	587	558	579	616	606	610	593	561	579	511	496	501
6	589	569	584	619	587	609	607	572	588	500	474	485
7	588	568	582	609	586	597	574	539	561	480	465	472
8	595	574	584	618	606	613	553	515	533	483	470	477
9	589	566	576	619	616	617	576	549	560	480	464	471
10	589	576	581	618	597	610	582	557	569	466	452	459
11	589	574	586	609	597	603	570	538	557	462	424	436
12	599	577	590	619	606	612	537	494	519	427	375	393
13	598	575	589	617	606	609	498	468	483	386	335	350
14	598	569	585	609	606	607	481	451	465	335	287	301
15	594	569	582	619	606	612	463	437	450	318	285	299
16	589	566	582	615	605	608	443	416	432	309	270	285
17	599	567	587	618	604	609	435	407	423	279	243	259
18	596	577	589	618	606	610	430	412	421	302	270	282
19	599	579	588	619	606	614	447	429	436	316	290	302
20	599	575	589	619	616	618	452	431	441	334	312	322
21	606	579	593	626	616	620	450	424	434	333	308	321
22	605	577	595	618	606	609	459	436	445	327	306	317
23	604	578	591	616	589	604	480	460	470	325	302	311
24	604	579	592	604	594	598	494	475	484	315	295	304
25	599	577	595	614	599	607	495	475	483	310	292	301
26	605	587	598	619	606	613	532	485	509	317	299	306
27	615	588	603	618	587	605	543	519	530	330	316	321
28	609	588	604	609	588	602	519	500	510	342	326	331
29	619	584	607	620	606	609	515	499	504	355	341	346
30	---	---	---	626	605	613	504	479	486	373	351	360
31	---	---	---	632	608	616	---	---	---	380	363	369
MONTH	619	558	588	632	586	610	633	407	508	513	243	377
	JUNE			JULY			AUGUST			SEPTEMBER		
1	399	382	390	537	498	519	550	538	543	---	---	---
2	406	400	403	534	494	518	571	544	554	---	---	---
3	410	394	402	577	502	533	578	558	567	---	---	---
4	410	387	396	569	526	551	577	559	567	---	---	---
5	400	381	389	570	482	548	579	567	573	---	---	---
6	403	395	399	568	502	538	581	570	576	---	---	---
7	412	403	407	567	521	544	579	567	573	---	---	---
8	418	410	415	569	521	548	580	563	571	582	536	559
9	435	418	426	571	509	539	583	565	575	578	544	565
10	448	436	441	578	542	564	581	564	575	570	542	557
11	455	442	449	585	530	567	579	562	572	584	538	561
12	461	452	457	556	505	536	583	562	573	588	538	559
13	472	457	464	566	511	541	586	559	570	590	558	574
14	481	464	472	578	546	561	581	558	572	584	541	566
15	492	479	485	590	528	560	582	559	570	592	542	577
16	499	488	493	612	558	580	576	560	571	580	537	565
17	497	492	494	610	540	570	577	562	568	588	541	566
18	505	494	499	598	549	580	583	559	572	577	537	557
19	513	498	506	589	525	545	580	562	571	588	535	563
20	519	505	510	598	555	576	584	566	575	588	549	576
21	527	513	520	574	551	563	580	560	569	578	546	570
22	541	514	522	568	542	554	578	560	566	584	539	566
23	547	521	537	567	540	555	---	---	---	578	534	564
24	542	498	520	579	548	565	---	---	---	592	558	572
25	526	471	497	603	554	567	---	---	---	566	529	553
26	532	483	505	607	570	586	---	---	---	---	---	---
27	564	503	529	576	557	571	---	---	---	---	---	---
28	569	518	547	576	556	568	---	---	---	---	---	---
29	562	511	538	595	549	575	---	---	---	---	---	---
30	542	513	527	607	544	564	---	---	---	---	---	---
31	---	---	---	569	544	557	---	---	---	---	---	---
MONTH	569	381	471	612	482	556	586	538	569	592	529	565
YEAR	633	243	540									

06036905 FIREHOLE RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	---	---	---	16.5	15.5	16.0	11.0	8.5	9.5	7.0	4.5	6.0
2	---	---	---	16.5	15.5	16.0	11.0	9.0	10.5	6.0	3.5	5.0
3	---	---	---	16.5	15.0	16.0	13.0	11.0	12.0	6.0	3.0	4.5
4	---	---	---	16.5	14.0	15.0	13.5	10.5	12.0	7.5	3.0	5.0
5	18.5	12.5	15.5	---	---	---	13.5	12.5	13.0	10.0	7.5	8.5
6	---	---	---	14.0	12.0	13.0	13.5	11.5	12.5	9.5	8.0	9.0
7	---	---	---	15.0	13.5	14.5	12.5	9.5	11.0	9.5	8.0	8.5
8	---	---	---	---	---	---	10.0	8.5	9.0	9.0	7.5	8.0
9	---	---	---	---	---	---	10.0	8.5	9.0	9.5	8.0	9.0
10	---	---	---	14.0	11.5	13.0	10.0	8.0	9.0	9.5	7.5	8.5
11	16.5	10.0	13.5	14.0	13.0	13.5	8.5	7.5	8.0	7.5	6.0	7.0
12	---	---	---	13.5	13.0	13.5	8.0	6.0	7.5	8.0	6.5	7.0
13	16.0	14.0	15.0	14.0	13.5	14.0	7.0	5.0	6.0	8.5	6.5	7.5
14	16.5	11.5	14.5	14.0	10.5	13.0	6.0	3.5	5.0	9.0	8.0	8.5
15	15.0	12.5	14.0	---	---	---	7.5	5.5	6.5	10.5	8.0	9.5
16	---	---	---	10.5	9.0	10.0	8.0	5.5	7.0	9.0	6.0	7.5
17	---	---	---	10.5	8.0	9.0	10.5	8.0	9.0	9.0	6.5	8.0
18	15.0	12.5	14.0	9.0	6.0	7.5	9.0	7.0	8.0	7.0	4.5	6.0
19	---	---	---	11.0	7.0	9.0	9.0	6.5	8.5	6.5	2.5	4.5
20	---	---	---	11.0	8.0	9.5	7.0	4.5	6.0	8.0	5.5	6.5
21	14.5	10.0	12.5	11.0	7.5	9.5	8.0	6.5	7.5	8.5	5.5	7.0
22	15.5	10.0	12.5	11.0	10.0	10.5	9.0	7.5	8.5	8.0	5.0	6.5
23	15.5	10.0	13.0	11.5	9.5	10.5	8.5	5.0	7.0	9.0	5.5	7.5
24	14.5	12.5	13.5	9.0	6.5	8.5	6.0	3.5	5.0	8.0	5.5	7.0
25	15.5	13.0	14.0	10.5	8.5	9.5	8.5	5.0	6.5	8.5	6.0	7.0
26	15.5	12.0	14.0	11.5	8.5	9.5	9.5	7.5	8.5	9.0	5.0	7.0
27	15.5	11.0	13.5	10.0	7.0	9.0	9.0	7.0	8.5	12.0	9.0	10.0
28	15.5	10.5	13.5	10.5	8.0	9.5	9.0	6.5	8.0	11.5	8.5	10.0
29	16.0	11.0	13.5	10.0	7.5	9.0	9.0	6.0	8.0	12.0	10.0	11.0
30	17.0	12.5	15.0	9.5	7.0	8.5	9.0	7.5	8.5	11.5	7.5	10.0
31	17.0	16.0	16.5	---	---	---	7.5	6.0	7.0	8.5	6.5	7.5
MONTH	18.5	10.0	14.0	16.5	6.0	11.5	13.5	3.5	8.5	12.0	2.5	7.5
	FEBRUARY			MARCH			APRIL			MAY		
1	8.5	6.0	7.5	14.5	12.0	13.0	17.5	9.5	13.5	14.0	10.5	12.0
2	7.0	4.0	5.5	16.0	11.0	13.0	18.0	11.0	14.5	15.0	9.5	12.0
3	6.5	4.0	5.5	13.0	9.5	11.5	15.0	11.0	13.5	17.0	12.0	14.5
4	8.5	5.5	7.0	13.5	7.5	10.5	11.0	8.0	9.5	16.5	13.5	15.5
5	10.5	6.0	8.0	13.0	9.0	11.0	14.5	7.5	11.0	17.5	14.0	16.0
6	9.5	6.5	8.5	12.0	8.0	11.0	17.5	10.5	13.5	17.0	13.5	15.5
7	9.0	7.0	8.0	11.5	7.0	9.0	15.5	12.0	13.5	14.0	12.0	13.0
8	10.5	7.0	8.5	13.5	7.0	10.0	12.0	9.0	10.5	17.5	13.0	14.5
9	9.5	7.5	8.5	12.0	9.5	11.0	16.0	8.0	11.5	16.5	15.0	16.0
10	11.0	8.5	10.0	10.5	6.5	9.5	18.0	9.0	13.5	20.0	14.5	16.5
11	11.0	9.5	10.5	9.5	6.0	7.5	19.5	11.5	15.5	20.5	15.0	18.0
12	12.0	10.0	11.0	10.5	5.5	8.0	19.5	12.0	15.5	20.5	15.0	18.0
13	10.5	8.5	10.0	10.5	5.0	8.0	20.0	11.5	16.0	19.5	14.5	17.0
14	10.0	7.0	8.5	11.0	7.5	9.5	19.0	12.5	15.5	---	---	---
15	9.0	8.5	9.0	11.5	8.5	10.0	19.5	12.0	16.0	---	---	---
16	10.5	8.0	9.0	12.5	6.5	9.5	20.5	12.5	16.5	18.0	11.0	14.5
17	10.0	5.5	8.0	13.5	6.5	10.0	18.0	13.0	16.0	16.5	11.0	13.0
18	11.5	8.0	9.5	15.5	8.5	12.0	16.5	13.5	15.0	14.0	11.0	13.0
19	11.5	8.0	10.0	15.0	10.0	12.5	16.0	14.0	15.0	15.0	11.0	13.0
20	13.0	10.0	11.0	16.0	11.0	13.5	15.5	13.5	14.5	17.5	11.0	14.5
21	11.5	8.0	10.0	15.5	12.0	13.0	15.0	13.0	14.0	19.5	12.0	16.0
22	11.0	7.5	9.0	14.0	11.0	12.5	15.0	12.5	13.5	21.0	13.0	17.0
23	11.5	6.5	9.0	12.5	9.5	11.0	16.0	13.0	14.0	20.5	14.0	17.5
24	12.0	6.5	9.5	11.5	8.5	10.0	15.5	13.0	14.5	20.5	15.5	18.0
25	13.0	7.5	10.5	12.0	8.0	10.0	---	---	---	20.5	14.5	18.0
26	14.5	8.0	11.5	15.5	11.0	13.0	---	---	---	20.0	15.0	17.5
27	14.5	9.0	12.0	12.5	7.5	10.0	18.0	12.0	14.5	20.0	15.0	17.5
28	15.0	9.5	12.5	11.5	7.0	9.0	17.5	13.5	15.5	19.0	14.0	17.0
29	15.0	12.5	13.5	11.5	7.5	9.5	17.0	15.0	16.0	19.5	15.0	17.5
30	---	---	---	13.5	9.0	10.5	16.0	14.5	15.0	17.5	12.5	14.5
31	---	---	---	15.5	7.5	11.5	---	---	---	14.5	11.5	13.0
MONTH	15.0	4.0	9.5	16.0	5.0	10.5	20.5	7.5	14.0	21.0	9.5	15.5

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: Dec. 13-15, 19, 20, 23-25, Jan. 1-5, 18-20, 26, Feb. 2, 3. Water-discharge records fair. No regulation or diversions upstream of station.

AVERAGE DISCHARGE.--5 years, 110 ft³/s, 79,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 809 ft³/s, May 30, 1986, gage height, 4.53 ft; minimum, 54 ft³/s, Mar. 12, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 343 ft³/s, May 14, gage height, 3.38 ft; minimum, 54 ft³/s, Mar. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	73	66	e60	61	66	60	118	175	79	67	64
2	70	80	72	e60	e60	65	63	110	159	79	66	64
3	70	77	72	e60	e60	64	67	107	147	78	68	65
4	70	72	72	e58	59	63	69	103	136	78	67	64
5	70	71	73	e62	60	63	63	110	129	81	67	65
6	71	71	71	64	60	66	65	124	121	77	68	66
7	71	74	73	63	60	64	71	127	116	77	66	65
8	70	69	69	64	62	61	76	127	111	75	67	63
9	70	69	68	65	64	66	67	128	106	76	66	64
10	68	68	72	66	63	66	67	129	104	75	66	65
11	69	68	68	72	62	61	71	157	101	76	67	64
12	71	70	66	67	63	57	83	203	100	74	68	66
13	72	74	e64	66	66	59	99	271	101	73	70	68
14	71	79	e64	67	63	60	109	297	101	72	66	72
15	71	71	e64	71	66	62	111	246	98	72	66	67
16	70	70	65	69	63	59	122	269	95	72	66	65
17	70	72	67	68	59	57	124	299	93	72	66	65
18	70	64	66	e66	64	61	136	274	92	71	67	64
19	70	67	e64	e66	62	61	126	256	91	71	66	65
20	68	69	e64	e64	64	62	129	228	88	70	66	66
21	70	69	64	64	64	65	145	204	95	70	64	67
22	71	70	67	64	65	66	127	197	91	70	63	65
23	72	70	e66	63	59	64	109	196	89	70	64	64
24	72	67	e66	61	60	63	106	191	87	70	64	66
25	72	70	e66	60	62	62	107	191	85	69	65	65
26	72	69	65	e60	62	62	97	184	86	69	66	66
27	71	66	65	62	62	68	97	181	87	70	64	66
28	71	67	64	62	62	61	102	169	85	70	64	68
29	71	67	64	62	63	59	112	164	86	70	65	66
30	71	64	63	66	---	61	132	205	79	68	66	67
31	70	---	62	63	---	57	---	219	---	68	66	---
TOTAL	2186	2107	2072	1985	1800	1931	2912	5784	3134	2262	2047	1967
MEAN	70.5	70.2	66.8	64.0	62.1	62.3	97.1	187	104	73.0	66.0	65.6
MAX	72	80	73	72	66	68	145	299	175	81	70	72
MIN	68	64	62	58	59	57	60	103	79	68	63	63
AC-FT	4340	4180	4110	3940	3570	3830	5780	11470	6220	4490	4060	3900

CAL YR 1987 TOTAL 30672 MEAN 84.0 MAX 177 MIN 62 AC-FT 60840
WTR YR 1988 TOTAL 30187 MEAN 82.5 MAX 299 MIN 57 AC-FT 59880

e Estimated

MADISON RIVER BASIN

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 September 1986, October 1987 to September 1988 (discontinued).

WATER TEMPERATURE: August 1983 to current year.

INSTRUMENTATION.--Water-quality monitor Aug. 31, 1983, to Sept. 26, 1988. Water temperature recorder since Sep. 26, 1988.

REMARKS.--No specific conductance records Aug. 19-20 (monitor malfunction) and Sept. 26-30 (monitor removed).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1983-86, 1988): Maximum, 612 microsiemens, Dec. 30, 1987; minimum, 77 microsiemens, May 30, 1986.

WATER TEMPERATURE: Maximum, 25.5°C, June 24, 1988; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 612 microsiemens, Dec. 30; minimum, 119 microsiemens, May 16.

WATER TEMPERATURE: Maximum, 25.5°C, June 24; minimum, 0.0°C on many days during winter period.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	443	410	428	462	435	451	525	489	511	485	446	472
2	442	398	425	525	460	481	525	492	512	502	484	492
3	444	409	424	481	445	464	530	497	511	507	484	499
4	463	412	433	460	431	443	534	507	521	504	481	495
5	457	412	441	466	432	445	546	521	536	491	467	483
6	451	412	428	465	440	454	535	511	526	503	473	491
7	439	414	427	511	459	473	557	519	538	495	474	483
8	443	419	429	470	427	444	562	514	533	497	480	491
9	439	416	426	465	435	450	560	515	541	502	472	487
10	431	404	416	463	439	454	561	524	542	492	478	486
11	433	400	415	469	438	452	575	541	560	501	465	484
12	449	408	426	473	445	457	569	534	554	518	482	502
13	452	425	439	512	467	492	582	532	557	510	481	498
14	441	419	430	514	481	501	573	555	563	517	485	504
15	450	421	437	507	453	477	572	543	563	525	481	509
16	443	411	428	492	450	469	565	526	546	529	493	518
17	448	416	428	486	454	473	560	533	549	532	499	514
18	443	420	431	513	447	470	568	543	554	525	476	504
19	447	419	432	521	440	474	586	557	570	508	485	496
20	454	417	432	496	445	468	569	542	554	517	482	496
21	467	410	437	522	461	489	586	562	575	524	501	514
22	449	421	437	498	458	477	592	556	572	516	489	500
23	457	408	437	510	455	475	593	567	582	536	505	517
24	451	429	441	517	480	500	585	557	570	527	501	514
25	463	417	441	529	494	510	596	566	580	545	506	524
26	459	434	445	508	473	492	584	559	573	524	472	505
27	454	423	437	514	479	499	588	562	576	538	507	522
28	458	429	444	538	493	509	594	566	582	541	503	522
29	458	437	446	524	488	509	602	569	590	539	514	526
30	460	438	449	536	490	512	612	588	600	532	517	525
31	456	429	444	---	---	---	592	570	584	543	506	524
MONTH	467	398	433	538	427	475	612	489	556	545	446	503

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	550	515	535	542	518	531	536	460	490	362	308	331
2	536	495	520	546	496	530	506	476	485	365	333	345
3	538	502	521	551	516	534	489	465	474	359	325	341
4	529	496	515	533	511	520	481	448	466	356	335	346
5	528	497	512	541	501	521	483	463	471	362	313	342
6	532	506	521	542	515	527	480	435	454	316	277	296
7	526	502	513	548	531	539	468	434	453	345	282	313
8	545	506	523	558	515	537	453	423	435	336	297	316
9	542	523	533	561	492	531	451	419	441	309	291	300
10	549	507	532	552	527	538	455	425	436	298	264	289
11	545	510	529	541	520	530	456	426	434	263	222	239
12	545	509	533	556	512	533	432	391	406	220	178	200
13	554	510	527	571	500	531	396	359	370	195	154	177
14	558	510	529	544	515	532	357	333	344	174	126	151
15	546	521	534	546	532	538	354	327	337	153	131	144
16	562	532	545	550	523	535	334	305	319	167	119	153
17	539	490	517	556	510	528	321	289	301	167	144	158
18	551	491	523	554	498	525	316	275	288	168	161	165
19	522	487	506	546	533	539	329	301	317	184	157	176
20	518	492	509	549	534	543	350	315	328	172	160	164
21	525	501	508	546	533	540	344	323	333	164	155	160
22	532	499	516	551	523	539	348	323	336	216	153	185
23	550	519	529	555	525	539	363	342	352	211	200	207
24	557	494	523	574	533	549	364	345	355	248	198	218
25	551	496	517	573	528	545	382	335	354	253	171	198
26	541	510	526	533	522	525	398	369	380	187	178	183
27	539	522	530	529	492	510	392	373	383	295	176	222
28	552	515	532	525	516	520	388	356	373	299	204	258
29	554	527	539	542	491	511	365	315	345	220	178	207
30	---	---	---	544	481	504	315	288	300	358	147	218
31	---	---	---	506	480	492	---	---	---	298	148	247
MONTH	562	487	524	574	480	530	536	275	385	365	119	234
	JUNE			JULY			AUGUST			SEPTEMBER		
1	272	195	233	389	342	362	412	367	389	483	401	422
2	233	226	229	364	326	351	406	373	388	443	399	417
3	232	224	228	374	333	355	400	358	380	447	404	423
4	292	223	246	394	327	359	390	360	379	463	406	434
5	301	281	291	407	349	370	407	358	384	471	423	444
6	295	282	289	378	328	353	413	388	397	481	426	456
7	296	279	288	374	341	359	413	377	394	486	420	452
8	294	277	286	389	330	358	415	373	397	465	404	430
9	296	273	285	389	332	358	410	364	389	442	398	424
10	305	282	296	382	342	362	412	369	397	470	404	439
11	308	288	300	398	349	370	414	384	401	457	411	437
12	316	297	307	385	347	368	413	396	405	459	420	442
13	317	301	308	385	344	363	436	397	418	483	418	441
14	314	298	305	395	340	364	416	382	403	553	436	501
15	317	299	308	377	328	356	423	377	407	494	446	473
16	324	305	316	404	333	363	431	386	412	472	432	455
17	331	310	322	406	345	374	443	393	415	474	432	455
18	336	315	326	457	332	386	439	412	426	485	452	470
19	341	317	330	456	365	406	---	---	---	480	423	452
20	346	325	336	444	349	384	---	---	---	478	428	456
21	364	332	348	456	375	411	449	376	430	481	419	455
22	413	334	359	448	387	421	435	401	420	493	400	448
23	391	359	376	446	380	409	445	393	417	456	415	438
24	394	359	376	420	383	405	430	403	419	464	395	442
25	394	357	374	427	331	374	451	407	428	477	400	448
26	444	367	390	403	345	374	465	413	446	---	---	---
27	380	360	370	405	352	379	446	402	424	---	---	---
28	367	350	359	416	344	377	428	408	417	---	---	---
29	388	346	364	410	350	381	442	409	423	---	---	---
30	377	326	350	399	357	381	458	410	438	---	---	---
31	---	---	---	400	355	381	461	417	441	---	---	---
MONTH	444	195	317	457	326	375	465	358	410	553	395	446

MADISON RIVER BASIN

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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

06037000 GIBBON RIVER NEAR WEST YELLOWSTONE, MT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	10.5	9.0	9.5	22.5	13.0	17.5	21.5	16.5	18.5	17.0	11.0	14.0
2	14.0	10.0	12.0	22.0	14.0	18.0	18.0	13.0	15.5	18.0	10.5	14.0
3	20.0	10.0	14.5	23.5	14.5	18.5	19.0	14.0	16.5	18.5	12.0	15.0
4	21.0	14.0	17.5	21.5	16.5	18.5	21.5	12.0	16.5	18.0	12.0	15.0
5	20.5	14.5	17.5	22.5	15.5	18.5	20.5	12.5	16.5	17.0	11.0	14.0
6	20.5	14.0	17.0	17.5	14.0	16.0	20.0	15.5	17.0	18.0	11.5	14.5
7	21.0	13.0	17.0	21.5	11.5	16.0	18.5	13.0	15.5	17.0	11.0	14.0
8	20.0	13.0	16.5	23.0	12.0	17.5	22.0	13.0	17.0	16.5	10.0	13.0
9	18.5	11.5	15.0	23.5	13.5	18.5	19.0	12.5	16.0	17.0	9.5	13.0
10	21.0	13.0	16.5	22.5	14.5	18.5	18.0	13.0	16.0	15.0	10.5	13.5
11	18.5	12.5	16.0	21.5	14.5	17.5	16.0	13.0	15.0	10.5	8.0	9.5
12	17.0	12.5	15.0	22.0	14.5	17.5	20.0	15.0	17.5	14.0	7.0	10.0
13	17.5	12.5	15.0	23.0	13.5	18.0	19.5	15.0	17.5	13.0	10.5	11.5
14	20.0	10.5	15.0	24.0	15.5	19.0	20.0	12.5	16.0	16.0	10.5	13.0
15	21.5	12.5	16.5	24.0	15.0	19.0	21.0	11.5	15.5	17.5	10.0	13.5
16	21.0	13.5	17.5	24.5	15.0	19.5	19.0	12.5	15.0	14.0	11.0	12.5
17	19.0	13.5	16.5	23.5	16.0	19.0	19.0	11.0	14.5	15.0	9.0	11.5
18	22.0	14.0	17.5	23.0	14.0	18.0	17.0	11.5	14.5	12.0	9.0	10.0
19	23.5	14.0	18.5	23.0	13.5	18.0	18.0	12.0	14.5	11.0	6.5	9.0
20	21.5	15.5	18.5	23.5	13.0	18.0	17.5	12.0	14.5	12.0	9.0	10.5
21	24.0	15.5	19.5	24.0	14.0	19.0	17.0	10.5	13.5	17.0	11.0	13.0
22	23.0	16.0	19.5	23.5	14.5	19.0	18.0	10.5	14.0	16.0	10.0	12.5
23	24.5	16.5	20.0	22.5	15.0	18.5	18.5	11.0	14.5	15.0	9.0	11.5
24	25.5	16.0	20.5	24.0	14.0	18.5	17.5	11.0	14.5	15.5	10.5	12.5
25	24.0	17.0	20.5	24.0	15.0	19.5	17.0	12.0	15.0	14.0	10.5	12.0
26	21.0	17.5	19.0	21.0	15.0	18.0	20.0	13.5	16.0	15.0	9.0	11.5
27	24.0	15.5	19.0	21.5	15.5	18.0	19.5	12.0	15.0	12.0	9.5	10.5
28	21.0	15.0	18.5	21.0	14.5	17.5	18.0	11.0	14.5	13.5	8.5	10.5
29	22.0	16.0	18.5	24.5	15.0	19.5	18.0	11.0	14.5	15.0	8.5	11.5
30	22.5	12.0	17.0	24.5	15.5	19.5	18.0	11.5	14.5	16.0	9.0	12.0
31	---	---	---	24.5	15.5	19.5	17.5	12.0	15.0	---	---	---
MONTH	25.5	9.0	17.0	24.5	11.5	18.5	22.0	10.5	15.5	18.5	6.5	12.5

GALLATIN RIVER BASIN

06043500 GALLATIN RIVER NEAR GALLATIN GATEWAY, MT

LOCATION.--Lat 45°29'51", long 111°25'12", in SE1/4 SE1/4 SE1/4 sec.7, T.4 S., R.4 E., Gallatin County, Hydrologic Unit 10020008, on left bank 0.3 mi downstream from Spanish Creek, 7.3 mi south of Gallatin Gateway and at mile 47.7.

DRAINAGE AREA.--825 mi².

PERIOD OF RECORD.--August 1889 to September 1894, June 1930 to September 1969, annual maximum, water years 1970-71, October 1971 to September 1981, October 1984 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as West Gallatin River near Bozeman 1889-94.

REVISED RECORDS.--WSP 1389: 1892(M), 1893-94. WSP 1559: Drainage area. WDR MT-85-1 (M).

GAGE.--Water-stage recorder. Datum of gage is 5,167.67 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 20, 1932, nonrecording gages at several different sites and datums within 0.8 mi of present site.

REMARKS.--Estimated daily discharges: Jan. 5-8, Mar. 11-24, May 17. Records good except those for estimated daily discharges, which are fair. Diversions for irrigation of about 1,400 acres upstream from station.

AVERAGE DISCHARGE.--58 years (1890-94, 1931-69, 1972-81, 1985-88); 808 ft³/s, 585,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,100 ft³/s, June 17, 1974, gage height, 7.38 ft; minimum, 117ft³/s, Jan. 19, 1935, gage height, 0.68 ft, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,900 ft³/s and maximums (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 27	0230	3,990	4.52	June 5	0015	*4,340	*4.70

Minimum discharge, 161 ft³/s, Dec. 15, gage height, 0.88 ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	389	355	251	255	246	283	278	800	2470	867	478	353
2	386	364	327	242	252	279	319	706	2330	824	482	352
3	381	359	316	246	253	281	352	693	2400	800	482	355
4	381	347	312	252	255	266	341	679	3310	776	480	353
5	378	338	313	e260	261	266	293	699	3820	776	469	353
6	377	338	317	e250	264	281	309	844	3430	762	462	353
7	380	353	338	e260	262	272	362	1010	3080	749	484	351
8	381	318	282	e270	263	251	358	980	2790	712	459	348
9	381	318	272	284	268	258	313	1030	2430	683	440	352
10	365	331	315	298	267	267	311	1090	2270	666	428	351
11	357	336	287	307	266	e270	346	1410	2160	659	417	368
12	370	351	257	278	262	e260	399	1910	2010	643	426	383
13	379	354	253	267	267	e260	478	2680	1910	624	448	384
14	361	361	208	274	262	e270	564	2770	1700	610	422	388
15	376	302	189	282	262	e270	635	2310	1630	602	407	374
16	361	281	211	276	263	e260	733	2700	1630	602	398	365
17	365	305	278	270	246	e260	889	e3100	1600	600	394	364
18	367	239	276	256	250	e270	1010	3190	1560	577	389	368
19	355	235	278	241	260	e290	1090	2590	1500	566	388	374
20	331	305	251	262	260	e310	1090	2200	1440	557	383	389
21	352	289	258	271	259	e320	1070	2120	1430	542	381	397
22	358	310	277	263	261	e330	924	2280	1350	531	379	379
23	351	301	272	271	252	e300	783	2640	1320	522	375	365
24	354	275	259	273	237	e290	719	2960	1260	518	371	356
25	366	289	259	271	249	270	686	3490	1200	506	368	350
26	355	298	268	273	257	296	611	3620	1170	502	368	348
27	340	244	262	272	261	356	617	3710	1110	501	370	354
28	348	248	256	274	266	288	625	3520	1040	501	367	380
29	348	241	259	277	276	268	716	3480	983	497	364	365
30	349	228	261	280	---	278	876	3660	925	489	362	358
31	352	---	263	267	---	251	---	3040	---	477	358	---
TOTAL	11294	9213	8425	8322	7507	8671	18097	67911	57258	19241	12799	10930
MEAN	364	307	272	268	259	280	603	2191	1909	621	413	364
MAX	389	364	338	307	276	356	1090	3710	3820	867	484	397
MIN	331	228	189	241	237	251	278	679	925	477	358	348
AC-FT	22400	18270	16710	16510	14890	17200	35900	134700	113600	38160	25390	21680

CAL YR 1987 TOTAL 207926 MEAN 570 MAX 2120 MIN 189 AC-FT 412400
WTR YR 1988 TOTAL 239668 MEAN 655 MAX 3320 MIN 189 AC-FT 475400

e Estimated

06190370 GARDNER RIVER ABOVE MAMMOTH SPRINGS OUTFLOW, NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°58'05", long 110°40'46", Yellowstone National Park, Hydrologic Unit 10070001, on right bank, 1,200 ft upstream from Mammoth Springs outflow and 0.5 mi upstream from foot bridge.

PERIOD OF RECORD.--September 1988.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	WEATHER (WMO CODE NUMBER)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
SEP 14...	1000	75	1	238	10.5	7.5	20	5.2

06190415 MAMMOTH SPRINGS OUTFLOW AT MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°58'08", long 110°41'02", Yellowstone National Park, Hydrologic Unit 10070001, 2,000 ft upstream from mouth.

PERIOD OF RECORD.--September 1988.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 WATER (DEG C)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
SEP 14...	0745	0.87	100	3	2050	5.5	12.2	650	170

06190540 HOT RIVER AT MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°59'06", long 110°41'18", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 300 ft upstream from mouth.

PERIOD OF RECORD.--September 1988.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 WATER (DEG C)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
SEP 14...	1300	28	30	2	1580	18.0	41.8	410	110

YELLOWSTONE RIVER BASIN

06191000 GARDNER RIVER NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK

LOCATION(REVISED).--Lat 44°59'33", long 110°41'26", 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: Jan. 1-27. Records good except those for estimated daily discharges, which are poor. No regulation or diversion upstream of station.

AVERAGE DISCHARGE.--38 years (1938-72, 1985-88), 215 ft³/s, 14.45 in/yr, 155,800 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)
May 27	0400	*698	*3.48	No peaks greater than base discharge.			

Minimum discharge, 39 ft³/s, Mar. 17, gage height, 1.71 ft, but may have been lower during Jan. 1-27, the period of no gage-height record.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	99	93	e80	80	89	84	156	429	168	110	96
2	100	104	96	e80	83	88	85	142	387	163	109	96
3	100	99	93	e76	84	89	91	139	382	159	109	95
4	100	97	91	e72	90	87	91	139	484	159	110	95
5	100	94	91	e70	87	87	85	152	599	170	107	96
6	100	94	91	e74	85	90	87	172	596	156	107	95
7	100	96	93	e74	85	88	92	174	541	152	108	94
8	100	90	87	e74	86	86	93	171	494	146	109	94
9	100	90	87	e76	85	88	85	190	434	142	106	93
10	97	91	89	e80	86	87	85	191	397	139	104	90
11	97	92	88	e82	87	83	89	210	379	138	104	92
12	98	94	80	e80	85	79	98	242	354	134	106	94
13	100	95	77	e80	86	85	109	298	345	131	110	94
14	97	97	55	e82	86	89	118	338	312	128	105	96
15	100	86	72	e84	84	85	124	305	291	127	104	94
16	96	88	81	e80	86	80	132	345	281	131	103	92
17	98	86	98	e78	81	79	162	458	273	136	103	92
18	98	75	87	e74	88	90	179	457	262	128	102	90
19	95	86	89	e70	87	83	180	404	256	125	101	92
20	93	89	78	e72	87	85	180	362	245	123	99	95
21	95	86	88	e76	86	86	186	354	244	120	98	98
22	96	93	91	e82	85	86	170	378	235	118	99	94
23	95	91	86	e82	83	85	151	433	226	119	99	92
24	97	83	66	e84	82	84	143	493	216	117	99	91
25	98	91	83	e84	87	84	137	594	210	116	99	90
26	97	89	89	e84	87	86	125	630	208	115	99	89
27	94	74	83	e84	85	89	129	647	196	115	98	91
28	95	81	80	85	88	84	137	615	190	117	98	96
29	95	76	81	85	89	82	159	595	184	115	98	94
30	95	77	82	87	---	84	175	616	174	112	97	93
31	96	---	80	82	---	81	---	536	---	111	95	---
TOTAL	3022	2683	2625	2453	2480	2648	3761	10936	9824	4130	3195	2803
MEAN	97.5	89.4	84.7	79.1	85.5	85.4	125	353	327	133	103	93.4
MAX	100	104	98	87	90	90	186	647	599	170	110	98
MIN	93	74	55	70	80	79	84	139	174	111	95	89
AC-FT	5990	5320	5210	4870	4920	5250	7460	21690	19490	8190	6340	5560

CAL YR 1987 TOTAL 50396 MEAN 138 MAX 394 MIN 55 AC-FT 99960
WTR YR 1988 TOTAL 50560 MEAN 138 MAX 647 MIN 55 AC-FT 100300

e Estimated

06191000 GARDNER RIVER NEAR MAMMOTH, YELLOWSTONE NATIONAL PARK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985, November 1987 to September 1988.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1984 to September 1985.

WATER TEMPERATURE: October 1984 to September 1985.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water year 1985): Maximum , 941 microsiemens, Mar. 4, 1985; minimum, 186 microsiemens, May 26, 1985.

WATER TEMPERATURE (water year 1985): Maximum, 22.5°C, July 22, 26, 1985; minimum, 4.0°C, Apr. 20, May 12, 1985.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 04...	1620	97	745	10.0	16.5	--	--
DEC 15...	1400	79	860	-6.0	13.0	--	--
JAN 27...	1350	86	786	4.0	13.5	--	--
MAR 08...	1150	76	848	4.5	15.0	--	--
APR 18...	1940	187	508	10.0	12.0	--	--
JUN 07...	1410	509	276	28.0	15.0	--	--
JUL 20...	1550	129	569	28.0	23.5	--	--
AUG 31...	1400	91	683	24.0	23.5	--	--
SEP 14...	1430	97	657	20.0	19.5	140	36

YELLOWSTONE RIVER BASIN

09191400 LADUKE (CORWIN) HOT SPRINGS NEAR CORWIN SPRINGS, MT

LOCATION.--Lat 45°05'26", long 110°46'28", in NW1/4 SE1/4 SW1/4 sec.32, T.8 S., R.8 E., Park County, Hydrologic Unit 10070001, downstream end of concrete culvert under U.S. Highway 89, 3 mi south of Corwin Springs, and about 4.5 mi north of Gardiner.

PERIOD OF RECORD.--September 1988.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
SEP 14...	1530	0.19	2490	22.5	63.8	1300	44

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 Mol Heron Creek, 7 mi northwest of Gardiner, and at mile 549.7.

DRAINAGE AREA.--2,623 mi².

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. 16-24, Dec. 14-20, Dec. 30 to Jan. 12, Jan. 20, 21. Water-discharge records good except those for estimated daily discharges, which are poor. Natural storage in Yellowstone Lake. Diversions for irrigation of about 960 acres of which 40 acres lies downstream from station. U.S. Geological Survey satellite telemeter at station.

AVERAGE DISCHARGE.--82 years, (1890-93, 1911-88) 3,096 ft³/s, 16.03 in/yr, 2,243,000 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)
May 26	0345	12,400	6.72	June 6	0300	*13,900	*7.13

Minimum discharge, 410 ft³/s, Jan. 19, gage height, 0.28 ft, result of freezeup, but may have been lower during periods of estimated daily discharge.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MEAN VALUES											
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	978	777	635	e520	467	551	806	2080	7950	3960	1940	1050
2	966	797	735	e530	469	563	834	1840	7080	3820	1920	1040
3	952	831	749	e520	473	587	880	1790	7390	3680	1890	1030
4	944	819	740	e470	472	610	928	1730	10200	3600	1850	1020
5	937	789	728	e450	486	624	756	1820	12500	3640	1800	1020
6	927	770	727	e460	476	665	856	2250	12200	3460	1770	1010
7	920	777	742	e470	472	671	966	2320	11000	3320	1760	997
8	911	762	711	e480	478	654	1010	2120	10200	3190	1730	987
9	901	735	689	e490	487	697	915	2270	9330	3080	1670	961
10	869	724	725	e500	484	727	903	2350	8460	3000	1630	952
11	850	752	708	e500	485	693	931	3100	8190	2940	1600	964
12	854	767	669	e470	487	662	1050	4280	7470	2880	1580	950
13	866	788	607	470	492	675	1260	5890	7280	2810	1570	956
14	852	807	e550	482	484	698	1450	7490	6640	2710	1520	978
15	846	746	e510	492	487	727	1580	5490	6320	2650	1460	953
16	838	e715	e540	492	489	690	1890	6430	6280	2590	1430	934
17	837	e710	e580	485	461	693	2260	9180	6230	2610	1400	921
18	840	e680	e640	469	473	730	2540	8010	6140	2520	1350	909
19	815	e700	e620	448	485	750	2360	6540	6040	2410	1330	897
20	769	e720	e600	e460	486	769	2180	5690	5790	2350	1300	905
21	784	e730	594	e480	491	807	2200	5690	5830	2310	1290	920
22	805	e730	588	497	486	819	2120	6470	5670	2260	1230	908
23	791	e700	608	498	482	817	1880	7830	5670	2210	1210	883
24	792	e711	560	495	476	781	1780	8960	5270	2180	1190	875
25	803	708	562	495	491	787	1720	10600	5000	2150	1180	862
26	798	728	562	476	505	827	1560	11200	5050	2110	1170	854
27	767	675	561	476	510	900	1600	11200	4680	2100	1130	847
28	767	667	557	475	518	777	1620	11000	4450	2130	1110	860
29	763	654	544	472	537	781	1810	10800	4400	2080	1110	844
30	759	629	e530	487	---	798	2160	10600	4160	2020	1090	839
31	768	---	e510	480	---	772	---	10100	---	1980	1080	---
TOTAL	26269	22098	19381	14989	14089	22302	44805	187120	212870	84750	45290	28126
MEAN	847	737	625	484	486	719	1493	6036	7096	2734	1461	938
MAX	978	831	749	530	537	900	2540	11200	12500	3960	1940	1050
MIN	759	629	510	448	461	551	756	1730	4160	1980	1080	839
AC-FT	52100	43830	38440	29730	27950	44240	88870	371200	422200	168100	89830	55790

CAL YR 1987 TOTAL 705637 MEAN 1933 MAX 6790 MIN 510 AC-FT 1400000
WTR YR 1988 TOTAL 722089 MEAN 1973 MAX 12500 MIN 448 AC-FT 1432000
e Estimated

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 periods, 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: Dec. 14 to Jan. 13, Jan. 18 to Mar. 22. Water-discharge records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 11,100 acres upstream from station.

AVERAGE DISCHARGE.--67 years, 937 ft³/s, 678,800 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 6	0300	*6,150	*6.21	No other peak greater than base discharge.			

Minimum discharge, 44 ft³/s, Sept. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	74	212	e150	e150	e260	157	378	2830	1110	102	47
2	105	74	273	e160	e100	e230	161	325	2210	917	98	44
3	106	75	254	e170	e130	e220	181	295	2150	804	97	45
4	103	83	240	e160	e170	e230	215	281	3340	726	96	45
5	103	81	241	e130	e150	e220	207	287	5140	678	90	45
6	99	106	241	e110	e130	e210	184	351	5600	638	86	46
7	97	109	241	e120	e200	e220	196	479	5190	607	78	47
8	87	110	239	e140	e190	e200	259	533	4610	534	68	46
9	88	104	200	e160	e180	e190	270	586	4150	439	67	48
10	85	107	257	e180	e150	e180	219	605	3660	389	64	49
11	80	120	253	e190	e120	e190	213	812	3390	349	62	49
12	74	144	193	e160	e170	e180	273	1180	3050	313	63	50
13	74	146	186	e180	e220	e170	371	1800	2760	276	64	53
14	77	150	e160	194	e230	e170	403	2520	2380	249	65	58
15	76	155	e140	217	e210	e180	412	1960	2050	225	62	56
16	73	135	e130	207	e230	e180	466	1950	2010	224	61	54
17	71	131	e160	205	e220	e170	580	2830	2180	226	61	53
18	68	149	e190	e200	e200	e170	699	2990	2300	237	59	56
19	69	141	e210	e200	e210	e160	767	2470	2510	218	61	56
20	69	165	e200	e195	e250	e170	602	1920	2530	201	60	55
21	67	185	e200	e190	e300	e170	535	1670	2550	181	59	53
22	65	195	e200	e200	e330	e170	502	1710	2600	165	60	51
23	69	189	e200	e190	e300	180	433	2150	2600	151	58	50
24	77	183	e210	e185	e260	173	394	2850	2420	143	56	50
25	78	172	e200	e180	e240	154	383	3560	2300	133	53	50
26	80	204	e190	e190	e250	155	339	4270	2160	124	53	51
27	78	181	e210	e220	e270	167	311	4410	1890	119	52	51
28	79	168	e240	e280	e280	180	281	4490	1740	116	52	50
29	79	207	e245	e350	e300	153	285	4480	1640	115	52	47
30	76	207	e260	e330	---	155	337	4190	1340	109	51	47
31	76	---	e200	e250	---	153	---	3820	---	103	50	---
TOTAL	2535	4250	6575	5993	6140	5710	10635	62152	85280	10819	2060	1502
MEAN	81.8	142	212	193	212	184	354	2005	2843	349	66.5	50.1
MAX	107	207	273	350	330	260	767	4490	5600	1110	102	58
MIN	65	74	130	110	100	153	157	281	1340	103	50	44
AC-FT	5030	8430	13040	11890	12180	11330	21090	123300	169200	21460	4090	2980

CAL YR 1987 TOTAL 209048 MEAN 573 MAX 3740 MIN 65 AC-FT 414600
WTR YR 1988 TOTAL 203651 MEAN 556 MAX 5600 MIN 44 AC-FT 403900
e Estimated

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 0.2 mi downstream from discharge station, just upstream from Big Sand Coulee, and at mile 71.0.

PERIOD OF RECORD.--Water years 1966 to current year. Prior to October 1968 published as "at Chance".

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1969.

WATER TEMPERATURE: October 1965 to September 1969.

SUSPENDED-SEDIMENT DISCHARGE: March to September 1984.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1966-69): Maximum daily, 409 microsiemens, Oct, 24, 1966; minimum daily, 73 microsiemens, June 6, 8, 1969.

WATER TEMPERATURE (water years 1966-69): Maximum, 22.0 °C, Aug. 23, 24, 1969; minimum, 0.0 °C on many days during winter periods.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)
MAY 24...	0930	3180	12.0	<0.1	0.06	<0.2	0.22
JUN 30...	1230	1460	15.0	0.2	<0.01	0.4	0.10

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.

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. 14 to Apr. 3. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 2,300 acres.

AVERAGE DISCHARGE.--43 years, 176 ft³/s, 127,500 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 discharges 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)
Feb. 25	1000	ice jam	*5.06	No peak greater than base discharge.			
June 6	0200	*788	4.28				

Minimum daily discharge, 35 ft³/s, Jan. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	62	40	36	50	60	70	134	337	143	62	56
2	64	70	39	36	45	60	71	108	309	137	62	56
3	65	81	40	35	45	58	74	106	327	134	70	56
4	64	73	41	36	45	58	74	108	498	134	87	56
5	64	63	41	37	45	60	70	107	654	141	74	55
6	63	64	41	38	45	62	72	120	636	130	70	56
7	62	68	41	38	46	64	96	108	572	123	73	57
8	63	59	40	39	46	65	95	103	506	116	82	58
9	63	55	40	40	48	66	67	110	440	111	73	58
10	61	58	40	42	48	68	72	109	411	109	70	62
11	57	57	39	45	48	68	83	140	369	111	68	76
12	62	59	38	47	52	72	99	212	335	108	71	76
13	66	67	37	46	54	68	115	314	325	102	79	77
14	65	60	36	45	54	70	119	363	289	99	70	74
15	65	46	36	46	54	70	131	303	278	97	66	71
16	58	41	37	46	54	70	145	405	266	95	65	66
17	60	40	37	48	56	68	166	553	271	91	63	64
18	65	39	38	48	56	66	180	517	308	85	62	61
19	59	40	38	47	56	68	179	398	296	77	60	63
20	55	41	39	45	58	72	161	339	281	76	59	64
21	57	42	42	45	56	74	149	357	274	74	57	64
22	59	43	41	46	56	74	128	418	285	72	57	62
23	57	44	41	47	54	72	115	509	277	71	56	59
24	64	45	40	48	54	70	109	581	248	68	55	58
25	63	46	40	50	56	70	104	540	245	67	55	58
26	61	46	39	52	56	74	89	549	250	69	55	58
27	58	44	38	52	58	74	89	587	219	69	55	58
28	57	43	38	52	58	72	94	570	202	71	57	60
29	60	42	37	54	58	68	101	602	189	68	56	59
30	62	41	37	54	---	68	117	567	163	66	57	58
31	63	---	37	52	---	68	---	429	---	63	57	---
TOTAL	1906	1579	1208	1392	1511	2097	3234	10366	10060	2977	2003	1856
MEAN	61.5	52.6	39.0	44.9	52.1	67.6	108	334	335	96.0	64.6	61.9
MAX	66	81	42	54	58	74	180	602	654	143	87	77
MIN	55	39	36	35	45	58	67	103	163	63	55	55
AC-FT	3780	3130	2400	2760	3000	4160	6410	20560	19950	5900	3970	3680

CAL YR 1987	TOTAL 50808	MEAN 139	MAX 760	MIN 36	AC-FT 100800
WTR YR 1988	TOTAL 40189	MEAN 110	MAX 654	MIN 35	AC-FT 79710

YELLOWSTONE RIVER BASIN

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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.

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. 15 to Mar. 18 and May 14-21. Records poor. Diversions for irrigation of about 2,000 acres upstream from station.

AVERAGE DISCHARGE.--20 years, 249 ft³/s, 180,400 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	2400	*2,470	*5.91	No other peak greater than base discharge.			

Minimum daily discharge, 20 ft³/s, Nov. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	72	39	29	43	52	46	173	314	194	69	28
2	92	78	38	28	40	50	72	129	307	180	69	28
3	90	90	40	28	40	48	101	128	502	173	80	27
4	90	77	43	29	41	45	94	122	1190	179	101	27
5	91	68	42	31	42	42	62	120	1470	208	77	27
6	89	68	40	32	42	43	64	171	1220	168	69	29
7	88	74	39	33	43	37	134	137	973	153	68	28
8	86	66	33	33	43	32	159	125	769	140	76	27
9	88	58	29	35	44	43	89	147	632	129	66	27
10	86	57	40	37	45	38	80	123	635	128	63	28
11	75	59	40	40	43	31	142	215	503	129	62	46
12	76	61	30	40	43	30	258	442	466	123	63	55
13	82	73	25	39	45	30	347	687	389	113	63	46
14	86	71	23	38	46	33	353	654	354	110	55	44
15	85	45	23	40	47	36	344	378	395	106	46	41
16	76	24	24	41	47	33	308	602	437	105	44	37
17	72	22	26	41	47	33	312	835	471	101	39	36
18	79	20	28	41	48	38	259	604	465	95	39	34
19	76	25	30	39	49	52	256	329	506	86	38	36
20	65	30	30	37	49	60	205	252	440	83	37	35
21	64	33	32	38	50	71	187	286	423	76	36	35
22	69	34	35	39	50	80	174	398	449	71	36	35
23	68	34	34	40	48	67	153	648	380	86	37	34
24	73	39	32	41	47	46	139	795	361	82	35	33
25	74	39	31	42	49	49	124	768	401	79	36	33
26	74	45	33	43	50	50	94	840	377	80	34	32
27	69	45	32	44	50	57	91	808	295	82	29	32
28	66	44	31	44	50	34	104	684	273	85	31	33
29	68	42	31	45	52	33	124	822	278	79	31	34
30	72	40	30	45	---	38	183	666	229	79	30	33
31	73	---	30	45	---	35	---	441	---	76	29	---
TOTAL	2434	1533	1013	1177	1333	1366	5058	13529	15904	3578	1588	1020
MEAN	78.5	51.1	32.7	38.0	46.0	44.1	169	436	530	115	51.2	34.0
MAX	92	90	43	45	52	80	353	840	1470	208	101	55
MIN	64	20	23	28	40	30	46	120	229	71	29	27
AC-FT	4830	3040	2010	2330	2640	2710	10030	26830	31550	7100	3150	2020

CAL YR 1987	TOTAL 72036	MEAN 197	MAX 1690	MIN 20	AC-FT 142900
WTR YR 1988	TOTAL 49533	MEAN 135	MAX 1470	MIN 20	AC-FT 98250

YELLOWSTONE RIVER BASIN

06220800 WIND RIVER ABOVE RED CREEK, NEAR DUBOIS, WY

LOCATION.--Lat 43°25'49", long 109°26'41", in SE1/4 NW1/4 NW1/4 sec.11, T.5 N., R.6 W, Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, 1.2 mi upstream from Little Red Creek, 1.8 miles downstream from East Fork Wind River, and 12.2 miles southeast of Dubois.

PERIOD OF RECORD.--October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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 10...	1120	246	395	1.0	190	54	14	12	0.4	3.0
JAN 28...	1330	178	420	1.0	200	55	15	11	0.4	3.4
MAR 08...	0820	148	419	0.0	210	57	16	12	0.4	3.6
MAY 26...	1040	2970	153	10.0	49	14	3.4	4.0	0.3	1.4
JUL 18...	0825	423	269	18.0	120	35	7.7	8.0	0.3	2.1
SEP 07...	1425	207	350	16.5	180	49	14	11	0.4	2.9

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- PHOROUS TOTAL (MG/L AS P)
NOV 10...	150	37	6.5	0.3	21	238	0.32	158	<1.0	0.03
JAN 28...	170	37	5.5	0.4	23	253	0.34	121	0.1	0.05
MAR 08...	170	43	5.8	0.4	23	263	0.36	105	0.1	0.05
MAY 26...	52	7.1	0.30	0.1	7.3	70	0.09	560	0.2	0.04
JUL 18...	110	21	2.7	0.2	13	156	0.21	178	<0.1	0.01
SEP 07...	150	35	4.9	0.6	16	225	0.30	126	0.2	0.01

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI)
MAY 26...	1	27	<0.5	<1	<5	<3	<10	59	<10	14
SEP 07...	2	59	<0.5	<1	<5	<3	<10	17	<10	17

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)
MAY 26...	<1	0.2	30	<10	<1	<1.0	67	<6	8
SEP 07...	5	0.2	<10	<10	<1	<1.0	210	<6	67

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible]

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: Oct. 11, 12, and Oct. 16 to Apr. 10. Records good except those for October to April, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--26 years, 21.0 ft³/s, 15,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 855 ft³/s, July 27, 1987, gage height, 6.89 ft, from rating curve extended above 260 ft³/s; 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 4	2100	*130	*4.64	No peak greater than base discharge.			

Minimum daily discharge, 2.4 ft³/s, Jan. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.3	3.2	2.5	2.6	3.1	3.3	22	42	9.3	3.0	2.6
2	6.2	5.4	3.2	2.4	2.5	3.0	3.4	20	46	10	3.0	2.6
3	6.2	5.2	3.3	2.5	2.6	3.0	3.4	19	66	9.6	4.0	2.8
4	6.1	4.7	3.3	2.5	2.7	2.9	3.3	19	84	12	3.8	2.7
5	6.1	4.7	3.2	2.5	2.7	2.9	3.3	22	83	9.3	3.2	2.8
6	6.0	4.7	3.2	2.6	2.8	2.9	4.2	27	69	7.5	3.0	2.9
7	5.9	4.9	3.1	2.6	2.8	3.0	5.1	27	58	7.2	3.2	2.6
8	6.0	4.8	3.1	2.7	2.9	3.0	4.9	27	52	6.7	3.1	2.7
9	6.0	4.8	3.0	2.8	2.9	2.9	6.4	26	47	6.4	2.9	2.7
10	5.5	5.0	3.0	2.9	3.0	3.1	6.2	28	43	9.1	2.8	4.7
11	4.8	5.2	2.9	2.9	3.0	3.0	10	36	36	11	2.9	5.2
12	5.3	5.2	2.9	3.1	2.9	2.9	14	54	33	9.2	2.9	4.2
13	5.7	5.0	2.8	2.9	3.0	2.9	23	75	31	7.7	2.9	4.2
14	5.9	4.5	2.7	3.0	3.0	2.8	45	82	31	7.3	2.8	4.2
15	6.2	3.8	2.6	3.0	3.0	2.8	54	63	30	6.5	2.8	3.9
16	5.0	3.5	2.7	3.0	3.1	2.8	52	82	34	6.9	2.8	3.4
17	4.9	3.3	2.8	3.0	3.2	2.8	49	96	31	6.9	2.7	3.4
18	5.1	3.2	2.9	2.9	3.2	2.9	40	74	34	6.0	2.6	3.6
19	5.1	3.2	3.0	2.8	3.1	3.0	43	51	27	5.4	2.6	3.2
20	4.8	3.3	2.8	2.7	3.0	3.1	39	43	27	5.1	2.5	3.7
21	4.9	3.3	2.9	2.8	3.0	3.2	32	43	30	4.6	2.5	3.7
22	5.0	3.4	3.1	3.0	3.1	3.3	26	53	28	4.4	2.6	3.7
23	5.1	3.4	3.1	3.1	3.1	3.3	23	71	24	4.2	2.6	3.4
24	5.3	3.4	3.0	3.1	3.0	3.3	21	77	24	3.9	2.6	3.4
25	5.2	3.5	2.7	3.1	2.9	3.5	19	79	21	3.8	2.6	3.4
26	5.1	3.5	2.8	3.0	3.0	3.3	23	78	26	4.1	2.5	3.3
27	5.0	3.4	2.9	3.0	3.1	3.3	20	70	21	4.2	2.6	3.3
28	4.9	3.4	2.9	2.9	3.1	3.3	18	75	26	4.1	2.6	3.3
29	4.9	3.3	2.9	2.8	3.1	3.2	22	70	15	3.7	2.6	3.2
30	5.0	3.3	2.7	2.7	---	3.2	24	60	12	3.3	2.6	3.2
31	5.1	---	2.6	2.7	---	3.3	---	46	---	3.2	2.5	---
TOTAL	168.5	123.6	91.3	87.5	85.4	95.0	640.5	1615	1131	202.6	87.8	102.0
MEAN	5.44	4.12	2.95	2.82	2.94	3.06	21.3	52.1	37.7	6.54	2.83	3.40
MAX	6.2	5.4	3.3	3.1	3.2	3.5	54	96	84	12	4.0	5.2
MIN	4.8	3.2	2.6	2.4	2.5	2.8	3.3	19	12	3.2	2.5	2.6
AC-FT	334	245	181	174	169	188	1270	3200	2240	402	174	202

CAL YR 1987 TOTAL 6914.8 MEAN 18.9 MAX 133 MIN 1.6 AC-FT 13720
WTR YR 1988 TOTAL 4430.2 MEAN 12.1 MAX 96 MIN 2.4 AC-FT 8790

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SPE- CIFIC CON- DUCT- ANCE (US/CM)
OCT				
06...	1200	6.7	7.0	89
NOV				
09...	1310	5.7	1.0	98
DEC				
11...	0950	2.9	0.0	92
JAN				
28...	1105	2.9	0.0	88
FEB				
26...	1215	3.0	0.0	90
APR				
06...	0955	3.1	1.0	62
MAY				
17...	1000	84	4.5	52
JUN				
07...	0935	54	9.0	48
JUL				
18...	1145	7.0	12.0	70
SEP				
07...	1055	3.1	9.5	99

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 right 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. 15-22, Dec. 11-19, Dec. 26 to Jan. 8 and Apr. 18-27. Records good except those for estimated daily discharges, which are poor. No diversions upstream from station.

AVERAGE DISCHARGE.--34 years (water years 1942-53, 1967-88), 298 ft³/s, 215,900 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	1200	*1,320	*4.81	No peak greater than base discharge.			

Minimum daily discharge, 17 ft³/s, Mar. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	117	41	26	22	19	20	22	163	552	581	365	195
2	115	46	31	21	18	20	24	155	474	536	361	189
3	110	47	31	20	19	20	24	145	485	502	340	182
4	108	46	30	20	19	20	24	142	694	502	312	182
5	103	44	30	21	19	19	22	137	1020	540	287	180
6	98	43	30	21	19	20	24	149	1260	543	281	177
7	96	44	30	21	19	20	27	142	1210	507	276	172
8	93	45	24	21	19	19	30	136	1050	448	251	162
9	89	43	28	22	19	23	27	134	905	415	233	152
10	85	41	33	22	19	21	28	143	807	401	237	145
11	81	40	29	22	21	21	31	165	754	401	234	159
12	77	39	28	23	22	21	36	228	705	393	226	148
13	74	38	27	24	22	19	46	333	673	389	219	129
14	75	37	24	24	21	21	56	453	620	399	206	114
15	72	32	23	25	22	23	62	448	580	421	207	101
16	68	27	24	26	21	21	77	507	581	435	200	90
17	66	26	27	27	20	20	97	750	623	428	200	82
18	63	27	28	26	24	22	140	935	642	419	213	74
19	59	28	28	24	22	22	180	784	708	410	216	70
20	56	31	27	25	22	21	200	625	760	406	219	66
21	54	29	28	26	22	23	180	531	734	378	217	63
22	53	27	30	26	22	22	160	508	837	364	210	59
23	49	26	30	25	19	21	150	555	847	363	203	56
24	48	24	29	22	19	19	140	662	853	354	196	53
25	47	28	27	22	19	21	130	695	858	352	199	51
26	46	31	27	22	19	21	120	772	902	347	204	48
27	45	25	26	21	20	21	120	851	899	344	211	47
28	43	27	26	20	19	18	115	854	849	347	210	46
29	42	25	26	21	19	17	116	882	759	344	200	45
30	41	25	25	20	---	20	135	847	683	344	198	38
31	40	---	24	19	---	22	---	700	---	360	198	---
TOTAL	2213	1032	856	701	584	638	2543	14531	23324	12973	7329	3275
MEAN	71.4	34.4	27.6	22.6	20.1	20.6	84.8	469	777	418	236	109
MAX	117	47	33	27	24	23	200	935	1260	581	365	195
MIN	40	24	23	19	18	17	22	134	474	344	196	38
AC-FT	4390	2050	1700	1390	1160	1270	5040	28820	46260	25730	14540	6500
CAL YR 1987	TOTAL 94746	MEAN 260	MAX 1840	MIN 18	AC-FT 187900							
WTR YR 1988	TOTAL 69999	MEAN 191	MAX 1260	MIN 17	AC-FT 138800							

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT				
14...	1220	75	51	6.0
NOV				
18...	1130	24	42	3.0
JAN				
28...	0840	20	56	5.0
APR				
05...	1205	22	105	6.0
27...	1205	120	94	8.0
JUN				
02...	1305	472	31	11.5
28...	0900	849	35	15.0
JUL				
21...	1010	391	44	15.0
AUG				
19...	0955	225	80	14.0
SEP				
26...	1140	44	49	14.0

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. 1986 (m, date only).

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: Dec. 11 to Jan 14 and Jan. 19-21, 24. 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.--70 years, 279 ft³/s, 202,100 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, 1,640 ft³/s, July 14, gage height, 4.15 ft; minimum daily, 19 ft³/s, March 23-26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	688	45	47	32	34	33	21	385	324	381	921	413
2	684	46	47	31	34	33	20	317	443	534	917	496
3	682	45	47	31	33	32	20	268	557	568	911	538
4	680	43	47	31	33	23	20	306	381	568	909	537
5	438	43	48	32	33	20	24	337	211	580	902	534
6	224	43	48	33	33	20	36	336	58	668	894	532
7	69	43	43	33	33	21	36	339	42	669	883	532
8	60	43	40	33	32	20	36	336	43	691	878	527
9	63	44	39	34	32	20	35	334	44	731	865	513
10	63	57	39	34	32	20	35	327	58	721	863	515
11	63	167	39	34	32	20	35	399	294	720	860	511
12	63	67	38	34	32	22	35	404	480	782	871	502
13	63	35	38	34	32	21	35	111	484	1070	870	494
14	63	32	37	35	31	20	35	59	482	1460	861	505
15	63	31	36	36	31	20	33	58	484	1510	747	509
16	66	29	36	35	31	20	27	58	486	1320	666	631
17	65	47	36	34	32	20	26	59	482	1240	666	840
18	65	46	37	35	31	20	26	50	486	1230	662	961
19	64	45	38	34	32	20	26	26	491	1220	609	917
20	64	44	37	34	32	20	26	21	484	1210	533	551
21	64	44	37	33	31	20	26	230	492	1110	534	234
22	64	44	37	34	31	20	29	315	499	1070	561	95
23	70	44	37	35	31	19	28	237	497	1070	594	83
24	77	44	36	34	31	19	28	47	497	1060	588	48
25	77	45	35	34	31	19	28	24	497	1040	587	48
26	77	46	35	34	32	19	28	24	497	960	712	45
27	60	47	35	35	31	20	73	24	497	954	918	36
28	37	47	35	35	32	20	191	24	504	945	854	34
29	60	47	34	35	33	20	262	24	469	929	660	33
30	52	47	34	34	---	20	294	24	377	929	443	33
31	45	---	33	34	---	21	---	63	---	924	360	---
TOTAL	4973	1450	1205	1046	928	662	1574	5566	11640	28864	23099	12247
MEAN	160	48.3	38.9	33.7	32.0	21.4	52.5	180	388	931	745	408
MAX	688	167	48	36	34	33	294	404	557	1510	921	961
MIN	37	29	33	31	31	19	20	21	42	381	360	33
AC-FT	9860	2880	2390	2070	1840	1310	3120	11040	23090	57250	45820	24290

CAL YR 1987 TOTAL 91540 MEAN 251 MAX 1330 MIN 22 AC-FT 181600
WTR YR 1988 TOTAL 93254 MEAN 255 MAX 1510 MIN 19 AC-FT 185000

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.

WATER-DISCHARGE RECORDS

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: Oct. 4-8 and Nov. 17 to Mar. 1. Records fair except those for October to May, 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.--43 years, 1,227 ft³/s, 889,000 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, 4,270 ft³/s, June 5, gage height, 8.45 ft; minimum daily, 240 ft³/s, Jan. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	430	290	250	280	350	278	949	1470	1500	1550	828
2	1050	456	370	240	270	358	289	841	1400	1480	1520	927
3	1050	476	360	250	280	343	329	694	1630	1440	1500	963
4	1050	479	360	260	285	315	367	726	2290	1420	1500	955
5	900	456	360	270	290	295	329	743	3250	1570	1440	953
6	800	434	360	280	300	306	321	777	3120	1570	1400	960
7	600	437	360	290	310	310	346	800	2590	1510	1380	950
8	560	442	330	300	310	285	459	742	2290	1450	1380	924
9	545	415	370	300	310	307	423	730	1990	1420	1350	920
10	541	412	350	310	300	310	364	726	1840	1390	1310	912
11	530	524	350	320	280	290	393	885	1910	1400	1310	953
12	516	421	280	320	280	278	530	1310	2010	1440	1300	1010
13	519	403	270	320	280	296	780	1820	1910	1720	1300	1010
14	533	420	280	310	270	267	867	2190	1740	2120	1290	1020
15	521	409	280	310	260	304	890	1690	1700	2230	1140	1040
16	517	328	290	300	260	302	875	1880	1720	2060	1040	1130
17	499	300	290	300	270	267	880	2720	1790	2010	1030	1270
18	504	320	290	290	260	271	854	2600	1820	1990	1010	1310
19	501	330	300	290	260	296	880	1720	2010	1940	963	1230
20	483	375	300	280	270	319	787	1190	1990	1890	880	855
21	460	375	300	280	290	332	695	1300	1950	1740	870	543
22	463	375	310	290	280	346	658	1570	2120	1670	886	422
23	467	350	310	290	290	341	581	1930	2080	1690	908	402
24	460	320	300	300	280	313	524	2070	2030	1710	894	362
25	473	330	280	300	290	293	503	2120	2090	1650	882	357
26	475	360	280	310	310	300	482	2170	2190	1560	1050	346
27	454	360	270	310	330	308	478	2200	2070	1560	1340	336
28	416	300	270	310	330	292	567	2020	1960	1540	1340	323
29	431	295	260	300	340	268	647	2250	1920	1530	1140	323
30	431	280	260	290	---	271	738	2020	1640	1540	870	325
31	429	---	260	280	---	281	---	1720	---	1550	765	---
TOTAL	18188	11612	9540	9050	8365	9414	17114	47103	60520	51290	36538	23859
MEAN	587	387	308	292	288	304	570	1519	2017	1655	1179	795
MAX	1050	524	370	320	340	358	890	2720	3250	2230	1550	1310
MIN	416	280	260	240	260	267	278	694	1400	1390	765	323
AC-FT	36080	23030	18920	17950	16590	18670	33950	93430	120000	101700	72470	47320

CAL YR 1987 TOTAL 376849 MEAN 1032 MAX 3600 MIN 260 AC-FT 747500
WTR YR 1988 TOTAL 302593 MEAN 827 MAX 3250 MIN 240 AC-FT 600200

YELLOWSTONE RIVER BASIN

06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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...	0920	548	570	7.0	190	56	12	47	2	2.7
DEC 17...	1105	298	436	0.0	210	57	16	15	0.5	2.8
FEB 25...	1320	323	413	1.0	190	53	15	14	0.5	2.7
APR 21...	1110	673	253	10.0	110	30	8.4	9.8	0.4	2.1
MAY 18...	1405	2600	141	7.0	56	16	3.8	4.5	0.3	--
JUN 21...	0905	2060	151	15.0	65	18	4.9	6.9	0.4	1.2
AUG 25...	1555	900	120	18.0	49	13	3.9	4.9	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- PHOROUS TOTAL (MG/L AS P)
OCT 09...	190	99	6.0	0.4	12	350	0.48	518	0.2	0.02
DEC 17...	160	50	5.7	0.4	19	263	0.36	211	0.2	0.01
FEB 25...	150	55	3.7	0.3	20	255	0.35	222	0.2	0.05
APR 21...	98	24	3.1	0.2	17	154	0.21	280	0.1	0.04
MAY 18...	--	--	--	--	13	--	--	--	--	--
JUN 21...	53	14	1.9	0.2	9.0	88	0.12	491	0.1	0.01
AUG 25...	41	15	<1.0	0.1	3.9	67	--	--	0.5	<0.30

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI)
APR 21...	1	49	<0.5	<1	<5	<3	<10	49	10	7
MAY 18...	2	34	<0.5	<1	<5	<3	<10	85	<10	<4

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)
APR 21...	3	<0.1	<10	<10	<1	<1.0	160	<6	8
MAY 18...	7	0.2	<10	<10	<1	<1.0	82	<6	10

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible]

YELLOWSTONE RIVER BASIN

06226000 WYOMING CANAL NEAR LENORE, WY

LOCATION.--Lat 43°13'45", long 108°53'40", in SE1/4 SE1/4 sec.17, T.3 N., R.1 W., Fremont County, Hydrologic Unit 10080001, on right bank 3.3 mi downstream from diversion dam on Wind River and 15 mi southeast of Lenore.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to September 1945 (irrigation season only), May 1949 to September 1982, April to September 1988 (no winter records since 1976). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 5,560.85 ft above National Geodetic Vertical Datum of 1929. May 1, 1941, to Sept. 30, 1945, nonrecording gage at site 3.2 mi upstream at different datum. May 3, 1949, to Oct. 2, 1952, and Apr. 12 to May 15, 1971, water-stage recorder at site 3.0 mi upstream at different datum.

REMARKS.--Estimated daily discharges: May 15-27 and June 6-7. Records fair except those for estimated daily discharges, which are poor. Flow used for irrigation on Riverton project. Results of discharge measurement, in cubic feet per second, made during the period when the station was not in operation, is given below:

Nov. 11 . . . 345

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,830 ft³/s July 17, 19-21, 26-31, 1976; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,790 ft³/s, July 15; minimum daily during period of operation, 76 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	238	496	1000	964	1090	414
2	---	---	---	---	---	---	243	520	917	912	1010	538
3	---	---	---	---	---	---	273	415	1090	912	981	593
4	---	---	---	---	---	---	312	416	1470	885	984	589
5	---	---	---	---	---	---	311	437	1670	1020	931	623
6	---	---	---	---	---	---	285	442	1680	986	885	684
7	---	---	---	---	---	---	293	464	1670	901	852	660
8	---	---	---	---	---	---	386	426	1610	819	866	645
9	---	---	---	---	---	---	449	407	1320	827	842	666
10	---	---	---	---	---	---	338	410	1200	879	798	670
11	---	---	---	---	---	---	325	449	1290	866	794	703
12	---	---	---	---	---	---	405	659	1360	896	831	778
13	---	---	---	---	---	---	630	837	1310	1170	832	776
14	---	---	---	---	---	---	593	1060	1170	1640	816	774
15	---	---	---	---	---	---	379	1080	1120	1790	721	808
16	---	---	---	---	---	---	325	1000	1140	1720	647	875
17	---	---	---	---	---	---	366	1380	1200	1690	647	1130
18	---	---	---	---	---	---	507	1610	1230	1680	642	1200
19	---	---	---	---	---	---	535	1320	1410	1670	623	1210
20	---	---	---	---	---	---	588	820	1390	1600	512	743
21	---	---	---	---	---	---	495	770	1350	1420	499	491
22	---	---	---	---	---	---	523	820	1490	1310	463	261
23	---	---	---	---	---	---	445	1270	1490	1290	467	262
24	---	---	---	---	---	---	393	1100	1390	1280	492	191
25	---	---	---	---	---	---	385	1450	1500	1210	495	164
26	---	---	---	---	---	---	372	1680	1610	1100	577	157
27	---	---	---	---	---	---	323	1430	1370	1080	945	153
28	---	---	---	---	---	---	408	1480	1500	1070	957	143
29	---	---	---	---	---	---	415	1580	1450	1060	837	149
30	---	---	---	---	---	---	400	1540	1150	1070	518	76
31	---	---	---	---	---	---	---	1200	---	1100	404	---
TOTAL	---	---	---	---	---	---	11940	28968	40547	36817	22958	17126
MEAN	---	---	---	---	---	---	398	934	1352	1188	741	571
MAX	---	---	---	---	---	---	630	1680	1680	1790	1090	1210
MIN	---	---	---	---	---	---	238	407	917	819	404	76
AC-FT	---	---	---	---	---	---	23680	57460	80420	73030	45540	33970

06226000 WYOMING CANAL NEAR LENORE, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--August 1988.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	
AUG 02...	0945	1100	140	8.5	8.0	18.0	620	8.5	111	
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
AUG 02...	1.1	18	1.3	58	94	<0.1	1	20	1	
DATE		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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
AUG 02...	4	<5	0.3	1	<1	<1	1	21	62	

06227600 WIND RIVER NEAR KINNAR, 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.--Water years 1985 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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 06...	1300	209	9.0	<3.0	--	--	--	5.1	--	<0.20	2.1
JAN 29...	1415	290	0.0	1.8	0.5	4.2	0.6	3.2	0.6	0.15	0.40
APR 08...	0910	86	6.0	2.6	<0.4	5.2	0.5	3.9	0.5	0.17	4.5
JUL 28...	1400	302	21.0	1.9	0.5	2.5	0.9	2.0	0.9	0.06	1.1

YELLOWSTONE RIVER BASIN

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. U.S. Bureau of Reclamation satellite telemeter at station.

REMARKS.--Estimated daily discharges: Nov. 20 to Mar. 23, Mar 28, and July 18. Records good except those for estimated daily discharges, 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, 2,130 ft³/s, June 6, gage height, 5.80 ft; maximum gage height observed, 7.26 ft, Jan. 11 (backwater from ice); minimum daily discharge, 12 ft³/s, July 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	129	300	280	320	380	106	201	122	55	25	34
2	188	130	350	270	310	370	84	287	94	57	34	34
3	189	134	400	280	320	370	80	160	78	52	61	35
4	193	128	440	290	320	360	80	125	137	40	75	43
5	263	129	430	300	330	350	79	121	559	42	78	36
6	250	127	450	310	330	350	77	102	898	41	58	39
7	282	129	430	320	350	350	74	89	612	52	54	37
8	240	126	420	320	350	340	71	101	322	73	54	22
9	246	125	350	350	360	330	93	76	198	85	48	25
10	554	123	390	360	360	340	74	66	90	51	45	27
11	597	123	430	370	340	350	66	50	68	48	38	42
12	589	127	300	370	330	330	62	50	77	54	45	48
13	589	124	270	360	330	320	67	106	125	59	42	42
14	609	124	270	340	320	320	90	105	114	59	38	56
15	296	147	270	350	320	330	279	155	80	52	33	64
16	143	158	280	340	310	320	434	51	75	45	32	48
17	133	335	300	330	310	310	464	115	68	27	20	35
18	125	385	300	330	310	300	399	364	68	12	19	27
19	122	372	310	320	310	310	298	311	69	21	20	27
20	120	370	300	310	320	320	214	139	83	21	22	32
21	117	360	320	320	320	350	163	66	77	24	23	35
22	116	350	360	330	340	370	152	63	85	20	22	35
23	135	350	350	330	320	380	125	92	83	19	64	30
24	133	352	340	340	320	258	100	142	110	23	84	29
25	130	380	300	340	340	233	68	177	78	41	68	29
26	119	390	320	350	360	242	36	172	52	24	42	34
27	119	390	300	350	370	372	23	204	90	28	31	32
28	115	370	310	360	370	360	21	184	166	27	41	33
29	117	350	310	370	380	164	37	166	54	23	42	31
30	122	330	300	350	---	105	138	195	56	21	39	30
31	129	---	290	330	---	102	---	147	---	23	38	---
TOTAL	7283	7167	10490	10270	9670	9686	4054	4382	4788	1219	1335	1071
MEAN	235	239	338	331	333	312	135	141	160	39.3	43.1	35.7
MAX	609	390	450	370	380	380	464	364	898	85	84	64
MIN	115	123	270	270	310	102	21	50	52	12	19	22
AC-FT	14450	14220	20810	20370	19180	19210	8040	8690	9500	2420	2650	2120

CAL YR 1987 TOTAL 134519 MEAN 369 MAX 2190 MIN 67 AC-FT 266800
WTR YR 1988 TOTAL 71415 MEAN 195 MAX 898 MIN 12 AC-FT 141700

06228000 WIND RIVER AT RIVERTON, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (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)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 09...	1010	124	575	7.7	0.1	4.0	670	12.5	109	<1	K18
JAN 11...	1320	374	460	7.9	0.3	0.0	625	12.3	103	K5	K46
MAR 11...	1200	343	490	7.8	5.4	1.0	636	12.0	101	K5	K3
MAY 16...	0955	67	780	8.6	15	17.0	639	11.4	142	42	89
JUL 12...	1105	52	425	8.4	8.2	20.0	665	10.3	130	220	700
SEP 08...	1140	21	650	8.0	2.5	15.0	640	10.6	126	260	K28

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

DATE	HARD- NESS TOTAL (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)	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CACO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3
NOV 09...	220	63	16	44	1	3.0	196	260	0	317
JAN 11...	180	49	15	23	0.8	2.8	170	170	0	207
MAR 11...	180	49	14	23	0.8	2.8	170	123	0	150
MAY 16...	120	35	9.1	33	1	2.1	123	116	12	117
JUL 12...	150	43	9.9	36	1	1.9	142	--	--	--
SEP 08...	190	54	13	64	2	2.4	194	198	12	217

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, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
NOV 09...	100	5.3	0.4	16	368	366	0.50	123	0.14	0.04
JAN 11...	62	5.4	0.4	16	276	277	0.38	279	0.27	0.04
MAR 11...	64	3.8	0.3	16	277	276	0.38	257	0.13	0.02
MAY 16...	66	4.2	0.4	14	233	238	0.32	42.1	0.12	0.02
JUL 12...	69	3.3	0.3	13	266	263	0.36	37.3	0.22	0.03
SEP 08...	120	5.5	0.5	9.7	386	387	0.52	21.9	0.28	<0.01

YELLOWSTONE RIVER BASIN

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS 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
NOV 09...		0.04	0.05	0.56	0.6	<0.01	<0.01	<0.01	10	3.3	54
JAN 11...		0.02	0.03	0.46	0.5	0.13	0.02	<0.01	500	505	46
MAR 11...		0.04	0.05	0.28	0.3	0.03	0.03	0.02	57	53	67
MAY 16...		0.05	0.06	0.38	0.4	0.03	0.02	<0.01	44	8.0	94
JUL 12...		0.02	0.03	0.27	0.3	0.60	0.03	<0.01	22	3.1	88
SEP 08...		0.02	0.03	--	0.4	0.02	0.01	<0.01	10	0.57	56

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 09...	1010	10	2	67	<0.5	<1	<1	<3	5	8	<5
MAR 11...	1200	<10	1	59	<0.5	<1	1	<3	2	12	<5
JUL 12...	1105	<10	2	44	<0.5	<1	<1	<3	2	<3	<5
SEP 08...	1140	10	3	53	<0.5	<1	2	<3	5	14	<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 09...		21	9	--	<10	3	<1	<1.0	360	<6	13
MAR 11...		13	9	<0.1	<10	1	--	<1.0	260	<6	10
JUL 12...		18	3	0.4	20	1	<1	<1.0	270	<6	<3
SEP 08...		24	13	0.2	<10	5	<1	1.0	400	<6	8

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	0810	219	12.0	--	<3.0	--	--	--	3.8	--	0.40	3.4
JAN 11...	1320	374	0.0	2.8	6.4	6.8	1.3	4.9	1.0	4.2	0.10	4.2
APR 06...	1440	75	12.0	--	6.3	<0.4	5.9	0.5	4.5	0.5	0.14	8.0
JUL 12...	1105	52	20.0	1.9	7.1	0.7	4.9	2.4	3.7	2.5	0.09	6.2

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 SE1/4 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: Nov. 15-22, Nov. 26 to Dec. 1, Dec. 13-19, Dec. 25 to Jan. 4, and Feb. 16. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--12 years, 126 ft³/s, 91,290 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	0400	*745	*5.34	No other peaks greater than base discharge.			

Minimum daily discharge, 13 ft³/s, Feb. 5-7.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	24	21	19	16	15	15	99	290	176	45	21
2	31	27	22	18	15	15	17	75	314	152	43	20
3	30	29	22	17	14	15	18	67	348	138	44	20
4	29	27	24	17	14	15	18	65	490	129	44	20
5	27	25	25	18	13	14	17	65	647	129	42	20
6	27	26	24	18	13	15	18	78	674	119	40	20
7	27	27	24	18	13	15	25	64	579	114	38	18
8	26	24	23	18	14	15	32	66	483	105	38	17
9	26	27	23	17	14	16	26	67	412	95	36	17
10	25	27	24	17	14	17	23	74	366	89	34	16
11	25	26	23	17	14	17	27	100	337	86	33	24
12	25	29	22	19	15	19	43	158	325	79	32	25
13	27	26	22	19	16	19	58	243	310	73	32	25
14	33	27	21	20	16	18	70	299	288	70	29	28
15	33	22	20	21	15	19	78	247	269	68	28	27
16	29	18	21	20	15	18	88	318	264	67	28	25
17	28	17	22	20	15	17	109	503	267	67	26	24
18	28	18	22	21	15	17	120	569	273	65	26	22
19	25	20	22	21	15	17	134	409	291	63	26	21
20	22	22	22	21	16	17	125	307	285	63	25	21
21	25	21	22	20	16	18	111	265	282	60	27	19
22	25	20	22	19	16	18	92	268	292	57	26	19
23	23	20	22	19	15	17	78	315	280	54	25	18
24	25	19	22	18	15	15	72	412	260	53	25	18
25	24	23	22	17	15	16	67	442	248	50	24	17
26	24	22	22	16	15	17	57	482	248	50	24	16
27	23	19	21	16	15	18	60	497	303	50	23	15
28	23	20	21	16	15	15	58	490	316	49	23	16
29	22	19	21	16	15	15	62	514	253	48	23	16
30	23	20	21	16	---	15	85	467	206	47	22	16
31	25	---	20	17	---	15	---	331	---	45	21	---
TOTAL	817	691	685	566	429	509	1803	8356	10200	2510	952	601
MEAN	26.4	23.0	22.1	18.3	14.8	16.4	60.1	270	340	81.0	30.7	20.0
MAX	33	29	25	21	16	19	134	569	674	176	45	28
MIN	22	17	20	16	13	14	15	64	206	45	21	15
AC-FT	1620	1370	1360	1120	851	1010	3580	16570	20230	4980	1890	1190
CAL YR 1987	TOTAL 42920	MEAN 118	MAX 849	MIN 10	AC-FT 85130							
WTR YR 1988	TOTAL 28119	MEAN 76.8	MAX 674	MIN 13	AC-FT 55770							

YELLOWSTONE RIVER BASIN

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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 05...	0905	28	58	7.0	37	8.7	3.6	2.9	0.2	0.5
DEC 10...	1150	24	60	2.0	41	11	3.3	3.1	0.2	0.6
FEB 29...	1245	15	50	1.0	49	13	4.1	3.5	0.2	0.8
APR 07...	1245	22	98	8.5	43	11	3.7	5.0	0.3	0.7
JUN 24...	1230	252	33	15.5	14	3.9	1.1	3.1	0.4	0.4
AUG 01...	1110	45	52	18.0	28	7.6	2.2	2.7	0.2	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- PHOROUS TOTAL (MG/L AS P)
OCT 05...	30	3.4	5.6	0.1	4.3	48	0.06	3.59	0.1	0.01
DEC 10...	31	3.6	8.1	0.1	6.9	56	0.08	3.61	0.1	<0.03
FEB 29...	39	3.5	9.1	0.1	8.4	66	0.09	2.69	0.1	<0.03
APR 07...	33	4.8	8.6	0.7	6.8	62	0.08	3.65	0.1	0.01
JUN 24...	11	2.8	1.3	0.1	2.1	22	0.03	14.9	0.1	<0.03
AUG 01...	22	2.6	4.3	0.1	2.6	36	0.05	4.41	0.1	0.01

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: Nov. 19 to Mar. 25 and Mar. 30 to Apr. 4. 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.--9 years (water years 1980-88), 198 ft³/s, 143,500 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, 6.7 ft³/s, Sept. 5, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than 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)
Feb. 23	1100	ice jam	*9.69	No peak greater than base discharge.			
June 6	2000	*611	8.85				

Minimum daily discharge, 6.7 ft³/s, Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	71	80	62	68	86	70	51	287	59	17	7.0
2	93	71	82	56	66	85	74	87	192	41	17	7.7
3	99	84	83	58	64	84	76	87	152	33	18	7.8
4	94	102	85	58	64	84	78	65	162	31	24	7.1
5	91	98	85	60	64	86	81	57	290	32	24	6.7
6	91	96	85	60	66	86	78	67	529	30	18	6.9
7	82	97	85	62	66	86	78	52	562	27	15	7.0
8	82	101	85	62	66	88	80	53	479	26	16	8.3
9	78	102	86	64	68	90	93	61	372	23	18	7.6
10	77	100	86	68	68	92	84	59	259	20	18	7.1
11	77	97	88	72	66	90	78	40	202	20	19	9.5
12	78	97	84	70	68	88	78	34	151	25	19	9.7
13	78	97	80	68	70	88	85	38	141	24	14	9.5
14	82	99	75	68	70	86	96	97	124	22	14	13
15	88	103	72	72	72	86	105	135	103	22	14	14
16	87	103	72	72	76	86	112	145	88	21	16	12
17	80	99	74	72	76	86	118	192	86	23	14	11
18	79	98	74	68	76	88	126	428	75	22	12	10
19	77	91	74	66	78	90	132	573	74	28	9.9	10
20	75	87	75	62	80	100	134	456	74	24	9.7	11
21	75	85	78	64	82	110	139	308	77	19	9.2	12
22	75	84	78	66	80	120	147	212	72	17	10	11
23	74	84	76	68	80	115	151	178	59	24	10	11
24	73	86	74	68	80	110	139	188	43	31	9.6	10
25	74	86	70	68	82	100	128	264	51	36	9.0	10
26	73	87	72	68	84	103	122	311	46	34	7.8	10
27	73	84	72	70	86	98	106	382	40	28	7.2	10
28	71	82	72	70	88	88	88	388	54	23	8.0	9.8
29	71	82	72	72	88	75	71	401	95	17	8.2	10
30	70	82	68	72	---	74	47	436	90	15	7.7	10
31	69	---	66	70	---	73	---	408	---	15	7.1	---
TOTAL	2422	2735	2408	2056	2142	2821	2994	6253	5029	812	420.4	286.7
MEAN	78.1	91.2	77.7	66.3	73.9	91.0	99.8	202	168	26.2	13.6	9.56
MAX	99	103	88	72	88	120	151	573	562	59	24	14
MIN	36	71	66	56	64	73	47	34	40	15	7.1	6.7
AC-FT	4800	5420	4780	4080	4250	5600	5940	12400	9980	1610	834	569

CAL YR 1987 TOTAL 61261 MEAN 168 MAX 1470 MIN 35 AC-FT 121500
WTR YR 1988 TOTAL 30379.1 MEAN 83.0 MAX 573 MIN 6.7 AC-FT 60260

YELLOWSTONE RIVER BASIN

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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...	0920	80	1200	9.0	440	92	51	100	2	3.4
DEC 15...	1420	70	973	0.0	410	96	42	67	1	3.1
FEB 17...	1445	76	770	0.0	310	73	32	45	1	3.7
APR 04...	1500	82	981	14.0	390	86	42	72	2	3.1
JUN 24...	0900	46	863	22.0	330	74	35	78	2	3.7
AUG 17...	0755	14	1150	16.0	460	90	58	120	2	1.8
26...	1445	8.0	1150	22.0	430	90	49	120	3	3.7

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 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- PHOROUS TOTAL (MG/L AS P)
OCT 02...	210	440	13	0.5	6.5	833	1.13	180	0.1	0.03
DEC 15...	140	310	14	0.4	11	629	0.86	119	0.3	<0.03
FEB 17...	150	230	8.5	0.4	10	494	0.67	101	0.3	<0.03
APR 04...	170	340	9.6	0.4	5.9	662	0.90	147	<0.1	0.01
JUN 24...	190	300	9.4	0.5	4.8	619	0.84	76.9	<0.1	0.02
AUG 17...	220	400	12	0.5	9.6	824	1.12	31.1	<0.1	<0.03
26...	230	410	12	0.6	12	835	1.14	18.0	<0.1	0.01

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI)
APR 04...	1	38	<0.5	<1	<5	<3	<10	22	<10	48

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)
APR 04...	50	0.1	<10	<10	<1	<1.0	1200	<6	<3

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 02...	0920	80	9.0	3.4	<5.0	--	--
JAN 26...	1535	108	0.0	--	9.0	<0.4	4.6
APR 04...	1500	82	14.0	3.1	7.4	<0.4	7.8
JUL 25...	0950	40	19.0	--	6.8	<0.4	9.1

DATE	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 02...	--	14	--	<0.20	8.8	--
JAN 26...	0.7	3.5	0.7	0.60	1.8	--
APR 04...	2.1	5.5	2.1	0.55	8.1	<1
JUL 25...	1.0	6.3	1.0	0.34	7.6	--

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
JUN 24...	0900	46	22.0	0.01	0.01	0.03	<0.01	<0.01
SEP 09...	0830	7	9.0	<0.01	0.01	<0.01	<0.01	<0.01

[illegible]

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 05...	1020	100	610	8.1	9.0	644	9.0
JAN 27...	1405	86	492	7.8	0.0	634	13.6
APR 07...	1610	76	530	9.0	14.0	625	14.2
JUL 13...	1320	85	745	8.8	21.0	630	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- PHOROUS TOTAL (MG/L AS P)
OCT 05...	92	84	<0.1	0.01	--	<0.2	0.02
JAN 27...	112	290	0.2	0.26	0.44	0.7	0.16
APR 07...	169	K7	<0.1	0.06	0.54	0.6	0.17
JUL 13...	130	200	<0.1	0.06	0.64	0.7	0.16

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.--Estimated daily discharges: Aug. 6-29. 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 the 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 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 18	0330	*392	*3.74	No other peak greater than base discharge.			

Minimum daily discharge during period of operation, 21 ft³/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	27	115	190	89	51	29
2	---	---	---	---	---	---	27	100	184	78	51	28
3	---	---	---	---	---	---	29	93	193	73	57	27
4	---	---	---	---	---	---	33	91	224	71	57	27
5	---	---	---	---	---	---	31	89	258	74	54	25
6	---	---	---	---	---	---	32	96	258	64	50	25
7	---	---	---	---	---	---	37	90	239	59	49	24
8	---	---	---	---	---	---	47	93	218	54	49	24
9	---	---	---	---	---	---	38	90	196	51	46	22
10	---	---	---	---	---	---	33	87	181	50	43	21
11	---	---	---	---	---	---	36	98	169	49	42	23
12	---	---	---	---	---	---	45	132	161	47	40	23
13	---	---	---	---	---	---	54	181	156	47	40	24
14	---	---	---	---	---	---	60	227	148	45	38	29
15	---	---	---	---	---	---	65	227	138	42	37	28
16	---	---	---	---	---	---	78	249	126	41	43	25
17	---	---	---	---	---	---	91	307	123	40	40	24
18	---	---	---	---	---	---	93	367	121	38	40	24
19	---	---	---	---	---	---	96	307	121	38	38	24
20	---	---	---	---	---	---	110	255	113	38	38	24
21	---	---	---	---	---	---	126	224	113	37	38	24
22	---	---	---	---	---	---	115	215	121	34	36	24
23	---	---	---	---	---	---	93	224	115	33	36	24
24	---	---	---	---	---	---	87	249	105	44	35	24
25	---	---	---	---	---	---	83	255	98	54	35	23
26	---	---	---	---	---	---	73	279	96	55	34	23
27	---	---	---	---	---	---	74	293	98	57	34	23
28	---	---	---	---	---	---	74	275	126	55	34	23
29	---	---	---	---	---	---	81	289	123	54	33	23
30	---	---	---	---	---	---	96	245	103	53	31	23
31	---	---	---	---	---	---	---	209	---	53	31	---
TOTAL	---	---	---	---	---	---	1964	6051	4615	1617	1280	734
MEAN	---	---	---	---	---	---	65.5	195	154	52.2	41.3	24.5
MAX	---	---	---	---	---	---	126	367	258	89	57	29
MIN	---	---	---	---	---	---	27	87	96	33	31	21
AC-FT	---	---	---	---	---	---	3900	12000	9150	3210	2540	1460

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.

DRAINAGE AREA.--Not determined.

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. 18 to Mar. 24. Records good except those for November to March, which are poor. Diversions for irrigation of about 36,900 acres upstream from station.

AVERAGE DISCHARGE.--9 years, 360 ft³/s, 260,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD: Maximum discharge, 4,240 ft³/s, June 12, 1983, gage height, 9.93 ft; minimum daily, 17 ft³/s, Aug. 3, 1988.

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)
May 18	1300	*1,410	*6.25	No peak greater than base discharge.			

Minimum daily discharge, 17 ft³/s, Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	141	100	76	110	180	124	360	401	273	23	63
2	113	142	100	70	110	180	123	379	337	223	20	59
3	107	155	110	72	110	180	131	334	392	195	17	45
4	102	155	110	74	110	170	175	308	601	166	56	45
5	105	146	110	74	120	170	185	295	860	186	57	47
6	108	141	110	78	120	180	186	303	976	165	51	50
7	103	145	110	78	120	180	155	301	815	141	46	42
8	100	155	110	80	120	180	163	322	638	137	46	34
9	97	145	110	86	120	190	178	319	503	122	46	32
10	97	144	110	86	120	190	148	298	394	107	47	28
11	105	143	120	92	130	190	140	305	369	137	37	28
12	110	144	110	90	130	190	151	377	344	103	38	35
13	115	147	100	89	140	180	180	537	344	82	38	36
14	177	141	96	89	140	180	207	721	324	81	37	58
15	163	175	93	96	150	180	227	728	300	68	35	94
16	150	132	89	100	160	180	248	753	284	52	43	90
17	147	129	92	100	160	190	286	943	284	51	43	77
18	148	120	94	100	160	200	336	1280	275	46	29	75
19	150	120	95	98	160	180	355	1130	284	45	27	74
20	144	110	96	95	170	190	392	880	291	47	26	81
21	136	110	96	100	170	190	410	701	275	49	27	80
22	144	110	97	100	170	210	418	610	273	53	29	72
23	145	110	100	110	160	230	371	630	298	41	27	77
24	140	110	98	110	160	210	325	687	264	39	27	74
25	143	110	94	110	170	184	298	713	251	34	34	69
26	140	110	94	110	170	182	271	761	242	35	35	68
27	137	100	94	110	180	192	252	853	278	38	52	66
28	132	100	93	110	190	186	252	839	427	34	60	65
29	132	100	92	120	180	181	251	861	468	33	66	62
30	134	100	90	120	---	148	282	774	339	26	67	65
31	139	---	84	110	---	132	---	563	---	21	64	---
TOTAL	3975	3890	3097	2934	4210	5705	7220	18865	12131	2830	1250	1791
MEAN	128	130	99.9	94.6	145	184	241	609	404	91.3	40.3	59.7
MAX	177	175	120	120	190	230	418	1280	976	273	67	94
MIN	97	100	84	70	110	132	123	295	242	21	17	28
AC-FT	7880	7720	6140	5820	8350	11320	14320	37420	24060	5610	2480	3550

CAL YR 1987 TOTAL 111621 MEAN 306 MAX 1660 MIN 84 AC-FT 221400
WTR YR 1988 TOTAL 67898 MEAN 186 MAX 1280 MIN 17 AC-FT 134700

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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...	0805	114	943	11.0	380	89	39	62	1	2.3
DEC 16...	1410	89	960	0.0	420	100	40	60	1	2.3
FEB 17...	1400	166	913	0.0	350	79	37	60	1	7.3
APR 04...	1330	178	818	6.0	330	79	32	47	1	2.6
JUN 24...	0730	255	567	21.0	240	58	23	37	1	2.3
AUG 01...	1305	32	1140	23.0	490	120	47	93	2	4.0
SEP 06...	1550	50	--	20.0	440	100	46	80	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 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- PHOROUS TOTAL (MG/L AS P)
OCT 02...	180	320	5.8	0.3	5.6	632	--	0.92	--	0.02
DEC 16...	120	300	7.6	0.3	12	599	0.82	144	0.5	<0.03
FEB 17...	150	300	8.7	0.3	12	601	0.82	269	1.5	0.41
APR 04...	170	260	4.9	0.3	9.7	543	0.74	261	1.1	0.07
JUN 24...	140	170	4.6	0.3	7.7	387	0.53	266	<0.1	0.05
AUG 01...	250	390	9.7	0.4	13	827	1.13	71.5	0.1	0.05
SEP 06...	--	--	--	--	6.0	--	--	--	--	--

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI)
APR 04...	1	39	<0.5	<1	<5	<3	<10	36	<10	29
SEP 06...	1	46	<0.5	1	<5	<3	<10	29	<10	50

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)
APR 04...	61	0.2	<10	<10	<1	<1.0	860	<6	<3
SEP 06...	51	0.2	<10	<10	<1	<1.0	1200	<6	8

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible]

75

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.

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

REMARKS.--No flow observed July 25.

[illegible]

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. 15 to Mar. 24 and May 31 to June 12. Records fair 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.--47 years, 584 ft³/s, 423,100 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)
Feb. 11	2100	ice jam	*7.30	No peak greater than base discharge.			
May 18	2100	*1,970	5.11				

Minimum daily discharge, 52 ft³/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	247	210	160	200	240	242	373	744	365	70	77
2	226	248	220	150	200	240	237	465	533	299	71	76
3	239	258	230	150	190	240	241	473	518	259	72	72
4	230	280	230	160	200	230	268	391	623	228	95	64
5	230	277	230	160	200	230	281	361	1000	226	134	63
6	233	273	230	160	210	240	285	367	1480	218	108	65
7	224	275	230	170	220	240	267	373	1410	190	99	64
8	221	286	230	170	220	240	265	398	1090	176	95	57
9	218	277	230	180	220	250	285	417	855	170	98	54
10	215	278	230	180	220	260	273	403	697	147	95	52
11	218	278	240	190	230	250	251	390	618	157	89	57
12	224	281	230	190	230	250	249	408	505	156	82	65
13	229	289	220	180	240	240	265	532	474	123	79	74
14	275	289	200	180	250	240	287	776	466	114	72	98
15	283	290	200	190	250	240	311	946	436	106	71	133
16	267	280	190	200	250	250	338	916	412	94	76	122
17	255	240	190	200	250	260	382	1080	400	92	78	104
18	255	220	200	200	250	270	446	1630	386	87	73	97
19	257	220	200	190	250	290	488	1730	371	91	64	93
20	252	230	200	190	260	320	532	1380	387	93	61	99
21	245	240	210	190	260	370	546	1030	368	88	61	98
22	246	240	210	200	260	390	602	836	369	77	61	96
23	251	240	210	200	260	410	549	777	368	76	62	93
24	247	230	200	210	250	390	478	802	348	75	63	96
25	248	230	200	210	240	369	440	916	353	85	61	92
26	248	230	190	210	240	332	417	978	320	87	66	86
27	243	220	190	210	240	318	375	1110	308	82	67	86
28	241	210	190	210	250	327	352	1130	432	83	76	85
29	240	210	190	220	250	333	339	1130	556	74	79	86
30	241	210	190	220	---	285	320	1140	472	70	80	79
31	245	---	180	210	---	251	---	998	---	68	80	---
TOTAL	7451	7576	6500	5840	6790	8795	10611	24656	17299	4256	2438	2483
MEAN	240	253	210	188	234	284	354	795	577	137	78.6	82.8
MAX	283	290	240	220	260	410	602	1730	1480	365	134	133
MIN	205	210	180	150	190	230	237	361	308	68	61	52
AC-FT	14780	15030	12890	11580	13470	17440	21050	48910	34310	8440	4840	4930

CAL YR 1987 TOTAL 181541 MEAN 497 MAX 2860 MIN 140 AC-FT 360100
WTR YR 1988 TOTAL 104695 MEAN 286 MAX 1730 MIN 52 AC-FT 207700

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 01...	0940	199	--	--	10.0	643	8.10
JAN 14...	1425	178	900	8.0	0.0	639	11.4
APR 06...	1350	312	830	7.9	10.0	670	11.3
JUL 13...	0755	151	985	8.5	18.0	640	6.60
SEP 09...	1020	56.0	--	--	14.0	--	--

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,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)
OCT 01...	85	40	<0.1	0.02	<0.2	0.01
JAN 14...	93	K6	--	--	--	--
APR 06...	114	104	--	--	--	--
JUL 13...	84	80	--	--	--	--
SEP 09...	--	--	<0.1	<0.01	0.4	0.02

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

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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...	0940	199	10.0	<5.0	--	--	--	8.6	--	<0.20	8.4
JAN 14...	1425	178	0.0	12	<0.4	6.1	0.8	4.3	0.8	0.25	4.9
APR 06...	1350	312	10.0	2.9	15	7.5	21	5.5	19	0.24	7.3
JUL 13...	0755	151	18.0	13	<0.4	8.5	1.3	5.8	1.3	0.18	7.9

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 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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 09...	1400	830	755	8.6	9.0	647	12.3
JAN 14...	1000	457	640	8.1	0.0	645	12.0
APR 07...	1310	660	720	7.9	7.0	632	9.8
JUL 19...	1030	233	730	8.3	20.0	648	8.4

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- PHOROUS TOTAL (MG/L AS P)
OCT 09...	126	K3	<0.1	0.01	0.29	0.3	0.01
JAN 14...	97	K7	0.4	0.07	0.13	0.2	0.06
APR 07...	98	K87	0.3	0.08	0.92	1.0	0.34
JUL 19...	109	200	<0.1	<0.01	--	0.5	0.06

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

LOCATION.--Lat 43°18'05", long 108°42'08", in SE1/4 SW1/4 SE1/4 sec.24, T.4 N., R.1 E., Fremont County, Hydrologic Unit 10080005, at former gaging station, 1,700 ft upstream from Wyoming Canal siphon, and 4.0 mi north of Pavillion.

PERIOD OF RECORD.--Water years 1950-58, 1961-75, October 1987 to September 1988.

REMARKS.--No flow observed Sept. 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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 06...	1520	4.8	3560	15.0	1600	420	140	330	4	12
DEC 17...	1215	2.3	3870	0.0	1900	490	150	320	3	11
FEB 29...	1420	2.4	2940	0.0	1500	430	110	220	3	11
APR 11...	1445	7.9	3030	12.0	1400	380	110	260	3	11
JUN 22...	0745	0.47	3790	21.0	1700	430	160	460	5	13
AUG 02...	1345	<0.25	4610	27.5	1800	450	170	560	6	12

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- PHOROUS TOTAL (MG/L AS P)
OCT 06...	160	2100	67	1.1	7.3	3170	4.32	41.1	0.0	0.01
DEC 17...	150	2100	70	1.0	13	3250	4.42	20.2	<0.1	<0.03
FEB 29...	240	1500	38	1.2	13	2470	3.36	16.0	0.1	0.17
APR 11...	180	1600	55	1.1	8.5	2530	3.45	54.0	0.1	0.01
JUN 22...	160	2000	73	1.1	6.7	3240	4.41	4.11	<0.1	<0.03
AUG 02...	150	2600	82	0.7	4.8	3980	5.40	--	0.2	0.01

[illegible][illegible]

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible]

YELLOWSTONE RIVER BASIN

81

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.--No estimated daily discharges. 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. U.S. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--37 years, 1,441 ft³/s, 1,044,000 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, 1,470 ft³/s, Oct. 20, gage height, 5.16 ft; minimum daily, 528 ft³/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1320	1320	1260	1160	1010	1040	1060	1110	1210	1200	1010	923
2	1310	1320	1250	1150	1010	1040	1060	1100	1240	1210	1010	925
3	1330	1310	1260	1160	1010	1040	1060	1100	1250	1250	1000	889
4	1330	1310	1260	1120	1010	1040	1070	1100	1260	1220	1010	876
5	1320	1310	1260	1070	1060	1040	974	1100	1250	1210	1010	871
6	1310	1250	1260	1070	1120	1050	844	1100	1250	1230	1000	874
7	1310	1210	1260	1070	1120	1050	852	1100	1250	1260	1000	874
8	1320	1210	1270	1070	1120	1060	861	1100	1250	1270	1000	877
9	1310	1210	1220	1080	1130	1050	857	1100	1260	1250	1000	849
10	1310	1210	1170	1070	1090	1060	851	1120	1240	1250	1010	831
11	1310	1200	1170	1080	1060	1050	855	1120	1270	1240	1010	834
12	1320	1200	1160	1070	1060	1030	852	1120	1280	1220	1010	825
13	1320	1170	1170	1070	1060	1030	855	1110	1280	1230	1020	832
14	1320	1110	1170	1070	1050	1040	853	1110	1270	1220	1020	782
15	1320	1120	1160	1070	1040	1040	909	1110	1270	1200	1020	752
16	1310	1020	1170	1060	1060	1040	1130	1110	1260	1170	1020	717
17	1310	959	1170	1060	1070	1030	1130	1110	1270	1150	1020	693
18	1320	956	1160	1080	1080	1030	1130	1120	1250	1110	1010	685
19	1310	964	1170	1030	1070	1040	1130	1110	1270	1070	1010	673
20	1310	968	1170	1010	1060	1030	1130	1110	1260	1070	1010	647
21	1310	968	1190	1010	1060	1040	1140	1110	1280	1070	1020	638
22	1310	953	1190	1010	1070	1040	1140	1110	1270	1060	1010	612
23	1300	978	1180	1010	1050	1030	1140	1110	1280	1070	978	600
24	1300	1100	1170	1010	1050	1050	1150	1110	1270	1070	978	593
25	1300	1290	1170	1010	1060	1050	1150	1110	1250	1040	979	593
26	1310	1290	1170	1010	1040	1060	1140	1100	1260	1020	985	563
27	1300	1280	1170	1010	1060	1060	1140	1110	1260	1020	983	528
28	1320	1270	1160	1010	1050	1050	1150	1100	1270	1010	978	533
29	1330	1270	1160	1010	1050	1060	1120	1100	1240	1010	959	531
30	1320	1270	1170	1010	---	1060	1100	1110	1200	1010	922	534
31	1320	---	1170	1010	---	1060	---	1120	---	1010	931	---
TOTAL	40740	34996	37040	32730	30780	32390	30833	34350	37720	35420	30923	21954
MEAN	1314	1167	1195	1056	1061	1045	1028	1108	1257	1143	998	732
MAX	1330	1320	1270	1160	1130	1060	1150	1120	1280	1270	1020	925
MIN	1300	953	1160	1010	1010	1030	844	1100	1200	1010	922	528
AC-FT	80810	69410	73470	64920	61050	64250	61160	68130	74820	70260	61340	43550

CAL YR 1987 TOTAL 471380 MEAN 1291 MAX 1820 MIN 865 AC-FT 935000
WTR YR 1988 TOTAL 399876 MEAN 1093 MAX 1330 MIN 528 AC-FT 793200

YELLOWSTONE RIVER BASIN

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

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 1987 TO SEPTEMBER 1988

DATE	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	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)	CALCIUM DIS- SOLVED (MG/L AS CA)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
OCT 05...	1350	639	17.0	3	64	<0.5	<1	54	<5
DEC 16...	1140	688	4.0	4	79	<0.5	<1	57	<5
FEB 29...	1030	727	2.5	2	60	<0.5	<1	62	<5
APR 07...	853	738	5.0	2	62	<0.5	<1	64	<5
JUN 27...	1270	720	22.0	--	57	<0.5	<1	60	<5
AUG 16...	1050	--	24.0	2	57	<0.5	<1	59	<5

DATE	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)
OCT 05...	<3	<10	10	<10	22	97	17	0.2	<10
DEC 16...	<3	<10	37	<10	22	8	18	--	<10
FEB 29...	<3	<10	8	<10	25	2	20	--	<10
APR 07...	<3	<10	6	<10	26	20	21	0.2	<10
JUN 27...	<3	<10	34	<10	25	5	20	0.3	<10
AUG 16...	<3	<10	11	<10	24	4	20	0.2	<10

DATE	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SILVER, DIS- SOLVED (UG/L AS AG)	SODIUM, DIS- SOLVED (MG/L AS NA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 05...	<10	1	7.8	<1.0	57	540	<6	24
DEC 16...	<10	<1	7.7	<1.0	65	590	<6	<3
FEB 29...	<10	1	7.8	<1.0	68	630	<6	4
APR 07...	<10	<1	8.6	2.0	70	660	<6	<3
JUN 27...	<10	--	8.2	1.0	67	630	<6	9
AUG 16...	<10	1	9.1	<1.0	67	610	<6	<3

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.

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. 26 to Dec. 5, Dec. 12 to Apr. 8 and July 9-15. Records good except those for estimated daily discharges, which are poor. Flow regulated by Anchor Dam (see station 06260300). No diversion upstream from station.

AVERAGE DISCHARGE.--29 years, 22.2 ft³/s, 16,080 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, 152 ft³/s, June 5, gage height, 3.18 ft; minimum daily, 0.27 ft³/s, Nov. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.9	2.5	1.5	1.5	5.0	7.0	14	43	22	5.6	3.8
2	13	15	3.0	1.4	1.5	4.5	8.0	9.9	45	22	5.2	3.6
3	13	11	3.3	1.2	1.5	4.5	8.0	5.0	76	19	6.3	3.6
4	13	8.9	3.5	.90	1.5	4.5	7.5	8.2	134	18	8.2	3.5
5	13	8.9	3.5	1.0	1.5	5.0	8.0	8.6	146	24	6.0	3.6
6	13	9.0	3.4	1.1	1.7	5.5	9.0	9.6	145	19	4.9	3.7
7	13	9.8	3.3	1.2	2.0	6.0	10	11	107	17	4.5	3.5
8	13	7.7	3.2	1.3	2.3	6.2	10	12	90	17	5.6	3.6
9	13	6.1	3.8	1.4	2.0	6.2	11	15	74	16	5.4	3.8
10	12	5.5	4.2	1.6	1.8	6.0	11	9.2	72	15	4.5	3.8
11	10	7.4	4.7	1.5	1.8	5.0	11	15	56	14	4.3	8.1
12	11	9.7	3.5	1.4	2.0	4.5	20	23	54	13	4.7	7.5
13	12	10	2.5	1.6	2.5	4.5	32	38	42	12	5.1	6.5
14	12	11	2.2	1.8	2.8	5.0	33	116	42	11	4.6	6.8
15	12	7.7	2.0	2.2	3.2	5.5	32	95	43	10	4.2	6.9
16	10	7.7	2.2	2.4	3.0	5.0	33	70	43	9.0	4.4	5.9
17	10	.32	2.5	2.2	2.5	4.5	31	87	43	9.2	4.4	5.5
18	11	.27	2.5	1.8	2.5	5.0	25	125	36	8.3	3.8	5.5
19	10	.31	2.3	1.6	3.0	6.0	12	105	43	8.7	3.7	5.5
20	8.8	4.2	2.5	1.5	3.5	7.0	20	33	37	8.4	3.8	5.0
21	7.5	15	2.8	1.5	4.0	8.0	27	30	34	7.7	3.5	5.1
22	9.6	27	3.2	1.7	3.5	8.0	15	38	33	7.3	3.4	5.0
23	8.4	23	3.2	1.7	3.0	7.5	10	66	31	7.1	4.1	4.9
24	11	19	2.8	1.7	3.0	7.0	8.6	87	29	7.1	4.3	4.6
25	11	7.4	2.0	1.9	4.0	7.0	7.5	105	27	6.6	3.2	4.6
26	10	5.0	2.1	2.1	4.5	8.0	6.0	106	28	6.9	3.7	4.6
27	8.6	4.0	2.3	2.5	5.0	9.0	6.1	103	30	7.0	3.7	4.9
28	8.3	3.5	2.5	2.6	5.2	8.0	6.3	97	30	7.0	4.1	5.1
29	9.2	3.0	2.7	2.6	5.5	7.0	7.0	107	53	6.7	4.4	4.6
30	9.6	2.5	2.5	2.3	---	6.5	13	104	26	6.2	3.5	5.0
31	9.6	---	2.0	1.8	---	6.5	---	54	---	5.2	3.5	---
TOTAL	338.6	259.80	88.7	53.00	81.8	187.9	445.0	1706.5	1692	367.4	140.6	148.1
MEAN	10.9	8.66	2.86	1.71	2.82	6.06	14.8	55.0	56.4	11.9	4.54	4.94
MAX	13	27	4.7	2.6	5.5	9.0	33	125	146	24	8.2	8.1
MIN	7.5	.27	2.0	.90	1.5	4.5	6.0	5.0	26	5.2	3.2	3.5
AC-FT	672	515	176	105	162	373	883	3380	3360	729	279	294

CAL YR 1987 TOTAL 9967.20 MEAN 27.3 MAX 161 MIN .00 AC-FT 19770
WTR YR 1988 TOTAL 5509.40 MEAN 15.1 MAX 146 MIN .27 AC-FT 10930

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
OCT 02...	1800	2300	820	8.2	15.0	654	8.8	102
JAN 25...	1120	1060	840	8.3	2.0	655	11.7	99
MAY 16...	1000	1000	775	8.4	16.0	649	9.8	117
AUG 22...	1145	1260	850	8.2	20.0	652	11.6	150

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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 02...	410	<0.1	0.04	0.26	0.3	0.03	2
JAN 25...	70	0.2	<0.01	--	0.4	0.03	1
MAY 16...	210	<0.1	0.02	0.78	0.8	0.02	1
AUG 22...	48	<0.1	<0.01	--	1.3	0.05	1

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: Nov. 5, 6, Dec. 12, Jan. 14-17, 20-23, 28-30, Feb. 10-14, Feb. 20 to Mar. 7, Apr. 25, May 11, 12, May 17 to June 17, June 23, 27, July 1, 9, and Sept. 12, 13. Records poor.

AVERAGE DISCHARGE.--17 years, 4.41 ft³/s, 3,200 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)
May 7	2400	*756	*3.02	No other peak greater than base discharge.			
No flow for many days.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	6.0	.00	.00	.00	.03	.00	.00
2	.00	.00	.00	.00	.00	4.0	.00	.00	.00	.00	.00	.00
3	.00	26	.00	.00	.00	2.8	.00	.00	.00	.00	.00	.00
4	.00	1.8	.00	.00	.00	1.5	.00	.00	.00	.00	.00	.00
5	.00	.13	.00	.00	.00	.80	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00	.00
7	.00	.00	.30	.00	.00	.20	.00	335	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	329	.00	5.4	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	29	.00	.67	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00	9.7
12	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	1.5
13	.00	.00	.00	.00	.10	.00	.00	.00	105	.00	.00	.01
14	.00	.00	.00	.03	.15	.00	.00	.00	20	.00	.00	.00
15	.00	.00	.00	.10	.20	.00	.00	.00	1.0	.00	.00	.00
16	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.30	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	3.0	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	1.0	.00	3.6	.00	10	.00	.00	.00
23	.00	.00	.00	.00	.50	.00	11	.00	.97	.00	.00	.00
24	.00	.00	.00	.00	1.0	.00	1.7	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	2.0	.00	.09	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	4.0	.00	.00	.00	.08	.00	.00	.00
27	.00	.00	.00	.00	7.0	.00	.00	.00	.24	.00	.00	.00
28	.00	.00	.00	.25	10	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.35	9.0	.00	.00	.00	47	.00	.00	.00
30	.00	.00	.00	.20	---	.00	.00	.00	1.3	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	27.93	0.30	1.01	38.25	15.70	16.39	695.95	185.59	6.10	0.00	11.21
MEAN	.00	.93	.010	.033	1.32	.51	.55	22.4	6.19	.20	.00	.37
MAX	.00	26	.30	.35	10	6.0	11	335	105	5.4	.00	9.7
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	55	.6	2.0	76	31	33	1380	368	12	.0	22

CAL YR 1987 TOTAL 1743.25 MEAN 4.78 MAX 347 MIN .00 AC-FT 3460
WTR YR 1988 TOTAL 998.43 MEAN 2.73 MAX 335 MIN .00 AC-FT 1980

YELLOWSTONE RIVER BASIN

REVISIONS OF RECORDS FOR A DISCONTINUED STATION

06268500 FIFTEENMILE CREEK NEAR WORLAND, WY

WATER-QUALITY RECORDS

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, 300 ft upstream from Bighorn Canal spillway, 2.0 mi upstream from mouth, and 2.8 mi west of Worland.

DRAINAGE AREA.--518 mi².

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

PERIOD OF DAILY RECORD.--

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

EXTREMES FOR PERIOD OF 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.

REVISIONS--Revised figures of sediment load (tons/day) for water year 1986, superseding those published in the 1986 report, are given below:

Date	Sediment Load	Date	Sediment Load	Date	Sediment Load
Oct. 13, 1985	3.3	June 8, 1986	107	July 11, 1986	217
Apr. 13, 1986	9.3	June 9, 1986	10,000	July 12, 1986	1,110
Apr. 14, 1986	398	June 10, 1986	9,800	July 27, 1986	54
Apr. 15, 1987	406	June 14, 1986	1,840	Sept. 9, 1986	15,300
Apr. 26, 1986	679	June 21, 1986	334	Sept. 10, 1986	1,780
May 7, 1986	4,980	June 30, 1986	10,600	Sept. 24, 1986	130
June 4, 1986	882				

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.

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: Nov. 18-22, Nov. 26 to Dec. 1, Dec. 12 to Mar. 18, and May 7-16. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 550 acres upstream from station.

AVERAGE DISCHARGE.--26 years (water years 1939-43, 1951-55, 1973-88), 115 ft³/s, 83,320 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)
May 11	2400	*1,080	*8.09	No other peak greater than base discharge.			

Minimum daily discharge, 6.4 ft³/s, Aug. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	79	86	46	70	84	49	329	147	46	6.4	20
2	50	81	88	44	68	82	48	381	119	40	8.3	20
3	50	97	96	43	64	76	48	368	103	38	9.4	20
4	53	96	91	43	62	78	50	389	91	36	12	22
5	53	90	85	44	64	80	56	397	79	39	10	25
6	55	87	87	46	68	82	62	413	70	42	15	23
7	56	86	83	48	70	82	59	540	57	37	16	26
8	63	85	80	49	72	78	74	650	52	35	16	26
9	67	84	82	49	72	82	80	640	49	32	16	26
10	69	85	77	52	74	80	77	730	42	31	16	27
11	70	84	74	56	68	74	64	720	41	30	17	37
12	69	85	70	54	70	70	82	680	45	28	17	49
13	69	85	64	54	70	68	110	650	82	23	16	54
14	70	87	58	52	70	62	124	670	47	24	17	51
15	74	93	58	54	70	58	151	660	39	23	17	51
16	78	91	58	58	68	54	181	610	49	23	18	50
17	77	80	58	54	66	50	181	544	43	24	19	48
18	77	80	60	50	66	48	222	510	41	44	19	48
19	77	82	62	50	70	46	255	550	38	26	20	57
20	79	90	60	50	72	47	316	498	35	24	18	60
21	79	88	62	54	74	54	298	429	34	24	18	57
22	81	84	64	59	76	58	308	367	37	20	20	55
23	81	82	60	64	70	56	290	325	38	13	18	54
24	83	84	54	70	72	52	270	297	37	12	21	53
25	83	90	52	71	74	57	274	275	35	12	21	52
26	79	88	52	70	78	54	278	261	31	12	23	52
27	78	88	52	70	80	50	272	234	28	11	23	52
28	76	86	52	72	80	51	290	214	56	11	21	52
29	77	84	52	78	83	59	290	199	65	11	21	55
30	77	82	50	76	---	51	288	195	66	9.8	21	60
31	80	---	46	72	---	48	---	159	---	7.7	21	---
TOTAL	2177	2583	2073	1752	2061	1971	5147	13884	1696	788.5	531.1	1282
MEAN	70.2	86.1	66.9	56.5	71.1	63.6	172	448	56.5	25.4	17.1	42.7
MAX	83	97	96	78	83	84	316	730	147	46	23	60
MIN	47	79	46	43	62	46	48	159	28	7.7	6.4	20
AC-FT	4320	5120	4110	3480	4090	3910	10210	27540	3360	1560	1050	2540

CAL YR 1987 TOTAL 33962 MEAN 93.0 MAX 652 MIN 16 AC-FT 67360
WTR YR 1988 TOTAL 35945.6 MEAN 98.2 MAX 730 MIN 6.4 AC-FT 71300

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.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,800 ft³/s, May 7, gage height, 7.57 ft; minimum daily, 276 ft³/s, July 27.

CAL YR 1987	TOTAL	539744	MEAN	1479	MAX	6790	MIN	470	AC-FT	1071000
WTR YR 1988	TOTAL	456813	MEAN	1248	MAX	5520	MIN	276	AC-FT	906100

YELLOWSTONE RIVER BASIN

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06274300 BIGHORN RIVER AT BASIN, WY--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 02...	1400	1590	810	8.2	15.0	668	9.0
FEB 02...	1110	1200	950	8.3	0.0	668	11.4
MAY 16...	1800	3220	500	8.6	16.5	653	8.7
AUG 23...	1020	503	1070	8.5	17.0	675	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- PHOROUS TOTAL (MG/L AS P)
OCT 02...	102	170	0.2	0.03	0.97	1.0	0.02
FEB 02...	89	K6	0.3	0.06	0.44	0.5	0.02
MAY 16...	104	340	0.3	0.03	0.37	0.4	0.06
AUG 23...	121	590	0.9	0.02	0.38	0.4	0.03

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

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.

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: Nov. 16-21, 26-30, Dec. 1 to Feb. 29, Mar 1, 11-22, and Aug. 22-30. 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; 16 years (water years 1973-88), 87.8 ft³/s, 63,610 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, 412 ft³/s, June 4, gage height, 5.20 ft; minimum daily, 5.9 ft³/s, Apr. 14.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	12	30	23	39	25	12	39	161	60	22	41
2	67	13	30	23	38	18	11	15	152	61	20	40
3	65	13	29	23	40	24	10	39	168	58	24	34
4	65	12	28	24	39	13	9.4	64	293	61	24	31
5	66	11	28	24	39	13	9.4	78	280	72	24	34
6	66	11	30	24	40	12	9.0	99	259	64	25	31
7	64	11	31	25	40	11	9.2	38	227	62	30	28
8	61	11	31	26	41	12	9.0	12	173	58	36	29
9	60	11	32	27	42	9.7	9.0	11	147	57	36	28
10	57	11	32	28	42	8.9	8.9	10	143	58	36	29
11	56	11	35	28	42	10	8.2	10	119	60	36	46
12	57	11	32	29	42	11	8.4	86	105	63	37	53
13	46	11	31	30	41	12	7.5	161	89	59	40	55
14	40	13	29	30	41	13	5.9	114	79	56	37	51
15	40	14	29	32	41	14	53	114	76	53	36	45
16	37	14	29	32	41	15	93	117	78	53	36	42
17	38	15	29	33	42	16	98	145	80	49	37	44
18	38	16	30	33	39	18	89	147	78	47	39	48
19	37	16	27	33	39	20	108	158	87	45	39	48
20	33	17	28	31	40	22	97	149	80	38	37	45
21	31	18	27	32	39	21	91	138	88	36	40	45
22	31	20	28	33	40	20	26	140	89	36	40	46
23	31	25	26	33	39	15	12	165	78	36	39	45
24	32	30	23	34	37	17	12	192	74	38	37	44
25	31	31	23	34	39	15	12	229	68	31	37	45
26	28	31	23	36	40	12	23	242	70	33	37	45
27	22	31	24	37	44	11	29	253	65	33	38	47
28	21	30	26	39	45	15	31	249	70	32	39	47
29	20	30	26	39	46	17	50	257	69	31	39	45
30	16	31	25	39	---	16	66	263	60	29	40	44
31	12	---	23	40	---	15	---	202	---	26	41	---
TOTAL	1335	531	874	954	1177	471.6	1016.9	3936	3605	1495	1078	1255
MEAN	43.1	17.7	28.2	30.8	40.6	15.2	33.9	127	120	48.2	34.8	41.8
MAX	67	31	35	40	46	25	108	263	293	72	41	55
MIN	12	11	23	23	37	8.9	5.9	10	60	26	20	28
AC-FT	2650	1050	1730	1890	2330	935	2020	7810	7150	2970	2140	2490

CAL YR 1987	TOTAL	28474.2	MEAN	78.0	MAX	478	MIN	8.0	AC-FT	56480
WTR YR 1988	TOTAL	17728.5	MEAN	48.4	MAX	293	MIN	5.9	AC-FT	35160

YELLOWSTONE RIVER BASIN

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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.--Estimated daily discharges: Apr. 6-8, 11-16, May 1-6, and Sept. 20. 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, 1,300 ft³/s, June 26, gage height, 5.07 ft; minimum daily during period of operation, 24 ft³/s, Apr. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	29	119	673	665	395	192
2	---	---	---	---	---	---	32	45	740	582	385	166
3	---	---	---	---	---	---	37	62	867	534	400	146
4	---	---	---	---	---	---	37	119	915	550	385	132
5	---	---	---	---	---	---	36	166	1020	596	333	114
6	---	---	---	---	---	---	45	228	984	544	304	100
7	---	---	---	---	---	---	41	121	988	519	323	91
8	---	---	---	---	---	---	34	46	933	537	333	137
9	---	---	---	---	---	---	27	41	947	544	323	192
10	---	---	---	---	---	---	26	39	970	544	338	189
11	---	---	---	---	---	---	29	36	998	537	333	196
12	---	---	---	---	---	---	30	134	947	528	328	163
13	---	---	---	---	---	---	34	385	788	556	318	107
14	---	---	---	---	---	---	24	348	673	582	309	98
15	---	---	---	---	---	---	37	358	669	589	323	89
16	---	---	---	---	---	---	91	363	725	569	333	86
17	---	---	---	---	---	---	100	405	740	563	318	87
18	---	---	---	---	---	---	94	379	733	550	313	89
19	---	---	---	---	---	---	192	385	756	531	295	89
20	---	---	---	---	---	---	199	374	733	494	264	81
21	---	---	---	---	---	---	179	374	756	474	256	83
22	---	---	---	---	---	---	96	395	699	460	266	81
23	---	---	---	---	---	---	42	437	695	460	281	81
24	---	---	---	---	---	---	41	460	695	471	304	78
25	---	---	---	---	---	---	39	483	695	465	299	78
26	---	---	---	---	---	---	49	544	719	483	299	78
27	---	---	---	---	---	---	98	519	705	471	304	79
28	---	---	---	---	---	---	98	516	702	443	299	79
29	---	---	---	---	---	---	114	651	680	416	313	79
30	---	---	---	---	---	---	149	796	658	403	328	80
31	---	---	---	---	---	---	---	684	---	395	256	---
TOTAL	---	---	---	---	---	---	2079	10012	23803	16055	9858	3340
MEAN	---	---	---	---	---	---	69.3	323	793	518	318	111
MAX	---	---	---	---	---	---	199	796	1020	665	400	196
MIN	---	---	---	---	---	---	24	36	658	395	256	78
AC-FT	---	---	---	---	---	---	4120	19860	47210	31850	19550	6620

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
MAY 17...	0830	49	16.0	0.3	0.03	0.37	0.4	0.04
JUN 30...	0925	40	16.5	1.7	0.08	1.1	1.2	0.32

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 13...	0800	18	16.0	0.02	0.02	0.25	<0.01	<0.01	<0.01
AUG 11...	1945	28	23.0	0.01	0.01	<0.01	<0.01	<0.01	<0.01
23...	1545	8.7	24.5	0.71	0.20	<0.01	<0.01	<0.01	<0.01
SEP 28...	1230	8.0	12.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

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. 7 to Nov. 2, and Nov. 17 to Apr. 28. Records good except those for estimated daily discharges, which are poor. No diversions upstream from station.

AVERAGE DISCHARGE.--32 years, 35.3 ft³/s, 25,570 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)
May 17	2400	550	5.17	June 4	2200	575	5.26
May 28	2300	*637	*5.47				

Minimum daily discharge, 1.4 ft³/s, Mar. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.4	4.8	2.5	2.1	2.2	1.5	16	187	36	4.7	2.6
2	11	8.4	4.8	2.4	2.0	2.3	1.5	13	218	29	4.8	2.5
3	11	8.3	5.2	2.3	2.0	2.3	1.5	12	304	25	6.4	2.4
4	10	11	5.4	2.2	2.0	2.2	1.5	12	368	23	6.1	2.3
5	10	12	5.6	2.2	2.1	2.1	1.5	14	384	22	5.1	2.1
6	10	8.8	5.8	2.2	2.1	2.0	1.5	19	301	19	4.6	2.0
7	9.9	7.8	5.6	2.2	2.1	1.9	1.5	17	201	17	4.5	1.9
8	9.8	9.0	5.4	2.2	2.1	1.8	1.5	20	154	16	4.7	1.8
9	9.8	8.1	5.2	2.1	2.1	1.7	1.6	17	126	15	4.5	1.6
10	9.8	7.6	5.0	2.1	2.1	1.7	1.7	16	114	14	4.4	1.5
11	9.7	6.9	4.7	2.2	2.1	1.6	2.0	31	98	15	4.4	2.7
12	9.7	6.5	4.5	2.2	2.1	1.5	2.4	46	93	13	4.5	3.4
13	9.6	6.8	4.4	2.3	2.1	1.4	2.6	88	108	12	4.5	3.2
14	9.0	6.5	4.3	2.3	2.1	1.5	3.0	238	77	11	4.6	3.2
15	9.0	6.2	4.2	2.4	2.0	1.5	3.5	182	64	9.8	4.6	3.2
16	8.8	6.2	4.1	2.4	2.0	1.6	4.0	180	59	9.4	4.6	3.2
17	8.6	6.0	3.9	2.3	2.0	1.7	4.5	404	57	8.9	4.6	3.1
18	8.4	5.8	3.9	2.3	2.0	1.7	5.0	417	52	8.5	4.5	3.1
19	8.2	5.8	3.9	2.2	2.0	1.7	5.6	155	49	8.6	4.4	3.2
20	8.0	5.8	3.8	2.2	2.0	1.7	6.0	84	44	8.1	4.3	3.2
21	7.8	5.8	3.7	2.2	2.0	1.8	6.4	63	41	7.4	4.2	3.2
22	7.8	5.6	3.6	2.3	2.0	1.9	7.0	83	38	7.0	4.1	3.2
23	8.0	5.6	3.5	2.3	1.9	1.9	7.4	178	36	6.7	3.9	3.2
24	8.0	5.4	3.5	2.4	1.9	1.9	8.0	294	32	6.5	3.8	3.1
25	8.2	5.4	3.3	2.4	1.8	1.9	8.2	387	31	6.2	3.7	3.1
26	8.2	5.4	3.3	2.4	1.8	1.9	8.4	474	31	6.0	3.4	3.1
27	8.2	5.4	3.2	2.4	1.9	1.8	8.6	449	28	6.1	3.2	3.1
28	8.4	5.2	3.0	2.3	2.0	1.8	8.9	440	33	5.5	3.1	3.0
29	8.4	5.2	2.9	2.3	2.1	1.7	9.7	444	62	5.2	3.0	3.0
30	8.4	5.0	2.8	2.3	---	1.6	13	457	46	4.9	2.9	3.0
31	8.4	---	2.7	2.1	---	1.5	---	256	---	4.7	2.8	---
TOTAL	281.1	205.9	130.0	70.6	58.5	55.8	139.5	5506	3436	386.5	132.9	83.2
MEAN	9.07	6.86	4.19	2.28	2.02	1.80	4.65	178	115	12.5	4.29	2.77
MAX	11	12	5.8	2.5	2.1	2.3	13	474	384	36	6.4	3.4
MIN	7.8	5.0	2.7	2.1	1.8	1.4	1.5	12	28	4.7	2.8	1.5
AC-FT	558	408	258	140	116	111	277	10920	6820	767	264	165

CAL YR 1987 TOTAL 10048.1 MEAN 27.5 MAX 324 MIN 2.1 AC-FT 19930
WTR YR 1988 TOTAL 10486.0 MEAN 28.7 MAX 474 MIN 1.4 AC-FT 20800

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 discharge. 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 during period of operation, 15 ft³/s, Apr. 1, 1988.

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)
May 17	2100	*1,880	*5.57	May 25	2400	1,520	5.20
June 6	0300	870	4.34				

Minimum daily discharge during period of operation, 15 ft³/s, Apr. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	15	106	515	146	86	63
2	---	---	---	---	---	---	19	89	529	133	88	62
3	---	---	---	---	---	---	23	78	556	126	92	61
4	---	---	---	---	---	---	22	81	693	119	91	61
5	---	---	---	---	---	---	18	106	708	116	82	59
6	---	---	---	---	---	---	18	142	673	106	81	57
7	---	---	---	---	---	---	23	122	497	103	82	55
8	---	---	---	---	---	---	28	106	385	99	82	55
9	---	---	---	---	---	---	22	99	332	96	80	55
10	---	---	---	---	---	---	16	106	297	95	78	55
11	---	---	---	---	---	---	24	138	267	99	76	67
12	---	---	---	---	---	---	38	229	256	91	76	62
13	---	---	---	---	---	---	55	437	303	85	77	59
14	---	---	---	---	---	---	72	760	253	82	74	59
15	---	---	---	---	---	---	92	627	219	80	73	57
16	---	---	---	---	---	---	103	653	197	103	76	54
17	---	---	---	---	---	---	121	1280	185	103	72	54
18	---	---	---	---	---	---	128	1370	176	105	70	61
19	---	---	---	---	---	---	126	604	168	105	70	62
20	---	---	---	---	---	---	107	356	159	101	68	61
21	---	---	---	---	---	---	105	306	151	99	68	55
22	---	---	---	---	---	---	80	358	146	96	70	53
23	---	---	---	---	---	---	67	595	142	95	68	52
24	---	---	---	---	---	---	63	854	133	95	69	51
25	---	---	---	---	---	---	58	1070	128	93	68	49
26	---	---	---	---	---	---	44	1230	128	92	68	48
27	---	---	---	---	---	---	83	1170	121	92	67	47
28	---	---	---	---	---	---	98	1070	159	91	67	48
29	---	---	---	---	---	---	85	1120	292	86	67	47
30	---	---	---	---	---	---	101	1070	168	86	66	46
31	---	---	---	---	---	---	---	798	---	85	65	---
TOTAL	---	---	---	---	---	---	1854	17130	8936	3103	2317	1675
MEAN	---	---	---	---	---	---	61.8	553	298	100	74.7	55.8
MAX	---	---	---	---	---	---	128	1370	708	146	92	67
MIN	---	---	---	---	---	---	15	78	121	80	65	46
AC-FT	---	---	---	---	---	---	3680	33980	17720	6150	4600	3320

YELLOWSTONE RIVER BASIN

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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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
AUG 11...	1855	20	20.5	0.02	<0.01	0.04	<0.01	<0.01	<0.01
SEP 28...	1335	35	12.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

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. 26 to Dec. 1, Dec. 12 to Mar. 2 and Mar. 12, 13. Records good 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.--60 years, 2,270 ft³/s, 1,645,000 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, 12,700 ft³/s, May 8, gage height, 7.06 ft; minimum daily discharge, 559 ft³/s, Aug. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1760	2050	1700	1000	1240	2100	1410	1240	2670	1150	576	663
2	1740	2050	1830	1000	1240	2100	1410	1540	1980	912	578	638
3	1770	2170	1900	1000	1240	2080	1400	1540	1930	821	559	658
4	1740	2200	1920	960	1200	2070	1420	1380	2150	776	586	678
5	1730	2110	1920	960	1160	2010	1390	1290	2510	767	616	695
6	1750	2050	1930	960	1200	1980	1400	1300	2680	744	622	698
7	1750	2010	1910	1000	1240	1970	1200	5340	2500	670	608	691
8	1780	1970	1890	1000	1200	1960	1140	9700	1950	673	623	695
9	1840	1920	1830	1000	1200	1770	1140	6050	1570	702	622	701
10	1920	1890	1820	1000	1200	1770	1110	3040	1380	692	580	730
11	2110	1890	1780	1040	1300	1640	1110	2590	1310	663	568	741
12	2070	1870	1650	1040	1300	1600	1060	2310	1300	722	564	819
13	2070	1870	1600	1060	1350	1500	1020	2740	1410	703	582	894
14	2020	1870	1480	1060	1400	1550	995	4140	2070	666	624	954
15	2030	1840	1390	1070	1400	1590	990	5060	1510	651	639	1010
16	2030	1790	1300	1100	1350	1600	918	4360	1280	652	617	1030
17	2030	1720	1300	1100	1330	1550	1060	4540	1160	643	608	985
18	2040	1600	1260	1100	1400	1520	1340	5810	1170	647	611	985
19	2030	1500	1260	1140	1500	1530	1440	5760	1110	660	610	986
20	2010	1550	1200	1140	1700	1600	1730	4350	1070	658	603	1010
21	2030	1640	1200	1180	1800	1650	1550	3260	1030	631	606	1020
22	2050	1640	1200	1180	2000	1670	3220	2760	961	631	605	1020
23	2050	1630	1150	1180	1900	1670	2510	2820	918	616	608	994
24	2040	1570	1100	1200	1700	1590	1880	3400	1020	612	598	973
25	2040	1590	1100	1200	1800	1530	1640	3970	892	605	601	947
26	2030	1600	1100	1290	1900	1530	1520	4350	812	603	602	923
27	2010	1600	1150	1290	2000	1520	1440	4370	865	595	605	906
28	2010	1600	1200	1300	2000	1510	1350	4120	776	584	622	903
29	2020	1640	1200	1310	2000	1470	1290	3860	912	590	679	870
30	2030	1700	1200	1310	---	1450	1240	3730	1290	585	689	859
31	2040	---	1100	1280	---	1420	---	3610	---	578	686	---
TOTAL	60570	54130	45570	34450	43250	52500	42323	114330	44186	21202	18897	25676
MEAN	1954	1804	1470	1111	1491	1694	1411	3688	1473	684	610	856
MAX	2110	2200	1930	1310	2000	2100	3220	9700	2680	1150	689	1030
MIN	1730	1500	1100	960	1160	1420	918	1240	776	578	559	638
AC-FT	120100	107400	90390	68330	85790	104100	83950	226800	87640	42050	37480	50930

CAL YR 1987 TOTAL 699247 MEAN 1916 MAX 8170 MIN 687 AC-FT 1387000
WTR YR 1988 TOTAL 557084 MEAN 1522 MAX 9700 MIN 559 AC-FT 1105000

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT 01...	1330	1680	920	8.2	14.5	662	9.1	103
NOV 04...	1000	2170	910	8.4	9.5	--	--	--
DEC 15...	1600	1370	1000	8.0	0.0	--	--	--
FEB 02...	1520	1250	950	8.2	0.0	672	11.2	87
MAR 03...	1145	2110	920	8.3	1.0	--	--	--
APR 05...	1120	1330	1030	8.2	9.5	--	--	--
MAY 17...	1600	4670	490	7.9	15.0	655	8.3	96
JUN 15...	1600	1470	810	8.0	20.5	--	--	--
JUL 14...	1500	644	1150	8.5	26.5	--	--	--
AUG 24...	1015	598	1180	8.5	19.0	675	10.7	131

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- PHOROUS TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 01...	170	0.2	0.03	0.37	0.4	0.02	123	558
NOV 04...	--	--	--	--	--	--	382	2240
DEC 15...	--	--	--	--	--	--	277	1020
FEB 02...	K16	0.4	0.07	0.53	0.6	0.02	138	466
MAR 03...	--	--	--	--	--	--	390	2220
APR 05...	--	--	--	--	--	--	110	395
MAY 17...	1100	0.3	0.03	0.37	0.4	0.54	2220	28000
JUN 15...	--	--	--	--	--	--	9840	39100
JUL 14...	--	--	--	--	--	--	202	351
AUG 24...	K28	0.6	0.02	0.58	0.6	0.03	34	55

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)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CALCIUM DIS- SOLVED (MG/L AS CA)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 04...	1	62	<0.5	<1	82	<5	<3	<10	10	<10	36	2
FEB 02...	1	54	<0.5	1	84	<5	<3	<10	10	<10	48	8
APR 05...	2	52	<0.5	<1	88	<5	<3	<10	33	<10	47	20
JUN 15...	1	59	<0.5	<1	64	<5	<3	<10	20	<10	23	3
AUG 24...	--	59	<0.5	<1	87	<5	<3	<10	21	<10	49	12

YELLOWSTONE RIVER BASIN

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	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)	SILICA, DIS- SOLVED (MG/L AS SI02)	SILVER, DIS- SOLVED (UG/L AS AG)	SODIUM, DIS- SOLVED (MG/L AS NA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 04...	27	0.4	<10	<10	2	8.0	<1.0	85	830	<6	7
FEB 02...	28	0.1	<10	<10	1	9.3	<1.0	82	850	<6	34
APR 05...	30	0.5	<10	<10	--	4.8	<1.0	89	910	<6	130
JUN 15...	19	0.6	10	<10	15	9.5	2.0	75	650	<6	20
AUG 24...	35	--	<10	<10	--	7.4	<1.0	120	980	<6	4

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1500	644	26.5	0.02	0.01	0.10	<0.01	<0.01	<0.01
AUG 24...	1015	598	19.0	0.02	0.02	0.02	<0.01	<0.01	<0.01
SEP 28...	1530	880	13.5	0.01	0.01	0.02	<0.01	<0.01	<0.01

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	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
MAY 17...	1600	34	41	51	82	95	100	100

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.

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. 16-18, Nov. 22 to Dec. 1, Dec. 9 to Mar. 7 and Apr. 5-12. Records fair except those for estimated daily discharges, which are poor. Diversion for irrigation of about 2,700 acres upstream from station. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--14 years (water years 1922-26, 1980-88), 839 ft³/s, 607,900 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, 50 ft³/s, Dec. 16, 1987.

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 5	2300	*5,900	*4.60	No other peak greater than base discharge.			

Minimum daily discharge, 50 ft³/s, Dec. 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	147	120	68	70	162	154	685	1910	938	294	174
2	176	155	166	68	74	170	210	619	1780	891	285	166
3	170	173	150	64	78	160	279	589	2030	840	276	166
4	164	160	138	64	84	140	241	624	2990	808	273	166
5	162	153	131	64	84	130	200	660	4180	776	263	166
6	160	151	127	62	80	120	250	734	4140	719	255	165
7	159	151	127	62	84	120	300	731	3890	649	249	161
8	161	149	135	60	84	127	400	757	3370	601	249	157
9	164	142	130	60	90	135	300	821	2880	560	248	157
10	165	138	120	60	90	136	400	807	2640	545	242	157
11	156	141	110	62	90	136	500	1130	2510	504	241	165
12	156	146	90	62	94	138	540	1480	2290	474	241	170
13	159	146	86	64	94	139	788	1820	2150	456	248	177
14	159	148	82	70	96	139	886	1770	1940	450	237	187
15	157	141	60	70	100	139	920	1320	1890	447	228	168
16	156	115	50	70	110	139	937	1690	1940	433	228	160
17	159	141	80	66	110	139	1020	2080	1940	418	225	156
18	158	123	78	64	120	139	1030	1970	2020	409	224	154
19	155	120	76	64	120	139	1000	1710	1980	394	224	154
20	147	129	74	64	130	139	711	1460	1890	374	217	157
21	149	128	72	66	130	164	675	1490	1930	358	209	161
22	154	130	72	68	120	211	637	1740	1860	354	205	166
23	150	120	70	72	110	163	567	2050	1770	349	197	154
24	149	120	66	76	100	147	532	2340	1650	347	197	149
25	151	130	68	80	110	138	528	2580	1500	329	190	148
26	149	130	70	90	120	141	479	2970	1360	325	193	146
27	149	110	70	94	130	174	488	2990	1330	322	194	146
28	149	110	72	100	140	144	543	2950	1270	332	193	149
29	149	110	72	90	150	139	621	2720	1170	318	188	151
30	149	110	74	80	---	141	660	2620	1060	307	178	149
31	149	---	70	74	---	139	---	2210	---	301	176	---
TOTAL	4867	4067	2906	2178	2992	4487	16796	50117	65260	15328	7067	4802
MEAN	157	136	93.7	70.3	103	145	560	1617	2175	494	228	160
MAX	177	173	166	100	150	211	1030	2990	4180	938	294	187
MIN	147	110	50	60	70	120	154	589	1060	301	176	146
AC-FT	9650	8070	5760	4320	5930	8900	33310	99410	129400	30400	14020	9520

CAL YR 1987 TOTAL 202275 MEAN 554 MAX 4090 MIN 50 AC-FT 401200
WTR YR 1988 TOTAL 180867 MEAN 494 MAX 4180 MIN 50 AC-FT 358700

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: Dec. 15, 20-25, Jan. 1-4, 12, 13, 19, 20, 22, 25, 26, Feb. 1-5, and Apr. 6 to May 20. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 450 acres upstream from station.

AVERAGE DISCHARGE.--31 years, 419 ft³/s, 303,600 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 5	2300	*2,980	*6.76	No other peak greater than base discharge.			
Minimum daily discharge, 50 ft ³ /s, Dec. 15.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	98	54	66	64	78	68	260	840	597	173	109
2	116	103	62	60	61	75	82	260	789	557	172	107
3	116	104	72	55	60	69	104	240	1100	530	296	106
4	114	100	78	60	60	66	94	240	1980	526	251	106
5	116	95	79	66	60	62	84	260	2340	486	205	106
6	115	94	79	69	61	67	82	280	2080	461	186	106
7	113	95	79	68	62	65	100	280	1790	410	196	105
8	109	90	75	70	63	62	150	300	1590	374	205	106
9	103	87	72	71	63	68	130	310	1440	347	178	106
10	96	86	84	72	65	65	110	330	1430	334	169	111
11	93	87	81	74	66	64	150	420	1270	316	164	132
12	96	92	76	70	66	60	220	700	1140	299	164	131
13	99	93	72	65	66	58	300	1000	1010	291	165	132
14	99	93	60	69	65	59	380	1100	941	288	155	123
15	102	84	50	72	65	63	360	700	990	287	151	117
16	97	71	53	70	65	60	380	900	1120	274	146	114
17	97	82	57	67	66	59	400	1400	1140	263	143	111
18	101	70	59	64	61	63	450	1000	1290	255	140	109
19	98	77	59	60	61	67	400	750	1260	242	135	109
20	92	80	58	60	63	71	330	500	1160	232	131	108
21	94	76	60	61	62	74	280	579	1300	221	134	110
22	96	77	62	60	63	78	250	764	1220	214	133	107
23	96	66	62	63	61	74	230	1010	1160	211	132	107
24	99	56	56	65	59	71	210	1260	1130	202	128	106
25	99	55	56	66	60	70	200	1280	1110	199	114	104
26	99	56	60	66	63	69	200	1380	1050	197	112	105
27	97	55	66	67	69	72	180	1390	927	193	114	105
28	96	53	65	69	75	69	190	1370	919	191	114	106
29	97	53	67	70	82	66	210	1430	764	186	112	104
30	98	52	68	71	---	68	240	1400	694	177	109	104
31	99	---	68	67	---	67	---	1050	---	177	108	---
TOTAL	3160	2380	2049	2053	1857	2079	6564	24143	36974	9537	4835	3312
MEAN	102	79.3	66.1	66.2	64.0	67.1	219	779	1232	308	156	110
MAX	118	104	84	74	82	78	450	1430	2340	597	296	132
MIN	92	52	50	55	59	58	68	240	694	177	108	104
AC-FT	6270	4720	4060	4070	3680	4120	13020	47890	73340	18920	9590	6570

CAL YR 1987	TOTAL 105799	MEAN 290	MAX 2020	MIN 50	AC-FT 209900
WTR YR 1988	TOTAL 98943	MEAN 270	MAX 2340	MIN 50	AC-FT 196300

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: Dec. 11 to Mar. 4 and Mar. 9-22. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. Bureau of Reclamation satellite telemeter at station.

AVERAGE DISCHARGE.--20 years (water years 1907, 1923-26, 1974-88), 394 ft³/s, 285,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,960 ft³/s, June 9, 1981, gage height, 9.41 ft; minimum daily, 1.7 ft³/s, Aug. 31, Sept. 1, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,530 ft³/s, June 6, gage height, 5.68 ft; minimum daily, 1.7 ft³/s, Aug. 31, Sept. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	117	98	74	100	115	95	207	365	194	4.7	1.7
2	4.6	127	103	72	98	121	106	177	270	148	4.4	1.8
3	3.6	143	102	70	97	130	128	159	442	123	7.6	1.9
4	4.4	144	101	70	93	124	139	149	1480	123	26	2.0
5	16	144	101	73	90	122	120	154	2480	119	4.4	2.1
6	5.7	154	101	76	90	115	109	187	2270	71	3.2	2.2
7	2.0	161	102	80	90	111	140	176	1740	31	3.2	2.3
8	2.3	174	105	82	92	104	189	174	1420	13	4.1	2.4
9	4.1	154	107	84	94	105	159	179	1180	8.5	3.1	2.5
10	40	148	111	86	98	105	134	142	1110	6.7	2.7	2.7
11	28	136	110	88	100	100	156	222	950	6.6	2.8	3.5
12	20	130	100	84	102	100	253	434	793	4.8	2.4	4.9
13	29	128	90	82	104	94	381	671	663	5.0	2.7	5.2
14	30	130	84	86	108	94	428	726	529	4.2	2.8	5.2
15	40	135	78	90	108	96	421	393	585	4.3	2.8	4.5
16	53	119	66	94	105	100	428	497	717	3.9	2.7	4.6
17	54	116	54	90	100	98	467	841	794	3.7	2.6	5.1
18	55	122	66	87	100	93	453	698	893	4.2	2.5	5.0
19	57	121	68	85	100	98	461	417	960	5.3	2.6	4.7
20	54	118	70	85	105	110	289	264	829	4.2	2.5	4.6
21	61	112	76	87	110	110	201	230	896	4.1	2.7	5.0
22	63	111	80	90	100	110	176	325	953	3.9	2.5	5.0
23	65	105	80	95	96	106	137	509	832	3.9	2.5	5.1
24	69	105	78	100	96	102	110	725	791	4.2	2.4	5.5
25	74	105	74	100	98	96	88	775	747	4.0	2.2	6.2
26	76	99	74	103	100	94	87	901	712	4.0	2.1	6.9
27	78	91	74	105	105	104	79	940	535	3.7	2.0	16
28	80	96	78	108	110	96	69	903	531	3.8	1.9	37
29	82	97	82	108	110	96	79	1020	357	4.1	1.9	38
30	102	97	80	108	---	100	112	987	299	4.2	1.9	38
31	114	---	77	103	---	95	---	639	---	4.3	1.7	---
TOTAL	1373.0	3739	2670	2745	2899	3244	6194	14821	27123	927.6	113.6	231.6
MEAN	44.3	125	86.1	88.5	100	105	206	478	904	29.9	3.66	7.72
MAX	114	174	111	108	110	130	467	1020	2480	194	26	38
MIN	2.0	91	54	70	90	93	69	142	270	3.7	1.7	1.7
AC-FT	2720	7420	5300	5440	5750	6430	12290	29400	53800	1840	225	459

CAL YR 1987 TOTAL 74515.5 MEAN 204 MAX 2390 MIN 1.8 AC-FT 147800
WTR YR 1988 TOTAL 66080.8 MEAN 181 MAX 2480 MIN 1.7 AC-FT 131100

YELLOWSTONE RIVER BASIN

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.--Water-temperature recorder since October 1981.

REMARKS.--No record May 20-25 and July 12-15.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: Maximum, 29.5°C, July 30, 1988; minimum, 0.0°C on many days each year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE: Maximum recorded, 29.5°C, July 30; minimum, 0.0°C on several days during December, January, February, and March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	NITRO- GEN, NITRITE DIS- SOLVED (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)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 05...	1200	145	8.0	<0.01	<0.10	0.02	0.03	0.38	0.4	0.02	0.02	0.02
DEC 17...	1400	53	1.0	<0.01	0.14	<0.01	0.02	--	0.2	0.02	0.02	0.02
FEB 03...	1000	98	1.0	0.01	0.12	0.05	0.03	0.25	0.3	0.04	0.04	0.03
MAR 02...	1000	120	0.5	<0.01	0.26	0.02	0.02	--	<0.2	0.14	0.03	0.03
APR 13...	1600	393	12.0	<0.01	0.31	0.02	0.03	--	<0.2	0.07	0.05	0.04
MAY 20...	0930	307	7.5	<0.01	0.13	0.02	0.05	--	<0.2	0.08	0.05	0.05
JUN 07...	0930	2090	9.5	<0.01	0.23	0.04	0.03	0.16	0.2	0.74	0.04	0.03
JUL 12...	1200	4.3	21.0	<0.01	0.41	0.02	<0.01	0.28	0.3	0.05	0.04	<0.01
AUG 29...	1530	1.9	17.0	<0.01	1.40	<0.01	0.02	--	<0.2	0.02	0.02	0.02
SEP 29...	1205	42	11.5	<0.01	<0.10	0.02	0.01	--	<0.2	0.03	0.03	0.01

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WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	8.5	12.0	10.0	1.5	1.0	3.0	.0	4.0	.5	1.0	.0
2	16.0	7.5	11.5	10.0	1.5	1.0	2.0	.0	2.0	.5	.5	.0
3	16.5	9.0	12.0	9.5	6.0	1.5	3.0	.0	1.5	.5	1.0	.0
4	13.0	9.0	10.5	8.0	4.5	3.0	3.5	.0	2.5	.5	2.5	.5
5	15.0	8.0	9.5	6.5	6.0	4.0	2.0	.5	3.0	.5	5.0	1.0
6	15.5	7.5	6.5	5.0	5.0	2.5	2.5	.0	2.0	.5	6.0	2.0
7	15.5	8.0	7.0	5.0	4.5	1.5	2.5	.5	.5	.5	4.5	1.0
8	13.5	8.5	6.5	3.0	1.0	1.0	3.0	.5	.5	.5	5.0	.5
9	9.5	6.0	7.0	3.5	1.0	1.0	2.5	.5	1.5	.5	6.0	2.0
10	9.5	5.0	6.5	3.0	1.5	1.0	.5	.5	2.0	.5	5.0	2.0
11	10.5	5.0	6.0	3.0	1.5	1.0	1.0	.0	.5	.0	2.0	1.0
12	9.5	6.0	5.0	4.0	1.5	1.0	1.5	.5	.5	.0	2.0	1.0
13	9.0	8.0	7.5	5.0	3.0	1.0	1.0	.5	.5	.0	3.0	1.0
14	11.0	7.0	6.0	3.0	3.5	1.0	.5	.0	.5	.0	3.5	1.0
15	9.5	7.5	3.0	1.0	2.5	1.0	.0	.0	.5	.0	4.5	1.5
16	9.5	5.0	2.0	1.0	3.0	1.5	1.5	.0	1.5	.5	4.0	1.0
17	9.5	6.0	2.0	1.0	2.5	1.0	2.0	.5	1.0	.0	4.5	1.0
18	9.5	7.0	1.5	1.0	2.0	.5	3.0	.5	1.0	.5	8.0	1.0
19	8.5	5.5	2.0	1.0	2.5	.5	3.5	.0	.5	.0	8.0	3.0
20	8.0	4.0	4.5	1.5	2.0	1.0	2.5	.0	.5	.0	10.0	3.5
21	9.5	5.0	3.5	1.5	1.0	.5	1.0	.0	.5	.0	10.5	4.0
22	9.0	6.0	3.0	1.5	1.0	.5	.5	.0	1.0	.0	7.0	4.0
23	9.0	5.5	2.0	1.0	1.5	1.0	1.0	.0	3.0	.5	6.0	2.5
24	9.0	6.0	1.5	1.0	3.5	1.0	1.5	.0	2.5	.0	7.0	1.0
25	11.5	7.5	1.0	1.0	3.5	.5	.5	.0	1.5	.0	7.5	1.5
26	10.5	7.5	3.0	1.0	1.5	.5	.5	.0	.5	.0	12.0	3.5
27	10.0	6.5	2.0	1.0	2.0	.0	.0	.0	1.0	.0	8.5	2.5
28	10.5	7.0	2.0	1.0	2.5	.0	.5	.0	.5	.0	5.5	1.5
29	11.0	7.5	2.5	1.0	2.0	.0	.5	.0	1.0	.0	2.5	1.5
30	11.0	8.0	2.5	1.0	2.0	1.0	1.5	.5	---	---	4.5	1.5
31	11.5	8.5	---	---	3.0	.5	2.5	1.5	---	---	8.0	1.5
MONTH	16.5	4.0	12.0	1.0	6.0	.0	3.5	.0	4.0	.0	12.0	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	2.5	10.0	6.0	14.0	7.5	19.5	14.5	24.5	14.0	16.5	10.5
2	13.0	5.0	10.5	4.0	16.0	9.5	19.5	15.5	18.5	12.0	17.5	10.0
3	11.5	7.0	14.5	6.0	18.0	10.5	21.5	15.5	20.5	12.0	18.0	10.5
4	10.5	6.0	14.5	8.5	18.0	10.5	19.0	16.5	22.0	13.5	18.0	10.5
5	10.5	3.0	15.0	9.0	16.0	9.5	21.0	14.5	23.5	12.5	16.0	11.0
6	13.5	4.0	13.5	8.5	16.0	9.0	20.5	15.5	23.0	13.0	17.0	11.0
7	14.0	7.0	8.5	6.0	16.5	9.0	21.0	14.0	16.0	12.5	16.5	12.0
8	10.5	4.0	14.5	7.5	16.0	10.0	25.0	13.5	22.0	11.5	15.5	10.0
9	11.0	2.5	14.0	9.5	15.5	9.5	26.5	13.5	23.5	11.5	16.0	9.0
10	13.0	4.5	17.5	9.0	15.0	11.0	22.0	13.5	19.0	12.0	15.5	11.0
11	14.5	7.0	17.0	11.0	14.5	10.0	24.5	13.0	18.5	11.5	11.0	8.5
12	14.0	8.0	16.5	10.0	14.0	10.5	---	13.5	20.5	11.0	13.5	8.0
13	12.0	8.0	16.0	9.5	14.5	10.0	---	---	20.0	11.0	11.0	10.0
14	11.5	6.5	13.5	7.5	17.0	10.5	---	---	24.5	10.0	14.5	8.5
15	13.0	6.5	15.0	8.0	17.0	10.5	25.0	---	19.5	9.5	17.5	9.5
16	13.0	7.0	16.5	9.5	17.0	11.5	26.0	13.5	22.5	12.0	16.5	10.5
17	12.5	7.5	16.0	9.0	16.5	11.5	26.0	13.0	22.0	10.0	15.0	10.0
18	11.5	7.5	11.5	8.5	18.0	12.0	23.0	13.0	25.0	10.5	14.5	10.0
19	12.0	8.0	10.5	8.0	19.0	11.5	23.5	12.0	20.5	10.0	14.5	8.5
20	11.5	8.0	---	7.5	18.5	13.0	25.5	10.5	22.5	9.5	14.0	9.5
21	10.5	5.0	---	---	18.0	13.5	26.0	12.0	18.0	10.0	17.0	9.0
22	8.0	4.0	---	---	18.0	13.0	26.0	12.5	18.5	8.0	16.0	10.0
23	10.0	6.0	---	---	19.5	13.5	22.5	14.0	20.0	8.0	17.5	10.5
24	12.0	7.5	---	---	20.0	14.0	25.5	12.0	20.0	9.5	16.0	10.0
25	9.5	3.5	---	---	19.0	15.0	24.0	12.5	19.5	8.5	17.0	10.0
26	13.0	2.0	14.5	9.5	19.5	15.0	26.0	12.5	20.0	10.5	16.5	9.5
27	14.5	6.0	14.0	9.0	20.5	15.5	24.0	13.5	17.5	10.0	15.0	9.5
28	16.0	9.0	15.0	8.5	20.0	15.0	22.0	13.5	20.5	8.0	13.5	8.5
29	17.0	9.5	14.5	9.0	19.5	13.5	27.5	12.5	21.0	8.0	16.0	9.0
30	13.0	10.0	13.0	8.5	18.0	13.0	29.5	14.0	16.5	11.5	17.5	9.5
31	---	---	13.5	8.0	---	---	25.0	12.5	16.0	10.5	---	---
MONTH	17.0	2.0	17.5	4.0	20.5	7.5	29.5	10.5	25.0	8.0	18.0	8.0
YEAR	MAXIMUM 29.5		MINIMUM .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: Oct. 1-6, Nov. 18, 19, Dec. 12 to Mar. 9, Mar. 11-19, Aug. 28-30 and Sept. 29, 30. Records good except those for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--7 years (water years 1982-88), 6.09 ft³/s, 4,410 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, 28 ft³/s, July 2, gage height, 1.69 ft; minimum daily, 0.18 ft³/s, Feb. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	1.2	.83	.28	.20	.76	.88	14	13	20	4.5	2.3
2	6.2	1.4	.78	.26	.18	.77	.63	14	14	23	3.7	2.5
3	6.4	1.3	.84	.25	.19	.80	.62	13	12	23	4.0	1.9
4	6.2	.79	.82	.25	.19	.80	.63	12	12	25	4.4	1.9
5	6.0	.83	.83	.24	.20	.85	.51	13	11	23	4.5	2.0
6	6.0	.83	.82	.24	.21	.90	.41	13	15	20	3.0	2.6
7	6.7	.83	.84	.23	.21	.90	.42	16	15	19	3.0	3.4
8	6.5	.82	.77	.23	.21	.96	.41	15	14	18	3.1	4.3
9	7.6	.81	1.1	.22	.22	.98	.36	11	14	17	3.2	3.6
10	5.3	.82	.76	.22	.24	1.0	.35	11	17	17	3.2	3.3
11	1.8	.83	1.2	.23	.25	.73	.36	12	14	17	3.1	5.4
12	1.7	.80	.80	.23	.26	.70	.36	11	15	11	3.0	6.6
13	1.5	.73	.50	.23	.28	.66	.36	9.7	17	7.0	3.0	6.4
14	1.4	.80	.45	.24	.30	.64	.30	10	15	7.5	3.0	6.1
15	1.5	.80	.44	.24	.33	.60	.30	10	13	6.9	3.0	4.7
16	1.5	.84	.44	.23	.33	.60	1.7	9.2	11	5.0	3.0	3.2
17	1.2	.65	.44	.23	.34	.58	4.5	7.7	17	4.8	3.0	2.5
18	1.2	.64	.43	.22	.34	.58	5.5	8.8	16	3.8	3.0	3.9
19	1.2	.70	.43	.22	.34	1.1	6.0	13	14	3.7	2.9	7.4
20	1.2	.75	.42	.21	.35	1.4	7.5	17	17	3.5	2.8	8.6
21	1.2	.78	.42	.21	.34	1.6	7.2	16	16	3.3	2.8	8.5
22	1.2	.79	.40	.21	.33	1.3	6.6	15	20	3.4	2.8	9.0
23	1.2	.77	.39	.21	.33	1.2	7.1	13	19	3.2	2.8	9.3
24	1.2	.84	.35	.21	.33	.92	5.8	10	19	3.2	2.9	8.9
25	1.2	.80	.34	.21	.34	.82	4.5	6.4	19	3.2	2.4	6.1
26	1.2	.75	.34	.21	.45	.88	4.5	5.9	21	3.6	2.9	5.6
27	1.2	.72	.33	.22	.60	1.1	5.0	8.3	23	3.4	2.7	8.7
28	1.2	.83	.31	.22	.70	.76	7.5	7.9	22	3.4	2.4	5.0
29	1.2	.83	.31	.22	.72	.89	5.8	9.6	25	4.3	2.0	1.2
30	1.2	.83	.30	.22	---	.84	8.5	10	20	4.1	1.7	1.1
31	1.2	---	.30	.21	---	.79	---	12	---	3.9	1.7	---
TOTAL	90.3	25.11	17.73	7.05	9.31	27.41	94.60	354.5	490	314.2	93.5	146.0
MEAN	2.91	.84	.57	.23	.32	.88	3.15	11.4	16.3	10.1	3.02	4.87
MAX	7.6	1.4	1.2	.28	.72	1.6	8.5	17	25	25	4.5	9.3
MIN	1.2	.64	.30	.21	.18	.58	.30	5.9	11	3.2	1.7	1.1
AC-FT	179	50	35	14	18	54	188	703	972	623	185	290

CAL YR 1987 TOTAL 2285.82 MEAN 6.26 MAX 31 MIN .25 AC-FT 4530
WTR YR 1988 TOTAL 1669.71 MEAN 4.56 MAX 25 MIN .18 AC-FT 3310

06281700 SHOSHONE RIVER ABOVE DEMARIS SPRINGS, NEAR CODY, WY

LOCATION.--Lat 44°30'39", long 109°08'47", in NW1/4 NW1/4 SE1/4 sec.5, T.52 N., R.102 W, Park County, Hydrologic Unit 10080014, at bridge on State Highway 16, 1.9 mi downstream from Buffalo Bill Reservoir, and 3.8 mi west of Cody city limits.

PERIOD OF RECORD.--October 1987 to September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 07...	1305	E480	220	8.3	26	14.0	635	12.0	140	76	21
NOV 06...	0800	E120	240	7.7	16	8.0	630	12.4	127	93	27
DEC 18...	0830	E120	275	7.8	7.8	1.0	623	10.9	94	100	30
JAN 28...	1420	95	320	7.3	5.0	2.5	630	11.4	101	140	39
MAR 01...	1130	11	930	7.7	2.5	8.0	632	11.8	121	470	140
APR 07...	1100	12	625	7.4	1.5	9.0	630	10.6	111	290	85
MAY 19...	0800	850	245	7.6	13	9.0	634	10.0	104	89	25
JUN 14...	1100	1100	180	8.0	30	11.0	640	9.7	105	64	18
JUL 11...	1530	1210	147	8.0	22	13.5	630	8.7	101	50	14
AUG 29...	1100	610	176	8.1	12	16.5	635	9.1	112	63	18
SEP 29...	1300	480	205	8.1	23	13.0	636	9.5	108	80	22

E-Estimate.

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 07...	5.6	17	0.9	1.1	78	28	1.5	0.2	16	137	0.19
NOV 06...	6.2	17	0.8	1.4	86	33	1.8	0.2	16	154	0.21
DEC 18...	7.0	19	0.8	1.6	94	40	1.8	0.2	16	172	0.23
JAN 28...	9.3	22	0.9	2.2	120	49	2.1	0.2	17	213	0.29
MAR 01...	29	30	0.6	7.8	350	140	7.7	0.5	19	585	1.26
APR 07...	19	25	0.7	4.3	230	86	3.4	0.4	13	374	0.51
MAY 19...	6.5	21	1	1.4	93	36	1.1	0.2	14	161	0.22
JUN 14...	4.6	14	0.8	1.1	64	23	1.5	0.1	14	116	0.16
JUL 11...	3.6	11	0.7	0.80	52	19	0.60	0.1	13	94	0.13
AUG 29...	4.4	14	0.8	1.2	66	25	2.5	0.2	15	120	0.16
SEP 29...	6.0	17	0.9	1.5	78	31	0.40	0.2	14	139	0.19

YELLOWSTONE RIVER BASIN

06281700 SHOSHONE RIVER ABOVE DEMARIS SPRINGS, NEAR CODY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 07...	--	<0.01	<0.10	<0.01	0.02	--	0.2	0.03	0.05	0.04
NOV 06...	--	<0.01	<0.10	0.03	0.02	0.17	0.2	0.03	0.03	0.01
DEC 18...	--	<0.01	<0.10	<0.01	0.02	--	0.2	0.02	0.01	0.02
JAN 28...	54.6	0.01	<0.10	<0.01	0.02	--	0.3	0.13	0.01	<0.01
MAR 01...	27.4	0.01	0.21	0.03	0.03	--	<0.2	<0.03	<0.01	<0.01
APR 07...	12.1	<0.01	<0.10	0.03	0.02	0.17	0.2	0.01	<0.01	<0.01
MAY 19...	370	<0.01	<0.10	0.02	0.02	--	<0.2	0.04	0.03	0.01
JUN 14...	344	<0.01	0.21	0.02	0.03	0.28	0.3	0.05	0.03	0.02
JUL 11...	307	<0.01	0.13	0.02	0.04	0.18	0.2	0.05	0.03	<0.01
AUG 29...	198	<0.01	<0.10	<0.01	<0.01	--	<0.2	0.04	0.04	0.03
SEP 29...	180	<0.01	<0.10	<0.01	0.04	--	0.4	0.05	0.04	0.03

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NEL/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.

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.

AVERAGE DISCHARGE.--21 years (water years 1922-42), prior to Heart Mountain diversion, 1,256 ft³/s, 909,300 acre-ft/yr; 46 years (water years 1943-88), 1,105 ft³/s, 800,600 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, 1,480 ft³/s, June 12, gage height, 5.20 ft; minimum daily, 144 ft³/s, Feb. 10, and Apr. 6.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	601	190	203	171	147	148	147	1390	1210	1270	937	672
2	602	192	203	173	147	148	148	1360	1340	1270	918	669
3	604	187	203	172	147	148	147	1350	1340	1270	916	670
4	603	187	203	171	147	153	147	1360	1330	1270	915	667
5	602	187	203	172	145	151	146	1370	1330	1260	889	664
6	600	195	203	168	145	151	144	1360	1330	1240	864	664
7	522	216	203	162	145	149	146	802	1350	1230	866	661
8	491	215	200	161	145	145	146	245	1350	1260	834	661
9	406	215	194	161	146	146	145	246	1370	1290	783	686
10	304	214	194	163	144	147	145	275	1440	1290	780	718
11	272	214	193	157	206	146	145	530	1430	1280	770	700
12	273	215	193	150	244	146	150	667	1460	1270	739	663
13	231	214	194	147	199	145	157	770	1410	1270	740	621
14	191	215	193	149	191	145	279	780	1260	1280	748	619
15	187	215	199	150	191	147	791	771	1210	1280	740	594
16	183	213	203	150	168	146	1110	812	1220	1290	743	548
17	184	208	203	150	147	147	1110	928	1230	1310	741	544
18	185	207	203	148	147	147	1110	930	1240	1310	746	544
19	185	207	203	151	146	146	1090	914	1230	1260	752	543
20	185	206	200	152	145	147	1180	915	1240	1220	747	542
21	185	203	196	152	145	149	1310	912	1220	1220	744	501
22	185	203	199	149	148	148	1200	914	1220	1230	741	467
23	185	203	189	151	147	150	1200	916	1240	1230	690	464
24	186	203	173	150	147	147	1260	921	1270	1180	691	465
25	186	203	174	150	147	149	1260	902	1270	1130	692	463
26	186	203	172	149	147	149	1260	903	1280	1120	691	501
27	188	204	172	148	147	148	1260	1020	1270	1100	683	494
28	185	204	172	148	147	150	1280	1080	1270	1080	676	484
29	187	203	172	148	147	147	1360	1090	1280	1020	669	487
30	187	203	171	148	---	148	1380	1190	1270	954	642	487
31	187	---	170	148	---	148	---	1170	---	927	654	---
TOTAL	9458	6144	5953	4819	4564	4581	21353	28793	38910	37611	23741	17463
MEAN	305	205	192	155	157	148	712	929	1297	1213	766	582
MAX	604	216	203	173	244	153	1380	1390	1460	1310	937	718
MIN	183	187	170	147	144	145	144	245	1210	927	642	463
AC-FT	18760	12190	11810	9560	9050	9090	42350	57110	77180	74600	47090	34640
CAL YR 1987	TOTAL 239456		MEAN 656	MAX 3650	MIN 170	AC-FT 475000						
WTR YR 1988	TOTAL 203390		MEAN 556	MAX 1460	MIN 144	AC-FT 403400						

YELLOWSTONE RIVER BASIN

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT 07...	0815	E505	570	8.2	12.0	645	8.4	92
JAN 28...	0930	168	1090	8.1	5.0	642	11.4	106
MAY 19...	1230	940	440	7.8	11.5	640	9.8	107
AUG 25...	1215	696	600	8.2	17.5	650	10.0	123

E-Estimate.

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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 07...	K44	0.1	<0.01	--	0.2	0.02	--
JAN 28...	31	0.3	0.09	0.31	0.4	0.06	<1
MAY 19...	K64	<0.1	0.02	--	<0.2	0.09	<1
AUG 25...	77	0.1	0.01	0.49	0.5	0.05	<1

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

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 15...	1030	35	15.0	0.03	0.01	--	<0.01	<0.01	--
JUL 15...	0815	62	16.0	0.03	<0.01	0.23	<0.01	<0.01	<0.01
AUG 24...	1615	32	21.0	0.01	<0.01	0.07	<0.01	<0.01	<0.01
SEP 29...	0930	32	8.5	<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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
MAY 24...	1100	102	17.0	0.4	0.03	0.97	1.0	0.03
JUN 30...	1400	23	21.5	1.4	0.03	0.67	0.7	0.07

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 24...	1100	102	17.0	<0.01	0.01	0.02	<0.01	<0.01	<0.01
JUN 30...	1400	23	21.5	0.01	<0.01	0.19	<0.01	<0.01	<0.01
JUL 15...	0800	7.0	17.0	0.10	<0.01	0.64	<0.01	<0.01	<0.01
AUG 24...	1630	22	21.0	0.02	0.01	0.06	<0.01	<0.10	<0.01

YELLOWSTONE RIVER BASIN

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 01...	0630	60.0	730	8.3	10.0	652	9.9
JAN 27...	1720	3.6	1690	8.3	3.0	655	12.6
MAY 18...	1300	59.0	1000	8.4	13.0	646	8.7
AUG 25...	0845	52.0	900	8.3	14.0	658	8.0

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- PHOROUS TOTAL (MG/L AS P)
OCT 01...	103	590	1.6	0.05	0.35	0.4	0.13
JAN 27...	110	140	4.1	0.13	0.87	1.0	0.35
MAY 18...	98	150	2.3	0.59	--	<0.2	0.86
AUG 25...	90	730	2.9	0.05	0.65	0.7	0.24

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, 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.

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
OCT 02...	0830	186	11.0	260	--	--	--	--	--
JAN 27...	1530	20	0.0	K49	--	--	--	--	--
MAY 24...	1245	227	17.0	310	2.1	0.04	--	<0.2	0.18
JUN 30...	1430	238	18.0	--	3.2	0.05	0.95	1.0	0.21
AUG 25...	1045	185	15.0	700	--	--	--	--	--

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

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1430	238	18.0	0.02	0.01	0.56	<0.01	<0.01	<0.01
JUL 15...	0720	238	15.0	0.08	0.02	0.46	<0.01	<0.01	<0.01
AUG 25...	1045	185	15.0	0.08	0.02	0.14	<0.01	<0.01	<0.01

LOCATION.--Lat 44°50'19", long 108°26'04", in NW1/4 NE1/4 NE1/4 sec.17, T.56 N., R.96 W., Big Horn County, Hydrologic Unit 10080014, on left bank 20 ft upstream from bridge on County Road 9 and 1.5 mi west of Lovell.

WATER-DISCHARGE RECORDS

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 site 500 ft downstream, at datum 2.00 ft higher. Oct. 1, 1976 to Sept. 30, 1980, at site 500 ft downstream, at datum 1.00 ft higher. Oct. 1, 1981 to Nov. 13, 1986, at site 500 ft downstream at same datum.

AVERAGE DISCHARGE.--22 years, 950 ft³/s, 688,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,400 ft³/s, June 10, 1981, gage height, 9.16 ft, site then in use, at present datum; maximum gage height, 10.09 ft, Feb. 3, 1972 (backwater from ice), site then in use, at present datum; minimum daily discharge, 27 ft³/s, May 31, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,210 ft³/s, May 7, gage height, 8.41 ft; minimum daily, 115 ft³/s, Apr. 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	337	340	462	280	270	330	249	559	317	323	315	118
2	387	362	432	280	270	316	253	755	352	334	231	155
3	392	416	432	270	270	327	245	408	362	333	238	177
4	346	353	431	260	270	346	239	392	326	342	301	184
5	400	340	427	270	280	336	227	398	292	409	300	207
6	561	342	425	280	290	334	184	368	312	327	303	213
7	568	355	422	280	300	332	180	3160	246	304	266	188
8	578	390	413	280	300	319	118	1720	222	245	341	169
9	531	385	406	290	290	312	178	812	198	228	299	181
10	619	389	412	300	290	307	179	718	295	249	216	201
11	812	392	413	290	290	290	153	612	385	294	183	307
12	640	429	393	280	310	297	135	733	433	257	188	371
13	609	544	370	280	330	296	115	664	603	235	189	460
14	528	525	350	290	340	291	120	559	599	215	219	517
15	558	513	330	300	340	291	128	438	480	200	226	494
16	511	494	307	300	320	278	598	402	424	210	208	465
17	489	495	310	300	300	285	782	432	406	242	189	424
18	470	486	320	290	300	296	771	495	368	307	178	479
19	496	482	330	280	320	305	561	534	372	316	164	533
20	485	481	310	280	350	319	474	512	401	290	162	524
21	470	479	320	280	370	316	346	506	348	267	180	494
22	442	476	320	280	320	315	492	452	398	258	199	454
23	423	472	320	280	280	298	391	474	352	271	206	404
24	416	467	300	280	290	291	288	424	317	339	184	385
25	415	467	280	290	320	277	448	399	320	382	161	363
26	397	463	300	300	340	278	458	413	299	307	174	357
27	389	451	310	300	350	279	320	393	361	298	155	353
28	376	442	310	300	350	267	294	400	356	338	152	340
29	362	439	310	300	350	261	265	392	364	342	157	347
30	351	446	300	290	---	261	247	436	324	345	152	368
31	360	---	280	280	---	247	---	365	---	294	126	---
TOTAL	14718	13115	11045	8860	9000	9297	9438	19325	10832	9101	6562	10232
MEAN	475	437	356	286	310	300	315	623	361	294	212	341
MAX	812	544	462	300	370	346	782	3160	603	409	341	533
MIN	337	340	280	260	270	247	115	365	198	200	126	118
AC-FT	29190	26010	21910	17570	17850	18440	18720	38330	21490	18050	13020	20300
CAL YR 1987	TOTAL 198297		MEAN 543	MAX 3810	MIN 204	AC-FT 393300						

YELLOWSTONE RIVER BASIN

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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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT					
01...	1000	320	860	12.0	150
NOV					
04...	1400	342	1160	9.0	--
DEC					
16...	1100	307	1270	0.0	--
JAN					
27...	1300	306	1200	0.0	K5
MAR					
03...	0830	304	1260	3.0	--
APR					
05...	1600	208	1330	11.5	--
MAY					
18...	1000	465	1000	12.0	470
JUN					
15...	1300	523	800	29.0	--
JUL					
14...	1700	249	880	25.5	--
AUG					
24...	1500	177	980	20.0	220

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

YELLOWSTONE RIVER BASIN

06286200 SHOSHONE RIVER AT KANE, WY

LOCATION.--Lat 44°51'31", long 108°19'52", in NE1/4 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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 01...	1500	364	910	8.1	13.0	665	9.6
JAN 26...	1700	320	1330	8.2	0.0	675	13.2
MAY 17...	1830	475	1010	8.5	18.0	653	7.8
AUG 23...	1900	308	1350	8.5	18.0	675	8.2

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- PHOROUS TOTAL (MG/L AS P)
OCT 01...	105	270	1.0	0.06	0.54	0.6	0.03
JAN 26...	102	430	1.4	0.12	0.38	0.5	0.06
MAY 17...	97	1000	1.3	0.05	0.35	0.4	0.08
AUG 23...	98	800	--	--	--	--	--

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 the Montana 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, 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, 976,100 acre-ft, June 7, elevation, 3,633.24 ft; minimum, 792,500 acre-ft, Sept. 17, elevation, 3,610.83 ft.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,628.96	933,600	---
Oct. 31	3,632.89	972,400	+38,800
Nov. 30	3,630.18	945,200	-27,200
Dec. 31	3,625.69	904,100	-41,100
CAL YR 1987			+33,100
Jan. 31	3,620.58	862,100	-42,000
Feb. 29	3,618.39	845,300	-16,800
Mar. 31	3,617.71	840,300	-5,000
Apr. 30	3,616.56	831,800	-8,500
May 31	3,633.03	973,900	+142,100
June 30	3,630.85	951,800	-22,100
July 31	3,622.99	881,300	-70,500
Aug. 31	3,614.47	816,900	-64,400
Sept. 30	3,610.96	793,300	-23,600
WTR YR 1988			-140,300

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.

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. U.S. Bureau of Reclamation satellite telemeter at station.

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, 3,450 ft³/s, May 23, 26; minimum daily, 1,500 ft³/s, Oct. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1820	3030	3020	2740	2180	2400	2090	2420	3310	2610	2400	2200
2	1810	3020	2760	2740	2170	2390	2090	2420	3310	2610	2400	2200
3	1790	3020	2760	2740	2180	2380	2080	2410	3280	2610	2400	2190
4	1780	3030	2760	2740	2170	2390	2080	2410	3280	2610	2160	2190
5	1760	3030	2760	2740	2450	2370	2070	2410	3280	2620	2160	2180
6	1760	3030	2760	2740	2450	2370	2060	2420	3280	2620	2150	2170
7	1730	3020	2750	2750	2450	2380	2070	2450	3290	2620	2170	2170
8	1750	3030	2760	2770	2450	2380	2060	2440	3290	2630	2170	2110
9	1760	3030	2750	2770	2430	2380	2050	2450	3300	2630	2160	2060
10	1750	3020	2750	2760	2430	2380	2050	2880	3000	2630	2150	2050
11	1750	3030	2760	2770	2430	2380	2050	2900	2980	2640	2150	2050
12	1750	3040	2770	2770	2420	2370	2040	2880	2980	2650	2150	2040
13	1760	3020	2760	2760	2420	2370	2050	2890	2990	2650	2150	2040
14	1750	3030	2760	2510	2420	2370	2040	2890	2990	2650	2150	2030
15	1750	3030	2760	2470	2420	2370	2040	2900	2990	2660	2150	2020
16	1740	3040	2760	2460	2420	2370	2030	2900	3000	2660	2140	2020
17	1750	3030	2720	2460	2420	2360	2030	2890	2520	2410	2140	2010
18	1740	3020	2720	2460	2420	2360	2160	2890	2510	2410	2230	1900
19	1660	3030	2720	2460	2420	2360	2190	2910	2500	2420	2220	1840
20	1500	3030	2720	2460	2420	2360	2270	3300	2510	2410	2230	1780
21	3030	3030	2720	2470	2410	2350	2340	3300	2510	2420	2220	1770
22	3030	3030	2720	2490	2410	2350	2390	3300	2510	2440	2230	1770
23	3020	3030	2720	2490	2410	2350	2390	3310	2510	2420	2230	1770
24	3020	3020	2720	2500	2400	2350	2390	3300	2550	2410	2230	1760
25	3030	3030	2750	2490	2400	2350	2400	3290	2580	2410	2230	1760
26	3030	3030	2740	2490	2400	2100	2420	3320	2590	2410	2220	1750
27	3020	3030	2740	2490	2400	2080	2410	3310	2590	2410	2210	1730
28	3030	3030	2740	2470	2400	2070	2410	3310	2590	2410	2210	1720
29	3030	3040	2740	2480	2400	2080	2420	3320	2600	2410	2200	1720
30	3030	3030	2740	2190	---	2080	2420	3320	2600	2410	2210	1710
31	3030	---	2740	2180	---	2080	---	3310	---	2410	2210	---
TOTAL	68160	90860	85350	79810	69200	71730	65590	90450	86220	78310	68430	58710
MEAN	2199	3029	2753	2575	2386	2314	2186	2918	2874	2526	2207	1957
MAX	3030	3040	3020	2770	2450	2400	2420	3320	3310	2660	2400	2200
MIN	1500	3020	2720	2180	2170	2070	2030	2410	2500	2410	2140	1710
AC-FT	135200	180200	169300	158300	137300	142300	130100	179400	171000	155300	135700	116500
CAL YR 1987	TOTAL 998170		MEAN 2735	MAX 3930	MIN 1500	AC-FT 1980000						
WTR YR 1988	TOTAL 912820		MEAN 2494	MAX 3320	MIN 1500	AC-FT 1811000						

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.--49 years, 152 ft³/s, 110,100 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, 19 ft³/s, Mar. 29, 1987, result of ice jam upstream.

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)
May 17	2100	*1,240	*3.61	May 28	2300	1,140	3.49

Minimum discharge, 20 ft³/s, Feb. 1, result of ice jam upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	65	58	42	28	55	49	111	625	166	100	78
2	68	69	61	43	40	54	50	100	580	161	100	77
3	68	70	62	51	45	54	51	94	597	157	106	76
4	68	65	60	40	48	55	52	95	611	155	102	76
5	68	64	60	37	46	55	49	108	601	151	98	76
6	68	63	59	42	54	55	48	135	565	148	97	76
7	67	67	60	47	60	55	51	162	513	142	97	76
8	66	59	58	50	64	54	55	159	469	140	97	76
9	67	61	58	49	62	55	50	158	433	137	94	76
10	63	60	62	65	54	57	47	170	399	137	93	77
11	65	61	60	71	62	47	50	208	379	135	92	85
12	69	63	58	62	58	51	55	299	388	132	92	80
13	68	64	52	58	58	54	63	487	375	128	92	81
14	67	65	35	60	56	59	66	683	322	125	89	79
15	67	58	30	60	56	57	74	572	297	123	87	76
16	65	51	45	57	56	55	86	645	283	121	87	75
17	69	62	58	56	54	51	98	926	269	119	85	75
18	69	55	65	50	55	56	107	971	256	117	85	80
19	66	64	70	37	54	54	114	652	243	117	85	79
20	61	62	51	43	54	55	104	519	231	115	85	77
21	68	63	64	60	54	56	101	459	222	112	85	76
22	66	63	63	59	55	57	91	468	217	110	85	74
23	66	61	60	64	52	54	85	563	207	110	84	73
24	66	59	47	58	52	53	83	677	198	109	83	73
25	67	61	48	56	56	53	82	798	194	106	82	72
26	65	62	64	55	55	52	75	889	188	106	82	71
27	63	57	59	54	55	53	77	890	184	105	82	71
28	65	58	56	54	55	51	77	884	184	104	81	72
29	64	58	58	55	55	49	86	896	182	103	80	71
30	64	57	53	55	---	51	108	863	173	101	79	71
31	65	---	42	44	---	48	---	716	---	100	79	---
TOTAL	2056	1847	1736	1634	1553	1665	2184	15357	10385	3892	2765	2275
MEAN	66.3	61.6	56.0	52.7	53.6	53.7	72.8	495	346	126	89.2	75.8
MAX	69	70	70	71	64	59	114	971	625	166	106	85
MIN	61	51	30	37	28	47	47	94	173	100	79	71
AC-FT	4080	3660	3440	3240	3080	3300	4330	30460	20600	7720	5480	4510
CAL YR 1987	TOTAL 38239	MEAN 105	MAX 429	MIN 30	AC-FT 75850							
WTR YR 1988	TOTAL 47349	MEAN 129	MAX 971	MIN 28	AC-FT 93920							

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, 1987).

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. 17-19, Dec. 12 to Jan. 19, Jan. 28 to Mar. 8, and Mar. 10-12, 16, 17, 29-31. Records good except those prior to Mar. 13, 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, Jan. 1-7, 16, 17, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 5.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 12	0830	ice jam	*3.29	No other peak greater than base discharge.			
May 8	0600	*19	1.70				

Minimum daily discharge, 0.17 ft³/s, Jan. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.40	.38	.34	.19	.26	.53	5.0	3.4	.66	.35	.26
2	.54	.49	.45	.33	.20	.26	.58	4.9	3.0	.65	.35	.24
3	.56	.52	.48	.33	.21	.26	.71	5.0	2.6	.61	.39	.23
4	.54	.48	.49	.31	.20	.27	.73	5.2	2.5	.60	.42	.23
5	.54	.49	.50	.29	.19	.28	.68	5.4	2.6	.59	.37	.24
6	.54	.50	.50	.28	.21	.28	.81	6.0	2.2	.56	.33	.25
7	.52	.50	.48	.30	.23	.26	1.3	16	1.9	.57	.33	.25
8	.49	.48	.45	.29	.23	.27	1.9	18	1.9	.56	.34	.25
9	.49	.49	.43	.30	.22	.29	1.6	17	1.5	.53	.35	.26
10	.49	.48	.61	.33	.21	.26	1.5	17	1.4	.51	.33	.26
11	.54	.48	.63	.35	.23	.25	1.6	18	1.4	.52	.33	.48
12	.60	.49	.48	.34	.25	.25	1.9	17	1.5	.52	.32	.41
13	.60	.49	.33	.38	.26	.25	2.6	18	1.4	.52	.33	.43
14	.60	.52	.28	.42	.27	.25	3.0	16	1.2	.50	.33	.40
15	.60	.58	.27	.50	.27	.24	3.5	13	1.1	.49	.31	.35
16	.60	.45	.27	.48	.26	.22	4.2	12	1.1	.48	.32	.32
17	.54	.38	.28	.42	.25	.22	4.6	13	1.1	.47	.32	.28
18	.52	.34	.29	.38	.26	.23	4.4	14	1.0	.46	.30	.37
19	.49	.38	.32	.39	.28	.29	4.7	10	.98	.47	.30	.41
20	.49	.42	.35	.40	.30	.45	4.4	7.9	.94	.46	.30	.38
21	.49	.45	.39	.41	.29	.54	4.1	6.5	.92	.44	.30	.34
22	.49	.45	.38	.40	.28	.52	3.6	5.9	.89	.42	.30	.32
23	.44	.43	.37	.41	.26	.51	3.2	5.8	.87	.43	.29	.30
24	.44	.38	.35	.40	.25	.49	3.0	6.1	.84	.42	.27	.29
25	.44	.46	.33	.37	.26	.45	2.8	6.5	.81	.41	.26	.27
26	.44	.41	.37	.36	.27	.49	2.5	6.8	.79	.39	.26	.27
27	.40	.34	.38	.38	.28	.56	2.7	6.1	.81	.39	.27	.28
28	.40	.40	.39	.42	.27	.46	3.1	5.4	.81	.39	.27	.28
29	.47	.38	.39	.48	.27	.41	3.6	5.1	.79	.37	.27	.29
30	.40	.36	.37	.40	---	.45	4.3	4.6	.72	.36	.25	.30
31	.40	---	.36	.17	---	.48	---	4.0	---	.35	.25	---
TOTAL	15.64	13.42	12.35	11.36	7.15	10.70	78.14	301.2	42.97	15.10	9.71	9.24
MEAN	.50	.45	.40	.37	.25	.35	2.60	9.72	1.43	.49	.31	.31
MAX	.60	.58	.63	.50	.30	.56	4.7	18	3.4	.66	.42	.48
MIN	.40	.34	.27	.17	.19	.22	.53	4.0	.72	.35	.25	.23
AC-FT	31	27	24	23	14	21	155	597	85	30	19	18

WTR YR 1988 TOTAL 526.98 MEAN 1.44 MAX 18 MIN .17 AC-FT 1050

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.

DRAINAGE AREA.--15.4 mi².

PERIOD OF RECORD.--October 1982 to current year (no winter records water years 1985-87).

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.--Estimated daily discharges: Nov. 17, 18, 26-30, Dec. 1, 12-30, Jan. 8, 14, 18-22, 25, Feb. 2-4, 23-25, and Mar. 12-16. Records good except those for estimated daily discharges, which are poor. 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, 0.02 ft³/s, Jan. 7, 1988, result of channel blockage or diversion upstream.

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)
Mar. 20	1600	20	0.95	May 14	0130	66	1.78
May 7	1100	a*124	*2.57				

a From rating curve extended above 60 ft³/s on basis of culvert and flow-over-weir measurement of peak flow.

Minimum daily discharge, 0.02 ft³/s, Jan. 7, result of channel blockage or diversion upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.4	7.2	5.9	4.2	4.1	6.5	8.0	23	30	12	8.0	6.6
2	7.1	8.0	6.1	3.2	5.0	6.2	8.0	22	28	11	8.0	6.6
3	6.9	7.8	6.3	1.9	6.0	6.5	8.3	21	26	11	8.2	6.5
4	6.7	7.4	6.4	2.2	5.2	6.4	8.6	20	24	11	8.0	6.5
5	6.6	7.4	6.4	.96	5.3	6.5	8.2	22	23	11	7.8	6.6
6	6.6	7.2	6.4	.10	.05	6.7	8.2	24	22	11	7.7	6.6
7	6.5	7.2	6.4	.02	.06	6.3	9.1	70	21	10	7.7	6.5
8	6.4	7.2	6.4	.38	4.3	6.2	10	47	20	10	7.7	6.5
9	6.6	7.1	6.1	.61	4.8	6.4	10	42	18	10	7.6	6.4
10	6.3	6.9	6.3	4.9	1.6	6.3	10	44	18	10	7.5	6.4
11	6.4	6.9	5.9	5.3	2.4	4.9	10	47	17	10	7.4	7.9
12	6.3	6.9	5.4	3.5	8.6	6.0	11	50	18	10	7.6	7.1
13	6.2	6.9	4.8	3.9	7.7	5.6	12	56	17	9.5	7.6	7.2
14	6.2	7.2	4.7	5.4	6.2	6.0	12	63	16	9.2	7.5	6.9
15	6.3	7.2	4.5	7.1	5.9	5.7	14	57	16	9.3	7.2	6.7
16	6.2	6.6	4.4	6.2	5.6	5.6	15	53	15	9.0	7.2	6.6
17	6.1	6.3	4.6	5.8	5.5	6.1	16	55	15	8.8	7.2	6.6
18	6.1	5.9	4.8	5.0	5.4	6.8	17	58	14	8.9	7.1	7.3
19	6.2	6.6	5.0	4.6	5.4	8.7	18	50	14	9.0	7.0	7.4
20	6.3	6.8	5.2	5.2	6.8	13	18	44	14	8.9	7.0	7.0
21	6.7	6.9	5.2	6.5	8.2	9.8	18	40	13	8.7	7.1	6.7
22	7.1	6.9	5.2	6.4	6.0	9.4	18	38	14	8.8	7.0	6.6
23	7.2	6.8	5.1	5.8	5.5	8.3	17	38	13	8.8	6.9	6.6
24	7.1	6.6	4.9	5.5	5.4	7.6	17	38	13	8.7	6.9	6.7
25	7.0	6.5	5.1	5.3	6.2	7.2	18	39	13	8.4	7.0	6.7
26	6.9	6.3	5.4	5.6	7.2	7.4	18	40	12	8.4	7.0	6.7
27	6.9	6.1	5.4	5.8	7.2	7.9	21	39	12	8.5	6.8	6.7
28	6.9	6.0	5.2	5.8	6.9	7.3	18	37	13	8.5	6.7	6.7
29	7.0	5.8	4.9	5.8	6.9	7.2	17	36	12	8.4	6.6	6.7
30	6.9	5.6	4.7	5.4	---	7.9	19	35	12	8.0	6.5	6.5
31	7.0	---	4.2	3.3	---	7.7	---	33	---	8.0	6.5	---
TOTAL	206.1	204.2	167.3	131.67	155.41	220.1	412.4	1281	513	292.8	226.0	202.5
MEAN	6.65	6.81	5.40	4.25	5.36	7.10	13.7	41.3	17.1	9.45	7.29	6.75
MAX	7.4	8.0	6.4	7.1	8.6	13	21	70	30	12	8.2	7.9
MIN	6.1	5.6	4.2	.02	.05	4.9	8.0	20	12	8.0	6.5	6.4
AC-FT	409	405	332	261	308	437	818	2540	1020	581	448	402

WTR YR 1988 TOTAL 4012.48 MEAN 11.0 MAX 70 MIN .02 AC-FT 7960

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. 17, 18, 27, 29, 30, Dec. 1, Dec. 12 to Jan. 25, Jan. 31 to Feb. 4, Feb. 10-13, 23, 24, and Mar. 10-14, 28, 29, 31. 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.

AVERAGE DISCHARGE.--6 years, 14.2 ft³/s, 10,290 acre-ft/yr.

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, 1.7 ft³/s, Aug. 6, 7, 1988.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 25 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 7	1230	*105	*2.46	May 18	0800	94	2.31

Minimum daily discharge, 1.7 ft³/s, Aug. 6, 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	8.7	7.2	6.2	5.3	8.9	10	27	45	15	4.6	5.1
2	8.7	9.3	7.2	6.4	6.3	8.8	9.9	26	37	15	4.8	5.0
3	8.6	8.6	7.2	6.4	6.8	8.8	10	25	36	14	5.5	5.0
4	8.6	7.8	7.3	6.4	7.3	9.0	10	24	34	14	2.9	5.0
5	8.6	7.8	7.3	6.4	7.8	8.7	10	24	33	14	1.8	5.0
6	8.7	7.5	7.1	6.4	8.4	8.8	10	27	31	13	1.7	4.8
7	8.7	7.5	7.1	6.4	8.7	9.0	10	72	28	13	1.7	4.7
8	8.7	7.5	7.1	6.6	8.5	9.0	11	79	25	13	2.3	4.9
9	9.2	7.5	7.0	6.6	7.1	8.8	11	73	23	12	3.0	3.3
10	9.0	7.5	7.0	7.0	6.6	8.6	11	69	21	12	2.1	2.4
11	9.0	7.5	7.0	7.0	8.2	7.5	11	69	20	10	2.3	4.8
12	8.7	7.5	6.2	7.2	9.0	6.6	12	72	20	7.4	2.5	4.8
13	8.6	7.5	5.8	7.2	8.7	8.2	14	80	20	7.0	2.5	4.7
14	8.5	7.9	5.6	7.2	8.5	8.9	15	88	20	6.7	2.4	4.4
15	8.8	7.8	5.8	7.4	8.4	9.1	16	82	20	6.1	2.4	4.3
16	8.7	7.5	5.8	7.2	8.1	9.0	18	73	19	6.0	2.3	4.6
17	8.5	7.4	6.0	7.0	8.2	9.0	18	81	18	5.9	2.3	5.3
18	8.5	7.2	6.2	7.0	8.2	8.9	19	90	18	6.0	2.2	6.1
19	8.6	7.8	6.6	7.2	7.9	9.6	20	79	17	6.0	2.2	6.0
20	7.8	7.7	6.8	7.2	9.8	12	20	65	14	5.7	2.1	5.7
21	7.7	7.5	6.8	7.2	9.9	13	20	55	13	5.6	2.3	5.5
22	8.5	7.5	7.0	7.4	9.7	13	19	50	15	5.4	2.2	6.2
23	8.7	7.4	7.0	7.4	9.0	12	17	52	14	5.4	2.1	6.4
24	8.7	7.4	6.6	7.2	9.0	12	16	53	13	5.5	2.1	6.3
25	8.7	7.3	6.6	7.2	9.4	11	17	54	14	5.3	2.0	6.3
26	8.7	7.3	6.8	7.3	9.4	10	16	60	15	5.2	2.1	6.2
27	8.7	7.2	6.8	7.4	9.6	11	17	63	17	5.2	2.5	6.2
28	8.7	7.3	6.8	7.3	9.3	9.6	18	62	17	5.0	2.8	6.1
29	8.7	7.0	6.8	7.6	9.1	9.5	19	61	17	4.9	3.0	6.2
30	8.7	7.0	6.6	7.1	---	10	22	59	16	4.8	4.7	6.5
31	8.7	---	6.2	6.4	---	10	---	54	---	4.7	5.3	---
TOTAL	267.6	228.4	207.3	215.9	242.2	298.3	446.9	1848	650	258.8	84.7	157.8
MEAN	8.63	7.61	6.69	6.96	8.35	9.62	14.9	59.6	21.7	8.35	2.73	5.26
MAX	9.2	9.3	7.3	7.6	9.9	13	22	90	45	15	5.5	6.5
MIN	7.7	7.0	5.6	6.2	5.3	6.6	9.9	24	13	4.7	1.7	2.4
AC-FT	531	453	411	428	480	592	886	3670	1290	513	168	313

CAL YR 1987 TOTAL 3767.0 MEAN 10.3 MAX 36 MIN 2.5 AC-FT 7470
WTR YR 1988 TOTAL 4905.9 MEAN 13.4 MAX 90 MIN 1.7 AC-FT 9730

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 culvert 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 water years 1985-87).

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.--Estimated daily discharges: Nov. 17-19, 27, 29, 30, Dec. 1, Dec. 13 to Feb. 29, and Mar. 11-17. Records fair except those for estimated daily discharges, which are poor. 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 discharge during period of operation, 0.23 ft³/s, Aug. 8, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 247 ft³/s, May 7, gage height, 4.80 ft; minimum daily, 0.42 ft³/s, Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	1.1	2.6	1.6	1.2	5.4	4.7	14	5.0	2.2	4.1	.54
2	.53	1.4	3.0	1.3	1.3	4.3	4.9	15	4.7	3.8	2.7	.46
3	.50	1.6	3.0	1.5	1.5	3.7	5.1	14	4.3	3.8	2.2	.42
4	.48	1.5	3.0	1.5	1.3	3.6	5.3	13	4.4	.88	2.2	.43
5	1.0	1.4	3.1	1.4	1.1	3.4	5.4	12	4.5	1.9	2.1	.45
6	3.9	1.3	3.1	1.4	1.0	5.0	4.8	12	4.5	2.7	2.1	.44
7	5.0	1.3	3.2	1.4	.97	5.5	4.3	122	4.0	3.5	.63	.46
8	5.4	1.2	3.1	1.4	.92	4.4	4.6	146	3.1	2.9	.81	.49
9	5.5	1.1	2.3	1.5	.87	3.9	4.9	89	1.5	3.3	2.2	1.7
10	5.5	1.1	2.0	1.5	.83	4.3	4.6	56	1.6	2.5	1.6	4.3
11	5.4	1.1	1.9	1.6	.91	3.5	4.5	35	1.6	2.4	1.8	4.4
12	4.3	1.2	2.0	1.5	1.4	3.3	4.3	28	3.1	2.5	1.7	5.1
13	1.1	1.2	1.6	1.4	2.0	3.9	4.0	25	3.6	3.7	1.7	3.7
14	1.0	1.3	1.4	1.5	2.9	4.6	3.8	24	4.0	3.6	1.8	2.5
15	1.1	1.3	1.7	1.9	2.7	4.0	3.9	22	3.8	4.4	1.9	1.0
16	1.1	1.2	1.9	1.6	2.3	3.5	4.2	20	2.3	1.1	2.7	.83
17	1.1	1.2	2.0	1.5	2.0	4.0	4.6	19	1.5	1.1	2.5	.87
18	1.0	1.1	2.1	1.3	1.8	4.7	4.8	15	2.8	1.5	2.0	1.1
19	1.1	1.2	2.1	1.1	1.4	5.2	5.3	9.4	4.8	1.6	1.9	1.4
20	1.0	1.4	2.0	1.2	2.1	14	6.3	7.9	3.6	1.6	2.0	1.8
21	1.1	1.3	2.1	1.3	3.4	33	6.6	6.9	3.3	1.5	2.1	1.2
22	1.0	1.4	2.0	1.5	2.6	25	7.3	6.3	3.4	1.1	2.2	.82
23	1.0	1.3	1.9	1.5	2.0	19	8.0	6.0	3.0	1.3	2.1	.80
24	1.0	1.5	1.9	1.4	1.7	13	7.4	5.5	2.9	1.5	2.2	.75
25	1.0	2.3	1.8	1.5	2.2	9.1	7.4	5.8	2.5	1.8	2.6	.82
26	1.0	2.7	1.9	1.5	3.5	6.8	9.3	7.2	2.3	1.6	.69	.86
27	.99	2.7	2.0	1.9	4.5	7.0	14	6.1	2.6	1.2	.49	.89
28	.99	2.8	2.0	2.0	5.6	6.7	20	5.1	3.2	1.4	.46	1.5
29	1.0	2.7	2.0	2.1	5.8	5.4	17	6.1	2.4	2.5	.46	1.5
30	.99	2.7	2.0	1.9	---	5.0	13	5.6	2.9	3.1	.53	1.2
31	1.1	---	1.9	1.6	---	4.6	---	5.4	---	3.1	.59	---
TOTAL	57.69	46.6	68.6	47.3	61.80	228.8	204.3	764.3	97.2	71.08	55.06	42.73
MEAN	1.86	1.55	2.21	1.53	2.13	7.38	6.81	24.7	3.24	2.29	1.78	1.42
MAX	5.5	2.8	3.2	2.1	5.8	33	20	146	5.0	4.4	4.1	5.1
MIN	.48	1.1	1.4	1.1	.83	3.3	3.8	5.1	1.5	.88	.46	.42
AC-FT	114	92	136	94	123	454	405	1520	193	141	109	85

WTR YR 1988 TOTAL 1745.46 MEAN 4.77 MAX 146 MIN .42 AC-FT 3460

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. 10, 20, Nov. 15-19, 23-25, 27-30, Dec. 1, 8-22, 24, 25, 30, 31, Jan. 1-10, 18-23, 31, Feb. 1-6, 23, Mar. 8, 10-14, 16, 17, 25, 28-31, and Apr. 1, 9, 10, 26. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--5 years (water years 1983-85, 1987, 1988) 17.4 ft³/s, 12,610 acre-ft/yr.

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.--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)
May 17	2100	*207	*2.22	May 25	2300	201	2.13

Minimum daily discharge, 3.5 ft³/s, Jan. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	5.8	5.0	4.3	3.7	4.4	4.5	14	98	23	11	8.3
2	6.4	6.0	5.0	4.4	4.0	4.2	4.8	13	93	22	11	8.3
3	6.4	6.1	4.8	4.4	4.3	4.1	4.9	13	104	22	11	8.3
4	6.4	5.7	4.8	4.5	4.1	4.1	4.8	13	113	21	11	8.0
5	6.4	5.6	4.7	4.6	3.9	4.1	4.6	15	112	20	9.9	8.0
6	6.2	5.0	4.8	4.5	4.2	4.2	4.7	20	103	19	9.5	8.0
7	6.1	5.0	4.8	4.5	4.4	4.2	5.3	19	86	18	9.5	8.0
8	6.4	5.2	4.8	4.5	4.4	4.1	5.5	19	77	17	10	7.4
9	5.9	5.3	4.8	4.5	4.4	4.4	4.9	20	70	17	9.8	7.3
10	6.2	5.3	5.0	4.4	4.4	4.2	5.1	25	66	16	9.6	7.7
11	6.3	5.0	4.8	4.4	4.4	4.0	5.4	36	60	17	9.1	9.0
12	6.5	5.1	4.6	4.3	4.4	4.2	6.3	51	60	17	9.1	8.1
13	6.4	5.3	4.5	4.4	4.4	4.3	7.1	72	56	16	9.1	8.5
14	6.3	5.3	4.4	4.4	4.4	4.3	7.7	91	50	15	9.0	8.2
15	6.2	5.1	4.4	4.4	4.4	4.4	9.1	87	47	15	8.6	7.4
16	6.1	4.7	4.5	4.2	4.4	4.1	11	90	45	15	8.3	7.0
17	6.2	4.4	4.5	4.1	4.4	4.2	12	144	43	14	8.5	6.7
18	6.1	4.4	4.5	4.0	4.4	4.3	13	177	40	14	8.7	7.0
19	5.9	4.8	4.5	4.0	4.4	4.3	14	103	39	14	8.3	7.2
20	5.8	5.3	4.5	3.9	4.4	4.5	13	90	37	14	8.3	7.1
21	6.1	5.1	4.5	3.9	4.4	4.5	12	79	36	13	8.3	6.9
22	6.0	5.1	4.6	3.9	4.1	4.6	11	79	35	13	8.3	6.7
23	5.8	4.8	4.6	4.1	4.0	4.4	11	93	34	13	8.3	6.5
24	5.9	4.9	4.6	4.2	4.6	4.4	11	114	32	12	8.0	6.1
25	6.1	5.0	4.6	4.3	4.4	4.3	10	145	30	12	8.0	6.1
26	5.9	5.0	4.7	4.4	4.4	4.4	9.4	154	29	12	8.0	6.1
27	5.8	4.8	4.6	4.4	4.4	4.5	9.4	151	27	12	8.0	6.1
28	5.8	4.8	4.6	4.2	4.4	4.4	9.7	151	27	11	8.0	6.4
29	5.8	4.9	4.6	4.1	4.4	4.3	11	140	26	11	8.3	6.2
30	5.7	5.0	4.5	4.1	---	4.4	13	138	25	11	8.3	6.1
31	5.8	---	4.4	3.5	---	4.4	---	111	---	11	8.3	---
TOTAL	189.3	153.8	144.0	131.8	124.9	133.2	255.2	2467	1700	477	279.1	218.7
MEAN	6.11	5.13	4.65	4.25	4.31	4.30	8.51	79.6	56.7	15.4	9.00	7.29
MAX	6.5	6.1	5.0	4.6	4.6	4.6	14	177	113	23	11	9.0
MIN	5.7	4.4	4.4	3.5	3.7	4.0	4.5	13	25	11	8.0	6.1
AC-FT	375	305	286	261	248	264	506	4890	3370	946	554	434

CAL YR 1987 TOTAL 5470.0 MEAN 15.0 MAX 81 MIN 3.5 AC-FT 10850
WTR YR 1988 TOTAL 6274.0 MEAN 17.1 MAX 177 MIN 3.5 AC-FT 12440

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.

WATER-DISCHARGE RECORDS

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.--No estimated daily discharges. Records good. 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. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--59 years (water years 1919-29, 1941-88), 184 ft³/s, 133,300 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)
May 18	0100	*2,120	*5.26	May 26	0100	1,730	4.94

Minimum daily discharge, 27 ft³/s, Nov. 16 and Feb. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	66	52	51	27	45	43	266	773	183	72	50
2	69	73	55	52	42	41	48	203	731	170	72	50
3	68	81	57	54	49	40	52	175	722	160	78	49
4	67	73	58	51	51	42	51	184	765	153	81	49
5	67	64	58	52	51	40	46	244	737	149	71	49
6	67	58	57	52	54	42	47	341	678	140	65	48
7	67	75	57	53	52	40	53	267	573	134	64	47
8	67	53	54	52	48	40	62	224	508	127	68	46
9	70	52	51	51	45	45	51	242	463	123	63	47
10	58	53	56	50	44	42	46	285	431	121	59	46
11	63	56	53	44	46	32	57	367	399	124	58	66
12	77	61	51	44	45	28	71	576	389	116	57	68
13	83	71	47	44	44	39	90	1050	425	111	61	68
14	73	66	37	45	43	44	105	1410	361	106	57	70
15	70	49	43	46	44	46	140	1150	322	104	54	63
16	59	27	51	44	44	45	187	1270	301	106	56	59
17	69	44	59	44	40	41	243	1680	280	102	53	56
18	76	41	59	43	42	42	263	1660	262	101	51	62
19	64	55	56	38	43	45	262	995	244	104	49	72
20	48	63	53	41	43	48	222	768	231	102	49	69
21	66	60	54	46	42	48	222	723	225	97	51	66
22	67	58	56	44	37	45	180	753	226	92	57	61
23	65	53	56	45	37	44	160	919	215	90	50	59
24	66	50	52	45	40	44	151	1090	207	87	49	57
25	74	54	55	44	42	41	141	1230	201	85	48	56
26	68	59	55	45	43	44	115	1360	198	86	51	54
27	59	54	54	45	45	45	125	1280	193	86	52	54
28	65	51	53	45	45	40	126	1190	196	82	52	58
29	65	53	52	45	45	37	173	1190	309	79	52	57
30	61	52	52	45	---	43	262	1140	202	74	51	57
31	67	---	52	36	---	41	---	953	---	71	50	---
TOTAL	2074	1725	1655	1436	1273	1299	3794	25185	11767	3465	1801	1713
MEAN	66.9	57.5	53.4	46.3	43.9	41.9	126	812	392	112	58.1	57.1
MAX	83	81	59	54	54	48	263	1680	773	183	81	72
MIN	48	27	37	36	27	28	43	175	193	71	48	46
AC-FT	4110	3420	3280	2850	2520	2580	7530	49950	23340	6870	3570	3400
†	119	0	0	0	0	0	0	1060	1490	1530	1520	1020

ADJUSTED FOR DIVERSION BY HIGHLINE DITCH

MEAN	68.8	57.5	53.4	46.3	43.9	41.9	126	830	417	137	82.8	74.3
AC-FT	4230	3420	3280	2850	2520	2580	7530	51010	24830	8400	5090	4420

UNADJUSTED

ADJUSTED

CAL YR 1987	TOTAL 42185	MEAN 116	MAX 618	MIN 27	AC-FT 83670	MEAN 125	AC-FT 90680
WTR YR 1988	TOTAL 57187	MEAN 156	MAX 1680	MIN 27	AC-FT 113400	MEAN 166	AC-FT 120200

† Diversion, in acre-ft, upstream from station by Highline Ditch.

YELLOWSTONE RIVER BASIN

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967-81, October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
MAY 24...	1040	980	8.0	<0.1	0.01	0.69	0.7	0.03
JUN 28...	1100	191	17.0	<0.1	0.01	--	<0.2	0.02

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 discharge. Records good. No diversion upstream from station.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the 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 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)
May 17	2100	241	2.65	May 29	2130	*244	*2.66

Minimum daily discharge during period of operation, 5.7 ft³/s, Sept. 6-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	5.9	45	168	32	10	6.2
2	---	---	---	---	---	---	6.4	42	156	30	9.9	6.2
3	---	---	---	---	---	---	7.6	40	156	29	12	6.2
4	---	---	---	---	---	---	7.6	40	158	28	12	5.9
5	---	---	---	---	---	---	6.7	45	154	26	10	5.9
6	---	---	---	---	---	---	7.3	51	140	25	9.6	5.7
7	---	---	---	---	---	---	9.6	60	117	24	9.2	5.7
8	---	---	---	---	---	---	11	55	99	24	9.9	5.7
9	---	---	---	---	---	---	8.6	54	87	23	8.9	5.7
10	---	---	---	---	---	---	7.3	61	81	23	8.6	5.7
11	---	---	---	---	---	---	9.6	70	75	24	8.1	7.3
12	---	---	---	---	---	---	14	91	75	22	8.3	8.3
13	---	---	---	---	---	---	17	134	84	20	8.6	8.3
14	---	---	---	---	---	---	19	168	71	19	8.3	8.9
15	---	---	---	---	---	---	22	168	64	18	8.0	8.0
16	---	---	---	---	---	---	26	178	59	18	8.0	7.8
17	---	---	---	---	---	---	29	212	55	17	7.6	7.3
18	---	---	---	---	---	---	31	229	51	17	7.3	7.6
19	---	---	---	---	---	---	34	195	48	17	7.0	9.2
20	---	---	---	---	---	---	34	166	45	16	6.7	8.9
21	---	---	---	---	---	---	35	158	43	15	6.7	8.6
22	---	---	---	---	---	---	33	148	44	15	6.7	8.3
23	---	---	---	---	---	---	31	154	40	14	6.9	8.0
24	---	---	---	---	---	---	31	168	37	13	6.7	7.3
25	---	---	---	---	---	---	30	184	36	12	6.7	7.0
26	---	---	---	---	---	---	29	202	36	12	6.7	6.7
27	---	---	---	---	---	---	29	215	34	12	6.7	7.0
28	---	---	---	---	---	---	29	212	35	12	6.7	7.0
29	---	---	---	---	---	---	36	217	47	11	6.7	7.0
30	---	---	---	---	---	---	42	220	35	11	6.4	7.0
31	---	---	---	---	---	---	---	186	---	10	6.4	---
TOTAL	---	---	---	---	---	---	638.6	4168	2330	589	251.3	214.4
MEAN	---	---	---	---	---	---	21.3	134	77.7	19.0	8.11	7.15
MAX	---	---	---	---	---	---	42	229	168	32	12	9.2
MIN	---	---	---	---	---	---	5.9	40	34	10	6.4	5.7
AC-FT	---	---	---	---	---	---	1270	8270	4620	1170	498	425

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: June 7-9. Records good 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 the 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, 417 ft³/s, May 27, gage height, 5.13 ft; minimum daily during period of operation, 2.3 ft³/s, Aug. 28-31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	24	146	35	4.1	2.4
2	---	---	---	---	---	---	---	22	159	29	4.2	2.5
3	---	---	---	---	---	---	---	17	204	26	5.4	2.8
4	---	---	---	---	---	---	---	16	262	24	6.2	2.9
5	---	---	---	---	---	---	---	21	295	23	5.4	2.9
6	---	---	---	---	---	---	---	27	274	21	4.7	3.0
7	---	---	---	---	---	---	---	27	210	19	4.3	3.2
8	---	---	---	---	---	---	---	30	140	17	4.5	3.4
9	---	---	---	---	---	---	---	25	120	16	4.0	3.6
10	---	---	---	---	---	---	---	25	111	14	3.7	4.1
11	---	---	---	---	---	---	---	33	107	14	3.6	7.5
12	---	---	---	---	---	---	---	61	100	13	3.9	8.6
13	---	---	---	---	---	---	---	111	112	12	4.1	8.2
14	---	---	---	---	---	---	---	174	83	11	3.9	8.0
15	---	---	---	---	---	---	---	120	74	10	4.2	7.5
16	---	---	---	---	---	---	---	160	73	10	4.2	6.9
17	---	---	---	---	---	---	---	284	74	9.7	4.0	6.2
18	---	---	---	---	---	---	---	273	70	9.2	3.7	6.1
19	---	---	---	---	---	---	---	137	67	9.2	3.4	7.1
20	---	---	---	---	---	---	---	91	63	8.7	3.3	7.1
21	---	---	---	---	---	---	---	78	61	7.5	3.4	6.7
22	---	---	---	---	---	---	---	73	56	6.9	2.9	6.7
23	---	---	---	---	---	---	---	100	54	6.6	2.8	6.5
24	---	---	---	---	---	---	---	157	50	6.0	2.7	6.6
25	---	---	---	---	---	---	---	227	46	5.6	2.7	6.7
26	---	---	---	---	---	---	---	292	44	5.6	2.5	6.7
27	---	---	---	---	---	---	---	297	41	5.4	2.8	6.7
28	---	---	---	---	---	---	---	276	39	5.3	2.3	7.1
29	---	---	---	---	---	---	---	296	56	5.0	2.3	7.5
30	---	---	---	---	---	---	---	309	45	4.4	2.3	7.6
31	---	---	---	---	---	---	---	222	---	4.1	2.3	---
TOTAL	---	---	---	---	---	---	---	4005	3236	393.2	113.8	172.8
MEAN	---	---	---	---	---	---	---	129	108	12.7	3.67	5.76
MAX	---	---	---	---	---	---	---	309	295	35	6.2	8.6
MIN	---	---	---	---	---	---	---	16	39	4.1	2.3	2.4
AC-FT	---	---	---	---	---	---	---	7940	6420	780	226	343

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: July 22 to Aug. 24 and Sept. 27-30. Records good 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 the 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, 422 ft³/s, May 27, gage height, 3.94 ft; minimum daily during period of operation, 2.7 ft³/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	5.1	191	70	32	7.6
2	---	---	---	---	---	---	---	4.5	191	58	32	5.9
3	---	---	---	---	---	---	---	4.2	221	46	31	3.8
4	---	---	---	---	---	---	---	4.2	296	38	29	3.5
5	---	---	---	---	---	---	---	5.4	332	33	25	3.3
6	---	---	---	---	---	---	---	4.9	317	34	26	3.1
7	---	---	---	---	---	---	---	5.4	236	33	26	2.9
8	---	---	---	---	---	---	---	4.6	183	33	27	2.9
9	---	---	---	---	---	---	---	4.8	154	42	30	2.8
10	---	---	---	---	---	---	---	5.7	130	43	33	2.7
11	---	---	---	---	---	---	---	7.6	88	43	37	3.6
12	---	---	---	---	---	---	---	10	68	43	38	4.4
13	---	---	---	---	---	---	---	13	126	43	36	4.6
14	---	---	---	---	---	---	---	13	109	42	34	4.8
15	---	---	---	---	---	---	---	90	93	42	31	4.8
16	---	---	---	---	---	---	---	189	85	45	27	4.6
17	---	---	---	---	---	---	---	329	82	53	20	4.5
18	---	---	---	---	---	---	---	327	78	52	21	4.8
19	---	---	---	---	---	---	---	181	75	50	22	5.4
20	---	---	---	---	---	---	---	110	71	48	24	5.3
21	---	---	---	---	---	---	---	84	68	38	23	11
22	---	---	---	---	---	---	---	76	65	30	22	4.8
23	---	---	---	---	---	---	---	99	58	33	21	4.6
24	---	---	---	---	---	---	---	181	46	36	20	4.2
25	---	---	---	---	---	---	---	275	46	39	17	4.2
26	---	---	---	---	---	---	---	337	44	34	15	3.8
27	---	---	---	---	---	---	---	360	43	30	14	4.1
28	---	---	---	---	---	---	---	329	63	31	13	4.2
29	---	---	---	---	---	---	---	345	152	32	12	4.2
30	---	---	---	---	---	---	---	329	94	32	9.5	4.1
31	---	---	---	---	---	---	---	287	---	32	7.9	---
TOTAL	---	---	---	---	---	---	---	4020.4	3805	1258	755.4	134.5
MEAN	---	---	---	---	---	---	---	130	127	40.6	24.4	4.48
MAX	---	---	---	---	---	---	---	360	332	70	38	11
MIN	---	---	---	---	---	---	---	4.2	43	30	7.9	2.7
AC-FT	---	---	---	---	---	---	---	7970	7550	2500	1500	267

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.

WATER-DISCHARGE RECORDS

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: June 15-26 and Sept. 12-15, 19-30. Records good except those for estimated daily discharges, which are poor. 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 the 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, 897 ft³/s, May 31, gage height, 3.81 ft; minimum daily during period of operation, 13 ft³/s, Sept. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	20	79	550	67	28	25
2	---	---	---	---	---	---	22	74	445	44	30	31
3	---	---	---	---	---	---	24	72	358	30	30	36
4	---	---	---	---	---	---	24	64	449	27	23	34
5	---	---	---	---	---	---	23	76	605	20	21	31
6	---	---	---	---	---	---	23	85	664	22	24	26
7	---	---	---	---	---	---	28	102	610	36	24	28
8	---	---	---	---	---	---	29	95	423	22	25	32
9	---	---	---	---	---	---	24	97	283	23	21	28
10	---	---	---	---	---	---	23	111	229	28	24	24
11	---	---	---	---	---	---	26	137	201	25	34	25
12	---	---	---	---	---	---	35	180	118	23	32	27
13	---	---	---	---	---	---	43	216	148	23	30	25
14	---	---	---	---	---	---	44	234	197	25	20	22
15	---	---	---	---	---	---	56	227	180	21	20	20
16	---	---	---	---	---	---	67	358	170	20	19	18
17	---	---	---	---	---	---	72	476	160	27	19	18
18	---	---	---	---	---	---	65	600	140	29	18	19
19	---	---	---	---	---	---	70	445	120	29	20	16
20	---	---	---	---	---	---	66	311	120	29	23	13
21	---	---	---	---	---	---	74	251	110	22	22	15
22	---	---	---	---	---	---	62	220	100	21	20	20
23	---	---	---	---	---	---	56	214	98	25	17	18
24	---	---	---	---	---	---	60	272	90	26	16	18
25	---	---	---	---	---	---	60	367	70	31	18	18
26	---	---	---	---	---	---	51	463	50	27	21	21
27	---	---	---	---	---	---	52	542	32	22	19	22
28	---	---	---	---	---	---	60	532	35	22	19	22
29	---	---	---	---	---	---	69	577	179	24	22	22
30	---	---	---	---	---	---	77	730	118	24	25	22
31	---	---	---	---	---	---	---	820	---	24	22	---
TOTAL	---	---	---	---	---	---	1405	9027	7052	838	706	696
MEAN	---	---	---	---	---	---	46.8	291	235	27.0	22.8	23.2
MAX	---	---	---	---	---	---	77	820	664	67	34	36
MIN	---	---	---	---	---	---	20	64	32	20	16	13
AC-FT	---	---	---	---	---	---	2790	17910	13990	1660	1400	1380

06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
MAY 23...	1630	210	20.0	<0.1	0.02	0.28	0.3	0.02
JUN 27...	1640	26	19.0	<0.1	0.02	0.28	0.3	0.02

YELLOWSTONE RIVER BASIN

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.--Estimated daily discharges: Apr. 1-3, May 21-24, and Sept. 25-30. Records good except those for estimated daily discharges, which are poor. 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 the 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, 445 ft³/s, May 30, gage height, 4.10 ft; minimum daily during period of operation, 10 ft³/s, Apr. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	10	106	265	110	92	45
2	---	---	---	---	---	---	11	101	255	100	92	46
3	---	---	---	---	---	---	12	98	265	96	96	47
4	---	---	---	---	---	---	13	100	272	108	94	47
5	---	---	---	---	---	---	13	108	267	123	91	48
6	---	---	---	---	---	---	14	124	242	112	88	48
7	---	---	---	---	---	---	19	149	210	112	85	45
8	---	---	---	---	---	---	24	140	215	115	81	38
9	---	---	---	---	---	---	19	134	213	119	70	35
10	---	---	---	---	---	---	17	149	203	121	68	35
11	---	---	---	---	---	---	19	186	183	122	66	42
12	---	---	---	---	---	---	27	241	181	123	66	39
13	---	---	---	---	---	---	36	314	188	121	66	37
14	---	---	---	---	---	---	44	370	170	113	64	36
15	---	---	---	---	---	---	56	349	149	108	63	31
16	---	---	---	---	---	---	69	339	129	103	62	29
17	---	---	---	---	---	---	75	384	113	102	61	29
18	---	---	---	---	---	---	75	407	104	108	58	30
19	---	---	---	---	---	---	79	318	103	123	58	31
20	---	---	---	---	---	---	79	269	109	126	61	28
21	---	---	---	---	---	---	89	240	101	122	60	26
22	---	---	---	---	---	---	81	220	92	117	58	23
23	---	---	---	---	---	---	78	200	89	115	53	23
24	---	---	---	---	---	---	75	240	88	116	48	24
25	---	---	---	---	---	---	72	276	97	116	47	21
26	---	---	---	---	---	---	68	303	98	114	45	21
27	---	---	---	---	---	---	66	339	100	112	43	21
28	---	---	---	---	---	---	68	331	114	106	43	21
29	---	---	---	---	---	---	78	346	125	102	43	22
30	---	---	---	---	---	---	95	390	118	95	41	23
31	---	---	---	---	---	---	---	297	---	93	42	---
TOTAL	---	---	---	---	---	---	1481	7568	4858	3473	2005	991
MEAN	---	---	---	---	---	---	49.4	244	162	112	64.7	33.0
MAX	---	---	---	---	---	---	95	407	272	126	96	48
MIN	---	---	---	---	---	---	10	98	88	93	41	21
AC-FT	---	---	---	---	---	---	2940	15010	9640	6890	3980	1970

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (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 05...	1800	34	750	8.4	13.5	660	13.4	149	60
JAN 26...	1115	29	670	8.1	0.5	670	13.4	106	48
MAY 23...	1300	200	180	8.4	13.0	670	10.2	110	52
JUL 28...	0715	12	795	7.9	17.5	660	7.7	93	1100

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 08...	1410	32	12.0	<0.01	0.07	<0.01	<0.01	<0.01	<0.01
MAY 23...	1300	200	13.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
JUN 23...	1215	9.3	26.0	0.09	0.14	0.02	<0.01	<0.01	<0.01
JUL 28...	0715	12	17.5	0.03	0.10	0.05	<0.01	<0.01	<0.01
AUG 31...	1230	11	22.0	0.01	0.11	0.04	<0.01	<0.01	<0.01
SEP 24...	1630	24	17.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

06305500 GOOSE CREEK BELOW SHERIDAN, WY

LOCATION.--Lat 44°49'25", long 106°57'40", in SE1/4 SW1/4 sec.15, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, 700 ft north of Sheridan city limits and 0.2 mi downstream from Soldier Creek.

DRAINAGE AREA.--392 mi².

PERIOD OF RECORD.--Water years 1959-65, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 05...	1620	82	730	8.6	14.0	660	11.5
JAN 26...	1330	70	650	8.0	1.0	670	14.2
MAY 24...	1800	460	180	8.1	15.0	660	8.5
JUL 27...	1505	6.6	800	8.6	23.0	657	13.4

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- PHOROUS TOTAL (MG/L AS P)
OCT 05...	129	250	0.5	0.02	0.38	0.4	0.38
JAN 26...	114	340	0.4	0.26	0.34	0.6	0.28
MAY 24...	98	160	<0.1	0.03	0.37	0.4	0.06
JUL 27...	183	870	0.2	0.03	0.87	0.9	<0.01

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. 17-19, Nov. 27 to Dec. 2, and Dec. 12 to Mar. 6. 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, 8.4 ft³/s, Aug. 26, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,070 ft³/s, May 18, gage height, 4.88 ft; minimum daily, 8.4 ft³/s, Aug. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	93	86	50	49	87	81	261	727	79	14	13
2	85	112	91	52	45	80	79	247	543	48	16	10
3	90	141	99	50	47	76	81	235	439	35	18	11
4	87	120	96	49	46	74	87	216	462	30	28	13
5	83	114	95	50	44	77	90	219	563	25	31	16
6	82	108	92	49	47	85	82	251	647	22	23	18
7	87	103	89	50	48	91	84	499	613	16	20	16
8	100	101	90	48	47	81	92	473	415	16	19	18
9	108	101	83	47	45	86	98	355	288	20	18	20
10	117	100	88	50	46	102	89	343	239	20	14	22
11	119	98	88	55	50	83	86	372	193	17	12	30
12	118	99	70	52	54	75	90	439	127	18	10	40
13	112	101	66	48	55	81	106	541	168	16	16	47
14	99	104	62	50	54	89	117	651	209	13	21	50
15	101	110	59	54	53	89	129	636	162	12	17	46
16	103	95	60	53	53	82	154	688	126	12	15	41
17	104	85	62	50	52	75	171	809	104	12	16	36
18	98	81	63	47	51	83	172	958	86	11	14	36
19	100	100	60	48	56	93	168	926	72	16	13	45
20	100	111	58	49	65	110	173	696	69	19	12	51
21	96	104	60	52	74	126	195	569	65	15	11	50
22	98	101	61	52	68	113	212	473	61	16	12	46
23	97	96	58	50	64	104	190	432	52	13	10	45
24	96	95	56	48	61	99	185	414	44	16	12	46
25	97	92	58	50	73	90	221	480	33	18	10	42
26	96	99	59	50	83	87	189	539	30	20	8.4	39
27	96	88	58	50	95	89	189	619	30	15	10	38
28	94	85	56	54	102	90	184	658	25	15	13	38
29	93	85	54	58	94	77	185	678	52	14	15	38
30	92	85	52	62	---	81	209	712	128	13	19	39
31	93	---	52	63	---	78	---	874	---	11	17	---
TOTAL	3037	3007	2181	1590	1721	2733	4188	16263	6772	623	484.4	1000
MEAN	98.0	100	70.4	51.3	59.3	88.2	140	525	226	20.1	15.6	33.3
MAX	119	141	99	63	102	126	221	958	727	79	31	51
MIN	82	81	52	47	44	74	79	216	25	11	8.4	10
AC-FT	6020	5960	4330	3150	3410	5420	8310	32260	13430	1240	961	1980

CAL YR 1987 TOTAL 45090 MEAN 124 MAX 572 MIN 52 AC-FT 89440
WTR YR 1988 TOTAL 43599.4 MEAN 119 MAX 958 MIN 8.4 AC-FT 86480

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
OCT 05...	1420	84	14.0	<0.1	0.01	0.59	0.6	0.18
JAN 27...	0845	52	0.0	0.4	0.24	0.36	0.6	0.23
MAY 24...	1420	440	15.0	<0.1	0.02	0.68	0.7	0.06
JUL 28...	0930	14	20.0	<0.1	0.01	1.2	1.2	0.29

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1330	8.7	27.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
JUL 16...	0945	6.4	18.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 24...	1800	34	16.0	<0.01	0.01	0.02	<0.01	<0.01	<0.01

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. 18 to Mar. 17. 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.--28 years, 475 ft³/s, 344,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,500 ft³/s, May 12, 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)
May 18	1830	*3,130	*7.18	May 27	1830	2,560	6.54

Minimum discharge, 33 ft³/s, Aug. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	268	222	e140	e60	e110	e220	179	591	1880	310	44	59
2	255	232	e160	e65	e70	e200	180	606	1530	246	47	58
3	244	280	e170	e60	e85	e190	184	534	1380	204	52	50
4	243	291	e170	e55	e90	e200	193	489	1370	178	59	47
5	231	264	e180	e50	e90	e200	211	476	1470	159	70	43
6	227	249	e180	e55	e80	e190	201	581	1540	153	70	48
7	225	239	e190	e60	e80	e200	194	866	1430	137	64	54
8	234	241	e170	e45	e100	e200	198	1320	1150	130	66	52
9	253	228	e150	e50	e110	e220	221	998	923	119	71	53
10	264	217	e170	e55	e100	e240	210	849	791	111	76	66
11	262	219	e130	e60	e85	e250	194	850	705	111	74	79
12	267	219	e100	e55	e100	e200	197	1010	621	116	65	102
13	275	224	e80	e50	e120	e200	210	1380	612	111	61	126
14	265	236	e65	e70	e110	e210	243	1990	717	86	66	143
15	249	240	e70	e160	e110	e220	265	2140	622	72	73	148
16	252	229	e70	e130	e110	e230	322	2030	542	60	72	142
17	242	199	e75	e100	e110	e240	395	2370	493	47	62	128
18	242	e190	e80	e90	e100	196	462	2810	435	47	58	122
19	246	e170	e75	e100	e110	208	483	2710	387	48	54	138
20	241	e190	e70	e110	e120	249	489	1990	360	45	51	167
21	228	e180	e80	e130	e150	298	479	1680	334	51	51	174
22	233	e180	e75	e150	e170	315	528	1530	314	48	52	166
23	238	e170	e70	e130	e160	286	474	1540	310	49	49	157
24	231	e170	e60	e110	e140	264	437	1670	287	47	54	152
25	227	e170	e70	e120	e150	248	450	1870	264	49	53	148
26	235	e150	e80	e130	e160	220	458	2100	236	54	53	142
27	230	e150	e75	e150	e180	216	413	2270	236	49	50	136
28	223	e160	e70	e160	e200	223	416	2210	223	46	39	138
29	223	e150	e65	e180	e210	211	398	2160	229	40	44	142
30	223	e150	e60	e160	---	185	454	2110	384	40	51	142
31	218	---	e55	e140	---	197	---	2270	---	43	57	---
TOTAL	7494	6209	3255	3040	3510	6926	9738	48000	21775	3006	1808	3322
MEAN	242	207	105	98.1	121	223	325	1548	726	97.0	58.3	111
MAX	275	291	190	180	210	315	528	2810	1880	310	76	174
MIN	218	150	55	45	70	185	179	476	223	40	39	43
AC-FT	14860	12320	6460	6030	6960	13740	19320	95210	43190	5960	3590	6590

CAL YR 1987 TOTAL 113139 MEAN 310 MAX 1040 MIN 55 AC-FT 224400
WTR YR 1988 TOTAL 118083 MEAN 323 MAX 2810 MIN 39 AC-FT 234200

e Estimated

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1965 to September 1976, November 1980 to December 1986.

WATER TEMPERATURE: October 1965 to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (water years 1966-76, 1981-87): Maximum daily, 1,490 microsiemens, Aug. 12, 1966, Jan. 11, 1972; minimum daily, 192 microsiemens, June 7, 1976.

WATER TEMPERATURE (water years 1966-76): Maximum, 30.5°C, July 16, 1966; minimum, 0.0°C on many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (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 03...	0945	272	232	8.0	7.5	--	--	--	--
DEC 15...	1530	64	680	-5.0	0.0	660	13.2	105	K2
JAN 26...	0930	130	659	2.0	0.0	--	--	--	--
MAR 07...	1700	271	710	10.0	2.0	680	11.8	96	K2
08...	0850	196	769	4.0	0.0	--	--	--	--
APR 18...	1400	453	439	15.0	14.5	--	--	--	--
MAY 18...	1340	2910	180	11.0	12.5	--	--	--	--
24...	1600	1850	220	28.0	16.0	660	8.9	104	200
JUN 10...	0745	813	272	--	17.5	--	--	--	--
23...	1500	302	--	39.0	26.0	--	--	--	--
JUL 11...	1350	108	798	33.0	25.5	--	--	--	--
28...	1045	48	805	28.5	23.0	667	7.8	105	63
AUG 23...	1340	48	980	23.0	20.0	--	--	--	--
SEP 24...	1930	159	--	19.0	16.0	--	--	--	--

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

DATE	TIME	PH (STAND- ARD UNITS)	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- PHOROUS TOTAL (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)
DEC 15...	1530	8.5	<0.1	<0.01	--	<0.2	0.09	<1
MAR 07...	1700	8.2	0.3	0.14	0.36	0.5	0.10	<1
MAY 24...	1600	8.1	<0.1	0.04	0.66	0.7	0.10	<1
JUL 28...	1045	8.3	<0.1	0.02	0.88	0.9	0.05	1

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, 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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)
DEC 15...	100	<1	<1	20	<5	0.2	<1	<1.0
MAR 07...	100	1	<1	20	<5	<0.1	<1	<1.0
MAY 24...	<100	1	1	50	<5	0.2	<1	<1.0
JUL 28...	64	<1	<1	5	<5	<0.1	<1	<1.0

DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
JUN 23...	1500	0.01	0.03	<0.01	0.03	<0.01	<0.01
JUL 28...	1045	0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 24...	1930	<0.01	0.03	<0.01	<0.01	<0.01	<0.01

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: Oct. 25-27, Oct. 31 to Dec. 6, Dec. 8, 9, 12-20, Mar. 11-17, 25, 28-30, and Apr. 1. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--27 years, 30.8 ft³/s, 22,310 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)
May 17	1900	*508	*8.14	No other peak greater than base discharge.			
Minimum daily discharge, 3.7 ft ³ /s, Jan. 23 to Feb. 2.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	5.2	5.0	4.8	3.7	4.3	5.3	132	77	12	7.6	5.3
2	5.3	6.4	5.4	4.6	3.7	4.2	5.8	102	69	12	7.7	5.4
3	5.3	6.4	5.8	4.6	3.9	4.0	7.3	90	65	11	8.8	5.3
4	5.6	5.8	5.6	4.6	4.4	4.0	9.4	93	61	12	9.7	5.3
5	5.6	5.6	5.4	4.6	4.7	4.0	11	128	57	12	7.9	5.4
6	5.6	5.4	5.4	4.6	5.1	4.0	11	146	52	11	7.5	5.6
7	5.6	5.6	5.3	4.6	5.3	4.1	16	81	44	11	7.5	5.5
8	5.6	5.1	5.0	4.6	5.3	4.4	15	107	40	10	7.7	5.4
9	5.9	5.2	5.6	4.6	5.3	4.6	13	99	37	10	7.1	5.3
10	5.9	5.5	6.5	4.6	5.0	4.5	12	111	34	11	6.4	5.9
11	5.3	5.4	6.0	4.6	4.4	3.9	11	140	32	10	6.4	10
12	5.4	5.6	5.4	4.6	4.3	4.3	17	202	31	9.6	6.4	6.9
13	5.6	5.4	5.0	4.6	4.5	4.9	25	312	29	9.1	6.5	6.7
14	5.7	5.2	4.7	4.4	4.0	4.7	32	376	26	9.3	6.1	6.7
15	5.9	5.0	4.8	4.3	4.2	4.5	41	334	24	9.1	6.1	6.5
16	5.9	4.8	4.8	4.3	4.3	4.4	51	336	23	9.6	6.2	6.1
17	5.9	5.0	4.8	4.3	4.3	4.3	62	384	21	9.8	6.1	5.9
18	5.9	5.0	4.9	4.3	4.3	4.2	79	324	20	9.0	6.0	6.4
19	5.9	5.1	4.9	4.3	4.3	4.1	89	236	18	10	5.9	7.9
20	5.7	5.4	4.9	4.3	4.2	4.6	92	190	17	9.3	5.9	7.3
21	5.8	5.2	4.9	4.3	4.0	5.3	94	170	17	8.8	5.9	6.5
22	5.6	5.0	4.9	4.0	4.0	5.3	81	160	17	8.4	5.9	6.3
23	5.5	4.9	4.9	3.7	4.0	5.3	71	160	16	8.3	5.9	6.1
24	5.6	5.1	4.9	3.7	4.0	5.3	65	159	15	8.1	5.8	5.9
25	5.6	4.9	4.9	3.7	4.0	5.1	57	156	14	8.1	5.6	5.8
26	5.5	4.7	4.9	3.7	4.0	5.4	51	150	14	9.0	5.8	5.6
27	5.4	4.8	4.9	3.7	4.1	6.3	49	139	22	8.6	5.8	5.6
28	5.3	4.6	4.9	3.7	4.3	5.9	54	125	19	8.0	5.7	6.3
29	5.0	4.6	4.9	3.7	4.3	5.5	79	116	17	8.0	5.7	5.9
30	4.9	4.6	4.9	3.7	---	5.2	122	108	14	7.7	5.7	5.9
31	4.9	---	4.9	3.7	---	5.3	---	88	---	7.5	5.5	---
TOTAL	172.0	156.5	159.1	131.8	125.9	145.9	1327.8	5454	942	297.3	202.8	184.7
MEAN	5.55	5.22	5.13	4.25	4.34	4.71	44.3	176	31.4	9.59	6.54	6.16
MAX	5.9	6.4	6.5	4.8	5.3	6.3	122	384	77	12	9.7	10
MIN	4.9	4.6	4.7	3.7	3.7	3.9	5.3	81	14	7.5	5.5	5.3
AC-FT	341	310	316	261	250	289	2630	10820	1870	590	402	366

CAL YR 1987 TOTAL 8318.2 MEAN 22.8 MAX 384 MIN 4.5 AC-FT 16500
WTR YR 1988 TOTAL 9299.8 MEAN 25.4 MAX 384 MIN 3.7 AC-FT 18450

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: Dec. 13-15, 20, 21, 25-31, Jan. 1-7, 11, 22, 25, Feb. 11, 12, 17, 22, Mar. 4, 7, 10-13, 19, 20, 29, Apr. 10, and May 7-9. Records good above 5 ft³/s and fair below. No diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 6.80 ft³/s, 4,930 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 8	1015	ice jam	*2.15	No other peak greater than base discharge.			
May 13	1630	*62	2.00				

Minimum daily discharge, 1.3 ft³/s, Feb. 19, 25, 26, 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.9	2.2	1.6	1.6	1.5	2.0	10	16	7.1	4.3	2.8
2	3.0	4.1	2.3	1.6	1.6	1.4	3.2	8.0	16	6.8	4.6	2.8
3	3.0	3.5	2.4	1.6	1.7	1.5	3.9	8.3	16	6.5	4.5	2.7
4	3.0	3.0	2.4	1.6	1.7	1.4	5.1	10	15	6.5	4.4	2.7
5	3.0	2.8	2.4	1.6	1.7	1.5	3.8	13	15	6.2	4.2	2.7
6	3.0	2.8	2.4	1.6	1.6	1.5	5.5	10	14	6.0	4.1	2.5
7	2.8	2.8	2.4	1.6	1.5	1.5	9.7	9.0	13	5.9	4.2	2.5
8	2.8	2.7	1.9	1.6	1.4	1.6	7.9	12	12	5.9	4.2	2.5
9	2.8	2.6	2.1	1.6	1.4	1.6	4.0	15	12	5.6	4.1	2.5
10	2.8	2.6	2.5	1.6	1.4	1.4	3.0	17	12	5.6	3.8	2.7
11	2.8	2.7	2.0	1.6	1.4	1.5	4.6	23	12	5.4	3.9	3.8
12	2.8	2.7	1.7	1.6	1.4	1.5	9.6	32	12	5.3	4.2	3.0
13	2.8	2.9	1.6	1.7	1.4	1.5	12	35	12	5.1	4.3	3.1
14	3.1	2.7	1.5	1.7	1.4	1.5	15	31	11	5.0	3.8	3.0
15	3.0	1.4	1.6	1.7	1.5	1.5	20	24	10	5.0	4.0	2.9
16	2.9	2.5	1.7	1.6	1.4	1.4	21	24	9.9	5.1	3.7	2.8
17	2.9	2.7	1.7	1.7	1.4	1.4	21	26	9.5	5.2	3.6	2.7
18	2.8	2.5	1.7	1.7	1.4	1.4	23	26	9.1	5.0	3.3	2.9
19	2.7	2.7	1.7	1.6	1.3	1.6	17	23	8.8	5.2	4.0	3.3
20	2.6	2.7	1.5	1.6	1.4	1.7	15	22	8.3	4.9	3.6	2.9
21	2.8	2.6	1.7	1.7	1.4	1.8	9.8	22	8.2	4.7	3.1	2.7
22	2.7	2.5	1.7	1.5	1.4	1.9	7.3	22	8.3	4.4	3.3	2.7
23	2.7	2.4	1.7	1.6	1.4	2.2	6.8	22	7.9	4.4	3.3	2.7
24	2.6	2.4	1.6	1.7	1.4	2.0	7.3	22	7.6	4.3	3.2	2.7
25	2.5	2.4	1.3	1.4	1.3	1.7	6.4	21	7.4	4.3	3.1	2.7
26	2.5	2.5	1.4	1.6	1.3	2.5	7.2	21	7.2	4.4	3.0	2.7
27	2.4	2.4	1.6	1.5	1.4	3.5	7.2	20	7.6	4.3	3.1	2.3
28	2.5	2.3	1.7	1.5	1.3	2.3	10	19	8.1	4.2	3.1	2.6
29	2.9	2.3	1.7	1.6	1.6	1.8	17	19	7.8	4.1	3.0	2.5
30	2.8	2.3	1.6	1.6	---	1.7	16	18	8.6	4.0	3.0	2.5
31	2.8	---	1.6	1.6	---	1.7	---	17	---	4.3	2.9	---
TOTAL	86.8	79.4	57.3	49.8	42.1	53.0	301.3	601.3	322.3	160.7	114.9	82.9
MEAN	2.80	2.65	1.85	1.61	1.45	1.71	10.0	19.4	10.7	5.18	3.71	2.76
MAX	3.1	4.1	2.5	1.7	1.7	3.5	23	35	16	7.1	4.6	3.8
MIN	2.4	1.4	1.3	1.4	1.3	1.4	2.0	8.0	7.2	4.0	2.9	2.3
AC-FT	172	157	114	99	84	105	598	1190	639	319	228	164

CAL YR 1987 TOTAL 2024.5 MEAN 5.55 MAX 34 MIN 1.3 AC-FT 4020
WTR YR 1988 TOTAL 1951.8 MEAN 5.33 MAX 35 MIN 1.3 AC-FT 3870

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: May 18 to June 9, June 11 to July 20, and Sept. 4-30. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 14.3 ft³/s, 10,360 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
discharge, 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)
May 13	2000	*70	*1.05	No other peak greater than base discharge.			

Minimum daily discharge, 6.1 ft³/s, Mar. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.5	9.3	8.1	8.8	8.9	7.4	7.7	18	23	14	11	8.9
2	8.4	11	8.4	8.7	9.4	7.2	8.9	15	23	13	11	8.8
3	8.4	10	8.3	8.0	9.4	7.1	10	14	22	13	11	8.9
4	8.5	9.3	8.2	7.8	9.4	7.0	12	15	22	13	11	8.9
5	8.5	9.1	8.1	7.8	9.4	7.0	11	17	21	13	11	8.8
6	8.7	9.0	8.1	7.8	8.6	7.2	12	18	20	12	10	8.8
7	9.0	9.1	8.1	7.8	7.6	6.5	18	9.6	19	12	11	8.8
8	9.0	9.0	7.0	8.1	7.6	7.2	17	13	18	12	11	8.8
9	9.2	9.0	6.7	8.0	7.5	7.4	11	21	18	12	11	8.8
10	9.3	8.9	8.2	7.9	7.7	7.5	9.9	22	18	12	10	9.2
11	9.0	8.9	6.8	7.9	7.4	6.1	11	26	17	12	9.8	11
12	9.2	9.0	6.6	8.1	7.6	6.7	16	36	17	12	10	11
13	9.1	9.3	7.1	8.1	7.6	7.7	20	46	17	12	10	9.9
14	9.6	9.5	8.0	8.1	7.5	7.4	22	44	16	12	9.8	9.5
15	9.7	7.0	8.0	8.1	7.3	7.4	26	38	16	12	9.8	9.3
16	9.4	7.0	7.8	8.0	7.4	7.4	27	36	15	12	10	9.0
17	9.5	8.3	8.0	8.1	7.2	7.3	28	37	15	12	10	8.8
18	9.4	8.2	8.2	8.1	7.2	7.2	27	40	15	12	9.8	9.3
19	9.6	8.8	8.1	8.0	7.1	7.1	26	35	15	12	9.7	9.6
20	9.0	9.2	8.2	8.0	7.0	7.4	21	33	14	12	9.4	9.4
21	9.9	9.0	7.9	8.2	7.0	7.8	19	31	15	12	9.3	8.9
22	9.9	8.5	8.2	8.2	7.0	7.8	15	31	14	12	9.3	8.7
23	9.8	8.0	8.2	8.3	7.1	8.1	14	31	14	12	9.3	8.6
24	9.7	8.1	8.1	8.4	7.2	8.1	13	30	13	12	9.2	8.6
25	9.6	8.4	8.2	8.3	7.2	7.5	14	30	13	12	9.1	8.5
26	9.5	8.8	8.0	8.3	7.2	7.8	12	29	13	12	9.1	8.5
27	9.5	8.5	7.8	8.2	7.2	10	13	28	13	11	9.2	8.4
28	9.4	8.6	7.9	8.0	7.2	9.2	14	27	14	11	9.2	8.3
29	9.4	7.8	7.9	7.5	7.3	7.8	18	27	14	11	9.2	8.2
30	9.4	7.9	7.9	7.5	---	8.0	20	25	15	11	9.0	8.1
31	9.4	---	7.5	7.7	---	7.8	---	24	---	11	8.9	---
TOTAL	286.5	262.5	243.6	249.8	223.2	233.1	493.5	846.6	499	373	307.1	270.3
MEAN	9.24	8.75	7.86	8.06	7.70	7.52	16.4	27.3	16.6	12.0	9.91	9.01
MAX	9.9	11	8.4	8.8	9.4	10	28	46	23	14	11	11
MIN	8.4	7.0	6.6	7.5	7.0	6.1	7.7	9.6	13	11	8.9	8.1
AC-FT	568	521	483	495	443	462	979	1680	990	740	609	536

CAL YR 1987 TOTAL 4448.6 MEAN 12.2 MAX 44 MIN 6.1 AC-FT 8820
WTR YR 1988 TOTAL 4288.2 MEAN 11.7 MAX 46 MIN 6.1 AC-FT 8510

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. 16-19, 23-25, 28-30, Dec. 1, Dec. 12 to Feb. 28, Mar. 12-18, July 8-24, 26-28, and Aug. 17 to Sept. 5. 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.--25 years (water years 1950-70, 1985-88), 70.7 ft³/s, 51,220 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)
May 18	0130	626	5.00	June 30	0500	*794	*5.56

Minimum daily discharge, 24 ft³/s, Sept. 6-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	45	42	34	38	47	45	226	136	62	31	29
2	46	59	44	34	39	45	49	178	130	51	31	29
3	46	59	44	35	40	45	53	153	117	40	31	29
4	46	51	44	35	41	44	56	144	109	40	37	29
5	46	51	44	35	40	43	60	164	101	41	33	26
6	46	50	43	36	39	44	56	228	95	36	32	24
7	46	48	43	36	40	45	64	168	87	35	32	24
8	46	48	41	37	41	43	80	146	77	35	32	24
9	46	48	36	38	42	46	68	167	73	34	32	24
10	47	49	41	38	39	47	57	168	70	35	32	24
11	47	49	42	39	40	43	60	201	63	35	32	35
12	47	52	34	38	42	37	63	258	67	35	32	33
13	48	53	25	37	43	39	81	377	71	35	32	27
14	49	51	31	39	43	41	92	505	69	35	32	28
15	50	58	34	40	44	39	106	446	60	35	31	30
16	52	46	36	41	43	38	118	407	55	34	31	28
17	53	45	38	40	41	39	133	469	51	34	30	27
18	54	47	38	39	40	41	144	511	51	34	30	29
19	53	49	36	38	42	46	174	376	50	34	30	30
20	50	52	36	39	44	48	160	303	48	34	30	32
21	49	51	38	40	46	50	172	270	47	33	30	30
22	47	49	37	42	47	51	155	250	57	33	30	30
23	46	47	35	41	46	52	137	243	49	32	30	30
24	46	45	33	41	44	51	128	240	45	32	30	30
25	47	44	32	41	45	48	125	242	44	32	30	30
26	48	46	33	42	47	47	108	230	46	33	30	33
27	49	45	35	43	48	52	109	221	47	33	30	35
28	50	44	36	44	47	55	108	203	79	32	30	35
29	51	41	36	44	46	49	123	189	76	31	30	36
30	45	40	34	43	---	48	173	178	194	31	29	36
31	46	---	35	42	---	47	---	152	---	31	29	---
TOTAL	1487	1462	1156	1211	1237	1410	3057	8013	2264	1107	961	886
MEAN	48.0	48.7	37.3	39.1	42.7	45.5	102	258	75.5	35.7	31.0	29.5
MAX	54	59	44	44	48	55	174	511	194	62	37	36
MIN	45	40	25	34	38	37	45	144	44	31	29	24
AC-FT	2950	2900	2290	2400	2450	2800	6060	15890	4490	2200	1910	1760

CAL YR 1987 TOTAL 25292 MEAN 69.3 MAX 518 MIN 25 AC-FT 50170
WTR YR 1988 TOTAL 24251 MEAN 66.3 MAX 511 MIN 24 AC-FT 48100

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (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 22...	1130	48	1000	8.7	4.0	620	32	11.4	107	K15
DEC 02...	1140	44	1050	8.7	4.0	620	65	10.8	102	K7
JAN 11...	0900	39	980	8.1	0.0	628	110	11.4	95	K4
FEB 23...	1520	46	850	8.3	1.0	640	420	12.3	103	K9
APR 04...	1030	59	880	8.4	6.5	633	120	18.1	178	K12
MAY 06...	0945	239	310	8.6	8.0	630	700	11.4	117	130
JUN 02...	1000	140	410	8.4	13.0	650	55	10.4	116	170
JUL 05...	1200	41	950	7.9	20.0	640	290	7.8	103	580
JUL 25...	1535	32	890	8.3	24.0	636	16	7.8	112	100
SEP 06...	1015	24	980	8.2	14.0	629	10	9.2	109	160

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

DATE	HARD- NESS TOTAL (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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 22...	480	120	43	24	0.5	2.0	180	320	11	0.3
DEC 02...	490	130	41	20	0.4	2.0	99	310	14	0.3
JAN 11...	470	120	40	23	0.5	2.0	120	290	15	0.3
FEB 23...	500	130	42	24	0.5	2.1	190	310	13	0.3
APR 04...	420	110	36	19	0.4	2.0	180	290	9.5	0.3
MAY 06...	150	40	12	6.7	0.2	1.2	83	70	3.8	0.1
JUN 02...	200	52	17	9.0	0.3	1.3	110	80	5.2	0.2
JUL 05...	450	120	35	22	0.5	2.3	120	290	8.7	0.2
JUL 25...	490	130	39	27	0.6	2.3	110	320	11	0.3
SEP 06...	490	130	41	26	0.5	2.3	150	360	14	0.3

06309500 MIDDLE FORK POWDER RIVER ABOVE KAYCEE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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 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- PHOROUS TOTAL (MG/L AS P)
OCT 22...	8.6	639	0.87	82.8	0.4	0.4	0.04	--	<0.2	0.03
DEC 02...	11	589	0.80	69.9	0.6	0.7	0.01	0.59	0.6	0.05
JAN 11...	12	582	0.79	61.3	0.7	0.8	0.04	0.26	0.3	0.03
FEB 23...	11	649	0.88	80.7	0.6	0.7	0.04	--	<0.2	0.13
APR 04...	8.9	585	0.80	93.2	0.2	0.3	0.03	0.37	0.4	0.05
MAY 06...	7.2	191	0.26	129	0.2	0.1	0.05	0.35	0.4	0.06
JUN 02...	7.7	238	0.32	90.1	<0.1	<0.1	0.02	--	<0.2	0.04
JUL 05...	9.9	564	0.77	62.5	0.2	0.1	0.04	0.26	0.3	0.03
25...	7.9	603	0.82	52.1	<0.1	<0.1	0.03	0.67	0.7	0.04
SEP 06...	8.9	673	0.92	43.6	<0.1	0.1	0.01	0.29	0.3	0.01

YELLOWSTONE RIVER BASIN

06310000 RED FORK NEAR BARNUM, WY

LOCATION.--Lat 43°39'00", long 106°46'00", in SW1/4 NW1/4 SE1/4 sec.36, T.43 N., R.83 W, Johnson County, Hydrologic Unit 10090201, 75 ft downstream from bridge on State Highway 190, 800 ft upstream from mouth, and 6.5 miles east of Barnum.

PERIOD OF RECORD.--October 1987 to September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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)
JUL 25...	1645	4.7	730	8.4	27.0	637	8.0		121	340	82	32	29
SEP 06...	1445	8.2	645	8.2	20.5	627	9.2		125	320	80	30	19

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LILITY 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- PHOROUS TOTAL (MG/L AS P)
JUL 25...	0.7	2.7	85	170	38	0.3	7.6	413	0.56	5.24	<0.1	<0.10
SEP 06...	0.5	2.3	180	130	23	0.3	9.5	403	0.55	8.92	0.2	0.01

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 0.5 mi upstream from Dullknife Reservoir, 0.6 mi downstream from Twin Creek, 7.2 mi southwest of Hazelton, and 19 mi northwest of Mayoworth.

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. 10-12, 16, 17, 20-30, Nov. 5, 6, 8-13, Nov. 15 to Apr. 9, Apr. 11-28, and May 3, 7-9. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--42 years, 14.7 ft³/s, 10,650 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 in 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)
May 7	2300	ice jam	a*4.83	No other peak greater than base discharge.			
May 13	2000	*290	4.00				

a - May have been exceeded during period of missing record.

Minimum daily discharge, 1.4 ft³/s, Jan. 3-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.4	3.3	1.5	1.6	1.8	1.9	45	30	18	3.8	2.3
2	5.9	7.9	3.6	1.5	1.5	1.8	1.9	22	29	15	3.8	2.2
3	5.9	8.1	3.7	1.4	1.6	1.9	2.0	17	28	15	4.0	2.1
4	5.7	6.8	3.7	1.4	1.6	1.8	2.1	20	29	14	4.3	2.1
5	5.7	6.4	3.8	1.4	1.6	1.8	2.1	44	29	14	3.8	2.1
6	5.5	6.0	4.0	1.4	1.6	1.9	2.2	41	30	12	3.3	2.1
7	5.4	5.7	3.8	1.4	1.6	1.9	2.5	26	26	11	3.3	2.0
8	5.4	5.6	3.5	1.5	1.7	1.9	2.7	21	25	11	4.5	2.0
9	5.7	5.2	3.3	1.5	1.6	2.0	2.6	19	24	11	3.6	2.0
10	6.2	5.2	3.2	1.5	1.5	2.0	2.6	24	25	11	3.3	2.2
11	6.5	5.3	3.1	1.5	1.5	1.9	3.1	49	24	13	3.2	7.4
12	7.0	5.4	2.9	1.5	1.6	1.9	8.3	118	29	11	3.6	4.7
13	7.4	5.4	2.7	1.6	1.7	1.8	25	200	45	8.2	6.3	3.7
14	6.7	5.3	2.6	1.7	1.6	1.8	21	156	30	7.4	3.9	3.8
15	6.8	5.0	2.5	1.7	1.6	1.9	33	88	27	6.7	3.3	3.1
16	6.8	4.7	2.3	1.7	1.6	1.9	46	85	25	6.5	4.1	2.9
17	6.9	4.5	2.3	1.6	1.6	1.8	37	95	24	6.4	3.4	2.6
18	6.9	4.2	2.3	1.6	1.6	1.7	29	90	23	5.9	3.1	2.8
19	6.2	4.3	2.2	1.5	1.7	1.8	24	55	21	7.0	3.0	3.3
20	5.8	4.5	2.2	1.5	1.8	1.9	20	43	20	6.1	2.9	2.8
21	5.6	4.5	2.2	1.5	1.8	2.0	18	42	19	5.5	2.6	2.5
22	5.6	4.3	2.2	1.5	1.8	2.1	17	40	21	5.1	2.6	2.5
23	5.4	4.1	2.1	1.6	1.7	2.0	19	43	19	5.0	2.5	2.5
24	5.3	3.8	2.1	1.6	1.7	2.0	21	47	18	4.8	2.5	2.4
25	5.3	3.6	2.0	1.6	1.7	1.9	17	49	17	4.5	2.5	2.3
26	5.3	3.8	1.8	1.6	1.8	2.0	14	47	16	4.7	2.5	2.4
27	5.2	3.8	1.7	1.7	1.8	2.1	13	45	16	4.7	2.4	2.3
28	5.2	3.6	1.6	1.8	1.7	2.0	15	42	17	4.5	2.5	2.7
29	5.2	3.5	1.5	1.8	1.9	2.0	39	41	32	4.3	2.5	2.5
30	5.2	3.4	1.6	1.9	---	1.9	60	39	20	4.0	2.4	2.6
31	5.2	---	1.6	1.7	---	1.9	---	33	---	3.7	2.4	---
TOTAL	183.1	149.3	81.4	48.7	48.1	59.1	502.0	1726	738	261.0	101.9	82.9
MEAN	5.91	4.98	2.63	1.57	1.66	1.91	16.7	55.7	24.6	8.42	3.29	2.76
MAX	7.4	8.1	4.0	1.9	1.9	2.1	60	200	45	18	6.3	7.4
MIN	5.2	3.4	1.5	1.4	1.5	1.7	1.9	17	16	3.7	2.4	2.0
AC-FT	363	296	161	97	95	117	996	3420	1460	518	202	164

CAL YR 1987 TOTAL 4888.9 MEAN 13.4 MAX 129 MIN 1.5 AC-FT 9700
WTR YR 1988 TOTAL 3981.5 MEAN 10.9 MAX 200 MIN 1.4 AC-FT 7900

YELLOWSTONE RIVER BASIN

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. 11, 12, 17, 20-24, 27, 28, Nov. 6, 8-12, Nov. 15 to Feb. 27, and Apr. 20-22, 25-27. 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.--14 years, 17.9 ft³/s, 12,970 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, 230 ft³/s, May 12, gage height, 3.77 ft; minimum daily, 0.63 ft³/s, Sept. 24-26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	2.5	2.3	1.9	1.9	2.5	2.7	69	35	36	41	16
2	1.3	4.1	2.4	2.0	2.0	2.5	3.0	30	25	42	41	17
3	1.3	3.3	2.5	2.0	2.1	2.5	3.1	18	24	43	40	19
4	1.3	2.8	2.5	1.9	2.0	2.5	3.1	20	29	42	40	19
5	1.3	2.7	2.6	1.9	2.0	2.4	2.9	38	28	42	34	18
6	1.3	2.6	2.7	1.9	2.1	2.3	5.1	64	27	42	27	18
7	1.3	2.6	2.7	2.0	2.2	2.3	6.3	30	23	42	27	18
8	1.3	2.5	2.7	1.9	2.2	2.4	5.2	22	20	48	26	18
9	1.3	2.5	2.7	2.0	2.2	2.4	3.4	25	18	59	26	18
10	1.5	2.6	2.8	2.1	2.1	2.4	3.0	31	30	60	26	18
11	1.4	2.6	2.7	2.1	2.2	2.4	4.6	57	39	61	25	19
12	1.4	2.6	2.6	2.2	2.3	2.4	10	111	39	60	26	18
13	1.4	2.6	2.4	2.1	2.3	2.3	18	153	39	60	17	18
14	1.6	2.6	2.2	2.2	2.3	2.4	20	172	39	60	9.4	18
15	1.6	2.6	2.1	2.2	2.3	2.3	21	103	38	48	9.5	17
16	1.7	2.5	2.2	2.1	2.2	2.4	17	93	38	32	9.4	17
17	1.5	2.4	2.3	2.1	2.2	2.4	12	100	34	32	9.3	12
18	1.5	2.4	2.3	2.0	2.3	2.4	11	108	24	32	9.2	1.2
19	1.5	2.4	2.4	2.0	2.3	2.5	9.6	85	24	31	7.4	1.1
20	1.5	2.4	2.4	2.0	2.4	2.6	17	68	24	31	3.4	.95
21	1.5	2.4	2.4	2.0	2.4	2.7	18	57	25	31	3.4	.88
22	1.5	2.5	2.3	2.0	2.4	2.8	16	44	25	28	3.4	.85
23	1.6	2.5	2.2	2.0	2.3	2.9	15	46	25	24	3.4	.71
24	2.1	2.5	2.1	1.9	2.2	2.7	14	54	28	24	3.4	.63
25	3.2	2.5	2.0	1.9	2.3	2.6	12	54	32	24	3.4	.63
26	2.9	2.4	2.1	1.9	2.4	2.7	11	55	32	24	8.2	.63
27	2.9	2.4	2.2	2.0	2.4	2.8	11	54	32	24	16	1.1
28	2.5	2.4	2.1	2.0	2.5	2.6	14	49	33	24	16	1.8
29	2.5	2.3	2.1	2.1	2.5	2.7	31	46	32	30	16	1.2
30	2.5	2.3	2.0	2.0	---	2.7	63	46	32	41	16	.99
31	2.5	---	2.0	1.9	---	2.7	---	39	---	41	16	---
TOTAL	54.0	77.5	73.0	62.3	65.0	78.2	383.0	1941	893	1218	558.8	310.67
MEAN	1.74	2.58	2.35	2.01	2.24	2.52	12.8	62.6	29.8	39.3	18.0	10.4
MAX	3.2	4.1	2.8	2.2	2.5	2.9	63	172	39	61	41	19
MIN	1.3	2.3	2.0	1.9	1.9	2.3	2.7	18	18	24	3.4	.63
AC-FT	107	154	145	124	129	155	760	3850	1770	2420	1110	616

CAL YR 1987 TOTAL 5033.4 MEAN 13.8 MAX 120 MIN 1.0 AC-FT 9980
WTR YR 1988 TOTAL 5714.47 MEAN 15.6 MAX 172 MIN .63 AC-FT 11330

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: Dec. 13-15, 17-19, 24-26, 30, 31, Jan. 1-5, 20, 21, 31, Feb. 1-5, Mar. 12, 13, 17, and July 19, 20. Records good except those for estimated daily discharges, which are poor. Some regulation for irrigation by Dullknife Reservoir 13 mi upstream, capacity, 4,350 acre-ft.

AVERAGE DISCHARGE.--15 years, 34.2 ft³/s, 24,780 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, 11 ft³/s, Dec. 14, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 212 ft³/s, May 14, gage height, 4.87 ft; minimum daily, 11 ft³/s, Dec. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	17	15	14	16	16	77	53	44	46	23
2	20	19	17	16	15	16	16	51	49	52	46	23
3	20	19	17	16	16	16	16	37	36	52	47	24
4	20	19	17	16	16	16	16	33	44	52	47	26
5	20	18	17	17	16	16	16	38	43	52	45	26
6	20	18	17	18	18	16	15	69	42	52	39	27
7	20	18	17	18	18	17	16	54	39	52	38	27
8	20	18	17	18	18	16	18	34	36	53	37	28
9	20	18	16	18	17	16	16	36	34	65	36	28
10	20	18	17	18	17	16	16	39	36	66	35	29
11	19	18	16	18	17	16	16	56	53	66	35	31
12	19	18	13	17	17	15	17	99	53	65	35	30
13	19	18	12	17	17	17	52	153	54	64	35	30
14	19	18	11	17	17	17	72	180	53	63	28	30
15	20	18	12	17	17	17	72	123	53	59	25	30
16	20	18	14	17	17	17	67	104	52	43	24	30
17	19	18	16	17	17	16	58	109	52	40	23	29
18	19	18	17	17	16	16	49	116	40	39	22	24
19	19	18	18	17	16	16	42	102	39	38	21	21
20	19	18	19	16	16	16	30	84	38	38	20	20
21	19	18	19	17	16	16	52	77	37	38	19	19
22	19	18	18	17	16	16	44	62	37	38	19	19
23	19	18	18	17	16	16	33	62	37	34	19	18
24	18	18	17	17	16	16	30	68	37	32	19	18
25	18	18	15	17	16	16	30	71	42	31	19	18
26	18	18	18	17	16	16	27	69	42	32	18	18
27	18	18	19	17	16	16	25	68	43	31	20	18
28	18	18	18	17	16	16	25	64	46	31	22	18
29	18	17	18	17	16	16	29	61	48	31	23	18
30	18	17	17	17	---	16	56	61	44	42	23	18
31	18	---	15	16	---	16	---	57	---	45	23	---
TOTAL	593	541	509	526	476	500	987	2314	1312	1440	908	718
MEAN	19.1	18.0	16.4	17.0	16.4	16.1	32.9	74.6	43.7	46.5	29.3	23.9
MAX	20	19	19	18	18	17	72	180	54	66	47	31
MIN	18	17	11	15	14	15	15	33	34	31	18	18
AC-FT	1180	1070	1010	1040	944	992	1960	4590	2600	2860	1800	1420

CAL YR 1987 TOTAL 10833 MEAN 29.7 MAX 145 MIN 11 AC-FT 21490
WTR YR 1988 TOTAL 10824 MEAN 29.6 MAX 180 MIN 11 AC-FT 21470

YELLOWSTONE RIVER BASIN

06312000 NORTH FORK POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°46'00", long 106°36'00", in NW1/4 SW1/4 NW1/4 sec.20, T.44 N., R.81 W, Johnson County, Hydrologic Unit 10090201, 0.3 mi upstream from bridge on U.S. Highway 87, 4 mi northeast of Kaycee, and 6 mi upstream from mouth.

PERIOD OF RECORD.--October 1987 to September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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)
JUL 25...	1215	3.6	2450	8.3	22.5	640	8.7	121	710	160	75	310
SEP 06...	1605	13	1480	8.3	20.5	628	8.6	117	460	100	50	140

DATE	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)	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- PHOROUS TOTAL (MG/L AS P)
JUL 25...	5	13	180	850	210	0.6	7.1	1730	2.36	16.9	<0.1	<0.03
SEP 06...	3	5.8	190	460	72	0.4	7.5	950	1.29	33.3	0.1	0.01

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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...	1450	74	1180	7.5	470	110	47	87	2	2.8
DEC 02...	1430	140	1170	3.5	490	120	44	83	2	2.9
JAN 11...	1030	72	1160	0.0	490	120	43	76	2	2.9
MAR 02...	1200	123	1140	0.0	470	120	41	92	2	2.7
APR 04...	1345	120	1080	11.5	410	99	39	69	2	2.6
MAY 06...	1315	280	542	12.0	220	56	20	32	1	1.7
JUN 02...	1300	71	706	18.0	280	70	25	53	1	2.3
JUL 05...	0900	0.41	1360	20.0	630	170	50	150	3	4.6
25...	1035	0.68	1800	21.5	650	160	60	200	4	4.7
SEP 07...	1515	0.50	1820	22.5	710	180	64	190	3	4.8

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- PHOROUS TOTAL (MG/L AS P)
OCT 22...	190	370	54	0.3	6.2	792	1.08	158	0.2	0.04
DEC 02...	140	350	57	0.3	9.6	756	1.03	286	0.7	<0.03
JAN 11...	130	320	63	0.3	12	722	0.98	140	0.7	0.02
MAR 02...	180	360	45	0.3	9.7	782	1.06	260	0.7	0.16
APR 04...	184	340	42	0.3	6.5	709	0.96	230	0.1	0.13
MAY 06...	120	120	23	0.2	7.4	335	0.46	253	0.6	0.04
JUN 02...	140	190	34	0.2	8.6	467	0.64	89.6	0.1	0.04
JUL 05...	73	540	82	0.3	8.2	1050	1.43	1.16	0.1	0.02
25...	210	630	100	0.4	6.7	1290	1.75	2.36	<0.1	<0.03
SEP 07...	190	660	100	0.4	6.7	1320	1.80	1.78	0.1	0.01

YELLOWSTONE RIVER BASIN

06312500 POWDER RIVER NEAR KAYCEE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 22...	1450	74	1200	8.4	7.5	620	8.4
JAN 11...	1030	72	1190	7.9	0.0	637	11.8
APR 04...	1345	120	1150	8.5	11.5	640	16.7
JUL 05...	0900	0.41	1600	7.8	20.0	650	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- PHOROUS TOTAL (MG/L AS P)
OCT 22...	87	K4	0.2	0.03	0.17	0.2	0.04
JAN 11...	97	43	0.6	0.08	--	<0.2	0.02
APR 04...	183	90	0.4	0.02	0.28	0.3	0.13
JUL 05...	105	840	<0.1	0.06	0.24	0.3	0.02

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

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°37'03", long 106°34'39", in NW1/4 SE1/4 SE1/4 sec.9, T.42 N., R.81 W., Johnson County, Hydrologic Unit 10090203, 1,000 ft upstream from bridge on old U.S. Highway 87, 0.8 mi upstream from bridge on Interstate 25, 1.7 mi upstream from Murphy Creek, 6.6 mi southeast of Kaycee, and 7 mi upstream from mouth.

DRAINAGE AREA.--1,150 mi², approximately.

PERIOD OF RECORD.--Water years 1949-53, 1968 to December 1981, April 1983 to September 1985, October 1986 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE.--April 1983 to September 1984.

REMARKS.--No flow observed Jan. 28, July 25, Sept. 7.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JAN 28...	1111	0.0	--	--
FEB 23...	0910	0.24	0.0	64
MAR 09...	1600	53	7.0	2
JUL 05...	1400	0.85	31.0	10
25...	0925	0.0	--	--
SEP 07...	1600	0.0	--	--

YELLOWSTONE RIVER BASIN

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: Dec. 13 to Mar. 1, Mar. 12-18, and Aug. 3 to Sept. 6. 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.--11 years (water years 1977-81, 1983-88), 50.4 ft³/s, 36,510 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 discharge, 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)
June 13	2030	*5,150	*7.71	No other peak greater than base discharge.			

Minimum daily discharge, 23 ft³/s, Aug. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	38	42	33	30	66	49	38	33	27	28	25
2	37	43	40	32	34	60	48	45	34	29	28	25
3	37	86	39	31	36	54	46	47	33	27	28	25
4	35	47	40	31	36	56	45	43	31	28	28	25
5	36	45	41	32	35	50	45	43	30	30	27	25
6	37	43	41	32	36	49	48	42	33	28	27	25
7	37	42	40	34	38	48	45	65	35	28	29	25
8	35	42	40	33	40	44	47	51	33	30	40	25
9	36	43	39	34	43	47	46	50	30	30	35	25
10	37	42	40	35	39	53	47	41	35	28	30	25
11	38	42	42	39	37	30	45	46	32	28	28	26
12	38	41	40	38	41	28	45	41	28	28	27	28
13	37	42	33	36	45	44	44	36	645	29	32	27
14	38	42	27	37	45	37	45	33	195	29	29	27
15	38	41	24	39	43	38	39	34	50	28	28	27
16	39	40	27	40	42	36	38	34	36	28	27	26
17	38	39	36	38	39	35	38	34	33	31	26	25
18	37	39	38	36	38	41	38	34	33	27	25	26
19	38	38	34	35	40	52	39	38	32	30	26	28
20	38	39	33	31	42	73	43	38	31	31	26	25
21	38	38	38	33	45	88	41	36	32	34	25	25
22	39	39	40	38	43	92	48	35	32	31	27	25
23	39	39	35	36	41	76	48	37	30	27	26	24
24	39	38	31	36	39	74	48	37	29	28	26	25
25	38	38	32	35	42	63	46	36	29	29	25	25
26	38	38	34	35	47	58	56	34	28	31	25	25
27	38	40	36	37	56	56	54	32	34	36	23	26
28	38	38	36	40	67	54	47	33	38	31	24	27
29	38	38	33	43	73	49	46	33	30	31	24	25
30	38	39	30	42	---	53	42	32	27	29	24	27
31	38	---	32	38	---	48	---	32	---	28	24	---
TOTAL	1164	1259	1113	1109	1232	1652	1356	1210	1751	909	847	769
MEAN	37.5	42.0	35.9	35.8	42.5	53.3	45.2	39.0	58.4	29.3	27.3	25.6
MAX	39	86	42	43	73	92	56	65	645	36	40	28
MIN	35	38	24	31	30	28	38	32	27	27	23	24
AC-FT	2310	2500	2210	2200	2440	3280	2690	2400	3470	1800	1680	1530

CAL YR 1987 TOTAL 25271 MEAN 69.2 MAX 1490 MIN 24 AC-FT 50130
WTR YR 1988 TOTAL 14371 MEAN 39.3 MAX 645 MIN 23 AC-FT 28500

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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 15...	1040	37	6340	8.5	230	33	36	1400	41	14	850	720
NOV 21...	1130	38	6310	0.0	290	45	43	1400	37	13	780	810
JAN 06...	1045	35	6150	0.0	190	32	26	1200	39	13	820	560
FEB 16...	1505	42	5730	0.0	230	37	33	1200	35	12	760	580
MAR 09...	1005	48	6020	3.0	440	69	66	1200	25	14	700	1300
APR 15...	0930	37	5920	9.0	330	53	48	1300	32	17	650	900
MAY 09...	0845	55	6600	8.0	510	71	82	1400	27	15	660	1500
JUN 20...	1220	31	5970	24.0	240	40	35	1600	46	16	790	770
JUL 26...	1000	30	6160	21.5	170	26	25	1500	51	15	830	530
SEP 07...	1030	25	6220	17.5	220	39	30	1400	42	18	690	750

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)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 15...	1100	2.1	23	3840	5.22	383	0.1	0.04	<1	102	10
NOV 21...	1200	1.9	24	4000	5.45	411	<0.1	0.02	--	--	--
JAN 06...	790	2.0	27	3140	4.27	297	<0.1	<0.03	<1	--	--
FEB 16...	980	1.9	24	3320	4.52	377	<0.1	0.05	--	--	--
MAR 09...	830	1.5	18	3920	5.33	508	0.1	0.02	<1	--	--
APR 15...	980	2.1	38	3730	5.07	372	<0.1	0.04	--	--	--
MAY 09...	750	1.5	17	4230	5.76	629	0.1	0.30	--	--	--
JUN 20...	1000	2.6	24	3960	5.39	332	<0.1	0.02	<1	--	--
JUL 26...	1400	2.5	27	4020	5.47	326	0.1	<0.03	--	--	--
SEP 07...	1300	2.3	29	3980	5.42	269	0.1	0.01	--	--	--

YELLOWSTONE RIVER BASIN

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 current year.

REVISED RECORDS.--WDR WY-80-1: 1979(M), 1979.

GAGE.--Water-stage recorder. Datum 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. October 1977, to Apr. 8, 1983, water-stage recorder 10 ft downstream from State Highway 192 at datum 4,362.95 ft. Apr. 9, 1983 to Oct. 21, 1987, at site 300 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 30, 31, Nov. 1, 18, 19, 22-25, 28-30, Dec. 1, Dec. 13 to Mar. 2, Mar. 11-18, Apr. 27 to May 8. Records fair except those for Oct. 1 to May 9, which are poor. Numerous small reservoirs and diversions for irrigation of about 17,000 acres upstream from station.

AVERAGE DISCHARGE.--18 years (water years 1939, 1951-57, 1978-84, 1986-88), 201 ft³/s, 145,600 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 discharge, 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 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 14	0115	*1,770	*5.30	No peak greater than base discharge.			

Minimum daily discharge, 23 ft³/s, Sept. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	130	131	103	100	450	173	340	244	141	27	25
2	99	172	173	100	113	488	184	410	219	72	27	27
3	97	304	185	97	117	390	180	362	210	44	27	24
4	99	178	188	93	121	270	193	325	185	37	33	25
5	123	141	190	93	115	223	197	303	160	37	30	24
6	129	139	185	94	120	217	199	342	136	34	32	23
7	101	129	180	94	120	219	199	455	127	43	29	24
8	114	129	187	97	123	201	218	400	119	38	53	25
9	122	129	176	100	129	210	234	356	106	37	43	26
10	134	134	172	110	122	235	217	340	107	34	34	26
11	112	136	182	122	113	160	212	357	108	33	29	28
12	109	136	162	120	123	132	216	370	106	33	29	35
13	108	140	96	110	139	119	221	519	132	32	39	34
14	117	144	70	115	157	150	258	684	576	31	31	36
15	118	146	76	129	162	160	287	793	146	30	29	36
16	113	144	85	119	154	155	324	693	84	30	30	34
17	111	129	98	110	145	150	335	572	61	33	27	32
18	121	112	124	104	139	175	337	575	51	32	26	31
19	124	131	130	99	149	217	339	563	47	35	26	36
20	125	165	120	94	160	264	349	495	42	36	27	31
21	123	169	117	100	178	290	310	426	41	35	25	28
22	125	160	110	103	170	301	319	409	42	35	28	28
23	128	150	99	111	159	316	307	377	40	30	27	30
24	127	142	87	119	148	317	300	359	36	30	27	33
25	129	153	80	122	153	272	290	335	34	32	27	34
26	128	165	76	131	172	210	278	344	32	32	25	35
27	125	166	82	140	210	190	270	344	32	29	24	35
28	127	147	92	150	270	204	248	331	53	38	26	34
29	130	138	106	140	350	198	242	300	38	30	26	47
30	130	120	113	129	---	181	282	275	123	27	25	43
31	130	---	109	120	---	167	---	266	---	27	25	---
TOTAL	3690	4478	3981	3468	4431	7231	7718	13020	3437	1187	913	929
MEAN	119	149	128	112	153	233	257	420	115	38.3	29.5	31.0
MAX	134	304	190	150	350	488	349	793	576	141	53	47
MIN	97	112	70	93	100	119	173	266	32	27	24	23
AC-FT	7320	8880	7900	6880	8790	14340	15310	25830	6820	2350	1810	1840
CAL YR 1987	TOTAL 94909	MEAN 260	MAX 3430	MIN 34	AC-FT 188300							
WTR YR 1988	TOTAL 54483	MEAN 149	MAX 793	MIN 23	AC-FT 108100							

06313500 POWDER RIVER AT SUSSEX, WY--Continued

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
OCT												
15...	1515	108	3200	8.0	410	87	47	590	13	7.1	400	560
NOV												
21...	1445	175	2620	0.0	470	120	41	400	8	5.7	210	600
JAN												
06...	1440	95	3100	0.0	500	120	48	480	10	6.4	290	520
FEB												
16...	1120	154	2690	0.0	500	120	48	400	8	6.1	340	580
MAR												
02...	1600	488	2870	0.0	590	150	53	290	5	4.8	250	720
APR												
15...	1145	282	1770	12.0	390	91	39	260	6	4.8	230	440
MAY												
09...	1140	310	2200	11.0	370	82	41	370	9	5.4	230	600
JUN												
20...	1045	42	5270	22.0	400	75	52	1300	29	14	260	970
JUL												
26...	1400	33	5810	26.5	230	32	36	1400	41	15	710	660
SEP												
07...	1300	27	6190	21.5	230	35	34	1400	41	18	670	800

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)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
OCT											
15...	470	0.9	12	2010	2.74	587	0.1	0.14	<1	426	124
NOV											
21...	350	0.6	12	1660	2.25	783	0.6	<0.03	--	--	--
JAN											
06...	480	0.8	17	1850	2.51	474	0.5	<0.03	1	--	--
FEB											
16...	280	0.7	13	1650	2.25	688	0.7	0.05	--	--	--
MAR											
02...	130	0.5	9.4	1510	2.05	1990	0.7	0.05	--	--	--
APR											
15...	160	0.5	8.8	1140	1.55	537	0.3	0.04	--	--	--
MAY											
09...	190	0.5	7.9	1440	1.95	1200	0.3	0.06	2	--	--
JUN											
20...	880	1.8	19	3470	4.72	3950	0.1	0.02	2	--	--
JUL											
26...	1200	2.0	20	3790	5.16	338	0.1	<0.03	--	--	--
SEP											
07...	1200	2.3	25	3920	5.33	286	0.1	0.01	--	--	--

YELLOWSTONE RIVER BASIN

441252106090801 POWDER RIVER ABOVE DEAD HORSE CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°12'52", long 106°09'08", in SE1/4 SW1/4 SW1/4 sec.17, T.49 N., R.77 W, Johnson County, Hydrologic Unit 10090202, 50 ft downstream from bridge on Interstate 90, 2.4 mi upstream from Dead Horse Creek, and 32 mi southeast of Buffalo.

PERIOD OF RECORD.--October 1987 to September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
JUL 26...	1055	15	6100	23.5	340	39	60	1300	31	15
SEP 06...	1100	13	6850	18.0	350	34	64	1500	35	<0.20

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- PHOROUS TOTAL (MG/L AS P)
JUL 26...	510	1100	1200	1.6	11	4030	5.48	163	<0.1	<0.03
SEP 06...	610	1200	1100	0.2	9.7	4270	5.81	150	<0.1	<0.03

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.

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: Oct. 1 to May 6, May 9 to Aug. 8, and Aug. 10 to Sept. 30, while flow was below the orifice or affected by backwater from ice. Records poor.

AVERAGE DISCHARGE.--17 years, 2.23 ft³/s, 1,620 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)
Apr. 26	--	ice jam	*3.07	No peak greater than base discharge.			
June 29	0630	*2.3	2.86				

No flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.00	.00	.00	.06	.06	.03	.00	.02	.00	.00
2	.02	.03	.00	.00	.00	.03	.09	.03	.00	.00	.00	.00
3	.02	.04	.01	.00	.00	.06	.12	.04	.00	.00	.00	.00
4	.02	.05	.03	.00	.00	.04	.08	.05	.00	.00	.00	.00
5	.02	.04	.09	.00	.00	.07	.05	.05	.00	.00	.00	.00
6	.02	.03	.06	.00	.01	.10	.08	.08	.00	.00	.00	.00
7	.02	.02	.04	.00	.03	.04	.10	.14	.00	.00	.00	.00
8	.02	.02	.01	.00	.02	.07	.08	.09	.00	.00	.03	.00
9	.04	.01	.01	.00	.01	.14	.05	.06	.00	.03	.10	.00
10	.02	.01	.10	.07	.00	.09	.03	.03	.00	.06	.03	.00
11	.02	.01	.05	.03	.01	.04	.04	.02	.00	.02	.00	.08
12	.02	.02	.00	.00	.03	.02	.06	.02	.04	.00	.00	.04
13	.02	.02	.00	.00	.05	.00	.04	.02	.10	.00	.00	.01
14	.03	.02	.00	.03	.02	.00	.03	.02	.05	.00	.00	.00
15	.02	.01	.00	.01	.04	.04	.03	.02	.02	.00	.00	.00
16	.02	.00	.00	.00	.03	.03	.02	.02	.00	.00	.00	.00
17	.02	.00	.00	.00	.02	.01	.02	.01	.00	.00	.00	.00
18	.03	.00	.00	.00	.02	.04	.02	.09	.00	.03	.00	.02
19	.03	.01	.00	.00	.03	.07	.02	.05	.00	.00	.00	.00
20	.02	.02	.00	.00	.06	.12	.02	.02	.00	.00	.00	.00
21	.02	.04	.00	.00	.09	.17	.04	.01	.00	.00	.00	.00
22	.01	.03	.00	.01	.05	.27	.05	.00	.00	.00	.00	.00
23	.00	.02	.00	.03	.03	.32	.05	.00	.00	.00	.00	.00
24	.00	.01	.00	.01	.02	.25	.03	.00	.00	.00	.00	.00
25	.00	.00	.00	.01	.04	.20	.05	.00	.00	.00	.00	.00
26	.00	.00	.00	.02	.07	.20	.20	.00	.00	.00	.00	.00
27	.00	.00	.00	.05	.11	.25	.13	.00	.03	.00	.00	.00
28	.01	.00	.02	.07	.08	.12	.07	.00	.10	.00	.00	.02
29	.02	.00	.07	.04	.12	.16	.03	.00	.41	.00	.00	.00
30	.02	.00	.01	.00	---	.08	.03	.00	.11	.00	.00	.00
31	.02	---	.00	.00	---	.04	---	.00	---	.00	.00	---
TOTAL	0.55	0.48	0.50	0.38	0.99	3.13	1.72	0.90	0.86	0.16	0.16	0.17
MEAN	.018	.016	.016	.012	.034	.10	.057	.029	.029	.005	.005	.006
MAX	.04	.05	.10	.07	.12	.32	.20	.14	.41	.06	.10	.08
MIN	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00
AC-FT	1.1	1.0	1.0	.8	2.0	6.2	3.4	1.8	1.7	.3	.3	.3

CAL YR 1987 TOTAL 203.56 MEAN .56 MAX 33 MIN .00 AC-FT 404
WTR YR 1988 TOTAL 10.00 MEAN .027 MAX .41 MIN .00 AC-FT 20

YELLOWSTONE RIVER BASIN

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1987 to September 1988.

REMARKS.--No flow observed July 26, Sept. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
JUL			
26...		0930	0.0
SEP			
06...		1228	0.0

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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)
JUL 26...	1255	0.08	2980	8.0	28.0	660	8.5	127	1200	280	130	300	
SEP 06...	1420	0.03	3100	7.9	24.5	660	7.2	101	1300	280	140	350	

DATE	TIME	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT 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- PHOROUS TOTAL (MG/L AS P)
JUL 26...	4	9.9	130	1600	16	0.4	3.8	2420	3.29	0.52	<0.1	<0.03	
SEP 06...	4	9.1	300	1600	14	0.4	6.3	2580	3.51	0.21	<0.1	<0.03	

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 02...	1320	24	13.5	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
JUN 07...	1925	8.2	26.0	<0.01	0.15	<0.01	<0.01	<0.01	<0.01
JUL 06...	1240	3.6	23.0	<0.01	0.18	<0.01	<0.01	<0.01	<0.01
SEP 25...	1915	3.1	18.0	<0.01	0.09	<0.01	<0.01	<0.01	<0.01

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. 16-18, 23-25, 27-30, Dec. 3, Dec. 13 to Mar. 8, Mar. 12-18, June 19-21, July 16-18, 20-26, 28-30, Aug. 1-31, and Sept. 1-5, 7-17, 28. Records good 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.--57 years (water years 1931-33, 1935-88), 278 ft³/s, 201,400 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)
Mar. 5	1730	ice jam	a*4.02	No peak greater than base discharge.			
May 16	0430	*1,020	3.38				

a - May have been exceeded periods of ice jamming and no gage-height record.

No flow for several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	156	58	71	87	150	223	260	201	97	.00	.00
2	113	165	36	74	70	170	203	273	175	68	.00	.00
3	113	182	95	67	80	225	189	356	175	58	.00	.00
4	109	189	119	62	75	305	182	417	156	82	.00	.00
5	113	249	170	61	72	415	177	356	138	93	6.6	.00
6	113	233	208	63	82	530	179	314	126	71	14	.00
7	113	218	189	66	99	660	184	393	117	52	5.8	.00
8	117	189	191	61	97	810	194	456	93	38	2.5	.00
9	117	175	184	56	93	907	203	534	79	30	8.0	.00
10	121	170	184	63	87	847	203	369	68	22	16	.00
11	130	170	194	70	97	550	239	309	68	22	7.0	.00
12	126	165	170	63	107	194	233	303	79	22	3.2	.08
13	126	168	112	55	110	140	198	298	79	44	1.4	.26
14	138	175	62	57	98	170	179	295	97	46	.68	.70
15	143	186	49	58	112	156	186	542	330	26	.16	1.7
16	147	173	55	62	120	192	223	766	332	18	.00	5.4
17	138	160	62	58	109	226	281	792	184	13	.00	11
18	154	175	66	60	102	270	337	722	130	8.5	.00	24
19	161	203	61	64	101	349	382	692	100	5.7	.00	31
20	156	179	55	69	110	451	403	748	71	4.2	.00	33
21	161	165	60	78	120	429	456	658	55	3.2	.00	36
22	161	170	58	88	115	393	496	558	48	3.9	.00	38
23	165	181	54	100	111	474	445	438	44	5.3	.00	38
24	165	189	55	116	104	489	434	369	38	7.0	.00	41
25	152	183	52	110	115	493	445	340	28	4.7	.00	41
26	152	194	58	102	131	493	420	332	24	3.2	.00	44
27	156	181	62	114	149	452	396	281	24	2.1	.00	42
28	165	170	67	122	165	343	349	265	26	.92	.00	48
29	165	150	78	132	178	303	306	254	44	.43	.00	58
30	165	90	85	135	---	278	281	239	214	.12	.00	65
31	161	---	79	110	---	249	---	218	---	.00	.00	---
TOTAL	4329	5353	3028	2467	3096	12113	8626	13147	3343	851.27	65.34	558.14
MEAN	140	178	97.7	79.6	107	391	288	424	111	27.5	2.11	18.6
MAX	165	249	208	135	178	907	496	792	332	97	16	65
MIN	109	90	36	55	70	140	177	218	24	.00	.00	.00
AC-FT	8590	10620	6010	4890	6140	24030	17110	26080	6630	1690	130	1110
CAL YR 1987	TOTAL	111926	MEAN	307	MAX	2320	MIN	36	AC-FT	222000		
WTR YR 1988	TOTAL	56976.75	MEAN	156	MAX	907	MIN	.00	AC-FT	113000		

WATER-QUALITY RECORDS

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.

REMARKS.--No flow observed Sept. 6.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible][illegible]

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: Oct. 20-22, 24, Nov. 9-16, Dec. 15-21, Jan. 2 to Mar. 2, Mar. 8-10, 29-31, Apr. 1-15, 18, 20-28, 30, and May 2-4, 6, 7. 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, 17 ft³/s, May 18, gage height, 1.70 ft; maximum gage height, unknown, occurred during periods of missing record, Jan. 2 to Feb. 27 or Mar. 29 to Apr. 13 (backwater from ice); minimum daily discharge, 0.35 ft³/s, Jan. 4-6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.3	.82	.38	.40	.60	.44	2.5	6.4	3.2	.83	.58
2	1.6	1.5	1.1	.37	.40	.60	.52	1.7	6.1	3.0	.90	.53
3	1.6	1.7	1.1	.36	.40	.57	.90	1.3	5.5	2.7	.95	.52
4	1.6	1.7	.98	.35	.41	.58	.99	1.8	5.8	2.6	1.1	.54
5	1.5	1.6	.96	.35	.41	.56	.89	2.3	6.3	2.6	.85	.49
6	1.6	1.5	.96	.35	.42	.57	1.2	2.5	6.6	2.4	.80	.47
7	1.6	1.5	.96	.37	.44	.63	1.7	2.1	6.0	2.2	.81	.44
8	1.6	1.4	.96	.37	.44	.60	1.5	2.6	5.7	2.2	1.2	.44
9	1.6	1.3	.91	.39	.43	.60	1.1	3.5	5.6	2.2	.92	.47
10	1.6	1.2	.94	.39	.41	.54	1.0	4.2	5.0	2.2	.81	.47
11	1.7	1.1	.96	.40	.42	.45	1.5	4.8	4.8	2.2	.85	2.3
12	1.8	1.0	.86	.40	.48	.43	2.6	5.4	5.4	2.0	.92	1.3
13	1.8	1.1	.75	.40	.48	.42	3.4	6.3	8.7	1.9	1.3	.88
14	1.7	1.0	.72	.43	.47	.40	2.3	9.3	6.9	1.8	.91	.84
15	1.7	1.0	.66	.43	.47	.44	2.6	6.0	6.0	1.7	.84	.70
16	1.7	.98	.60	.41	.47	.47	2.9	6.6	5.4	1.7	.89	.67
17	1.7	1.1	.58	.41	.45	.46	2.7	11	5.3	1.6	.82	.61
18	1.6	1.1	.58	.40	.46	.44	2.6	15	4.9	1.5	.80	.75
19	1.5	1.1	.56	.40	.48	.46	2.3	10	4.5	2.0	.75	.68
20	1.4	1.1	.54	.40	.52	.49	2.0	7.0	4.2	1.6	.72	.65
21	1.3	1.1	.56	.42	.50	.54	1.7	6.4	4.0	1.4	.69	.57
22	1.3	1.0	.55	.42	.50	.55	1.5	6.2	4.0	1.2	.68	.56
23	1.4	.95	.55	.43	.50	.50	1.7	6.7	3.8	1.2	.69	.56
24	1.4	.91	.54	.43	.48	.44	1.9	8.0	3.6	1.1	.70	.55
25	1.4	.91	.48	.43	.52	.42	1.7	10	3.6	1.1	.70	.56
26	1.4	.96	.45	.43	.54	.45	1.4	10	3.9	1.1	.72	.53
27	1.4	.96	.45	.43	.56	.47	1.7	9.6	3.4	1.2	.71	.55
28	1.4	.86	.47	.44	.58	.43	2.2	9.5	3.7	1.3	.76	.64
29	1.4	.87	.47	.44	.58	.42	2.8	9.8	5.6	1.2	.73	.64
30	1.4	.84	.47	.45	---	.45	2.8	11	3.7	1.1	.68	.61
31	1.4	---	.42	.42	---	.44	---	8.5	---	.87	.64	---
TOTAL	47.8	34.64	21.91	12.50	13.62	15.42	54.54	201.6	154.4	56.07	25.67	20.10
MEAN	1.54	1.15	.71	.40	.47	.50	1.82	6.50	5.15	1.81	.83	.67
MAX	1.8	1.7	1.1	.45	.58	.63	3.4	15	8.7	3.2	1.3	2.3
MIN	1.3	.84	.42	.35	.40	.40	.44	1.3	3.4	.87	.64	.44
AC-FT	95	69	43	25	27	31	108	400	306	111	51	40

CAL YR 1987 TOTAL 1340.26 MEAN 3.67 MAX 29 MIN .42 AC-FT 2660
WTR YR 1988 TOTAL 658.27 MEAN 1.80 MAX 15 MIN .35 AC-FT 1310

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 September 1988 (discontinued).

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: Nov. 15 to Apr. 13. Records good except those Nov. 15 to Dec. 12 and Mar. 15 to Apr. 13, which are poor. No diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37 ft³/s, Apr. 18, 1987, gage height, 5.77 ft, from rating curve extended above 10 ft³/s on basis of critical-depth backwater analysis; maximum gage height, 7.02 ft, Apr. 9, 1987 (backwater from ice); no flow for several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft³/s, Apr. 7, gage height, 6.11 ft (backwater from ice), from rating curve extended above 10 ft³/s on basis of critical-depth backwater analysis; maximum gage height observed, 6.58 ft, Apr. 6 (backwater from ice); no flow for many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.47	.04	.00	.00	.00	.14	1.2	.76	.47	.00	.00
2	.26	.75	.04	.00	.00	.00	.40	.72	.74	.23	.00	.00
3	.26	1.3	.06	.00	.00	.00	1.1	.78	.63	.13	.00	.00
4	.26	1.3	.07	.00	.00	.00	.64	.88	.53	.07	.00	.00
5	.26	.93	.09	.00	.00	.00	.69	.94	.39	.05	.00	.00
6	.26	1.1	.08	.00	.00	.00	3.3	.94	.33	.03	.00	.00
7	.28	.76	.06	.00	.00	.00	15	.54	.22	.02	.00	.00
8	.29	.77	.05	.00	.00	.00	6.4	1.5	.14	.01	.00	.00
9	.30	.53	.03	.00	.00	.00	3.2	4.7	.11	.01	.00	.00
10	.36	.46	.06	.00	.00	.00	2.2	7.1	.13	.02	.00	.00
11	.39	.46	.05	.00	.00	.00	2.6	4.3	.11	.06	.00	.00
12	.56	.46	.03	.00	.00	.00	3.6	2.7	.25	.05	.00	.00
13	.66	.46	.00	.00	.00	.00	4.3	2.0	2.2	.03	.00	.00
14	.57	.45	.00	.00	.00	.00	4.0	1.8	1.6	.01	.00	.00
15	.56	.40	.00	.00	.00	.00	3.9	1.3	.92	.00	.00	.00
16	.50	.30	.00	.00	.00	.00	3.4	1.1	.58	.00	.00	.00
17	.45	.24	.00	.00	.00	.00	2.7	1.3	.41	.00	.00	.00
18	.54	.20	.00	.00	.00	.00	1.9	2.4	.28	.0	.00	.00
19	.55	.22	.00	.00	.00	.02	1.8	2.7	.19	.02	.00	.00
20	.55	.26	.00	.00	.00	.20	1.5	1.8	.14	.03	.00	.00
21	.54	.24	.00	.00	.00	.37	1.4	1.3	.10	.03	.00	.00
22	.52	.22	.00	.00	.00	.32	.97	.97	.19	.01	.00	.00
23	.43	.21	.00	.00	.00	.27	1.1	.96	.19	.00	.00	.00
24	.36	.18	.00	.00	.00	.24	1.6	.89	.06	.00	.00	.00
25	.44	.16	.00	.00	.00	.21	1.6	.93	.03	.00	.00	.00
26	.45	.14	.00	.00	.00	.26	1.3	.97	.01	.00	.00	.00
27	.38	.12	.00	.00	.00	.31	1.3	.97	2.7	.00	.00	.0
28	.30	.10	.00	.00	.00	.25	2.2	.86	3.8	.00	.00	.06
29	.31	.07	.00	.00	.00	.20	1.6	.75	2.5	.00	.00	.03
30	.33	.05	.00	.00	---	.12	1.5	.78	1.2	.00	.00	.03
31	.42	---	.00	.00	---	.10	---	.81	---	.00	.00	---
TOTAL	12.63	13.31	0.66	0.00	0.00	2.87	77.34	50.89	21.44	1.28	0.00	0.12
MEAN	.41	.44	.021	.00	.00	.093	2.58	1.64	.71	.041	.00	.004
MAX	.66	1.3	.09	.00	.00	.37	15	7.1	3.8	.47	.00	.06
MIN	.26	.05	.00	.00	.00	.00	.14	.54	.01	.00	.00	.00
AC-FT	25	26	1.3	.0	.0	5.7	153	101	43	2.5	.0	.2

CAL YR 1987 TOTAL 467.85 MEAN 1.28 MAX 18 MIN .00 AC-FT 928
WTR YR 1988 TOTAL 180.54 MEAN .49 MAX 15 MIN .00 AC-FT 358

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. Records after October 1987 are not considered equivalent due to installation of diversion for water-supply pipeline for city of Buffalo.

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. 17-30, Dec. 1, 2, 8, 9, 11-26, Jan. 31, Feb. 1-7, 26-29, and Mar. 1-16, 20-22. 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 and for water-supply pipeline for city of Buffalo, capacity 12 ft³/s.

AVERAGE DISCHARGE.--61 years (water years 1898-99, 1918-27, 1939-87), prior to water-supply diversion for City of Buffalo, 63.5 ft³/s, 46,020 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)
May 14	0800	386	3.19	June 12	1930	405	3.22
May 18	0900	*447	*3.31				

Minimum daily discharge, 6.0 ft³/s, Jan. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	28	20	11	7.9	9.3	11	84	156	115	22	15
2	32	38	21	9.8	7.6	9.7	16	58	128	80	24	15
3	31	44	22	9.2	7.9	9.7	27	43	125	63	27	15
4	30	40	23	8.4	8.1	9.7	31	41	182	58	31	15
5	30	35	24	7.5	7.8	9.8	21	49	223	54	27	14
6	36	32	22	6.8	7.5	9.9	22	65	237	48	23	14
7	36	34	22	6.5	7.8	9.5	59	58	198	44	22	14
8	36	29	22	6.2	7.9	9.6	54	60	143	42	29	13
9	38	27	21	6.1	7.9	9.8	24	68	114	39	25	13
10	34	26	22	6.0	8.0	9.6	18	93	91	38	22	13
11	38	28	21	6.1	8.0	9.3	23	112	81	37	21	27
12	39	31	18	6.3	8.2	8.9	46	153	90	32	20	36
13	39	30	15	6.4	8.5	8.6	52	209	128	29	25	30
14	37	30	12	6.5	8.4	8.6	52	346	108	26	23	35
15	38	25	11	6.9	8.5	8.5	58	227	101	25	20	32
16	34	18	11	7.4	8.5	8.4	65	192	89	35	21	30
17	35	14	11	7.5	8.4	8.8	68	250	82	35	20	29
18	36	16	11	7.7	8.3	8.9	65	401	78	35	19	29
19	34	19	12	7.5	8.2	10	63	240	76	48	18	32
20	26	22	12	7.2	8.2	13	60	146	71	45	18	28
21	36	21	12	7.0	8.4	17	59	104	71	40	17	26
22	33	20	13	6.9	8.6	16	46	82	75	35	18	24
23	31	19	13	6.9	8.4	15	38	82	73	32	16	24
24	31	19	12	7.0	8.4	14	40	108	79	30	15	18
25	32	18	12	7.2	8.5	12	40	161	72	27	16	13
26	31	18	12	7.3	9.0	13	27	196	67	26	16	12
27	28	19	12	7.4	9.7	18	29	217	68	26	16	12
28	29	20	12	7.7	9.3	16	35	200	71	25	16	13
29	28	19	12	8.1	8.9	14	55	217	218	27	16	13
30	27	19	12	8.5	---	11	73	251	188	24	15	12
31	28	---	11	8.3	---	11	---	235	---	22	15	---
TOTAL	1026	758	486	229.3	240.8	346.6	1277	4748	3483	1242	633	616
MEAN	33.1	25.3	15.7	7.40	8.30	11.2	42.6	153	116	40.1	20.4	20.5
MAX	39	44	24	11	9.7	18	73	401	237	115	31	36
MIN	26	14	11	6.0	7.5	8.4	11	41	67	22	15	12
AC-FT	2040	1500	964	455	478	687	2530	9420	6910	2460	1260	1220

CAL YR 1987 TOTAL 22031 MEAN 60.4 MAX 655 MIN 11 AC-FT 43700
WTR YR 1988 TOTAL 15085.7 MEAN 41.2 MAX 401 MIN 6.0 AC-FT 29920

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.--No estimated daily discharges. 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 the 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, 374 ft³/s, May 13, gage height, 5.71 ft; minimum daily during period of operation, 5.4 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	6.8	69	102	57	29	13
2	---	---	---	---	---	---	7.9	52	97	48	29	12
3	---	---	---	---	---	---	10	40	94	45	30	13
4	---	---	---	---	---	---	11	38	101	46	29	13
5	---	---	---	---	---	---	9.4	49	105	46	24	12
6	---	---	---	---	---	---	8.6	69	97	44	23	11
7	---	---	---	---	---	---	14	73	75	44	21	12
8	---	---	---	---	---	---	18	62	72	43	21	13
9	---	---	---	---	---	---	13	60	63	42	20	13
10	---	---	---	---	---	---	11	81	55	44	18	13
11	---	---	---	---	---	---	12	114	64	47	19	14
12	---	---	---	---	---	---	19	184	74	45	23	15
13	---	---	---	---	---	---	25	253	84	44	23	14
14	---	---	---	---	---	---	23	306	75	45	22	15
15	---	---	---	---	---	---	24	211	69	45	22	14
16	---	---	---	---	---	---	32	221	66	45	31	14
17	---	---	---	---	---	---	40	297	64	45	31	14
18	---	---	---	---	---	---	38	315	58	45	27	14
19	---	---	---	---	---	---	35	209	58	45	19	15
20	---	---	---	---	---	---	32	165	40	44	19	14
21	---	---	---	---	---	---	45	150	35	44	19	14
22	---	---	---	---	---	---	40	143	35	43	19	14
23	---	---	---	---	---	---	35	148	39	43	17	14
24	---	---	---	---	---	---	34	167	49	42	17	13
25	---	---	---	---	---	---	33	181	47	41	15	13
26	---	---	---	---	---	---	30	170	46	42	6.4	13
27	---	---	---	---	---	---	29	171	61	41	6.2	12
28	---	---	---	---	---	---	30	159	59	36	6.2	13
29	---	---	---	---	---	---	44	163	95	29	6.4	11
30	---	---	---	---	---	---	62	177	70	28	12	5.4
31	---	---	---	---	---	---	---	138	---	29	12	---
TOTAL	---	---	---	---	---	---	771.7	4635	2049	1327	616.2	390.4
MEAN	---	---	---	---	---	---	25.7	150	68.3	42.8	19.9	13.0
MAX	---	---	---	---	---	---	62	315	105	57	31	15
MIN	---	---	---	---	---	---	6.8	38	35	28	6.2	5.4
AC-FT	---	---	---	---	---	---	1530	9190	4060	2630	1220	774

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 05...	1015	58	710	8.2	8.5	640	11.7
JAN 25...	1530	34	940	7.8	2.0	650	16.2
MAY 23...	1000	170	300	7.9	11.0	650	9.8
JUL 26...	0805	16	690	7.9	17.0	645	6.6

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- PHOROUS TOTAL (MG/L AS P)
OCT 05...	120	150	<0.1	0.01	0.29	0.3	0.03
JAN 25...	138	120	0.2	0.05	0.35	0.4	0.03
MAY 23...	104	210	<0.1	0.03	0.67	0.7	0.03
JUL 26...	81	680	<0.1	0.04	1.1	1.1	0.04

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 08...	1650	62	12.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

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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 1976-81, October 1982 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	0810	6.3	21.0	<0.01	0.10	0.05	<0.01	<0.01	<0.01
JUL 16...	0710	6.9	19.0	<0.01	0.13	<0.01	<0.01	<0.01	<0.01
SEP 28...	0840	23	9.0	<0.01	0.17	0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

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 1-14. Records good except those for estimated daily discharges, 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 the 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, 313 ft³/s, May 30, gage height, 3.74 ft; minimum daily during period of operation, 4.8 ft³/s, May 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	4.8	183	150	70	53
2	---	---	---	---	---	---	---	5.0	154	111	70	52
3	---	---	---	---	---	---	---	5.0	155	96	70	52
4	---	---	---	---	---	---	---	5.2	188	101	70	51
5	---	---	---	---	---	---	---	5.2	221	100	68	48
6	---	---	---	---	---	---	---	5.4	252	103	67	48
7	---	---	---	---	---	---	---	5.4	223	104	63	47
8	---	---	---	---	---	---	---	5.6	179	104	63	47
9	---	---	---	---	---	---	---	5.6	141	101	61	48
10	---	---	---	---	---	---	---	5.8	124	95	60	47
11	---	---	---	---	---	---	---	5.8	114	94	65	46
12	---	---	---	---	---	---	---	6.0	114	94	68	46
13	---	---	---	---	---	---	---	6.0	125	93	67	47
14	---	---	---	---	---	---	---	6.0	108	91	64	48
15	---	---	---	---	---	---	---	107	90	90	64	50
16	---	---	---	---	---	---	---	142	80	89	64	50
17	---	---	---	---	---	---	---	202	77	85	64	49
18	---	---	---	---	---	---	---	267	76	81	64	48
19	---	---	---	---	---	---	---	186	76	79	65	48
20	---	---	---	---	---	---	---	108	79	78	64	47
21	---	---	---	---	---	---	---	76	82	78	63	46
22	---	---	---	---	---	---	---	65	86	79	63	45
23	---	---	---	---	---	---	---	77	114	79	62	43
24	---	---	---	---	---	---	---	121	108	79	62	40
25	---	---	---	---	---	---	---	191	93	79	60	37
26	---	---	---	---	---	---	---	213	89	79	58	35
27	---	---	---	---	---	---	---	244	87	79	58	34
28	---	---	---	---	---	---	---	228	88	71	55	32
29	---	---	---	---	---	---	---	252	190	65	55	18
30	---	---	---	---	---	---	---	310	213	68	55	6.4
31	---	---	---	---	---	---	---	263	---	70	54	---
TOTAL	---	---	---	---	---	---	---	3128.8	3909	2765	1956	1308.4
MEAN	---	---	---	---	---	---	---	101	130	89.2	63.1	43.6
MAX	---	---	---	---	---	---	---	310	252	150	70	53
MIN	---	---	---	---	---	---	---	4.8	76	65	54	6.4
AC-FT	---	---	---	---	---	---	---	6210	7750	5480	3880	2600

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. 16-20, 25, Nov. 27 to Dec. 2, Dec. 9 to Feb. 28, and Mar. 5, 8, 11-19, 28, 29. 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 the Geological Survey.

AVERAGE DISCHARGE.--48 years (water years 1941-88), 85.2 ft³/s, 61,730 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, 968 ft³/s, May 18, gage height, 4.11 ft; minimum daily, 2.2 ft³/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	32	42	28	27	27	33	150	328	88	9.1	6.4
2	13	40	36	28	27	25	35	134	269	55	9.4	5.0
3	18	48	32	27	27	25	40	129	249	37	12	4.2
4	17	40	32	26	27	26	40	129	308	24	13	4.0
5	17	38	33	27	28	25	37	141	412	25	13	3.5
6	16	35	32	28	28	25	40	170	532	22	12	3.4
7	16	37	32	28	29	25	46	289	520	19	12	2.7
8	16	35	32	27	29	22	49	255	388	15	13	2.7
9	17	35	33	26	28	27	45	230	308	15	11	2.7
10	19	35	33	27	27	27	45	236	215	15	9.5	2.2
11	28	35	32	28	28	26	49	249	125	13	9.4	4.0
12	30	36	31	27	29	25	56	320	83	11	14	5.3
13	29	37	30	26	30	24	65	437	106	8.8	13	5.3
14	31	38	29	28	30	25	70	598	83	8.7	9.5	5.0
15	32	34	30	31	31	26	83	592	58	8.4	9.3	4.8
16	32	33	30	30	29	25	99	640	43	8.4	7.7	4.0
17	32	31	31	29	28	25	114	808	38	5.9	6.4	4.0
18	34	34	30	28	29	26	116	918	25	5.0	6.2	5.0
19	34	35	31	28	30	32	123	673	8.8	6.0	8.0	5.9
20	31	36	30	27	31	37	123	455	27	7.3	7.7	5.0
21	32	38	30	28	32	40	143	372	27	5.9	7.4	4.2
22	32	36	31	29	31	39	125	328	27	5.3	7.7	4.1
23	31	36	31	30	29	39	119	336	29	5.3	8.0	4.2
24	31	35	30	29	29	38	119	376	29	5.0	8.7	4.0
25	32	35	30	30	29	34	116	460	18	4.5	9.1	3.5
26	31	35	31	30	30	37	106	490	23	6.7	11	3.3
27	29	35	33	31	30	41	101	574	41	7.3	12	4.0
28	30	38	31	31	30	35	101	500	46	8.0	13	6.2
29	29	40	33	32	30	33	112	510	93	8.0	11	5.0
30	29	42	30	31	---	35	129	574	129	8.7	8.1	3.5
31	29	---	28	29	---	33	---	490	---	9.1	8.0	---
TOTAL	809	1094	979	884	842	929	2479	12563	4587.8	471.3	309.2	127.1
MEAN	26.1	36.5	31.6	28.5	29.0	30.0	82.6	405	153	15.2	9.97	4.24
MAX	34	48	42	32	32	41	143	918	532	88	14	6.4
MIN	12	31	28	26	27	22	33	129	8.8	4.5	6.2	2.2
AC-FT	1600	2170	1940	1750	1670	1840	4920	24920	9100	935	613	252

CAL YR 1987 TOTAL 20486.7 MEAN 56.1 MAX 386 MIN 9.7 AC-FT 40640
WTR YR 1988 TOTAL 26074.4 MEAN 71.2 MAX 918 MIN 2.2 AC-FT 51720

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	BAROMETRIC PRESSURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, (PER-CENT SATURATION)	HARDNESS TOTAL (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)
JUL 26...	1700	32	940	8.2	26.0	661	8.9	128	390	98	35	42
SEP 07...	0900	37	870	8.1	16.0	650	7.8	93	400	94	41	42

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	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)	PHOSPHOROUS TOTAL (MG/L AS P)
JUL 26...	1	5.4	110	310	2.5	0.3	4.2	563	0.77	48.7	<0.1	<0.03
SEP 07...	0.9	5.6	150	330	3.0	0.3	5.2	611	0.83	61.0	<0.1	0.12

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	TEMPERATURE WATER (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...	0945	77	21.0	<0.01	0.03	0.03	<0.01	<0.01	<0.01
JUL 26...	1700	32	26.0	0.01	0.02	<0.01	<0.01	<0.01	<0.01

YELLOWSTONE RIVER BASIN

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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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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)
JUL 27...	1155	8.0	1690	8.0	25.0	662	7.6	107	850	190	91	130	
SEP 06...	1710	3.0	2050	8.1	26.0	670	9.1	129	950	200	110	150	
DATE	TIME	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)	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- PHOROUS TOTAL (MG/L AS P)
JUL 27...	2	7.7	180	800	16	0.3	5.0	1350	1.83	29.1	<0.1	<0.03	
SEP 06...	2	8.5	230	980	5.9	0.3	7.4	1600	2.18	13.0	0.1	0.10	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)					
MAY 25...	1240	222	19.0	<0.1	0.01	0.29	0.30	0.03					
JUN 22...	1340	2.1	30.0	<0.1	0.05	0.25	0.30	<0.01					
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)				
OCT 02...	0850	114	12.0	<0.01	0.09	<0.01	<0.01	<0.01	<0.01				
JUN 22...	1340	2.1	30.0	<0.01	0.39	0.05	<0.01	<0.01	<0.01				
JUL 27...	1155	8.0	25.0	<0.01	0.37	0.01	<0.01	<0.01	<0.01				
SEP 25...	1455	54	16.0	<0.01	0.15	0.03	<0.01	<0.01	<0.01				

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.

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. 20 to Mar. 21. 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.

AVERAGE DISCHARGE.--57 years, 455 ft³/s, 329,600 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)
Mar. 5	0700	ice jam	*4.86	No peak greater than base discharge this year.			
May 19	2100	*1,990	4.09				

Minimum discharge, 0.35 ft³/s, July 31, Aug. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

[illegible]

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 1.2 mi upstream from gaging station.

PERIOD OF RECORD.--Water years 1951-53, 1956-57, 1969-72, 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1986 to current year.

WATER TEMPERATURE: February 1951 to September 1953, October 1955 to September 1957, October 1974 to September 1977, March 1978 to September 1981 (seasonal records only).

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1977, March 1978 to current year (seasonal records only).

REMARKS.--Flow regulated by reservoirs and diversions for irrigation upstream from station. Unpublished records of once-daily water temperature are available in files of Montana District office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,150 microsiemens, July 17, 1988; minimum daily, 642 microsiemens, May 20, 1988.

WATER TEMPERATURE (water years 1951-53, 1955-57, 1975-81): Maximum daily, 33.0°C, July 13, 1981; minimum daily, 0.0°C on many days during winter.

SEDIMENT CONCENTRATION: Maximum daily mean, 53,500 mg/L, May 27, 1980; minimum daily mean, 5 mg/L, Sept. 15, 1975.

SEDIMENT LOAD: Maximum daily, 2,230,000 tons, May 20, 1978; minimum daily, 0.17 ton, Aug. 1, 1988.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 4,150 microsiemens, July 17; minimum daily, 642 microsiemens, May 20.

SEDIMENT CONCENTRATION: Maximum daily mean, 10,400 mg/L, May 16; minimum daily mean, 39 mg/L, Sept. 12.

SEDIMENT LOAD: Maximum daily, 45,500 tons, May 16; minimum daily, 0.17 ton, Aug. 1.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
NOV 05...	1100	344	0	0	1830	7.0	6.5	682	10.5	96
DEC 17...	1030	77	50	1	2690	-5.0	0.0	676	12.5	97
JAN 28...	1020	122	70	1	2220	1.5	0.0	680	6.1	47
MAR 10...	0950	758	100	--	2040	1.0	0.0	674	11.7	91
APR 20...	0850	679	50	1	--	11.0	10.5	673	9.5	97
MAY 19...	1020	1740	100	2	591	14.0	13.0	680	8.2	87
JUN 07...	0820	441	0	0	1140	21.0	20.5	672	7.2	91
JUN 22...	1600	79	--	--	--	39.0	29.0	--	--	--
JUL 26...	0900	37	5	0	2350	27.0	19.5	681	7.8	96
SEP 14...	1145	28	100	2	2170	17.0	15.5	681	9.7	110
SEP 25...	1700	66	--	--	--	27.0	19.0	--	--	--

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PH (STAND- ARD UNITS)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB 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)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
NOV 05...	8.30	460	240	100	52	240	5	5.2	222	510
DEC 17...	8.20	740	470	160	82	310	5	7.5	268	880
JAN 28...	7.80	520	170	120	54	290	6	6.2	353	570
MAR 10...	8.20	210	50	23	37	290	9	4.6	160	680
APR 20...	8.20	370	170	83	39	230	5	4.7	195	470
MAY 19...	7.90	150	39	37	15	62	2	2.4	115	140
JUN 07...	8.10	280	130	66	29	130	3	3.9	155	300
JUN 22...	--	--	--	--	--	--	--	--	--	--
JUL 26...	8.10	840	650	170	100	250	4	9.7	187	1100
SEP 14...	8.10	790	580	150	100	180	3	8.8	210	1100
SEP 25...	--	--	--	--	--	--	--	--	--	--

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)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)
NOV 05...	170	0.4	6.6	1220	1.66	1130	<0.10	--	0.01
DEC 17...	180	0.5	12	1790	2.44	373	0.34	--	--
JAN 28...	230	0.5	0.6	1480	2.02	489	0.33	--	<0.01
MAR 10...	150	0.5	6.6	1290	1.76	2650	0.40	--	--
APR 20...	140	0.6	8.1	1090	1.49	2000	0.25	--	0.81
MAY 19...	29	0.4	8.9	365	0.50	1710	0.28	--	0.03
JUN 07...	82	0.3	7.2	711	0.97	847	<0.10	--	0.01
JUN 22...	--	--	--	--	--	--	--	--	--
JUL 26...	80	0.3	5.8	1830	2.49	183	<0.10	0.06	--
SEP 14...	18	0.2	5.8	1690	2.30	128	<0.10	--	--
SEP 25...	--	--	--	--	--	--	--	--	--

DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
JUN 22...	1600	<0.01	0.09	<0.01	<0.01	<0.01	<0.01
SEP 25...	1700	<0.01	0.38	<0.01	0.20	<0.01	<0.01

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
MAR 10...	0950	0.0	758	2740	5610	32	40	50
APR 20...	0850	10.5	679	4800	8800	30	36	46
MAY 19...	1020	13.0	1740	6180	29000	19	24	31
JUN 07...	0820	20.5	441	837	997	--	--	--
JUL 26...	0900	19.5	37	112	11	--	--	--
SEP 14...	1145	15.5	28	76	5.7	--	--	--

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 1.00 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAR 10...	60	73	84	100	--	--	--
APR 20...	57	75	89	95	99	100	--
MAY 19...	39	58	86	100	--	--	--
JUN 07...	--	--	--	--	--	--	51
JUL 26...	--	--	--	--	--	--	98
SEP 14...	--	--	--	--	--	--	98

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1880	1940	2620	2500	2190	1690	2280	1920	743	2170	2670	2240
2	1930	1930	2190	2440	2310	1640	2370	1960	742	1880	2850	2260
3	1980	1890	2010	2500	2370	1650	2360	2000	887	1290	2960	2370
4	2090	1880	1780	2550	2400	1620	2310	1960	1090	1340	2880	2450
5	2150	1870	2250	2680	2470	1780	2220	1970	1250	1660	2590	2490
6	2200	1880	2560	2920	2470	1790	2240	1730	1260	1730	2020	2450
7	2180	2060	2000	2840	2450	1810	2230	1520	1120	3220	2080	2550
8	2160	2000	2080	2820	2390	1950	2260	1460	764	3510	2170	2560
9	2140	2140	1790	2810	2390	2020	2240	1410	782	3520	2200	---
10	2150	2000	2100	2800	2390	2090	2180	1530	998	3010	2150	2620
11	2130	2020	2100	2650	2240	2080	2140	1600	1120	2620	1820	2470
12	2140	1980	2210	2710	2330	2220	2200	1750	1280	2390	1840	2220
13	2150	1990	2570	2760	2380	2160	2210	1770	1510	2610	1880	2250
14	2070	1970	2590	2780	2400	2320	2050	1680	1940	2610	1720	2120
15	2090	1950	2560	2660	2280	2260	1890	1080	1700	2890	2150	2050
16	2030	1940	2520	2590	2300	2270	1830	1040	2070	3660	1950	2030
17	2020	1970	2610	2490	2300	2380	1860	1030	2570	4150	1730	1990
18	2000	1970	2430	2450	2270	2410	1890	845	2790	3320	1610	1930
19	1990	1880	2420	2300	2230	2410	1960	710	2470	2380	1760	1930
20	1980	2170	2520	2310	2030	2080	1590	642	2490	2380	1990	1870
21	1950	2070	2490	2410	1410	2140	1530	725	2510	2550	2110	1920
22	1970	1920	2400	2450	1370	2000	1360	786	2690	2420	2140	1720
23	2030	1780	2270	2350	1470	1950	1460	836	3400	2400	2020	2120
24	2050	1890	2480	2320	1600	2200	1400	898	3360	2520	2060	2180
25	2030	2170	2570	2300	1760	2410	1450	1030	3460	2580	2050	2160
26	2030	2120	2690	2270	1830	2280	1420	1030	3490	2370	2130	2230
27	2030	1950	2860	2260	1800	2390	1490	996	3480	2020	2190	2350
28	1990	2110	2930	2250	1760	2370	1600	920	3220	2140	2280	2330
29	1990	2280	2800	2260	1800	2210	1750	850	3110	2270	2200	2410
30	1990	2570	2570	2230	---	2150	1900	811	2920	2410	2130	2540
31	1970	---	2500	2150	---	2250	---	840	---	2570	2150	---
MEAN	2050	2010	2400	2510	2120	2100	1920	1270	2040	2540	2140	2230

YELLOWSTONE RIVER BASIN

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1											325	439
2											266	395
3											389	630
4											1400	2650
5											2100	4540
6											1830	3460
7											3600	6800
8											7200	15600
9											1200	2920
10											2140	4620
11											1160	1880
12											420	510
13											240	227
14											288	272
15											192	181
16											566	688
17											594	882
18											790	1070
19											2530	4100
20											3720	7030
21											7150	14700
22											6320	11600
23											5950	11100
24											6720	12600
25											7660	15000
26											7810	14700
27											8160	15300
28											8640	14800
29											7090	10200
30											5170	6850
31											4790	6140
TOTAL											---	191884
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	4060	4950	2640	3000	1950	4190	5500	5870	80	.17	84	1.6
2	3180	3640	2510	2800	1310	2270	3600	3130	87	.23	69	1.1
3	3000	3300	3000	3770	750	925	1080	682	84	.45	64	.74
4	3300	3550	3860	5710	730	717	320	126	76	1.7	59	.68
5	2170	2350	3850	5260	745	658	179	53	115	10	74	1.0
6	2050	2200	3220	3940	590	538	310	104	150	19	64	.55
7	1960	2010	3420	4740	910	1170	747	186	113	6.4	52	.29
8	2030	2070	4200	7440	1020	1530	1600	315	119	4.5	56	.51
9	2020	2140	6960	16800	715	878	10000	1540	106	2.8	48	.64
10	2040	2230	5230	10300	380	352	3850	468	101	4.9	41	.99
11	1910	2140	3380	5400	172	130	1250	142	117	14	41	2.0
12	2750	3390	3240	4580	120	74	1850	205	95	9.7	39	3.1
13	2690	3090	3780	5430	85	48	800	65	101	10	56	4.4
14	2060	2230	4860	9360	175	106	171	9.2	112	9.4	68	5.7
15	1730	1860	9400	32200	100	51	312	29	104	5.9	74	6.4
16	1810	1950	10400	45500	2130	2160	459	55	106	6.9	62	5.5
17	2410	3050	9600	39900	4060	4070	552	57	96	6.7	63	5.4
18	3710	5690	8440	36200	6410	4260	563	62	111	6.3	65	6.7
19	5770	10100	7680	37500	8200	3900	165	10	101	4.9	72	8.0
20	5240	9990	6240	28000	7690	2720	120	5.2	105	4.5	74	8.2
21	5640	11100	5290	18600	5420	1510	122	6.6	76	2.7	93	13
22	5520	11200	4140	11700	2370	512	106	3.4	68	2.0	101	16
23	5270	9600	3520	8000	1170	208	134	1.6	90	5.8	122	21
24	4370	7280	2630	4910	780	118	100	1.4	79	4.3	103	18
25	4120	6710	1980	3060	572	69	107	2.1	82	3.1	98	16
26	3830	6370	1730	2560	301	32	111	9.0	98	4.0	101	17
27	3490	5430	1980	3400	260	25	86	3.7	84	3.2	109	19
28	3130	4430	1750	3080	148	16	86	1.5	68	2.0	112	22
29	2770	3530	2070	4210	200	21	98	.79	74	2.0	93	17
30	2630	3020	1680	3250	2040	1010	115	.47	70	1.9	118	24
31	---	---	1700	3360	---	---	89	.21	74	1.9	---	---
TOTAL	---	140600	---	373960	---	34268	---	13144.17	---	161.35	---	246.50
TOTAL LOAD FOR PERIOD:			754264.02 TONS.									

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. 27 to Dec. 14, Dec. 31 to Jan. 5, Jan. 9 to Feb. 28, and Mar. 10-20. 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.--16 years, 21.1 ft³/s, 15,290 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. 22	1145	ice jam	*5.04	Mar. 22	0530	*151	4.48
Feb. 29	1930	137	4.40				

No flow for several days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.89	2.5	.80	1.7	93	12	5.8	2.1	14	.0	.11
2	1.1	1.0	2.7	.60	1.2	56	11	5.6	1.6	5.7	.0	.04
3	1.1	1.7	3.0	.63	.96	75	9.3	5.6	2.0	3.5	.0	.08
4	1.2	2.1	2.7	.95	1.1	43	9.0	5.3	1.3	2.2	.0	.09
5	1.4	1.8	2.4	.55	1.2	31	8.3	5.0	1.2	2.0	.0	.13
6	1.6	1.9	2.2	.28	.99	29	7.4	5.0	.95	1.7	.0	.15
7	1.5	1.9	2.1	.20	.89	23	6.7	5.0	.80	1.4	.0	.06
8	1.7	1.9	2.3	.20	1.2	21	6.2	6.0	.58	1.2	.01	.07
9	1.9	1.8	2.4	.12	1.7	20	6.3	5.7	.43	.66	.01	.05
10	2.4	1.8	2.3	.09	2.5	15	6.2	24	.35	.45	.01	.05
11	2.7	2.0	2.1	.05	2.6	11	5.9	15	.39	.27	.02	.05
12	2.9	2.1	2.1	.09	2.3	7.5	5.6	8.3	.23	.27	.02	.0
13	2.7	1.9	2.2	.14	1.9	5.4	5.3	7.5	.31	.25	.02	.0
14	2.7	1.9	2.2	.11	2.1	5.7	5.0	7.1	.47	.15	.02	.0
15	3.0	1.9	2.4	.08	2.4	6.5	4.9	5.8	.53	.29	.02	.0
16	3.4	2.1	2.2	.12	2.4	6.1	4.6	5.3	.29	.24	.02	.0
17	3.3	2.2	2.2	.18	2.3	5.6	4.2	4.8	.20	.22	.01	.0
18	3.3	1.9	2.2	.17	2.2	6.3	4.3	4.6	.17	.29	.01	.0
19	3.4	5.9	2.2	.15	2.6	7.5	4.2	5.0	.12	2.0	.01	.01
20	3.0	2.8	2.3	.14	4.2	10	4.2	5.0	.09	1.0	.01	.0
21	2.4	2.6	2.3	.13	7.8	34	4.4	4.6	.06	.75	.01	.0
22	1.9	2.6	2.4	.14	50	109	3.5	4.3	.05	.39	.01	.01
23	1.7	2.5	2.4	.16	58	76	3.5	3.8	.04	.15	.0	.01
24	1.2	2.6	2.4	.17	38	60	3.2	3.6	.02	.06	.0	.0
25	1.2	2.5	2.3	.20	25	70	4.0	3.5	.01	.05	.0	.0
26	1.0	2.6	2.0	.18	18	43	6.2	3.6	.01	.04	.01	.0
27	.86	2.5	1.8	.20	22	32	6.3	3.6	.0	.03	.08	.01
28	.84	2.5	1.5	.22	28	24	6.3	3.1	.01	.02	.01	.01
29	.91	2.5	1.3	.25	89	21	6.3	2.6	.01	.02	.03	.01
30	1.0	2.5	1.3	.44	---	18	6.0	2.5	49	.01	.05	.01
31	1.0	---	1.2	1.5	---	14	---	2.4	---	.01	.08	---
TOTAL	59.31	66.89	67.6	9.24	374.24	978.6	180.3	179.0	63.32	39.32	0.47	0.95
MEAN	1.91	2.23	2.18	.30	12.9	31.6	6.01	5.77	2.11	1.27	.015	.032
MAX	3.4	5.9	3.0	1.5	89	109	12	24	49	14	.08	.15
MIN	.84	.89	1.2	.05	.89	5.4	3.2	2.4	.00	.01	.00	.00
AC-FT	118	133	134	18	742	1940	358	355	126	78	.9	1.9

CAL YR 1987 TOTAL 4270.82 MEAN 11.7 MAX 137 MIN .84 AC-FT 8470
WTR YR 1988 TOTAL 2019.24 MEAN 5.52 MAX 109 MIN .00 AC-FT 4010

YELLOWSTONE RIVER BASIN

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975-82, 1985 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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...	1530	0.95	2580	16.0	600	120	73	410	7	15
JAN 14...	1540	0.11	3910	6.5	1300	300	140	560	7	17
JUL 12...	1215	0.30	2220	25.0	580	110	74	280	5	18

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- PHOROUS TOTAL (MG/L AS P)
OCT 01...	280	1100	20	0.6	2.9	1910	2.60	4.90	0.1	0.03
JAN 14...	520	1900	26	0.5	17	3270	4.45	0.97	0.1	0.01
JUL 12...	220	990	20	0.5	3.5	1630	2.21	1.32	0.1	<0.03

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 contents (since appreciable storage was attained), 5,540 acre-ft, Mar. 15, 1950, elevation, 5,742.56 ft.
EXTREMES FOR CURRENT YEAR: Maximum daily contents, 120,500 acre-ft, July 1, elevation, 5,794.45 ft; minimum daily contents, 25,660 acre-ft, Sept. 23, 24, elevation, 5,754.11 ft, Sept. 23, 24.
- 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 contents (since normal use of water started), 251,800 acre-ft, Mar. 18, 19, 1956, elevation, 4,684.18 ft.
EXTREMES FOR CURRENT YEAR: Maximum daily contents, 741,300 acre-ft, Oct. 1, elevation, 4,721.81 ft; minimum daily contents, 456,400 acre-ft, Sept. 30, elevation, 4,703.75 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, 34 acre-ft, Oct. 1 to Nov. 9 and Apr. 6 to June 11, elevation, 6,340.00 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 contents, 19,000 acre-ft, Jan 23-25, 1941, elevation, 5,225.3 ft.
EXTREMES FOR CURRENT YEAR: Maximum contents, 320,400 acre-ft, June 27, elevation, 5,347.71 ft; minimum daily contents, 134,900 acre-ft, Sept. 30, elevation, 5,304.52 ft.

YELLOWSTONE RIVER BASIN

Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06224500 BULL LAKE			
Sept. 30	5,784.70	93,500	-
Oct. 31	5,781.89	86,170	-7,330
Nov. 30	5,781.83	86,010	-160
Dec. 31	5,781.77	85,860	-150
CAL YR 1987	-	-	-8,510
Jan. 31	5,781.71	85,710	-150
Feb. 29	5,781.49	85,150	-560
Mar. 31	5,781.52	85,220	+70
Apr. 30	5,781.79	85,920	+700
May 31	5,787.64	101,400	+15,480
June 30	5,794.36	120,200	+18,800
July 31	5,780.20	81,870	-38,330
Aug. 31	5,764.96	46,710	-35,160
Sept. 30	5,754.12	25,680	-21,030
WTR YR 1988	-	-	-67,820
06258900 BOYSEN RESERVOIR			
Sept. 30	4,721.85	742,100	-
Oct. 31	4,719.86	705,900	-36,200
Nov. 30	4,717.84	670,300	-35,600
Dec. 31	4,715.49	630,600	-39,700
CAL YR 1987	-	-	-25,000
Jan. 31	4,713.28	595,000	-35,600
Feb. 29	4,711.53	567,800	-27,200
Mar. 31	4,710.69	555,100	-12,700
Apr. 30	4,710.10	546,300	-8,800
May 31	4,711.55	568,100	+21,800
June 30	4,711.04	560,400	-7,700
July 31	4,708.40	521,200	-39,200
Aug. 31	4,705.53	480,500	-40,700
Sept. 30	4,703.75	456,400	-24,100
WTR YR 1988	-	-	-285,700
06260300 ANCHOR RESERVOIR			
Sept. 30	6,340.00	34	-
Oct. 31	6,340.00	34	0
Nov. 30	DRY	0	-34
Dec. 31	DRY	0	0
CAL YR 1987	-	-	0
Jan. 31	DRY	0	0
Feb. 29	DRY	0	0
Mar. 31	DRY	0	0
Apr. 30	6,340.00	34	+34
May 31	6,340.00	34	0
June 30	DRY	0	-34
July 31	DRY	0	0
Aug. 31	DRY	0	0
Sept. 30	DRY	0	0
WTR YR 1988	-	-	-34
06281500 BUFFALO BILL RESERVOIR			
Sept. 30	5,320.85	209,700	-
Oct. 31	5,318.93	182,300	-27,400
Nov. 30	5,320.62	188,700	+6,400
Dec. 31	5,321.00	190,100	+1,400
CAL YR 1987	-	-	-81,400
Jan. 31	5,322.07	194,300	+4,200
Feb. 29	5,323.50	200,000	+5,700
Mar. 31	5,325.52	208,300	+8,300
Apr. 30	5,324.48	204,000	-4,300
May 31	5,335.00	351,300	+47,300
June 30	5,347.46	318,900	+67,600
July 31	5,331.46	234,300	-84,600
Aug. 31	5,317.08	175,500	-58,800
Sept. 30	5,304.52	134,900	-40,600
WTR YR 1988	-	-	-74,800

CHEYENNE RIVER BASIN

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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.--February 1977 to September 1981, October 1986 to October 1987 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 02...	1130	0.03	10.5	18	<0.01

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

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, at 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.--Water years 1976-81, October 1986 to October 1987 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 01...	1825	0.06	14.5	13	0.02

CHEYENNE RIVER BASIN

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°39'20", long 104°54'20", in SW1/4 SE1/4 sec.33, T.43 N., R.67 W., Weston County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on left bank 1.2 mi downstream from county bridge, 2.7 mi upstream from mouth, 12 mi northwest of Hampshire, and 38 mi southwest of Newcastle.

DRAINAGE AREA.--234 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to September 1981, October 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 4,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 21 to Mar. 16. Records good except those prior to April, which are poor. Numerous small stockwater reservoirs upstream from station.

AVERAGE DISCHARGE.--5 years (water years 1978-81, 1988), 3.06 ft³/s, 2,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s May 18, 1978, gage height, 9.02 ft, from rating curve extended above 180 ft³/s on basis of slope-area measurements at gage heights 7.67 ft and 9.02 ft; no flow for many days each year.

Peak discharges for water years 1978-81 greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 18, 1978	0330	111	a4.43	July 31, 1979	1400	91	3.95
May 8, 1978	2030	368	5.22	Aug. 7, 1979	2100	b*766	*6.43
May 18, 1978	1300	b*3,030	*9.02				
May 27, 1978	2200	246	4.88	May 24, 1980	0200	b*508	*5.80
July 22, 1978	0030	344	5.39	June 14, 1980	1800	237	4.82
July 31, 1978	1830	109	4.21	July 26, 1980	0700	67	3.83
Aug. 15, 1978	1130	160	4.51	Aug. 15, 1980	2100	b490	5.75
June 16, 1979	2030	308	5.12	July 26, 1981	0800	*114	*4.15
June 27, 1979	0730	88	4.03	Aug. 23, 1981	0430	100	4.05
July 5, 1979	0830	174	4.51				

a Backwater from ice.

b From rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 24	0800	*2.5	*2.90	No peak greater than base discharge.			

No flow for many days.

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.0	.0	.00	.00	.01	.0	.01	.00	.00	.00	.00
2	.00	.01	.0	.00	.00	.00	.0	.03	.00	.00	.00	.00
3	.00	.0	.0	.00	.00	.00	.0	.04	.00	.00	.00	.00
4	.00	.0	.0	.00	.00	.00	.00	.06	.00	.00	.00	.00
5	.00	.0	.0	.00	.00	.00	.00	.09	.00	.00	.00	.00
6	.00	.0	.0	.00	.00	.00	.00	.05	.00	.00	.00	.00
7	.00	.0	.01	.00	.00	.00	.00	.03	.00	.00	.00	.00
8	.00	.0	.01	.00	.00	.00	.00	.02	.00	.00	.00	.00
9	.00	.0	.01	.00	.00	.00	.00	.02	.00	.00	.00	.00
10	.00	.0	.01	.00	.00	.00	.00	.02	.00	.00	.00	.00
11	.00	.0	.01	.00	.00	.00	.00	.02	.00	.00	.00	.00
12	.00	.0	.01	.00	.00	.00	.00	.02	.00	.00	.00	.00
13	.00	.01	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
14	.00	.01	.00	.00	.00	.00	.00	.0	.00	.00	.00	.00
15	.00	.0	.00	.00	.00	.00	.00	.0	.00	.00	.00	.00
16	.00	.0	.00	.00	.00	.00	.00	.0	.08	.00	.00	.00
17	.00	.0	.00	.00	.00	.0	.00	.0	.77	.00	.00	.00
18	.00	.0	.00	.00	.00	.0	.00	.0	.46	.00	.00	.00
19	.00	.0	.00	.00	.00	.05	.00	.0	.20	.00	.00	.00
20	.00	.0	.00	.00	.00	.38	.00	.0	.07	.00	.00	.00
21	.00	.0	.00	.00	.00	.82	.00	.0	.01	.00	.00	.00
22	.00	.0	.00	.00	.00	1.2	.00	.00	.00	.00	.00	.00
23	.00	.0	.00	.00	.00	.81	.00	.0	.00	.00	.00	.00
24	.00	.0	.00	.00	.00	1.4	.00	.0	.00	.00	.00	.00
25	.00	.0	.00	.00	.00	.81	.0	.0	.00	.00	.00	.00
26	.0	.0	.00	.00	.00	.56	.01	.0	.00	.00	.00	.00
27	.0	.0	.00	.00	.02	.37	.01	.00	.00	.00	.00	.00
28	.0	.0	.00	.00	.05	.13	.03	.00	.00	.00	.00	.00
29	.0	.0	.00	.00	.03	.07	.03	.0	.00	.00	.00	.00
30	.0	.0	.00	.00	---	.02	.02	.00	.00	.00	.00	.00
31	.0	---	.00	.00	---	.01	---	.00	---	.00	.00	---
TOTAL	0.00	0.03	0.06	0.00	0.10	6.64	0.10	0.42	1.59	0.00	0.00	0.00
MEAN	.00	.001	.002	.00	.003	.21	.003	.014	.053	.00	.00	.00
MAX	.00	.01	.01	.00	.05	1.4	.03	.09	.77	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.06	.1	.0	.2	13	.2	.8	3.2	.0	.0	.0

WTR YR 1988 TOTAL 8.94 MEAN .024 MAX 1.4 MIN .00 AC-FT 18

CHEYENNE RIVER BASIN

06375600 LITTLE THUNDER CREEK NEAR HAMPSHIRE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1977 to September 1981, October 1987 to September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
MAR 22...	1325	1.2	3140	8.2	3.5	18.6	165	760	140
MAY 05...	1515	0.09	3700	8.3	17.5	8.7	110	870	150

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 CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
MAR 22...	100	480	8	16	310	1200	140	0.5
MAY 05...	120	550	8	19	370	1300	260	0.6

DATE	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- PHOROUS TOTAL (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
MAR 22...	5.7	2270	3.08	<0.1	0.07	112	0.36	78
MAY 05...	4.9	2630	3.57	<0.1	0.02	98	0.02	--

DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
MAR 22...	<1	26	<1	<3	<10	<9	<30	34	<30	43	120
MAY 05...	<1	39	<0.5	<1	<5	<3	<10	8	<10	48	110

DATE	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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)
MAR 22...	0.3	<30	<30	<1	<3.0	1600	<18	29	11	0.4
MAY 05...	<0.1	<10	<10	<1	<1.0	2000	<6	9	12	0.6

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.

PERIOD OF RECORD.--October 1972 to current year.

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: Mar. 7-9, 30, 31. Records fair 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.--16 years, 7.23 ft³/s, 5,310 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)
Mar. 23	0400	*79	*3.91	No peak greater than base discharge.			
No flow for many days.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	7.8	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	6.2	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	1.8	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	1.0	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.22	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.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	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	32	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	11	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	9.3	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	5.6	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	6.9	1.9	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	4.7	.44	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	3.1	.06	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.03	.00	.00	.00	.00	.00	11
31	.00	---	.00	.00	---	.01	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	14.70	77.45	0.00	0.00	0.00	0.00	0.00	11.00
MEAN	.00	.00	.00	.00	.51	2.50	.00	.00	.00	.00	.00	.37
MAX	.00	.00	.00	.00	6.9	32	.00	.00	.00	.00	.00	11
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	.0	29	154	.0	.0	.0	.0	.0	22

CAL YR 1987 TOTAL 3079.18 MEAN 8.44 MAX 604 MIN .00 AC-FT 6110
WTR YR 1988 TOTAL 103.15 MEAN .28 MAX 32 MIN .00 AC-FT 205

CHEYENNE RIVER BASIN

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.

REMARKS.--No flow observed July 14, Sept. 26.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 01...	0830	0.25	6.0	<0.01	0.45	<0.01	<0.01	<0.01	<0.01
JUN 06...	1015	1.4	25.0	<0.01	0.59	<0.01	<0.01	<0.01	<0.01
JUL 14...	1000	0.0	--	--	--	--	--	--	--
SEP 26...	1125	0.0	--	--	--	--	--	--	--

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.

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. 17 to Mar. 21. 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.--44 years (water years 1945-88), 30.6 ft³/s, 22,170 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)
June 24	0200	*337	*5.58	No peak greater than base discharge.			
Minimum daily discharge, 0.12 ft ³ /s, Aug. 2.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.47	2.6	8.5	10	11	29	10	.78	23	36	.21	7.3
2	.43	3.0	8.1	9.8	11	32	7.0	1.2	37	13	.12	7.2
3	.47	6.7	8.7	9.7	9.8	40	5.1	1.1	32	5.9	11	6.4
4	.44	6.7	9.9	9.4	8.9	53	5.0	.88	6.7	3.6	16	6.3
5	.43	6.9	12	9.4	9.0	48	4.6	.85	5.6	2.3	6.4	7.0
6	.38	6.4	15	9.3	9.1	50	3.3	.66	4.7	1.8	5.2	6.9
7	.40	5.7	18	9.1	8.7	46	3.1	.65	2.6	1.3	16	7.3
8	.38	5.4	16	8.9	9.3	42	2.5	.67	1.6	.70	11	7.5
9	.56	5.1	14	9.1	9.7	39	1.5	.76	1.0	1.1	8.4	5.3
10	.73	4.9	15	9.5	9.3	34	1.2	.67	.80	1.1	5.9	4.1
11	.80	4.7	14	10	8.8	28	1.4	.68	.58	1.3	4.7	3.6
12	.86	4.7	12	11	9.4	21	1.6	.62	.53	.82	4.3	3.1
13	.76	4.9	11	11	11	26	1.7	.64	.66	.51	4.0	3.8
14	1.3	5.2	9.9	11	13	21	1.5	4.6	.83	1.9	4.3	3.9
15	1.2	5.3	10	10	13	18	1.3	3.3	2.8	2.5	5.1	4.5
16	1.2	5.2	10	11	12	20	1.2	2.2	49	2.2	4.5	5.2
17	2.2	4.9	11	11	12	20	1.2	1.6	27	3.0	4.0	4.8
18	2.7	4.2	12	11	13	21	1.2	1.3	16	2.0	4.6	5.2
19	2.2	7.0	12	11	14	23	1.2	1.5	11	2.6	4.6	5.7
20	2.4	14	13	11	15	26	1.2	1.9	6.5	1.8	5.7	5.4
21	2.3	18	14	11	17	30	1.3	1.3	4.2	.85	5.9	6.8
22	2.7	18	13	11	19	35	1.5	.97	3.4	.58	6.3	7.2
23	2.5	17	13	11	17	35	1.3	.96	72	8.6	6.5	7.4
24	2.4	15	12	11	15	50	1.1	.99	195	5.1	6.5	7.0
25	2.3	14	11	11	16	45	1.3	18	44	5.4	6.5	6.0
26	2.2	12	12	12	19	31	2.0	23	11	3.2	6.0	6.0
27	2.1	11	12	12	22	16	1.6	1.9	4.9	1.9	5.5	5.9
28	2.2	11	10	13	25	18	1.2	2.4	2.4	.99	5.7	6.4
29	2.4	9.7	11	14	26	14	.97	1.6	1.8	.67	6.2	7.0
30	2.4	9.1	11	13	---	15	.84	38	5.3	.44	6.9	7.8
31	2.7	---	11	12	---	13	---	39	---	.30	7.3	---
TOTAL	46.51	248.3	370.1	333.2	393.0	939	69.91	154.68	573.90	113.46	195.33	178.0
MEAN	1.50	8.28	11.9	10.7	13.6	30.3	2.33	4.99	19.1	3.66	6.30	5.93
MAX	2.7	18	18	14	26	53	10	39	195	36	16	7.8
MIN	.38	2.6	8.1	8.9	8.7	13	.84	.62	.53	.30	.12	3.1
AC-FT	92	493	734	661	780	1860	139	307	1140	225	387	353

CAL YR 1987 TOTAL 10730.44 MEAN 29.4 MAX 1440 MIN .38 AC-FT 21280
WTR YR 1988 TOTAL 3615.39 MEAN 9.88 MAX 195 MIN .12 AC-FT 7170

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 those for estimated daily discharges, which are poor. 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 telemeter at station.

AVERAGE DISCHARGE.--46 years, 94.6 ft³/s, 68,540 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)
a	--	ice jam	*2.94	Aug. 6	1630	*324	2.53
a Sometime during period Mar. 7-11.							
Minimum daily discharge, 0.10 ft ³ /s, Aug. 2.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.72	7.0	e6.5	e3.0	e9.0	e16	e20	12	41	4.0	.19	2.9
2	.91	11	e6.5	e3.0	e7.0	e16	e20	14	17	7.9	.10	3.1
3	1.1	18	e9.0	e2.5	e5.0	e15	e20	11	25	14	4.7	3.0
4	.97	15	e9.0	e2.0	e4.5	e15	e18	8.9	22	6.5	8.9	3.2
5	1.1	15	e9.0	e2.0	e4.5	e16	18	8.3	15	5.1	14	3.1
6	.95	16	e8.0	e1.5	e4.0	e16	18	7.6	7.5	4.3	158	2.6
7	.98	17	e9.0	e2.0	e5.0	e20	19	8.3	4.1	3.1	192	e2.5
8	1.0	15	e10	e2.0	e6.0	e50	18	7.7	3.0	2.5	53	e2.5
9	1.1	9.5	e8.0	e1.5	e6.0	e80	17	6.4	3.0	2.0	26	e2.5
10	1.4	5.7	e8.0	e3.0	e5.0	e75	17	6.3	2.3	1.6	18	e2.5
11	1.3	5.6	e10	e5.0	e4.0	e55	16	6.2	2.2	1.4	20	e2.6
12	1.5	5.2	e7.0	e9.0	e5.0	e40	14	5.3	5.1	1.1	21	e2.7
13	1.7	5.4	e4.5	e6.0	e7.0	e35	13	4.4	8.2	1.1	16	e2.7
14	2.6	6.0	e4.0	e8.0	e8.0	e30	13	4.5	5.5	.78	11	e2.9
15	2.8	5.0	e3.5	e10	e7.0	e30	13	3.9	3.8	.53	8.6	e3.0
16	2.6	4.7	e3.5	e10	e8.0	e32	13	3.8	2.8	.49	6.2	e2.8
17	2.3	5.4	e3.5	e9.0	e10	e34	12	5.4	6.7	2.9	5.1	e2.3
18	3.0	4.8	e4.0	e9.0	e10	e35	11	6.5	26	4.4	5.0	e2.0
19	3.8	6.6	e4.0	e7.0	e9.0	e35	11	10	13	5.5	4.1	e2.0
20	3.3	6.8	e4.0	e7.0	e9.0	e60	11	12	9.9	2.5	3.5	e2.2
21	4.4	e7.0	e4.5	e8.0	e10	e100	11	8.5	7.9	2.0	2.8	e2.5
22	4.4	e7.5	e4.5	e9.0	e10	e150	13	6.5	5.0	1.6	2.5	e2.4
23	4.4	e7.0	e4.5	e9.0	e10	e150	12	5.8	4.0	1.3	2.6	e2.0
24	4.8	e7.0	e4.5	e9.0	e10	e100	11	4.8	14	1.0	2.8	e1.5
25	5.5	e7.0	e3.0	e8.0	e13	e60	11	4.5	128	.82	3.0	e1.5
26	5.5	e7.0	e3.0	e8.0	e18	e40	13	4.6	47	1.4	2.7	e1.5
27	5.1	e6.5	e4.0	e9.0	e19	e30	13	36	14	2.5	2.4	e1.0
28	5.5	e6.5	e3.0	e10	e20	e50	13	19	7.9	2.2	2.5	e1.2
29	5.6	e6.5	e3.0	e15	e18	e30	12	9.9	8.3	1.5	2.4	e5.0
30	5.6	e7.0	e4.0	e15	---	e25	11	6.1	5.3	.96	2.6	e6.0
31	6.6	---	e3.0	e12	---	e25	---	13	---	.51	2.6	---
TOTAL	92.53	253.7	172.0	214.5	261.0	1465	432	271.2	464.5	87.49	604.29	77.7
MEAN	2.98	8.46	5.55	6.92	9.00	47.3	14.4	8.75	15.5	2.82	19.5	2.59
MAX	6.6	18	10	15	20	150	20	36	128	14	192	6.0
MIN	.72	4.7	3.0	1.5	4.0	15	11	3.8	2.2	.49	.10	1.0
AC-FT	184	503	341	425	518	2910	857	538	921	174	1200	154
CAL YR 1987	TOTAL 25038.74	MEAN 68.6	MAX 2240	MIN .68	AC-FT 49660							
WTR YR 1988	TOTAL 4395.91	MEAN 12.0	MAX 192	MIN .10	AC-FT 8720							

e Estimated

LOCATION.--Lat 44°18'03", long 105°30'47", in NW1/4 SE1/4 NE1/4 sec.21, T.50 N., R.72 W., Campbell County, Hydrologic Unit 10120201, in Gillette, on left bank 300 ft downstream from diversion dam on Stonepile Creek and 1.1 mi upstream from Burlington Lake.

GAGE.--Water-stage recorder. Elevation of gage is 4,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of operation, 10 ft³/s, Sept. 28, gage height, 5.90 ft;
no flow for many days.

[illegible]

LOCATION.--Lat 44°17'18", long 105°28'35", in SW1/4 NW1/4 NE1/4 sec.26, T.50 N., R.72 W., Campbell County, Hydrologic Unit 10120201, city of Gillette, on left bank 15 ft downstream from bridge on El Camino Road, 0.2 mi upstream from Interstate Highway 90, and 3.0 mi upstream from mouth.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 4,510 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: July 15-17, 19-30, and Aug. 1-6. Records fair except those for estimated daily discharges, which are poor. Diversion to Burlington Lake upstream from the station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period of operation, 28 ft³/s, Sept. 28, gage height, 3.73 ft, from rating curve extended above 1.9 ft³/s on basis of slope-conveyance study; no flow for several days.

[illegible]

06426100 STONEPILE CREEK AT GILLETTE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
SEP 28...	0935	1.9	325	7.9	8.0	642	7.7	77

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- PHOROUS TOTAL (MG/L AS P)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
SEP 28...	K4400	0.4	0.14	0.66	0.8	0.54	104	0.53

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

CHEYENNE RIVER BASIN

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 01...	1050	1.1	3180	8.2	12.0	650	9.0
JAN 28...	1310	0.41	3820	7.7	0.5	645	--
MAY 04...	0730	2.3	3080	8.3	6.0	652	9.8
JUL 12...	1515	26	850	8.0	22.5	644	4.6

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- PHOROUS TOTAL (MG/L AS P)
OCT 01...	99	170	<0.1	0.04	2.1	2.1	0.01
JAN 28...	--	K6	0.7	11.0	0.0	11	0.46
MAY 04...	93	K11	0.8	0.22	1.6	1.8	0.21
JUL 12...	63	K6800	0.1	0.06	1.1	1.2	0.56

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

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, 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.

PERIOD OF RECORD.--Water years 1947-57, 1975 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 04...	0830	5.9	7.5	53	<0.1	0.06	1.4	1.5	0.34	2
JAN 28...	1030	0.17	0.5	K6	<0.1	1.80	0.50	2.3	0.15	<1
MAY 04...	0845	8.9	8.0	65	0.2	0.06	0.94	1.0	0.08	<1
JUL 13...	0730	27	21.0	2200	<0.1	0.04	1.4	1.4	0.19	<1

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

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 04...	0845	8.9	8.0	0.05	0.09	<0.01	<0.01	<0.01	<0.01
JUN 07...	0720	0.74	16.5	<0.01	0.10	<0.01	<0.01	0.05	<0.01
SEP 27...	1240	E0.03	16.5	<0.01	--	<0.01	<0.01	<0.01	<0.01

E-Estimate.

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 daily contents, 210,200 acre-ft, May 21, 1978, elevation, 4,100.38 ft; minimum daily contents (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, 84,020 acre-ft, May 10, 11, elevation, 4,083.27 ft; minimum daily contents, 53,420 acre-ft, Sept. 30, elevation, 4,075.49 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,082.09	78,640	-
Oct. 31	4,081.89	77,760	-880
Nov. 30	4,081.80	77,360	-400
Dec. 31	4,081.77	77,230	-130
CAL YR 1987	-	-	+10,680
Jan. 31	4,081.77	77,230	0
Feb. 29	4,082.35	79,800	+2,570
Mar. 31	4,083.14	83,410	+3,610
Apr. 30	4,083.16	83,510	+100
May 31	4,082.63	81,060	-2,450
June 30	4,080.48	71,780	-9,280
July 31	4,078.28	63,220	-8,560
Aug. 31	4,076.16	55,670	-7,550
Sept. 30	4,074.49	53,420	-2,250
WTR YR 1988	-	-	-25,220

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: Oct. 6 to Dec. 13 and Mar. 11. Records good above 10 ft³/s and poor below 10 ft³/s. Flow completely regulated by Keyhole Reservoir, 0.9 mi upstream, since February 1952. (See sta 06427000.)

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s, May 23, 1978, gage height, 10.65 ft, at present site and datum; minimum daily 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, 160 ft³/s, June 24, gage height, 6.67 ft; minimum daily, 1.0 ft³/s, Sept. 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.5	1.6	1.4	2.0	1.7	1.5	1.8	114	144	103	73
2	1.8	1.5	1.6	1.5	1.8	1.5	1.6	2.0	107	144	102	73
3	1.7	1.4	1.6	1.7	1.8	1.5	1.7	1.8	100	144	102	73
4	1.8	1.4	1.6	1.8	1.8	1.7	1.7	1.8	99	145	102	73
5	1.8	1.4	1.6	1.8	1.8	1.7	1.4	2.1	99	145	102	73
6	1.9	1.4	1.6	1.8	1.9	1.7	1.3	1.8	102	147	102	67
7	1.7	1.5	1.6	1.8	1.8	1.8	1.4	2.0	103	144	102	61
8	1.7	1.5	1.6	1.7	1.8	1.8	1.5	2.3	102	144	102	61
9	1.7	1.5	1.6	1.7	1.8	1.5	1.5	2.1	109	144	101	62
10	1.7	1.5	1.7	1.7	1.8	1.7	1.4	2.0	114	145	101	62
11	1.7	1.5	1.7	1.7	1.8	1.8	1.3	2.0	114	145	96	61
12	1.6	1.6	1.7	1.7	1.8	1.7	1.5	2.0	114	137	90	33
13	1.6	1.6	1.7	1.7	1.8	1.7	1.8	2.0	113	130	89	1.7
14	1.6	1.6	1.7	1.7	1.7	1.7	1.8	2.1	113	128	89	1.5
15	1.6	1.6	1.7	1.7	1.7	1.7	1.5	2.1	114	128	89	1.5
16	1.6	1.6	1.7	1.8	1.7	1.8	1.7	2.0	116	129	89	1.1
17	1.6	1.6	1.7	1.8	1.7	1.8	1.7	1.8	118	130	89	1.0
18	1.6	1.6	1.7	1.8	1.7	1.8	1.7	2.0	120	130	92	1.1
19	1.6	1.6	1.6	1.8	1.7	1.8	1.7	2.0	122	130	95	1.1
20	1.6	1.6	1.5	1.8	1.7	1.8	1.7	2.1	124	130	95	1.4
21	1.6	1.6	1.4	1.8	1.7	1.8	1.8	2.1	125	115	95	1.4
22	1.6	1.6	1.7	1.7	1.7	1.7	1.8	2.0	127	103	95	1.5
23	1.6	1.6	1.7	1.7	1.7	1.5	1.7	2.0	128	102	95	1.5
24	1.6	1.6	1.5	1.7	1.7	1.3	1.4	65	145	103	95	1.5
25	1.5	1.6	1.5	1.7	1.7	1.7	1.8	122	160	104	95	1.5
26	1.5	1.6	1.5	1.7	1.7	1.7	1.9	120	159	103	95	1.5
27	1.5	1.6	1.5	1.7	1.7	1.5	1.7	120	156	103	95	1.5
28	1.5	1.6	1.5	1.7	1.7	1.3	1.5	118	153	103	95	2.0
29	1.5	1.6	1.4	1.7	1.7	1.3	2.3	118	152	103	95	1.4
30	1.5	1.6	1.4	1.8	---	1.3	1.8	117	145	103	84	1.4
31	1.5	---	1.4	2.0	---	1.5	---	117	---	103	73	---
TOTAL	50.6	46.5	49.3	53.6	50.9	50.8	49.1	942.9	3667	3908	2944	797.6
MEAN	1.63	1.55	1.59	1.73	1.76	1.64	1.64	30.4	122	126	95.0	26.6
MAX	1.9	1.6	1.7	2.0	2.0	1.8	2.3	122	160	147	103	73
MIN	1.5	1.4	1.4	1.4	1.7	1.3	1.3	1.8	99	102	73	1.0
AC-FT	100	92	98	106	101	101	97	1870	7270	7750	5840	1580

CAL YR 1987 TOTAL 6359.4 MEAN 17.4 MAX 165 MIN 1.4 AC-FT 12610
WTR YR 1988 TOTAL 12610.3 MEAN 34.5 MAX 160 MIN 1.0 AC-FT 25010

CHEYENNE RIVER BASIN

06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 06...	1955	103	18.0	0.03	0.10	0.05	<0.01	<0.01	<0.01
JUL 13...	0955	130	22.5	0.11	0.08	0.02	<0.01	<0.01	<0.01
SEP 27...	1130	1.4	13.5	<0.01	--	<0.01	<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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 04...	1315	27	14.5	<0.01	0.04	<0.01	<0.01	<0.01	<0.01
JUL 13...	1140	138	23.0	0.08	0.07	0.01	<0.01	<0.01	<0.01
AUG 23...	1045	99	19.0	0.10	0.07	0.01	<0.01	<0.01	<0.01
SEP 27...	0935	6.3	12.5	<0.01	0.12	0.03	<0.01	<0.01	<0.01

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)
OCT 01...	0750	11	1950	7.9	9.0	662	7.5	75
NOV 04...	1550	13	--	--	11.5	--	--	--
JAN 14...	1000	3.8	1380	7.4	0.0	658	10.0	80
MAY 04...	1350	30	1780	8.3	17.0	661	13.4	161
JUL 13...	1320	130	1400	8.3	24.5	657	6.9	97

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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 01...	290	<0.1	0.07	0.53	0.6	0.01	--
NOV 04...	--	--	--	--	--	--	<1
JAN 14...	250	0.5	0.21	0.39	0.6	0.08	4
MAY 04...	K20	<0.1	0.08	0.32	0.4	0.02	2
JUL 13...	610	<0.1	0.02	0.98	1.0	0.05	<1

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

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 01...	0750	11	9.0	<0.01	0.51	0.01	<0.01	<0.01	<0.01
NOV 04...	1550	13	11.5	<0.01	0.37	0.01	<0.01	<0.01	<0.01
MAY 04...	1350	30	17.0	<0.01	0.24	<0.01	<0.01	<0.01	<0.01
JUL 13...	1320	130	24.5	0.05	0.11	0.01	<0.01	<0.01	<0.01
AUG 23...	1205	81	19.5	0.10	0.10	0.01	<0.01	<0.01	<0.01
SEP 27...	0840	12	11.5	<0.01	--	<0.01	<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.

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 those for estimated daily discharges, which are poor. 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.--42 years, 88.8 ft³/s, 64,340 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 some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 203 ft³/s at 1445 hours, June 20, gage height, 4.87 ft; maximum gage height, 7.06 ft, Mar. 5, backwater from ice; minimum daily discharge, 0.90 ft³/s, Feb. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	e27	e20	e5.0	e3.0	e40	e90	67	117	114	77	83
2	20	e27	e20	e5.0	e1.0	e40	e90	59	117	111	75	81
3	19	e27	e20	e5.0	e1.0	e40	e90	55	115	111	82	71
4	19	e28	e20	e4.0	e1.0	e40	e80	61	116	109	92	67
5	18	e27	e20	e3.0	e1.0	e40	e80	68	108	110	89	65
6	18	e28	e20	e2.0	e1.0	e40	80	71	104	112	88	64
7	18	e28	e20	e2.0	e2.0	e40	80	58	93	115	85	65
8	18	e26	e20	e2.0	e2.0	e40	89	72	96	112	85	66
9	18	e29	e20	e2.0	e2.0	e40	104	81	98	112	84	66
10	18	e26	e19	e2.0	e1.0	e60	100	115	99	106	86	62
11	17	42	e18	e2.0	e.90	e50	90	114	95	106	88	58
12	18	42	16	e2.0	e2.0	e40	93	119	97	110	90	58
13	e20	45	e17	e2.0	e3.0	e40	89	123	104	117	88	60
14	e25	45	e17	e2.0	e4.0	e40	75	111	126	121	85	60
15	e28	44	e14	e2.0	e5.0	e40	72	96	114	113	81	60
16	e32	35	e10	e2.0	e6.0	e40	68	86	113	104	79	53
17	e33	24	e9.0	e2.0	e7.0	e40	63	86	112	99	75	37
18	e28	22	e9.0	e2.0	e8.0	e50	60	79	110	97	75	26
19	e27	27	e8.0	e2.0	e9.0	e70	59	73	104	100	71	23
20	e29	27	e7.0	e2.0	e10	e90	60	70	113	108	71	22
21	e28	27	e7.0	e2.0	e15	e80	60	63	107	109	72	21
22	e28	30	e7.0	e2.0	e20	e80	59	60	96	107	74	19
23	e31	26	e7.0	e2.5	e20	e80	54	56	100	108	75	17
24	e31	27	e6.0	e2.5	e20	e80	54	52	90	104	76	16
25	e34	20	e6.0	e2.0	e25	e80	54	47	89	93	77	15
26	e29	22	e6.0	e2.0	e30	e150	56	45	88	87	78	14
27	e29	22	e6.0	e2.0	e40	e120	58	40	90	83	76	14
28	e28	23	e6.0	e3.0	e50	e100	55	110	113	82	77	16
29	e27	e22	e6.0	e3.0	e40	100	56	114	108	81	81	51
30	e28	e22	e5.0	e4.0	---	e90	56	115	117	81	81	32
31	e26	---	e5.0	e4.0	---	e90	---	124	---	82	83	---
TOTAL	765	867	391.0	81.0	329.90	1970	2174	2490	3149	3204	2496	1362
MEAN	24.7	28.9	12.6	2.61	11.4	63.5	72.5	80.3	105	103	80.5	45.4
MAX	34	45	20	5.0	50	150	104	124	126	121	92	83
MIN	17	20	5.0	2.0	.90	40	54	40	88	81	71	14
AC-FT	1520	1720	776	161	654	3910	4310	4940	6250	6360	4950	2700

CAL YR 1987 TOTAL 28776.0 MEAN 78.8 MAX 681 MIN 5.0 AC-FT 57080
WTR YR 1988 TOTAL 19278.90 MEAN 52.7 MAX 150 MIN .90 AC-FT 38240

e Estimated

06429898 SAND CREEK ABOVE RANCH A, NEAR BEULAH, WY

LOCATION.--Lat 44°29'12", long 104°07'02", in SW1/4 NE1/4 NE1/4 sec.24, T.52 N., R.61 W., Crook County, Hydrologic Unit 10120203, 0.4 mi downstream from Dugout Gulch, 0.6 mi downstream from Ranch A National Fish Genetic Laboratory boundary, and 4.4 mi southwest of Beulah.

PERIOD OF RECORD.--October 1987 to September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 08...	1430	2.2	13.0	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
NOV 05...	0840	1.1	9.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MAY 04...	1605	1.5	15.5	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUN 06...	1600	4.6	15.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 26...	1530	0.64	15.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

06429900 SAND CREEK AT RANCH A, NEAR BEULAH, WY

LOCATION.--Lat 44°29'42", long 104°06'34", in SW1/4 sec.18, T.52 N., R.60 W., Crook County, Hydrologic Unit 10120203, 0.35 mi downstream from headquarters building at Ranch A National Fish Genetic Laboratory, 0.9 mi upstream from Hospital Gulch, and 3.6 mi south of Beulah.

DRAINAGE AREA.--260 mi².

PERIOD OF RECORD.--October 1987 to September 1988.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
OCT 08...	1630	19	12.0	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
NOV 05...	1000	17	10.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
MAY 04...	1640	16	15.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
JUN 06...	1705	20	17.0	<0.01	<0.01	0.03	<0.01	<0.01	<0.01
SEP 26...	1610	12	14.0	<0.01	--	<0.01	<0.01	<0.01	<0.01

06429997 MURRAY DITCH ABOVE HEADGATE AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'35", long 104°03'20", in SW1/4 SW1/4 sec.7, T.7 N., R.1 E., Butte County, Hydrologic Unit 10120203, on right bank at State line and 12 mi southwest of Belle Fourche, SD.

PERIOD OF RECORD.--April 1987 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 3,440 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 23, 1987, published as 06430000 (below diversion at site 15 ft downstream).

REMARKS.--Records good except those for estimated daily discharges, which are fair. 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, 32 ft³/s, Sept. 6, 7, 1988; no flow for long periods in each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 32 ft³/s, Sept. 6, 7; no flow for several months.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	e20	12	.00	19
2	.00	.00	.00	.00	.00	.00	.00	.00	e20	10	.00	18
3	.00	.00	.00	.00	.00	.00	.00	.00	e20	12	2.7	21
4	.00	.00	.00	.00	.00	.00	.00	.00	e20	13	23	22
5	.00	.00	.00	.00	.00	.00	.00	.00	e21	12	21	28
6	.00	.00	.00	.00	.00	.00	.00	.00	e20	11	20	32
7	.00	.00	.00	.00	.00	.00	.00	.00	13	12	20	32
8	.00	.00	.00	.00	.00	.00	.00	.00	12	8.2	22	23
9	.00	.00	.00	.00	.00	.00	.00	.00	22	3.9	15	10
10	.00	.00	.00	.00	.00	.00	.00	.00	22	3.3	12	10
11	.00	.00	.00	.00	.00	.00	.00	.00	17	5.5	11	9.9
12	.00	.00	.00	.00	.00	.00	.00	.00	17	7.1	12	10
13	.00	.00	.00	.00	.00	.00	.00	.00	11	11	13	10
14	.00	.00	.00	.00	.00	.00	.00	.00	4.7	9.7	12	10
15	.00	.00	.00	.00	.00	.00	.00	.00	4.8	6.0	12	10
16	.00	.00	.00	.00	.00	.00	.00	.00	9.9	5.6	12	10
17	.00	.00	.00	.00	.00	.00	.00	.00	9.4	4.8	12	10
18	.00	.00	.00	.00	.00	.00	.00	.00	9.2	5.2	12	10
19	.00	.00	.00	.00	.00	.00	.00	.00	10	5.9	12	10
20	.00	.00	.00	.00	.00	.00	.00	.00	12	8.0	12	10
21	.00	.00	.00	.00	.00	.00	.00	.00	11	12	14	10
22	.00	.00	.00	.00	.00	.00	.00	.00	12	12	15	10
23	.00	.00	.00	.00	.00	.00	.00	e9.0	13	12	15	10
24	.00	.00	.00	.00	.00	.00	.00	e16	12	14	15	10
25	.00	.00	.00	.00	.00	.00	.00	e17	11	14	15	9.7
26	.00	.00	.00	.00	.00	.00	.00	e17	10	12	19	8.9
27	.00	.00	.00	.00	.00	.00	.00	e16	14	12	18	8.0
28	.00	.00	.00	.00	.00	.00	.00	e15	14	11	19	.78
29	.00	.00	.00	.00	.00	.00	.00	e20	12	.67	19	.32
30	.00	.00	.00	.00	---	.00	.00	e20	12	.01	20	.21
31	.00	---	.00	.00	---	.00	---	e20	---	.00	24	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	150.00	416.0	265.88	443.70	382.81
MEAN	.00	.00	.00	.00	.00	.00	.00	4.84	13.9	8.58	14.5	12.8
MAX	.00	.00	.00	.00	.00	.00	.00	20	22	14	24	32
MIN	.00	.00	.00	.00	.00	.00	.00	.00	4.7	.00	.00	.21
AC-FT	.0	.0	.0	.0	.0	.0	.0	298	825	527	890	759

WTR YR 1988 TOTAL 1663.39 MEAN 4.54 MAX 32 MIN .00 AC-FT 3300

e Estimated

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 those for estimated daily discharges, which are fair. Large diversions for irrigation upstream from station. Total flow passing State line may be obtained by adding flow of Murray ditch (see station 06429997).

AVERAGE DISCHARGE.--36 years, 35.1 ft³/s, 25,430 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)
Jan. 5	1415	ice jam	*4.06	May 9	1415	*75	3.25

Minimum daily discharge, 4.0 ft³/s, June 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	30	34	e30	29	32	33	34	13	12	25	7.7
2	34	30	34	e30	e28	32	34	37	13	11	27	7.2
3	34	30	34	e30	e30	32	34	35	13	11	27	6.2
4	34	30	35	e28	e30	32	34	35	13	9.5	11	5.6
5	34	30	34	e26	e29	32	33	35	12	11	11	5.2
6	34	30	34	e26	e28	32	32	35	13	11	9.9	4.6
7	34	30	34	e26	34	32	33	36	14	11	9.0	4.4
8	34	30	34	e29	34	33	34	40	12	21	9.9	7.6
9	33	30	34	e29	34	33	34	57	7.0	25	9.7	19
10	33	28	35	e30	e32	34	33	54	9.6	27	11	19
11	33	30	35	e32	e32	37	33	50	11	23	9.0	19
12	33	30	34	34	34	e30	33	60	10	15	7.5	19
13	33	30	34	33	33	e32	32	59	22	8.1	4.4	19
14	33	31	34	33	32	34	32	54	35	8.6	5.2	18
15	32	31	34	32	32	34	32	47	33	14	7.3	18
16	32	31	34	32	32	33	32	42	27	12	7.6	18
17	32	32	34	32	32	33	32	39	26	13	6.2	18
18	34	38	34	32	32	32	32	39	26	19	5.7	18
19	35	38	34	32	32	32	32	39	25	22	4.7	20
20	35	38	35	33	32	33	33	39	21	20	8.4	19
21	35	38	35	33	32	33	32	38	22	12	9.7	18
22	35	38	35	33	32	33	32	38	18	11	8.9	18
23	35	38	35	33	32	33	32	29	8.3	10	8.6	18
24	35	38	35	33	32	33	32	22	6.4	11	7.9	18
25	35	36	35	33	32	33	32	20	5.1	11	7.5	17
26	34	34	35	32	32	36	33	19	4.0	9.2	7.1	16
27	34	35	35	32	32	37	32	20	4.5	7.8	7.0	18
28	32	35	35	32	32	36	32	19	6.9	11	6.7	32
29	31	34	35	32	32	36	33	14	8.7	26	6.4	30
30	30	34	36	32	---	36	33	15	11	26	6.7	29
31	30	---	e30	32	---	34	---	18	---	26	7.1	---
TOTAL	1037	987	1065	966	919	1034	980	1118	450.5	465.2	300.1	486.5
MEAN	33.5	32.9	34.4	31.2	31.7	33.4	32.7	36.1	15.0	15.0	9.68	16.2
MAX	35	38	36	34	34	37	34	60	35	27	27	32
MIN	30	28	30	26	28	30	32	14	4.0	7.8	4.4	4.4
AC-FT	2060	1960	2110	1920	1820	2050	1940	2220	894	923	595	965

CAL YR 1987 TOTAL 12222.8 MEAN 33.5 MAX 205 MIN 8.3 AC-FT 24240
WTR YR 1988 TOTAL 9808.3 MEAN 26.8 MAX 60 MIN 4.0 AC-FT 19450

e Estimated

NIOBRARA RIVER BASIN

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: Jan 12, 19, 21-25, Mar. 10-17. Records fair. Diversions for irrigation of about 4,700 acres above station.

AVERAGE DISCHARGE.--33 years, 3.76 ft³/s, 2,720 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)
Mar. 12	0900	(a)	*4.92	No peaks greater than base discharge.			
Apr. 1	1317	*19	2.10				

a Backwater from ice.

Minimum daily discharge, 0.66 ft³/s, July 16, 17.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.6	2.5	2.6	2.7	4.1	9.5	3.0	4.2	2.2	2.4	1.5
2	2.4	2.7	2.7	2.6	2.6	3.8	6.8	3.5	4.4	2.3	2.4	1.5
3	2.4	2.7	2.8	2.5	2.6	3.5	6.1	3.4	4.4	2.0	5.6	1.3
4	2.5	2.5	3.0	2.6	2.6	3.6	5.6	3.4	4.2	1.8	4.6	1.5
5	2.5	2.5	3.1	2.5	2.6	3.5	5.4	3.3	4.0	1.6	3.4	1.6
6	2.5	2.5	3.1	2.4	2.5	3.6	5.2	3.2	3.8	1.4	2.7	1.6
7	2.5	3.0	3.2	2.3	2.4	3.4	5.0	3.0	3.8	1.4	2.5	1.6
8	2.6	2.7	3.2	2.2	2.3	3.1	4.8	3.0	3.7	1.6	2.4	1.6
9	2.6	2.7	3.3	2.2	2.3	3.6	4.5	2.8	3.7	1.5	2.4	1.6
10	2.7	2.6	3.4	2.2	2.2	3.0	4.3	2.7	3.5	1.3	2.4	1.6
11	2.6	2.6	3.3	2.4	2.2	2.5	4.0	2.7	3.4	1.4	2.2	1.7
12	2.6	2.6	3.1	2.4	2.3	2.0	3.4	2.7	3.7	1.2	2.1	1.9
13	2.5	2.7	3.0	2.4	2.5	4.0	3.0	2.7	3.0	1.0	2.1	1.7
14	2.6	2.7	2.8	2.4	2.5	5.0	2.9	2.5	3.1	.86	2.1	1.9
15	2.6	2.9	2.6	2.3	2.6	3.2	2.8	2.5	2.5	.86	2.0	1.9
16	2.5	2.7	2.6	2.4	2.9	3.2	3.0	2.4	2.9	.66	2.0	1.8
17	2.5	2.7	2.6	2.4	2.8	3.0	3.2	2.4	2.4	.66	2.1	1.7
18	2.4	2.7	2.6	2.4	3.0	3.0	3.1	2.7	2.3	1.7	2.1	1.7
19	2.5	2.8	2.7	2.4	3.0	3.4	2.9	4.9	2.2	4.3	2.0	1.7
20	2.5	2.8	2.7	2.5	3.2	4.1	2.9	7.0	2.2	3.0	2.0	1.7
21	2.5	2.6	2.6	1.0	3.1	4.4	2.8	7.9	2.2	2.6	2.0	1.7
22	2.6	2.6	2.7	2.4	2.6	4.6	3.1	5.6	2.2	2.2	1.9	1.7
23	2.6	2.6	2.7	2.8	2.4	7.2	3.4	4.4	2.1	1.8	1.9	1.7
24	2.6	3.1	2.7	3.0	2.5	5.6	3.7	4.2	2.0	1.5	1.9	1.7
25	2.6	3.2	2.7	2.4	2.5	5.5	3.6	4.4	1.9	1.3	1.9	1.7
26	2.6	2.6	2.6	2.4	2.7	5.7	3.4	4.4	1.9	1.3	1.9	1.7
27	2.5	2.6	2.7	2.4	2.6	8.3	3.0	4.2	1.8	1.5	1.8	1.7
28	2.5	2.6	2.6	2.4	3.5	12	3.0	4.2	1.6	1.8	1.8	2.0
29	2.5	2.6	2.6	2.4	4.3	10	2.9	4.2	2.0	1.9	1.8	2.0
30	2.5	2.5	3.5	2.6	---	8.2	3.0	4.2	2.4	2.0	1.8	1.7
31	2.6	---	2.7	2.6	---	7.3	---	4.6	---	2.2	1.7	---
TOTAL	78.5	80.7	88.4	74.5	78.0	147.4	120.3	116.1	87.5	52.84	71.9	50.7
MEAN	2.53	2.69	2.85	2.40	2.69	4.75	4.01	3.75	2.92	1.70	2.32	1.69
MAX	2.7	3.2	3.5	3.0	4.3	12	9.5	7.9	4.4	4.3	5.6	2.0
MIN	2.4	2.5	2.5	1.0	2.2	2.0	2.8	2.4	1.6	.66	1.7	1.3
AC-FT	156	160	175	148	155	292	239	230	174	105	143	101

CAL YR 1987 TOTAL 1160.7 MEAN 3.18 MAX 32 MIN 1.1 AC-FT 2300
WTR YR 1988 TOTAL 1046.84 MEAN 2.86 MAX 12 MIN .66 AC-FT 2080

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.

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: Oct. 3 to Nov. 2, Nov. 14 to Apr. 14, and May 21-25. Records good except those prior to Apr. 14, which are poor, and those for Apr. 15 to May 25, which are fair. 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. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--73 years, 444 ft³/s, 321,700 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, 3,550 ft³/s, Apr. 16, gage height, 5.99 ft; maximum gage height, 8.30 ft, Apr. 13, backwater from ice jam; minimum daily discharge, 31 ft³/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	113	74	70	89	98	135	1380	1340	682	230	54
2	61	118	79	69	88	100	140	1520	1190	569	230	52
3	64	119	87	70	88	100	148	1450	998	510	212	52
4	65	119	92	68	90	100	190	1220	940	485	204	48
5	66	107	96	70	92	105	255	1130	1120	478	192	46
6	66	101	98	68	90	106	340	1130	1500	454	176	46
7	67	103	96	70	92	100	460	1170	1660	436	165	40
8	67	95	92	70	92	100	580	1120	1660	407	168	36
9	68	85	87	68	91	105	485	956	1610	384	157	34
10	69	78	92	72	92	100	375	884	1660	373	139	31
11	69	79	89	72	93	94	360	900	1620	390	123	33
12	70	79	83	70	91	90	680	869	1620	395	113	40
13	75	78	79	74	89	94	1300	908	1520	357	110	68
14	84	76	75	76	94	96	2000	1140	1420	310	107	101
15	95	72	73	78	88	98	2860	1340	1290	295	92	113
16	100	58	72	76	84	98	3430	1520	1220	280	87	110
17	97	62	76	74	84	98	3300	1630	1150	305	97	92
18	91	59	74	74	89	100	3010	1770	1140	285	101	79
19	87	63	72	72	94	110	2380	2080	1090	266	98	68
20	82	68	68	70	100	120	2420	2440	1150	261	95	64
21	80	75	68	68	96	120	2370	2100	1100	266	84	61
22	81	78	70	70	92	120	2210	1600	1050	238	81	59
23	84	75	68	71	96	130	1810	1400	1030	212	79	59
24	87	74	65	72	100	145	1430	1150	1030	204	76	62
25	97	72	63	74	104	160	1190	1110	973	204	68	64
26	98	72	61	78	110	175	1050	1100	924	204	61	61
27	98	70	63	84	107	175	948	1130	820	204	57	61
28	98	69	68	87	103	160	924	1200	796	200	54	61
29	99	67	70	90	103	145	965	1250	916	212	53	64
30	104	67	72	94	---	135	1130	1330	812	238	53	68
31	110	---	72	92	---	132	---	1430	---	230	54	---
TOTAL	2536	2451	2394	2311	2721	3609	38875	41357	36349	10334	3616	1827
MEAN	81.8	81.7	77.2	74.5	93.8	116	1296	1334	1212	333	117	60.9
MAX	110	119	98	94	110	175	3430	2440	1660	682	230	113
MIN	57	58	61	68	84	90	135	869	796	200	53	31
AC-FT	5030	4860	4750	4580	5400	7160	77110	82030	72100	20500	7170	3620
CAL YR 1987	TOTAL	86902	MEAN	238	MAX	1090	MIN	52	AC-FT	172400		
WTR YR 1988	TOTAL	148380	MEAN	405	MAX	3430	MIN	31	AC-FT	294300		

PLATTE RIVER BASIN

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. 9-12, 15-30, Dec. 1-6, 17-30, Mar. 5, 28, 29, and Apr. 2, 3, 7, 10-17, 26. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--28 years, 51.0 ft³/s, 36,950 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 18	2330	383	3.30	June 6	2130	577	3.76
May 29	2100	*610	*3.82				

Minimum daily discharge, 5.5 ft³/s, Sept. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	11	9.6	10	10	9.0	9.2	43	179	43	9.0	6.1
2	6.8	14	10	10	10	8.8	9.4	37	190	37	8.6	6.1
3	6.8	13	11	10	9.5	8.8	10	36	268	35	8.6	5.9
4	6.8	12	11	10	9.8	8.7	11	35	377	35	9.4	5.9
5	6.8	11	11	10	10	8.8	11	40	418	30	8.5	5.8
6	6.8	11	12	10	9.7	8.9	13	45	422	26	8.2	5.9
7	6.8	10	12	10	9.9	8.5	17	38	390	25	8.3	5.7
8	6.8	10	10	10	10	8.7	19	35	342	30	8.4	5.5
9	6.9	9.3	11	10	9.6	8.8	16	34	301	29	8.1	5.5
10	6.9	9.3	11	10	9.5	8.2	14	33	281	29	7.7	5.6
11	6.9	9.9	10	10	9.3	8.3	16	37	239	29	7.2	11
12	7.3	11	10	10	9.3	9.3	18	54	183	27	7.2	12
13	9.8	11	10	10	9.3	8.7	20	81	183	23	7.2	12
14	13	10	9.6	10	9.4	8.7	22	113	178	21	6.7	13
15	12	9.5	9.0	10	9.6	8.6	26	130	162	19	6.5	13
16	11	9.0	10	10	9.6	8.5	28	177	161	16	9.4	11
17	9.3	9.4	11	10	9.3	8.0	33	221	158	14	8.2	9.5
18	9.5	9.0	12	10	9.1	7.9	37	286	147	13	7.8	8.3
19	9.2	9.3	11	10	9.0	8.3	39	273	148	13	7.2	8.1
20	9.8	9.6	10	9.8	9.2	8.6	37	175	143	12	6.7	8.0
21	11	9.9	10	10	9.1	9.4	36	136	138	11	12	7.8
22	11	10	10	10	9.2	9.6	31	118	128	11	15	10
23	11	10	10	10	9.0	9.0	28	129	113	10	8.7	11
24	9.7	10	9.4	10	9.0	8.9	26	181	102	10	7.5	9.5
25	13	10	9.0	9.8	9.1	8.6	23	235	93	9.7	7.0	8.7
26	11	10	9.0	9.9	9.1	9.2	22	291	84	9.8	6.9	8.1
27	10	9.8	9.0	10	9.2	10	20	336	72	10	6.6	8.4
28	9.8	9.5	9.2	10	9.0	9.9	21	366	69	9.9	6.6	12
29	9.5	9.0	9.4	10	9.2	9.7	26	421	86	10	6.5	11
30	10	9.3	9.6	10	---	9.6	36	372	55	9.3	6.3	13
31	11	---	10	10	---	9.2	---	195	---	8.9	6.1	---
TOTAL	283.1	305.8	315.8	309.5	273.0	275.2	674.6	4703	5810	615.6	248.1	263.4
MEAN	9.13	10.2	10.2	9.98	9.41	8.88	22.5	152	194	19.9	8.00	8.78
MAX	13	14	12	10	10	10	39	421	422	43	15	13
MIN	6.8	9.0	9.0	9.8	9.0	7.9	9.2	33	55	8.9	6.1	5.5
AC-FT	562	607	626	614	541	546	1340	9330	11520	1220	492	522

CAL YR 1987 TOTAL 10634.0 MEAN 29.1 MAX 331 MIN 6.8 AC-FT 21090
WTR YR 1988 TOTAL 14077.1 MEAN 38.5 MAX 422 MIN 5.5 AC-FT 27920

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.--Estimated daily discharges: May 4-12 and Sept. 10-18. Records good except those for estimated daily discharges, which are poor. Transbasin diversion 0.3 mi upstream from station for irrigation in North Brush Creek basin.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the 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, 208 ft³/s, June 5, gage height, 3.11 ft; minimum daily during period of operation, 3.9 ft³/s, Aug. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	32	64	16	8.3	4.7
2	---	---	---	---	---	---	---	25	61	11	7.4	4.7
3	---	---	---	---	---	---	---	22	96	8.0	7.2	4.5
4	---	---	---	---	---	---	---	24	141	6.4	7.2	4.3
5	---	---	---	---	---	---	---	23	168	4.5	6.6	4.3
6	---	---	---	---	---	---	---	22	188	7.2	4.3	4.3
7	---	---	---	---	---	---	---	22	182	14	4.2	4.2
8	---	---	---	---	---	---	---	19	170	11	4.2	4.2
9	---	---	---	---	---	---	---	18	156	9.0	4.0	4.2
10	---	---	---	---	---	---	---	16	154	8.3	3.9	4.2
11	---	---	---	---	---	---	---	19	137	8.3	5.0	6.4
12	---	---	---	---	---	---	---	58	127	6.4	6.6	10
13	---	---	---	---	---	---	---	61	119	7.5	6.5	9.9
14	---	---	---	---	---	---	---	83	125	9.9	6.3	10
15	---	---	---	---	---	---	---	96	117	8.6	5.9	9.6
16	---	---	---	---	---	---	---	112	120	7.7	7.7	8.0
17	---	---	---	---	---	---	---	117	122	6.4	7.0	7.0
18	---	---	---	---	---	---	---	132	107	6.8	6.8	6.1
19	---	---	---	---	---	---	---	129	117	7.4	6.3	5.7
20	---	---	---	---	---	---	---	100	115	7.0	5.9	5.7
21	---	---	---	---	---	---	---	77	115	6.1	8.9	5.7
22	---	---	---	---	---	---	---	47	112	7.8	8.9	6.6
23	---	---	---	---	---	---	---	42	100	9.9	6.8	7.7
24	---	---	---	---	---	---	---	67	89	9.6	6.1	6.6
25	---	---	---	---	---	---	---	86	82	9.3	6.1	6.1
26	---	---	---	---	---	---	12	93	70	9.3	5.9	5.9
27	---	---	---	---	---	---	11	100	49	9.9	5.7	5.9
28	---	---	---	---	---	---	11	113	56	9.9	5.6	7.7
29	---	---	---	---	---	---	15	140	70	9.0	5.5	7.9
30	---	---	---	---	---	---	27	156	31	8.3	5.3	10
31	---	---	---	---	---	---	---	79	---	8.3	4.8	---
TOTAL	---	---	---	---	---	---	---	2130	3360	268.8	190.9	192.1
MEAN	---	---	---	---	---	---	---	68.7	112	8.67	6.16	6.40
MAX	---	---	---	---	---	---	---	156	188	16	8.9	10
MIN	---	---	---	---	---	---	---	16	31	4.5	3.9	4.2
AC-FT	---	---	---	---	---	---	---	4220	6660	533	379	381

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: Nov. 11-13, 16-27, Mar. 28-30, Apr. 6, 7, 9-12, 14, 15, and Aug. 19 to Sept. 30. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--24 years, 116 ft³/s, 84,040 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)
May 29	2100	796	3.92	June 7	2030	*1,090	*4.36

Minimum daily discharge, 13 ft³/s, Nov. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	22	17	19	18	16	17	79	464	197	44	25
2	16	30	17	19	18	17	18	68	477	178	43	24
3	16	29	18	19	17	17	20	61	573	168	43	23
4	15	24	19	19	17	15	19	65	730	170	43	23
5	15	21	19	19	18	15	20	87	862	148	39	22
6	15	21	19	19	17	16	23	76	874	132	38	21
7	15	21	18	19	17	14	26	69	937	120	43	20
8	15	16	18	18	17	16	27	71	899	113	42	21
9	15	14	18	19	17	17	24	67	838	109	37	21
10	15	21	18	18	14	14	25	67	838	118	36	21
11	15	22	16	15	15	14	27	78	814	113	35	37
12	15	25	17	17	15	17	29	111	761	101	32	47
13	19	26	17	18	15	16	32	176	683	93	32	40
14	37	20	17	18	15	16	36	255	640	86	30	42
15	28	20	16	19	15	16	47	303	619	80	28	41
16	23	17	16	19	16	16	57	374	651	76	43	38
17	20	15	16	19	16	16	64	433	645	72	35	36
18	20	13	16	19	16	16	74	501	619	69	30	34
19	18	15	16	19	16	17	77	444	609	66	28	32
20	15	18	17	19	17	17	82	319	609	63	27	30
21	16	21	17	19	17	19	70	263	578	59	32	29
22	17	22	15	19	16	18	60	255	568	56	36	30
23	17	23	14	19	16	17	53	287	515	53	39	31
24	19	22	16	19	16	16	47	367	473	52	34	30
25	28	21	17	19	16	14	39	415	420	51	31	28
26	24	20	18	19	16	18	40	437	363	52	29	27
27	20	20	18	18	17	19	39	517	355	49	28	28
28	18	20	18	18	17	18	44	593	333	52	25	34
29	20	19	18	18	17	18	65	661	278	53	27	32
30	22	18	18	18	---	19	91	645	221	50	28	30
31	25	---	18	18	---	18	---	494	---	45	26	---
TOTAL	589	616	532	574	474	512	1292	8638	18246	2844	1063	897
MEAN	19.0	20.5	17.2	18.5	16.3	16.5	43.1	279	608	91.7	34.3	29.9
MAX	37	30	19	19	18	19	91	661	937	197	44	47
MIN	15	13	14	15	14	14	17	61	221	45	25	20
AC-FT	1170	1220	1060	1140	940	1020	2560	17130	36190	5640	2110	1780

CAL YR 1987 TOTAL 23232 MEAN 63.6 MAX 468 MIN 13 AC-FT 46080
WTR YR 1988 TOTAL 36277 MEAN 99.1 MAX 937 MIN 13 AC-FT 71960

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 DISCHARGE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (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 01...	1100	16	68	8.1	3.5	573	--	10.9	109	K4	K1
MAR 29...	1130	16	70	7.9	0.0	--	0.70	--	--	<1	K1
MAY 25...	1200	363	40	8.1	5.5	571	1.2	9.6	102	<1	<1
JUL 14...	1445	84	56	6.8	18.0	571	0.50	7.1	101	K9	K9
AUG 17...	1130	32	--	--	13.0	--	1.0	--	--	--	--

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

DATE	HARD- NESS TOTAL (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 WAT DIS TOT IT FIELD MG/L AS CACO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3
OCT 01...	--	--	--	--	--	--	--	33	0	40
MAR 29...	28	8.0	1.9	2.7	0.2	0.8	31	32	0	39
MAY 25...	16	4.7	1.0	1.3	0.1	0.6	16	15	0	18
JUL 14...	23	6.9	1.3	1.9	0.2	0.8	24	26	0	32
AUG 17...	28	8.3	1.7	2.4	0.2	1.1	30	--	--	--

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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 01...	--	--	--	--	--	--	--	--	<0.01	<0.1
MAR 29...	5.6	0.50	0.1	13	51	53	0.07	2.20	<0.01	0.3
MAY 25...	6.4	0.70	0.2	7.9	35	33	0.05	34.3	<0.01	<0.1
JUL 14...	3.5	0.40	0.1	9.7	40	40	0.05	9.07	<0.01	<0.1
AUG 17...	4.0	0.40	0.1	11	48	47	0.06	4.15	--	--

PLATTE RIVER BASIN

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 NH ₄)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 01...	0.02	0.03	0.04	<0.2	<0.01	<0.01	<0.01	3	0.13	49
MAR 29...	<0.01	0.01	0.01	<0.2	0.02	<0.01	<0.01	1	0.04	100
MAY 25...	0.07	0.05	0.06	0.3	0.02	0.01	<0.01	6	5.9	38
JUL 14...	0.01	<0.01	--	0.3	0.01	0.01	<0.01	0	0.0	67
AUG 17...	--	--	--	--	--	--	--	--	--	--

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)
MAR 29...	1130	20	<1	16	<0.5	<1	<1	<3	1	49	<5
MAY 25...	1200	360	<1	12	<0.5	<1	<1	<3	4	200	<5
JUL 14...	1445	20	<1	14	<0.5	<1	<1	<3	2	49	<5
AUG 17...	1130	<10	<1	16	<0.5	<1	<1	<3	5	41	<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)
MAR 29...	5	2	0.3	<10	8	<1	<1.0	42	<6	<3
MAY 25...	<4	7	0.3	<10	2	<1	<1.0	23	<6	<3
JUL 14...	<4	2	0.2	<10	1	<1	<1.0	37	<6	5
AUG 17...	<4	2	0.3	<10	<1	<1	<1.0	42	<6	26

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)
OCT 01...	1100	<0.4	<0.4	1.2	<0.4	1.1	<0.4	0.06
MAY 25...	1200	13	<0.4	1.0	<0.4	1.0	<0.4	0.05

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. 16-30, Dec. 1-3, Dec. 8 to Mar. 1, Mar. 5, 8, 9, 11-19, 26-31, and Apr. 1-3. 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.--48 years, 246 ft³/s, 178,200 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)
May 30	0400	1,820	5.20	June 8	0500	*2,310	*5.71

Minimum daily discharge, 26 ft³/s, Sept. 7, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	83	67	67	64	70	62	299	1130	287	43	32
2	34	89	70	66	68	74	76	296	1090	251	44	32
3	35	103	72	65	66	74	89	277	1230	231	42	31
4	36	91	76	65	65	70	100	320	1540	219	43	31
5	36	84	79	66	66	67	95	312	1890	214	42	30
6	34	80	78	66	68	68	95	300	1920	194	41	29
7	34	81	76	66	71	68	105	271	2030	159	42	26
8	33	79	69	68	70	63	119	252	2020	146	42	27
9	33	67	81	70	70	66	106	240	1880	137	42	27
10	34	67	85	72	68	66	92	245	1760	134	40	26
11	34	73	79	72	68	62	102	264	1770	132	38	33
12	34	71	72	70	68	58	108	326	1590	127	37	50
13	42	77	68	68	68	54	124	478	1370	113	37	63
14	77	78	71	70	68	58	135	659	1150	103	37	67
15	61	76	78	72	68	62	139	750	1090	99	36	59
16	54	63	83	70	65	61	158	922	1050	95	35	49
17	62	66	89	70	62	60	215	1090	1090	87	35	56
18	58	64	86	68	60	62	301	1390	1040	82	35	51
19	55	67	83	66	63	64	265	1480	998	84	35	49
20	49	70	78	64	66	68	250	1200	987	85	34	46
21	46	72	79	66	68	79	270	978	932	81	39	44
22	53	69	78	66	66	98	262	720	892	63	45	47
23	53	68	76	66	62	115	232	656	788	60	47	50
24	54	66	67	66	63	104	227	699	684	58	40	48
25	66	67	62	64	63	97	219	850	583	50	37	49
26	66	68	64	66	64	113	189	1050	502	42	36	48
27	56	66	66	68	66	130	158	1260	454	44	35	50
28	72	65	68	72	67	94	157	1450	420	40	30	57
29	76	64	70	70	69	79	167	1640	482	45	33	67
30	80	65	70	69	---	72	218	1660	356	48	34	64
31	87	---	68	67	---	67	---	1310	---	43	32	---
TOTAL	1580	2199	2308	2101	1920	2343	4835	23644	34718	3553	1188	1338
MEAN	51.0	73.3	74.5	67.8	66.2	75.6	161	763	1157	115	38.3	44.6
MAX	87	103	89	72	71	130	301	1660	2030	287	47	67
MIN	33	63	62	64	60	54	62	240	356	40	30	26
AC-FT	3130	4360	4580	4170	3810	4650	9590	46900	68860	7050	2360	2650
CAL YR 1987	TOTAL 47680	MEAN 131	MAX 927	MIN 30	AC-FT 94570							
WTR YR 1988	TOTAL 81727	MEAN 223	MAX 2030	MIN 26	AC-FT 162100							

PLATTE RIVER BASIN

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to July 1986, October 1987 to September 1988.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 01...	1530	36	425	8.7	11.0	602	10.8
FEB 02...	1530	74	280	8.1	0.0	595	10.7
JUN 08...	0855	2240	58	7.3	5.5	592	9.6
AUG 18...	1130	36	480	7.5	15.5	605	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- PHOROUS TOTAL (MG/L AS P)
OCT 01...	125	26	<0.1	0.03	0.27	0.3	0.02
FEB 02...	94	K3	0.2	0.18	0.62	0.8	0.05
JUN 08...	98	140	<0.1	0.04	0.16	0.2	0.02
AUG 18...	112	48	<0.1	0.17	0.93	1.1	0.03

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

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 08...	1340	5550	12.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
JUL 15...	0900	465	19.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 28...	1700	185	10.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01

PLATTE RIVER BASIN

06628900 PASS CREEK NEAR ELK MOUNTAIN, WY

LOCATION.--Lat 41°35'12", long 106°36'40", in NE1/4 SE1/4 SE1/4 sec.28, T.19 N., R.82 W., Carbon County, Hydrologic Unit 10180002, on right bank 500 ft upstream from bridge on county road, 700 ft upstream from Brush Creek, 12 mi southwest of town 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. Apr. 18, 1957 to Oct. 6, 1966, 274 ft upstream at datum 6.00 ft higher. Oct. 7, 1966, to Sept. 23, 1987, at site 289 ft upstream at datum 6.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 15 to Dec. 6, Dec. 8 to Mar. 22, Mar. 25, Mar. 28 to Apr. 2, July 1-3, 8-14, and Sept. 19-30. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 6,300 acres upstream from station. Diversion to Kerr ditch 7.5 mi upstream.

AVERAGE DISCHARGE.--31 years, 42.8 ft³/s, 31,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft³/s, May 12, 1984, gage height, 9.12 ft, site and datum then in use, 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, site and datum then in use, 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 19	1000	*466	*7.04	No other peak greater than base discharge.			

Minimum daily discharge, 2.0 ft³/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	10	7.5	9.1	8.5	11	21	132	113	25	6.2	3.1
2	17	13	8.1	8.7	8.2	11	23	79	106	25	6.2	3.1
3	17	14	8.7	8.5	8.1	10	27	74	114	26	6.7	2.8
4	16	11	9.2	8.1	8.2	10	32	80	128	26	7.7	2.6
5	17	9.8	9.9	8.1	8.4	9.9	37	89	132	26	6.8	2.6
6	17	9.8	11	8.5	8.6	10	50	109	125	27	5.9	2.7
7	17	10	11	8.4	8.8	10	90	65	105	28	5.8	2.4
8	17	9.8	8.4	8.8	9.0	10	140	58	89	27	5.7	2.0
9	17	10	8.1	9.1	9.1	9.9	82	110	75	26	5.3	2.1
10	16	9.1	9.0	9.3	9.2	10	61	134	83	27	4.9	2.8
11	16	9.6	7.4	9.5	9.5	9.7	65	121	75	28	4.5	8.3
12	14	9.1	6.2	9.3	9.3	9.2	85	150	83	27	4.3	8.6
13	10	9.3	5.0	8.9	9.1	8.7	119	205	87	26	4.1	8.1
14	16	10	3.7	9.1	9.1	9.1	152	223	118	26	3.9	8.1
15	15	9.0	3.5	9.4	9.2	9.7	169	209	67	25	3.5	7.4
16	12	7.8	3.8	9.3	9.1	9.9	175	225	57	23	4.3	6.2
17	10	8.5	4.5	9.1	8.6	9.8	181	241	49	23	5.0	5.5
18	9.3	8.3	5.6	8.9	8.8	9.7	147	300	42	23	4.7	5.2
19	8.6	8.6	7.0	8.6	8.9	10	165	431	40	15	4.5	4.8
20	8.6	8.7	7.5	8.4	9.0	11	155	259	45	11	4.2	4.3
21	8.8	8.8	8.2	8.1	9.2	12	146	152	31	10	4.8	3.8
22	8.8	8.5	8.3	8.2	9.3	14	108	124	26	9.1	6.4	3.4
23	8.8	8.2	8.6	8.3	9.2	19	67	117	32	8.2	5.9	3.1
24	8.8	8.1	8.0	8.2	9.1	18	66	147	30	8.3	4.8	3.2
25	9.8	8.2	7.5	8.0	9.5	17	56	183	23	7.9	4.2	3.1
26	10	8.4	7.0	8.2	9.5	16	42	203	19	7.6	4.2	3.2
27	9.1	8.1	7.4	8.6	10	23	47	209	21	7.7	3.6	3.4
28	9.1	7.5	7.9	8.8	10	20	55	201	23	7.5	3.5	3.5
29	8.8	6.9	8.2	9.0	10	18	71	209	31	7.7	3.8	3.9
30	9.3	7.0	8.7	9.0	---	21	113	205	25	6.9	3.5	4.2
31	11	---	8.9	8.9	---	19	---	144	---	6.2	3.3	---
TOTAL	389.8	275.1	233.8	270.4	262.5	395.6	2747	5188	1994	577.1	152.2	127.5
MEAN	12.6	9.17	7.54	8.72	9.05	12.8	91.6	167	66.5	18.6	4.91	4.25
MAX	17	14	11	9.5	10	23	181	431	132	28	7.7	8.6
MIN	8.6	6.9	3.5	8.0	8.1	8.7	21	58	19	6.2	3.3	2.0
AC-FT	773	546	464	536	521	785	5450	10290	3960	1140	302	253

CAL YR 1987 TOTAL 9492.9 MEAN 26.0 MAX 247 MIN 2.7 AC-FT 18830
WTR YR 1988 TOTAL 12613.0 MEAN 34.5 MAX 431 MIN 2.0 AC-FT 25020

06630000 NORTH PLATTE RIVER ABOVE SEMINOLE 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 Seminole 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. 24 to Mar. 28. 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.--Twelve discharge measurements provided by the Bureau of Reclamation and eleven discharge measurements provided by the Wyoming State Engineer's office.

AVERAGE DISCHARGE.--49 years, 1,158 ft³/s, 839,000 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, 6,240 ft³/s, May 20, gage height, 6.46 ft; minimum daily, 75 ft³/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	335	325	252	368	384	848	1940	4260	1840	358	115
2	159	352	352	246	353	394	716	2490	3800	1580	358	116
3	163	358	390	242	350	403	716	2610	3550	1340	378	113
4	163	385	435	240	355	393	887	2470	3680	1240	378	92
5	168	385	477	232	360	378	970	2230	4220	1220	365	95
6	172	372	503	238	367	382	890	2050	4930	1120	330	99
7	172	352	520	240	370	392	970	2110	5430	1030	324	99
8	172	341	502	248	373	370	1580	2100	5690	950	319	85
9	172	330	480	256	378	362	1900	2020	5530	889	302	75
10	172	313	520	264	383	358	1630	1870	5220	829	281	81
11	177	286	487	272	383	340	1390	1820	5060	781	258	99
12	182	281	437	277	388	337	1400	1810	4980	810	240	116
13	200	297	363	275	382	327	1840	1980	4670	772	225	163
14	254	281	310	278	373	322	2380	2390	4340	689	220	240
15	297	340	320	290	366	337	3320	2940	3870	611	205	240
16	302	330	346	288	359	322	3710	3450	3500	569	200	240
17	308	270	370	291	352	330	4220	3960	3330	545	196	281
18	324	248	350	293	350	340	4190	4460	3240	533	210	271
19	308	290	337	300	350	360	3970	5460	3100	517	205	250
20	292	340	327	300	363	400	3440	6160	3000	498	225	230
21	276	373	337	312	383	535	3430	5580	2970	472	208	240
22	260	386	347	313	390	705	3410	4870	2850	450	220	220
23	255	390	315	312	400	830	3190	3980	2770	426	230	210
24	265	390	272	307	393	735	2690	3340	2530	402	220	217
25	271	380	247	304	367	615	2240	3050	2330	375	205	225
26	286	360	230	311	356	780	1980	3090	2100	346	191	220
27	313	345	241	323	363	1150	1720	3450	1980	330	172	210
28	313	333	253	350	370	1500	1560	3890	1810	313	168	205
29	313	320	257	363	373	1210	1540	4360	2200	335	146	215
30	313	307	258	370	---	892	1630	4870	2360	335	131	230
31	319	---	260	370	---	709	---	4960	---	355	131	---
TOTAL	7495	10070	11168	8957	10718	16892	64357	101760	109300	22502	7599	5292
MEAN	242	336	360	289	370	545	2145	3283	3643	726	245	176
MAX	324	390	520	370	400	1500	4220	6160	5690	1840	378	281
MIN	154	248	230	232	350	322	716	1810	1810	313	131	75
AC-FT	14870	19970	22150	17770	21260	33510	127700	201800	216800	44630	15070	10500

CAL YR 1987 TOTAL 225119 MEAN 617 MAX 2760 MIN 150 AC-FT 446500
WTR YR 1988 TOTAL 376110 MEAN 1028 MAX 6160 MIN 75 AC-FT 746000

PLATTE RIVER BASIN

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued
(National stream-quality accounting network station)

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (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)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 08...	1100	172	580	8.4	4.5	12.5	611	9.1	107	42	39
NOV 23...	1400	392	700	8.1	6.7	0.5	607	11.6	101	K4	K7
JAN 05...	1300	229	610	8.2	1.9	0.0	--	--	--	K1	K5
MAR 28...	1530	1650	565	8.2	110	0.0	--	--	--	K13	K2100
MAY 31...	1500	4830	158	7.7	16	11.5	608	9.0	104	100	39
JUL 26...	1330	340	430	8.1	2.7	24.5	620	8.3	123	K13	K13

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

DATE	HARD- NESS TOTAL (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 WAT DIS TOT IT FIELD (MG/L AS CACO3)	CAR- BONATE WATER DIS IT FIELD (MG/L AS CO3)	BICAR- BONATE WATER DIS IT FIELD (MG/L AS HCO3)	SULFATE DIS- SOLVED (MG/L AS SO4)
OCT 08...	200	53	16	36	1	0.30	144	144	19	137	120
NOV 23...	270	74	20	43	1	3.5	167	166	0	203	170
JAN 05...	210	61	15	29	0.9	3.2	148	150	0	183	110
MAR 28...	200	49	18	35	1	5.0	116	--	--	--	150
MAY 31...	71	19	5.6	9.9	0.5	1.4	56	55	0	67	36
JUL 26...	180	48	14	27	0.9	3.2	144	146	0	178	68

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)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L)	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 08...	12	0.5	11	336	334	0.46	156	6	--	0.03	--
NOV 23...	30	0.5	23	455	464	0.62	482	21	<0.1	0.02	0.02
JAN 05...	18	0.5	21	333	343	0.45	206	3	<0.1	0.01	<0.01
MAR 28...	9.8	0.3	13	363	351	0.49	1620	--	<0.1	0.12	0.08
MAY 31...	2.6	0.3	12	126	120	0.17	1640	50	<0.1	0.08	0.02
JUL 26...	8.4	0.4	10	278	266	0.38	255	11	<0.1	0.14	0.11

06630000 NORTH PLATTE RIVER ABOVE SEMINOLE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDE TOTAL (MG/L AS C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 08...	--	0.47	0.5	0.01	0.01	--	4.6	<0.1	20	9.3	91
NOV 23...	0.03	0.28	0.3	0.02	<0.01	<0.01	4.1	0.4	28	30	91
JAN 05...	--	--	<0.2	0.01	0.01	<0.01	2.5	0.5	9	5.6	70
MAR 28...	0.10	0.78	0.9	0.19	0.06	0.03	8.0	5.1	372	1660	90
MAY 31...	0.03	0.22	0.3	0.07	0.02	<0.01	9.0	1.0	81	1060	44
JUL 26...	0.14	1.1	1.2	0.04	0.03	<0.01	6.1	0.8	11	10	88

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 23...	1400	<10	2	58	<0.5	<1	1	<3	3	18	<5
JAN 05...	1300	<10	1	56	<0.5	<1	<1	<3	2	20	<5
MAR 28...	1530	90	2	46	<0.5	<1	<1	<3	5	120	<5
JUL 26...	1330	<10	2	54	<0.5	2	<1	<3	20	18	<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 23...	49	17	0.2	<10	1	1	1.0	470	<6	5
JAN 05...	31	9	0.2	<10	2	<1	<1.0	370	<6	4
MAR 28...	35	68	0.3	<10	9	<1	<1.0	360	<6	<3
JUL 26...	25	4	0.3	<10	3	<1	<1.0	350	<6	11

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	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
MAR 28...	1530	56	69	81	95	98	100	100
MAY 31...	1500	30	38	46	71	84	94	100

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(m). WDR WY-87: 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. 15-25, Nov. 27 to Dec. 2, Dec. 8 to Feb. 22, Mar. 3-5, 7-9, 11-19, 23-26, 28, 29, and Apr. 5, 6, 8-12, 26. 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.--34 years (water years 1955-88) 83.6 ft³/s, 60,570 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)
May 29	2200	1,070	4.30	June 28	2030	761	3.85
June 6	1950	*1,350	*4.70				

Minimum daily discharge, 8.2 ft³/s, Mar. 13, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	16	11	9.9	10	9.1	12	63	433	133	27	11
2	11	17	12	9.7	9.9	8.7	12	55	491	115	25	11
3	11	17	12	9.7	9.8	9.4	10	52	657	109	25	11
4	10	15	12	9.5	9.9	9.3	11	50	934	102	29	12
5	10	13	12	9.5	9.6	9.0	11	50	1010	92	25	12
6	10	13	12	9.6	9.8	9.4	12	60	1030	84	47	11
7	10	13	12	9.8	9.7	9.3	14	58	954	82	91	11
8	10	10	12	9.9	10	9.0	15	58	886	75	87	10
9	10	8.7	12	9.9	10	9.0	19	56	726	68	82	9.6
10	10	11	12	10	10	9.1	16	56	685	65	77	8.7
11	10	12	12	10	10	8.7	18	58	542	65	63	11
12	9.6	12	11	10	10	8.3	20	75	447	60	62	14
13	12	13	9.8	9.7	10	8.2	25	113	447	54	45	16
14	19	14	8.7	9.9	9.9	8.3	32	164	466	52	34	18
15	18	10	9.1	10	11	8.7	35	202	428	51	27	17
16	16	9.4	9.5	10	11	8.5	36	289	415	50	25	14
17	14	11	10	9.7	11	8.3	44	371	410	47	23	13
18	14	12	10	9.5	11	8.2	39	486	401	45	21	11
19	14	12	10	9.5	11	8.3	45	471	397	46	19	11
20	11	12	10	9.4	11	8.7	46	326	384	44	17	11
21	12	13	10	9.5	11	8.5	49	261	367	40	17	11
22	13	13	9.8	9.6	11	9.1	47	205	334	38	21	11
23	12	13	9.5	9.7	11	9.3	41	190	289	37	18	12
24	14	13	9.1	9.7	10	9.4	37	235	265	33	16	12
25	15	13	8.6	9.7	9.8	10	35	367	235	32	15	11
26	14	13	8.8	10	10	11	34	509	205	32	14	11
27	13	13	9.1	11	9.6	12	32	651	180	32	14	11
28	12	13	9.7	11	9.1	12	31	744	258	31	14	14
29	13	12	9.8	11	9.1	10	33	825	245	29	13	13
30	13	11	10	11	---	11	47	780	159	28	13	15
31	16	---	10	11	---	12	---	488	---	27	12	---
TOTAL	387.6	378.1	323.5	308.4	295.2	289.8	858	8368	14680	1798	1018	364.3
MEAN	12.5	12.6	10.4	9.95	10.2	9.35	28.6	270	489	58.0	32.8	12.1
MAX	19	17	12	11	11	12	49	825	1030	133	91	18
MIN	9.6	8.7	8.6	9.4	9.1	8.2	10	50	159	27	12	8.7
AC-FT	769	750	642	612	586	575	1700	16600	29120	3570	2020	723

CAL YR 1987 TOTAL 19595.9 MEAN 53.7 MAX 575 MIN 7.4 AC-FT 38870
WTR YR 1988 TOTAL 29068.9 MEAN 79.4 MAX 1030 MIN 8.2 AC-FT 57660

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, 4.3 mi north of Medicine Bow, and 8.7 mi downstream from Muddy Creek.

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 this report for water year 1988.

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: Oct. 3-5, Nov. 25 to Dec. 22, and May 7-23. Records fair except those for estimated daily discharges, which are poor. Diversions for irrigation of about 5,200 acres upstream from station.

AVERAGE DISCHARGE.--15 years, 59.5 ft³/s, 43,110 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)
Apr. 8	1930	*567	*4.33	No other peak greater than base discharge.			

Minimum daily discharge, 0.94 ft³/s, Sept. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	8.2	3.9	2.5	1.5	2.9	84	196	103	7.0	4.1	1.5
2	6.0	10	4.4	2.4	1.6	2.5	105	270	96	5.7	3.4	1.1
3	6.5	12	5.0	2.2	1.4	2.5	123	246	84	4.8	2.9	1.0
4	6.5	12	5.6	2.2	1.2	2.2	145	204	72	4.8	7.2	.98
5	6.6	10	6.5	2.1	1.2	2.3	158	212	62	3.9	6.3	1.2
6	6.7	9.8	7.8	2.0	1.4	2.6	217	210	61	3.2	5.3	1.0
7	5.9	10	8.9	2.0	1.5	2.1	271	220	48	3.0	4.4	1.0
8	5.5	10	8.0	2.0	1.8	2.0	394	185	40	78	3.7	.95
9	5.4	11	12	1.9	2.1	2.9	392	198	35	62	3.2	.96
10	5.7	8.8	14	2.1	1.8	1.3	266	237	28	113	2.5	.94
11	5.7	10	16	2.1	1.9	1.1	201	317	24	46	2.2	1.2
12	5.7	9.7	13	2.1	2.1	1.5	168	335	22	30	1.8	2.3
13	6.4	9.5	8.2	2.3	2.1	1.5	185	317	22	18	1.6	4.1
14	8.7	9.4	5.9	2.3	2.0	1.8	281	285	26	11	1.3	6.3
15	8.8	4.1	5.2	2.4	2.1	2.1	372	267	24	7.4	1.2	9.1
16	9.2	4.5	5.5	2.1	1.9	2.1	377	255	22	5.2	1.2	9.9
17	9.4	4.3	6.1	1.8	1.9	2.0	363	247	20	4.9	1.2	8.1
18	9.7	3.9	5.6	1.7	1.9	1.9	361	245	17	5.3	1.2	6.7
19	10	3.6	5.2	1.5	1.9	2.4	339	260	15	8.7	1.1	6.3
20	9.6	3.3	4.9	1.4	2.1	3.5	330	306	13	12	1.0	6.0
21	9.9	3.0	4.6	1.4	2.1	6.2	302	287	12	16	1.2	6.5
22	9.6	3.0	4.2	1.5	2.0	9.0	299	268	9.8	9.3	1.4	6.9
23	9.9	3.1	3.9	1.6	1.9	29	291	245	28	6.2	1.3	7.9
24	9.6	2.9	3.7	1.3	1.8	47	252	220	12	5.1	1.1	8.3
25	10	3.3	3.4	1.3	2.0	28	228	195	7.5	4.1	1.0	8.1
26	10	4.0	3.3	1.2	2.1	75	222	181	5.8	4.3	1.1	7.6
27	9.4	4.3	3.1	1.4	2.3	123	184	174	5.4	3.8	1.0	7.1
28	9.3	4.1	3.0	1.4	2.4	84	174	168	5.8	3.1	1.5	7.1
29	8.9	3.8	2.8	1.7	3.4	43	158	149	9.9	2.8	2.2	7.7
30	8.5	3.6	3.1	1.8	---	76	150	132	11	3.7	2.5	8.6
31	8.6	---	2.8	1.6	---	67	---	119	---	4.6	2.2	---
TOTAL	247.3	199.2	189.6	57.3	55.4	630.4	7392	7150	941.2	496.9	73.3	146.43
MEAN	7.98	6.64	6.12	1.85	1.91	20.3	246	231	31.4	16.0	2.36	4.88
MAX	10	12	16	2.5	3.4	123	394	335	103	113	7.2	9.9
MIN	5.4	2.9	2.8	1.2	1.2	1.1	84	119	5.4	2.8	1.0	.94
AC-FT	491	395	376	114	110	1250	14660	14180	1870	986	145	290

CAL YR 1987 TOTAL 11909.39 MEAN 32.6 MAX 585 MIN .51 AC-FT 23620
WTR YR 1988 TOTAL 17579.03 MEAN 48.0 MAX 394 MIN .94 AC-FT 34870

PLATTE RIVER BASIN

06634620 LITTLE MEDICINE BOW RIVER AT BOLES SPRING, NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 02...	1015	6.3	9.0	40	--	--	--	50	--	0.50	91	2
FEB 04...	1555	1.3	10.0	43	<0.4	12	1.4	8.6	1.4	1.4	24	3
MAY 24...	1340	217	17.0	13	6.6	6.4	6.3	4.7	5.8	0.19	12	1
AUG 04...	0930	4.8	19.0	44	0.6	23	4.0	16	3.9	0.80	40	2

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 Seminoe 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. 15, 16, 18, 19, and Nov. 27 to Apr. 1. 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.--Ten discharge measurements provided by the Bureau of Reclamation and eleven discharge measurements provided by the Wyoming State Engineer's office.

AVERAGE DISCHARGE.--49 years, 189 ft³/s, 136,900 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, 1,540 ft³/s, May 21, gage height, 3.22 ft, but may have been exceeded Apr. 1 when the ice jam broke releasing an unknown discharge; maximum gage height, 6.46 ft, Apr. 1 (backwater from ice jam); minimum daily discharge, 5.3 ft³/s, Aug. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	31	43	26	28	48	500	372	1240	227	17	8.8
2	20	36	44	26	27	43	391	471	1090	194	15	9.8
3	20	38	48	27	26	40	343	542	885	158	15	7.0
4	19	38	53	26	28	36	308	496	701	135	15	8.3
5	19	38	57	27	29	35	318	477	682	113	16	9.5
6	19	36	61	27	30	38	399	493	782	95	18	8.3
7	20	40	63	27	31	40	484	493	1050	84	18	8.3
8	20	42	62	28	31	37	583	552	1160	78	19	8.3
9	21	40	61	29	31	42	790	474	1220	115	22	8.8
10	23	38	59	30	30	40	649	422	1160	113	17	9.2
11	23	36	57	29	30	33	493	566	1090	164	13	13
12	23	38	51	28	29	30	424	648	1010	103	8.8	16
13	27	40	44	26	29	33	394	633	921	78	8.8	28
14	36	40	37	27	29	31	454	667	820	66	9.5	38
15	36	31	38	28	29	30	583	765	807	58	9.2	27
16	34	27	41	28	29	29	670	885	737	47	9.8	23
17	33	29	43	27	28	28	684	890	701	47	12	22
18	36	34	41	26	29	29	695	940	619	42	13	21
19	38	38	39	26	30	33	685	1060	518	41	11	19
20	34	42	37	25	30	56	671	1330	458	40	9.2	18
21	27	45	38	26	31	113	671	1490	431	40	7.4	18
22	26	45	39	26	31	160	648	1260	377	40	5.3	19
23	26	45	37	27	29	190	641	996	356	35	7.0	20
24	26	45	33	26	30	217	583	786	353	31	9.8	20
25	26	49	28	26	31	205	509	701	305	24	11	20
26	27	49	26	27	33	252	477	733	270	22	11	21
27	29	46	27	28	37	340	440	811	225	19	9.8	20
28	29	44	28	28	42	300	383	876	198	18	10	19
29	28	42	28	29	46	270	372	912	181	17	10	19
30	27	41	29	29	---	243	351	954	169	19	11	19
31	29	---	27	29	---	226	---	1100	---	17	11	---
TOTAL	821	1183	1319	844	893	3247	15593	23795	20516	2280	379.6	506.3
MEAN	26.5	39.4	42.5	27.2	30.8	105	520	768	684	73.5	12.2	16.9
MAX	38	49	63	30	46	340	790	1490	1240	227	22	38
MIN	19	27	26	25	26	28	308	372	169	17	5.3	7.0
AC-FT	1630	2350	2620	1670	1770	6440	30930	47200	40690	4520	753	1000

CAL YR 1987 TOTAL 40594 MEAN 111 MAX 708 MIN 14 AC-FT 80520
WTR YR 1988 TOTAL 71376.9 MEAN 195 MAX 1490 MIN 5.3 AC-FT 141600

PLATTE RIVER BASIN

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
OCT 06...	1300	19	1660	8.4	75	13.5	615	9.2	110	650
DEC 10...	1130	59	1750	8.4	220	0.0	604	11.3	98	660
FEB 01...	1130	28	1650	8.1	19	0.0	607	8.6	74	660
APR 08...	1230	596	1020	7.6	950	4.0	608	12.0	115	350
MAY 20...	1330	1310	450	8.2	1100	10.5	613	8.8	98	170
JUL 29...	1100	19	1550	8.1	8.8	22.0	622	9.2	130	700

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 06...	150	67	120	2	4.1	140	680	64	0.4	5.2
DEC 10...	150	70	130	2	3.2	150	650	41	0.3	6.8
FEB 01...	160	64	92	2	3.4	200	570	37	0.3	9.9
APR 08...	77	39	91	2	3.2	110	380	14	0.2	5.6
MAY 20...	42	17	35	1	2.0	92	140	4.8	0.2	9.4
JUL 29...	170	67	130	2	4.1	110	680	48	0.3	4.4

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (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)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
OCT 06...	1170	1.60	60.3	27	--	<0.1	0.05	--	0.35	0.4
DEC 10...	1140	1.55	182	106	0.02	0.3	0.02	0.04	0.48	0.5
FEB 01...	1060	1.44	80.0	9	<0.01	0.4	0.09	0.07	0.41	0.5
APR 08...	678	0.92	1090	1800	<0.01	0.3	0.08	0.04	0.32	0.4
MAY 20...	306	0.42	1080	1170	--	<0.1	0.05	--	0.35	0.4
JUL 29...	1170	1.59	60.0	3	<0.01	<0.1	0.04	0.03	0.66	0.7

06635000 MEDICINE BOW RIVER ABOVE SEMINOLE RESERVOIR, NEAR HANNA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PHOS-PHOROUS TOTAL (MG/L AS P)	PHOS-PHOROUS DIS- SOLVED (MG/L AS P)	PHOS-PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDEDED TOTAL (MG/L AS C)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 06...	<0.01	<0.01	--	3.1	0.4	72	3.7	97	5
DEC 10...	0.08	<0.01	--	4.5	0.2	167	27	97	--
FEB 01...	<0.03	0.01	<0.01	2.8	1.0	--	--	--	5
APR 08...	0.17	0.03	0.01	5.9	9.7	2270	3660	88	6
MAY 20...	0.05	0.03	--	9.4	10	2890	10200	68	<1
JUL 29...	0.03	0.02	<0.01	3.6	0.4	10	0.51	99	2

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 06...	1300	19	13.5	4.1	18	--	--	--	42	--	<0.20	33
FEB 01...	1130	28	0.0	3.4	37	0.4	13	4.7	8.4	4.8	0.33	18
APR 08...	1230	596	4.0	3.2	8.4	20	9.2	30	6.6	26	0.20	14
MAY 20...	1330	1310	10.5	2.0	6.2	23	6.8	13	4.8	12	0.14	4.8

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	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
OCT 06...	1300	60	84	95	--	--	--	--
DEC 10...	1130	51	75	88	99	100	100	--
APR 08...	1230	50	62	72	90	96	99	100
MAY 20...	1330	38	46	56	81	93	99	100

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, 877,000 acre-ft, July 3, 4, elevation, 6,349.67 ft, July 3, 4; minimum daily contents, 394,000 acre-ft, Mar. 21, 23, elevation, 6,313.77 ft, Mar. 21, 23.

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,310	359,000	6,340	716,000
6,320	458,000	6,350	883,000
6,330	575,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	659000	624000	587000	544000	471000	421000	398000	514000	695000	875000	850000	810000
2	658000	623000	585000	542000	469000	420000	399000	519000	702000	876000	848000	809000
3	657000	621000	583000	541000	467000	419000	399000	525000	708000	877000	848000	807000
4	655000	620000	582000	540000	465000	418000	400000	530000	714000	877000	846000	806000
5	654000	619000	580000	537000	463000	417000	401000	534000	722000	876000	846000	805000
6	653000	618000	582000	534000	460000	415000	402000	539000	732000	875000	844000	803000
7	651000	617000	581000	532000	458000	414000	402000	542000	741000	876000	843000	802000
8	650000	616000	579000	529000	455000	413000	405000	545000	752000	875000	842000	800000
9	649000	615000	579000	527000	453000	412000	408000	549000	762000	875000	841000	798000
10	648000	614000	578000	525000	451000	411000	411000	551000	772000	875000	840000	797000
11	647000	613000	576000	524000	450000	409000	413000	553000	781000	874000	839000	796000
12	645000	611000	574000	522000	449000	407000	414000	555000	790000	874000	837000	795000
13	645000	610000	573000	520000	447000	405000	417000	558000	799000	873000	836000	794000
14	644000	608000	572000	517000	446000	404000	418000	562000	808000	871000	834000	793000
15	642000	608000	570000	515000	444000	402000	424000	566000	814000	870000	833000	792000
16	642000	607000	569000	513000	443000	400000	430000	572000	820000	869000	832000	790000
17	641000	605000	568000	510000	441000	399000	439000	580000	826000	867000	831000	790000
18	639000	603000	566000	508000	440000	397000	447000	588000	831000	866000	829000	789000
19	638000	602000	565000	506000	438000	396000	455000	598000	835000	865000	827000	787000
20	638000	600000	563000	503000	436000	395000	462000	609000	840000	864000	826000	786000
21	636000	599000	561000	501000	435000	394000	469000	620000	845000	862000	824000	784000
22	635000	598000	560000	499000	433000	395000	477000	631000	849000	860000	823000	783000
23	634000	597000	558000	496000	431000	394000	485000	638000	853000	859000	822000	782000
24	633000	596000	557000	494000	429000	395000	490000	643000	856000	858000	820000	781000
25	632000	595000	556000	491000	428000	395000	494000	647000	859000	856000	819000	780000
26	629000	594000	554000	489000	427000	396000	498000	651000	862000	854000	818000	778000
27	629000	593000	553000	486000	426000	397000	501000	657000	864000	854000	817000	777000
28	627000	591000	551000	484000	424000	398000	505000	663000	868000	853000	816000	776000
29	626000	590000	549000	480000	423000	399000	508000	671000	870000	852000	815000	774000
30	625000	588000	547000	476000	---	399000	511000	679000	873000	851000	813000	773000
31	624000	---	545000	473000	---	398000	---	687000	---	850000	812000	---
MAX	659000	624000	587000	544000	471000	421000	511000	687000	873000	877000	850000	810000
MIN	624000	588000	545000	473000	423000	394000	398000	514000	695000	850000	812000	773000
(+)	6,333.70	6,331.02	6,327.60	6,321.40	6,316.67	6,314.17	6,324.72	6,338.12	6,349.45	6,348.17	6,345.96	6,343.65
(+)	-36,000	-36,000	-43,000	-72,000	-50,000	-25,000	+113,000	+176,000	+186,000	-23,000	-38,000	-39,000

CAL YR 1987 MAX 859000 MIN 545000 (+) -190,000

WTR YR 1988 MAX 877000 MIN 394000 (+) +113,000

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

06636000 NORTH PLATTE RIVER ABOVE PATHFINDER RESERVOIR, WY

LOCATION.--Lat 42°10'42", long 106°52'33", in NW1/4 NE1/4 SW1/4 sec.34, T.26 N., R.84 W., Carbon County, Hydrologic Unit 10180003, at Bureau of Reclamation gaging station, 1,800 ft downstream from Kortess Dam, 1.2 mi upstream from Lost Creek, 5.0 mi upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft, and 6.0 mi southwest of Leo.

DRAINAGE AREA.--7,241 mi², of which 589 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1969 to November 1982, October 1987 to September 1988.

REMARKS.--Discharge records furnished by U.S. Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (MG/L AS CaCO3)
OCT 22...	1030	1000	470	8.2	23	12.0	622	7.8	89	180
DEC 08...	1000	1100	470	8.2	1.2	5.0	621	9.8	94	200
FEB 04...	1045	1670	580	7.9	3.9	1.5	626	10.6	92	220
MAR 30...	1430	1170	560	7.6	1.0	1.0	--	--	--	220
MAY 26...	1100	1780	580	8.1	5.0	7.5	621	9.6	99	210
JUL 28...	0930	700	555	7.7	13	11.5	630	8.0	89	190

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 22...	45	17	31	1	2.2	110	120	6.8	0.3	12
DEC 08...	52	17	29	0.9	2.4	110	120	9.4	0.3	12
FEB 04...	55	20	36	1	3.0	124	130	9.1	0.4	12
MAR 30...	55	19	37	1	2.7	135	150	9.0	0.4	12
MAY 26...	54	19	38	1	2.7	120	140	8.5	0.3	11
JUL 28...	49	17	35	1	2.8	110	130	8.3	0.3	12

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (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)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT 22...	301	0.41	812	5	--	0.1	0.02	--	0.38
DEC 08...	308	0.42	916	<1	--	0.1	<0.01	--	--
FEB 04...	345	0.75	2500	3	<0.01	0.1	0.03	0.03	0.37
MAR 30...	366	0.50	1160	1	<0.01	<0.1	0.02	<0.01	0.38
MAY 26...	346	0.47	1660	5	<0.01	0.11	0.06	0.05	0.34
JUL 28...	321	0.44	607	4	<0.01	0.22	0.02	0.02	0.88

PLATTE RIVER BASIN

06636000 NORTH PLATTE RIVER ABOVE PATHFINDER RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 22...	0.4	0.02	0.01	--	5.3	0.4	15	40	96
DEC 08...	0.8	<0.03	<0.01	--	8.1	0.2	3	8.9	75
FEB 04...	0.4	<0.03	0.02	<0.01	5.1	0.2	7	32	72
MAR 30...	0.4	0.02	0.01	<0.01	5.8	0.4	2	6.3	94
MAY 26...	0.4	0.02	0.01	<0.01	5.3	0.1	3	14	84
JUL 28...	0.9	0.06	0.03	0.01	5.3	0.3	5	9.5	99

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: Oct. 20-23, 28, 29, Nov. 8-11, 16, 17, Jan. 1 to Mar. 1, Mar. 24, 25, and Apr. 14, 15. Records good except those for January and February, which are poor. No diversions upstream from station.

AVERAGE DISCHARGE.--26 years, 8.70 ft³/s, 6,300 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 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)
May 17	2200	*70	*6.36	No other peak greater than base discharge.			

Minimum daily discharge, 1.0 ft³/s, Sept. 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.3	1.9	1.9	1.2	1.4	1.4	16	22	4.1	1.5	1.1
2	1.9	2.4	2.0	1.7	1.2	1.4	1.5	13	21	3.8	1.7	1.1
3	1.9	2.4	2.1	1.5	1.2	1.4	1.6	13	20	3.7	2.2	1.1
4	1.9	2.2	2.1	1.3	1.2	1.4	1.4	12	19	3.6	2.0	1.1
5	1.9	2.1	2.1	1.1	1.3	1.4	1.4	14	17	3.8	1.6	1.1
6	1.9	2.3	2.1	1.2	1.3	1.4	1.5	15	15	3.3	1.5	1.1
7	1.9	2.0	2.1	1.3	1.3	1.4	2.0	12	14	3.2	1.5	1.0
8	1.9	2.0	2.0	1.3	1.4	1.4	2.2	12	12	3.1	1.5	1.0
9	1.9	2.1	2.0	1.3	1.4	1.4	1.9	13	12	3.1	1.4	1.1
10	1.9	2.3	2.0	1.4	1.4	1.3	1.8	17	11	3.0	1.4	1.2
11	1.9	2.4	1.9	1.6	1.3	1.4	2.0	23	10	2.9	1.3	1.4
12	2.0	2.4	2.0	1.6	1.3	1.5	3.1	31	9.8	2.7	1.4	1.3
13	2.1	2.1	2.1	1.4	1.4	1.4	4.9	40	9.5	2.6	1.4	1.5
14	2.3	2.1	2.1	1.4	1.4	1.4	6.0	42	9.0	2.4	1.3	1.8
15	2.8	1.7	2.0	1.5	1.4	1.4	7.0	43	8.4	2.3	1.5	1.6
16	2.4	1.9	2.0	1.6	1.4	1.4	8.1	47	7.9	2.3	1.7	1.4
17	2.7	2.0	2.0	1.6	1.3	1.4	11	54	7.6	2.3	1.4	1.2
18	2.3	2.1	2.0	1.5	1.3	1.3	15	53	7.2	2.2	1.3	1.2
19	2.2	2.1	2.0	1.3	1.3	1.3	16	45	6.6	2.2	1.2	1.2
20	2.1	2.1	2.0	1.2	1.4	1.4	16	39	6.3	2.1	1.2	1.3
21	2.1	2.1	2.0	1.2	1.4	1.5	14	36	6.1	2.0	1.2	1.2
22	2.2	2.0	2.0	1.2	1.4	1.6	11	35	6.0	1.9	1.2	1.2
23	2.3	1.9	2.0	1.3	1.3	1.6	10	34	5.2	1.9	1.2	1.2
24	2.4	1.8	1.9	1.3	1.3	1.5	10	34	4.9	1.8	1.2	1.2
25	2.4	1.8	2.0	1.3	1.3	1.4	9.1	33	4.7	1.8	1.2	1.2
26	2.3	1.9	2.0	1.3	1.3	1.5	10	33	4.5	1.9	1.2	1.1
27	2.2	2.0	2.0	1.3	1.4	1.6	9.0	32	4.7	1.9	1.2	1.2
28	2.2	2.0	2.0	1.3	1.4	1.5	9.7	30	6.9	1.8	1.2	1.2
29	2.2	2.0	2.0	1.3	1.4	1.4	13	28	6.3	1.8	1.2	1.2
30	2.4	1.9	2.0	1.3	---	1.4	17	26	4.6	1.7	1.2	1.2
31	2.5	---	2.0	1.3	---	1.4	---	23	---	1.6	1.1	---
TOTAL	67.0	62.4	62.4	42.8	38.6	44.2	218.6	898	299.2	78.8	43.1	36.7
MEAN	2.16	2.08	2.01	1.38	1.33	1.43	7.29	29.0	9.97	2.54	1.39	1.22
MAX	2.8	2.4	2.1	1.9	1.4	1.6	17	54	22	4.1	2.2	1.8
MIN	1.9	1.7	1.9	1.1	1.2	1.3	1.4	12	4.5	1.6	1.1	1.0
AC-FT	133	124	124	85	77	88	434	1780	593	156	85	73

CAL YR 1987 TOTAL 2663.08 MEAN 7.30 MAX 62 MIN .56 AC-FT 5280
WTR YR 1988 TOTAL 1891.8 MEAN 5.17 MAX 54 MIN 1.0 AC-FT 3750

PLATTE RIVER BASIN

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. 18 to Apr. 6. 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.--15 years, 141 ft³/s, 102,200 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, 1.9 ft³/s, Sept. 8, 10, 1988.

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. 5	1700	ice jam	*4.88	No peak greater than base discharge.			
Apr. 8	0430	*650	4.62				

Minimum daily discharge, 1.9 ft³/s, Sept. 8, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	36	22	11	8.0	15	85	198	184	56	9.9	2.8
2	22	38	22	9.5	8.0	15	95	180	164	48	7.8	2.6
3	23	39	23	8.5	8.0	13	110	174	153	42	7.1	2.3
4	23	38	24	8.0	8.5	14	130	163	149	39	7.4	2.1
5	23	49	25	7.5	9.0	14	160	151	154	41	7.3	2.1
6	23	46	27	8.0	8.5	14	200	148	174	39	8.3	2.4
7	23	45	28	8.5	9.0	14	264	149	165	35	8.4	2.3
8	23	45	28	8.5	10	13	491	164	142	32	7.9	1.9
9	24	44	28	8.5	11	14	305	182	126	29	5.9	2.0
10	24	42	28	9.0	11	15	242	177	115	27	5.3	1.9
11	24	38	28	10	10	14	222	175	105	27	4.6	2.5
12	24	36	26	11	9.5	13	238	173	100	25	4.2	3.4
13	27	36	23	10	10	12	299	182	96	21	4.2	8.1
14	34	43	20	9.0	11	12	378	200	93	20	3.9	14
15	35	46	19	10	11	13	425	223	86	19	3.7	16
16	36	38	19	11	12	13	388	224	78	18	4.2	11
17	35	25	20	11	11	12	397	235	72	17	3.4	6.0
18	35	20	20	11	10	15	408	291	62	16	4.1	5.8
19	33	22	20	9.0	10	20	364	330	60	15	3.9	8.6
20	33	23	19	8.0	11	30	344	295	58	14	3.6	10
21	33	24	20	8.0	12	45	292	252	55	14	3.5	7.7
22	31	25	21	8.5	13	80	259	223	53	14	2.9	5.0
23	29	25	22	9.0	11	90	220	217	50	13	2.6	5.6
24	32	24	19	9.2	11	100	204	223	49	12	2.2	6.0
25	34	23	16	9.2	11	90	204	234	45	11	2.7	6.3
26	35	23	17	9.2	12	80	198	230	42	11	2.5	8.5
27	37	23	17	9.2	13	120	168	234	42	11	2.5	9.5
28	35	22	17	9.2	14	100	168	241	45	11	2.9	9.2
29	34	22	16	9.5	15	90	174	224	51	10	2.9	10
30	34	22	15	9.0	---	80	189	224	58	11	2.8	11
31	35	---	13	8.5	---	80	---	203	---	11	2.9	---
TOTAL	915	982	662	285.5	308.5	1250	7621	6519	2826	709	145.5	186.6
MEAN	29.5	32.7	21.4	9.21	10.6	40.3	254	210	94.2	22.9	4.69	6.22
MAX	37	49	28	11	15	120	491	330	184	56	9.9	16
MIN	22	20	13	7.5	8.0	12	85	148	42	10	2.2	1.9
AC-FT	1810	1950	1310	566	612	2480	15120	12930	5610	1410	289	370

CAL YR 1987 TOTAL 37983 MEAN 104 MAX 886 MIN 13 AC-FT 75340
WTR YR 1988 TOTAL 22410.1 MEAN 61.2 MAX 491 MIN 1.9 AC-FT 44450

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.--No estimated daily discharges. Records good except those less than 10 ft³/s, which are fair. 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 the 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, 543 ft³/s, Apr. 10, gage height, 4.48 ft; minimum daily during period of operation, 7.6 ft³/s, July 16, 17, 20, 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	242	190	141	14	18	15
2	---	---	---	---	---	---	213	198	134	12	19	15
3	---	---	---	---	---	---	178	216	134	12	22	15
4	---	---	---	---	---	---	160	203	123	11	25	15
5	---	---	---	---	---	---	170	185	101	10	21	15
6	---	---	---	---	---	---	236	170	88	10	19	14
7	---	---	---	---	---	---	393	170	75	11	18	14
8	---	---	---	---	---	---	384	175	65	14	18	15
9	---	---	---	---	---	---	387	168	61	15	17	16
10	---	---	---	---	---	---	530	168	57	15	17	19
11	---	---	---	---	---	---	420	168	55	14	17	22
12	---	---	---	---	---	---	312	165	55	11	17	21
13	---	---	---	---	---	---	277	156	55	10	16	22
14	---	---	---	---	---	---	260	153	55	8.9	15	25
15	---	---	---	---	---	---	279	158	53	8.9	15	26
16	---	---	---	---	---	---	321	160	41	7.6	15	25
17	---	---	---	---	---	---	381	173	34	7.6	16	23
18	---	---	---	---	---	---	375	180	30	8.9	16	23
19	---	---	---	---	---	---	358	203	29	8.9	16	22
20	---	---	---	---	---	---	352	193	26	7.6	15	21
21	---	---	---	---	---	---	332	213	24	7.6	15	21
22	---	---	---	---	---	---	324	223	23	8.9	15	22
23	---	---	---	---	---	---	310	208	19	8.9	15	23
24	---	---	---	---	---	---	293	185	18	8.9	15	24
25	---	---	---	---	---	---	271	170	17	8.9	15	23
26	---	---	---	---	---	---	255	160	16	16	15	23
27	---	---	---	---	---	---	231	151	17	19	15	23
28	---	---	---	---	---	---	223	151	17	19	15	25
29	---	---	---	---	---	---	205	146	18	20	15	25
30	---	---	---	---	---	---	190	144	17	19	15	25
31	---	---	---	---	---	---	---	144	---	19	15	---
TOTAL	---	---	---	---	---	---	8862	5447	1598	372.6	517	617
MEAN	---	---	---	---	---	---	295	176	53.3	12.0	16.7	20.6
MAX	---	---	---	---	---	---	530	223	141	20	25	26
MIN	---	---	---	---	---	---	160	144	16	7.6	15	14
AC-FT	---	---	---	---	---	---	17580	10800	3170	739	1030	1220

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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 29...	1430	57	10.0	5.9	--	--	--	11	--	<0.20	17
JAN 05...	1320	24	0.0	38	<0.4	16	4.3	12	4.2	0.29	23
MAY 11...	0800	180	10.5	19	1.3	9.3	3.1	6.7	2.9	0.07	11
JUL 12...	1130	14	18.5	15	<0.4	16	<0.4	12	<0.4	0.06	13

06639480 HORSE CREEK AT HIGHWAY 220, NEAR ALCOVA, WY

LOCATION.--Lat 42°34'10", long 106°59'58", in NW1/4 SE1/4 NE1/4 sec.15, T.30 N., R.85 W., Natrona County,
Hydrologic Unit 10180006, at bridge on State Highway 220, 3.0 mi upstream from mouth, 3.0 mi downstream from
mouth of Fish Creek, and 14.4 mi west of Alcovia.

PERIOD OF RECORD.--October 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 12...	1000	3.9	16.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
AUG 31...	1330	5.3	16.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 27...	0815	7.3	10.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

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 Alcova.

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, 927,000 acre-ft, June 3, 4, elevation, 5,845.93 ft, June 3; minimum daily contents, 494,000 acre-ft, Sept. 30, elevation, 5,819.62 ft.

Capacity table (elevation, in feet,
and contents, in acre-feet)

5,815	439,000	5,830	638,000	5,845	908,000
5,820	498,000	5,835	720,000	5,850	1,014,000
5,825	564,000	5,840	810,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	721000	737000	746000	749000	789000	823000	878000	904000	926000	865000	721000	574000
2	720000	739000	748000	748000	790000	824000	879000	904000	926000	861000	715000	569000
3	719000	739000	748000	749000	791000	824000	882000	904000	927000	854000	712000	563000
4	719000	739000	748000	749000	792000	826000	883000	905000	927000	850000	709000	558000
5	719000	739000	748000	750000	794000	827000	885000	906000	926000	848000	706000	552000
6	720000	739000	748000	751000	795000	829000	887000	907000	925000	841000	701000	548000
7	720000	739000	748000	752000	797000	831000	889000	907000	922000	837000	696000	543000
8	720000	740000	748000	753000	799000	832000	890000	907000	920000	831000	692000	539000
9	720000	740000	749000	754000	800000	833000	891000	907000	918000	827000	687000	534000
10	720000	741000	748000	755000	802000	836000	893000	908000	915000	820000	682000	530000
11	721000	741000	748000	755000	802000	838000	894000	909000	912000	818000	678000	525000
12	722000	741000	747000	756000	803000	840000	895000	910000	910000	813000	673000	521000
13	722000	741000	747000	757000	804000	841000	896000	911000	908000	809000	669000	516000
14	723000	740000	747000	758000	805000	843000	899000	911000	906000	802000	664000	513000
15	724000	742000	747000	758000	806000	845000	900000	911000	904000	798000	660000	510000
16	724000	743000	747000	760000	807000	847000	901000	912000	902000	794000	655000	506000
17	725000	743000	747000	761000	809000	848000	902000	913000	901000	790000	650000	502000
18	725000	744000	746000	762000	810000	850000	903000	914000	899000	785000	647000	499000
19	726000	743000	746000	764000	811000	852000	904000	915000	897000	781000	647000	498000
20	726000	744000	747000	766000	812000	853000	904000	916000	894000	776000	641000	497000
21	727000	743000	747000	769000	813000	855000	903000	916000	893000	772000	634000	498000
22	727000	744000	746000	770000	814000	857000	904000	917000	890000	767000	628000	498000
23	728000	744000	747000	772000	816000	858000	904000	918000	889000	763000	621000	497000
24	729000	744000	747000	774000	817000	860000	904000	920000	887000	759000	616000	496000
25	730000	744000	747000	776000	817000	862000	904000	920000	884000	753000	611000	496000
26	731000	744000	747000	777000	818000	863000	903000	922000	881000	751000	606000	495000
27	732000	745000	748000	779000	819000	866000	903000	922000	878000	746000	600000	495000
28	733000	745000	748000	780000	820000	868000	903000	923000	874000	741000	595000	495000
29	734000	746000	748000	782000	821000	870000	903000	923000	873000	736000	590000	495000
30	735000	747000	748000	785000	---	873000	903000	923000	869000	731000	585000	494000
31	737000	---	749000	787000	---	875000	---	924000	---	725000	579000	---
MAX	737000	747000	749000	787000	821000	875000	904000	924000	927000	865000	721000	574000
MIN	719000	737000	746000	748000	789000	823000	878000	904000	869000	725000	579000	494000
(+)	5,835.95	5,836.52	5,836.65	5,838.75	5,840.58	5,843.36	5,844.72	5,845.81	5,843.04	5,835.30	5,826.02	5,819.62
(+)	+15,000	+10,000	+2,000	+38,000	+34,000	+54,000	+28,000	+21,000	-55,000	-155,000	-146,000	-85,000

CAL YR 1987 MAX 949000 MIN 719000 (+) -98,000

WTR YR 1988 MAX 927000 MIN 494000 (+) -228,000

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

PLATTE RIVER BASIN

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, July 30, 31, Aug. 3, Sept. 5, elevation, 5,498.91 ft, Sept. 5; minimum daily contents, 148,000 acre-ft, Dec. 3, 5-7, elevation, 5,484.46 ft, Dec. 6.

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 (ACRE-FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177000	152000	149000	154000	157000	156000	156000	181000	177000	178000	181000	180000
2	178000	152000	149000	155000	157000	156000	156000	181000	177000	178000	181000	180000
3	178000	151000	148000	154000	157000	156000	156000	181000	177000	178000	182000	181000
4	177000	151000	149000	155000	157000	156000	156000	180000	177000	179000	181000	181000
5	177000	151000	148000	155000	157000	157000	156000	180000	177000	179000	180000	182000
6	176000	151000	148000	155000	157000	157000	156000	180000	177000	179000	179000	181000
7	175000	151000	148000	155000	157000	157000	157000	180000	177000	179000	179000	180000
8	174000	151000	149000	155000	157000	157000	158000	179000	178000	179000	179000	179000
9	173000	151000	149000	156000	157000	157000	159000	179000	179000	180000	180000	179000
10	172000	150000	149000	156000	157000	157000	161000	180000	180000	180000	180000	178000
11	172000	150000	149000	156000	157000	157000	162000	180000	180000	180000	180000	179000
12	171000	150000	149000	157000	157000	157000	163000	180000	181000	180000	180000	179000
13	170000	150000	149000	157000	157000	157000	164000	180000	180000	180000	180000	179000
14	169000	150000	150000	157000	157000	157000	165000	180000	180000	180000	180000	179000
15	168000	150000	150000	157000	157000	157000	166000	180000	180000	180000	180000	179000
16	167000	150000	150000	158000	157000	158000	167000	180000	180000	180000	180000	179000
17	166000	150000	150000	158000	156000	158000	168000	180000	180000	180000	180000	179000
18	166000	150000	151000	158000	156000	158000	169000	180000	180000	180000	180000	180000
19	165000	150000	151000	158000	156000	158000	170000	180000	180000	181000	179000	180000
20	164000	150000	151000	157000	156000	158000	171000	180000	180000	181000	179000	180000
21	163000	150000	151000	157000	156000	158000	172000	180000	180000	181000	179000	179000
22	163000	150000	151000	157000	156000	158000	173000	180000	180000	180000	179000	179000
23	162000	150000	152000	156000	156000	158000	174000	180000	180000	180000	179000	179000
24	161000	150000	152000	156000	156000	158000	176000	179000	180000	180000	179000	179000
25	160000	150000	152000	156000	156000	158000	177000	179000	180000	180000	179000	179000
26	160000	149000	153000	156000	156000	157000	178000	179000	180000	181000	179000	179000
27	158000	149000	153000	156000	156000	157000	179000	178000	180000	181000	179000	179000
28	157000	149000	153000	157000	156000	157000	180000	178000	180000	181000	179000	179000
29	156000	149000	153000	157000	156000	157000	181000	177000	179000	181000	179000	179000
30	155000	149000	154000	157000	---	157000	181000	177000	179000	182000	180000	179000
31	154000	---	154000	157000	---	157000	---	177000	---	182000	180000	---
MAX	178000	152000	154000	158000	157000	158000	181000	181000	181000	182000	182000	182000
MIN	154000	149000	148000	154000	156000	156000	156000	177000	177000	178000	179000	178000
(†)	5,487.02	5,484.71	5,487.16	5,488.32	5,488.17	5,488.26	5,498.67	5,497.02	5,497.72	5,498.89	5,498.18	5,497.87
(‡)	-23,000	-5,000	+5,000	+3,000	-1,000	+1,000	+24,000	-4,000	+2,000	+3,000	-2,000	-1,000

CAL YR 1987 MAX 183000 MIN 147000 (†) +7,000

WTR YR 1988 MAX 182000 MIN 148000 (‡) +2,000

(†) Elevation, in feet, at end of month.

(‡) Change in contents, in acre-feet.

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.

WATER-DISCHARGE RECORDS

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.

COOPERATION.--Twenty-one measurements provided by the Bureau of Reclamation and fifteen measurements provided by the Wyoming State Engineer's Office.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,530 ft³/s, Sept. 6, gage height, 5.06 ft; minimum daily, 313 ft³/s, Apr. 10.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	842	1020	903	934	779	705	474	518	742	2590	2630	3170
2	868	1050	906	928	767	711	440	521	701	2870	2620	3150
3	953	1040	897	929	774	677	456	536	672	2850	2600	3140
4	960	1010	913	938	775	662	470	535	628	2850	2680	3120
5	975	961	910	930	772	636	474	499	637	2840	2820	3110
6	961	973	905	932	756	602	445	632	723	2860	2800	3340
7	988	985	911	842	750	600	387	696	958	2750	2800	3450
8	1010	990	910	835	740	598	345	713	1250	2780	2800	3390
9	1000	994	908	838	730	585	320	860	1350	2770	2620	3320
10	1010	991	914	836	730	575	313	950	1620	2760	2600	3300
11	1020	827	910	825	723	572	320	949	1610	2760	2580	3240
12	1030	835	911	838	698	573	380	930	1610	2840	2770	3140
13	1040	848	909	851	708	574	438	934	1630	2840	2750	3020
14	926	850	912	841	689	568	435	930	1560	2840	2760	2880
15	923	865	907	790	679	554	429	944	1570	2830	2750	2790
16	923	867	915	775	679	531	432	933	1560	2810	2730	2580
17	927	884	918	778	674	495	428	937	1580	2810	2720	2280
18	942	881	920	777	674	477	427	929	1580	2780	2910	1890
19	941	897	925	778	698	480	420	928	1580	2750	3160	1340
20	959	858	924	776	702	480	421	952	1570	2790	3130	943
21	963	856	918	780	700	482	425	957	1590	2780	3100	940
22	964	859	919	783	702	489	425	953	1580	2760	3100	938
23	975	876	927	786	696	486	417	960	1580	2750	3070	922
24	977	885	924	780	698	479	419	960	1600	2730	3060	928
25	991	883	919	785	708	479	439	921	1610	2720	3120	929
26	992	886	919	789	700	475	445	916	1620	2710	3180	925
27	1010	902	929	784	705	483	448	912	1690	2680	3190	910
28	1010	918	924	792	701	479	496	913	1970	2670	3160	911
29	1000	901	917	788	708	476	502	878	2200	2660	3150	910
30	1020	904	923	788	---	473	506	833	2420	2660	3150	951
31	1010	---	930	794	---	474	---	763	---	2650	3140	---
TOTAL	30110	27496	28377	25620	20815	16930	12776	25792	42991	85740	89650	65857
MEAN	971	917	915	826	718	546	426	832	1433	2766	2892	2195
MAX	1040	1050	930	938	779	711	506	960	2420	2870	3190	3450
MIN	842	827	897	775	674	473	313	499	628	2590	2580	910
AC-FT	59720	54540	56290	50820	41290	33580	25340	51160	85270	170100	177800	130600
CAL												

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CaCO3)
JAN 12...	1325	860	490	8.3	--	2.5	620	12.5	113	--
FEB 11...	1000	682	520	8.2	9.3	1.5	638	13.0	111	--
MAR 03...	0900	714	--	8.7	9.6	3.0	632	12.8	115	200
APR 07...	0930	388	504	8.7	10	5.5	620	12.0	117	--
MAY 12...	0920	964	502	8.6	8.9	9.0	625	11.8	125	--
JUN 23...	1100	1600	470	8.2	8.3	11.0	622	10.8	120	200
JUL 11...	1100	2750	530	7.6	8.0	13.0	635	10.2	117	--
AUG 04...	1630	2820	1500	8.6	6.5	15.0	625	9.4	115	200
SEP 15...	0915	2750	520	7.9	7.5	17.0	--	8.4	--	--

[illegible]

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
JAN 12...	--	--	--	--	--	--	--	--	--	--
FEB 11...	--	--	--	--	--	--	--	--	--	--
MAR 03...	326	0.46	650	<0.1	2	50	2	1	3	<5
APR 07...	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	50	--	--	--	--
JUN 23...	300	0.46	1450	<0.1	2	50	<1	<1	2	15
JUL 11...	--	--	--	--	--	--	--	--	--	--
AUG 04...	305	0.45	2540	0.1	2	50	<1	<1	2	<5
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
JAN 12...	--	--	2	1	--	--	--	--	--
FEB 11...	--	--	<1	<1	--	--	--	11	20
MAR 03...	0.2	5	<1	1	2	11	--	14	27
APR 07...	--	--	<1	1	--	--	--	11	12
MAY 12...	--	--	1	1	--	--	--	14	36
JUN 23...	--	1	1	<1	3	11	8.2	9	39
JUL 11...	--	--	1	1	--	--	--	8	59
AUG 04...	<0.1	<1	<1	<1	3	7	7.2	17	129
SEP 15...	--	--	1	1	--	--	--	--	--

PLATTE RIVER BASIN

06643500 NORTH PLATTE RIVER NEAR GOOSE EGG, WY

LOCATION.--Lat 42°42'38", long 106°33'34", in NW1/4 NW1/4 SW1/4 sec.28, T.32 N., R.81 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.0 mi upstream from Coal Creek, 5.2 mi southwest of Goose Egg, 6.4 mi downstream from Bates Creek, and 16 mi southwest of Casper.

DRAINAGE AREA.--11,423 mi², of which 700 mi² is noncontributing. (Area at site used prior to March 1988, 11,439 mi², of which 700 mi² is noncontributing.)

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, March to September 1988. 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. Elevation of gage is 5,210 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1917 to September 1919, staff gage at site 3.2 mi downstream at different datum. May to September 1924 and May to September 1947, staff gages at site 6.0 mi downstream at different datum. May 1950 to September 1960, water-stage recorder at site 1.5 mi downstream at different datum. April 1983 to September 1984 and October 1985 to September 1986, water-stage recorder at site 4.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: July 4-10. Records good except those July to September, which are fair. 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, 3,170 ft³/s, Sept. 7, gage height, 5.19 ft; minimum daily during period of operation, 332 ft³/s, Apr. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	710	475	623	740	2450	2640	2890
2	---	---	---	---	---	710	469	666	717	2790	2620	2880
3	---	---	---	---	---	688	419	652	688	2790	2590	2880
4	---	---	---	---	---	644	488	659	637	2790	2590	2880
5	---	---	---	---	---	637	495	616	644	2800	2770	2880
6	---	---	---	---	---	588	482	634	644	2800	2770	2980
7	---	---	---	---	---	595	431	755	902	2780	2750	3130
8	---	---	---	---	---	575	482	762	1100	2790	2730	3160
9	---	---	---	---	---	568	401	840	1280	2810	2620	3090
10	---	---	---	---	---	595	354	1040	1510	2800	2550	3080
11	---	---	---	---	---	595	332	1050	1560	2770	2530	3070
12	---	---	---	---	---	595	340	1050	1570	2800	2590	2990
13	---	---	---	---	---	547	482	1020	1570	2850	2680	2880
14	---	---	---	---	---	547	524	993	1550	2860	2680	2830
15	---	---	---	---	---	547	561	993	1530	2860	2680	2710
16	---	---	---	---	---	514	581	985	1540	2820	2670	2550
17	---	---	---	---	---	521	609	968	1550	2820	2620	2280
18	---	---	---	---	---	469	609	968	1560	2800	2670	1970
19	---	---	---	---	---	462	616	968	1560	2760	2970	1640
20	---	---	---	---	---	475	609	985	1560	2760	2970	1100
21	---	---	---	---	---	527	609	977	1570	2770	2970	1020
22	---	---	---	---	---	561	637	960	1580	2790	2940	1010
23	---	---	---	---	---	514	575	944	1570	2770	2920	993
24	---	---	---	---	---	534	541	944	1610	2750	2910	993
25	---	---	---	---	---	495	521	923	1620	2740	2890	989
26	---	---	---	---	---	501	534	895	1620	2730	2970	985
27	---	---	---	---	---	541	527	895	1660	2710	2960	981
28	---	---	---	---	---	554	561	903	1900	2690	2940	981
29	---	---	---	---	---	501	564	895	2090	2680	2930	981
30	---	---	---	---	---	488	588	832	2380	2680	2930	1010
31	---	---	---	---	---	475	---	785	---	2680	2890	---
TOTAL	---	---	---	---	---	17273	15416	27180	42012	85690	85940	63813
MEAN	---	---	---	---	---	557	514	877	1400	2764	2772	2127
MAX	---	---	---	---	---	710	637	1050	2380	2860	2970	3160
MIN	---	---	---	---	---	462	332	616	637	2450	2530	981
AC-FT	---	---	---	---	---	34260	30580	53910	83330	170000	170500	126600

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 21...	0930	2960	15.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
AUG 31...	1435	E2970	18.5	0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 20...	0830	E1280	12.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

E-Estimate.

PLATTE RIVER BASIN

06645000 NORTH PLATTE RIVER BELOW CASPER, WY

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.

DRAINAGE AREA.--12,574 mi², of which 831 mi² is probably noncontributing.

PERIOD OF RECORD.--Water years 1947-52, 1957-59, 1968 to current year.

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

REMARKS.--Discharge records furnished by U.S. Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 29...	1100	1120	700	8.5	10.5	631	11.6
DEC 09...	1020	1000	775	8.2	1.0	629	12.0
JAN 21...	1055	900	740	8.1	0.0	633	11.3
MAR 03...	1415	975	980	7.9	6.0	635	10.9
APR 26...	0920	E520	860	8.3	5.5	628	10.0
JUN 06...	0900	700	800	8.6	19.5	623	13.1
29...	1210	E2000	550	8.3	19.0	625	8.4
JUL 21...	1000	2960	560	8.4	16.0	632	8.8
AUG 05...	1330	3240	580	8.5	19.0	640	--
SEP 20...	0900	E1280	655	8.4	12.0	624	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- PHOROUS TOTAL (MG/L AS P)
OCT 29...	126	K6	0.2	0.07	0.23	0.3	0.06
DEC 09...	103	K1	0.4	0.09	0.61	0.7	0.06
JAN 21...	93	<1	0.5	0.12	0.38	0.5	0.08
MAR 03...	106	K14	0.6	0.20	0.60	0.8	0.09
APR 26...	97	46	0.7	0.10	0.30	0.4	0.07
JUN 06...	176	77	0.2	0.07	0.13	0.2	0.07
29...	111	--	0.1	0.03	0.37	0.4	0.13
JUL 21...	108	46	<0.1	<0.01	--	0.7	0.06
AUG 05...	--	68	0.1	<0.01	--	0.7	0.04
SEP 20...	96	44	0.2	<0.01	--	0.5	0.07

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible]

PLATTE RIVER BASIN

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
JAN 13...	--	--	4	4	--	--	--	--	--
FEB 09...	--	--	5	5	--	--	--	86	219
MAR 03...	0.2	5	--	--	1	9	--	125	329
APR 08...	--	--	10	10	--	--	--	163	243
MAY 13...	--	--	7	7	--	--	--	163	515
JUN 23...	--	<1	2	2	2	8	8.4	31	133
JUL 11...	--	--	2	2	--	--	--	71	562
AUG 05...	<0.1	2	2	2	3	7	--	41	359
SEP 15...	--	--	5	4	--	--	--	313	2500

06645150 SMITH CREEK ABOVE OTTER CREEK, NEAR CASPER, WY

LOCATION (REVISED).--Lat 42°38'59", long 106°10'46", in NE1/4 NW1/4 NW1/4 sec.22, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.3 mi upstream from Otter Creek and 16 mi southeast of Casper.

DRAINAGE.--9.91 mi².

PERIOD OF RECORD.--October 1974 to September 1979, October 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 6,550 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1976, at site 200 ft downstream at datum 7.22 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-19, Nov. 15, 16, Dec. 8, 9, 11-22, 24-31, Jan. 1, 2, 7-13, 18-25, and Mar. 22 to Apr. 7. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--6 years (water years 1975-79, 1988), 3.10 ft³/s, 2,250 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s, May 20, 1978, gage height, 1.98 ft; maximum gage height, 4.03 ft, May 7, 1975 (backwater from snow), site and datum then in use; minimum daily discharge, 0.35 ft³/s, Mar. 3, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 9.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 22	2000	ice jam	a*2.34	Apr. 29	2030	13	1.24
Apr. 20	2200	17	1.38	May 10	2030	*25	1.62

a - Maximum recorded.

Minimum daily discharge, 0.88 ft³/s, Mar. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.9	1.8	1.6	1.6	1.7	1.7	8.0	5.8	3.6	2.7	2.2
2	1.8	2.0	1.9	1.6	1.6	1.6	1.7	6.6	5.6	3.5	2.6	2.2
3	1.8	1.8	1.9	1.6	1.6	1.5	1.9	7.5	5.6	3.4	2.7	2.1
4	1.8	1.8	1.9	1.6	1.6	1.5	2.2	8.0	5.3	3.4	3.0	2.2
5	1.8	1.7	1.8	1.4	1.6	1.5	2.4	7.6	5.3	3.4	2.7	2.2
6	1.8	1.7	1.8	1.4	1.6	1.6	2.7	7.2	4.9	3.1	2.6	2.2
7	1.8	1.7	1.8	1.5	1.6	1.4	3.4	5.4	4.6	3.5	2.6	2.1
8	1.8	1.7	1.8	1.5	1.6	1.7	2.9	7.2	4.3	3.8	2.6	2.2
9	1.7	1.7	1.8	1.5	1.6	1.6	2.1	8.5	4.3	3.5	2.6	2.1
10	1.7	1.7	1.8	1.5	1.6	1.0	1.9	13	4.3	3.4	2.6	2.1
11	1.7	1.7	1.7	1.5	1.5	.88	2.2	13	4.3	3.4	2.6	2.5
12	1.7	1.7	1.5	1.6	1.5	1.2	2.6	11	4.5	3.1	2.6	2.5
13	1.7	1.7	1.5	1.5	1.6	1.1	2.9	10	4.6	3.1	2.6	2.4
14	1.7	2.0	1.5	1.4	1.6	1.3	2.9	9.5	4.8	3.0	2.5	2.4
15	1.7	1.9	1.4	1.4	1.6	1.4	4.4	9.0	4.3	3.1	2.5	2.3
16	1.7	1.8	1.6	1.5	1.7	1.4	7.0	8.8	4.2	3.1	2.6	2.1
17	1.7	1.8	1.7	1.4	1.6	1.4	7.8	8.8	4.0	3.1	2.6	2.0
18	1.7	1.8	1.6	1.4	1.6	1.4	9.0	9.2	3.9	3.1	2.6	2.0
19	1.7	1.9	1.6	1.4	1.6	1.4	11	11	3.8	3.2	2.5	2.1
20	1.7	1.9	1.5	1.4	1.5	1.4	11	9.9	3.9	3.2	2.5	2.0
21	1.7	1.9	1.6	1.5	1.6	1.6	12	8.6	3.9	3.1	2.5	2.0
22	1.7	1.9	1.6	1.6	1.7	1.8	8.4	8.0	3.9	3.0	2.5	2.1
23	1.7	1.7	1.4	1.6	1.6	1.9	6.1	7.6	4.0	3.0	2.5	2.1
24	1.7	1.7	1.5	1.6	1.5	1.7	5.7	7.2	3.8	2.9	2.3	2.0
25	1.7	1.7	1.6	1.5	1.5	1.5	5.9	7.0	3.6	3.0	2.3	2.0
26	1.7	1.8	1.6	1.5	1.4	1.7	5.6	7.0	3.5	2.9	2.3	2.0
27	1.7	1.7	1.6	1.6	1.4	2.0	5.5	6.8	3.5	2.9	2.2	2.0
28	1.8	1.7	1.6	1.6	1.5	2.0	6.5	6.5	3.6	2.9	2.1	2.1
29	1.8	1.7	1.6	1.6	1.8	1.8	8.6	6.3	4.0	2.9	2.1	1.9
30	1.7	1.7	1.7	1.7	---	1.8	9.1	6.1	3.6	2.7	2.1	1.8
31	1.7	---	1.6	1.6	---	1.7	---	6.1	---	2.6	2.1	---
TOTAL	53.7	53.4	51.3	47.1	45.8	47.48	157.1	256.4	129.7	97.9	77.3	63.9
MEAN	1.73	1.78	1.65	1.52	1.58	1.53	5.24	8.27	4.32	3.16	2.49	2.13
MAX	1.8	2.0	1.9	1.7	1.8	2.0	12	13	5.8	3.8	3.0	2.5
MIN	1.7	1.7	1.4	1.4	1.4	.88	1.7	5.4	3.5	2.6	2.1	1.8
AC-FT	107	106	102	93	91	94	312	509	257	194	153	127

WTR YR 1988 TOTAL 1081.08 MEAN 2.95 MAX 13 MIN .88 AC-FT 2140

PLATTE RIVER BASIN

06645164 OTTER CREEK AT MOUTH, NEAR CASPER, WY

LOCATION.--Lat 42°39'28", long 106°09'48", in SW1/4 SW1/4 NW1/4 sec.14, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.2 mi upstream from mouth and 15.0 mi southeast of Casper.

DRAINAGE AREA.--6.50 mi².

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 6,370 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-21, Nov. 11, 12, 16-19, Dec. 2-5, 9, 12-16, Feb. 22, and Mar. 10-17, 29. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 16	0400	ice jam	*5.11	Apr. 16	1930	8.6	1.67
Apr. 8	0200	6.3	1.58	May 13	1430	a*25	2.09
Apr. 16	1930	8.6	1.67				

a - From rating curve extended above 9 ft³/s on basis of critical-depth rating computations. Natural peak discharge (17 ft³/s) augmented by release from failed beaver dam.

Minimum daily discharge, 0.87 ft³/s, Dec. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.3	1.2	1.1	1.1	1.2	1.3	7.0	7.2	4.1	2.4	1.3
2	1.3	1.4	1.3	1.1	1.1	1.1	1.6	6.1	7.2	3.9	2.3	1.3
3	1.3	1.3	1.3	1.1	1.1	1.1	2.0	5.4	7.2	3.8	2.6	1.3
4	1.3	1.2	1.4	1.1	1.1	1.1	2.7	6.1	7.0	3.9	2.6	1.2
5	1.3	1.2	1.4	1.1	1.1	1.0	2.3	7.0	7.0	3.8	2.5	1.2
6	1.3	1.2	1.3	1.1	1.0	1.1	2.7	7.7	6.7	3.8	2.5	1.2
7	1.3	1.2	1.3	1.1	1.0	1.1	4.2	7.2	6.3	3.8	2.5	1.3
8	1.3	1.2	1.3	1.1	1.0	1.1	4.5	7.2	6.1	3.8	2.2	1.2
9	1.2	1.2	1.3	1.1	1.0	1.1	2.6	7.5	5.8	3.5	2.2	1.3
10	1.2	1.2	1.3	.95	1.0	.88	2.1	8.9	5.6	3.5	2.2	1.3
11	1.2	1.2	1.3	1.0	1.0	.94	2.2	10	5.8	3.5	2.1	1.5
12	1.2	1.2	1.2	1.2	1.0	1.0	3.2	12	6.1	3.4	2.2	1.2
13	1.2	1.3	1.1	1.1	1.1	1.1	4.4	14	6.1	3.2	2.0	1.5
14	1.2	1.4	1.0	1.1	1.1	1.1	4.9	15	6.1	3.2	2.0	1.6
15	1.2	1.3	1.1	1.1	1.1	1.1	5.3	12	5.6	3.1	2.0	1.5
16	1.2	1.2	1.2	1.1	1.2	1.1	6.1	12	5.4	3.1	2.0	1.5
17	1.2	1.1	1.3	1.1	1.2	1.1	6.3	13	5.4	3.0	1.9	1.4
18	1.2	1.1	1.1	1.1	1.1	1.1	6.3	13	4.9	2.9	2.0	1.4
19	1.2	1.2	1.1	1.1	1.1	1.2	6.7	13	4.7	2.9	1.9	1.4
20	1.2	1.3	1.1	1.1	1.1	1.3	6.7	11	4.5	2.7	1.9	1.4
21	1.2	1.3	1.0	1.1	1.1	1.5	7.0	9.8	4.5	2.7	1.9	1.3
22	1.2	1.3	1.0	1.1	1.0	1.5	6.7	9.8	4.4	2.7	1.8	1.4
23	1.3	1.3	.87	1.1	1.1	1.7	5.6	9.8	4.2	2.6	1.6	1.3
24	1.3	1.3	.95	1.1	1.0	1.5	4.9	9.5	4.2	2.6	1.5	1.3
25	1.3	1.3	1.0	1.1	1.1	1.3	4.9	9.8	4.1	2.6	1.5	1.3
26	1.2	1.3	1.0	1.1	1.1	1.8	4.2	9.0	4.1	2.6	1.5	1.3
27	1.2	1.3	1.0	1.0	1.1	2.6	4.1	8.9	4.1	2.7	1.5	1.3
28	1.3	1.2	1.1	1.1	1.2	1.9	4.1	8.6	4.1	2.6	1.4	1.3
29	1.3	1.3	1.1	1.1	1.2	1.6	5.1	8.3	4.5	2.5	1.4	1.2
30	1.2	1.3	1.1	1.1	---	1.5	6.3	8.0	4.2	2.4	1.4	1.3
31	1.2	---	1.1	1.1	---	1.4	---	7.7	---	2.5	1.3	---
TOTAL	38.5	37.6	35.82	33.85	31.4	40.12	131.0	294.3	163.1	97.4	60.8	40.0
MEAN	1.24	1.25	1.16	1.09	1.08	1.29	4.37	9.49	5.44	3.14	1.96	1.33
MAX	1.3	1.4	1.4	1.2	1.2	2.6	7.0	15	7.2	4.1	2.6	1.6
MIN	1.2	1.1	.87	.95	1.0	.88	1.3	5.4	4.1	2.4	1.3	1.2
AC-FT	76	75	71	67	62	80	260	584	324	193	121	79

WTR YR 1988 TOTAL 1003.89 MEAN 2.74 MAX 15 MIN .87 AC-FT 1990

06645166 SMITH CREEK BELOW OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°40'20", long 106°09'03", in SE1/4 SW1/4 NE1/4 sec.11, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.4 mi upstream from Spring Creek, 1.2 mi downstream from Otter Creek, and 14.6 mi southeast of Casper.

DRAINAGE AREA.--18.5 mi².

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 5,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-22, 24-26. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 15 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 20	2300	23	2.43	May 14	0100	b,c*40	*2.67
May 10	2100	a,b38	2.65				

a - Natural peak the result of rainfall on snowmelt.

b - From rating curve extended above 19 ft³/s on basis of critical-depth computations.

c - Peak discharge augmented by release from failed beaver dam.

Minimum daily discharge, 1.6 ft³/s, Mar. 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.7	2.3	2.1	2.1	2.1	2.8	17	13	6.4	4.3	3.6
2	2.7	3.0	2.4	2.1	2.1	2.0	2.6	14	13	6.0	4.2	3.5
3	2.7	2.9	2.4	2.2	2.0	2.0	3.2	14	12	6.2	4.4	3.5
4	2.7	2.6	2.5	2.1	2.1	2.0	4.3	15	12	6.2	4.4	3.4
5	2.7	2.6	2.6	2.1	2.1	1.9	4.5	16	12	6.3	4.2	3.3
6	2.6	2.8	2.6	2.1	2.1	1.9	5.0	17	11	6.0	4.1	3.3
7	2.6	2.8	2.6	2.1	2.1	2.1	7.4	15	11	6.3	4.2	3.2
8	2.6	2.8	2.4	2.0	2.1	2.0	8.1	17	11	6.9	4.1	3.2
9	2.6	2.8	2.3	2.0	2.1	2.1	5.7	18	11	6.6	4.1	3.2
10	2.6	2.8	2.5	1.9	2.1	1.6	5.0	25	10	6.2	4.0	3.1
11	2.6	2.6	2.5	1.9	2.1	1.8	5.1	27	10	6.0	4.1	3.4
12	2.6	2.6	2.3	2.1	2.1	2.1	6.9	26	10	5.7	3.8	3.4
13	2.6	2.6	2.2	2.0	2.1	2.1	7.8	28	10	5.5	3.9	3.5
14	2.6	2.8	2.2	2.0	2.1	2.0	8.7	29	10	5.4	3.8	3.5
15	2.5	2.7	2.2	2.0	2.1	2.0	10	26	9.4	5.4	3.8	3.5
16	2.5	2.6	2.2	2.0	2.1	2.0	14	25	9.0	5.2	3.9	3.3
17	2.5	2.6	2.2	2.0	2.1	2.0	15	25	8.7	5.2	3.9	3.3
18	2.5	2.6	2.1	2.0	2.2	2.1	17	25	8.4	5.1	3.9	3.3
19	2.5	2.6	2.1	2.0	2.2	2.1	19	28	8.0	5.1	3.9	3.2
20	2.5	2.6	2.1	1.9	2.2	2.2	19	24	7.5	5.0	3.8	3.2
21	2.5	2.5	2.1	2.0	2.2	2.5	21	21	7.3	4.8	3.7	3.2
22	2.6	2.5	2.1	2.3	2.2	2.8	19	20	7.2	4.7	3.8	3.3
23	2.6	2.5	2.0	2.2	2.1	2.6	15	19	6.9	4.6	3.7	3.3
24	2.6	2.5	2.3	2.0	2.1	2.6	14	19	6.7	4.6	3.6	3.2
25	2.6	2.4	2.3	1.9	2.1	2.4	14	18	6.7	4.6	3.6	3.2
26	2.6	2.5	2.3	1.9	2.0	2.6	12	17	6.4	4.5	3.6	3.2
27	2.6	2.5	2.3	2.0	1.9	3.6	12	17	6.3	4.3	3.6	3.1
28	2.6	2.3	2.3	2.0	1.9	3.6	12	16	6.6	4.3	3.6	3.4
29	2.6	2.4	2.1	2.1	2.1	3.0	15	15	7.0	4.3	3.5	3.6
30	2.6	2.3	2.2	2.1	---	3.2	17	15	6.5	4.3	3.5	3.3
31	2.6	---	2.3	2.1	---	3.0	---	14	---	4.4	3.5	---
TOTAL	80.4	78.5	71.0	63.2	60.8	72.0	322.1	622	274.6	166.1	120.5	99.7
MEAN	2.59	2.62	2.29	2.04	2.10	2.32	10.7	20.1	9.15	5.36	3.89	3.32
MAX	2.7	3.0	2.6	2.3	2.2	3.6	21	29	13	6.9	4.4	3.6
MIN	2.5	2.3	2.0	1.9	1.9	1.6	2.6	14	6.3	4.3	3.5	3.1
AC-FT	159	156	141	125	121	143	639	1230	545	329	239	198

WTR YR 1988 TOTAL 2030.9 MEAN 5.55 MAX 29 MIN 1.6 AC-FT 4030

06645174 BEAVER CREEK ABOVE POLE CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°42'50", long 106°10'56", in NW1/4 NW1/4 SW1/4 sec.27, T.32 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 80 ft downstream from unnamed tributary, 1.6 mi upstream from Pole Creek, and 11.3 mi southeast of Casper.

DRAINAGE AREA.--4.67 mi².

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder. Elevation of gage is 5,800 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-26. Records good except those for estimated daily discharges, which are poor. One small pipeline diverts water upstream for landowner's drinking water supply.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 6.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 7	1430	9.8	1.36	May 10	1130	a*11	*1.39

a - From rating curve extended above 6.4 ft³/s on basis of velocity-area study.Minimum daily discharge, 3.5 ft³/s, Jan. 5, 6.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	4.1	3.8	3.7	4.2	4.2	4.5	6.7	4.9	4.4	4.2	3.9
2	4.2	4.2	3.8	3.7	4.2	4.2	4.6	6.7	4.8	4.4	4.2	3.9
3	4.2	4.1	3.8	3.7	4.2	4.1	4.7	6.7	4.7	4.4	4.2	3.9
4	4.2	4.0	3.9	3.6	4.2	4.2	4.8	6.4	4.6	4.4	4.1	3.9
5	4.2	3.9	3.8	3.5	4.2	4.3	4.7	6.3	4.7	4.3	4.0	3.9
6	4.2	3.9	3.8	3.5	4.2	4.7	4.6	6.6	4.5	4.4	4.0	3.8
7	4.2	3.9	3.8	3.6	4.1	4.7	4.8	7.8	4.5	4.5	4.0	3.8
8	4.2	3.8	3.8	3.8	4.1	4.6	4.7	7.3	4.4	4.3	4.0	3.9
9	4.1	3.8	3.8	3.8	4.1	4.6	4.6	6.9	4.4	4.3	4.1	3.9
10	4.1	3.8	3.8	3.8	4.1	4.7	4.8	8.0	4.5	4.3	4.0	4.0
11	4.1	3.8	3.8	3.8	4.1	4.6	4.8	7.5	4.5	4.4	4.0	4.1
12	4.1	3.7	3.8	3.8	4.1	4.7	4.8	8.4	4.5	4.3	4.1	4.0
13	4.1	3.8	3.8	3.8	4.2	4.7	4.8	9.0	4.7	4.2	4.1	4.0
14	4.1	3.9	3.7	3.8	4.2	4.7	4.9	8.8	4.7	4.2	4.1	3.9
15	4.1	3.8	3.8	3.8	4.2	4.7	5.1	8.0	4.5	4.3	4.1	3.9
16	4.1	3.7	3.8	3.8	4.2	4.7	5.3	7.5	4.3	4.3	4.1	3.8
17	4.1	3.7	3.9	3.8	4.1	4.7	5.5	7.2	4.3	4.3	4.1	3.8
18	4.1	3.7	3.8	3.9	4.1	4.8	5.7	7.1	4.3	4.2	4.1	3.8
19	4.1	3.7	3.8	3.9	4.1	5.0	5.9	7.3	4.3	4.3	4.1	3.8
20	4.1	3.7	3.8	3.9	4.1	5.4	6.1	6.3	4.3	4.5	4.1	3.8
21	4.1	3.8	3.8	3.9	4.1	5.5	6.4	5.9	4.3	4.5	4.1	3.8
22	4.1	3.8	3.7	3.9	4.1	5.2	6.3	5.7	4.3	4.5	4.1	3.8
23	4.1	3.8	3.8	3.9	4.1	5.2	6.2	5.7	4.4	4.3	4.0	3.8
24	4.1	3.8	3.7	3.9	4.1	5.2	5.9	5.6	4.4	4.4	3.9	3.8
25	4.2	3.8	3.7	3.9	4.0	5.3	5.8	5.5	4.3	4.4	4.0	3.8
26	4.2	3.8	3.7	3.9	4.0	5.6	6.0	5.4	4.4	4.4	4.1	3.8
27	4.2	3.8	3.7	4.0	4.1	5.5	5.8	5.3	4.4	4.4	4.1	3.8
28	4.2	3.8	3.7	4.1	4.1	4.7	5.8	5.1	4.5	4.4	4.1	3.9
29	4.2	3.8	3.7	4.3	4.3	4.6	5.9	5.0	4.5	4.3	4.0	3.8
30	4.2	3.8	3.7	4.2	---	4.6	6.2	5.1	4.5	4.3	4.0	3.8
31	4.1	---	3.7	4.2	---	4.6	---	5.1	---	4.3	3.9	---
TOTAL	128.5	115.0	117.0	119.2	119.9	148.3	160.0	205.9	134.4	134.9	126.0	115.9
MEAN	4.15	3.83	3.77	3.85	4.13	4.78	5.33	6.64	4.48	4.35	4.06	3.86
MAX	4.2	4.2	3.9	4.3	4.3	5.6	6.4	9.0	4.9	4.5	4.2	4.1
MIN	4.1	3.7	3.7	3.5	4.0	4.1	4.5	5.0	4.3	4.2	3.9	3.8
AC-FT	255	228	232	236	238	294	317	408	267	268	250	230

WTR YR 1988 TOTAL 1625.0 MEAN 4.44 MAX 9.0 MIN 3.5 AC-FT 3220

06645178 POLE CREEK NEAR CASPER, WY

LOCATION.--Lat 42°41'48", long 106°10'42", in SW1/4 NE1/4 SW1/4 sec.34, T.32 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on left bank 200 ft upstream from unnamed tributary, 1.9 mi upstream from mouth, and 12.4 mi southeast of Casper.

DRAINAGE AREA.--2.70 mi².

PERIOD OF RECORD.--October 1987 to September 1988.

GAGE.--Water-stage recorder and bedrock control. Elevation of gage is 5,880 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 12, Nov. 15-17, 24, 25, 28, 29, Dec. 11-14, 17, Mar. 10, 11, and June 22 to July 18. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3.0 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 7	1730	3.4	1.16	Apr. 30	1800	4.6	1.22
Apr. 20	1730	4.5	1.21	May 11	1900	a*8.9	*1.47

a - From rating curve extended above 4 ft³/s, on basis of critical-depth computations.

Minimum daily discharge, 0.32 ft³/s, Dec. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.50	.40	.49	.47	.55	.62	3.0	2.5	1.2	.83	.67
2	.58	.52	.57	.50	.47	.52	.75	2.3	2.3	1.1	.84	.66
3	.58	.50	.59	.48	.47	.51	.90	2.5	2.2	1.1	.89	.66
4	.58	.49	.65	.47	.47	.50	1.1	2.9	2.2	1.1	.86	.66
5	.58	.47	.63	.47	.47	.49	.96	3.4	2.2	1.1	.82	.65
6	.58	.47	.59	.47	.47	.52	1.3	3.4	2.0	1.1	.81	.65
7	.58	.47	.58	.47	.45	.51	2.0	2.6	1.8	1.1	.85	.63
8	.58	.45	.47	.45	.44	.49	1.5	2.8	1.7	1.0	.82	.65
9	.54	.45	.59	.45	.44	.50	1.0	3.7	1.7	1.0	.80	.65
10	.54	.45	.62	.45	.45	.45	.91	5.4	1.6	1.0	.78	.65
11	.50	.48	.56	.45	.43	.52	1.1	5.5	1.6	1.0	.77	.76
12	.50	.52	.50	.45	.43	.55	1.5	5.0	1.6	1.0	.78	.75
13	.50	.52	.46	.44	.44	.54	1.7	5.6	1.6	1.0	.77	.73
14	.50	.56	.43	.44	.45	.54	1.9	5.3	1.5	.98	.75	.71
15	.50	.45	.32	.45	.46	.54	2.2	4.5	1.5	.98	.75	.67
16	.50	.46	.36	.44	.45	.54	2.7	4.4	1.4	.98	.75	.66
17	.50	.49	.57	.43	.45	.54	2.5	4.7	1.3	.98	.75	.64
18	.50	.52	.53	.44	.45	.54	2.7	4.9	1.3	.97	.75	.64
19	.50	.59	.49	.46	.45	.57	3.0	5.8	1.3	.95	.73	.66
20	.50	.58	.49	.47	.45	.67	3.2	4.4	1.2	.93	.72	.64
21	.50	.58	.47	.47	.45	.83	3.2	3.5	1.2	.90	.74	.65
22	.50	.56	.48	.47	.45	.82	2.4	3.2	1.2	.90	.73	.67
23	.50	.56	.50	.48	.45	.82	2.0	3.1	1.2	.90	.72	.66
24	.52	.54	.50	.47	.45	.72	2.0	3.3	1.2	.89	.71	.65
25	.52	.52	.50	.47	.45	.65	2.0	3.3	1.2	.88	.71	.70
26	.47	.50	.50	.47	.47	.84	1.9	3.3	1.2	.88	.70	.69
27	.47	.50	.50	.47	.50	1.1	2.0	3.2	1.2	.87	.71	.64
28	.49	.50	.50	.48	.49	.80	2.3	3.0	1.2	.87	.71	.68
29	.48	.50	.50	.48	.59	.64	3.1	3.0	1.3	.86	.69	.65
30	.48	.42	.50	.47	---	.62	3.5	2.9	1.2	.84	.67	.65
31	.49	---	.50	.47	---	.61	---	2.6	---	.84	.67	---
TOTAL	16.14	15.12	15.85	14.37	13.36	19.04	57.94	116.5	46.6	30.20	23.58	20.03
MEAN	.52	.50	.51	.46	.46	.61	1.93	3.76	1.55	.97	.76	.67
MAX	.58	.59	.65	.50	.59	1.1	3.5	5.8	2.5	1.2	.89	.76
MIN	.47	.42	.32	.43	.43	.45	.62	2.3	1.2	.84	.67	.63
AC-FT	32	30	31	29	26	38	115	231	92	60	47	40

WTR YR 1988 TOTAL 388.73 MEAN 1.06 MAX 5.8 MIN .32 AC-FT 771

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. 15-19, 23-30, Dec. 1-4, 9, Dec. 11 to Feb. 11, Feb. 13-17, 22, Mar. 5, 7, 8, 10-14, 25, 29-31, and Apr. 1, 2. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--8 years (water years 1947-51, 1986-88), 53.4 ft³/s, 38,690 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. 7	2000	460	5.45	May 4	2230	518	5.63
Apr. 18	2230	710	6.15	May 10	2130	*844	*6.44
May 1	0030	559	5.75				

Minimum daily discharge, 2.7 ft³/s, Sept. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	6.6	7.3	7.0	6.5	10	26	410	117	13	4.3	3.1
2	4.5	9.1	7.7	7.2	6.8	10	28	290	104	11	4.2	3.1
3	4.5	13	8.6	6.9	6.8	9.5	34	300	95	9.7	4.7	3.1
4	4.5	10	10	6.6	6.9	9.4	50	358	83	9.2	6.8	3.1
5	4.5	8.5	11	6.5	7.0	9.0	94	428	75	9.3	6.7	3.1
6	4.7	7.7	11	6.4	7.1	9.1	111	425	73	8.6	5.6	3.0
7	4.7	7.4	11	6.5	7.2	8.7	239	303	56	8.2	4.8	2.8
8	4.9	7.5	10	6.6	7.2	8.6	303	359	48	15	4.5	2.7
9	4.9	7.4	9.6	6.7	7.1	9.0	161	452	43	14	4.4	2.7
10	5.0	7.1	10	6.8	7.1	8.8	119	591	40	12	4.2	2.8
11	5.3	7.0	9.6	7.0	7.3	7.0	116	642	37	12	3.7	3.5
12	5.3	7.0	8.4	7.3	7.5	6.4	156	631	37	10	3.5	6.3
13	5.3	7.1	7.0	7.3	7.6	8.3	239	643	48	8.5	3.5	7.4
14	6.0	8.3	5.8	7.2	7.6	9.7	324	634	47	7.5	3.5	6.7
15	6.8	10	6.7	7.1	7.5	9.9	394	558	36	7.2	3.3	6.5
16	8.2	8.5	6.2	7.2	7.3	9.0	448	503	31	6.9	3.3	5.7
17	8.2	8.2	6.1	7.1	7.2	8.7	523	494	27	6.3	3.3	5.1
18	7.8	8.6	6.0	7.0	7.4	8.6	552	587	23	6.0	3.6	4.5
19	7.4	8.9	5.7	7.0	7.4	9.5	561	574	21	6.2	3.6	4.3
20	7.4	9.3	5.4	7.5	7.4	11	541	472	19	6.5	3.5	4.3
21	7.4	9.0	5.6	7.7	7.4	14	554	384	17	6.5	3.4	4.4
22	6.9	9.2	5.7	7.6	7.7	17	452	327	16	6.0	3.2	4.5
23	6.6	8.5	6.8	7.4	7.7	18	320	288	15	5.6	3.0	4.8
24	6.4	8.2	6.5	7.3	7.7	20	280	267	15	5.1	3.1	4.8
25	6.7	8.0	6.1	7.1	7.7	17	277	250	13	4.7	3.1	4.5
26	6.7	7.7	5.8	7.4	7.7	20	232	265	11	4.5	3.1	4.5
27	6.7	7.3	6.0	7.9	8.1	29	220	232	11	4.7	2.9	4.2
28	6.6	7.1	6.1	7.8	8.5	34	244	204	12	4.9	3.0	5.5
29	6.3	6.8	6.2	7.5	8.9	32	317	177	16	5.0	3.3	5.8
30	6.2	7.0	6.3	7.1	---	27	422	152	15	5.0	3.3	5.7
31	6.3	---	6.4	6.8	---	24	---	134	---	4.5	3.2	---
TOTAL	187.2	246.0	230.6	220.5	215.3	432.2	8337	12334	1201	243.6	119.6	132.5
MEAN	6.04	8.20	7.44	7.11	7.42	13.9	278	398	40.0	7.86	3.86	4.42
MAX	8.2	13	11	7.9	8.9	34	561	643	117	15	6.8	7.4
MIN	4.5	6.6	5.4	6.4	6.5	6.4	26	134	11	4.5	2.9	2.7
AC-FT	371	488	457	437	427	857	16540	24460	2380	483	237	263

CAL YR 1987 TOTAL 18910.9 MEAN 51.8 MAX 929 MIN 2.7 AC-FT 37510
WTR YR 1988 TOTAL 23899.5 MEAN 65.3 MAX 643 MIN 2.7 AC-FT 47400

06646000 DEER CREEK IN CANYON, NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 21...	1630	7.6	270	8.2	4.0	617	1.6	10.6	100	K1	120	34
DEC 01...	1345	7.3	285	8.3	0.0	613	1.0	11.9	101	K1	140	41
JAN 12...	1720	7.2	263	8.2	0.0	619	1.0	11.6	98	K1	130	38
FEB 24...	1415	7.6	253	8.2	0.5	620	1.2	12.0	103	K1	130	36
APR 05...	1345	92	111	8.2	3.0	626	12	17.5	159	K2	59	17
16...	2015	590	80	8.1	6.0	620	85	13.8	136	34	37	11
MAY 27...	1400	230	82	8.2	13.5	610	18	8.2	99	26	35	10
JUN 30...	1515	15	195	8.0	21.0	631	1.3	7.6	104	K12	100	30
AUG 16...	0940	3.5	282	8.4	17.0	614	1.6	8.0	103	K4	150	41
SEP 27...	1100	4.4	265	7.5	10.5	630	0.80	9.4	102	K6	130	31

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

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- 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)
OCT 21...	8.7	5.3	0.2	0.90	130	5.4	1.4	0.2	11	145	0.20
DEC 01...	10	4.3	0.2	1.1	130	6.2	2.1	0.2	14	157	0.21
JAN 12...	8.8	5.6	0.2	1.0	120	5.7	2.0	0.2	16	151	0.21
FEB 24...	8.7	5.0	0.2	1.1	130	5.4	1.5	0.2	18	155	0.21
APR 05...	4.0	2.9	0.2	1.8	54	5.8	1.6	0.1	9.2	75	0.10
16...	2.2	2.7	0.2	1.5	32	5.3	1.0	0.1	11	54	0.07
MAY 27...	2.5	3.0	0.2	0.7	35	5.0	<1.0	0.1	14	--	--
JUN 30...	7.3	4.1	0.2	1.2	100	3.2	2.1	0.2	11	119	0.16
AUG 16...	12	6.0	0.2	1.4	150	5.8	2.6	0.2	11	170	0.23
SEP 27...	12	12	0.5	<0.2	140	0.60	1.5	0.2	9.7	151	0.21

06646000 DEER CREEK IN CANYON, NEAR GLENROCK, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	2.98	<0.1	0.1	0.02	0.18	0.2	<0.01	<1	4	0.08	--
DEC 01...	3.27	<0.1	0.1	<0.01	--	0.2	<0.03	--	2	0.04	--
JAN 12...	2.94	0.3	0.4	<0.01	--	0.3	<0.03	--	5	0.10	--
FEB 24...	3.18	0.3	0.3	0.01	--	<0.2	0.01	--	4	0.08	--
APR 05...	18.6	<0.1	<0.1	0.01	0.69	0.7	0.07	--	21	5.2	81
16...	86.0	<0.1	<0.1	0.09	0.81	0.9	0.19	<1	67	107	76
MAY 27...	--	<0.1	<0.1	0.03	0.67	0.7	0.03	--	8	4.8	--
JUN 30...	4.82	<0.1	<0.1	<0.01	--	0.3	0.01	--	2	0.08	--
AUG 16...	1.61	<0.1	0.1	<0.01	--	0.3	0.04	<1	2	0.02	--
SEP 27...	1.79	<0.1	<0.1	0.02	--	<0.2	<0.01	--	2	0.02	--

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.

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. 16-19, 28-30, Dec. 1, Dec. 12 to Feb. 25, Mar. 4-19, 29-31, and Apr. 1. 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 irrigation 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.--27 years, 70.0 ft³/s, 50,720 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. 19	0400	700	*5.15	May 11	0300	*720	5.14

Minimum daily discharge, 0.90 ft³/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	20	18	18	17	28	45	332	80	2.5	1.7	1.0
2	15	22	20	18	18	29	47	285	55	2.3	1.7	1.0
3	15	23	19	18	18	27	54	281	54	2.3	1.8	1.0
4	16	23	20	17	19	25	52	297	45	2.4	2.2	1.0
5	18	22	21	17	19	22	77	346	33	2.6	1.9	1.0
6	16	21	21	17	20	22	101	342	28	2.5	1.8	1.0
7	15	20	22	17	20	24	163	263	22	3.4	1.9	.96
8	15	19	22	17	20	23	340	219	16	2.1	1.9	.90
9	15	20	21	17	21	25	190	304	14	1.8	1.9	.97
10	15	20	21	18	19	26	129	461	12	1.8	1.7	1.0
11	15	20	24	18	20	24	117	559	9.7	1.7	1.7	1.5
12	15	19	19	17	21	21	134	588	8.7	1.9	1.6	1.6
13	16	19	17	17	22	20	199	572	8.6	1.8	1.6	1.6
14	16	20	15	18	22	22	282	595	9.3	1.8	2.0	1.8
15	17	26	17	19	22	24	345	527	8.9	1.8	1.9	1.6
16	17	23	18	18	22	23	389	459	8.6	1.7	2.0	1.8
17	18	21	19	18	21	23	503	442	8.6	2.1	1.9	1.6
18	18	19	20	17	21	23	542	544	8.0	2.3	1.6	1.7
19	19	20	19	17	22	25	581	555	7.0	2.4	1.6	1.8
20	19	21	18	17	22	31	545	505	6.2	2.5	1.5	1.9
21	19	22	19	18	22	41	574	372	5.6	2.4	1.4	1.9
22	20	21	20	18	20	48	508	299	4.4	2.5	1.5	1.9
23	19	21	21	18	20	42	310	257	3.7	2.5	1.6	2.2
24	19	20	22	17	21	41	246	234	2.8	2.6	1.5	2.3
25	19	20	20	17	22	39	231	216	2.6	3.3	1.5	2.3
26	19	20	19	18	24	40	187	209	2.5	3.1	1.4	2.3
27	19	20	19	19	27	40	175	175	2.5	2.8	1.4	2.3
28	19	19	18	20	28	53	176	164	2.5	2.7	1.4	2.9
29	19	17	18	20	24	49	200	145	2.7	2.6	1.3	3.3
30	19	17	18	20	---	45	288	126	2.6	1.9	1.0	3.6
31	19	---	18	19	---	43	---	109	---	1.8	1.0	---
TOTAL	533	615	603	554	614	968	7730	10782	474.5	71.9	50.9	51.73
MEAN	17.2	20.5	19.5	17.9	21.2	31.2	258	348	15.8	2.32	1.64	1.72
MAX	20	26	24	20	28	53	581	595	80	3.4	2.2	3.6
MIN	13	17	15	17	17	20	45	109	2.5	1.7	1.0	.90
AC-FT	1060	1220	1200	1100	1220	1920	15330	21390	941	143	101	103

CAL YR 1987 TOTAL 19687.4 MEAN 53.9 MAX 964 MIN 3.3 AC-FT 39050
WTR YR 1988 TOTAL 23048.03 MEAN 63.0 MAX 595 MIN .90 AC-FT 45720

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.

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

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

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Seminole, 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.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,160 ft³/s, Sept. 10, gage height, 3.47 ft; minimum daily, 422 ft³/s, Dec. 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	888	1050	958	947	934	1210	694	1060	930	2290	2560	2890
2	882	1110	960	930	785	1230	696	1130	822	2400	2560	2920
3	867	1180	992	865	893	1110	670	1130	819	2660	2570	2910
4	940	1110	990	881	889	1020	612	1140	750	2660	2620	2890
5	958	1130	1000	886	925	963	735	1180	675	2670	2640	2880
6	993	1040	1010	986	877	951	755	1140	642	2670	2770	2860
7	986	1070	989	1050	906	898	793	1060	620	2680	2730	2990
8	989	1080	999	1020	899	888	965	1130	818	2740	2760	3130
9	1000	1070	1000	971	910	862	868	1250	1050	2690	2720	3100
10	1010	1080	939	921	891	882	698	1480	1240	2660	2580	3060
11	1020	1080	1030	1060	850	804	626	1780	1500	2680	2550	3090
12	1030	1000	987	1030	901	807	598	1820	1550	2650	2530	3040
13	1040	945	949	979	923	809	648	1750	1570	2690	2650	3000
14	1060	953	699	917	909	820	847	1750	1580	2710	2660	2940
15	1050	1040	602	1000	904	821	1010	1690	1540	2680	2640	2910
16	967	1010	527	1050	909	787	1110	1610	1550	2690	2630	2790
17	965	973	688	951	851	752	1250	1570	1550	2700	2610	2610
18	955	969	1050	920	832	739	1320	1640	1540	2670	2600	2350
19	986	973	1020	906	845	711	1380	1720	1560	2650	2710	2030
20	996	979	965	812	877	771	1350	1690	1550	2630	2970	1700
21	999	969	806	870	936	810	1360	1540	1550	2640	2940	1260
22	984	968	824	892	944	903	1350	1430	1560	2650	2910	1150
23	998	963	969	901	893	954	1190	1350	1550	2650	2890	1110
24	1000	959	690	895	876	881	1030	1300	1520	2630	2870	1080
25	1040	965	422	886	944	863	938	1270	1540	2630	2820	1050
26	1030	957	427	890	982	780	892	1260	1570	2630	2860	1030
27	1040	963	546	922	1060	779	883	1190	1530	2610	2950	1010
28	1040	953	858	962	1070	807	852	1160	1610	2610	2950	1010
29	1040	957	916	994	1170	824	909	1120	1880	2570	2930	1000
30	1050	954	1020	1020	---	761	1000	1100	2060	2570	2910	988
31	1050	---	1010	1000	---	706	---	1000	---	2570	2920	---
TOTAL	30853	30450	26892	29314	26585	26903	28029	42440	40226	81630	85010	66778
MEAN	995	1015	867	946	917	868	934	1369	1341	2633	2742	2226
MAX	1060	1180	1050	1060	1170	1230	1380	1820	2060	2740	2970	3130
MIN	867	945	422	812	785	706	598	1000	620	2290	2530	988
AC-FT	61200	60400	53340	5								

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: Nov. 15-20, Nov. 23 to Dec. 4, Dec. 11 to Jan. 12, Feb. 27 to Mar. 1, Mar. 12-18, 21-24, 27-31, and Apr. 1, 8. 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.--28 years, 37.2 ft³/s, 26,950 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. 20	2040	349	3.81	May 18	0200	*587	*4.49

Minimum daily discharge, 0.08 ft³/s, Aug. 12, 14, 15, 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.21	.84	.83	1.5	1.9	3.4	9.3	276	108	5.1	.16	.09
2	.21	1.6	1.1	1.4	1.9	3.3	11	231	90	4.3	.12	.11
3	.21	3.1	1.5	1.4	1.8	3.1	13	216	77	3.6	.14	.11
4	.21	2.7	2.0	1.5	1.7	2.9	25	222	66	3.2	.23	.11
5	.21	1.9	2.7	1.5	1.7	2.7	43	242	61	2.9	.21	.10
6	.23	1.5	2.2	1.5	1.6	2.7	39	275	52	2.6	.19	.10
7	.24	1.3	1.9	1.6	1.6	2.8	46	240	42	3.2	.17	.10
8	.24	1.3	1.6	1.5	1.6	2.8	72	241	36	3.9	.16	.11
9	.25	1.1	1.7	1.6	1.6	2.8	83	254	32	3.8	.15	.11
10	.28	1.0	2.1	1.7	1.6	2.8	73	293	30	4.1	.11	.12
11	.30	1.0	1.7	1.8	1.7	2.8	65	311	27	3.6	.09	.21
12	.32	.98	1.3	1.8	1.7	2.7	87	357	26	2.6	.08	.25
13	.33	.98	1.0	1.9	1.8	2.5	132	418	30	1.9	.09	.24
14	.51	1.1	.85	1.9	1.8	2.4	163	479	27	1.4	.08	.25
15	.64	1.2	.86	2.0	1.8	2.5	193	457	23	1.2	.08	.25
16	.76	.97	.97	2.1	1.8	2.4	241	430	21	.96	.09	.21
17	.96	.81	1.1	2.0	1.8	2.3	261	444	18	.85	.09	.18
18	.96	.86	1.3	1.9	1.8	2.3	272	521	17	.65	.09	.16
19	1.1	.98	1.5	1.9	1.8	2.4	293	510	15	.83	.10	.17
20	.96	1.3	1.5	1.9	1.8	3.1	298	400	13	1.2	.10	.17
21	.95	1.5	1.0	1.9	1.8	4.3	316	325	13	.88	.09	.17
22	.88	1.4	1.5	1.9	1.9	7.6	284	270	13	.68	.11	.17
23	.88	1.3	1.7	1.9	1.9	15	230	237	11	.54	.11	.19
24	.87	1.1	1.5	1.9	1.8	12	199	220	9.2	.42	.11	.19
25	.77	1.2	1.3	1.9	1.8	8.1	182	218	7.5	.36	.09	.19
26	.78	1.1	1.4	1.8	1.9	8.0	158	221	6.3	.28	.09	.18
27	.78	.95	1.5	1.8	2.1	10	142	213	5.6	.26	.08	.17
28	.78	.85	1.6	1.8	2.3	13	149	194	5.6	.26	.10	.31
29	.78	.73	1.7	1.9	2.7	11	187	174	6.6	.26	.10	.31
30	.78	.68	1.6	1.9	---	9.3	243	152	6.0	.21	.10	.26
31	.81	---	1.5	1.9	---	7.9	---	130	---	.18	.09	---
TOTAL	18.19	37.33	46.01	55.0	53.0	160.9	4509.3	9171	894.8	56.22	3.60	5.29
MEAN	.59	1.24	1.48	1.77	1.83	5.19	150	296	29.8	1.81	.12	.18
MAX	1.1	3.1	2.7	2.1	2.7	15	316	521	108	5.1	.23	.31
MIN	.21	.68	.83	1.4	1.6	2.3	9.3	130	5.6	.18	.08	.09
AC-FT	36	74	91	109	105	319	8940	18190	1770	112	7.1	10

CAL YR 1987 TOTAL 6634.19 MEAN 18.2 MAX 305 MIN .11 AC-FT 13160
WTR YR 1988 TOTAL 15010.64 MEAN 41.0 MAX 521 MIN .08 AC-FT 29770

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 Careyhurst.

DRAINAGE AREA.--7.18 mi².

PERIOD OF RECORD.--October 1974 to September 1988 (discontinued).

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. 14-17, 28-30, Dec. 10-20, Jan. 15, 18-25, Feb. 1-8, 16-18, 22-25, and Mar. 11-21. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--14 years, 1.64 ft³/s, 1,190 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. 7	1915	*18	*1.33	Apr. 16	1830	13	1.27

Minimum daily discharge, 0.57 ft³/s, Aug. 19, 20.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.68	.74	.75	.68	.62	1.1	2.4	4.1	1.7	.88	.67	.64
2	.68	.93	.77	.72	.58	.97	2.6	3.7	1.7	.83	.70	.61
3	.68	.77	.78	.74	.60	.92	3.0	4.2	1.6	.83	.78	.58
4	.68	.74	.79	.74	.62	.92	4.3	4.7	1.5	.81	.72	.60
5	.68	.74	.81	.74	.64	.88	4.8	5.0	1.5	.80	.65	.61
6	.68	.74	.74	.74	.68	.98	5.5	4.5	1.4	.75	.65	.61
7	.69	.74	.74	.74	.72	1.1	10	4.4	1.3	.87	.65	.60
8	.69	.74	.72	.74	.74	.99	8.4	4.0	1.2	.94	.66	.63
9	.73	.74	.72	.74	.77	1.0	5.1	3.9	1.2	.78	.63	.63
10	.74	.74	.70	.73	.70	.92	4.4	3.8	1.2	.75	.61	.64
11	.67	.74	.66	.78	.69	.87	4.7	3.8	1.3	.80	.60	.75
12	.66	.74	.62	.74	.68	.79	6.0	3.7	1.3	.77	.62	.80
13	.67	.74	.60	.74	.70	.80	7.1	3.7	1.4	.70	.61	.74
14	.72	.74	.58	.73	.68	.83	7.7	3.4	1.3	.70	.59	.80
15	.71	.72	.60	.72	.69	.81	8.2	3.1	1.2	.69	.60	.74
16	.76	.74	.64	.68	.68	.82	9.2	2.9	1.1	.68	.60	.72
17	.69	.78	.61	.70	.66	.83	9.0	2.8	1.1	.68	.62	.70
18	.68	.79	.64	.66	.68	.87	8.5	2.9	1.1	.70	.58	.68
19	.74	.81	.65	.64	.68	1.1	8.4	3.9	1.1	.71	.57	.66
20	.72	.81	.68	.62	.68	1.6	8.1	3.3	1.0	.65	.57	.65
21	.72	.81	.71	.64	.68	2.3	7.0	2.8	1.1	.61	.60	.65
22	.74	.77	.74	.66	.66	2.7	5.5	2.5	1.0	.59	.63	.67
23	.74	.80	.73	.67	.62	2.9	4.5	2.4	.99	.58	.64	.65
24	.74	.77	.70	.67	.66	3.4	4.6	2.3	.96	.60	.63	.62
25	.73	.78	.69	.69	.70	2.7	5.0	2.2	.93	.63	.61	.60
26	.74	.74	.71	.74	.75	3.3	4.3	2.2	.91	.65	.59	.60
27	.74	.73	.74	.74	.83	4.7	4.0	2.0	.91	.63	.62	.61
28	.73	.68	.71	.71	.88	3.9	4.5	1.9	.91	.65	.64	.78
29	.73	.66	.72	.71	1.1	3.2	5.1	1.9	.95	.65	.63	.66
30	.74	.70	.71	.73	---	2.7	4.8	1.8	.91	.65	.61	.66
31	.74	---	.70	.68	---	2.5	---	1.8	---	.66	.62	---
TOTAL	22.04	22.67	21.66	21.96	20.37	53.40	176.7	99.6	35.77	22.22	19.50	19.89
MEAN	.71	.76	.70	.71	.70	1.72	5.89	3.21	1.19	.72	.63	.66
MAX	.76	.93	.81	.78	1.1	4.7	10	5.0	1.7	.94	.78	.80
MIN	.66	.66	.58	.62	.58	.79	2.4	1.8	.91	.58	.57	.58
AC-FT	44	45	43	44	40	106	350	198	71	44	39	39

CAL YR 1987 TOTAL 532.17 MEAN 1.46 MAX 9.5 MIN .58 AC-FT 1060
WTR YR 1988 TOTAL 535.78 MEAN 1.46 MAX 10 MIN .57 AC-FT 1060

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.04	.00	.00	.00	1.2	2.9	.82	.27	.16	.0
2	.00	.15	.07	.00	.00	.00	1.3	2.6	.75	.26	.16	.0
3	.00	.15	.13	.00	.00	.00	1.5	2.5	.68	.24	.23	.02
4	.00	.13	.13	.00	.00	.00	1.8	2.5	.61	.24	.31	.02
5	.00	.12	.10	.00	.00	.00	2.2	2.8	.60	.23	.21	.01
6	.00	.12	.09	.00	.00	.00	2.3	2.9	.64	.24	.20	.0
7	.00	.11	.05	.00	.00	.00	2.9	2.7	.60	.30	.20	.00
8	.03	.12	.04	.00	.00	.00	3.9	2.8	.56	.46	.20	.0
9	.06	.12	.01	.00	.00	.00	3.7	2.6	.58	.32	.17	.01
10	.06	.12	.09	.00	.00	.00	3.3	2.5	.60	.31	.14	.00
11	.05	.11	.02	.00	.00	.00	2.8	2.4	.50	.32	.13	.05
12	.05	.10	.01	.00	.00	.00	2.9	2.3	.64	.34	.13	.09
13	.05	.10	.00	.00	.00	.00	3.2	2.3	.73	.27	.13	.09
14	.05	.12	.0	.00	.00	.00	3.6	2.2	.70	.25	.08	.09
15	.05	.14	.00	.00	.00	.00	3.8	2.1	.55	.26	.08	.07
16	.05	.08	.00	.00	.00	.00	3.8	1.8	.50	.25	.08	.04
17	.06	.05	.00	.00	.00	.00	4.0	1.6	.48	.24	.04	.02
18	.06	.06	.00	.00	.00	.00	4.0	1.7	.49	.23	.02	.01
19	.05	.08	.00	.00	.00	.00	4.1	1.9	.43	.26	.03	.02
20	.05	.10	.00	.00	.00	.12	4.2	2.2	.42	.26	.00	.03
21	.05	.14	.00	.00	.00	.76	4.2	2.0	.36	.23	.01	.02
22	.05	.16	.00	.00	.00	.95	4.1	1.7	.44	.21	.01	.0
23	.05	.13	.00	.00	.00	.80	3.7	1.3	.40	.18	.0	.04
24	.06	.12	.00	.00	.00	1.7	3.2	1.3	.37	.19	.01	.07
25	.06	.08	.00	.00	.00	1.5	3.0	1.1	.34	.18	.0	.00
26	.06	.15	.00	.00	.00	1.2	3.1	.99	.33	.20	.00	.00
27	.06	.12	.00	.00	.00	2.1	2.8	1.1	.32	.20	.0	.01
28	.06	.06	.00	.00	.00	2.5	2.7	1.1	.31	.21	.0	.04
29	.05	.04	.00	.00	.00	2.0	2.8	.98	.32	.19	.0	.08
30	.07	.02	.00	.00	---	1.6	2.9	.92	.28	.18	.00	.08
31	.10	---	.00	.00	---	1.3	---	.91	---	.17	.00	---
TOTAL	1.34	3.20	0.78	0.00	0.00	16.53	93.0	60.70	15.35	7.69	2.73	0.92
MEAN	.043	.11	.025	.00	.00	.53	3.10	1.96	.51	.25	.088	.031
MAX	.10	.16	.13	.00	.00	2.5	4.2	2.9	.82	.46	.31	.09
MIN	.00	.02	.00	.00	.00	.00	1.2	.91	.28	.17	.00	.00
AC-FT	2.7	6.3	1.5	.0	.0	.33	184	120	30	15	5.4	1.8
CAL YR 1987	TOTAL 195.67		MEAN .54	MAX 4.4	MIN .00	AC-FT 388						
WTR YR 1988	TOTAL 202.24		MEAN .55	MAX 4.2	MIN .00	AC-FT 401						

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: Mar. 12-20, Sept. 12-25. Records fair 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 Wagonhound 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 the 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, 454 ft³/s, May 20, gage height, 8.16 ft; minimum daily during period of operation, 0.10 ft³/s, Aug. 30 to Sept. 1, Sept. 3, 7, 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	12	24	209	73	3.7	.62	.10
2	---	---	---	---	---	11	26	173	62	4.9	.44	.14
3	---	---	---	---	---	9.5	29	165	51	4.7	.56	.10
4	---	---	---	---	---	10	38	159	39	4.4	.62	.14
5	---	---	---	---	---	8.3	62	177	28	3.8	.47	.14
6	---	---	---	---	---	9.5	56	211	28	3.5	.38	.14
7	---	---	---	---	---	10	105	201	18	3.8	.38	.10
8	---	---	---	---	---	9.1	190	219	9.5	4.5	.38	.10
9	---	---	---	---	---	9.9	153	234	7.3	4.2	.38	.14
10	---	---	---	---	---	11	121	267	7.2	3.8	.32	.14
11	---	---	---	---	---	11	114	260	6.6	4.0	.32	.18
12	---	---	---	---	---	10	137	292	8.3	3.7	.27	.18
13	---	---	---	---	---	9.0	195	335	7.2	3.7	.24	.18
14	---	---	---	---	---	9.5	247	341	4.9	3.7	.22	.22
15	---	---	---	---	---	9.0	281	336	5.5	3.8	.22	.20
16	---	---	---	---	---	9.0	314	310	5.5	3.3	.18	.18
17	---	---	---	---	---	8.5	334	313	4.5	3.5	.18	.16
18	---	---	---	---	---	9.5	290	386	4.5	3.4	.18	.16
19	---	---	---	---	---	11	320	407	4.5	3.4	.18	.14
20	---	---	---	---	---	16	315	349	4.5	3.7	.16	.14
21	---	---	---	---	---	24	318	254	4.2	3.5	.14	.14
22	---	---	---	---	---	28	275	205	4.4	2.9	.14	.16
23	---	---	---	---	---	25	210	175	4.5	2.5	.14	.16
24	---	---	---	---	---	26	188	154	4.5	2.3	.14	.16
25	---	---	---	---	---	22	179	150	4.2	2.3	.14	.18
26	---	---	---	---	---	22	154	154	4.0	2.2	.14	.18
27	---	---	---	---	---	25	137	153	4.5	1.6	.14	.18
28	---	---	---	---	---	36	135	137	4.5	1.5	.16	.22
29	---	---	---	---	---	29	153	124	3.7	1.3	.14	.22
30	---	---	---	---	---	26	193	112	3.4	.88	.10	.22
31	---	---	---	---	---	25	---	92	---	.70	.10	---
TOTAL	---	---	---	---	---	490.8	5293	7054	420.9	99.18	8.18	4.80
MEAN	---	---	---	---	---	15.8	176	228	14.0	3.20	.26	.16
MAX	---	---	---	---	---	36	334	407	73	4.9	.62	.22
MIN	---	---	---	---	---	8.3	24	92	3.4	.70	.10	.10
AC-FT	---	---	---	---	---	974	10500	13990	835	197	16	9.5

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 4,656.85 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: Dec. 13 to Feb. 15 and Mar. 13, 14. 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.--Twenty-eight discharge measurements provided by the Bureau of Reclamation and eleven 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, 3,180 ft³/s, Sept. 9, gage height, 4.10 ft; maximum gage height, 7.24 ft, Dec. 24 (backwater from ice); minimum daily discharge, 345 ft³/s, Dec. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	983	1100	990	980	1020	1260	807	1650	1150	2020	2500	2870
2	981	1150	999	900	890	1280	794	1820	1040	2200	2500	2880
3	969	1190	1010	855	750	1310	791	1800	934	2450	2540	2930
4	957	1190	1030	830	800	1200	789	1690	868	2640	2590	2930
5	1030	1160	1030	840	840	1110	828	1590	804	2650	2560	2890
6	1050	1140	1040	850	940	1040	936	1640	754	2550	2650	2870
7	1090	1090	1050	910	1010	1030	1020	1590	700	2530	2770	2850
8	1080	1100	1030	990	1010	965	1270	1530	648	2660	2770	3100
9	1090	1120	1050	1060	970	947	1470	1690	755	2610	2750	3160
10	1110	1110	1050	1120	940	954	1250	1810	930	2550	2680	3110
11	1110	1110	1080	1210	990	1000	1030	2090	1080	2490	2510	3110
12	1130	1100	1090	1290	980	904	963	2290	1590	2500	2510	3160
13	1140	996	1030	1220	1010	840	1030	2320	1640	2470	2540	3100
14	1150	968	830	1220	1040	890	1230	2380	1540	2520	2720	3010
15	1180	986	670	1220	1100	860	1580	2440	1490	2520	2660	3020
16	1150	1060	540	1200	1040	839	1910	2330	1420	2520	2650	2900
17	1080	1040	485	1190	1010	814	2160	2200	1430	2570	2610	2760
18	1060	1020	560	1150	962	775	2290	2210	1430	2580	2580	2580
19	1080	1020	840	1020	947	775	2400	2520	1450	2570	2600	2300
20	1100	1030	1000	900	956	796	2500	2940	1480	2490	2840	1990
21	1100	1040	800	850	975	861	2460	2600	1470	2480	2990	1630
22	1110	1030	820	910	1040	932	2510	2290	1460	2520	2960	1290
23	1110	1020	840	950	1030	1010	2350	2010	1450	2540	2850	1180
24	1120	1010	640	880	1010	1040	1970	1750	1450	2540	2840	1120
25	1110	1000	345	910	983	963	1740	1680	1440	2540	2790	1090
26	1120	1010	380	940	1050	920	1630	1600	1430	2560	2750	1060
27	1120	1000	420	960	1070	875	1490	1540	1460	2530	2820	1040
28	1130	1010	490	1000	1130	938	1400	1460	1450	2540	2880	1090
29	1110	981	740	1070	1160	950	1340	1400	1490	2510	2880	1070
30	1100	971	980	1150	---	936	1440	1340	1800	2500	2860	1050
31	1110	---	1020	1180	---	861	---	1260	---	2510	2870	---
TOTAL	33760	31752	25879	31755	28653	29875	45378	59460	38033	77860	84020	69140
MEAN	1089	1058	835	1024	988	964	1513	1918	1268	2512	2710	2305
MAX	1180	1190	1090	1290	1160	1310	2510	2940	1800	2660	2990	3160
MIN	957	968	345	830	750	775	789	1260	648	2020	2500	1040
AC-FT	66960	62980	51330	62990	56830	59260	90010	117900	75440	154400	166700	137100

CAL YR 1987 TOTAL 481820 MEAN 1320 MAX 2670 MIN 345 AC-FT 955700
WTR YR 1988 TOTAL 555565 MEAN 1518 MAX 3160 MIN 345 AC-FT 1102000

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May to September 1979.

SUSPENDED-SEDIMENT DISCHARGE: May to September 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
NOV 02...	1200	1120	605	8.4	11.5	634	8.2
JAN 11...	1420	1550	645	8.5	0.0	617	14.3
APR 05...	1230	833	875	8.5	9.0	640	9.6
JUL 01...	1440	2140	625	8.0	23.0	641	7.3

DATE	TIME	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- PHOROUS TOTAL (MG/L AS P)
NOV 02...	91	51	<0.1	0.04	0.36	0.4	0.05	
JAN 11...	121	K3	0.4	0.06	0.74	0.8	0.10	
APR 05...	99	53	0.6	0.07	0.73	0.8	0.19	
JUL 01...	102	35	0.1	0.04	0.66	0.7	0.29	

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

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1440	2140	23.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 30...	1640	2830	20.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SEP 29...	1330	1040	12.0	<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, 490,000 acre-ft, May 22-26, elevation, 4,632.72 ft, May 23-25; minimum daily contents, 78,400 acre-ft, Sept. 11-15, elevation, 4,574.59 ft, Sept. 11-15.

Capacity table (elevation in feet,
and contents, in acre-feet)

4,570	63,100	4,600	202,000	4,630	459,000
4,580	98,800	4,610	274,000	4,640	583,000
4,590	144,000	4,620	358,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110000	181000	248000	304000	366000	421000	458000	479000	480000	393000	230000	95500
2	112000	183000	250000	306000	368000	424000	458000	478000	478000	384000	224000	92700
3	114000	186000	252000	308000	370000	426000	458000	477000	476000	377000	220000	90000
4	116000	188000	254000	309000	371000	429000	458000	476000	474000	370000	215000	87400
5	118000	191000	257000	311000	373000	431000	459000	475000	474000	367000	211000	85000
6	120000	194000	259000	313000	375000	432000	459000	475000	472000	367000	206000	82900
7	122000	197000	261000	315000	377000	434000	460000	475000	471000	371000	202000	81000
8	125000	199000	263000	317000	379000	436000	462000	476000	470000	373000	198000	79500
9	126000	201000	265000	319000	381000	438000	463000	476000	470000	375000	193000	78800
10	129000	204000	267000	321000	383000	440000	465000	478000	469000	374000	189000	78500
11	131000	206000	269000	323000	385000	442000	466000	480000	468000	369000	184000	78400
12	133000	208000	272000	325000	387000	443000	467000	482000	467000	364000	179000	78400
13	135000	211000	274000	327000	389000	444000	467000	485000	467000	360000	173000	78400
14	140000	213000	275000	330000	391000	446000	468000	486000	467000	354000	168000	78400
15	142000	215000	277000	332000	393000	446000	468000	487000	467000	351000	163000	78400
16	144000	217000	278000	334000	395000	447000	469000	488000	467000	345000	158000	79600
17	145000	219000	279000	336000	397000	447000	470000	488000	467000	340000	149000	80100
18	148000	222000	280000	339000	399000	448000	472000	488000	467000	335000	143000	80500
19	148000	224000	282000	341000	401000	448000	474000	488000	467000	331000	138000	80500
20	154000	226000	284000	343000	403000	448000	475000	488000	466000	326000	133000	81300
21	157000	228000	286000	345000	405000	449000	477000	489000	465000	322000	129000	81300
22	158000	230000	288000	346000	406000	450000	480000	490000	462000	317000	125000	82600
23	161000	232000	290000	348000	408000	450000	482000	490000	458000	313000	121000	82700
24	163000	234000	292000	350000	410000	451000	483000	490000	453000	307000	117000	82700
25	166000	236000	294000	352000	412000	452000	484000	490000	445000	295000	114000	82700
26	168000	238000	295000	354000	414000	453000	484000	490000	437000	285000	111000	82700
27	170000	240000	296000	356000	416000	453000	482000	489000	428000	275000	108000	83900
28	172000	242000	297000	358000	418000	454000	481000	488000	420000	265000	105000	85900
29	174000	244000	298000	360000	420000	455000	480000	486000	411000	255000	103000	87800
30	177000	246000	300000	362000	---	458000	479000	485000	401000	245000	100000	89700
31	179000	---	302000	364000	---	458000	---	482000	---	236000	98200	---
MAX	179000	246000	302000	364000	420000	458000	484000	490000	480000	393000	230000	95500
MIN	110000	181000	248000	304000	366000	421000	458000	475000	401000	236000	98200	78400
(+)	4,596.25	4,606.37	4,613.55	5,620.62	4,626.30	4,629.92	4,631.77	4,632.05	4,624.45	4,604.87	4,579.84	4,577.66
(+)	+71,000	+67,000	+56,000	+62,000	+56,000	+38,000	+21,000	+3,000	-81,000	-165,000	-137,800	-8,500

CAL YR 1987 MAX 532000 MIN 93900 (+) -31,000

WTR YR 1988 MAX 490000 MIN 78400 (+) -18,300

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

PLATTE RIVER BASIN

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: Dec. 13-18, 24-28, 31, Jan. 23 to Feb. 2, Feb. 6, 11, 22, 23, and Mar. 10-13. 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.--Twenty-eight discharge measurements provided by the 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, 7,680 ft³/s, July 24, gage height, 10.05 ft; minimum daily, 5.9 ft³/s, Oct. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	10	9.2	11	11	10	509	1850	2240	5230	5170	4250
2	7.3	11	9.3	11	11	10	504	2110	2080	5380	4960	4290
3	7.3	9.8	9.3	11	11	10	503	2150	1990	5680	4770	4170
4	7.2	9.7	9.2	11	11	10	508	2170	1580	5630	4710	4100
5	6.6	9.8	9.3	11	11	10	513	1900	1280	5540	4760	4030
6	6.4	10	9.5	11	11	10	503	1520	930	1840	4760	3870
7	5.9	10	9.9	11	11	10	503	1340	909	1440	4740	3760
8	6.4	10	9.9	11	11	10	473	1100	939	1430	4740	3670
9	6.5	10	9.9	11	11	10	408	947	1090	1380	4910	3280
10	6.2	10	10	10	11	10	415	882	1410	2940	4790	3200
11	6.4	10	11	11	10	10	471	863	1570	5220	4880	3200
12	6.5	11	10	11	11	10	686	849	1640	4880	5160	3100
13	7.1	11	10	11	12	10	980	1310	1630	4950	5020	3130
14	7.0	11	9.5	10	11	302	1120	1630	1580	4980	5060	3000
15	7.3	12	9.1	10	12	618	1270	1770	1600	4920	5040	2850
16	7.3	11	9.4	10	11	611	1270	1910	1480	5000	5080	2620
17	7.7	10	9.8	10	11	595	1270	2220	1430	5070	5140	2540
18	7.8	9.6	10	9.8	11	541	1210	2620	1390	5040	5110	2540
19	8.1	9.2	11	9.5	11	509	1150	2640	1410	4920	5050	1970
20	8.5	8.9	11	9.4	11	501	1150	2380	1700	4870	5030	1700
21	8.2	9.2	11	9.4	11	503	1060	2010	2600	4800	5000	1420
22	8.5	9.2	11	10	10	534	1170	1930	3450	4790	4960	1310
23	8.7	9.1	11	11	9.6	521	1220	1910	4230	4790	4730	1180
24	9.0	9.1	10	11	10	542	1380	1850	4810	5810	4410	1190
25	9.1	9.4	9.6	11	10	513	1910	1930	5210	7590	4310	1200
26	9.4	9.3	9.3	11	10	526	2460	1960	5450	7600	4270	1160
27	9.8	9.2	9.6	11	11	513	2290	2060	5520	7410	4230	462
28	9.8	9.3	10	11	11	546	1840	2150	5460	7390	4240	257
29	9.9	9.1	11	11	11	534	1720	2240	5280	7380	4080	258
30	10	9.0	11	11	---	518	1700	2280	5240	7390	3970	153
31	10	---	11	11	---	517	---	2320	---	7300	3890	---
TOTAL	243.8	295.9	310.8	329.1	314.6	9574	32166	56801	77128	158590	146970	73860
MEAN	7.86	9.86	10.0	10.6	10.8	309	1072	1832	2571	5116	4741	2462
MAX	10	12	11	11	12	618	2460	2640	5520	7600	5170	4290
MIN	5.9	8.9	9.1	9.4	9.6	10	408	849	909	1380	3890	153
AC-FT	484	587	616	653	624	18990	63800	112700	153000	314600	291500	146500

CAL YR 1987 TOTAL 496234.9 MEAN 1360 MAX 7580 MIN 5.9 AC-FT 984300
WTR YR 1988 TOTAL 556583.2 MEAN 1521 MAX 7600 MIN 5.9 AC-FT 1104000

06652800 NORTH PLATTE RIVER BELOW GLENDON RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1100	5210	16.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 30...	1140	3920	21.5	0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 29...	1030	255	15.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

LOCATION.--Lat 42°27'57", long 105°04'22", SE1/4 NW1/4 SE1/4 sec.24, T.29 N., R.69 W., Platte County, Hydrologic Unit 10180008, on right bank on downstream side of bridge on Horseshoe Creek Road, 3.3 mi southwest of Glendo, and 3.5 mi upstream from I-25.

PERIOD OF RECORD.--October 1961 to September 1968, August to September 1988. Low-flow records at current site may not be equivalent to site used prior to Oct. 1, 1968, because of undetermined channel-flow loss or gain between sites.

GAGE.--Water-stage recorder. Elevation of gage is 4,700 ft above National Geodetic Vertical Datum of 1929, from topographic map. October 1961 to September 1968 at site 2.2 mi upstream at different datum.

AVERAGE DISCHARGE.--7 years (water years 1962-68), 37.7 ft³/s, 27, 290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,850 ft³/s, June 14, 1965, gage height, 8.42 ft, site and datum then in use, from rating curve extended above 1,900 ft³/s on basis of slope-conveyance study; no flow Aug. 18, Sept. 8, 10-15, 18-30, 1966.

EXTREMES FOR CURRENT YEAR.--Not determined, period of operation (August and September) was too limited for publication of meaningful extremes.

[illegible]

LOCATION.--Lat 42°27'09", long 104°58'11", in SE1/4 NE1/4 SE1/4 sec.26, T.29 N., R.68 W., Platte County, Hydrologic Unit 10180008, on left bank 0.6 mi upstream from mouth and 4.8 mi southeast of Glendo.

PERIOD OF RECORD.--April 1916 to September 1918, April 1921 to September 1924, May 1928 to November 1932, April to September 1933, April 1935 to September 1970, and August to September 1988. Monthly discharge only for some periods, published in WSP 1310. Records for April to September 1919, published in WSP 469 and 506, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder. Elevation of gage is 4,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 9, 1935, nonrecording gages at sites about 2 mi upstream at different datums. June 9, 1935 to September 1970 at same site and datum.

AVERAGE DISCHARGE.--44 years (water years 1916-18, 1921-24, 1928-32, 1935-70), 29.0 ft³/s, 21,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s, May 30, 1935, gage height, 8.80 ft, from floodmarks, present site and datum, from rating curve extended above 750 ft³/s on basis of slope-area measurement of peak flow; no flow at times in 1918, 1935, 1939, 1940.

EXTREMES FOR CURRENT YEAR.--Not determined, period of operation (August and September) was too limited for publication of meaningful extremes.

[illegible]

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, Dec. 6-7, 1986; minimum daily elevation, 4,361.50 ft, Oct. 5, 6, 1958.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 42,300 acre-ft, May 21, elevation, 4,418.60 ft; minimum daily contents, 4.0 acre-ft, Oct. 7-9, elevation, 4,371.33 ft, Oct. 8, 9.

Capacity table (elevation in feet,
and contents, in acre-feet)

4,370	0	4,390	2,710	4,410	24,300
4,375	50	4,395	5,360	4,415	34,300
4,380	375	4,400	9,690	4,420	45,600
4,385	1,200	4,405	16,000		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	457	2030	4030	5830	7590	9280	29800	40600	41700	38700	39100	29500
2	400	2120	4090	5880	7650	9350	30700	40500	41700	38400	39100	29600
3	351	2200	4140	5930	7700	9430	31800	40500	41500	38600	39000	29600
4	307	2270	4210	5940	7750	9490	32800	40400	41400	38800	38400	29800
5	194	2350	4270	5940	7820	9530	33900	40700	41200	39000	37700	29900
6	85	2430	4330	5940	7870	9590	35000	41000	41100	33800	37100	29900
7	4.0	2510	4410	5940	7920	9670	36000	41000	41000	26000	36400	30100
8	4.0	2550	4460	5940	7970	9690	36900	40900	40800	18600	35800	30300
9	4.0	2620	4520	5940	8030	9730	37200	40700	40500	10600	35300	30100
10	103	2690	4580	5940	8100	9940	37700	40600	40500	2810	34900	29700
11	233	2750	4660	5960	8140	9960	37800	40900	40600	2550	34400	29300
12	370	2810	4700	5960	8200	9990	37600	41000	41100	2170	34500	29000
13	500	2870	4730	5970	8270	10000	37400	40800	41300	2000	34500	28800
14	624	2970	4780	6500	8310	10000	37300	40800	41500	2060	34400	29000
15	739	3030	4840	6560	8410	11000	37800	40900	41700	1900	34300	29200
16	832	3100	4890	6640	8480	12300	38600	41000	41900	1680	34300	29400
17	923	3170	4950	6720	8530	13600	39300	41000	41900	1560	34300	29100
18	1010	3230	5020	6800	8600	14700	40000	41100	41900	1680	34500	29000
19	1010	3290	5070	6860	8650	15800	40400	41800	41900	1700	34600	29000
20	1170	3360	5130	6910	8710	16800	40800	42200	41600	1650	34800	28600
21	1250	3430	5200	6960	8810	17900	41200	42300	41300	1380	35000	27900
22	1320	3490	5250	7040	8850	18900	41300	42100	40800	1210	35200	26600
23	1400	3550	5320	7080	8900	20000	41400	41900	40700	1130	35400	25300
24	1470	3610	5370	7130	8950	21100	41400	41500	40400	1550	34900	23800
25	1540	3670	5420	7180	9000	22100	41000	41300	40300	7910	34300	22400
26	1620	3740	5480	7240	9060	23200	40600	41300	40300	13400	33700	21100
27	1690	3800	5550	7300	9130	24300	40800	41000	40300	18500	33100	19200
28	1750	3860	5600	7370	9180	25400	40900	41000	40200	23500	32400	17200
29	1820	3910	5670	7440	9230	26500	40900	41100	39800	28500	31500	15300
30	1890	3970	5740	7510	---	27600	40700	41300	39200	33300	30700	13800
31	1960	---	5780	7550	---	28700	---	41400	---	38100	29900	---
MAX	1960	3970	5780	7550	9230	28700	41400	42300	41900	39000	39100	30300
MIN	4.0	2030	4030	5830	7590	9280	29800	40400	39200	1130	29900	13800
(+)	4,837.84	4,392.72	4,395.60	4,397.80	4,399.56	4,412.26	4,417.88	4,418.21	4,417.23	4,416.71	4,412.88	4,403.45
(+)	+1,434	+2,010	+1,810	+1,770	+1,680	+19,470	+12,000	+700	-2,200	-1,100	-8,200	-16,100

CAL YR 1987 MAX 44900 MIN 3.0 (+) +5,777

WTR YR 1988 MAX 42300 MIN 4.0 (+) +13,274

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

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.

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.

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: Nov. 8-25, Mar. 11, 12. Records excellent above 500 ft³/s and fair below, except those for estimated daily discharges, which are poor. 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.

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, 5,730 ft³/s, July 25, gage height, 6.38 ft; minimum daily, 2.0 ft³/s, Dec. 31.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	3.1	3.6	2.3	6.3	5.8	6.5	1940	2230	5330	5010	4310
2	76	3.5	4.0	2.5	6.3	5.8	6.7	2210	2130	5370	5000	4240
3	70	3.1	3.4	2.5	6.5	5.8	7.8	2210	2120	5400	5010	4160
4	65	3.3	3.4	2.5	7.0	5.2	7.7	2240	1730	5420	4990	4050
5	63	3.3	3.1	2.5	7.0	5.2	6.1	1930	1430	5410	5000	3970
6	61	3.5	3.2	2.2	7.3	5.5	6.7	1540	999	5340	4980	3870
7	58	2.9	3.5	2.2	7.6	4.7	7.3	1450	954	5290	4990	3700
8	57	3.3	3.0	2.2	7.6	4.7	134	1320	951	5270	4990	3630
9	56	3.3	3.0	2.2	7.7	4.7	336	1150	1080	5310	4980	3490
10	35	3.3	3.2	2.5	7.3	4.7	224	966	1210	5280	4950	3430
11	4.0	3.3	2.8	2.8	6.3	3.6	442	825	1330	5290	4970	3410
12	4.0	3.3	2.6	2.5	6.3	6.0	762	888	1400	5170	4950	3270
13	3.5	3.3	2.7	2.5	6.4	5.3	1120	1310	1400	4980	4940	3160
14	3.7	3.3	2.9	2.6	5.3	4.7	1140	1600	1380	5010	4980	2950
15	3.4	3.3	2.7	2.6	6.1	4.4	1040	1710	1380	4990	4980	2780
16	3.4	3.3	2.5	2.3	6.0	2.5	1020	1850	1330	5030	4980	2600
17	3.4	3.3	2.7	2.3	5.3	11	1020	2220	1320	5120	4980	2620
18	3.6	3.4	2.7	2.5	5.8	36	1050	2550	1310	5120	4930	2600
19	3.6	3.4	2.7	2.8	5.5	7.6	1070	2530	1360	5080	4890	2130
20	2.8	3.4	2.7	2.5	5.5	7.3	1080	2400	1670	4930	4880	1890
21	3.3	3.4	2.7	2.5	6.1	9.0	1080	2170	2460	4850	4850	1890
22	3.5	3.4	2.5	5.3	5.4	8.3	1270	2160	3320	4850	4820	1900
23	3.5	3.4	2.7	6.0	4.9	10	1320	2130	4050	4790	4710	1880
24	4.1	3.9	2.7	6.1	5.2	8.7	1490	2130	4590	4790	4670	1910
25	3.7	4.5	2.7	6.3	5.2	7.0	2060	2150	5000	5030	4600	1920
26	3.5	5.8	2.3	6.3	5.2	7.3	2610	2020	5210	4920	4530	1880
27	3.3	6.2	2.9	6.3	5.2	7.2	2390	2240	5330	4890	4540	1820
28	3.3	4.7	2.7	6.3	5.2	6.2	1960	2160	5440	4900	4590	1470
29	3.0	3.5	2.5	6.7	5.4	6.7	1840	2200	5380	4890	4550	1270
30	3.3	3.4	2.3	7.0	---	6.6	1820	2240	5380	4970	4450	1070
31	3.2	---	2.0	6.4	---	6.3	---	2280	---	5030	4380	---
TOTAL	698.1	108.1	88.4	114.2	176.9	223.8	28326.8	58719	74874	158050	150070	83270
MEAN	22.5	3.60	2.85	3.68	6.10	7.22	944	1894	2496	5098	4841	2776
MAX	84	6.2	4.0	7.0	7.7	36	2610	2550	5440	5420	5010	4310
MIN	2.8	2.9	2.0	2.2	4.9	2.5	6.1	825	951	4790	4380	1070
AC-FT	1380	214	175	227	351	444	56190	116500	148500	313500	297700	165200
CAL YR 1987	TOTAL 504722.6		MEAN 1383	MAX 5220	MIN 2.0	AC-FT 1001000						
WTR YR 1988	TOTAL 554719.3		MEAN 1516	MAX 5440	MIN 2.0	AC-FT 1100000						

PLATTE RIVER BASIN

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: Dec. 13 to Jan. 4 and Feb. 1-11. Records good except those for December and January, 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. Bureau of Reclamation satellite telemeter at station.

COOPERATION.--Twenty-one discharge measurements provided by the Bureau of Reclamation and two discharge measurements provided by the 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, 2,250 ft³/s, May 4, gage height, 4.23 ft; minimum daily, 1.6 ft³/s, Jan. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	7.6	4.5	1.6	6.2	3.5	4.7	1100	162	1780	1380	831
2	138	7.6	4.2	1.7	5.8	3.3	4.2	1730	133	1760	1340	776
3	120	8.0	3.9	1.8	6.0	3.2	3.9	2170	143	1760	1380	732
4	109	7.6	3.5	1.9	6.0	3.3	3.9	2220	138	1750	1380	698
5	96	6.8	3.3	2.1	6.2	3.3	3.9	2030	187	1750	1370	694
6	90	6.5	3.1	2.1	6.6	3.3	3.7	1620	218	1670	1360	673
7	83	6.3	3.1	2.1	6.8	3.3	3.0	1470	203	1570	1380	577
8	77	6.2	3.1	2.1	6.6	3.7	2.6	1380	211	1540	1370	549
9	72	6.2	3.1	2.1	6.5	3.5	66	1210	269	1580	1370	493
10	70	6.2	3.1	2.1	6.5	3.7	166	1030	480	1530	1340	447
11	53	6.2	3.2	2.1	6.5	4.2	101	384	535	1610	1360	438
12	32	5.6	3.1	2.0	6.5	3.3	78	217	681	1550	1360	413
13	28	5.6	3.1	2.1	6.5	3.5	154	221	723	1310	1340	358
14	26	5.6	2.8	2.9	6.5	5.9	165	199	715	1350	1360	344
15	24	5.0	2.6	3.3	6.8	5.9	131	201	723	1330	1380	290
16	20	5.2	2.3	3.5	6.5	5.2	83	207	673	1360	1360	242
17	18	5.3	2.4	3.3	5.9	4.5	84	265	641	1450	1370	280
18	16	5.3	2.5	3.3	5.6	4.5	97	404	609	1480	1330	444
19	16	5.3	2.7	3.3	5.2	21	94	477	579	1540	1290	673
20	15	5.0	2.8	2.6	5.0	8.9	95	347	698	1350	1280	532
21	13	4.7	2.7	2.8	5.3	6.8	93	222	968	1260	1260	504
22	12	4.5	2.8	2.9	4.7	5.9	230	169	1380	1230	1220	493
23	12	4.2	2.9	3.1	4.2	6.5	334	151	1640	1200	1140	542
24	11	3.9	2.7	3.1	4.5	6.8	425	143	1710	1180	1070	542
25	11	3.9	2.4	2.8	4.5	6.8	967	141	1920	1360	999	528
26	10	3.9	2.5	3.7	4.5	6.2	1600	124	1790	1340	917	460
27	9.8	3.9	2.6	4.6	3.9	5.3	1560	189	1820	1320	898	387
28	8.9	4.1	2.5	5.0	3.5	5.0	1120	131	1970	1310	942	404
29	8.4	4.2	2.2	5.6	3.5	4.9	898	123	1910	1270	948	375
30	8.0	4.5	1.9	6.5	---	4.5	831	127	1840	1280	898	225
31	7.6	---	1.7	6.5	---	4.5	---	164	---	1370	869	---
TOTAL	1376.7	164.9	89.3	94.6	162.8	164.2	9401.9	20566	25669	45140	38261	14944
MEAN	44.4	5.50	2.88	3.05	5.61	5.30	313	663	856	1456	1234	498
MAX	162	8.0	4.5	6.5	6.8	21	1600	2220	1970	1780	1380	831
MIN	7.6	3.9	1.7	1.6	3.5	3.2	2.6	123	133	1180	869	225
AC-FT	2730	327	177	188	323	326	18650	40790	50910	89540	75890	29640

CAL YR 1987 TOTAL 142842.1 MEAN 391 MAX 1760 MIN 1.7 AC-FT 283300
WTR YR 1988 TOTAL 156034.4 MEAN 426 MAX 2220 MIN 1.6 AC-FT 309500

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. 1-3, 5, 6, 11. 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, 1,440 ft³/s, May 30; minimum daily during period of operation, 21 ft³/s, Sept. 9, 10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	65	287	1050	222	68	25
2	---	---	---	---	---	---	71	292	958	177	65	25
3	---	---	---	---	---	---	75	247	913	163	67	23
4	---	---	---	---	---	---	88	244	1030	163	64	23
5	---	---	---	---	---	---	117	247	1270	153	62	24
6	---	---	---	---	---	---	129	273	1290	138	56	24
7	---	---	---	---	---	---	141	264	1300	122	54	24
8	---	---	---	---	---	---	161	252	1310	123	56	22
9	---	---	---	---	---	---	141	231	1270	118	52	21
10	---	---	---	---	---	---	128	233	1210	117	48	21
11	---	---	---	---	---	---	125	245	1120	117	45	22
12	---	---	---	---	---	---	129	302	1070	114	44	29
13	---	---	---	---	---	---	169	396	1010	100	43	45
14	---	---	---	---	---	---	173	556	938	87	41	48
15	---	---	---	---	---	---	185	725	876	81	38	52
16	---	---	---	---	---	---	193	861	809	86	36	48
17	---	---	---	---	---	---	215	934	754	84	38	41
18	---	---	---	---	---	---	181	1040	646	80	41	42
19	---	---	---	---	---	---	201	1240	651	77	38	41
20	---	---	---	---	---	---	197	1090	620	77	37	39
21	---	---	---	---	---	---	215	879	577	69	36	37
22	---	---	---	---	---	---	219	762	564	60	38	39
23	---	---	---	---	---	---	181	672	503	57	36	38
24	---	---	---	---	---	---	165	692	447	57	32	37
25	---	---	---	---	---	---	157	754	399	56	30	38
26	---	---	---	---	---	---	145	841	362	53	27	36
27	---	---	---	---	---	---	141	920	313	55	29	36
28	---	---	---	---	---	---	145	1010	350	58	30	38
29	---	---	---	---	---	---	169	1130	357	81	31	42
30	---	---	---	---	---	---	215	1300	276	76	30	46
31	---	---	---	---	---	---	---	1260	---	72	25	---
TOTAL	---	---	---	---	---	---	4636	20179	24243	3093	1337	1026
MEAN	---	---	---	---	---	---	155	651	808	99.8	43.1	34.2
MAX	---	---	---	---	---	---	219	1300	1310	222	68	52
MIN	---	---	---	---	---	---	65	231	276	53	25	21
AC-FT	---	---	---	---	---	---	9200	40030	48090	6130	2650	2040

PLATTE RIVER BASIN

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 for Sept. 11-30, 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 rediverted 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, 146 ft³/s, June 5, gage height, 1.81 ft; minimum daily during period of operation, 0.17 ft³/s, Sept. 8, 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	3.9	32	73	14	2.2	.50
2	---	---	---	---	---	---	3.7	30	52	10	1.7	.47
3	---	---	---	---	---	---	3.7	28	57	8.6	1.6	.38
4	---	---	---	---	---	---	3.9	28	86	8.0	1.7	.44
5	---	---	---	---	---	---	5.1	30	99	7.3	1.7	.44
6	---	---	---	---	---	---	5.0	32	73	6.6	1.7	.38
7	---	---	---	---	---	---	7.3	31	85	6.1	1.7	.31
8	---	---	---	---	---	---	7.6	29	77	6.1	1.6	.17
9	---	---	---	---	---	---	5.7	28	105	5.8	1.5	.17
10	---	---	---	---	---	---	5.1	29	90	5.8	1.4	.20
11	---	---	---	---	---	---	5.6	29	80	6.3	1.3	.19
12	---	---	---	---	---	---	8.1	36	76	6.1	1.2	.24
13	---	---	---	---	---	---	12	48	66	4.9	1.2	.40
14	---	---	---	---	---	---	13	60	75	4.1	1.1	.38
15	---	---	---	---	---	---	15	59	50	3.2	1.0	.44
16	---	---	---	---	---	---	17	57	43	3.4	.93	.38
17	---	---	---	---	---	---	18	57	40	3.7	.93	.24
18	---	---	---	---	---	---	16	61	35	3.2	1.1	.20
19	---	---	---	---	---	---	19	98	31	3.4	1.0	.28
20	---	---	---	---	---	---	19	77	28	3.7	.89	.28
21	---	---	---	---	---	---	21	57	24	3.0	1.0	.38
22	---	---	---	---	---	---	20	51	24	2.5	.93	.50
23	---	---	---	---	---	---	17	49	31	2.3	.77	.56
24	---	---	---	---	---	---	16	51	23	2.2	.70	.63
25	---	---	---	---	---	---	16	52	19	2.2	.60	.70
26	---	---	---	---	---	---	14	52	16	1.9	.50	.70
27	---	---	---	---	---	---	12	50	15	1.9	.44	.70
28	---	---	---	---	---	---	12	48	30	2.2	.50	.93
29	---	---	---	---	---	---	17	46	23	2.5	.53	1.1
30	---	---	---	---	---	---	24	106	18	1.9	.56	1.2
31	---	---	---	---	---	---	---	107	---	2.5	.50	---
TOTAL	---	---	---	---	---	---	362.7	1548	1544	145.4	34.48	13.89
MEAN	---	---	---	---	---	---	12.1	49.9	51.5	4.69	1.11	.46
MAX	---	---	---	---	---	---	24	107	105	14	2.2	1.2
MIN	---	---	---	---	---	---	3.7	28	15	1.9	.44	.17
AC-FT	---	---	---	---	---	---	719	3070	3060	288	68	28

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 07...	1500	11	1720	7.4	15.0	585	9.6
FEB 09...	1000	35	625	7.6	0.0	584	8.6
APR 06...	0900	98	720	7.9	1.0	590	10.2
JUL 19...	0900	35	1080	8.1	15.0	591	6.7

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- PHOROUS TOTAL (MG/L AS P)
OCT 07...	125		160	3.6	0.37	0.83	1.2	0.40
FEB 09...	77		K5	0.7	0.70	0.60	1.3	0.37
APR 06...	93		K11	0.4	0.89	0.41	1.3	0.41
JUL 19...	86		140	1.2	0.32	0.28	0.6	0.57

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

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 22...	1200	280	21.0	<0.01	0.02	--	<0.01	<0.01	--
JUL 19...	1100	35	16.0	<0.01	0.02	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.--Estimated daily discharges: Apr. 1-6. Records good except those for estimated daily discharges, which are poor. 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, 1,140 ft³/s, June 7, gage height, 4.03 ft; minimum daily during period of operation, 15 ft³/s, Sept. 8-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	30	86	521	214	54	19
2	---	---	---	---	---	---	36	84	504	212	48	20
3	---	---	---	---	---	---	32	73	589	190	48	18
4	---	---	---	---	---	---	40	69	749	181	47	19
5	---	---	---	---	---	---	50	70	940	169	42	19
6	---	---	---	---	---	---	55	86	958	164	40	18
7	---	---	---	---	---	---	72	79	988	164	41	17
8	---	---	---	---	---	---	75	81	976	155	42	15
9	---	---	---	---	---	---	51	79	934	137	39	15
10	---	---	---	---	---	---	44	73	847	127	36	15
11	---	---	---	---	---	---	48	73	819	125	34	18
12	---	---	---	---	---	---	61	92	682	119	33	28
13	---	---	---	---	---	---	64	121	677	105	33	34
14	---	---	---	---	---	---	62	155	642	98	28	38
15	---	---	---	---	---	---	67	182	580	97	26	36
16	---	---	---	---	---	---	69	214	548	97	28	31
17	---	---	---	---	---	---	77	271	548	90	26	27
18	---	---	---	---	---	---	59	378	486	82	27	24
19	---	---	---	---	---	---	69	495	482	82	25	24
20	---	---	---	---	---	---	71	394	470	83	21	24
21	---	---	---	---	---	---	72	297	433	73	22	24
22	---	---	---	---	---	---	69	256	445	66	27	24
23	---	---	---	---	---	---	63	214	409	62	24	25
24	---	---	---	---	---	---	58	187	360	59	21	25
25	---	---	---	---	---	---	57	235	319	57	21	24
26	---	---	---	---	---	---	54	324	311	59	21	23
27	---	---	---	---	---	---	57	394	278	59	20	24
28	---	---	---	---	---	---	58	515	281	61	20	25
29	---	---	---	---	---	---	59	642	314	64	20	28
30	---	---	---	---	---	---	69	776	245	63	19	28
31	---	---	---	---	---	---	---	642	---	56	18	---
TOTAL	---	---	---	---	---	---	1748	7637	17335	3370	951	709
MEAN	---	---	---	---	---	---	58.3	246	578	109	30.7	23.6
MAX	---	---	---	---	---	---	77	776	988	214	54	38
MIN	---	---	---	---	---	---	30	69	245	56	18	15
AC-FT	---	---	---	---	---	---	3470	15150	34380	6680	1890	1410

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.

PERIOD OF RECORD.--October 1972 to current year.

REMARKS.--Estimated daily discharges: Nov. 16 to Apr. 10. Records good except those for period of estimated daily discharges, 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.

AVERAGE DISCHARGE.--16 years, 196 ft³/s, 142,000 acre-ft/yr.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s, June 15, gage height, 4.93 ft; no flow Oct. 10-15.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	25	51	28	30	70	230	126	728	292	30	2.5
2	1.4	32	56	28	29	62	260	132	854	292	27	2.5
3	.88	43	60	28	28	58	280	138	900	278	28	2.5
4	.35	59	64	27	30	52	240	236	883	258	49	2.5
5	.10	55	70	28	32	50	270	229	827	238	51	2.3
6	.42	51	76	28	33	56	310	229	795	219	38	2.3
7	.72	51	78	28	34	63	360	205	819	195	33	2.1
8	.65	51	76	29	35	60	400	164	917	190	30	1.9
9	.23	51	74	30	36	68	350	144	1050	209	27	1.9
10	.0	49	72	31	35	64	340	147	1130	202	25	1.7
11	.00	57	70	30	35	56	331	135	1190	175	22	2.1
12	.00	61	62	28	36	50	307	120	1230	166	20	2.5
13	.00	57	54	26	37	56	294	98	1270	144	17	4.2
14	.00	61	46	27	36	62	297	86	1360	129	15	6.6
15	.00	38	47	27	37	58	297	126	1370	116	14	17
16	1.6	34	50	27	38	56	304	195	1330	109	12	24
17	10	36	54	26	36	60	307	280	1230	97	11	27
18	11	40	52	24	37	64	311	348	1060	86	11	27
19	11	46	48	22	39	70	311	482	905	81	9.6	22
20	12	52	45	19	39	100	294	645	743	75	7.9	20
21	12	56	47	21	41	130	263	777	617	72	7.9	18
22	11	56	49	23	41	150	283	851	542	64	7.2	17
23	17	56	46	23	38	170	311	860	485	55	6.6	17
24	16	56	42	23	40	180	304	778	440	48	4.2	16
25	16	60	35	23	41	170	290	671	399	40	3.9	13
26	16	60	28	24	44	200	246	572	331	37	3.6	11
27	17	56	29	26	50	260	226	514	278	35	3.3	9.6
28	16	54	30	28	56	230	209	514	239	33	3.0	9.6
29	16	52	30	30	60	210	185	536	268	31	3.0	11
30	17	52	31	30	---	190	141	590	312	30	3.0	11
31	18	---	29	30	---	170	---	638	---	32	2.7	---
TOTAL	224.65	1507	1601	822	1103	3295	8551	11566	24502	4028	525.9	307.8
MEAN	7.25	50.2	51.6	26.5	38.0	106	285	373	817	130	17.0	10.3
MAX	18	61	78	31	60	260	400	860	1370	292	51	27
MIN	.00	25	28	19	28	50	141	86	239	30	2.7	1.7
AC-FT	446	2990	3180	1630	2190	6540	16960	22940	48600	7990	1040	611
CAL YR 1987	TOTAL	26714.80	MEAN	73.2	MAX	401	MIN	.00	AC-FT	52990		
WTR YR 1988	TOTAL	58033.35	MEAN	159	MAX	1370	MIN	.00	AC-FT	115100		

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: Oct. 27-31, Apr. 1-14. Records good except those for estimated daily discharges, which are poor. 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, 1,410 ft³/s, June 16, gage height, 4.48 ft; maximum gage height observed, 6.48 ft, Mar. 30 (backwater from ice); minimum daily discharge during period of operation, 0.18 ft³/s, Oct. 3-7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	---	---	---	---	---	210	172	681	283	31	3.2
2	.38	---	---	---	---	---	240	166	786	281	28	2.6
3	.18	---	---	---	---	---	260	172	884	276	28	2.3
4	.18	---	---	---	---	---	220	231	902	267	44	2.2
5	.18	---	---	---	---	---	240	255	880	252	59	2.3
6	.18	---	---	---	---	---	280	248	841	241	48	2.6
7	.18	---	---	---	---	---	320	231	828	231	38	1.3
8	.38	---	---	---	---	---	360	224	876	240	38	1.5
9	.58	---	---	---	---	---	330	198	981	218	50	.82
10	.48	---	---	---	---	---	320	188	1080	224	48	.58
11	.43	---	---	---	---	---	300	188	1140	211	48	.90
12	.38	---	---	---	---	---	290	166	1200	195	44	2.3
13	.38	---	---	---	---	---	280	153	1250	192	42	6.0
14	.46	---	---	---	---	---	290	132	1350	175	38	9.0
15	.43	---	---	---	---	---	298	141	1390	160	36	14
16	.38	---	---	---	---	---	284	198	1400	144	36	18
17	.43	---	---	---	---	---	290	262	1320	135	36	25
18	.48	---	---	---	---	---	288	325	1190	126	35	33
19	.67	---	---	---	---	---	293	402	1030	117	28	33
20	9.0	---	---	---	---	---	295	561	876	102	17	33
21	11	---	---	---	---	---	277	691	718	79	16	30
22	9.0	---	---	---	---	---	286	796	611	63	15	26
23	11	---	---	---	---	---	297	830	535	57	14	24
24	11	---	---	---	---	---	311	822	480	50	13	21
25	14	---	---	---	---	---	297	716	442	44	13	21
26	12	---	---	---	---	---	269	613	385	40	9.0	18
27	12	---	---	---	---	---	248	533	323	36	6.0	13
28	11	---	---	---	---	---	235	509	288	36	5.5	11
29	11	---	---	---	---	---	224	521	252	36	5.1	9.9
30	12	---	---	---	---	---	198	559	284	35	4.3	11
31	12	---	---	---	---	---	---	615	---	30	3.5	---
TOTAL	142.22	---	---	---	---	---	8330	11818	25203	4576	876.4	378.50
MEAN	4.59	---	---	---	---	---	278	381	840	148	28.3	12.6
MAX	14	---	---	---	---	---	360	830	1400	283	59	33
MIN	.18	---	---	---	---	---	198	132	252	30	3.5	.58
AC-FT	282	---	---	---	---	---	16520	23440	49990	9080	1740	751

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.

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, 130 ft³/s, July 8, gage height, 3.21 ft; minimum daily during period of operation, 1.6 ft³/s, Mar. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	6.8	91	31	17	18	7.0
2	---	---	---	---	---	---	8.5	89	28	17	17	7.0
3	---	---	---	---	---	---	8.0	77	27	15	17	6.2
4	---	---	---	---	---	---	9.4	70	25	13	21	5.9
5	---	---	---	---	---	---	14	69	24	12	19	5.5
6	---	---	---	---	---	---	14	71	24	11	18	4.3
7	---	---	---	---	---	---	24	67	23	12	18	3.5
8	---	---	---	---	---	---	43	62	22	32	18	3.3
9	---	---	---	---	---	---	38	57	20	55	18	3.5
10	---	---	---	---	---	---	32	54	24	42	17	3.0
11	---	---	---	---	---	---	29	51	25	32	16	4.1
12	---	---	---	---	---	---	33	48	27	29	15	6.0
13	---	---	---	---	---	---	44	46	27	27	15	6.6
14	---	---	---	---	---	---	52	41	39	27	13	6.4
15	---	---	---	---	---	2.1	57	36	41	25	13	6.4
16	---	---	---	---	---	1.7	61	33	36	24	13	5.7
17	---	---	---	---	---	1.7	68	29	31	23	13	5.1
18	---	---	---	---	---	1.6	66	36	28	23	13	4.1
19	---	---	---	---	---	1.8	74	49	26	24	12	3.4
20	---	---	---	---	---	2.1	78	66	24	26	11	3.0
21	---	---	---	---	---	2.2	77	66	23	26	10	2.9
22	---	---	---	---	---	2.4	80	60	24	25	11	3.3
23	---	---	---	---	---	2.7	69	56	23	23	11	3.7
24	---	---	---	---	---	3.3	66	52	21	22	11	3.4
25	---	---	---	---	---	2.7	64	50	18	22	11	3.2
26	---	---	---	---	---	3.7	62	49	17	22	10	3.0
27	---	---	---	---	---	4.1	62	48	15	22	10	3.0
28	---	---	---	---	---	6.8	62	45	16	22	9.6	3.3
29	---	---	---	---	---	7.2	67	40	16	21	9.6	3.9
30	---	---	---	---	---	8.9	80	36	17	20	9.2	4.1
31	---	---	---	---	---	8.0	---	32	---	19	7.8	---
TOTAL	---	---	---	---	---	---	1448.7	1676	742	730	425.2	133.8
MEAN	---	---	---	---	---	---	48.3	54.1	24.7	23.5	13.7	4.46
MAX	---	---	---	---	---	---	80	91	41	55	21	7.0
MIN	---	---	---	---	---	---	6.8	29	15	11	7.8	2.9
AC-FT	---	---	---	---	---	---	2870	3320	1470	1450	843	265

PLATTE RIVER BASIN

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, 409 ft³/s, July 8, gage height, 2.24 ft; minimum daily during period of operation, 16 ft³/s, Sept. 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	40	84	24	113	99	75
2	---	---	---	---	---	---	43	81	24	108	88	73
3	---	---	---	---	---	---	38	64	28	108	101	70
4	---	---	---	---	---	---	56	54	52	110	118	56
5	---	---	---	---	---	---	162	51	51	120	120	49
6	---	---	---	---	---	---	150	57	48	135	109	52
7	---	---	---	---	---	---	210	59	43	138	99	52
8	---	---	---	---	---	---	267	59	36	184	90	56
9	---	---	---	---	---	---	151	52	39	162	85	60
10	---	---	---	---	---	---	96	48	68	111	77	51
11	---	---	---	---	---	---	77	46	81	113	83	54
12	---	---	---	---	---	---	72	46	92	107	90	59
13	---	---	---	---	---	---	94	75	97	96	89	59
14	---	---	---	---	---	---	152	51	90	101	94	64
15	---	---	---	---	---	18	126	45	51	115	94	61
16	---	---	---	---	---	19	118	37	52	118	90	41
17	---	---	---	---	---	19	120	42	48	118	96	53
18	---	---	---	---	---	19	107	70	50	117	108	24
19	---	---	---	---	---	19	88	99	45	120	123	18
20	---	---	---	---	---	21	92	113	43	111	130	16
21	---	---	---	---	---	22	79	94	34	72	133	27
22	---	---	---	---	---	22	85	69	34	68	138	30
23	---	---	---	---	---	23	73	51	39	64	144	31
24	---	---	---	---	---	25	66	38	37	64	136	25
25	---	---	---	---	---	25	64	31	54	65	130	22
26	---	---	---	---	---	27	62	29	64	68	135	21
27	---	---	---	---	---	37	57	26	60	68	128	19
28	---	---	---	---	---	73	54	24	78	66	108	20
29	---	---	---	---	---	54	59	22	99	70	101	22
30	---	---	---	---	---	52	75	19	113	83	96	26
31	---	---	---	---	---	49	---	19	---	93	83	---
TOTAL	---	---	---	---	---	---	2933	1655	1674	3186	3315	1286
MEAN	---	---	---	---	---	---	97.8	53.4	55.8	103	107	42.9
MAX	---	---	---	---	---	---	267	113	113	184	144	75
MIN	---	---	---	---	---	---	38	19	24	64	77	16
AC-FT	---	---	---	---	---	---	5820	3280	3320	6320	6580	2550

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.--Water years 1983 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 07...	1030	3.0	1110	8.0	10.0	640	10.0
FEB 09...	1400	2.2	1300	7.7	3.0	640	10.1
APR 05...	0900	4.1	1200	8.4	4.0	645	13.0
JUL 21...	0900	2.6	970	8.4	23.0	646	7.5

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- PHOROUS TOTAL (MG/L AS P)
OCT 07...	106	880	3.1	0.21	3.7	3.9	0.60
FEB 09...	90	K20000	3.1	4.90	1.7	6.6	1.70
APR 05...	118	310	3.3	1.50	2.0	3.5	0.82
JUL 21...	104	1000	0.4	0.04	0.76	0.8	0.03

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

PLATTE RIVER BASIN

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.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 21...	1200	14	17.0	0.01	0.05	<0.01	<0.01	<0.01	<0.01
SEP 21...	1100	E2.2	13.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

E-Estimate.

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 Rammsey Ditch.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 27...	1100	27	20.0	<0.01	0.03	<0.01	<0.01	<0.01	<0.01
JUN 22...	0830	11	14.0	<0.01	0.01	--	<0.01	<0.01	<0.01

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.

WATER-DISCHARGE RECORDS

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: Dec. 14-18, 20-27, Dec. 29 to Jan. 14, Jan. 17, 19-26, Feb. 1-7, 11, and Mar. 13. Records good 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.

COOPERATION.--Three discharge measurements provided by the Wyoming State Engineer's Office.

AVERAGE DISCHARGE.--32 years (water years 1957-88), 161 ft³/s, 116,600 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, 224 ft³/s, May 7, gage height, 2.97 ft; minimum daily , 31 ft³/s, Aug. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	42	41	37	41	42	127	142	136	53	40	40
2	51	42	40	39	40	42	129	138	123	52	38	41
3	40	42	40	39	41	43	133	142	112	52	38	43
4	36	41	37	39	41	43	139	142	102	51	40	44
5	35	41	37	39	41	44	135	141	92	52	41	44
6	33	41	38	39	41	45	134	144	84	52	43	45
7	32	43	39	39	41	47	137	169	75	53	43	46
8	32	43	39	39	41	50	138	126	67	61	43	45
9	32	43	39	39	41	54	146	114	59	128	43	46
10	35	43	40	39	42	59	165	112	55	80	41	46
11	36	43	41	40	42	60	164	119	50	84	41	47
12	37	44	40	41	43	64	157	133	50	123	41	49
13	38	44	41	39	44	65	148	132	54	101	47	48
14	41	44	42	35	44	67	135	129	60	95	49	48
15	48	43	41	35	37	66	127	131	60	94	49	49
16	49	44	43	36	42	59	133	126	57	95	48	48
17	49	45	45	36	41	62	144	124	59	97	48	51
18	47	45	45	37	42	66	150	119	59	92	49	51
19	48	43	44	37	42	66	157	131	66	88	49	56
20	49	43	44	37	42	69	160	163	57	131	49	59
21	49	43	44	38	42	68	163	186	57	117	49	61
22	49	42	43	38	42	66	182	198	59	78	52	57
23	49	41	43	38	42	60	192	203	55	66	50	57
24	45	41	40	39	42	68	200	201	51	59	45	53
25	42	41	37	40	41	78	188	209	49	57	41	50
26	42	43	40	40	41	80	183	208	49	55	42	48
27	41	43	41	40	41	85	169	199	49	49	31	48
28	41	43	41	42	41	82	165	188	48	46	40	47
29	43	42	41	43	42	95	157	180	48	44	42	48
30	43	41	39	45	---	114	148	167	57	43	41	52
31	42	---	36	43	---	121	---	152	---	42	41	---
TOTAL	1335	1279	1261	1207	1203	2030	4605	4768	1999	2290	1354	1467
MEAN	43.1	42.6	40.7	38.9	41.5	65.5	153	154	66.6	73.9	43.7	48.9
MAX	81	45	45	45	44	121	200	209	136	131	52	61
MIN	32	41	36	35	37	42	127	112	48	42	31	40
AC-FT	2650	2540	2500	2390	2390	4030	9130	9460	3970	4540	2690	2910

CAL YR 1987	TOTAL 23379	MEAN 64.1	MAX 271	MIN 28	AC-FT 46370
WTR YR 1988	TOTAL 24798	MEAN 67.8	MAX 209	MIN 31	AC-FT 49190

PLATTE RIVER BASIN

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to July 1986, October 1986 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
JUN								
03...	1450	116	21.5	0.1	0.03	0.37	0.4	0.02
29...	1835	46	23.0	0.2	0.05	0.55	0.6	0.05

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.--Estimated daily discharges: Apr. 1-4 and Sept. 10-12. Records good except those for estimated daily discharge, which are poor. 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 the 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, 152 ft³/s, June 15, gage height, 4.87 ft; minimum daily during period of operation, 0.17 ft³/s, June 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	27	31	25	3.1	12	35
2	---	---	---	---	---	---	28	34	23	.70	8.9	38
3	---	---	---	---	---	---	30	33	18	1.3	6.4	36
4	---	---	---	---	---	---	32	48	21	2.6	7.8	31
5	---	---	---	---	---	---	30	27	26	1.1	7.5	32
6	---	---	---	---	---	---	28	34	24	.70	51	32
7	---	---	---	---	---	---	27	56	31	1.0	66	30
8	---	---	---	---	---	---	27	54	31	14	40	26
9	---	---	---	---	---	---	26	41	35	8.9	25	29
10	---	---	---	---	---	---	25	31	31	9.3	15	30
11	---	---	---	---	---	---	24	26	25	11	12	32
12	---	---	---	---	---	---	23	6.4	39	15	11	34
13	---	---	---	---	---	---	23	14	43	8.2	10	31
14	---	---	---	---	---	---	17	11	58	7.8	9.3	30
15	---	---	---	---	---	---	4.9	14	100	9.6	10	33
16	---	---	---	---	---	---	15	16	50	6.9	7.8	32
17	---	---	---	---	---	---	19	24	30	13	7.5	31
18	---	---	---	---	---	---	19	30	19	16	9.6	37
19	---	---	---	---	---	---	20	58	15	31	10	38
20	---	---	---	---	---	---	21	65	15	35	13	37
21	---	---	---	---	---	---	23	63	14	20	22	33
22	---	---	---	---	---	---	31	50	8.6	20	26	39
23	---	---	---	---	---	---	30	64	5.1	19	16	40
24	---	---	---	---	---	---	31	45	2.6	16	16	37
25	---	---	---	---	---	---	31	52	.17	18	19	37
26	---	---	---	---	---	---	31	43	2.0	18	21	37
27	---	---	---	---	---	---	29	29	1.5	18	23	37
28	---	---	---	---	---	---	30	33	.20	17	23	37
29	---	---	---	---	---	---	31	30	.45	14	23	39
30	---	---	---	---	---	---	31	29	1.3	11	21	34
31	---	---	---	---	---	---	---	25	---	10	20	---
TOTAL	---	---	---	---	---	---	763.9	1116.4	694.92	377.20	569.8	1024
MEAN	---	---	---	---	---	---	25.5	36.0	23.2	12.2	18.4	34.1
MAX	---	---	---	---	---	---	32	65	100	35	66	40
MIN	---	---	---	---	---	---	4.9	6.4	.17	.70	6.4	26
AC-FT	---	---	---	---	---	---	1520	2210	1380	748	1130	2030

PLATTE RIVER BASIN

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. 1-4, Aug. 22, and Sept 15, 25. Records good. Flow is mainly return water from irrigation.

COOPERATION.--Records provided by Office of the Wyoming State Engineer and reviewed by the 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, 129 ft³/s, May 20, gage height, 2.53 ft; minimum daily during period of operation, 7.9 ft³/s, Apr. 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	8.4	8.9	22	36	48	65
2	---	---	---	---	---	---	8.4	9.4	22	36	47	68
3	---	---	---	---	---	---	8.4	9.4	22	34	48	68
4	---	---	---	---	---	---	8.4	8.9	24	39	52	69
5	---	---	---	---	---	---	8.4	8.9	24	37	48	69
6	---	---	---	---	---	---	8.4	8.4	25	35	48	64
7	---	---	---	---	---	---	8.4	8.4	24	33	49	68
8	---	---	---	---	---	---	8.4	8.9	24	75	48	67
9	---	---	---	---	---	---	8.4	8.9	27	68	48	69
10	---	---	---	---	---	---	8.4	8.4	28	64	48	65
11	---	---	---	---	---	---	8.4	8.9	28	68	50	66
12	---	---	---	---	---	---	8.4	10	31	63	48	74
13	---	---	---	---	---	---	8.4	13	40	52	47	79
14	---	---	---	---	---	---	8.4	18	40	45	47	82
15	---	---	---	---	---	---	8.4	25	31	44	48	84
16	---	---	---	---	---	---	8.4	25	25	48	47	78
17	---	---	---	---	---	---	8.4	28	22	48	47	76
18	---	---	---	---	---	---	7.9	29	22	52	50	78
19	---	---	---	---	---	---	8.4	60	20	66	52	76
20	---	---	---	---	---	---	8.4	118	22	64	53	69
21	---	---	---	---	---	---	8.4	63	28	61	63	55
22	---	---	---	---	---	---	13	46	52	63	66	52
23	---	---	---	---	---	---	12	37	57	63	64	49
24	---	---	---	---	---	---	14	92	51	58	66	47
25	---	---	---	---	---	---	11	81	46	57	64	45
26	---	---	---	---	---	---	10	30	47	59	67	43
27	---	---	---	---	---	---	9.9	32	51	58	63	42
28	---	---	---	---	---	---	9.4	33	46	53	59	41
29	---	---	---	---	---	---	8.9	33	43	49	63	40
30	---	---	---	---	---	---	8.9	32	38	47	65	39
31	---	---	---	---	---	---	---	30	---	46	64	---
TOTAL	---	---	---	---	---	---	273.0	932.4	982	1621	1677	1887
MEAN	---	---	---	---	---	---	9.10	30.1	32.7	52.3	54.1	62.9
MAX	---	---	---	---	---	---	14	118	57	75	67	84
MIN	---	---	---	---	---	---	7.9	8.4	20	33	47	39
AC-FT	---	---	---	---	---	---	541	1850	1950	3220	3330	3740

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: Apr. 1-10, July 13, 14, and Aug. 25, 26. Records fair except those for estimated daily discharges and those after May 19, which are poor. 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 the 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, 451 ft³/s, July 8, gage height, 4.10 ft; minimum daily during period of operation, 5.5 ft³/s, Apr. 11, 12, and May 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	6.0	5.8	59	46	66	62
2	---	---	---	---	---	---	6.2	6.1	52	46	67	61
3	---	---	---	---	---	---	6.5	6.1	48	44	65	59
4	---	---	---	---	---	---	7.0	5.8	49	45	64	64
5	---	---	---	---	---	---	6.5	5.8	53	57	61	70
6	---	---	---	---	---	---	6.5	5.8	56	51	63	76
7	---	---	---	---	---	---	6.2	5.5	54	52	63	74
8	---	---	---	---	---	---	6.2	5.8	52	178	59	74
9	---	---	---	---	---	---	6.0	6.4	52	86	53	76
10	---	---	---	---	---	---	5.8	6.4	51	83	53	65
11	---	---	---	---	---	---	5.5	6.4	55	80	55	62
12	---	---	---	---	---	---	5.5	6.4	52	74	55	72
13	---	---	---	---	---	---	5.8	6.1	76	68	53	66
14	---	---	---	---	---	---	5.8	5.8	70	64	49	59
15	---	---	---	---	---	---	5.8	6.4	61	60	51	56
16	---	---	---	---	---	---	5.8	53	54	57	48	53
17	---	---	---	---	---	---	5.8	287	52	59	46	53
18	---	---	---	---	---	---	5.8	211	48	66	52	58
19	---	---	---	---	---	---	5.8	216	47	81	57	65
20	---	---	---	---	---	---	5.8	92	48	75	57	51
21	---	---	---	---	---	---	5.8	48	48	71	55	27
22	---	---	---	---	---	---	8.8	37	48	74	60	20
23	---	---	---	---	---	---	7.7	37	47	76	56	16
24	---	---	---	---	---	---	9.2	33	48	74	55	16
25	---	---	---	---	---	---	8.9	33	52	74	58	15
26	---	---	---	---	---	---	7.7	40	55	70	61	15
27	---	---	---	---	---	---	6.7	46	48	65	64	15
28	---	---	---	---	---	---	6.1	52	45	64	66	15
29	---	---	---	---	---	---	6.1	52	49	66	70	15
30	---	---	---	---	---	---	5.8	60	51	66	70	15
31	---	---	---	---	---	---	---	65	---	66	67	---
TOTAL	---	---	---	---	---	---	193.1	1452.6	1580	2138	1819	1445
MEAN	---	---	---	---	---	---	6.44	46.9	52.7	69.0	58.7	48.2
MAX	---	---	---	---	---	---	9.2	287	76	178	70	76
MIN	---	---	---	---	---	---	5.5	5.5	45	44	46	15
AC-FT	---	---	---	---	---	---	383	2880	3130	4240	3610	2870

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 101800009, 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.

WATER-DISCHARGE RECORDS

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: Dec. 15, 16, Dec. 24 to Jan. 10, Jan. 13, 20, 21, 24, 25, and Feb. 1-4. Records fair except those for October and 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.

COOPERATION.--Four discharge measurements provided by the Wyoming State Engineer's Office.

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, 2,140 ft³/s, May 5, gage height, 3.38 ft; maximum gage height, 3.53 ft, July 8; minimum daily discharge, 176 ft³/s, Mar. 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	652	328	263	205	190	198	241	1070	359	1430	1270	952
2	600	316	260	210	190	198	232	1170	352	1390	1250	934
3	562	310	258	210	192	198	251	1590	335	1380	1230	895
4	536	310	255	209	192	200	252	1950	319	1400	1280	862
5	515	306	255	207	199	199	250	2060	305	1450	1260	862
6	492	302	252	206	209	198	253	1890	313	1450	1270	870
7	463	313	250	204	196	198	257	1660	325	1400	1280	846
8	466	306	251	203	196	193	263	1590	317	1700	1280	776
9	461	300	249	201	196	192	264	1470	316	1590	1270	753
10	453	283	248	245	197	188	268	1330	321	1620	1270	709
11	448	288	243	229	199	189	309	1150	425	1580	1240	675
12	445	287	242	206	197	178	338	767	482	1610	1220	694
13	431	295	241	194	202	176	327	603	619	1540	1220	672
14	424	287	239	197	201	179	328	522	684	1390	1200	635
15	417	290	237	200	198	184	340	481	698	1340	1220	620
16	411	286	235	199	199	187	350	473	710	1310	1220	589
17	404	282	235	198	199	188	338	450	678	1330	1220	561
18	393	280	237	198	198	188	336	443	681	1380	1260	560
19	391	278	237	198	196	190	341	627	675	1510	1250	665
20	388	278	236	190	196	197	339	816	663	1520	1240	793
21	378	275	233	195	196	213	338	685	704	1420	1230	753
22	376	276	230	203	196	223	382	589	848	1340	1250	761
23	373	274	233	198	194	222	409	536	1080	1280	1220	801
24	365	272	228	195	196	221	496	522	1220	1220	1150	867
25	361	269	210	195	196	218	567	522	1330	1200	1100	873
26	355	268	224	198	196	219	886	453	1400	1320	1070	855
27	344	268	216	200	198	220	1440	423	1370	1310	1030	833
28	341	265	213	203	198	229	1470	423	1390	1270	1010	776
29	337	266	210	206	198	219	1280	393	1480	1250	1040	777
30	332	265	210	204	---	220	1120	373	1440	1200	1030	763
31	329	---	205	205	---	235	---	363	---	1210	986	---
TOTAL	13243	8623	7335	6311	5710	6257	14265	27394	21839	43340	37066	22982
MEAN	427	287	237	204	197	202	475	884	728	1398	1196	766
MAX	652	328	263	245	209	235	1470	2060	1480	1700	1280	952
MIN	329	265	205	190	190	176	232	363	305	1200	986	560
AC-FT	26270	17100	14550	12520	11330	12410	28290	54340	43320	85960	73520	45580

CAL YR 1987	TOTAL 214984	MEAN 589	MAX 1710	MIN 205	AC-FT 426400
WTR YR 1988	TOTAL 214365	MEAN 586	MAX 2060	MIN 176	AC-FT 425200

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	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 04...	1000	310	902	9.0	8.2	659	10.4	104	31
DEC 02...	1115	259	920	6.0	--	--	--	--	--
JAN 12...	1530	211	945	1.0	8.2	650	12.4	103	K2
FEB 19...	1240	196	960	4.0	--	--	--	--	--
APR 04...	0845	250	890	10.0	8.2	645	8.9	94	66
27...	1030	1420	727	9.0	--	--	--	--	--
MAY 31...	1830	371	840	17.0	--	--	--	--	--
JUN 30...	1600	1420	735	20.0	8.0	658	7.9	101	96
AUG 01...	1400	1300	745	25.5	--	--	--	--	--
SEP 12...	1135	695	762	13.0	--	--	--	--	--

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 (US/CM)	TEMPER- ATURE WATER (DEG C)	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- PHOROUS TOTAL (MG/L AS P)
JUN 03...	1830	325	--	23.0	0.9	0.02	0.18	0.2	0.02
30...	1600	1420	735	20.0	0.2	0.03	0.47	0.5	0.08

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, 0.5 mi south of Mitchell.

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.

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.

AVERAGE DISCHARGE (since Glendo project).--31 years (water years 1958-88), 876 ft³/s, 634,700 acre-ft/yr; median of yearly mean discharges, 553 ft³/s, 400,600 acre-ft/yr. Figures are unadjusted for storage or diversions.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,240 ft³/s, May 6, gage height, 3.99 ft; minimum daily, 266 ft³/s, June 28.

[illegible]

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.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 04...	1030	0.69	--	<0.01	<0.01	0.03	<0.01	<0.01	<0.01
JUN 23...	0730	0.20	16.0	<0.01	<0.01	--	<0.01	<0.01	--
JUL 22...	0800	0.10	16.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
AUG 24...	0915	<1.0	18.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

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.--Water years 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 08...	1300	0.83	650	7.8	13.0	610	11.0
FEB 24...	1130	1.8	495	7.7	2.0	610	11.2
APR 06...	1300	2.3	548	8.3	12.0	610	11.8
JUL 22...	0900	2.5	340	8.0	16.0	610	11.4

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- PHOROUS TOTAL (MG/L AS P)
OCT 08...	131	K8	1.3	0.04	0.76	0.8	0.03
FEB 24...	101	K3	1.7	0.07	0.53	0.6	0.03
APR 06...	137	K1	1.0	0.07	0.63	0.7	0.03
JUL 22...	145	240	0.9	0.46	3.2	3.7	0.81

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)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CALCIUM DIS- SOLVED (MG/L AS CA)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 08...	2	170	<0.5	2	88	<5	<3	<10	14	10	35	39
FEB 24...	1	190	<0.5	<1	89	<5	<3	<10	13	<10	26	49
APR 06...	2	180	<0.5	<1	78	<5	<3	<10	10	<10	24	34
JUL 22...	3	110	<0.5	2	50	<5	<3	<10	16	<10	15	24

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	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)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SILVER, DIS- SOLVED (UG/L AS AG)	SODIUM, DIS- SOLVED (MG/L AS NA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 08...	15	<0.1	<10	<10	1	21	<1.0	24	560	<6	6
FEB 24...	13	<0.1	<10	<10	1	21	<1.0	19	510	<6	4
APR 06	13	0.2	<10	<10	<1	18	<1.0	22	490	<6	<3
JUL 22...	7.2	<0.1	10	<10	<1	18	1.0	11	280	<6	8

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.--Water years 1983 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 08...	1500	0.20	990	7.8	15.0	610	13.8
FEB 24...	1400	5.9	830	7.7	2.0	610	10.4
APR 07...	1000	3.5	735	8.1	7.5	610	10.4
JUL 22...	1300	1.5	865	8.6	23.0	613	17.6

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- PHOROUS TOTAL (MG/L AS P)
OCT 08...	172	K21	1.7	1.80	1.4	3.2	0.24
FEB 24...	94	K8	2.2	0.33	0.67	1.0	0.13
APR 07...	109	220	1.0	0.32	0.68	1.0	0.08
JUL 22...	258	900	0.8	15.0	0.0	15	0.17

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)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CALCIUM DIS- SOLVED (MG/L AS CA)	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)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 08...	3	150	<0.5	<1	92	<5	<3	<10	34	<10	40	640
FEB 24...	1	160	<0.5	2	96	<5	<3	<10	49	<10	37	260
APR 07...	2	150	<0.5	<1	83	<5	<3	<10	13	<10	31	230
JUL 22...	3	130	<0.5	2	69	<5	<3	<10	58	<10	31	240

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	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)	SILICA, DIS- SOLVED (MG/L AS SI02)	SILVER, DIS- SOLVED (UG/L AS AG)	SODIUM, DIS- SOLVED (MG/L AS NA)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 08...	16	<0.1	<10	<10	6	22	<1.0	81	570	<6	8
FEB 24...	16	<0.1	<10	<10	3	20	<1.0	48	610	<6	12
APR 07...	17	9.5	<10	<10	1	12	<1.0	50	590	<6	4
JUL 22...	13	<0.1	<10	<10	24	15	<1.0	59	480	<6	9

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. 18 to Apr. 16. 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. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--57 years, 509 ft³/s, 368,800 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, 2,440 ft³/s, June 7, gage height, 4.30 ft; minimum daily, 65 ft³/s, Jan. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	129	90	75	100	113	110	373	1150	727	272	167
2	186	138	100	75	95	110	120	334	905	651	275	167
3	184	161	110	70	95	110	130	306	774	578	278	169
4	174	164	110	70	100	110	140	309	920	540	286	168
5	169	152	110	65	105	110	140	306	1480	548	281	163
6	170	143	110	70	105	110	140	313	2030	534	263	164
7	166	147	110	75	110	110	170	327	2300	523	248	161
8	164	147	100	75	110	110	200	305	2340	504	245	158
9	160	137	110	80	110	110	210	321	2030	453	243	155
10	153	133	120	85	110	110	210	313	1640	414	231	159
11	153	137	120	95	100	105	210	349	1430	398	224	162
12	150	132	110	100	100	100	300	470	1340	392	215	173
13	149	134	105	100	100	100	400	611	1210	379	215	180
14	150	140	105	100	100	100	440	726	1070	368	217	183
15	150	121	105	105	110	100	450	772	951	358	204	177
16	146	69	103	110	110	100	500	804	905	355	201	164
17	139	135	100	110	105	100	542	1010	970	355	195	154
18	140	110	100	110	100	100	599	1290	1120	355	189	146
19	139	120	105	106	100	105	675	1230	1170	355	185	142
20	132	130	105	95	105	110	687	990	1210	350	183	137
21	129	130	110	95	110	120	610	835	1230	338	183	137
22	133	120	110	95	110	120	534	808	1180	319	183	135
23	130	100	110	105	100	120	444	892	1180	305	183	130
24	132	90	105	105	100	115	411	1060	1170	296	180	126
25	137	100	100	105	100	110	382	1210	1120	290	179	124
26	134	105	90	105	105	115	319	1260	1090	287	177	121
27	129	90	90	105	110	120	310	1350	1120	288	176	119
28	125	85	85	105	110	120	295	1390	1070	288	176	119
29	129	85	85	105	115	115	310	1480	910	285	177	116
30	129	85	80	105	---	110	334	1540	805	278	177	112
31	130	---	80	105	---	110	---	1440	---	272	173	---
TOTAL	4606	3669	3173	2906	3030	3398	10322	24724	37820	12383	6614	4488
MEAN	149	122	102	93.7	104	110	344	798	1261	399	213	150
MAX	190	164	120	110	115	120	687	1540	2340	727	286	183
MIN	125	69	80	65	95	100	110	305	774	272	173	112
AC-FT	9140	7280	6290	5760	6010	6740	20470	49040	75020	24560	13120	8900

CAL YR 1987 TOTAL 154670 MEAN 424 MAX 1840 MIN 69 AC-FT 306800
WTR YR 1988 TOTAL 117133 MEAN 320 MAX 2340 MIN 65 AC-FT 232300

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.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1443: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,540 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 10 to Jan. 27, Feb. 16-24, Mar. 7, 8, 13, 16, 18, 25, 26, 28, 29, and Mar. 31 to Apr. 1. Records good except those for December and January, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--34 years, 178 ft³/s, 129,000 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)
May 29	0300	937	5.49	June 6	0300	*1,510	*6.34

Minimum daily discharge, 9.5 ft³/s, Dec. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	14	13	11	11	10	11	71	342	249	68	28
2	39	15	13	10	11	9.8	11	67	265	216	66	28
3	37	15	14	10	11	9.9	11	63	327	194	65	28
4	36	14	13	10	11	9.9	11	60	725	179	64	28
5	35	14	13	11	11	10	11	58	1180	170	62	27
6	33	14	13	11	11	9.8	12	59	1350	164	61	26
7	33	14	15	11	10	10	13	62	1130	158	59	26
8	32	14	14	11	10	10	13	61	922	152	57	26
9	31	13	15	11	10	10	14	60	755	141	54	25
10	31	13	16	11	11	10	14	64	657	130	52	26
11	30	13	17	12	11	10	15	79	611	122	49	27
12	29	13	18	12	11	10	18	115	557	114	47	25
13	28	14	19	12	11	10	23	177	472	109	44	24
14	28	14	20	12	11	10	29	226	429	103	42	24
15	26	13	21	12	11	10	36	228	412	98	40	24
16	25	13	19	12	11	10	47	310	439	95	40	24
17	24	14	18	12	11	9.8	65	462	467	93	38	24
18	23	14	17	11	11	9.8	85	490	477	90	37	24
19	21	14	16	10	11	9.8	103	452	526	90	36	24
20	20	14	15	10	11	9.8	103	350	527	88	35	23
21	20	14	14	10	11	9.8	99	332	506	87	35	22
22	19	14	13	10	11	9.7	93	409	479	85	34	22
23	18	13	12	11	11	9.6	88	573	465	83	33	21
24	17	13	11	11	11	9.8	81	706	459	81	33	20
25	17	13	10	11	11	10	77	669	445	79	32	18
26	16	13	9.5	12	11	10	70	775	446	78	32	17
27	15	12	10	12	10	11	66	858	416	77	32	16
28	15	12	10	12	10	11	64	848	367	77	31	15
29	14	12	10	11	10	11	65	869	324	74	30	14
30	14	12	10	11	---	11	67	742	291	72	29	13
31	14	---	11	12	---	11	---	516	---	70	28	---
TOTAL	780	404	439.5	345	313	312.5	1415	10811	16768	3618	1365	689
MEAN	25.2	13.5	14.2	11.1	10.8	10.1	47.2	349	559	117	44.0	23.0
MAX	40	15	21	12	11	11	103	869	1350	249	68	28
MIN	14	12	9.5	10	10	9.6	11	58	265	70	28	13
AC-FT	1550	801	872	684	621	620	2810	21440	33260	7180	2710	1370

CAL YR 1987 TOTAL 59095.5 MEAN 162 MAX 1340 MIN 9.5 AC-FT 117200
WTR YR 1988 TOTAL 37260.0 MEAN 102 MAX 1350 MIN 9.5 AC-FT 73910

GREEN RIVER BASIN

09196500 PINE CREEK ABOVE FREMONT LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1985, October 1986 to September 1988 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May and June 1987.

pH: March to July 1987.

WATER TEMPERATURE: March to June 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	HARD- NESS TOTAL (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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JAN 27...	1040	12	44	0.5	7.2	17	4.9	1.1	3.2	0.4	--	0.50
APR 05...	1345	11	30	1.0	6.9	20	6.1	1.2	2.7	0.3	0.07	0.38

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS 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)
JAN 27...	15	0.10	<0.01	2.5	<0.002	--	0.005	<0.01	10	12	<1	1.4
APR 05...	5.1	0.06	<0.01	3.5	0.019	0.15	0.002	<0.01	10	24	<1	1.8

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, April to September 1988 (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 7,400 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Ditch diverts water from right bank of Pine Creek for irrigation downstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36 ft³/s, July 11, 1988, gage height, 2.37 ft; no flow for several days during period of operation each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36 ft³/s, July 11, gage height, 2.37 ft; no flow for several days during period of operation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.0	.0	15	23	3.8	13
2	---	---	---	---	---	---	.0	.0	14	22	3.7	12
3	---	---	---	---	---	---	.0	.0	14	21	3.7	12
4	---	---	---	---	---	---	.0	.0	14	20	3.8	11
5	---	---	---	---	---	---	.0	.0	16	18	3.7	11
6	---	---	---	---	---	---	.0	.0	26	20	3.6	12
7	---	---	---	---	---	---	.0	.0	32	21	3.5	11
8	---	---	---	---	---	---	.0	.0	31	21	3.9	11
9	---	---	---	---	---	---	.0	.0	31	22	3.8	10
10	---	---	---	---	---	---	.0	.0	29	21	3.7	10
11	---	---	---	---	---	---	.0	.0	28	24	3.6	9.8
12	---	---	---	---	---	---	.0	.0	27	24	3.6	9.3
13	---	---	---	---	---	---	.0	.0	27	16	3.5	8.9
14	---	---	---	---	---	---	.0	.0	26	16	3.4	8.3
15	---	---	---	---	---	---	.0	.77	25	16	3.2	8.0
16	---	---	---	---	---	---	.0	1.8	24	16	3.0	7.8
17	---	---	---	---	---	---	.0	3.9	23	16	3.0	7.5
18	---	---	---	---	---	---	.0	7.5	23	16	3.0	7.2
19	---	---	---	---	---	---	.0	10	23	16	2.8	6.8
20	---	---	---	---	---	---	.0	12	23	16	2.6	6.6
21	---	---	---	---	---	---	.0	11	22	16	2.5	6.3
22	---	---	---	---	---	---	.0	12	22	7.7	2.6	5.0
23	---	---	---	---	---	---	.0	12	22	5.3	3.0	.09
24	---	---	---	---	---	---	.0	14	22	4.7	3.4	.0
25	---	---	---	---	---	---	.0	15	22	3.9	8.3	.0
26	---	---	---	---	---	---	.0	15	24	3.3	13	.0
27	---	---	---	---	---	---	.0	15	26	3.6	13	.0
28	---	---	---	---	---	---	.0	15	26	3.7	13	.0
29	---	---	---	---	---	---	.0	15	25	4.0	13	.0
30	---	---	---	---	---	---	.0	15	24	3.9	14	.0
31	---	---	---	---	---	---	---	15	---	3.9	13	---
TOTAL	---	---	---	---	---	---	0.0	189.97	706	445.0	167.7	204.59
MEAN	---	---	---	---	---	---	.00	6.13	23.5	14.4	5.41	6.82
MAX	---	---	---	---	---	---	.00	15	32	24	14	13
MIN	---	---	---	---	---	---	.00	.00	14	3.3	2.5	.00
AC-FT	---	---	---	---	---	---	.0	377	1400	883	333	406

GREEN RIVER BASIN

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, April to September 1988 (no winter records).

GAGE.--Water-stage recorder. Elevation of gage is 7,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Ditch diverts water from left bank of Pine Creek for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 261 ft³/s, June 7, 1988, gage height, 4.42 ft; no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 261 ft³/s, June 7, gage height, 4.42 ft, minimum daily discharge during period of operation, 1.3 ft³/s, Apr. 1-3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.3	7.9	185	131	37	23
2	---	---	---	---	---	---	1.3	7.9	182	119	34	23
3	---	---	---	---	---	---	1.3	8.0	178	107	34	22
4	---	---	---	---	---	---	2.5	8.1	192	97	35	21
5	---	---	---	---	---	---	4.1	8.2	214	85	34	22
6	---	---	---	---	---	---	4.2	8.4	240	77	32	22
7	---	---	---	---	---	---	4.2	8.9	239	71	32	22
8	---	---	---	---	---	---	4.1	8.9	215	69	37	21
9	---	---	---	---	---	---	4.1	9.1	211	66	35	21
10	---	---	---	---	---	---	4.4	9.0	225	61	34	21
11	---	---	---	---	---	---	4.7	9.4	227	80	33	20
12	---	---	---	---	---	---	4.7	9.9	226	130	31	20
13	---	---	---	---	---	---	4.7	11	222	120	30	19
14	---	---	---	---	---	---	4.9	14	216	115	28	19
15	---	---	---	---	---	---	5.0	17	207	114	27	18
16	---	---	---	---	---	---	5.2	24	198	113	26	18
17	---	---	---	---	---	---	5.2	38	192	104	26	17
18	---	---	---	---	---	---	5.4	57	188	106	26	17
19	---	---	---	---	---	---	5.6	71	188	108	25	16
20	---	---	---	---	---	---	5.8	79	190	103	23	16
21	---	---	---	---	---	---	6.1	86	191	104	22	15
22	---	---	---	---	---	---	6.3	96	189	109	23	15
23	---	---	---	---	---	---	6.5	104	186	111	27	12
24	---	---	---	---	---	---	6.9	113	182	105	30	8.8
25	---	---	---	---	---	---	7.2	118	178	69	28	9.4
26	---	---	---	---	---	---	7.3	122	174	36	25	9.8
27	---	---	---	---	---	---	7.4	148	170	34	24	9.9
28	---	---	---	---	---	---	7.5	180	165	36	23	9.6
29	---	---	---	---	---	---	7.6	186	154	40	24	9.1
30	---	---	---	---	---	---	7.8	189	142	40	24	9.0
31	---	---	---	---	---	---	---	185	---	38	24	---
TOTAL	---	---	---	---	---	---	153.3	1941.7	5866	2698	893	505.6
MEAN	---	---	---	---	---	---	5.11	62.6	196	87.0	28.8	16.9
MAX	---	---	---	---	---	---	7.8	189	240	131	37	23
MIN	---	---	---	---	---	---	1.3	7.9	142	34	22	8.8
AC-FT	---	---	---	---	---	---	304	3850	11640	5350	1770	1000

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, April to September 1988 (no winter records since 1918). 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 fair. Some regulation by Fremont Lake. Fremont Ditch (station 09196940) and Highland Ditch (station 09196960) divert water upstream from station for irrigation downstream from station.

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 during period of operation, 11 ft³/s, April 14, 15 and Sept. 27-30, 1988 (minimum daily not determined for record prior to September 1918).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 675 ft³/s, June 8, gage height, 3.20 ft; minimum daily during period of operation, 11 ft³/s, April 14, 15 and Sept. 27-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	20	21	436	194	62	35
2	---	---	---	---	---	---	20	21	369	174	57	34
3	---	---	---	---	---	---	20	21	321	156	56	32
4	---	---	---	---	---	---	18	22	317	143	60	31
5	---	---	---	---	---	---	14	22	402	130	57	31
6	---	---	---	---	---	---	14	22	548	115	53	33
7	---	---	---	---	---	---	14	23	639	106	50	32
8	---	---	---	---	---	---	14	22	661	107	62	30
9	---	---	---	---	---	---	13	23	637	112	59	29
10	---	---	---	---	---	---	13	23	582	104	55	29
11	---	---	---	---	---	---	12	23	524	104	52	27
12	---	---	---	---	---	---	12	23	472	125	49	26
13	---	---	---	---	---	---	12	24	422	112	46	25
14	---	---	---	---	---	---	11	27	372	106	42	24
15	---	---	---	---	---	---	11	33	338	102	38	23
16	---	---	---	---	---	---	12	43	321	102	35	23
17	---	---	---	---	---	---	12	65	309	89	33	22
18	---	---	---	---	---	---	12	103	302	90	35	21
19	---	---	---	---	---	---	13	142	303	92	32	20
20	---	---	---	---	---	---	13	171	310	86	29	20
21	---	---	---	---	---	---	14	189	312	90	27	19
22	---	---	---	---	---	---	15	202	311	103	29	19
23	---	---	---	---	---	---	15	238	304	106	35	18
24	---	---	---	---	---	---	16	298	295	97	42	14
25	---	---	---	---	---	---	16	347	289	62	39	12
26	---	---	---	---	---	---	17	387	277	45	37	12
27	---	---	---	---	---	---	17	433	268	54	38	11
28	---	---	---	---	---	---	18	464	255	61	37	11
29	---	---	---	---	---	---	19	499	236	72	38	11
30	---	---	---	---	---	---	20	521	212	70	40	11
31	---	---	---	---	---	---	---	497	---	67	38	---
TOTAL	---	---	---	---	---	---	447	4949	11344	3176	1362	685
MEAN	---	---	---	---	---	---	14.9	160	378	102	43.9	22.8
MAX	---	---	---	---	---	---	20	521	661	194	62	35
MIN	---	---	---	---	---	---	11	21	212	45	27	11
AC-FT	---	---	---	---	---	---	887	9820	22500	6300	2700	1360

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. 11, 12, Nov. 15 to Feb. 23, Mar. 26-28 and Apr. 2. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--50 years, 105 ft³/s, 76,070 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)
May 18	0300	*785	*5.32	June 5	0500	755	5.26
May 24	0400	735	5.22				

Minimum daily discharge, 2.3 ft³/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	13	11	7.2	7.5	7.1	5.8	83	233	73	12	3.3
2	14	16	11	6.8	7.5	6.6	6.5	72	244	63	11	2.9
3	13	19	12	6.6	7.0	6.3	7.5	67	320	58	12	2.8
4	13	18	13	6.8	7.0	6.3	6.9	67	494	52	12	2.7
5	13	17	13	7.0	7.0	6.0	6.6	71	617	50	11	2.6
6	13	16	13	7.0	7.3	6.0	8.9	84	571	46	9.3	2.6
7	12	16	13	7.0	7.6	6.0	11	62	433	44	9.0	2.5
8	12	14	12	7.0	8.0	6.3	9.9	81	338	41	9.0	2.3
9	12	13	12	7.0	8.0	6.8	8.4	84	281	36	8.8	2.4
10	11	13	12	7.0	8.0	6.8	9.0	92	242	34	8.2	2.5
11	11	13	12	7.3	8.0	6.4	11	115	214	32	8.2	2.7
12	11	13	12	7.0	8.0	6.5	14	167	202	29	8.2	4.0
13	11	14	11	6.8	8.0	6.3	18	251	187	27	8.0	5.3
14	11	13	11	6.8	7.8	6.4	22	368	168	26	7.2	4.6
15	13	12	11	7.0	7.6	6.5	26	418	155	24	7.2	4.6
16	13	11	11	7.0	7.4	6.2	35	569	153	23	6.9	4.8
17	12	11	11	7.0	7.4	6.2	50	707	148	23	6.6	4.6
18	13	11	12	6.8	7.4	5.9	81	714	145	21	6.5	4.0
19	12	11	12	6.6	7.4	5.7	96	499	150	20	5.3	3.6
20	11	12	11	6.6	7.6	6.0	102	377	144	19	4.8	3.5
21	11	13	11	7.0	8.0	6.2	94	388	138	18	4.8	3.0
22	11	13	11	7.4	8.0	6.0	84	483	134	17	5.6	3.0
23	11	12	10	7.4	8.0	5.5	76	574	128	16	5.6	3.0
24	12	12	9.0	7.4	8.3	5.3	71	668	119	15	4.7	2.8
25	12	12	8.0	7.7	8.2	5.2	69	588	115	14	4.3	2.8
26	12	11	7.0	8.0	7.9	5.2	63	609	111	13	4.0	2.8
27	11	11	6.8	8.0	7.8	5.2	61	588	124	14	3.9	2.6
28	11	11	7.2	8.0	7.8	5.2	61	573	113	14	3.8	2.6
29	11	11	7.4	8.0	7.3	5.2	66	604	103	15	3.8	2.6
30	11	11	7.5	8.0	---	5.3	83	483	85	13	3.7	2.6
31	11	---	7.5	7.8	---	5.3	---	303	---	12	3.6	---
TOTAL	369	393	328.4	223.0	222.8	185.9	1263.5	10809	6609	902	219.0	96.1
MEAN	11.9	13.1	10.6	7.19	7.68	6.00	42.1	349	220	29.1	7.06	3.20
MAX	14	19	13	8.0	8.3	7.1	102	714	617	73	12	5.3
MIN	11	11	6.8	6.6	7.0	5.2	5.8	62	85	12	3.6	2.3
AC-FT	732	780	651	442	442	369	2510	21440	13110	1790	434	191

CAL YR 1987 TOTAL 32067.2 MEAN 87.9 MAX 947 MIN 6.8 AC-FT 63610
WTR YR 1988 TOTAL 21620.7 MEAN 59.1 MAX 714 MIN 2.3 AC-FT 42880

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.

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. 19 to Apr. 5. 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. National Weather Service satellite telemeter at station.

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, 2,700 ft³/s, May 30, gage height, 4.54 ft; minimum daily, 120 ft³/s, Dec. 25.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	285	276	220	160	200	215	230	295	2070	804	308	160
2	280	288	230	150	190	215	240	316	1640	803	290	160
3	267	334	240	140	180	210	250	320	1340	784	293	160
4	266	327	250	150	180	200	260	326	1180	757	300	160
5	263	297	250	170	180	200	270	353	1380	712	300	157
6	264	289	250	190	180	200	257	302	1880	648	294	156
7	266	284	240	190	190	200	262	309	2360	593	278	156
8	260	284	230	180	200	200	284	343	2500	567	278	156
9	248	272	220	190	210	210	293	386	2360	548	270	153
10	245	261	220	200	210	220	263	369	2080	501	262	153
11	245	261	230	210	210	220	247	340	1780	513	261	160
12	249	261	210	200	210	210	259	336	1540	530	261	164
13	257	271	190	190	210	200	263	361	1420	530	240	168
14	264	278	170	200	200	200	253	451	1300	509	231	172
15	266	269	150	210	190	200	244	627	1150	484	212	172
16	266	254	150	210	180	200	228	779	1050	473	210	172
17	271	254	160	210	180	200	222	1080	980	460	210	171
18	278	242	170	210	180	200	219	1360	941	426	205	162
19	278	240	170	200	180	210	235	1620	889	399	196	154
20	269	240	160	170	190	220	270	1540	925	386	192	157
21	268	250	160	180	200	240	274	1450	938	375	191	162
22	257	260	160	190	210	260	282	1440	955	352	185	169
23	261	250	150	200	210	260	306	1560	923	334	183	172
24	261	250	140	200	210	240	320	1780	901	330	172	176
25	261	250	120	200	215	230	323	1860	832	331	169	182
26	265	240	130	200	215	240	318	1970	766	332	168	178
27	255	220	140	210	215	250	299	2120	793	342	164	164
28	248	210	150	210	215	250	301	2310	792	342	164	167
29	261	210	160	210	215	230	302	2490	901	342	164	172
30	268	210	160	210	---	220	301	2680	857	342	164	169
31	274	---	160	210	---	220	---	2500	---	322	164	---
TOTAL	8166	7832	5740	5950	5755	6770	8075	33973	39423	15171	6979	4934
MEAN	263	261	185	192	198	218	269	1096	1314	489	225	164
MAX	285	334	250	210	215	260	323	2680	2500	804	308	182
MIN	245	210	120	140	180	200	219	295	766	322	164	153
AC-FT	16200	15530	11390	11800	11420	13430	16020	67390	78200	30090	13840	9790
CAL YR 1987	TOTAL	246924	MEAN	677	MAX	3950	MIN	120	AC-FT	489800		
WTR YR												

GREEN RIVER BASIN

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. 17 to Apr. 2 and June 6-23. 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 198,000 acres upstream from station. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--42 years (water years 1947-88), 1,670 ft³/s, 1,210,000 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, 4,340 ft³/s, June 8, gage height, 7.16 ft; minimum daily, 280 ft³/s, Dec. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	621	609	480	330	450	600	720	870	3470	1720	613	328
2	598	631	500	320	450	605	720	952	2960	1570	589	328
3	600	700	520	310	440	600	771	934	2410	1490	596	327
4	586	751	540	300	420	600	829	909	2030	1370	619	334
5	572	736	540	320	420	600	846	918	1970	1290	622	335
6	562	709	540	350	430	600	858	874	2540	1180	594	335
7	558	717	540	400	430	600	860	832	3570	1110	568	335
8	550	717	540	400	450	600	944	886	4250	1050	563	335
9	551	700	520	380	480	580	920	869	4170	1020	543	331
10	535	678	520	400	500	600	938	868	3900	968	525	332
11	526	658	540	430	540	600	944	800	3360	937	524	335
12	524	646	540	450	540	580	1030	752	2780	930	517	363
13	567	652	500	430	540	560	1120	775	2590	898	511	390
14	632	673	450	410	520	540	1250	916	2420	880	493	400
15	622	670	400	420	490	560	1400	1160	2190	856	470	418
16	592	612	390	440	490	580	1470	1380	2040	832	462	421
17	587	580	390	430	480	580	1520	1630	1890	808	457	403
18	587	500	400	430	470	580	1540	2130	1880	812	447	391
19	587	490	420	430	470	580	1610	2660	1860	768	431	377
20	590	490	420	411	500	640	1700	2650	1930	745	406	378
21	592	500	400	390	500	700	1720	2420	1960	758	391	379
22	583	520	400	410	520	760	1580	2240	1970	730	382	380
23	578	540	410	420	540	800	1460	2210	1980	691	375	382
24	588	520	400	420	540	800	1280	2380	1940	679	367	377
25	593	520	350	420	540	760	1150	2680	1890	685	353	369
26	593	520	280	430	540	720	1090	2880	1790	665	348	369
27	592	500	300	430	560	760	1010	3010	1770	675	341	373
28	580	480	320	450	580	760	889	3200	1830	693	335	372
29	577	480	320	440	580	720	865	3370	1950	692	340	372
30	591	480	320	460	---	700	844	3610	1910	668	339	375
31	596	---	330	460	---	700	---	3750	---	639	329	---
TOTAL	18010	17979	13520	12521	14410	19965	33878	55515	73200	28809	14450	10944
MEAN	581	599	436	404	497	644	1129	1791	2440	929	466	365
MAX	632	751	540	460	580	800	1720	3750	4250	1720	622	421
MIN	524	480	280	300	420	540	720	752	1770	639	329	327
AC-FT	35720	35660	26820	24840	28580	39600	67200	110100	145200	57140	28660	21710

CAL YR 1987 TOTAL 541448 MEAN 1483 MAX 6520 MIN 280 AC-FT 1074000
WTR YR 1988 TOTAL 313201 MEAN 856 MAX 4250 MIN 280 AC-FT 621200

09209400 GREEN RIVER NEAR LA BARGE, WY--Continued
(National stream-quality accounting network station)

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (FTU)	TEMPER- ATURE WATER (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)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
OCT 28...	1410	582	450	8.4	1.7	9.0	605	9.5	104	K1	K4
DEC 17...	1625	390	510	8.0	--	0.0	595	11.6	102	K1	K17
FEB 29...	1300	605	455	8.0	4.9	0.0	625	11.8	99	K1	96
APR 11...	1700	962	415	8.1	0.80	9.0	630	10.0	105	K2	47
JUN 13...	1720	2630	258	8.5	4.8	18.0	600	8.8	119	52	32
AUG 24...	1625	346	370	8.2	6.6	22.0	635	10.6	146	K4	46

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

DATE	HARD- NESS TOTAL (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 WAT DIS TOT IT FIELD MG/L AS CACO3	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3
OCT 28...	200	54	16	19	0.6	2.0	158	--	--	--
DEC 17...	240	65	18	22	0.6	2.5	191	186	0	227
FEB 29...	200	52	17	17	0.5	2.0	149	143	0	175
APR 11...	180	49	15	13	0.4	2.5	153	156	0	190
JUN 13...	120	32	9.5	12	0.5	1.4	104	104	5	117
AUG 24...	150	39	13	21	0.8	2.1	135	133	0	162

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)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)
OCT 28...	69	1.4	0.3	8.0	264	265	0.36	415	<0.1	0.08
DEC 17...	78	7.5	0.3	11	313	319	0.43	330	<0.1	0.08
FEB 29...	74	5.0	0.2	7.4	270	265	0.37	441	0.1	0.03
APR 11...	66	3.7	0.2	7.4	254	249	0.35	660	<0.1	0.02
JUN 13...	33	2.2	0.2	7.4	161	160	0.22	1140	<0.1	0.02
AUG 24...	58	5.5	0.2	6.6	231	227	0.31	216	<0.1	0.10

GREEN RIVER BASIN

09209400 GREEN RIVER NEAR LA BARGE, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	SEDI- MENT, CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 28...	0.08	0.10	--	<0.2	<0.01	<0.01	<0.01	22	35	66
DEC 17...	0.08	0.10	0.82	0.9	<0.01	<0.01	<0.01	102	107	--
FEB 29...	0.01	0.01	0.27	0.3	0.03	0.01	0.02	20	33	80
APR 11...	0.04	0.05	0.38	0.4	0.06	0.02	<0.01	67	174	63
JUN 13...	0.02	0.03	0.28	0.3	0.01	0.01	<0.01	32	227	--
AUG 24...	0.14	0.18	1.3	1.4	0.05	0.02	<0.01	10	9.3	--

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 28...	1410	20	1	63	<0.5	<1	<1	<3	2	42	<5
FEB 29...	1300	<10	1	56	<0.5	<1	<1	<3	1	19	<5
JUN 13...	1720	10	<1	39	<0.5	<1	<1	<3	3	39	<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 28...	14	7	--	<10	<1	<1	1.0	400	<6	16
FEB 29...	9	13	--	<10	<1	<1	<1.0	400	<6	42
JUN 13...	8	9	0.3	<10	<1	<1	<1.0	220	<6	6

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. 15, Nov. 17 to Mar. 3, Mar. 5, 8, 10, 13, 14, Apr. 17 to May 4, and May 12-18, 20-29. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 780 acres upstream from station.

AVERAGE DISCHARGE.--37 years, 75.5 ft³/s, 54,700 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)
Apr. 18	unknown	a180	unknown	May 17	unknown	*242	b*6.78

a Estimated daily discharge; unknown instantaneous peak greater than base discharge, probably occurred Apr. 19.
b From floodmarks.

Minimum daily discharge, 15 ft³/s, Sept. 1, 7-9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	28	23	20	23	25	37	110	152	49	26	15
2	20	31	24	19	22	27	34	95	139	47	27	16
3	23	32	25	19	21	27	48	85	134	43	28	16
4	25	32	25	19	21	26	63	83	132	43	32	16
5	25	31	22	20	21	25	70	82	128	44	28	16
6	25	35	24	19	21	23	67	82	130	39	28	16
7	25	38	23	20	22	25	91	82	124	39	26	15
8	25	35	22	21	23	25	100	84	119	39	28	15
9	26	34	20	20	23	22	73	84	114	38	25	15
10	25	33	21	20	23	25	66	81	105	37	25	17
11	25	33	22	21	22	25	80	82	99	36	25	18
12	26	34	19	22	22	21	100	100	97	33	24	19
13	30	35	18	20	22	25	97	130	95	33	25	24
14	36	38	17	20	23	25	102	190	88	33	24	32
15	32	34	17	20	22	23	115	180	85	32	23	25
16	29	33	17	22	23	25	136	190	81	31	23	23
17	28	31	18	21	22	25	170	220	77	30	21	21
18	28	32	18	21	23	26	180	200	81	28	21	20
19	27	33	19	21	24	23	160	190	73	27	19	20
20	27	34	19	20	25	26	140	170	70	26	20	21
21	27	34	20	21	25	29	130	165	68	26	18	21
22	27	34	19	22	24	32	110	170	65	25	18	22
23	28	33	18	22	25	38	100	180	62	25	19	20
24	28	34	17	22	26	34	90	200	57	25	18	20
25	28	35	16	22	27	31	85	210	53	27	18	20
26	27	33	17	22	25	32	70	215	58	28	17	20
27	27	30	17	23	25	41	75	215	60	29	17	20
28	26	27	18	24	25	45	82	210	56	32	18	20
29	28	25	19	24	24	48	95	200	60	33	18	20
30	28	23	20	24	---	39	105	183	53	30	17	21
31	28	---	20	23	---	36	---	168	---	26	16	---
TOTAL	827	974	614	654	674	899	2871	4636	2715	1033	692	584
MEAN	26.7	32.5	19.8	21.1	23.2	29.0	95.7	150	90.5	33.3	22.3	19.5
MAX	36	38	25	24	27	48	180	220	152	49	32	32
MIN	18	23	16	19	21	21	34	81	53	25	16	15
AC-FT	1640	1930	1220	1300	1340	1780	5690	9200	5390	2050	1370	1160

CAL YR 1987 TOTAL 17965 MEAN 49.2 MAX 250 MIN 15 AC-FT 35630
WTR YR 1988 TOTAL 17173 MEAN 46.9 MAX 220 MIN 15 AC-FT 34060

GREEN RIVER BASIN

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, 35,970 acre-ft, Apr. 16, elevation, 6,444.10 ft; minimum daily, 27,370 acre-ft, May 23, elevation, 6,440.15 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,442.57	32,460	-
Oct. 31	6,442.46	32,260	-200
Nov. 30	6,442.19	31,660	-600
Dec. 31	6,442.15	31,580	-80
CAL YR 1987	-	-	-3,680
Jan. 31	6,441.77	30,760	-820
Feb. 29	6,442.16	31,610	+850
Mar. 31	6,443.65	34,940	+3,330
Apr. 30	6,440.64	28,370	-6,570
May 31	6,441.80	30,820	+2,450
June 30	6,441.24	29,630	-1,190
July 31	6,441.64	30,480	+850
Aug. 31	6,441.21	29,560	-920
Sept. 30	6,442.61	32,600	+3,040
WTR YR 1988	-	-	+140

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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.

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 2125: Drainage area.

REMARKS.--No estimated daily discharges. 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. National Weather Service satellite telemeter at station.

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, 4,450 ft³/s, May 31, June 1, gage height, 13.71 ft; minimum daily, 271 ft³/s, Sept. 16, 17.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	687	742	508	417	424	424	826	992	4450	1720	549	297
2	688	742	508	421	424	424	826	992	4080	1570	585	297
3	688	742	508	424	424	431	822	992	3270	1280	578	297
4	688	742	508	424	424	454	817	992	2570	1140	582	295
5	698	773	508	424	424	493	817	992	2050	1140	586	293
6	659	852	508	427	424	508	811	992	1860	1120	586	293
7	586	902	504	430	424	508	938	992	2430	1120	586	288
8	554	902	570	430	424	508	1010	992	3470	1110	586	284
9	532	902	613	426	424	511	1010	992	3820	1010	586	284
10	508	902	611	424	424	516	1010	992	4130	889	587	284
11	508	842	611	419	424	516	1110	992	4010	850	595	284
12	508	765	611	425	424	516	1160	992	3510	845	591	284
13	508	742	611	430	424	516	1160	992	2470	845	586	277
14	570	735	589	429	424	516	1160	992	1830	749	586	279
15	611	733	542	424	424	534	1300	992	1830	679	535	276
16	611	729	476	424	424	554	1480	992	2240	679	462	271
17	611	724	444	425	424	554	1590	1310	2290	679	441	271
18	611	673	434	430	424	554	1860	1580	1960	679	437	278
19	620	575	417	425	424	554	2010	1870	1790	679	409	288
20	636	493	421	424	424	554	2020	2200	1740	679	383	288
21	641	430	419	424	424	554	2030	3840	1740	737	378	288
22	636	425	417	424	424	573	2040	3790	1750	836	350	288
23	646	466	417	424	424	622	2050	2930	1840	836	304	288
24	678	508	412	424	424	688	2050	2430	1890	836	305	288
25	727	508	407	424	424	761	1850	2420	1890	609	306	286
26	733	508	410	424	424	808	1220	2430	1880	494	297	284
27	733	508	410	424	424	808	1160	2960	1800	494	297	284
28	730	508	410	424	424	808	1160	3420	1750	490	297	284
29	737	508	410	424	424	808	1060	3440	1740	479	297	281
30	742	508	410	424	---	808	992	3450	1730	479	297	279
31	742	---	412	424	---	814	---	4180	---	491	297	---
TOTAL	19827	20089	15036	13166	12296	18197	39349	58122	73810	26243	14261	8558
MEAN	640	670	485	425	424	587	1312	1875	2460	847	460	285
MAX	742	902	613	430	424	814	2050	4180	4450	1720	595	297
MIN	508	425	407	417	424	424	811	992	1730	479	297	271
AC-FT	39330	39850	29820	26110	24390	36090	78050	115300	146400	52050	28290	16970
CAL YR 1987	TOTAL 546444											

GREEN RIVER BASIN

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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 06...	1415	603	14.0	180	46	16	26	0.9	1.4
DEC 17...	1320	440	3.5	180	42	19	27	0.9	1.7
JAN 20...	1500	436	4.0	260	69	21	26	0.7	1.9
FEB 29...	1315	421	3.0	230	64	17	18	0.5	1.7
APR 11...	1400	1160	5.5	200	53	16	21	0.7	1.7
MAY 20...	1910	2040	4.5	190	51	16	20	0.6	1.8
JUN 27...	1800	1740	21.5	150	39	12	18	0.7	1.6
JUL 28...	2110	437	19.5	170	43	14	29	1	1.6
AUG 17...	1330	431	19.0	150	37	13	21	0.8	1.5
SEP 26...	1600	288	13.0	150	32	16	26	1	<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, NITRITE DIS- SOLVED (MG/L AS N)
OCT 06...	120	94	4.8	0.2	5.7	266	0.36	433	<0.01
DEC 17...	150	85	6.8	0.2	9.8	303	0.41	360	<0.01
JAN 20...	170	110	5.5	0.3	11	347	0.47	408	<0.01
FEB 29...	150	87	4.1	0.2	11	293	0.40	333	<0.01
APR 11...	140	81	6.7	0.2	6.4	270	0.37	846	<0.01
MAY 20...	150	68	3.4	0.2	7.4	258	0.35	1420	<0.01
JUN 27...	130	41	2.8	0.2	8.0	201	0.27	942	<0.01
JUL 28...	140	69	4.3	0.2	5.8	251	0.34	296	<0.01
AUG 17...	130	50	4.6	0.2	5.4	211	0.29	245	<0.01
SEP 26...	130	79	5.0	0.3	2.2	245	0.33	190	<0.01

09211200 GREEN RIVER BELOW FONTENELLE RESERVOIR, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 06...	<0.1	0.01	0.03	0.39	0.4	0.01	0.01	<0.01
DEC 17...	<0.1	<0.01	0.01	--	0.5	<0.03	<0.01	<0.01
JAN 20...	<0.1	0.01	<0.01	0.29	0.3	<0.03	0.01	<0.01
FEB 29...	<0.1	<0.01	0.02	--	0.2	<0.03	0.01	<0.01
APR 11...	<0.1	0.04	0.01	0.26	0.3	0.02	0.01	<0.01
MAY 20...	<0.1	0.02	0.01	0.38	0.4	0.02	0.01	<0.01
JUN 27...	<0.1	0.02	0.04	0.28	0.3	0.03	0.02	<0.01
JUL 28...	<0.1	0.01	0.05	--	<0.2	0.02	0.02	0.01
AUG 17...	<0.1	<0.01	<0.01	--	0.2	0.03	0.02	0.01
SEP 26...	1.4	0.02	0.03	0.48	0.5	0.03	0.02	0.01

GREEN RIVER BASIN

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. 1-13. 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. National Weather Service satellite telemeter at station. Results of discharge measurements, in cubic feet per second, made during the period when station was not in operation are given below:

Oct. 5 . . . 21.5
Mar. 29 . . . 38.7

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)
May 19	0200	*446	*6.24	June 6	0500	401	6.07
May 30	0400	409	6.10				

Minimum daily discharge during period of operation, 5.0 ft³/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	44	67	208	96	13	6.7
2	---	---	---	---	---	---	50	72	163	81	13	6.2
3	---	---	---	---	---	---	55	60	150	69	13	6.3
4	---	---	---	---	---	---	60	50	174	61	16	6.2
5	---	---	---	---	---	---	58	46	276	54	14	6.1
6	---	---	---	---	---	---	55	46	345	48	13	5.9
7	---	---	---	---	---	---	65	54	329	45	12	5.5
8	---	---	---	---	---	---	70	60	273	41	11	5.0
9	---	---	---	---	---	---	60	55	225	39	12	5.2
10	---	---	---	---	---	---	50	73	187	35	11	5.6
11	---	---	---	---	---	---	55	72	163	32	11	6.2
12	---	---	---	---	---	---	60	71	148	28	11	6.7
13	---	---	---	---	---	---	65	91	140	26	10	7.7
14	---	---	---	---	---	---	82	153	132	23	9.5	9.5
15	---	---	---	---	---	---	72	246	122	21	9.7	11
16	---	---	---	---	---	---	80	268	111	19	10	11
17	---	---	---	---	---	---	74	320	105	18	10	11
18	---	---	---	---	---	---	79	403	102	18	10	10
19	---	---	---	---	---	---	99	388	101	18	10	8.8
20	---	---	---	---	---	---	110	281	99	17	9.2	9.0
21	---	---	---	---	---	---	121	206	97	17	9.2	9.3
22	---	---	---	---	---	---	102	204	94	17	8.9	9.0
23	---	---	---	---	---	---	88	247	90	16	9.7	9.3
24	---	---	---	---	---	---	74	303	86	16	9.3	8.4
25	---	---	---	---	---	---	72	353	82	15	8.6	7.5
26	---	---	---	---	---	---	69	320	78	14	8.7	7.4
27	---	---	---	---	---	---	49	339	82	14	8.1	7.6
28	---	---	---	---	---	---	52	346	138	14	8.6	7.3
29	---	---	---	---	---	---	53	335	135	14	9.8	7.5
30	---	---	---	---	---	---	54	345	116	14	8.0	7.9
31	---	---	---	---	---	---	---	285	---	14	7.5	---
TOTAL	---	---	---	---	---	---	2077	6159	4551	954	324.8	230.8
MEAN	---	---	---	---	---	---	69.2	199	152	30.8	10.5	7.69
MAX	---	---	---	---	---	---	121	403	345	96	16	11
MIN	---	---	---	---	---	---	44	46	78	14	7.5	5.0
AC-FT	---	---	---	---	---	---	4120	12220	9030	1890	644	458

09213700 BIG SANDY RESERVOIR NEAR FARSON, WY

LOCATION.--Lat 42°14'57", long 109°25'43", in NE1/4 NW1/4 NW1/4 sec.11, T.26 N., R.106 W., Sweetwater County, Hydrologic Unit 14040104, 10.1 mi north of Farson and 20.5 mi upstream from Little Sandy Creek.

DRAINAGE AREA.--386 mi².

PERIOD OF RECORD.--May 1987 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,770.00 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Reservoir is formed by an earthfill dam, storage began in April 1953. Total capacity, 54,385 acre-ft at elevation 6,762.8 ft, crest of spillway, including 1,425 acre-ft of dead storage in a permanent pool at elevation 6,720.0, trash-rack sill. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent active storage. Records good. U.S. Geological Survey satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 39,700 acre-ft, May 20, 1987, elevation, 6,758.02 ft; minimum contents, 920 acre-ft, Sept. 15, 1988; minimum elevation, 6,724.66 ft, Sept. 15, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 31,500 acre-ft, May 26, elevation, 6,754.61 ft; minimum contents, 920 acre-ft, Sept. 15; minimum elevation, 6,724.66 ft, Sept. 15.

Capacity table (elevation, in feet,
and contents, in acre-feet)

6,720	0	6,750	22,155
6,730	2,545	6,760	44,905
6,740	8,655		

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21600	22500	23300	23700	23800	24400	25900	28100	30100	21000	11100	2070
2	21600	22700	23400	23700	23700	24400	25900	28100	29600	20900	10700	2020
3	21700	22700	23400	23700	23700	24500	26000	28100	29300	20800	10400	1980
4	21800	22700	23400	23700	23700	24500	26100	28100	28900	20500	10000	1930
5	21800	22800	23400	23700	23700	24500	26100	27800	28600	20200	9750	1890
6	21800	22800	23400	23700	23700	24500	26300	27800	28500	19900	9460	1840
7	21800	22900	23500	23700	23700	24600	26400	27700	28400	19600	9160	1750
8	21800	22900	23500	23700	23800	24600	26400	27800	28300	19400	8810	1620
9	21800	22900	23500	23700	23800	24700	26500	27800	28200	19200	8400	1500
10	21800	23000	23600	23700	23800	24700	26600	27800	27900	19000	7970	1350
11	21800	23000	23700	23700	23800	24700	26700	27900	27700	18700	7540	1250
12	21900	23100	23700	23700	23800	24800	26900	27900	27200	18400	7100	1150
13	21900	23100	23700	23700	23900	24800	27000	28000	26900	18100	6680	1040
14	21900	23300	23700	23700	23900	24900	27100	28000	26500	17800	6270	936
15	22000	23200	23700	23700	23900	24900	27300	28400	26200	17400	5810	920
16	22000	23200	23700	23700	23900	24900	27300	28800	25900	17100	5310	941
17	22000	23200	23700	23700	23900	25000	27400	29200	25600	16700	4900	965
18	22100	23100	23700	23700	24000	25000	27500	29800	25400	16300	4510	983
19	22200	23100	23700	23700	24000	25100	27600	30300	25200	16000	4220	1000
20	22200	23100	23700	23700	24000	25100	27700	30600	24800	15700	3960	1020
21	22200	23100	23700	23700	24000	25200	27800	30700	24400	15300	3690	1050
22	22200	23200	23700	23700	24100	25200	27900	30900	23900	15000	3460	1070
23	22200	23200	23700	23800	24000	25300	28100	31100	23400	14600	3220	1080
24	22300	23200	23700	23700	24100	25300	28100	31100	22700	14300	3000	1100
25	22400	23200	23700	23700	24100	25400	28100	31400	22400	13900	2830	1120
26	22300	23200	23700	23700	24200	25500	28100	31400	22000	13500	2680	1110
27	22300	23300	23700	23700	24200	25500	28100	31400	21700	13100	2540	1130
28	22400	23300	23700	23700	24200	25600	28100	31300	21500	12800	2430	1130
29	22400	23300	23700	23800	24200	25700	28100	31200	21300	12400	2340	1150
30	22400	23300	23700	23800	---	25700	28100	30900	21200	12000	2250	1170
31	22400	---	23700	23800	---	25700	---	30500	---	11600	2150	---
MAX	22400	23300	23700	23800	24200	25700	28100	31400	30100	21000	11100	2070
MIN	21600	22500	23300	23700	23700	24400	25900	27700	21200	11600	2150	920
(+)	6,750.15	6,750.59	6,750.83	6,750.87	6,751.11	6,751.87	6,753.05	6,754.18	6,749.46	6,742.97	6,728.91	6,725.65
(+)	+800	+900	+400	+100	+400	+1,500	+2,400	+2,400	-9,300	-9,600	-9,450	-980

WTR YR 1988 MAX 31400 MIN 920 (+) -20400

(+) Elevation, in feet, at end of month.

(+) Change in contents, in acre-feet.

GREEN RIVER BASIN

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. 16 to Apr. 10. 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.--7 years, 58.8 ft³/s, 42,600 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, 3.5 ft³/s, Dec. 26, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35 ft³/s, July 27, Aug. 13, Sept. 15, gage height, 2.16 ft; maximum gage height, 4.98 ft, Mar. 7 (backwater from ice); minimum daily discharge, 3.5 ft³/s, Dec. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	23	14	4.0	4.8	4.5	12	18	21	29	27	27
2	24	25	15	3.8	4.5	4.5	14	21	21	27	28	25
3	24	26	17	3.8	4.2	4.5	16	24	21	23	26	24
4	24	25	18	4.0	4.0	4.5	19	22	21	22	27	20
5	23	24	18	4.2	4.0	4.5	22	20	22	23	25	19
6	24	23	18	4.2	4.2	4.5	22	18	23	22	24	19
7	23	23	18	4.2	4.2	4.5	25	18	22	22	21	18
8	22	23	16	4.2	4.2	4.5	25	18	22	25	19	18
9	22	23	14	4.2	4.4	4.8	22	19	24	26	19	18
10	23	23	15	4.2	4.5	5.2	24	19	19	24	20	19
11	24	22	16	4.4	4.5	5.0	27	18	22	23	21	18
12	24	23	13	4.4	4.5	4.8	25	18	22	22	22	19
13	24	23	10	4.0	4.4	4.5	25	17	25	23	28	20
14	27	23	8.0	4.2	4.2	4.5	24	17	24	22	25	29
15	28	23	6.0	4.4	4.2	5.0	23	16	22	22	25	34
16	27	21	5.5	4.4	4.2	5.0	23	18	21	21	34	26
17	28	19	6.0	4.3	4.2	4.8	22	16	23	19	31	22
18	28	18	6.5	4.2	4.2	4.8	20	18	24	19	33	20
19	27	19	7.0	4.2	4.2	5.5	20	16	22	19	33	19
20	26	20	7.0	4.0	4.5	7.0	20	14	22	19	30	19
21	25	21	7.0	4.4	4.5	9.0	21	14	23	20	31	18
22	27	21	6.5	4.7	4.5	12	22	16	22	19	30	18
23	26	20	6.0	4.7	4.5	10	23	17	25	21	27	17
24	26	20	5.0	4.7	4.5	10	21	19	23	25	26	17
25	26	18	4.0	4.7	4.5	9.0	21	20	26	24	27	17
26	25	17	3.5	4.7	4.5	10	19	19	29	25	30	16
27	24	15	3.7	4.8	4.5	11	20	17	32	28	32	16
28	24	13	4.0	5.0	4.5	11	19	18	29	25	30	16
29	24	13	4.2	5.0	4.5	10	18	18	27	27	29	16
30	24	13	4.5	5.0	---	10	17	21	30	25	26	16
31	24	---	4.5	5.0	---	11	---	22	---	26	26	---
TOTAL	771	620	300.9	136.0	126.6	209.9	631	566	709	717	832	600
MEAN	24.9	20.7	9.71	4.39	4.37	6.77	21.0	18.3	23.6	23.1	26.8	20.0
MAX	28	26	18	5.0	4.8	12	27	24	32	29	34	34
MIN	22	13	3.5	3.8	4.0	4.5	12	14	19	19	19	16
AC-FT	1530	1230	597	270	251	416	1250	1120	1410	1420	1650	1190

CAL YR 1987 TOTAL 14495.5 MEAN 39.7 MAX 273 MIN 3.5 AC-FT 28750
WTR YR 1988 TOTAL 6219.4 MEAN 17.0 MAX 34 MIN 3.5 AC-FT 12340

09215550 BIG SANDY RIVER BELOW FARSON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1982 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1981 to September 1986.

WATER TEMPERATURES: December 1981 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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 30...	1115	24	2500	7.0	680	170	63	340	6	2.9
DEC 11...	0950	16	2450	0.0	660	170	58	310	5	2.6
JAN 22...	1144	4.7	2500	0.0	890	240	71	260	4	3.1
MAR 01...	1645	4.5	2350	0.0	900	250	68	320	5	3.7
APR 14...	1025	25	2600	6.0	680	170	62	380	7	3.6
MAY 20...	1000	13	3200	9.5	720	160	77	570	10	4.3
JUL 01...	1155	34	3100	19.5	480	120	45	390	8	3.5
AUG 17...	1350	27	1530	18.0	490	130	41	200	4	3.3
SEP 05...	0800	18	2290	16.5	620	150	60	330	6	3.6
26...	1320	17	2550	12.0	750	180	73	270	4	0.9

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- PHOROUS TOTAL (MG/L AS P)
OCT 30...	200	1100	45	0.8	9.4	1860	2.53	120	1.4	0.02
DEC 11...	180	1100	48	0.8	12	1810	2.46	78.3	0.7	0.01
JAN 22...	240	1100	32	0.6	15	1870	2.55	23.7	1.3	<0.03
MAR 01...	220	1200	39	0.8	14	2030	2.76	24.7	0.4	<0.03
APR 14...	240	1100	55	0.8	9.2	1920	2.62	130	0.1	0.03
MAY 20...	290	1500	75	0.9	9.2	2570	3.50	90.2	0.1	<0.03
JUL 01...	170	950	47	0.7	9.2	1670	2.27	153	<0.1	<0.03
AUG 17...	190	640	28	0.6	13	1170	1.59	85.3	0.2	0.01
SEP 05...	120	1000	47	0.7	9.9	1670	2.28	81.3	0.1	0.03
26...	190	1100	48	0.7	10	1800	2.44	82.5	<0.1	<0.03

LOCATION.--Lat 41°56'43", long 109°41'04", in NEL/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.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 6,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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 discharge, 13 ft³/s, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73 ft³/s, Apr. 10, gage height, 4.49 ft; maximum gage height, 6.73 ft, Jan. 27 (backwater from ice); minimum daily discharge, 21 ft³/s, Dec. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	59	38	24	29	31	50	51	46	54	53	50
2	63	62	40	22	28	31	55	57	44	56	55	51
3	62	64	44	23	27	31	60	60	45	50	56	49
4	63	63	48	24	25	31	70	57	44	42	56	47
5	62	60	50	25	25	31	65	55	43	41	54	44
6	63	59	50	25	27	31	60	49	45	41	51	43
7	62	58	50	25	27	31	65	47	45	41	48	43
8	62	57	48	25	27	32	70	47	45	43	45	43
9	62	56	44	25	29	34	68	47	46	48	45	43
10	59	56	45	25	30	35	67	47	47	45	45	43
11	60	56	46	26	30	35	63	46	41	44	44	45
12	59	54	41	25	30	34	63	45	44	43	45	46
13	65	56	36	24	29	33	61	44	44	43	49	49
14	69	56	32	25	28	33	61	41	46	42	54	52
15	69	56	28	26	28	36	57	42	45	41	50	62
16	66	51	26	26	28	36	56	41	43	41	55	65
17	66	45	28	26	28	34	57	42	43	39	58	55
18	64	44	30	25	29	34	52	42	47	39	54	50
19	63	45	32	25	30	35	53	46	48	39	58	49
20	61	48	32	24	31	42	53	41	46	40	57	50
21	61	50	32	26	31	48	53	37	46	40	56	49
22	61	50	30	28	31	55	56	36	46	39	56	48
23	63	50	28	28	31	50	59	40	48	40	55	48
24	62	48	26	28	31	45	58	41	51	43	53	45
25	61	45	23	28	31	40	53	45	49	45	53	44
26	61	42	21	28	31	42	53	45	58	46	54	44
27	58	39	22	29	31	45	52	41	60	50	55	44
28	58	35	24	30	31	50	51	38	59	52	57	43
29	59	35	25	30	31	50	50	39	55	50	54	44
30	60	35	26	30	---	48	48	39	53	52	52	44
31	60	---	26	30	---	45	---	44	---	50	49	---
TOTAL	1926	1534	1071	810	844	1188	1739	1392	1422	1379	1626	1432
MEAN	62.1	51.1	34.5	26.1	29.1	38.3	58.0	44.9	47.4	44.5	52.5	47.7
MAX	69	64	50	30	31	55	70	60	60	56	58	65
MIN	58	35	21	22	25	31	48	36	41	39	44	43
AC-FT	3820	3040	2120	1610	1670	2360	3450	2760	2820	2740	3230	2840
CAL YR 1987	TOTAL	26000	MEAN	71.2	MAX	300	MIN	21	AC-FT	51570		
CTR YR 1988	TOTAL	16363	MEAN	44.7	MAX	70	MIN	21	AC-FT	32460		

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 September 1986.

WATER TEMPERATURES: October 1981 to September 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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 30...	1345	64	3600	7.0	1100	240	130	480	6	3.4
DEC 11...	1230	46	4400	0.0	1300	270	150	520	6	3.2
JAN 22...	0935	28	3650	0.5	1400	260	190	590	7	4.4
MAR 01...	1330	31	4000	0.0	1400	270	170	550	7	4.0
APR 14...	1245	62	3600	10.0	1000	210	120	530	7	4.0
MAY 24...	1015	39	4200	11.0	1200	230	160	670	9	4.5
JUN 27...	1440	60	2750	27.5	930	190	110	450	7	3.7
AUG 19...	1435	58	3000	23.5	930	190	110	420	6	4.0
SEP 05...	1200	42	3540	16.0	1000	200	130	510	7	4.0
26...	1420	45	3900	12.5	1100	200	150	620	8	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 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- PHOROUS TOTAL (MG/L AS P)
OCT 30...	160	1700	47	0.7	11	2710	3.69	469	0.6	<0.03
DEC 11...	170	1900	49	0.8	14	3010	4.09	374	0.6	0.01
JAN 22...	280	2100	44	0.8	14	3370	4.59	255	0.7	0.02
MAR 01...	270	1900	44	0.8	14	3120	4.24	261	1.1	0.01
APR 14...	250	1900	53	0.8	10	2980	4.05	499	0.2	0.01
MAY 24...	250	2000	56	1.1	9.8	3280	4.46	346	<0.1	<0.03
JUN 27...	170	1500	37	0.7	12	2410	3.27	390	<0.1	<0.03
AUG 19...	210	1500	37	0.8	13	2400	3.27	376	0.1	0.01
SEP 05...	210	1800	48	0.8	11	2830	3.85	321	0.2	<0.03
26...	130	2100	47	0.7	11	3210	4.36	390	0.1	<0.03

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 27...	1440	60	27.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

GREEN RIVER BASIN

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.--Water years 1983 to current year.

REMARKS.--No flow observed July 28.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 28...	1700	0.0	--	--	--	--	--	--	--
SEP 28...	0730	E1.0	10.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

E-Estimate.

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: Nov. 18-23, 26-28, and Dec. 13 to Apr. 12. 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. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--37 years, 1,766 ft³/s, 1,279,000 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, 4,460 ft³/s, June 1, gage height, 4.03 ft; minimum daily, 211 ft³/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	667	663	464	300	330	460	750	996	4330	1650	399	244
2	667	663	578	280	310	450	850	1030	4430	1640	418	242
3	672	663	534	280	300	440	1000	994	3940	1500	511	244
4	668	645	507	300	300	430	1200	981	3050	1260	533	245
5	660	648	539	320	300	450	1100	993	2540	1140	505	250
6	670	678	501	330	320	500	1050	999	2050	1140	504	252
7	657	763	469	330	330	560	1100	998	1940	1120	500	237
8	577	822	423	330	340	600	1200	996	2640	1100	486	214
9	517	813	424	330	350	560	1300	992	3680	1100	477	211
10	502	821	659	330	350	560	1200	984	3820	997	467	217
11	476	822	595	350	350	600	1100	994	4240	873	471	221
12	473	780	460	350	350	500	1210	1010	3810	804	496	223
13	493	694	400	350	350	450	1220	1010	3310	798	492	236
14	542	668	400	350	350	430	1210	998	2170	799	488	292
15	543	654	400	350	330	450	1220	997	1880	732	507	299
16	590	638	400	350	330	500	1360	1000	1880	631	487	262
17	584	633	400	350	330	500	1500	1010	2340	620	413	257
18	576	600	400	350	330	500	1630	1350	2220	608	377	251
19	567	550	380	330	330	560	1880	1590	1910	606	373	239
20	564	550	350	300	340	640	1990	1910	1780	615	376	256
21	560	520	350	320	360	700	2020	2540	1750	621	351	262
22	571	450	350	330	360	800	2060	3570	1740	640	340	258
23	580	370	350	330	360	760	2060	3580	1710	766	339	258
24	592	385	300	330	360	725	2030	2530	1760	771	285	258
25	620	485	250	330	390	720	2000	2380	1780	779	264	259
26	661	450	270	330	410	720	1710	2420	1790	643	258	252
27	655	400	280	350	430	800	1220	2420	1790	432	245	261
28	655	380	300	350	440	750	1200	3100	1730	422	250	282
29	656	389	300	350	450	740	1210	3290	1760	424	259	284
30	656	451	310	350	---	720	1070	3320	1650	411	257	268
31	663	---	310	350	---	720	---	3350	---	406	250	---
TOTAL	18534	18048	12653	10280	10180	18295	41650	54332	75420	26048	12378	7534
MEAN	598	602	408	332	351	590	1388	1753	2514	840	399	251
MAX	672	822	659	350	450	800	2060	3580	4430	1650	533	299
MIN	473	370	250	280	300	430	750	981	1650	406	245	211
AC-FT	36760	35800	25100	20390	20190	36290	82610	107800	149600	51670	24550	14940

CAL YR 1987 TOTAL 543204 MEAN 1488 MAX 7050 MIN 250 AC-FT 1077000
WTR YR 1988 TOTAL 305352 MEAN 834 MAX 4430 MIN 211 AC-FT 605700

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

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 each year.

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, 1,780 microsiemens, Dec. 13; minimum daily, 293 microsiemens, June 2.

TEMPERATURES: Maximum daily, 26.0°C, July 31; minimum, 0.0°C on many days during November through March.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 440 mg/L, Mar. 25; minimum daily mean, 3 mg/L, Oct. 10.

SEDIMENT LOADS: Maximum daily, 2,670 tons, June 2; minimum daily, 4.1 tons, Oct. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 29...	1310	638	800	8.6	8.0	638	11.4	115	280	67	27
DEC 10...	1330	697	910	8.5	1.0	635	12.0	102	330	78	32
FEB 29...	1300	338	900	8.2	0.5	645	12.4	102	320	76	32
APR 12...	1545	1210	650	8.2	12.0	640	9.9	110	250	61	24
JUN 14...	1500	1860	--	--	19.5	--	--	--	130	32	11
AUG 23...	1300	340	775	8.7	19.0	645	8.4	108	250	53	28

DATE	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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 29...	71	2	1.7	150	220	9.5	0.3	4.7	491	0.67
DEC 10...	79	2	2.3	160	260	15	0.3	8.9	572	0.78
FEB 29...	77	2	1.9	170	290	11	0.3	7.5	599	0.81
APR 12...	54	2	2.0	150	180	6.9	0.2	5.7	424	0.58
JUN 14...	24	1	1.4	95	68	4.4	0.1	5.8	204	0.28
AUG 23...	88	3	2.0	140	250	9.5	0.2	3.3	518	0.70

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 29...	846	0.01	<0.1	0.03	--	--	<0.2	<0.01	<0.01	--
DEC 10...	1080	0.01	0.1	<0.01	0.03	--	0.2	0.04	<0.01	<0.01
FEB 29...	546	<0.01	0.2	0.02	0.02	0.28	0.3	0.04	0.04	0.02
APR 12...	1390	<0.01	0.1	0.02	<0.01	0.38	0.4	0.05	0.04	0.02
JUN 14...	1020	<0.01	<0.1	<0.01	<0.01	--	0.4	0.01	0.01	<0.01
AUG 23...	476	<0.01	<0.1	0.01	0.03	0.49	0.5	0.02	0.01	<0.01

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	719	771	1590	1150	969	966	737	648	307	454	680	975
2	720	798	1140	1140	973	940	829	641	293	484	734	984
3	724	804	1170	1180	952	932	746	716	379	482	700	953
4	723	782	1190	1130	963	930	769	731	342	512	741	920
5	727	806	1330	1070	971	915	775	707	350	513	683	927
6	725	800	1390	1020	917	917	771	669	371	518	700	934
7	735	760	1130	969	929	869	784	680	369	518	694	934
8	743	756	1260	983	941	852	769	700	382	533	690	937
9	816	739	1140	1000	883	873	697	677	350	537	691	969
10	814	729	945	1090	952	972	679	676	321	542	685	977
11	840	739	1050	1030	981	949	679	676	312	574	671	980
12	844	750	992	1040	984	917	681	673	298	577	695	990
13	853	793	1780	1090	960	939	658	681	299	556	680	1060
14	855	800	820	1040	920	923	634	690	478	585	670	972
15	953	801	817	1100	1020	860	651	676	367	578	713	973
16	956	825	905	990	1060	886	624	673	364	629	698	954
17	824	815	1040	998	1030	917	579	668	338	637	717	1020
18	822	806	1070	1040	1040	905	585	634	376	634	740	1080
19	835	824	1120	1040	1030	938	537	597	393	612	795	1070
20	817	832	1120	1020	1040	827	534	496	411	616	815	1070
21	837	870	1040	1040	996	939	727	580	405	574	827	1010
22	811	932	882	1050	986	838	535	504	400	574	853	1020
23	825	983	888	984	1050	826	553	446	415	620	815	1010
24	820	1020	976	943	1000	777	576	433	428	565	853	988
25	807	996	1190	991	863	782	540	394	442	564	960	989
26	775	786	1140	678	969	792	539	389	431	600	938	988
27	781	1080	1060	1000	945	738	600	363	433	632	917	969
28	766	1140	1150	932	947	790	609	346	487	724	926	997
29	775	1350	1090	918	956	770	612	335	497	734	940	985
30	781	1070	1070	920	---	713	661	331	455	747	1020	997
31	794	---	1080	950	---	730	---	326	---	740	970	---
MEAN	801	865	1110	1020	973	868	656	573	383	586	781	988
MAX	956	1350	1780	1180	1060	972	829	731	497	747	1020	1080
MIN	719	729	817	678	863	713	534	326	293	454	670	920

CAL YR 1987 TOTAL 267497 MEAN 733 MAX 1780 MIN 296
WTR YR 1988 TOTAL 292941 MEAN 800 MAX 1780 MIN 293

GREEN RIVER BASIN

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.5	11.0	.0	.0	.0	.0	6.0	10.0	15.0	19.0	24.0	19.0
2	12.0	11.0	.0	.0	.0	.0	8.0	10.0	13.0	21.5	22.0	18.5
3	13.0	12.0	.0	.0	.0	.0	6.5	14.0	15.0	21.0	19.0	18.5
4	12.0	8.0	.0	.0	.0	.0	9.0	14.0	16.0	19.0	20.0	18.5
5	12.5	3.5	.0	.0	.0	.0	9.0	14.0	18.0	22.0	20.0	20.0
6	12.5	4.5	.0	.0	.0	.0	5.5	10.0	18.0	21.5	20.5	19.0
7	13.0	3.5	.0	.0	.0	.0	8.0	4.0	15.0	22.0	20.5	18.5
8	12.0	3.5	.0	.0	.0	.0	10.0	10.0	15.0	22.0	22.0	18.0
9	8.0	3.0	.0	.0	.0	.0	6.0	10.0	17.0	21.5	22.0	17.5
10	6.0	3.0	.0	.0	.0	.0	10.0	15.0	16.5	21.0	21.0	17.5
11	5.0	3.0	.0	.0	.0	.0	14.0	20.0	17.0	20.0	20.5	17.0
12	9.0	3.0	.0	.0	.0	.0	15.0	24.0	15.0	20.0	20.0	15.0
13	7.0	3.5	.0	.0	.0	.0	16.0	16.0	19.5	21.5	21.0	10.0
14	7.0	3.0	.0	.0	.0	.0	18.0	---	16.0	21.5	22.0	15.0
15	5.0	1.0	.0	.0	.0	.0	12.5	---	16.0	21.0	22.5	10.0
16	7.0	1.0	.0	.0	.0	.0	9.0	---	16.5	20.5	23.0	10.0
17	7.0	1.0	.0	.0	.0	.0	11.0	---	17.0	23.0	21.5	14.0
18	7.0	.0	.0	.0	.0	.0	11.0	---	22.0	23.0	21.5	10.0
19	7.0	.0	.0	.0	.0	.0	10.0	---	23.5	23.0	21.0	11.0
20	8.0	.0	.0	.0	.0	.0	9.0	---	23.0	22.5	20.0	13.0
21	7.0	.0	.0	.0	.0	.0	10.0	---	22.5	23.0	20.0	13.0
22	6.0	.0	.0	.0	.0	.0	10.0	---	23.0	21.0	20.0	12.0
23	6.0	.0	.0	.0	.0	.0	10.0	---	23.5	23.0	20.0	13.0
24	7.0	.0	.0	.0	.0	2.5	10.0	16.0	16.0	22.5	20.0	14.0
25	7.0	.0	.0	.0	.0	1.0	7.0	16.0	20.0	21.5	20.0	13.0
26	8.0	.0	.0	.0	.0	4.5	10.0	16.0	23.0	22.0	20.0	14.0
27	8.0	.0	.0	.0	.0	3.0	10.0	16.0	23.0	21.5	20.0	14.0
28	7.0	.0	.0	.0	.0	3.5	12.0	18.0	22.0	20.0	21.0	13.0
29	7.0	.0	.0	.0	.0	4.0	10.0	18.0	22.0	21.5	21.0	13.0
30	6.0	.0	.0	.0	---	4.5	14.0	13.0	20.0	25.0	21.0	14.0
31	9.0	---	.0	.0	---	5.5	---	11.5	---	26.0	20.0	---
MEAN	8.4	2.6	.0	.0	.0	.9	10.2	---	18.6	21.7	20.9	14.8
MAX	13.5	12.0	.0	.0	.0	5.5	18.0	---	23.5	26.0	24.0	20.0
MIN	5.0	.0	.0	.0	.0	.0	5.5	---	13.0	19.0	19.0	10.0

CAL YR 1987 MEAN 9.1 MAX 23.0 MIN .0

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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	667	6	11	663	27	48	464	62	78
2	667	8	14	663	16	29	578	33	51
3	672	8	15	663	10	18	534	27	39
4	668	7	13	645	9	16	507	30	41
5	660	5	8.9	648	8	14	539	38	55
6	670	4	7.2	678	14	26	501	75	101
7	657	6	11	763	28	58	469	67	85
8	577	7	11	822	36	80	423	55	63
9	517	9	13	813	34	75	424	26	30
10	502	3	4.1	821	28	62	659	54	96
11	476	5	6.4	822	19	42	595	165	265
12	473	8	10	780	21	44	460	97	120
13	493	14	19	694	28	52	400	115	124
14	542	28	41	668	30	54	400	43	46
15	543	87	128	654	17	30	400	33	36
16	590	63	100	638	14	24	400	37	40
17	584	49	77	633	37	63	400	91	98
18	576	42	65	600	50	81	400	85	92
19	567	33	51	550	38	56	380	96	98
20	564	32	49	550	44	65	350	81	77
21	560	32	48	520	44	62	350	91	86
22	571	29	45	450	32	39	350	82	77
23	580	58	91	370	28	28	350	83	78
24	592	32	51	385	42	44	300	78	63
25	620	38	64	485	42	55	250	103	70
26	661	86	153	450	51	62	270	78	57
27	655	43	76	400	33	36	280	26	20
28	655	21	37	380	25	26	300	33	27
29	656	21	37	389	70	74	300	44	36
30	656	23	41	451	125	152	310	35	29
31	663	22	39	---	---	---	310	23	19
TOTAL	18534	---	1336.6	18048	---	1515	12653	---	2197
JANUARY				FEBRUARY			MARCH		
1	300	27	22	330	19	17	460	17	21
2	280	28	21	310	29	24	450	18	22
3	280	30	23	300	33	27	440	16	19
4	300	32	26	300	28	23	430	14	16
5	320	45	39	300	31	25	450	14	17
6	330	150	134	320	32	28	500	44	59
7	330	144	128	330	31	28	560	24	36
8	330	74	66	340	29	27	600	41	66
9	330	44	39	350	35	33	560	48	73
10	330	71	63	350	22	21	560	52	79
11	350	74	70	350	23	22	600	39	63
12	350	57	54	350	37	35	500	20	27
13	350	60	57	350	70	66	450	11	13
14	350	88	83	350	37	35	430	8	9.3
15	350	95	90	330	16	14	450	18	22
16	350	48	45	330	19	17	500	16	22
17	350	25	24	330	16	14	500	13	18
18	350	27	26	330	24	21	500	11	15
19	330	48	43	330	19	17	560	10	15
20	300	27	22	340	12	11	640	152	263
21	320	28	24	360	16	16	700	223	421
22	330	25	22	360	18	17	800	214	462
23	330	28	25	360	29	28	760	305	626
24	330	40	36	360	26	25	725	388	760
25	330	45	40	390	13	14	720	440	855
26	330	75	67	410	15	17	720	125	243
27	350	45	43	430	16	19	800	90	194
28	350	34	32	440	14	17	750	220	445
29	350	28	26	450	19	23	740	107	214
30	350	22	21	---	---	---	720	30	58
31	350	24	23	---	---	---	720	29	56
TOTAL	10280	---	1434	10180	---	681	18295	---	5209.3

09217000 GREEN RIVER NEAR GREEN RIVER, WY--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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	750	56	113	996	62	167	4330	142	1660
2	850	60	138	1030	49	136	4430	223	2670
3	1000	28	76	994	84	225	3940	55	585
4	1200	24	78	981	71	188	3050	42	346
5	1100	38	113	993	74	198	2540	13	89
6	1050	27	77	999	70	189	2050	9	50
7	1100	36	107	998	105	283	1940	27	141
8	1200	38	123	996	82	221	2640	62	442
9	1300	39	137	992	40	107	3680	50	497
10	1200	33	107	984	21	56	3820	32	330
11	1100	47	140	994	36	97	4240	38	435
12	1210	68	222	1010	34	93	3810	28	288
13	1220	117	385	1010	42	115	3310	18	161
14	1210	94	307	998	58	156	2170	37	217
15	1220	72	237	997	35	94	1880	16	81
16	1360	107	393	1000	46	124	1880	17	86
17	1500	119	482	1010	40	109	2340	34	215
18	1630	108	475	1350	65	237	2220	15	90
19	1880	117	594	1590	73	313	1910	13	67
20	1990	102	548	1910	77	397	1780	13	62
21	2020	98	534	2540	86	590	1750	16	76
22	2060	157	873	3570	116	1120	1740	59	277
23	2060	137	762	3580	114	1100	1710	30	139
24	2030	130	713	2530	113	772	1760	28	133
25	2000	99	535	2380	51	328	1780	47	226
26	1710	84	388	2420	44	287	1790	60	290
27	1220	70	231	2420	104	680	1790	48	232
28	1200	56	181	3100	95	795	1730	139	649
29	1210	48	157	3290	56	497	1760	276	1310
30	1070	51	147	3320	58	520	1650	42	187
31	---	---	---	3350	63	570	---	---	---
TOTAL	41650	---	9373	54332	---	10764	75420	---	12031
JULY			AUGUST			SEPTEMBER			
1	1650	37	165	399	42	45	244	20	13
2	1640	41	182	418	80	90	242	20	13
3	1500	42	170	511	128	177	244	14	9.2
4	1260	45	153	533	60	86	245	16	11
5	1140	39	120	505	21	29	250	26	18
6	1140	50	154	504	14	19	252	31	21
7	1120	38	115	500	20	27	237	16	10
8	1100	27	80	486	16	21	214	10	5.8
9	1100	54	160	477	46	59	211	9	5.1
10	997	48	129	467	29	37	217	13	7.6
11	873	41	97	471	13	17	221	25	15
12	804	38	82	496	17	23	223	11	6.6
13	798	38	82	492	32	43	236	12	7.6
14	799	42	91	488	22	29	292	14	11
15	732	36	71	507	17	23	299	14	11
16	631	39	66	487	14	18	262	22	16
17	620	38	64	413	15	17	257	22	15
18	608	23	38	377	13	13	251	51	35
19	606	21	34	373	6	6.0	239	22	14
20	615	22	37	376	8	8.1	256	24	17
21	621	13	22	351	10	9.5	262	27	19
22	640	10	17	340	8	7.3	258	26	18
23	766	11	23	339	8	7.3	258	8	5.6
24	771	13	27	285	13	10	258	9	6.3
25	779	10	21	264	22	16	259	11	7.7
26	643	22	38	258	49	34	252	8	5.4
27	432	27	31	245	20	13	261	7	4.9
28	422	56	64	250	15	10	282	8	6.1
29	424	32	37	259	12	8.4	284	8	6.1
30	411	23	26	257	11	7.6	268	10	7.2
31	406	31	34	250	10	6.7	---	---	---
TOTAL YEAR	26048 305352	---	2430 48236.0	12378	---	916.9	7534	---	348.2

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
OCT 29...	1445	638	800	8.8	8.0	638	12.0
DEC 10...	1530	697	--	--	1.0	--	--
JAN 19...	1415	338	--	--	0.0	--	--
MAR 08...	1200	338	875	8.2	0.0	645	12.4
APR 12...	1700	1210	--	--	12.0	--	--
MAY 19...	1945	1480	--	--	15.0	--	--
JUN 23...	1800	1600	420	8.5	23.0	640	9.0
AUG 18...	1700	370	--	--	23.0	--	--
SEP 06...	1800	240	1000	8.5	19.0	640	9.6
28...	0900	275	--	--	7.5	--	--

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- PHOROUS TOTAL (MG/L AS P)
OCT 29...	122	<1	<0.1	0.03	0.57	0.6	0.01
DEC 10...	--	--	0.2	0.07	0.33	0.4	0.09
JAN 19...	--	--	0.2	0.39	1.3	1.7	0.46
MAR 08...	101	--	0.2	0.14	0.36	0.5	0.10
APR 12...	--	--	<0.1	0.05	0.25	0.3	0.14
MAY 19...	--	K17	<0.1	0.11	--	<0.2	0.06
JUN 23...	126	24	<0.1	0.03	0.47	0.5	<0.01
AUG 18...	--	--	<0.1	<0.01	--	0.4	0.03
SEP 06...	124	K13	0.3	0.02	0.48	0.5	0.06
28...	--	--	0.2	0.11	0.39	0.5	0.12

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

GREEN RIVER BASIN

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.--49 years, 163 ft³/s, 118,100 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, 766 ft³/s, May 30, gage height, 4.05 ft; minimum daily, 8.6 ft³/s, Mar. 2-15, 29, 30, and Apr. 8-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	27	15	19	18	13	9.1	9.5	723	445	115	83
2	54	27	15	19	18	8.6	9.1	9.5	702	442	124	82
3	52	27	15	19	18	8.6	9.1	9.7	687	437	129	82
4	52	26	15	19	18	8.6	9.1	10	686	433	128	82
5	53	27	16	19	18	8.6	9.1	10	688	380	128	82
6	51	27	16	19	17	8.6	9.1	9.9	691	342	128	72
7	51	27	16	19	17	8.6	8.8	9.5	691	347	128	63
8	51	27	16	20	17	8.6	8.6	9.5	612	351	128	63
9	51	27	16	20	17	8.6	8.6	9.5	561	345	117	63
10	51	25	16	20	17	8.6	8.6	11	551	340	109	63
11	51	21	16	20	17	8.6	8.9	12	544	337	109	63
12	46	21	16	20	17	8.6	9.1	12	542	296	109	63
13	39	21	16	20	17	8.6	9.1	13	537	263	109	65
14	39	21	16	20	17	8.6	9.1	13	511	259	109	67
15	37	21	16	20	17	8.6	9.3	13	492	258	107	66
16	35	21	16	20	17	8.9	9.2	131	491	257	108	66
17	33	21	16	21	18	9.1	9.1	257	490	254	109	66
18	33	22	16	21	18	9.1	9.1	321	492	251	109	67
19	33	19	16	21	18	9.1	9.1	501	491	205	109	66
20	33	15	16	21	18	9.1	9.1	597	487	168	109	74
21	33	15	17	20	18	9.1	9.5	623	496	168	106	81
22	33	15	17	19	18	9.1	9.5	645	501	166	104	81
23	33	15	17	19	18	9.1	9.5	645	502	165	96	81
24	33	14	17	19	18	9.1	9.5	646	501	165	89	80
25	33	14	18	18	18	9.1	9.5	647	497	165	89	81
26	33	15	18	19	18	9.1	9.5	658	496	140	89	81
27	33	15	18	19	18	9.1	9.1	678	491	122	89	54
28	33	15	18	19	18	8.9	9.1	710	473	116	89	33
29	31	15	18	19	18	8.6	9.1	728	458	115	89	32
30	28	15	19	19	---	8.6	9.1	725	454	115	87	32
31	28	---	19	19	---	8.7	---	727	---	115	84	---
TOTAL	1251	618	512	606	511	277.2	273.7	9400.1	16538	7962	3332	2034
MEAN	40.4	20.6	16.5	19.5	17.6	8.94	9.12	303	551	257	107	67.8
MAX	55	27	19	21	18	13	9.5	728	723	445	129	83
MIN	28	14	15	18	17	8.6	8.6	9.5	454	115	84	32
AC-FT	2480	1230	1020	1200	1010	550	543	18650	32800	15790	6610	4030

CAL YR 1987 TOTAL 56255 MEAN 154 MAX 1200 MIN 12 AC-FT 111600
WTR YR 1988 TOTAL 43315.0 MEAN 118 MAX 728 MIN 8.6 AC-FT 85920

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.--Estimated daily discharges: May 1-10 and Sept. 28-30. 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 the Wyoming State Engineer and reviewed by the 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, 325 ft³/s, June 5, gage height, 5.35 ft; minimum daily during period of operation, 12 ft³/s, May 1-4, 15, 16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	12	137	132	61	53
2	---	---	---	---	---	---	---	12	118	108	61	45
3	---	---	---	---	---	---	---	12	116	108	61	45
4	---	---	---	---	---	---	---	12	186	108	60	45
5	---	---	---	---	---	---	---	13	291	107	58	45
6	---	---	---	---	---	---	---	13	282	107	58	45
7	---	---	---	---	---	---	---	13	217	107	58	45
8	---	---	---	---	---	---	---	14	173	100	58	41
9	---	---	---	---	---	---	---	14	153	80	57	36
10	---	---	---	---	---	---	---	14	141	80	57	36
11	---	---	---	---	---	---	---	14	128	80	58	36
12	---	---	---	---	---	---	---	15	120	80	60	36
13	---	---	---	---	---	---	---	15	108	79	60	36
14	---	---	---	---	---	---	---	14	101	79	58	36
15	---	---	---	---	---	---	---	12	98	80	58	31
16	---	---	---	---	---	---	---	12	108	112	58	25
17	---	---	---	---	---	---	---	19	128	132	58	25
18	---	---	---	---	---	---	---	45	132	132	75	25
19	---	---	---	---	---	---	---	53	130	132	110	25
20	---	---	---	---	---	---	---	78	132	132	110	24
21	---	---	---	---	---	---	---	98	134	132	108	24
22	---	---	---	---	---	---	---	98	137	130	108	25
23	---	---	---	---	---	---	---	98	141	108	107	26
24	---	---	---	---	---	---	---	98	165	67	105	25
25	---	---	---	---	---	---	---	98	165	66	80	25
26	---	---	---	---	---	---	---	141	165	66	58	24
27	---	---	---	---	---	---	---	278	165	66	58	24
28	---	---	---	---	---	---	---	252	162	63	58	24
29	---	---	---	---	---	---	---	244	162	61	57	24
30	---	---	---	---	---	---	---	207	162	61	57	24
31	---	---	---	---	---	---	---	165	---	61	57	---
TOTAL	---	---	---	---	---	---	---	2183	4557	2956	2147	980
MEAN	---	---	---	---	---	---	---	70.4	152	95.4	69.3	32.7
MAX	---	---	---	---	---	---	---	278	291	132	110	53
MIN	---	---	---	---	---	---	---	12	98	61	57	24
AC-FT	---	---	---	---	---	---	---	4330	9040	5860	4260	1940

09221650 SMITHS FORK NEAR LYMAN, WY

LOCATION.--Lat 41°22'31", long 110°12'14", in SW1/4 SE1/4 sec.12, T.16 N., R.114 W., Uinta County, Hydrologic Unit 14040107, at bridge on U.S. Highway 30S, 1.5 mi downstream from Cottonwood Creek, 1.6 mi upstream from bridge on Interstate Highway 80, 2.4 mi upstream from mouth, and 5.7 mi northeast of Lyman.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1545	32	28.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01

09222000 BLACKS FORK NEAR LYMAN, WY

LOCATION.--Lat 41°27'08", long 110°10'20", in SW1/4 NW1/4 SW1/4 sec.15, T.17 N., R.113 W., Uinta County, Hydrologic Unit 14040107, 200 ft downstream from bridge on old U.S. Highway 30S, 8.5 mi downstream from Smiths Fork, and 11 mi northeast of Lyman.

DRAINAGE AREA.--821 mi².

PERIOD OF RECORD.--Water years 1962 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1962 to September 1983.

WATER TEMPERATURES: May 1962 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1600	105	28.0	<0.01	0.01	<0.01	<0.01	<0.01	<0.01

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. 17 to Apr. 13. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--36 years, 104 ft³/s, 75,350 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 17	1000	*422	*4.65	May 27	1300	383	4.36

Minimum daily discharge, 7.2 ft³/s, Sept. 5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	16	17	13	16	21	50	198	265	59	17	7.4
2	17	16	18	12	16	21	60	158	234	56	17	7.6
3	16	17	18	12	16	21	80	149	212	53	18	7.7
4	16	18	18	13	16	21	95	140	211	50	20	7.3
5	16	17	18	13	16	21	90	144	218	49	19	7.2
6	16	18	18	13	17	21	86	158	222	45	17	7.3
7	16	21	18	13	17	23	90	145	212	43	17	7.5
8	16	20	18	13	17	24	95	142	199	41	18	7.7
9	17	18	18	14	17	26	80	142	186	39	17	7.8
10	16	17	18	15	17	26	80	137	174	37	16	8.5
11	16	17	19	15	18	26	87	162	162	36	15	9.5
12	16	16	18	14	18	26	104	210	154	34	15	10
13	16	16	17	14	19	24	112	292	152	32	16	13
14	16	17	16	14	20	22	117	325	138	31	14	16
15	16	17	15	15	21	23	142	302	129	29	13	14
16	16	22	15	16	21	24	176	332	121	28	13	13
17	16	21	15	16	22	25	223	394	114	27	12	12
18	16	19	16	15	22	25	255	397	113	26	11	11
19	16	19	16	15	22	26	252	333	105	25	9.8	11
20	16	20	16	15	23	25	199	292	98	25	9.7	12
21	15	21	16	15	22	27	183	283	93	24	9.3	12
22	15	20	16	15	22	29	176	296	87	22	9.2	12
23	15	19	16	16	22	33	144	328	82	21	9.0	12
24	15	19	15	17	22	32	136	359	75	20	8.5	12
25	15	18	14	16	21	30	127	368	69	19	8.2	12
26	15	18	13	16	21	35	106	368	74	20	7.9	12
27	14	18	12	17	22	40	115	370	73	22	8.1	12
28	14	17	13	16	22	37	138	365	68	22	8.3	12
29	14	17	13	17	22	34	154	351	70	24	8.2	12
30	14	18	14	17	---	40	190	333	63	20	7.8	12
31	14	---	14	17	---	45	---	304	---	18	7.6	---
TOTAL	483	547	498	459	567	853	3942	8277	4173	997	396.6	317.5
MEAN	15.6	18.2	16.1	14.8	19.6	27.5	131	267	139	32.2	12.8	10.6
MAX	17	22	19	17	23	45	255	397	265	59	20	16
MIN	14	16	12	12	16	21	50	137	63	18	7.6	7.2
AC-FT	958	1080	988	910	1120	1690	7820	16420	8280	1980	787	630

CAL YR 1987 TOTAL 21814.7 MEAN 59.8 MAX 525 MIN 8.0 AC-FT 43270
WTR YR 1988 TOTAL 21510.1 MEAN 58.8 MAX 397 MIN 7.2 AC-FT 42670

GREEN RIVER BASIN

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)
NOV 04...	1435	23	535	8.7	8.5	597	13.4	147
MAR 02...	1800	25	655	7.9	0.0	620	11.4	96
MAY 19...	0700	430	365	8.0	9.0	620	9.8	105
AUG 18...	1300	E5.0	450	8.0	19.0	625	12.0	159

E Estimate.

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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
NOV 04...	K13	0.3	0.04	0.46	0.5	0.13	<1
MAR 02...	K320	0.5	0.06	0.44	0.5	0.20	<1
MAY 19...	56	<0.1	0.02	--	<0.2	0.21	<1
AUG 18...	K19	--	--	--	--	--	<1

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

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 07...	0900	119	17.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

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. 16 to Mar. 29. Records good except those less than 5 ft³/s and those for estimated daily discharges, 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. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--26 years, 367 ft³/s, 265,900 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 and Aug. 20 to Sept. 14, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,090 ft³/s, May 19, gage height, 5.85 ft; maximum gage height, 8.29 ft, Mar. 25 (backwater from ice); no flow Aug. 20 to Sept. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	63	46	22	40	290	348	310	620	151	7.6	.00
2	44	66	48	21	38	280	353	333	553	140	7.4	.00
3	43	68	52	21	35	270	353	423	514	124	7.3	.00
4	41	69	58	22	37	270	379	522	483	110	7.7	.00
5	40	71	64	23	40	290	401	595	438	99	6.5	.00
6	39	74	70	23	42	290	461	530	385	98	5.5	.00
7	39	72	80	23	46	280	416	467	336	101	4.9	.00
8	38	72	90	23	57	270	399	408	321	93	5.0	.00
9	40	72	96	23	62	280	440	333	259	87	5.5	.00
10	42	73	86	23	72	290	386	293	225	88	4.6	.00
11	42	76	76	24	80	280	290	275	201	87	3.5	.00
12	42	79	82	25	90	270	260	234	185	77	2.8	.00
13	42	82	90	22	100	260	255	249	179	67	2.0	.00
14	48	84	70	24	100	270	264	334	170	59	1.4	.00
15	58	87	55	25	100	280	282	511	173	53	1.1	3.5
16	85	56	40	26	110	270	295	694	167	48	.81	3.0
17	92	50	35	25	105	260	282	656	164	45	.47	1.5
18	86	41	29	25	100	280	294	849	160	39	.16	.74
19	79	45	28	24	110	300	319	1070	153	34	.01	.55
20	70	54	28	23	120	330	360	980	160	31	.00	2.2
21	64	53	28	25	130	350	370	774	162	28	.00	2.2
22	59	52	28	26	140	380	328	747	153	24	.00	2.0
23	60	52	26	27	160	410	519	697	151	20	.00	1.9
24	59	50	24	28	180	390	664	669	148	17	.00	1.9
25	59	52	22	29	200	380	552	583	139	14	.00	2.0
26	59	50	20	31	210	450	501	495	128	14	.00	2.3
27	63	47	21	32	250	540	440	457	149	13	.00	2.6
28	64	45	22	35	270	520	348	457	146	12	.00	2.6
29	64	45	22	38	280	490	321	621	193	11	.00	1.9
30	61	45	23	40	---	416	329	653	154	10	.00	1.5
31	61	---	23	43	---	409	---	652	---	9.1	.00	---
TOTAL	1729	1845	1482	821	3304	10345	11209	16876	7369	1803.1	74.25	32.39
MEAN	55.8	61.5	47.8	26.5	114	334	374	544	246	58.2	2.40	1.08
MAX	92	87	96	43	280	540	664	1070	620	151	7.7	3.5
MIN	38	41	20	21	35	260	255	234	128	9.1	.00	.00
AC-FT	3430	3660	2940	1630	6550	20520	22230	33470	14620	3580	147	64
CAL YR 1987	TOTAL 68465		MEAN 188		MAX 1050		MIN 20		AC-FT 135800			
WTR YR 1988	TOTAL 56889.74		MEAN 155		MAX 1070		MIN .00		AC-FT 112800			

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 daily, 3,050 microsiemens, Aug. 15, 17; minimum daily, 504 microsiemens, May 18.

WATER TEMPERATURES: Maximum, 34.4°C, July 30; minimum, 0.0°C, on many days November through April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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											
07...	1130	36	2500	7.0	850	190	90	400	6	4.8	180
NOV											
05...	1630	73	2070	8.5	620	140	66	260	5	4.7	180
DEC											
09...	1510	96	2000	0.0	650	160	62	240	4	4.3	170
JAN											
20...	1230	23	2500	0.0	1000	270	87	290	4	6.0	380
FEB											
08...	1400	57	1550	0.0	600	150	55	160	3	4.3	260
MAR											
29...	1245	496	1010	0.0	260	64	25	110	3	3.5	170
MAY											
03...	1455	435	1010	8.5	300	67	32	110	3	4.1	190
JUN											
14...	1325	180	1750	18.5	420	110	36	150	3	4.8	240
JUL											
28...	1925	13	1800	27.0	560	130	58	250	5	5.2	170
AUG											
18...	1505	0.20	2830	23.0	720	150	84	370	6	7.5	140

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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT											
07...	1300	120	0.8	5.4	2220	3.02	216	<0.1	680	<50	2
NOV											
05...	810	130	0.6	6.0	1530	2.07	301	<0.1	590	<50	--
DEL30											
09...	730	110	0.5	10	1420	1.93	368	0.1	420	<50	--
JAN											
20...	980	96	0.6	14	1970	2.68	123	0.3	700	<50	--
FEB											
08...	580	63	0.5	12	1180	1.61	182	0.2	340	<50	2
MAR											
29...	200	56	0.3	9.5	572	0.78	766	0.3	200	420	--
MAY											
03...	230	57	0.3	9.2	625	0.85	734	0.1	200	410	1
JUN											
14...	410	57	0.6	12	924	1.26	449	<0.1	--	--	1
JUL											
28...	750	77	0.5	6.6	1380	1.88	48.4	<0.1	--	--	--
AUG											
18...	1200	120	0.5	2.1	2020	2.75	1.09	0.1	570	<50	<1

09224700 BLACKS FORK NEAR LITTLE AMERICA, WY--Continued

SPECIFIC CONDUCTANCE, US/CM @ 25 DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2730	1950	2140	2720	1740	1110	1110	---	747	1250	2040	---
2	2690	1910	2080	2680	1680	---	1190	1100	803	1320	2080	---
3	2660	1910	2050	2660	1660	1140	1220	992	835	1270	2140	---
4	2580	2050	2060	2700	1640	1200	1280	1000	885	1310	2180	---
5	2630	2090	2030	2730	1610	1170	1220	1060	913	1270	2230	---
6	2570	2000	1940	2710	1600	1130	1130	1040	911	1320	2280	---
7	2510	1970	1900	2690	1580	1140	1020	1000	928	1340	2300	---
8	2510	1940	2000	2660	1550	1200	974	968	952	1370	2360	---
9	2510	2340	2000	2660	1540	1190	998	941	955	1350	2480	---
10	2560	2450	1960	2660	1530	1170	920	1020	804	1340	2600	---
11	2530	2520	1970	2640	1500	1160	949	1090	---	1340	2670	---
12	2400	2440	2020	2620	1490	1130	1000	1080	---	1360	2700	---
13	2310	2320	2060	2600	1460	1130	1120	1140	---	1400	2780	---
14	2060	2280	2040	2570	1570	1150	1160	1070	1750	1480	2930	---
15	1910	2170	2120	2570	1420	1150	1160	797	1720	1560	3050	---
16	1920	2180	2080	2550	1390	1120	1090	657	1670	1660	3040	---
17	2080	2290	2120	2460	1400	1190	1050	538	1650	1680	3050	---
18	2300	2430	2170	2420	1370	1210	1050	504	1590	1690	2830	---
19	2280	2430	2270	2470	1360	1210	1030	529	1550	1640	2790	---
20	2190	2380	2340	2490	1360	1220	948	509	1540	1580	---	---
21	2110	2480	2370	2560	1330	1210	1240	589	1460	1570	---	---
22	2080	2770	2420	2460	1330	1220	1110	652	1410	1580	---	---
23	2080	2870	2470	2370	1290	1230	1060	696	1360	1620	---	---
24	2060	2810	2530	2290	1300	1130	1240	714	1320	1690	---	---
25	2080	2650	2590	2220	1230	1140	1380	715	1290	1730	---	---
26	2150	2460	2670	2150	1200	---	1470	715	1370	1740	---	---
27	2080	2280	2720	2130	1200	---	1290	749	1330	1760	---	3800
28	2040	2250	2730	2030	1180	---	1330	803	1320	1780	---	---
29	2000	2240	2750	1930	1150	1010	---	809	1060	1850	---	---
30	1940	2240	2790	1860	---	1110	---	767	1150	1910	---	---
31	1940	---	2790	1820	---	1040	---	716	---	1990	---	---
MEAN	2270	2300	2260	2450	1440	---	---	---	---	1540	---	---
MAX	2730	2870	2790	2730	1740	---	---	---	---	1990	---	---
MIN	1910	1910	1900	1820	1150	---	---	---	---	1250	---	---

WATER TEMPERATURE, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.1	7.6	10.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0
2	17.0	8.0	11.0	4.0	.0	.0	.0	.0	.0	.0	.0	.0
3	16.1	7.5	11.1	6.4	.0	.0	.0	.0	.0	.0	.0	.0
4	13.6	7.4	9.6	3.6	.0	.0	.0	.0	.0	.0	.0	.0
5	15.4	6.5	8.6	2.5	.0	.0	.0	.0	.0	.0	.0	.0
6	15.5	6.4	8.1	5.1	.0	.0	.0	.0	.0	.0	.0	.0
7	15.0	5.0	4.9	2.6	.0	.0	.0	.0	.0	.0	.0	.0
8	12.9	6.5	6.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0
9	12.9	6.0	4.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0
10	12.4	3.0	3.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0
11	12.5	3.6	4.6	.4	.0	.0	.0	.0	.0	.0	.0	.0
12	10.6	3.6	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0
13	9.0	4.4	4.5	2.0	.0	.0	.0	.0	.0	.0	.0	.0
14	7.6	4.4	3.5	.9	.0	.0	.0	.0	.0	.0	.0	.0
15	8.9	2.9	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	8.6	2.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	8.6	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	9.4	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
19	8.5	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20	8.1	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	8.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
22	8.6	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23	8.6	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
24	9.5	5.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
25	10.6	4.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26	9.4	4.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
27	9.5	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
28	9.1	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
29	8.4	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
30	10.6	.6	.0	.0	.0	.0	.0	.0	---	---	.0	.0
31	11.1	3.4	---	---	.0	.0	.0	.0	---	---	1.6	.0
MONTH	17.1	.6	11.1	.0	.0	.0	.0	.0	.0	.0	1.6	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.9	.0	8.4	3.0	13.1	9.0	24.6	17.6	28.5	14.2	---	---
2	4.4	1.1	7.1	1.5	16.6	10.9	23.8	18.6	24.8	13.8	---	---
3	5.6	2.1	10.0	3.1	20.6	14.0	23.3	18.3	26.4	13.6	---	---
4	6.4	.0	9.4	6.9	22.1	17.0	22.4	17.9	27.8	13.4	---	---
5	6.1	.0	10.6	6.9	19.5	17.0	26.6	17.6	27.4	13.5	---	---
6	7.9	.5	9.6	5.9	19.6	14.9	25.3	19.3	25.4	14.6	---	---
7	9.6	5.0	5.6	3.5	19.5	14.5	26.3	17.7	26.2	12.8	---	---
8	7.4	4.1	7.5	2.9	20.5	14.0	25.0	17.9	26.9	12.8	---	---
9	5.5	.0	10.5	5.1	29.6	14.0	28.2	18.2	26.7	12.3	---	---
10	7.5	.0	14.6	7.5	---	---	26.9	19.9	26.4	11.9	---	---
11	10.5	4.4	17.4	10.1	---	---	26.5	17.9	25.7	11.7	---	---
12	12.5	6.1	19.5	12.1	---	---	23.7	18.6	24.5	11.5	---	---
13	13.6	8.1	18.9	13.5	---	---	28.2	16.8	26.0	11.3	---	---
14	11.6	7.6	16.1	10.9	23.0	---	29.4	20.7	25.4	11.5	---	---
15	13.0	8.5	16.6	10.6	23.5	16.5	28.5	19.5	20.9	10.7	---	---
16	14.1	8.5	17.1	13.0	23.4	16.5	28.6	20.0	24.4	10.7	---	---
17	12.6	8.5	15.5	13.5	22.1	15.0	28.4	20.3	24.8	10.7	---	---
18	11.6	7.9	13.0	11.9	23.6	15.9	28.9	17.5	23.5	10.5	---	---
19	11.5	6.6	13.0	10.1	26.0	17.5	29.6	17.5	23.5	10.0	---	---
20	10.1	8.0	14.4	9.5	24.4	19.5	31.2	18.6	---	---	---	---
21	10.1	7.5	16.4	8.0	25.6	18.0	31.9	20.3	---	---	---	---
22	8.1	5.0	17.4	12.0	25.6	20.0	29.4	20.0	---	---	---	---
23	7.9	3.5	18.9	13.5	26.1	18.0	29.3	20.1	---	---	---	---
24	8.5	5.5	17.4	14.5	27.9	18.5	31.2	19.3	---	---	---	---
25	6.6	4.0	17.1	9.5	23.3	19.0	29.5	20.4	---	---	---	---
26	7.6	2.1	18.5	13.5	25.3	18.4	31.0	22.4	---	---	---	---
27	10.1	4.6	17.6	12.5	26.6	19.4	29.3	16.8	---	---	---	---
28	11.0	7.4	19.4	13.0	23.1	19.2	29.5	16.4	---	---	---	---
29	13.1	7.1	16.9	10.9	22.8	17.2	29.3	16.3	---	---	---	---
30	12.4	8.0	14.5	11.0	24.0	15.8	34.4	17.6	---	---	---	---
31	---	---	12.6	10.4	---	---	28.3	16.9	---	---	---	---
MONTH	14.1	.0	19.5	1.5	29.6	9.0	34.4	16.3	28.5	10.0	---	---
YEAR	MAXIMUM	34.4	MINIMUM	.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 to Mar. 7. 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. National Weather Service satellite telemeter at station.

AVERAGE DISCHARGE.--60 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, 543 ft³/s, May 18, gage height, 5.31 ft; minimum daily, 2.6 ft³/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	67	45	40	55	90	69	117	149	34	4.1	3.3
2	48	62	50	36	50	80	99	127	128	25	3.9	3.1
3	48	69	60	38	45	65	145	166	117	19	4.8	3.0
4	45	71	80	44	45	60	166	201	125	26	9.5	2.9
5	45	67	75	48	48	58	150	171	232	26	11	2.7
6	44	69	80	50	52	58	144	141	271	21	13	2.7
7	44	71	85	50	55	58	176	120	191	15	27	2.7
8	43	74	80	47	58	57	195	114	124	15	9.0	2.7
9	43	67	70	47	60	90	130	113	93	12	6.4	2.6
10	45	65	75	50	62	89	109	88	68	11	4.9	2.8
11	48	68	80	55	64	70	120	69	47	10	5.2	2.9
12	48	69	65	52	66	62	126	77	32	8.3	5.6	2.8
13	53	72	50	48	70	68	128	89	33	7.3	5.8	3.6
14	79	77	40	50	65	65	118	124	31	7.1	6.7	3.6
15	71	74	32	54	65	73	111	169	22	6.4	7.0	3.4
16	61	52	35	54	62	64	119	199	16	6.3	7.9	3.2
17	58	50	45	50	58	60	117	318	11	6.7	7.9	3.4
18	56	45	50	48	58	61	117	485	10	6.7	7.7	3.4
19	57	45	55	46	60	70	139	362	11	7.0	7.9	3.5
20	55	55	50	42	60	109	118	240	16	6.3	8.1	3.7
21	54	65	50	45	64	162	117	190	19	4.4	8.4	3.7
22	52	70	50	48	70	201	137	188	21	4.6	7.9	4.1
23	54	65	45	50	70	147	141	209	39	3.9	7.7	4.0
24	55	65	40	52	70	138	140	238	51	4.2	6.5	4.3
25	57	60	30	54	75	103	125	239	36	4.5	5.5	4.4
26	56	55	29	56	80	159	114	239	26	4.1	4.8	4.3
27	54	50	34	60	85	195	98	286	45	3.6	4.4	4.3
28	55	45	37	56	90	140	94	291	72	3.7	4.2	4.4
29	56	42	40	60	90	96	102	254	89	3.6	4.2	4.6
30	57	42	42	60	---	89	98	223	58	3.9	3.9	4.8
31	66	---	42	59	---	83	---	178	---	4.1	3.4	---
TOTAL	1655	1848	1641	1549	1852	2920	3762	6025	2183	320.7	224.3	104.9
MEAN	53.4	61.6	52.9	50.0	63.9	94.2	125	194	72.8	10.3	7.24	3.50
MAX	79	77	85	60	90	201	195	485	271	34	27	4.8
MIN	43	42	29	36	45	57	69	69	10	3.6	3.4	2.6
AC-FT	3280	3670	3250	3070	3670	5790	7460	11950	4330	636	445	208

CAL YR 1987 TOTAL 36011 MEAN 98.7 MAX 827 MIN 15 AC-FT 71430
WTR YR 1988 TOTAL 24084.9 MEAN 65.8 MAX 485 MIN 2.6 AC-FT 47770

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 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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...	1140	16	18.5	<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, 3,484,000 acre-ft, Oct. 1, elevation, 6,033.51 ft; minimum observed, 3,000,000 acre-ft, Mar. 18-20, elevation, 6,020.65 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

6,020	2,977,000	6,030	3,346,000
6,025	3,157,000	6,035	3,543,000

RESERVOIR STORAGE, IN THOUSANDS OF AC-FT, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
INSTANTANEOUS OBSERVATIONS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3484	3418	3318	3211	3099	3015	3020	3075	3173	3249	3199	3145
2	3480	3415	3315	3206	3096	3013	3023	3074	3182	3250	3196	3144
3	3477	3411	3313	3202	3094	3009	3022	3075	3188	3251	3194	3142
4	3475	3408	3311	3199	3091	3009	3023	3074	3194	3252	3193	3141
5	3473	3403	3308	3196	3088	3008	3023	3077	3198	3252	3193	3139
6	3471	3402	3304	3192	3086	3007	3024	3078	3199	3250	3192	3138
7	3469	3400	3301	3188	3082	3007	3024	3079	3200	3250	3191	3136
8	3467	3399	3298	3185	3077	3004	3027	3080	3202	3249	3190	3135
9	3464	3396	3294	3182	3073	3004	3028	3081	3207	3248	3189	3133
10	3462	3394	3291	3179	3070	3004	3030	3080	3212	3247	3187	3132
11	3460	3389	3289	3176	3067	3003	3031	3080	3219	3246	3185	3130
12	3458	3387	3285	3172	3064	3003	3033	3081	3224	3245	3183	3128
13	3456	3385	3282	3168	3060	3002	3034	3081	3228	3243	3181	3127
14	3454	3382	3277	3162	3057	3001	3035	3081	3229	3241	3179	3124
15	3453	3378	3274	3159	3053	3002	3037	3082	3230	3238	3176	3122
16	3451	3374	3270	3153	3048	3002	3039	3083	3232	3236	3175	3120
17	3447	3370	3267	3151	3045	3001	3040	3087	3233	3234	3172	3119
18	3445	3365	3266	3147	3044	3000	3043	3092	3235	3232	3170	3117
19	3443	3361	3263	3142	3040	3000	3046	3097	3238	3229	3168	3115
20	3441	3357	3260	3138	3038	3000	3049	3101	3238	3226	3166	3114
21	3439	3353	3254	3134	3035	3002	3053	3107	3238	3224	3165	3112
22	3436	3350	3251	3131	3031	3004	3057	3115	3239	3221	3162	3111
23	3434	3346	3248	3128	3030	3005	3062	3122	3238	3220	3160	3109
24	3432	3342	3244	3126	3026	3007	3065	3129	3237	3220	3158	3107
25	3430	3339	3241	3121	3023	3010	3067	3132	3237	3217	3156	3105
26	3428	3336	3238	3117	3020	3013	3073	3138	3242	3214	3154	3103
27	3425	3333	3237	3113	3018	3016	3074	3142	3243	3213	3153	3102
28	3423	3330	3233	3111	3016	3018	3074	3148	3245	3211	3152	3100
29	3421	3326	3227	3109	3015	3018	3072	3154	3247	3206	3150	3099
30	3421	3322	3221	3106	---	3019	3070	3158	3248	3204	3148	3098
31	3420	---	3216	3102	---	3020	---	3166	---	3202	3146	---
MAX	3484	3418	3318	3211	3099	3020	3074	3166	3248	3252	3199	3145
MIN	3420	3322	3216	3102	3015	3000	3020	3074	3173	3202	3146	3098
(+)	6031.91	6029.37	6026.59	6023.49	6021.08	6021.21	6022.62	6025.25	6027.43	6026.20	6024.71	6023.38
(+)	-66	-98	-106	-114	-87	+5	+50	+96	+82	-46	-56	-48
CAL YR 1987	 (+)											-40
WTR YR 1988	 (+)											-388

(+) 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.--38 years, 2,169 ft³/s, 1,571,000 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, 2.3 ft³/s, Mar. 20, 22, 27, 28, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,180 ft³/s, Feb. 16, gage height, 11.41 ft; minimum, 226 ft³/s, Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1920	2110	2140	2770	2210	1080	1150	1240	1300	1290	1510	1030
2	2070	2110	1960	2910	1970	2640	929	1510	1190	1090	1930	1000
3	1990	2080	2280	2580	1800	2500	1000	1130	1900	1190	1390	911
4	2010	2000	2150	1770	1480	1730	1360	1930	1180	1070	924	915
5	1650	2240	2440	2090	1890	1440	1150	893	1090	1490	980	915
6	1750	1930	1980	2620	2170	1010	1290	1540	1100	1710	926	916
7	1720	1830	2280	2520	2480	1550	882	1900	2830	1690	927	915
8	1480	1870	2190	2440	2720	2330	1090	1110	2070	1820	950	915
9	1750	2320	2360	2070	2500	1570	891	1740	1220	1080	902	924
10	1760	2570	2350	2040	2340	1590	922	1780	1620	1050	1570	899
11	1400	2570	1970	1890	1770	1630	1180	1060	1060	1950	1080	898
12	1610	2500	2210	2350	1920	1250	1590	1480	1030	1310	1170	1090
13	1390	2570	2180	2380	2250	1130	1190	1580	2430	1610	1480	1030
14	1650	2560	2360	2980	2390	965	1300	1740	1360	1610	1120	1350
15	1800	2580	2220	2260	2820	981	1170	1100	1620	2210	1610	1100
16	1790	2600	2210	3170	3280	1010	1070	917	1770	1480	1240	1260
17	1800	2600	1900	2210	1690	1310	1080	922	1920	1570	1600	879
18	1910	2610	1630	2780	1620	971	1690	948	1080	1740	1660	872
19	1300	2590	2190	2890	2080	1220	891	1170	1090	1790	1390	1030
20	1690	2580	1980	2640	2240	928	1400	942	2050	1750	1220	885
21	1540	2570	3050	1920	1740	941	1320	944	2110	1500	993	894
22	2240	2500	2340	1730	2660	964	1730	950	2070	1760	1350	895
23	1830	2210	2510	2320	1500	968	1010	1210	1700	1160	1420	1140
24	1840	2190	1910	1840	2810	1090	1330	957	2000	1590	1670	1030
25	1820	2270	1840	2750	2010	866	1090	1440	1170	1970	1180	1450
26	1680	2260	1860	2460	2410	1050	1420	1290	862	1670	1160	886
27	1850	2250	1680	2220	2040	877	1790	1230	860	1160	888	889
28	1740	2260	2460	1760	1520	1210	1940	1030	1240	1770	888	892
29	2230	2240	3030	1880	1890	1370	2540	968	1740	2240	1090	890
30	1930	2250	3270	2160	---	1060	1840	979	1210	1470	1130	1280
31	1830	---	3190	2480	---	1320	---	1680	---	2110	890	---
TOTAL	54970	69820	70120	72880	62200	40551	39235	39310	45872	48900	38238	29980
MEAN	1773	2327	2262	2351	2145	1308	1308	1268	1529	1577	1233	999
MAX	2240	2610	3270	3170	3280	2640	2540	1930	2830	2240	1930	1450
MIN	1300	1830	1630	1730	1480	866	882	893	860	1050	888	872
AC-FT	109000	138500	139100	144600	123400	80430	77820	77970	90990	96990	75850	59470
CAL YR 1987	TOTAL	703735	MEAN	1928	MAX	4030	MIN	742	AC-FT	1396000		
WTR YR 1988	TOTAL	612076	MEAN	1672	MAX	3280	MIN	860	AC-FT	1214000		

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1956 to September 1959, October 1963 to current year.

WATER TEMPERATURES: October 1956 to September 1959, October 1963 to current year.

SEDIMENT DATA: October 1956 to September 1959.

INSTRUMENTATION.--Specific conductance recorder December 1986 to current year; temperature recorder December 1986 to current year.

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 the Utah 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 recorded, 550 microsiemens, June 25, July 4.

WATER TEMPERATURES: Maximum observed, 15.0°C, Aug. 17, 1987; minimum recorded, 1.6°C, Mar. 1, 2, 1987.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 709 microsiemens, Apr. 2; minimum recorded, 553 microsiemens, Sept. 28.

WATER TEMPERATURES: Maximum recorded, 15.7°C, July 22, 25; minimum recorded, 2.0°C, Jan. 24.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE AIR (DEG C)	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	BARO-METRIC PRES-SURE (MM OF HG)	HARD-NESS TOTAL (MG/L AS CAC03)	HARD-NESS NONCARB WH WAT TOT FLD MG/L AS CAC03
NOV 17...	1445	2690	660	8.3	-5.0	8.5	8.00	627	240	93
MAR 31...	1150	855	690	8.4	4.0	4.0	9.70	620	240	82
MAY 26...	1345	941	610	8.5	28.0	11.0	11.4	680	240	87
JUL 28...	1110	920	660	8.4	--	14.5	9.00	626	250	97

DATE	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM PERCENT	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)
NOV 17...	60	23	47	29	1	2.5	152	190	15	0.3
MAR 31...	60	22	47	30	1	2.2	159	180	15	0.3
MAY 26...	58	23	48	30	1	2.2	153	170	16	0.3
JUL 28...	58	25	100	46	3	2.4	151	180	15	0.2

DATE	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 TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS N)	NITRO-GEN, TOTAL (MG/L AS NO3)	PHOS-PHOUS TOTAL (MG/L AS P)
NOV 17...	4.7	439	434	0.6	3190	<0.086	0.3	--	--	0.01
MAR 31...	6.3	446	428	0.61	1030	0.20	<0.2	--	--	0.02
MAY 26...	3.8	433	413	0.59	1100	0.10	2.8	2.9	13	0.02
JUL 28...	8.4	438	480	0.6	1090	0.20	0.2	0.4	1.8	<0.01

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	627	617	621	637	633	635	647	645	646	656	651	653
2	630	618	623	639	632	635	647	643	645	659	653	655
3	629	618	622	639	632	635	647	643	645	660	656	658
4	628	611	620	638	634	636	645	643	644	660	657	658
5	626	614	619	637	634	635	647	643	645	662	659	661
6	629	609	619	637	635	636	647	643	645	663	660	661
7	628	616	622	637	635	636	649	644	646	665	659	661
8	626	617	621	638	635	637	647	644	646	664	657	662
9	626	620	622	639	636	637	648	644	646	662	657	660
10	629	621	624	640	636	637	650	646	648	668	657	662
11	629	620	625	638	635	636	649	644	646	671	658	665
12	630	619	624	638	636	637	650	646	648	660	657	658
13	628	622	625	640	638	639	651	647	650	663	657	660
14	625	620	622	640	636	638	653	649	650	665	661	663
15	628	624	625	643	638	641	653	648	650	672	662	666
16	630	622	625	645	641	643	656	650	653	666	661	663
17	626	622	624	646	642	644	658	653	655	669	663	666
18	629	621	625	645	642	643	654	650	652	670	661	665
19	628	621	625	646	641	644	652	648	650	666	661	663
20	628	625	626	647	641	644	652	649	650	668	665	667
21	631	626	628	645	640	642	654	648	651	667	660	662
22	629	624	626	645	641	643	656	648	651	666	662	664
23	628	625	627	647	643	645	657	649	650	666	660	662
24	629	625	627	646	642	644	653	649	650	662	660	661
25	632	624	628	646	643	645	654	649	651	666	661	664
26	630	628	629	646	643	644	654	652	653	668	663	665
27	631	628	629	648	643	645	656	652	654	667	664	666
28	633	627	630	648	645	646	656	652	654	667	665	666
29	630	627	628	648	645	646	663	653	658	668	665	666
30	633	628	630	647	645	646	658	653	656	668	666	667
31	635	631	632	---	---	---	656	651	654	669	666	667
MONTH	635	609	625	648	632	640	663	643	650	672	651	662
	FEBRUARY			MARCH			APRIL			MAY		
1	669	666	667	685	681	683	697	691	694	643	621	634
2	669	666	668	687	682	684	709	685	689	640	624	630
3	670	668	669	687	677	683	692	685	688	643	624	635
4	670	668	669	681	671	674	693	680	688	649	633	643
5	670	668	669	683	676	681	685	679	682	654	634	642
6	671	669	670	688	676	684	689	684	687	650	627	638
7	673	669	670	676	670	674	695	687	690	638	624	631
8	674	670	672	681	676	679	688	676	681	634	614	625
9	672	671	672	689	676	681	682	678	680	633	620	628
10	672	667	669	681	674	677	688	682	686	629	620	626
11	673	667	671	682	676	679	691	686	688	634	625	629
12	674	671	673	684	675	680	692	688	690	637	628	633
13	674	665	670	683	675	679	692	687	689	636	609	628
14	673	668	671	687	680	682	692	689	691	635	628	630
15	677	668	673	705	683	688	694	687	690	632	626	630
16	671	668	670	689	680	685	692	686	689	633	620	629
17	673	667	671	689	684	686	691	685	688	627	618	623
18	674	672	673	687	684	686	692	657	679	624	614	620
19	675	671	673	689	685	687	663	648	657	622	612	618
20	675	670	672	691	687	689	665	642	655	621	611	616
21	676	672	674	697	690	692	670	649	659	620	610	616
22	675	666	670	690	683	686	670	635	655	623	615	619
23	678	670	674	696	679	689	658	637	649	625	612	619
24	680	675	677	705	679	683	647	598	636	625	610	619
25	678	674	676	686	677	681	655	603	633	620	607	613
26	682	676	678	688	685	686	646	618	637	617	605	612
27	682	677	679	690	680	685	653	638	646	616	608	612
28	683	677	679	699	682	686	658	629	644	618	604	613
29	687	681	683	691	685	687	652	642	646	622	603	614
30	---	---	---	699	684	690	660	633	648	622	606	614
31	---	---	---	707	689	695	---	---	---	620	607	615
MONTH	687	665	672	707	670	684	709	598	671	654	603	624

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	622	610	615	652	643	648	663	657	660	683	678	680
2	624	615	618	647	637	644	665	657	662	680	673	677
3	627	618	622	648	639	644	668	659	664	679	674	677
4	625	619	622	656	646	650	665	660	662	680	676	678
5	629	616	623	655	646	650	666	660	663	679	575	584
6	631	621	627	663	646	652	667	660	663	578	574	576
7	631	616	624	656	646	651	663	658	661	577	569	573
8	629	619	624	659	648	653	663	658	661	574	570	572
9	631	623	626	660	648	655	669	662	663	574	571	573
10	632	623	627	657	648	653	665	660	662	573	568	571
11	633	621	628	656	644	651	665	660	662	572	566	569
12	635	626	630	652	643	648	667	661	664	571	568	569
13	637	627	631	654	645	650	669	659	666	571	568	569
14	641	626	633	656	648	652	670	663	665	570	564	568
15	637	627	633	656	643	650	674	663	667	567	564	565
16	641	630	633	659	647	652	671	665	668	567	563	565
17	644	631	636	656	651	653	671	664	668	565	563	564
18	643	636	639	656	650	652	674	665	670	567	560	563
19	637	630	634	656	650	654	672	665	669	568	559	576
20	640	632	636	655	651	653	671	668	669	563	558	561
21	643	634	637	658	648	653	673	668	671	564	561	562
22	643	635	639	660	647	653	673	668	670	564	557	561
23	644	635	638	660	650	655	673	664	671	561	556	560
24	646	634	640	660	656	658	673	666	670	561	559	560
25	648	636	643	658	649	653	671	666	668	561	558	560
26	651	636	644	660	651	656	673	668	671	562	558	560
27	651	645	648	659	654	657	677	671	675	560	558	559
28	653	642	649	671	653	656	678	674	676	557	553	555
29	647	642	643	667	656	659	679	674	676	557	556	557
30	650	644	647	666	655	662	683	675	678	558	555	557
31	---	---	---	667	653	660	682	677	679	---	---	---
MONTH	653	610	633	671	637	653	683	657	668	683	553	581

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	13.4	12.2	12.9	10.5	9.8	10.2	6.6	6.4	6.5	3.7	3.6	3.7
2	13.1	11.9	12.6	10.2	9.7	10.0	6.5	6.3	6.4	3.8	3.6	3.7
3	13.0	11.8	12.6	10.3	9.9	10.1	6.3	6.1	6.3	3.9	3.7	3.8
4	13.2	11.8	12.5	10.0	9.6	9.8	6.2	6.0	6.2	4.0	3.8	3.9
5	13.4	12.4	13.0	9.8	9.5	9.7	6.2	6.0	6.1	4.0	3.9	4.0
6	13.0	12.5	12.8	9.7	9.1	9.5	6.2	5.7	6.1	4.0	3.8	3.9
7	12.8	12.0	12.5	10.0	9.4	9.9	6.0	5.6	5.8	3.9	3.9	3.9
8	12.9	12.0	12.5	10.0	9.6	9.8	5.9	5.8	5.9	4.0	3.5	3.8
9	12.9	12.1	12.6	9.7	9.4	9.6	5.8	5.8	5.8	3.7	3.3	3.6
10	12.6	11.8	12.3	9.6	9.3	9.5	5.9	5.8	5.8	3.9	3.4	3.6
11	12.5	11.7	12.1	9.5	9.4	9.5	5.9	5.7	5.8	4.0	3.3	3.7
12	12.5	11.7	12.2	9.4	9.2	9.3	5.7	5.5	5.7	3.3	3.1	3.2
13	12.4	11.9	12.2	9.3	8.9	9.1	5.5	5.4	5.5	3.4	3.0	3.3
14	12.4	12.0	12.3	9.3	8.9	9.1	5.4	5.3	5.3	3.6	3.3	3.5
15	12.1	11.6	11.9	9.2	8.9	9.1	5.3	5.1	5.2	3.9	3.4	3.7
16	11.9	11.3	11.7	8.9	8.7	8.9	5.1	5.0	5.1	3.5	3.3	3.4
17	12.0	11.5	11.8	8.7	8.5	8.6	5.0	4.9	5.0	3.7	3.5	3.6
18	12.1	11.3	11.7	8.5	8.3	8.4	4.9	4.8	4.9	3.6	2.8	3.3
19	11.9	11.3	11.6	8.2	7.9	8.1	4.9	4.8	4.9	3.1	2.8	3.0
20	11.6	11.3	11.5	8.0	7.5	7.8	4.8	4.7	4.8	3.4	3.1	3.3
21	11.4	10.9	11.2	7.7	7.4	7.6	4.7	4.6	4.7	3.3	2.3	2.6
22	11.4	11.0	11.3	7.7	7.6	7.7	4.7	4.6	4.7	3.0	2.6	2.9
23	11.3	11.1	11.2	7.7	7.5	7.6	4.6	4.5	4.6	3.0	2.1	2.5
24	11.2	11.0	11.1	7.5	7.4	7.5	4.5	4.3	4.4	2.2	2.0	2.1
25	11.3	10.7	11.0	7.4	7.2	7.3	4.3	4.2	4.3	2.7	2.2	2.5
26	11.1	10.7	11.0	7.2	7.1	7.2	4.3	4.2	4.2	2.7	2.6	2.7
27	10.8	10.6	10.7	7.1	7.0	7.1	4.3	4.1	4.2	2.8	2.6	2.8
28	10.9	10.4	10.7	7.0	6.8	6.9	4.1	4.0	4.1	2.9	2.7	2.8
29	10.9	10.7	10.9	6.8	6.7	6.8	4.2	4.1	4.1	3.0	2.8	2.9
30	10.8	10.5	10.7	6.7	6.6	6.6	4.1	3.9	4.0	3.0	2.8	3.0
31	10.7	10.2	10.6	---	---	---	4.0	3.7	3.9	3.0	2.9	3.0
MONTH	13.4	10.2	11.8	10.5	6.6	8.6	6.6	3.7	5.2	4.0	2.0	3.3

GREEN RIVER BASIN

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
FEBRUARY			MARCH			APRIL			MAY			
1	3.1	2.9	3.0	3.9	3.5	3.6	4.2	3.6	3.9	8.3	7.2	7.7
2	3.1	3.0	3.1	3.6	3.5	3.6	4.5	3.8	4.1	8.4	7.4	8.0
3	3.2	3.0	3.1	3.7	3.5	3.6	4.5	3.9	4.2	7.7	7.2	7.4
4	3.2	3.0	3.1	3.6	3.4	3.5	4.4	4.1	4.3	7.4	6.9	7.1
5	3.2	3.1	3.1	3.8	3.5	3.6	4.6	4.2	4.4	7.7	6.9	7.4
6	3.3	3.1	3.2	3.8	3.5	3.6	4.9	4.4	4.6	7.9	6.8	7.5
7	3.3	3.1	3.2	3.4	3.2	3.3	4.9	4.4	4.6	8.3	7.6	7.9
8	3.3	3.1	3.2	3.5	3.3	3.4	5.1	4.4	4.8	8.5	8.0	8.3
9	3.3	3.2	3.2	3.6	3.3	3.5	5.3	4.7	5.0	8.4	8.0	8.2
10	3.2	2.9	3.0	3.4	3.2	3.3	5.6	4.8	5.0	8.7	8.2	8.5
11	3.3	2.9	3.1	3.5	3.3	3.4	5.2	4.7	4.9	8.9	8.3	8.6
12	3.4	3.1	3.3	3.6	3.2	3.4	5.2	4.7	4.9	8.9	8.1	8.5
13	3.3	2.8	3.1	3.5	3.2	3.3	5.4	4.7	4.9	11.3	8.1	8.8
14	3.3	2.9	3.1	3.7	3.2	3.4	5.0	4.7	4.8	9.7	8.5	9.2
15	3.3	3.0	3.2	3.8	3.4	3.6	5.0	4.7	4.8	9.9	9.0	9.4
16	3.1	2.8	3.0	3.7	3.3	3.5	5.1	4.7	4.9	9.5	8.8	9.2
17	3.3	2.9	3.1	3.8	3.3	3.5	5.1	4.7	4.9	10.1	9.0	9.4
18	3.3	3.1	3.2	4.0	3.4	3.6	5.8	4.7	5.1	10.2	9.2	9.7
19	3.5	3.1	3.2	3.9	3.4	3.6	6.4	5.7	6.0	10.7	9.6	10.1
20	3.3	3.0	3.1	4.1	3.5	3.7	6.5	5.5	6.1	10.5	9.5	9.9
21	3.5	3.1	3.3	4.2	3.6	3.8	6.3	5.3	5.8	11.1	9.6	10.2
22	3.2	2.9	3.1	4.1	3.7	3.9	6.3	5.3	5.8	10.5	9.3	9.9
23	3.5	3.0	3.2	4.2	3.7	3.9	6.4	5.6	5.9	10.5	9.3	9.9
24	3.3	3.1	3.3	4.3	3.7	3.9	7.3	5.9	6.4	11.2	9.3	10.0
25	3.4	3.2	3.3	4.2	3.7	3.9	8.0	6.1	6.9	11.3	10.1	10.6
26	3.6	3.2	3.4	4.2	3.8	4.0	7.4	6.4	6.9	11.3	10.4	10.9
27	3.6	3.3	3.4	4.3	3.9	4.1	6.8	6.3	6.6	11.1	10.3	10.6
28	3.7	3.4	3.5	4.1	3.7	3.9	7.5	6.3	6.7	11.5	10.1	10.7
29	3.7	3.4	3.6	4.0	3.7	3.8	7.0	6.5	6.9	10.7	9.6	10.2
30	---	---	---	3.8	3.6	3.7	7.8	6.2	6.9	10.8	9.4	10.1
31	---	---	---	4.0	3.6	3.7	---	---	---	10.8	9.3	10.1
MONTH	3.7	2.8	3.2	4.3	3.2	3.6	8.0	3.6	5.4	11.5	6.8	9.2
JUNE			JULY			AUGUST			SEPTEMBER			
1	10.5	9.6	10.2	13.5	12.2	12.8	14.2	12.9	13.7	13.5	12.2	12.9
2	10.5	9.7	10.1	14.0	12.8	13.3	14.0	12.4	13.2	13.6	12.6	13.0
3	10.4	9.4	9.8	14.0	12.9	13.5	13.6	12.3	13.0	13.7	12.0	12.8
4	10.4	9.7	10.1	13.5	12.0	12.7	14.2	13.2	13.6	13.1	11.9	12.4
5	10.7	9.6	10.2	13.1	12.4	12.8	13.9	12.8	13.3	13.2	12.0	12.5
6	10.4	9.5	10.0	13.1	11.4	12.5	13.9	12.7	13.3	12.9	12.2	12.5
7	10.8	9.8	10.3	13.0	12.0	12.5	14.1	13.4	13.7	14.2	12.3	13.2
8	10.8	10.0	10.4	13.0	11.6	12.3	14.3	13.4	13.8	13.6	12.5	13.2
9	11.1	9.9	10.6	13.0	11.4	12.2	14.0	12.8	13.5	12.9	12.3	12.6
10	10.8	9.9	10.4	12.9	11.8	12.3	14.2	13.1	13.6	13.9	12.3	13.1
11	11.5	10.1	10.7	13.3	11.9	12.6	14.1	13.3	13.7	13.4	12.0	12.8
12	11.1	9.8	10.6	14.4	12.6	13.6	14.1	12.7	13.4	12.1	11.1	11.7
13	11.4	10.2	10.7	14.2	12.9	13.6	14.0	12.6	13.2	12.3	11.2	11.9
14	11.2	9.7	10.7	14.0	12.7	13.4	13.6	12.3	13.2	13.2	12.0	12.7
15	11.9	10.3	10.9	14.9	12.7	13.8	13.1	11.9	12.5	13.7	12.9	13.3
16	12.4	10.9	11.3	14.9	13.0	13.8	13.2	12.1	12.7	13.4	12.7	13.1
17	11.9	10.3	11.3	14.2	13.2	13.8	13.1	12.0	12.5	13.5	12.6	13.2
18	11.5	10.6	11.0	14.3	13.6	13.9	12.9	11.4	12.1	13.5	12.4	13.1
19	12.6	11.2	11.8	14.5	13.5	13.7	13.4	11.8	12.6	13.4	12.1	13.0
20	12.8	11.3	11.8	14.2	13.3	13.8	14.0	13.1	13.6	13.0	11.6	12.4
21	12.2	10.8	11.9	15.1	13.3	14.2	14.1	13.2	13.5	12.5	11.9	12.2
22	13.0	11.6	12.3	15.7	13.4	14.5	14.4	13.3	13.8	12.4	11.9	12.2
23	12.6	11.6	12.4	15.0	13.6	14.3	14.4	13.2	13.7	12.4	11.9	12.1
24	12.7	11.4	12.0	14.6	13.5	14.1	14.5	13.1	13.9	12.1	11.5	11.8
25	11.6	10.7	11.2	15.7	14.0	14.9	14.9	13.6	14.4	11.9	11.4	11.7
26	12.9	10.9	12.1	15.1	13.4	14.2	14.7	13.9	14.2	11.9	11.5	11.8
27	12.5	11.2	11.7	14.6	13.4	14.0	14.2	13.4	13.7	13.1	11.6	12.1
28	12.2	11.1	11.6	14.8	11.5	14.0	13.8	13.1	13.6	13.7	12.6	13.2
29	13.2	12.1	12.6	14.1	12.4	13.5	14.1	13.3	13.7	13.4	12.8	13.1
30	12.9	12.3	12.6	13.9	12.2	13.0	13.8	11.5	13.1	12.9	12.3	12.6
31	---	---	---	14.8	12.6	13.6	13.7	11.4	13.0	---	---	---
TOTAL	13.2	9.4	11.1	15.7	11.4	13.5	14.9	11.4	13.4	14.2	11.1	12.6

09234500 GREEN RIVER NEAR GREENDALE, UT--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM FLOW INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 17...	1445	2690	8.5	14	102
MAR 31...	1150	855	4.0	42	97
MAY 26...	1345	941	11.0	13	33
JUL 28...	1110	920	14.5	5	13

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.

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: Dec. 17 to March 31. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station.

AVERAGE DISCHARGE.--43 years, 236 ft³/s; 171,000 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, 4.2 ft³/s, Sept. 9, 1988.

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 18	0400	*2,430	*7.19	May 28	2200	1,810	6.63

Minimum daily discharge, 4.2 ft³/s, Sept. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	40	24	24	25	25	72	759	983	154	24	12
2	18	67	25	24	25	27	77	538	946	140	24	14
3	18	77	24	25	25	28	89	420	1050	131	24	13
4	17	48	23	25	25	30	88	422	1230	124	27	8.8
5	17	39	21	25	25	30	84	544	1410	125	25	6.1
6	17	44	19	25	25	29	89	686	1400	108	22	6.8
7	18	47	16	25	24	27	122	473	1340	96	26	6.7
8	19	37	14	25	23	30	138	435	1240	88	32	5.0
9	19	27	12	25	23	29	114	447	1110	78	24	4.2
10	20	28	13	25	23	27	104	491	1030	77	21	5.8
11	18	36	10	25	24	27	112	535	978	81	22	21
12	15	32	6.2	25	24	29	156	756	870	78	23	49
13	22	36	13	25	24	28	214	1070	776	74	22	45
14	15	27	19	25	24	26	267	1330	689	64	20	52
15	12	14	9.5	25	24	23	336	1430	649	54	17	39
16	21	11	13	25	24	24	449	1540	652	50	22	30
17	29	28	19	25	24	24	481	1650	616	48	28	24
18	28	36	21	26	24	24	451	2130	567	44	34	21
19	27	28	23	27	24	24	519	1950	540	41	28	19
20	20	23	25	27	24	25	520	1360	504	39	22	19
21	19	23	26	27	24	28	540	1100	462	36	29	18
22	23	24	26	26	24	34	451	1040	424	33	46	26
23	26	22	25	26	24	40	337	1080	376	31	31	33
24	38	20	25	25	24	41	290	1200	301	28	23	25
25	62	20	25	26	24	42	280	1250	260	27	20	21
26	49	19	25	26	23	41	240	1280	230	27	18	20
27	34	19	24	26	23	40	241	1400	224	30	16	20
28	30	20	24	26	23	45	294	1530	217	30	15	24
29	33	23	25	26	24	50	398	1590	249	33	15	29
30	40	25	25	25	---	25	622	1490	181	35	14	26
31	47	---	25	25	---	65	---	1160	---	28	12	---
TOTAL	792	940	624.7	787	696	987	8175	33086	21504	2032	726	643.4
MEAN	25.5	31.3	20.2	25.4	24.0	31.8	272	1067	717	65.5	23.4	21.4
MAX	62	77	26	27	25	65	622	2130	1410	154	46	52
MIN	12	11	6.2	24	23	23	72	420	181	27	12	4.2
AC-FT	1570	1860	1240	1560	1380	1960	16220	65630	42650	4030	1440	1280

CAL YR 1987 TOTAL 42987.7 MEAN 118 MAX 855 MIN 6.2 AC-FT 85270
WTR YR 1988 TOTAL 70993.1 MEAN 194 MAX 2130 MIN 4.2 AC-FT 140800

09253400 BATTLE CREEK NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°07'54", long 107°04'06", in NE1/4 NE1/4 NW1/4 sec.4, T.13 N., R.86 W., Carbon County, Hydrologic Unit 14050003, Medicine Bow National Forest, on right bank 25 ft upstream from foot bridge, 0.8 mi southeast of Lost Creek Campground, 1.2 mi downstream from Haskins Creek, 1.6 mi upstream from Baby Lake Creek, and 15 mi west of Encampment.

DRAINAGE AREA.--13.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1956 to September 1963, April 1985 to September 1988 (discontinued).

REVISED RECORDS: WDR WY-85-1: Drainage area. WDR WY-86-1: 1985(P).

GAGE.--Water-stage recorder. Elevation of gage is 8,380 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1956 to September 1963, at site 10 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 17-25, 27-29, Nov. 8-19, Apr. 7-19, and July 4-12. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--10 years (water years 1957-63, 1986-88), 27.4 ft³/s, 19,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 670 ft³/s, May 29, 1958, gage height, 4.18 ft, site and datum then in use, from rating curve extended above 320 ft³/s; minimum daily discharge, 1.7 ft³/s, Nov. 15, 1958, but may have been less during periods of ice effect.

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)
May 18	0400	154	2.82	June 7	1800	*353	*3.39
May 28	1730	280	3.18				

Minimum daily discharge, 3.2 ft³/s, Feb. 10, 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	5.4	4.2	4.0	3.5	3.5	3.7	22	140	39	10	5.9
2	3.7	7.8	4.3	4.0	3.5	3.5	4.0	18	156	34	9.7	5.8
3	3.7	7.0	4.5	3.9	3.5	3.5	4.4	17	183	33	9.5	5.7
4	3.7	6.1	4.5	3.9	3.5	3.5	4.6	15	230	31	9.4	5.8
5	3.7	5.8	4.5	3.9	3.5	3.3	4.2	16	256	29	9.2	5.6
6	3.7	5.6	4.4	3.9	3.4	3.3	4.2	20	270	28	9.0	5.5
7	3.9	5.4	4.5	3.9	3.3	3.5	6.7	17	285	26	9.0	5.2
8	3.9	5.2	4.4	3.9	3.3	3.5	6.0	18	265	24	9.0	5.1
9	3.7	4.9	4.2	3.9	3.3	3.5	5.1	16	244	22	8.7	4.9
10	3.7	4.7	4.3	3.9	3.2	3.5	4.5	17	237	21	8.5	5.0
11	3.9	4.8	4.3	3.8	3.5	3.6	4.8	20	240	20	8.4	8.9
12	4.5	4.9	4.2	3.7	3.7	3.7	5.6	27	217	19	8.3	7.1
13	5.6	5.1	4.2	3.7	3.7	3.5	6.9	37	193	18	8.0	7.5
14	6.0	5.3	4.1	3.7	3.7	3.5	8.4	53	173	17	8.0	7.4
15	4.9	4.8	3.9	3.8	3.7	3.5	11	68	159	17	7.7	6.7
16	4.5	4.2	3.9	3.7	3.5	3.5	12	86	151	16	7.9	6.3
17	4.3	4.3	3.9	3.7	3.5	3.3	14	104	146	15	7.9	5.9
18	4.2	4.5	3.9	3.7	3.5	3.3	16	143	140	15	7.9	5.6
19	4.1	4.7	3.9	3.6	3.3	3.3	18	112	134	14	7.7	5.3
20	4.0	4.9	3.8	3.5	3.3	3.4	18	83	128	13	7.3	5.1
21	4.1	4.9	3.7	3.5	3.3	3.6	17	71	120	13	8.6	5.1
22	4.3	4.7	3.9	3.5	3.3	3.8	15	68	109	12	8.4	5.5
23	4.7	4.8	3.9	3.5	3.2	3.6	15	77	95	12	7.3	5.7
24	4.9	4.9	3.9	3.5	3.2	3.5	13	95	84	12	7.1	5.4
25	5.0	4.6	4.1	3.5	3.3	3.5	12	113	76	11	7.0	5.1
26	5.0	4.7	4.1	3.5	3.3	3.6	12	146	70	11	6.6	4.5
27	5.0	4.5	4.0	3.5	3.3	4.1	11	188	62	11	6.4	4.5
28	4.8	4.4	4.0	3.5	3.5	4.1	12	219	61	11	6.4	5.0
29	5.0	4.5	4.0	3.4	3.5	3.9	13	222	52	11	6.4	4.8
30	5.1	4.4	4.0	3.3	---	3.8	18	207	45	10	6.3	5.0
31	5.2	---	4.0	3.4	---	3.7	---	165	---	10	6.2	---
TOTAL	136.4	151.8	127.5	114.2	99.3	110.4	300.1	2480	4721	575	247.8	170.9
MEAN	4.40	5.06	4.11	3.68	3.42	3.56	10.0	80.0	157	18.5	7.99	5.70
MAX	6.0	7.8	4.5	4.0	3.7	4.1	18	222	285	39	10	8.9
MIN	3.6	4.2	3.7	3.3	3.2	3.3	3.7	15	45	10	6.2	4.5
AC-FT	271	301	253	227	197	219	595	4920	9360	1140	492	339

CAL YR 1987 TOTAL 6518.0 MEAN 17.9 MAX 187 MIN 3.6 AC-FT 12930
WTR YR 1988 TOTAL 9234.4 MEAN 25.2 MAX 285 MIN 3.2 AC-FT 18320

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to September 1988 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April to July 1986, April to June 1987.

SUSPENDED-SEDIMENT DISCHARGE.--April to July 1986, April to June 1987.

INSTRUMENTATION.--Pumping sampler, April to July 1986, April to June 1987. All bedload samples were collected using a Helley-Smith type sampler of sheet-metal construction, 3.22 flare, 3 inch square nozzle, and equipped with 0.25 mm mesh collection bag.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean during period of operation, 58 microsiemens, May 1, 1986; minimum daily mean during period of operation, 28 microsiemens, June 1, 1986.

SEDIMENT CONCENTRATION: Maximum daily mean during period of operation, 97 mg/L, June 3, 1986; minimum daily mean during period of operation, 1 mg/L, June 24, 26, 27, 28, 29, 30, 1986.

SEDIMENT LOAD: Maximum daily mean during period of operation, 83 tons, June 3, 1986; minimum daily mean during period of operation, 0.23 ton, Apr. 22, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
APR 30...	1400	3.0	18.3	15	10.0	1.70	17	0.01	0.06	0.2
MAY 12...	1315	--	23.0	9	10.0	2.02	38	0.01	0.02	0.4
MAY 21...	1300	--	36.0	17	10.0	2.68	129	0.88	0.2	0.3
JUN 02...	0915	--	26.0	1	30.0	--	300	16	0.4	0.6
JUN 02...	0940	--	26.0	1	30.0	--	300	21	0.3	0.4
JUN 02...	1630	4.5	26.0	1	30.0	3.32	342	44	0.3	0.4
JUN 02...	1710	4.5	26.0	1	30.0	3.32	342	47	0.3	0.5
JUN 03...	0110	--	26.0	1	30.0	3.32	357	3.6	0.2	0.5
JUN 03...	0135	--	26.0	1	30.0	3.31	352	3.5	0.2	0.3
JUN 03...	0600	1.0	26.0	1	30.0	3.20	300	4.5	0.2	0.4
JUN 03...	0640	--	26.0	1	30.0	3.21	304	3.9	0.3	0.5
JUN 11...	1825	--	26.0	1	30.0	3.17	266	3.8	0.2	0.2
JUN 11...	1850	5.5	26.0	1	30.0	3.17	266	6.1	0.2	0.3
JUN 11...	1915	--	26.0	1	30.0	3.17	266	5.7	0.2	0.3
JUN 12...	0235	2.5	26.0	1	30.0	3.11	221	3.8	0.1	0.2
JUN 12...	0250	2.5	26.0	1	30.0	3.00	214	4.0	0.1	0.2
JUN 12...	0915	3.0	32.0	15	10.0	3.05	201	4.4	0.2	0.2
JUN 12...	0930	3.0	26.0	1	30.0	3.05	201	2.1	0.3	0.4
JUN 12...	1010	3.0	32.0	15	10.0	3.05	201	1.5	0.2	0.4
JUN 12...	1035	3.0	26.0	1	30.0	3.05	201	1.3	0.4	0.5
JUN 20...	0920	--	30.0	15	10.0	3.02	204	3.4	0.1	0.2
JUN 20...	1950	--	26.0	1	30.0	3.13	243	2.4	0.4	0.9
JUL 01...	1530	11.0	25.5	24	10.0	2.57	105	0.01	0.5	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
APR 30...	0.6	7	26	64	90	100	--	--	--
MAY 12...	0.9	11	44	73	86	100	--	--	--
MAY 21...	0.8	8	27	55	76	92	100	--	--
JUN 02...	1	6	15	29	42	59	83	100	--
JUN 02...	0.7	4	11	21	33	44	58	100	--
JUN 02...	0.7	2	4	10	20	33	55	77	100
JUN 02...	0.8	3	9	21	42	65	85	100	--
JUN 03...	1	14	31	50	64	72	75	100	--
JUN 03...	0.6	6	16	29	42	54	67	78	100
JUN 03...	0.6	5	13	29	54	77	93	100	--
JUN 03...	0.9	8	19	38	59	75	91	100	--
JUN 11...	0.4	2	7	14	22	27	34	43	100
JUN 11...	0.5	3	10	25	42	61	77	100	--
JUN 11...	0.5	3	9	23	43	63	87	100	--
JUN 12...	0.3	2	5	14	30	50	68	100	--
JUN 12...	0.5	2	6	16	30	52	75	100	--
JUN 12...	0.4	3	8	19	29	38	44	62	100
JUN 12...	0.8	5	16	38	61	84	100	--	--
JUN 12...	0.6	5	13	25	37	47	55	100	--
JUN 12...	1	7	20	47	72	87	100	--	--
JUN 20...	0.3	0.9	2	4	10	22	51	100	--
JUN 20...	0.9	4	10	24	42	58	100	--	--
JUL 01...	3	10	20	43	58	100	--	--	--

09253400 BATTLE CREEK NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
APR									
22...	1310	--	22.5	18	10.0	1.81	16	0.0	13
29...	1325	--	25.0	22	10.0	2.25	53	0.51	0.1
MAY									
08...	1700	--	30.2	26	10.0	2.64	126	0.07	1
08...	1855	--	27.0	26	10.0	2.66	131	0.06	2
09...	0040	--	28.0	26	10.0	2.51	101	0.04	2
09...	0610	--	27.0	26	10.0	2.49	95	0.04	0.8
09...	1540	--	25.0	23	10.0	2.64	126	0.06	0
09...	1940	--	27.0	26	10.0	2.63	124	0.17	0.3
10...	0030	--	27.0	26	10.0	2.57	111	0.03	2
10...	0655	--	27.0	26	10.0	2.54	105	0.18	0
19...	0935	4.0	27.5	27	10.0	2.78	151	0.31	0.2
28...	1430	4.5	26.0	25	10.0	2.34	65	0.01	2
JUN									
10...	0910	5.0	25.5	24	10.0	2.28	57	0.0	6

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
APR									
22...	20	27	39	51	100	--	--	--	--
29...	0.3	0.4	2	7	26	55	73	85	100
MAY									
08...	2	3	15	33	56	80	100	--	--
08...	3	5	26	49	64	77	100	--	--
09...	2	3	16	43	77	97	100	--	--
09...	1	2	13	30	53	71	100	--	--
09...	0	2	29	58	79	96	100	--	--
09...	0.7	1	6	14	22	29	40	45	100
10...	3	5	30	61	81	91	100	--	--
10...	0.4	0.7	3	7	12	17	21	26	100
19...	0.4	0.5	3	9	20	38	58	87	100
28...	3	8	52	54	85	100	--	--	--
JUN									
10...	8	17	46	71	92	100	--	--	--

GREEN RIVER BASIN

09253400 BATTLE CREEK NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
MAY											
13...	1225	3.0	21.0	17	10.0	2.03	32	8	0.69	0.02	0
17...	1045	3.0	25.4	23	10.0	2.47	89	14	3.4	0.18	0
25...	0955	2.0	30.0	19	10.0	2.57	99	5	1.3	1.1	0
25...	1125	3.0	28.0	19	10.0	2.57	99	5	1.3	0.59	0
28...	1520	4.5	28.0	14	10.0	3.00	233	46	29	0.68	0
28...	1655	4.5	28.0	14	10.0	3.12	280	95	72	14	0.1
28...	1720	4.5	28.0	14	10.0	3.13	284	61	47	14	0.1
28...	1840	4.5	28.0	14	10.0	3.13	284	61	47	2.3	0.1
28...	2040	4.0	28.0	14	10.0	3.09	267	55	40	3.8	0
28...	2345	3.0	28.0	14	10.0	3.03	240	22	14	0.57	0
29...	0640	2.0	28.0	14	10.0	2.93	202	10	5.4	0.65	0
JUN											
06...	1205	6.0	29.0	14	10.0	3.11	215	13	7.5	2.1	0.1
06...	1255	6.5	29.0	14	10.0	3.11	215	17	9.9	6.2	0.1
06...	1410	7.0	29.0	14	10.0	3.24	272	40	29	12	0.1
06...	1525	7.0	29.0	14	10.0	3.33	302	66	54	21	0.1
06...	1535	7.0	29.0	14	10.0	3.40	334	66	60	29	0
06...	1645	6.0	29.0	14	10.0	3.40	334	89	80	37	0
06...	1915	5.0	29.0	14	10.0	3.40	334	72	65	15	0
07...	0040	2.5	29.0	14	10.0	3.26	280	25	19	9.5	0
07...	0700	2.5	29.0	14	10.0	3.15	244	21	14	3.7	0
22...	1445	--	28.9	25	10.0	2.58	103	9	2.5	1.8	0.1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
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MAY										
13...	0	0	2	3	24	100	--	--	--	--
17...	0.2	0.4	4	13	34	75	84	100	--	--
25...	0.1	0.3	5	19	44	66	85	100	--	--
25...	0.2	0.4	5	17	36	52	68	100	--	--
28...	0.2	0.8	18	42	69	95	100	--	--	--
28...	0.2	0.3	3	8	20	34	51	77	100	--
28...	0.2	0.3	2	7	17	31	46	61	67	100
28...	0.3	0.6	10	22	38	52	63	81	100	--
28...	0	0.1	1	2	5	9	22	48	100	--
28...	0.2	0.4	12	30	54	83	100	--	--	--
29...	0.2	0.6	12	28	50	85	100	--	--	--
JUN										
06...	0.2	0.3	2	6	18	36	60	89	100	--
06...	0.2	0.5	3	11	23	36	48	68	76	100
06...	0.2	0.5	4	12	26	42	57	74	90	100
06...	0.2	0.3	2	9	22	38	54	71	93	100
06...	0.1	0.4	3	8	15	25	37	50	62	100
06...	0.1	0.3	2	7	14	25	38	56	80	100
06...	0.1	0.4	3	6	12	18	27	40	55	100
07...	0	0	2	7	16	27	40	61	69	100
07...	0.1	0.3	3	12	28	50	72	82	100	--
22...	0.2	0.3	1	6	16	33	57	76	100	--

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: Nov. 17 to Mar. 4, and Mar. 8 to Mar. 30. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 500 acres upstream from station.

AVERAGE DISCHARGE.--57 years (water years 1932-88), 78.5 ft³/s; 56,870 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)
May 1	0230	439	5.80	May 28	0030	554	6.38
May 18	0900	*1,000	*8.20				

Minimum daily discharge, 2.2 ft³/s, Sept. 9-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	24	14	18	17	16	43	340	200	27	4.5	2.9
2	16	33	15	18	17	16	51	214	196	23	3.9	3.3
3	17	28	15	17	17	16	40	162	223	21	3.9	3.4
4	15	23	14	17	17	15	47	170	280	20	4.9	3.2
5	12	18	14	16	17	15	43	226	328	19	5.5	3.2
6	12	18	14	16	17	17	43	320	320	16	4.4	2.5
7	14	18	14	16	17	17	59	192	274	16	4.9	2.4
8	16	17	13	16	17	17	77	167	241	13	5.9	2.3
9	18	16	13	16	17	17	59	177	205	12	6.6	2.2
10	20	17	13	16	18	17	47	210	193	11	5.7	2.2
11	20	17	13	16	18	17	49	239	180	11	4.4	4.4
12	21	16	13	16	19	17	65	377	165	12	3.4	13
13	23	21	13	16	19	17	88	509	139	9.9	2.6	20
14	30	19	13	16	19	17	105	594	120	7.7	2.9	24
15	25	19	13	16	20	17	133	557	101	6.3	2.3	20
16	21	14	13	16	20	17	170	555	88	5.7	3.7	15
17	21	13	14	17	20	17	198	580	90	5.3	4.0	12
18	21	13	14	17	20	17	162	841	85	5.0	2.7	10
19	22	13	14	17	20	17	233	741	82	5.0	3.5	9.0
20	21	13	14	18	19	18	226	450	79	4.6	3.0	9.4
21	20	14	14	18	19	19	265	317	79	3.9	3.2	9.2
22	23	14	15	17	18	23	207	281	77	4.1	3.8	10
23	23	14	16	17	18	26	145	304	68	3.4	4.3	13
24	25	13	17	17	18	27	122	357	54	3.7	3.8	13
25	29	13	17	17	18	28	116	413	43	3.9	3.3	12
26	26	13	16	18	17	26	92	414	40	3.9	2.6	11
27	23	13	16	17	17	26	98	457	36	3.6	2.6	11
28	20	13	17	17	17	27	105	446	36	3.8	2.9	12
29	17	13	17	17	16	30	147	412	38	6.0	2.9	14
30	17	13	17	17	---	33	236	360	33	8.9	2.6	14
31	26	---	18	17	---	37	---	243	---	5.9	2.6	---
TOTAL	630	503	453	520	523	636	3471	11625	4093	301.6	117.3	283.6
MEAN	20.3	16.8	14.6	16.8	18.0	20.5	116	375	136	9.73	3.78	9.45
MAX	30	33	18	18	20	37	265	841	328	27	6.6	24
MIN	12	13	13	16	16	15	40	162	33	3.4	2.3	2.2
AC-FT	1250	998	899	1030	1040	1260	6880	23060	8120	598	233	563

CAL YR 1987 TOTAL 21828.8 MEAN 59.8 MAX 464 MIN 4.1 AC-FT 43300
WTR YR 1988 TOTAL 23156.5 MEAN 63.3 MAX 841 MIN 2.2 AC-FT 45930

GREEN RIVER BASIN

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 September 1988 (discontinued).

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. 12, 20, 21, Nov. 8-12, 15-19, Nov. 28 to Dec. 5, Dec. 13 to Jan. 9, Apr. 7-18, 26, and May 3, 8, 9. Records good except those for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--5 years (water years 1957, 1958, 1986-88), 5.53 ft³/s, 4,010 acre-ft/yr.

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 daily discharge, 0.60 ft³/s, Aug. 30, 31, Sept. 2, 3, 1958, but may have been less during periods of ice effect in 1957-58 water years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 40 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 13	2300	ice jam	*3.42	May 27	1730	51	2.34
May 18	2230	*60	2.47				

Minimum daily discharge, 0.74 ft³/s, Dec. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.91	1.3	.91	.87	.91	.85	.92	6.9	27	5.8	1.7	.93
2	.91	2.3	.95	.87	.91	.85	.96	5.7	25	5.5	1.7	.91
3	.87	1.7	1.0	.86	.91	.85	1.0	5.5	25	5.1	1.7	.89
4	.88	1.2	1.0	.86	.91	.85	1.1	4.9	26	5.0	1.7	.89
5	.88	1.1	1.0	.85	.85	.85	.99	5.9	30	4.6	1.6	.89
6	.88	1.2	1.0	.85	.85	.84	1.2	6.7	34	4.5	1.6	.85
7	.88	1.1	.98	.85	.85	.78	2.2	5.8	33	4.1	1.6	.87
8	.87	1.1	.96	.87	.85	.82	1.9	5.4	31	3.9	1.5	.82
9	.85	.99	.96	.88	.85	.85	1.5	5.8	28	3.7	1.5	.82
10	.87	.92	.95	.89	.85	.85	1.2	6.4	27	3.6	1.4	.85
11	.91	.96	.94	.89	.85	.85	1.3	7.2	26	3.4	1.4	3.3
12	.93	.99	.91	.91	.85	.85	1.5	9.3	25	3.3	1.3	1.9
13	1.2	1.0	.84	.91	.85	.85	1.8	14	22	3.1	1.3	2.1
14	1.7	1.0	.75	.91	.85	.85	2.2	20	21	3.0	1.3	2.2
15	1.2	.91	.80	.91	.89	.85	2.8	24	19	2.8	1.2	1.6
16	1.0	.80	.88	.91	.91	.85	3.2	30	18	2.8	1.3	1.3
17	.97	.87	.94	.91	.86	.85	3.8	38	17	2.7	1.2	1.1
18	.96	.92	.87	.91	.85	.85	4.6	52	16	2.6	1.2	1.0
19	.95	.97	.84	.91	.85	.85	5.2	52	15	2.5	1.1	.93
20	.91	1.0	.83	.91	.85	.85	5.2	38	14	2.4	1.0	.96
21	.97	1.0	.86	.91	.85	.85	5.2	31	13	2.3	1.4	.95
22	.97	.97	.88	.91	.85	.85	4.3	28	12	2.2	1.4	1.3
23	1.0	.96	.85	.91	.85	.85	3.6	28	11	2.1	1.1	1.2
24	1.1	.95	.81	.91	.85	.85	3.1	32	10	2.1	1.1	1.0
25	1.1	.91	.77	.91	.85	.85	2.9	37	9.1	2.0	1.0	.96
26	1.0	.91	.74	.91	.85	.87	2.8	40	8.3	2.0	.98	.86
27	.96	.91	.76	.91	.85	.93	2.7	45	7.7	2.0	.96	.86
28	.96	.87	.79	.91	.85	.91	3.1	45	7.4	2.0	.94	.87
29	.96	.86	.82	.91	.85	.91	3.9	43	7.5	2.1	.97	.88
30	1.0	.87	.85	.91	---	.91	5.9	39	6.5	1.9	.96	.86
31	1.1	---	.87	.91	---	.91	---	32	---	1.8	.96	---
TOTAL	30.65	31.54	27.31	27.74	25.00	26.58	82.07	743.5	571.5	96.9	40.07	34.85
MEAN	.99	1.05	.88	.89	.86	.86	2.74	24.0	19.0	3.13	1.29	1.16
MAX	1.7	2.3	1.0	.91	.91	.93	5.9	52	34	5.8	1.7	3.3
MIN	.85	.80	.74	.85	.85	.78	.92	4.9	6.5	1.8	.94	.82
AC-FT	61	63	54	55	50	53	163	1470	1130	192	79	69

CAL YR 1987	TOTAL 1211.59	MEAN 3.32	MAX 24	MIN .74	AC-FT 2400
WTR YR 1988	TOTAL 1737.71	MEAN 4.75	MAX 52	MIN .74	AC-FT 3450

09255400 EAST FORK SAVERY CREEK NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to September 1988 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April to July 1986, April to June 1987.

SUSPENDED-SEDIMENT DISCHARGE: April to July 1986, April to June 1987.

INSTRUMENTATION.--Pumping sampler, April to July 1986, April to June 1987. All bedload samples were collected using a Helley-Smith type sampler of sheet-metal construction, 3.22 flare, 3 inch square nozzle, and equipped with 0.25 mm mesh collection bag.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean during period of operation, 132 microsiemens, Apr. 22, 1987; minimum daily mean during period of operation, 60 microsiemens, June 10, 1986.

SEDIMENT CONCENTRATION: Maximum daily mean during period of operation, 112 mg/L, May 21, 1986; minimum daily mean during period of operation, 4 mg/L, May 15, 1986, June 8, 1987.

SEDIMENT LOAD: Maximum daily mean during period of operation, 22 tons, June 10, 1986; minimum daily mean during period of operation, 0.09 ton, June 8, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
APR										
30...	1030	0.5	11.0	21		10.0	1.50	8.6	0.01	6
MAY										
12...	1000	1.5	11.7	23		10.0	1.71	14	0.02	13
21...	1035	2.5	19.0	18		10.0	2.28	39	0.98	2
21...	1135	--	19.0	18		10.0	2.27	38	0.61	2
JUN										
01...	1435	--	18.0	18		10.0	2.44	54	6.7	3
01...	1515	--	18.6	18		10.0	2.48	57	7.3	3
01...	1850	9.5	18.0	34		10.0	2.56	64	6.6	3
01...	1930	--	18.0	34		10.0	2.56	64	7.4	2
01...	2315	--	18.9	18		10.0	2.52	60	1.6	2
02...	0245	--	18.0	34		10.0	2.46	60	3.8	2
02...	0330	--	18.0	34		10.0	2.46	60	3.3	2
02...	0650	--	18.6	18		10.0	2.44	59	2.4	2
02...	0750	2.0	18.6	18		10.0	2.43	58	2.3	2
02...	1205	--	18.9	18		10.0	2.41	56	3.3	2
12...	1855	9.5	18.0	17		10.0	2.38	48	0.45	2
12...	1925	9.5	18.0	17		10.0	2.38	48	0.75	2
19...	1005	--	15.9	16		10.0	2.23	39	0.78	4
19...	1040	--	15.9	16		10.0	2.23	39	0.34	2
JUL										
02...	1515	13.5	11.3	11		10.0	1.74	14	0.01	5

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
APR									
30...	13	36	65	87	100	--	--	--	--
MAY									
12...	19	41	63	81	92	100	--	--	--
21...	3	10	22	35	47	58	69	100	--
21...	3	12	29	48	62	100	--	--	--
JUN									
01...	4	12	24	37	54	71	85	100	--
01...	4	11	21	33	46	60	81	100	--
01...	4	11	19	30	43	53	66	86	100
01...	4	11	22	37	55	69	86	100	--
01...	3	13	28	41	52	66	77	100	--
02...	3	8	18	32	45	59	77	100	--
02...	3	7	14	27	45	61	88	100	--
02...	3	8	18	34	51	69	88	100	--
02...	3	7	18	31	45	58	75	87	100
02...	3	8	15	26	38	49	70	81	100
12...	5	16	25	35	47	54	65	100	--
12...	4	12	23	36	52	63	78	100	--
19...	6	17	39	57	69	81	90	100	--
19...	4	16	48	74	87	95	100	--	--
JUL									
02...	10	48	81	90	100	--	--	--	--

GREEN RIVER BASIN

09255400 EAST FORK SAVERY CREEK NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
APR									
29...	1315	--	12.5	24	10.0	1.66	15	0.15	10
29...	1630	--	12.5	24	10.0	1.69	16	0.46	12
MAY									
08...	1255	--	11.5	20	10.0	1.70	17	0.18	8
08...	1605	6.0	11.5	21	10.0	1.74	18	0.60	9
08...	1930	7.0	11.8	21	10.0	1.79	20	0.38	11
09...	0105	4.0	11.8	21	10.0	1.76	19	0.37	7
09...	0715	4.0	11.5	21	10.0	1.73	18	0.23	5
09...	1250	7.0	11.5	21	10.0	1.73	18	0.08	6
09...	1525	7.0	11.6	21	10.0	1.80	20	0.32	6
09...	1815	7.0	11.8	21	10.0	1.82	21	0.59	7
09...	2400	5.5	11.7	21	10.0	1.82	21	0.57	4
10...	0615	5.0	11.5	21	10.0	1.78	20	0.35	5
20...	1140	6.5	11.9	12	10.0	1.79	19	0.18	4
29...	1335	5.5	11.8	15	10.0	1.67	14	0.06	2
JUN									
11...	1355	13.5	12.0	16	10.0	1.48	7.6	0.0	6

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
APR									
29...	17	27	74	93	99	100	--	--	--
29...	19	28	65	84	91	93	97	100	--
MAY									
08...	13	19	67	88	97	100	--	--	--
08...	15	22	61	85	94	97	99	100	--
08...	18	25	60	85	97	99	99	100	--
09...	11	17	51	78	92	98	100	--	--
09...	9	14	48	78	93	99	100	--	--
09...	12	16	56	82	94	99	100	--	--
09...	10	15	50	81	92	97	99	100	--
09...	12	19	53	82	94	99	99	100	--
09...	8	13	47	74	87	93	94	94	100
10...	9	13	47	77	92	99	99	100	--
20...	6	10	30	61	87	96	99	100	--
29...	5	8	28	65	92	99	100	--	--
JUN									
11...	12	25	69	86	97	100	--	--	--

09255400 EAST FORK SAVERY CREEK NEAR ENCAMPMENT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
MAY											
13...	1615	--	10.8	22	10.0	1.71	17	258	12	2.4	2
13...	1640	--	10.8	22	10.0	1.73	18	258	13	1.0	2
17...	1410	4.5	18.0	31	10.0	2.09	37	218	22	1.0	2
17...	1445	4.5	18.0	31	10.0	2.11	38	218	22	1.6	0.9
25...	1445	--	15.5	31	10.0	2.07	37	66	6.6	1.1	2
25...	1520	7.5	15.5	31	10.0	2.09	38	66	6.8	1.7	1
25...	1835	--	18.0	21	10.0	2.18	42	88	10	1.7	0.9
25...	1905	6.5	18.0	21	10.0	2.18	42	88	10	1.1	1
25...	2320	4.0	16.0	31	10.0	2.13	39	73	7.7	1.0	2
25...	2355	4.0	16.0	31	10.0	2.12	38	73	7.5	0.86	1
26...	0720	2.5	19.0	32	10.0	2.08	36	44	4.3	1.0	1
26...	0800	2.5	19.0	32	10.0	2.08	36	44	4.3	0.82	0.9
JUN											
21...	1720	--	11.7	10	10.0	--	12	19	0.62	0.04	1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
MAY										
13...	5	16	56	79	90	96	99	100	--	--
13...	5	15	51	75	90	97	100	--	--	--
17...	5	11	39	61	78	89	98	100	--	--
17...	3	8	35	55	71	82	88	89	92	100
25...	4	11	47	73	85	91	95	100	--	--
25...	2	7	39	66	80	87	93	98	100	--
25...	2	5	28	51	65	72	79	88	100	--
25...	3	7	35	59	74	82	88	92	100	--
25...	3	6	54	83	93	97	99	100	--	--
25...	3	6	45	76	89	95	99	100	--	--
26...	2	5	37	64	75	80	86	93	100	--
26...	2	5	38	66	78	83	87	97	100	--
JUN										
21...	2	4	52	79	90	100	--	--	--	--

GREEN RIVER BASIN

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 September 1988 (discontinued).

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: Nov. 15-19, Dec. 12-31, Apr. 8-12, May 8, 9, and Sept. 29, 30. Records good except those for estimated daily discharges and March and April, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--5 years (water years, 1957, 1958, 1986-88), 16.2 ft³/s, 11,740 acre-ft/yr.

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 and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 18	2230	123	3.05	June 6	1700	*207	*3.51
May 28	1800	193	3.41				

Minimum daily discharge, 1.5 ft³/s, Dec. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.9	2.0	1.9	1.9	1.9	2.0	13	75	14	3.2	2.1
2	1.9	5.1	2.1	1.9	1.9	2.0	2.2	11	71	12	3.1	2.1
3	1.9	3.4	2.1	1.9	1.9	2.0	2.5	11	80	12	3.1	2.0
4	1.9	2.7	2.1	1.9	1.9	2.0	2.5	9.8	120	11	3.0	2.0
5	1.9	2.4	2.1	1.9	1.9	1.9	2.3	11	166	10	2.8	2.0
6	1.9	2.5	2.1	2.0	1.9	1.9	2.4	13	178	9.5	2.9	2.1
7	1.9	2.4	2.1	2.0	1.9	1.9	4.4	11	163	8.6	3.1	2.1
8	1.9	2.3	2.0	2.0	1.9	1.9	4.1	10	144	7.7	2.7	2.1
9	1.9	2.3	2.0	2.0	1.9	1.9	3.3	11	129	7.2	2.6	2.1
10	1.9	2.6	2.1	2.0	1.9	2.0	2.7	12	119	6.8	2.6	2.2
11	1.8	2.4	2.0	2.0	1.9	1.9	3.4	14	110	6.5	2.5	4.9
12	1.9	2.4	1.9	1.9	1.9	1.8	4.3	18	94	6.3	2.5	3.4
13	2.7	2.4	1.7	1.9	1.9	1.9	5.3	27	78	5.7	2.4	3.5
14	3.0	2.2	1.5	1.9	1.9	1.9	6.1	38	67	5.5	2.4	3.6
15	2.3	2.0	1.6	2.0	1.9	1.9	7.6	44	62	5.3	2.3	3.3
16	2.2	1.7	1.7	2.0	1.9	1.9	9.3	53	58	5.0	2.5	2.9
17	2.1	1.8	1.8	2.0	1.9	1.9	11	71	54	4.8	2.3	2.6
18	2.1	1.9	1.8	2.0	1.9	1.9	11	107	50	4.6	2.2	2.5
19	2.0	2.0	1.7	2.0	1.9	1.9	12	97	45	4.4	2.1	2.6
20	2.0	2.1	1.7	1.9	1.9	1.9	12	71	40	4.3	2.1	2.6
21	2.3	2.1	1.7	1.9	1.9	2.1	11	60	35	4.1	2.6	2.6
22	2.3	2.1	1.8	1.9	1.9	2.1	9.0	57	35	4.0	2.4	3.2
23	2.5	2.1	1.8	1.9	1.9	2.0	9.4	61	30	3.9	2.2	2.9
24	2.5	2.1	1.7	1.9	1.9	2.0	7.3	73	26	3.8	2.2	2.7
25	2.7	2.1	1.6	1.9	1.9	1.9	6.2	91	23	3.7	2.2	2.7
26	2.3	2.1	1.6	1.9	1.9	2.1	6.8	116	20	3.6	2.1	2.6
27	2.1	2.0	1.7	1.9	1.9	2.4	6.0	145	19	3.5	2.1	2.7
28	2.2	1.9	1.8	1.9	1.9	2.1	6.4	155	21	3.5	2.1	2.8
29	2.2	1.9	1.8	1.9	1.9	2.1	7.5	157	18	3.6	2.1	2.8
30	2.5	1.9	1.9	2.0	---	2.1	10	133	15	3.4	2.1	2.8
31	2.5	---	1.9	2.0	---	2.0	---	99	---	3.2	2.1	---
TOTAL	67.2	69.8	57.4	60.2	55.1	61.2	190.0	1799.8	2145	191.5	76.6	80.5
MEAN	2.17	2.33	1.85	1.94	1.90	1.97	6.33	58.1	71.5	6.18	2.47	2.68
MAX	3.0	5.1	2.1	2.0	1.9	2.4	12	157	178	14	3.2	4.9
MIN	1.8	1.7	1.5	1.9	1.9	1.8	2.0	9.8	15	3.2	2.1	2.0
AC-FT	133	138	114	119	109	121	377	3570	4250	380	152	160

CAL YR 1987 TOTAL 3476.5 MEAN 9.52 MAX 106 MIN 1.5 AC-FT 6900
WTR YR 1988 TOTAL 4854.3 MEAN 13.3 MAX 178 MIN 1.5 AC-FT 9630

09255900 BIG SANDSTONE CREEK NEAR SAVERY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to September 1988 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May to July 1986, April to June 1987.

SUSPENDED-SEDIMENT DISCHARGE: May to July 1986, April to June 1987.

INSTRUMENTATION.--Pumping sampler, May to July 1986, April to June 1987. All bedload samples were collected using a Helley-Smith type sampler of sheet-metal construction, 3.22 flare, 3 inch square nozzle, and equipped with 0.25 mm mesh collection gab.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean during period of operation, 64 microsiemens, June 6, 1987; minimum daily mean during period of operation, 30 microsiemens, June 1, 7, 1986.

SEDIMENT CONCENTRATION: Maximum daily mean during period of operation, 69 mg/L, May 21, 1986; minimum daily mean during period of operation, 1 mg/L, June 20, 22, 23, 24, 25, 26, 1986, May 24, 25, 26, 1987.

SEDIMENT LOAD: Maximum daily mean during period of operation, 35 tons, June 2, 1986; minimum daily mean during period of operation, 0.14 ton, May 24, 25, 26, 1987.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM
MAY										
12...	1320	3.0	18.5	19	10.0	2.22	23	0.0	0.5	5
21...	1400	3.0	28.0	25	10.0	2.94	99	0.22	0.3	0.6
21...	1505	--	28.0	25	10.0	3.00	108	0.15	0.5	0.9
JUN										
02...	1345	--	44.0	14	10.0	3.59	212	2.3	0.9	1
02...	1410	--	44.0	15	10.0	3.61	216	2.5	1	2
02...	1730	--	44.0	15	10.0	3.77	252	5.9	0.8	1
02...	1810	--	44.0	15	10.0	3.80	259	3.5	0.4	0.6
02...	2100	--	44.0	15	10.0	3.80	259	4.6	0.2	0.4
02...	2140	--	44.0	15	10.0	3.76	250	4.5	0.4	0.6
03...	0200	--	44.0	15	10.0	3.66	227	2.7	0.2	0.3
03...	0230	--	44.0	15	10.0	3.65	225	4.8	0.2	0.2
03...	0555	--	44.0	15	10.0	3.62	218	1.0	0.7	1
03...	0630	--	44.0	15	10.0	3.62	218	0.28	0	1
03...	0925	--	44.0	15	10.0	3.59	212	0.92	0.2	0.4
03...	1005	--	44.0	15	10.0	3.57	207	0.47	0.4	0.8
11...	1345	7.5	29.6	14	10.0	3.34	155	1.8	0.8	2
11...	1435	7.5	29.5	14	10.0	3.35	157	2.0	0.3	0.7
19...	1550	8.0	30.5	29	10.0	3.19	144	1.5	0.5	0.8
19...	1655	--	30.5	29	10.0	3.21	148	0.47	0.6	1
JUL										
02...	0930	5.0	18.4	18	10.0	2.34	36	0.01	2	4

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
MAY									
12...	13	45	69	100	--	--	--	--	--
21...	1	3	10	21	33	42	100	--	--
21...	2	10	18	25	38	56	63	100	--
JUN									
02...	2	11	25	40	57	84	100	--	--
02...	3	16	31	42	55	71	100	--	--
02...	2	16	29	37	44	53	62	80	100
02...	1	10	16	21	28	38	69	100	--
02...	0.5	1	4	8	17	29	44	67	100
02...	0.9	4	8	15	24	47	78	100	--
03...	0.4	2	7	12	20	32	60	100	--
03...	0.4	1	3	6	11	23	39	100	--
03...	2	25	57	78	89	98	100	--	--
03...	3	18	41	64	78	100	--	--	--
03...	0.6	6	18	42	65	83	92	100	--
03...	2	31	67	86	94	100	--	--	--
11...	2	19	36	48	56	68	81	100	--
11...	1	7	14	21	30	43	59	100	--
19...	1	5	14	25	42	60	80	100	--
19...	2	11	26	42	54	69	93	100	--
JUL									
02...	4	24	58	80	87	100	--	--	--

GREEN RIVER BASIN

09255900 BIG SANDSTONE CREEK NEAR SAVERY, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
APR									
22...	1315	7.0	9.50	17	10.0	1.99	13	0.03	2
29...	1250	4.0	28.0	26	10.0	2.38	33	0.04	5
29...	1710	--	28.0	26	10.0	2.43	37	0.04	5
MAY									
07...	1735	6.0	27.5	25	10.0	2.62	59	0.08	3
08...	1010	2.0	32.0	30	10.0	2.55	52	0.07	2
08...	1835	5.5	29.0	31	10.0	2.67	65	0.12	3
09...	0715	2.0	32.0	30	10.0	2.62	59	0.10	1
09...	1240	6.0	31.0	30	10.0	2.63	60	0.04	1
09...	1650	5.5	32.0	30	10.0	2.70	69	0.19	1
09...	2135	3.0	32.0	30	10.0	2.67	65	0.05	4
10...	0735	2.0	32.0	30	10.0	2.62	59	0.02	3
19...	1430	7.0	32.0	31	10.0	2.80	85	0.04	0
29...	0910	3.0	31.0	30	10.0	2.38	38	0.0	3
JUN									
10...	1415	9.5	31.0	29	10.0	2.26	28	0.0	3

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM
APR								
22...	3	4	15	29	63	96	100	--
29...	9	13	56	87	95	96	100	--
29...	9	15	55	83	89	92	100	--
MAY								
07...	4	6	40	74	88	94	100	--
08...	4	6	29	68	92	100	--	--
08...	6	10	41	84	98	100	--	--
09...	2	4	30	72	91	95	96	100
09...	3	4	34	72	89	91	100	--
09...	2	4	34	73	88	93	98	100
09...	6	10	48	84	96	100	--	--
10...	5	7	46	87	99	100	--	--
19...	8	13	50	80	90	94	100	--
29...	7	15	64	83	89	89	100	--
JUN								
10...	9	21	55	91	100	--	--	--

GREEN RIVER BASIN

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09255900 BIG SANDSTONE CREEK NEAR SAVERY, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
MAY										
13...	1410	3.5	27.5	23	10.0	2.23	25	30	2.0	0.09
13...	1445	--	27.5	23	10.0	2.23	26	30	2.1	0.04
17...	1345	3.0	31.9	30	10.0	2.68	66	15	2.7	0.13
25...	1730	--	29.0	28	10.0	2.89	108	--	--	0.33
29...	1520	5.5	32.0	31	10.0	3.30	167	41	18	2.2
JUN										
22...	1110	--	29.5	28	10.0	--	32	7	0.60	0.01

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
MAY										
13...	2	3	6	26	63	89	100	--	--	--
13...	2	4	10	27	47	79	100	--	--	--
17...	0.5	2	4	31	69	91	100	--	--	--
25...	2	5	9	37	68	87	100	--	--	--
29...	1	2	5	29	62	79	85	88	92	100
JUN										
22...	0	0	0	31	69	88	100	--	--	--

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 Saverly.

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. 16 to Mar. 23 and Mar. 29-31. 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.--32 years (water years 1942-46, 1948-71, 1986-88), 105 ft³/s, 76,070 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. 8	0500	819	4.32	Apr. 30	2330	616	4.04
Apr. 19	0730	499	3.85	May 19	0330	*1,090	*4.70

Minimum daily discharge, 3.5 ft³/s, Sept. 4.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	34	20	22	35	34	75	479	303	44	8.2	7.6
2	15	35	21	23	34	36	90	321	257	40	7.0	6.9
3	15	41	23	24	32	35	121	247	234	37	7.2	4.2
4	15	40	25	25	32	34	244	247	243	39	9.7	3.5
5	15	34	27	27	32	34	186	263	301	36	9.8	4.4
6	15	33	27	28	33	33	174	344	307	34	8.2	7.3
7	16	36	26	29	34	33	343	246	292	30	9.5	7.0
8	16	39	22	28	35	31	512	203	271	27	11	6.6
9	18	34	20	28	35	32	229	268	238	25	11	7.6
10	18	32	22	28	35	33	148	390	210	24	9.8	4.6
11	18	34	21	30	35	32	148	441	199	24	8.9	13
12	18	32	19	31	34	31	191	497	191	23	8.4	28
13	20	32	18	32	33	30	263	608	168	22	6.8	24
14	31	34	16	32	32	32	289	669	150	20	5.8	23
15	33	36	16	32	32	33	288	604	132	17	6.1	25
16	27	25	17	32	32	32	374	609	120	16	7.8	23
17	25	24	18	31	32	33	429	643	109	15	9.8	17
18	24	23	19	30	32	35	358	905	104	14	9.4	16
19	24	24	19	29	32	38	463	1020	98	13	8.2	21
20	23	26	18	28	32	41	418	736	90	13	8.1	18
21	22	28	20	29	33	43	398	527	84	12	11	14
22	22	29	21	29	33	48	332	444	78	13	12	16
23	23	28	21	30	32	56	255	391	82	11	12	17
24	25	27	19	30	32	63	243	383	72	11	10	17
25	28	26	18	30	31	65	236	418	60	9.6	9.0	18
26	29	24	18	32	31	69	184	450	51	7.6	8.7	15
27	29	23	19	33	32	86	186	474	47	8.0	8.1	15
28	28	22	20	34	32	102	226	481	51	9.3	7.6	14
29	27	20	21	35	33	95	286	474	66	11	7.4	15
30	29	19	21	35	---	83	417	456	55	12	7.6	16
31	33	---	22	35	---	68	---	372	---	10	7.8	---
TOTAL	696	894	634	921	952	1450	8106	14610	4663	627.5	271.9	424.7
MEAN	22.5	29.8	20.5	29.7	32.8	46.8	270	471	155	20.2	8.77	14.2
MAX	33	41	27	35	35	102	512	1020	307	44	12	28
MIN	15	19	16	22	31	30	75	203	47	7.6	5.8	3.5
AC-FT	1380	1770	1260	1830	1890	2880	16080	28980	9250	1240	539	842
CAL YR 1987	TOTAL 30418.5	MEAN 83.3	MAX 757	MIN 8.0	AC-FT 60340							
WTR YR 1988	TOTAL 34250.1	MEAN 93.6	MAX 1020	MIN 3.5	AC-FT 67940							

09256000 SAVERY CREEK NEAR SAVERY, WY--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARD- NESS TOTAL (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT												
01...	0920	15	430	8.3	4.0	600	5.6	10.1	98	K1	200	62
31...	1115	33	418	8.3	7.0	596	11	9.3	98	39	200	62
DEC												
17...	1330	18	480	7.8	0.0	600	8.0	12.4	108	K4	260	84
FEB												
02...	1055	35	450	7.8	0.0	593	8.0	12.0	106	<1	220	67
MAR												
01...	1000	32	470	7.8	0.0	591	20	11.1	98	K1	230	71
22...	0900	40	410	8.1	2.0	610	80	12.0	109	K2	210	63
MAY												
12...	1620	427	210	8.3	14.5	597	100	7.9	99	<1	95	30
JUN												
07...	1545	284	132	8.1	15.0	594	45	7.6	97	K3	61	19
JUL												
13...	1330	22	320	8.0	24.0	608	4.3	7.9	119	100	150	45
AUG												
16...	1300	5.5	342	8.0	24.0	610	7.7	8.0	120	85	160	49

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

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 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)
OCT											
01...	10	11	0.4	3.3	160	49	4.0	0.2	22	257	0.35
31...	11	11	0.4	2.9	160	49	4.2	0.2	25	261	0.36
DEC											
17...	13	9.9	0.3	3.2	150	70	5.4	0.2	27	303	0.41
FEB											
02...	12	10	0.3	2.7	160	50	3.7	0.2	32	274	0.37
MAR											
01...	12	10	0.3	2.7	190	54	3.8	0.2	26	240	0.33
22...	12	11	0.3	2.4	160	55	4.2	0.2	20	264	0.36
MAY											
12...	4.8	4.5	0.2	1.5	83	17	<1.0	0.2	15	--	--
JUN											
07...	3.2	3.1	0.2	1.0	54	10	1.2	0.1	12	82	0.11
JUL											
13...	8.8	8.1	0.3	2.6	120	30	2.2	0.2	11	180	0.24
AUG											
16...	10	13	0.5	3.5	140	42	4.8	0.2	24	231	0.31

GREEN RIVER BASIN

09256000 SAVERY CREEK NEAR SAVERY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT											
01...	10.4	<0.1	<0.1	<0.01	--	0.3	<0.01	<1	6	0.24	--
31...	23.3	<0.1	<0.1	0.03	0.37	0.4	0.03	--	22	2.0	--
DEC											
17...	14.7	<0.1	<0.1	0.02	0.18	0.2	0.03	--	19	0.92	--
FEB											
02...	25.9	0.1	0.1	0.05	0.25	0.3	0.04	--	11	1.0	--
MAR											
01...	20.7	<0.1	0.2	0.05	0.15	0.2	0.05	--	17	1.5	--
22...	28.5	<0.1	0.1	0.02	0.28	0.3	0.08	--	66	7.1	--
MAY											
12...	--	<0.1	<0.1	0.05	0.35	0.4	0.06	<1	267	308	59
JUN											
07...	62.9	<0.1	<0.1	0.03	0.27	0.3	0.03	--	58	44	--
JUL											
13...	10.7	<0.1	<0.1	0.01	0.39	0.4	0.03	--	4	0.24	--
AUG											
16...	3.4	<0.1	0.1	0.02	0.38	0.4	0.02	--	4	0.06	--

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 21-24, July 5-12, and Aug. 17 to Sept. 26. Records fair except those for flow of less than 100 ft³/s, which are poor. 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. National Weather Service satellite telemeter at 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 19	1100	*4,850	*9.26	May 29	0500	3,760	8.08

Minimum daily discharge during period of record, 0.14 ft³/s, Oct. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.18	---	---	---	---	---	204	1950	2240	176	1.1	1.8
2	.14	---	---	---	---	---	233	1290	2030	122	.73	2.1
3	.19	---	---	---	---	---	340	1010	2130	91	.61	1.6
4	.18	---	---	---	---	---	560	949	2380	77	.73	1.4
5	.36	---	---	---	---	---	461	1110	2730	68	.73	.90
6	.76	---	---	---	---	---	429	1610	2740	48	.70	2.3
7	.59	---	---	---	---	---	697	1030	2630	36	.46	2.7
8	.59	---	---	---	---	---	1040	926	2430	27	.34	2.4
9	10	---	---	---	---	---	596	1020	2170	19	1.3	1.6
10	26	---	---	---	---	---	447	1220	1930	17	1.6	1.0
11	27	---	---	---	---	---	429	1250	1840	18	1.1	4.0
12	17	---	---	---	---	---	546	1570	1670	13	1.0	13
13	17	---	---	---	---	---	734	2140	1450	9.7	2.7	12
14	33	---	---	---	---	---	858	2700	1250	7.3	2.2	13
15	59	---	---	---	---	---	955	2870	1110	6.4	2.4	12
16	50	---	---	---	---	---	1200	2990	1010	5.7	3.1	8.1
17	41	---	---	---	---	---	1450	3240	925	4.5	3.3	5.6
18	38	---	---	---	---	---	1200	4260	847	5.3	3.1	4.7
19	38	---	---	---	---	---	1520	4470	810	4.5	2.7	5.1
20	39	---	---	---	---	---	1400	3560	768	4.1	2.4	4.7
21	35	---	---	---	---	---	1480	2730	716	4.3	2.7	4.6
22	34	---	---	---	---	---	1250	2400	640	4.1	4.9	5.2
23	37	---	---	---	---	---	913	2420	607	3.9	3.2	6.6
24	44	---	---	---	---	---	797	2570	476	3.5	2.7	7.8
25	58	---	---	---	---	---	770	2680	369	3.4	2.4	7.1
26	76	---	---	---	---	---	606	2790	307	3.0	2.3	6.5
27	64	---	---	---	---	---	616	3070	282	2.9	2.1	6.3
28	57	---	---	---	---	---	721	3300	243	2.6	2.0	6.4
29	51	---	---	---	---	---	894	3430	290	2.4	1.8	7.4
30	52	---	---	---	---	---	1420	3340	221	2.9	1.8	8.5
31	69	---	---	---	---	236	---	2650	---	2.9	1.8	---
TOTAL	974.99	---	---	---	---	---	24766	72545	39241	795.4	60.00	166.40
MEAN	31.5	---	---	---	---	---	826	2340	1308	25.7	1.94	5.55
MAX	76	---	---	---	---	---	1520	4470	2740	176	4.9	13
MIN	.14	---	---	---	---	---	204	926	221	2.4	.34	.90
AC-FT	1930	---	---	---	---	---	49120	143900	77830	1580	119	330

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

INSTRUMENTATION.--All bedload samples were collected using a Helley-Smith type sampler of sheet-metal construction, 3.22 flare, 3 inch square nozzle, and equipped with 0.25 mm mesh collection bag.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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)
AUG 03...	0840	0.64	18.5	<0.01	0.01	<0.01	<0.01	<0.01	<0.01
SEP 27...	1825	6.2	15.0	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

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	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
MAY 14...	1030	23	28	35	58	76	94	100
17...	1630	25	31	39	62	83	99	100
18...	1710	24	30	37	61	84	100	100

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
MAY											
11...	2005	--	98.0	20	10.0	5.84	1130	189	577	55	0.2
11...	2055	--	98.0	20	10.0	5.84	1130	189	577	43	0.2
12...	0915	--	106	22	10.0	6.81	1800	371	1800	54	0.2
12...	1010	--	106	19	10.0	6.81	1800	371	1800	69	0.3
14...	0915	--	122	24	10.0	8.12	3200	873	7540	67	0.6
14...	1030	--	122	24	10.0	8.03	3110	873	7330	121	0.4
17...	1210	--	125	26	10.0	8.08	3490	386	3640	71	0.3
17...	1315	--	125	26	10.0	7.97	3380	386	3520	277	0.1
17...	1630	--	120	26	10.0	7.76	3170	357	3060	246	0.2
17...	1730	--	120	26	10.0	7.68	3100	334	2800	106	0.2
18...	1610	--	130	28	10.0	9.11	4900	791	10500	73	0.5
18...	1710	--	130	28	10.0	9.04	4820	791	10300	44	0.7
JUN											
17...	1335	15.5	111	22	10.0	--	1060	--	--	48	0.1
17...	1420	15.5	111	22	10.0	--	1060	87	249	60	0.1

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
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MAY										
11...	0.6	7	72	94	98	100	--	--	--	--
11...	0.5	6	56	97	99	100	--	--	--	--
12...	0.8	6	28	70	93	99	100	--	--	--
12...	1	6	46	88	97	99	100	--	--	--
14...	2	12	80	98	99	100	--	--	--	--
14...	1	6	45	76	88	94	98	100	--	--
17...	1	4	72	78	92	95	98	100	--	--
17...	0.5	3	29	86	94	97	98	99	100	--
17...	0.4	2	25	76	94	98	99	100	--	--
17...	0.7	5	37	74	94	98	100	--	--	--
18...	2	8	52	71	76	79	83	89	96	100
18...	2	10	65	90	96	98	99	100	--	--
JUN										
17...	0.2	2	48	95	100	--	--	--	--	--
17...	0.2	1	33	91	99	100	--	--	--	--

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, Colo., 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: Oct. 29 to Apr. 2, and Sept. 14-15. 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.--35 years, 10.7 ft³/s; 7,750 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)
May 18	0445	94	3.86	June 5	2130	*105	*3.95

Minimum daily discharge, 0.59 ft³/s, July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.9	1.3	2.4	3.0	3.2	5.0	22	14	1.7	4.7	1.1
2	2.3	1.8	1.3	2.4	3.0	3.3	9.0	14	15	5.0	5.0	1.0
3	2.3	1.7	1.4	2.5	3.1	3.4	13	13	29	4.9	4.8	.99
4	2.2	1.6	1.4	2.6	3.2	3.5	8.3	12	41	5.3	5.5	.97
5	2.1	1.5	1.4	2.7	3.1	3.6	6.6	13	68	5.1	5.0	1.0
6	2.2	1.4	1.4	2.8	3.0	3.5	11	15	79	4.9	4.1	.63
7	2.2	1.3	1.4	2.8	3.0	3.4	31	8.4	72	6.5	5.1	.62
8	2.2	1.3	1.5	2.9	3.0	3.3	26	12	62	4.4	4.8	.75
9	2.2	1.2	1.6	3.0	2.9	3.2	10	31	53	4.2	4.0	.85
10	2.3	1.2	1.6	3.0	2.8	3.2	7.4	21	53	4.3	3.5	1.9
11	2.4	1.2	1.6	3.0	2.9	3.1	11	13	51	4.2	3.2	5.0
12	2.3	1.2	1.6	3.0	2.9	3.1	21	15	42	8.7	3.0	3.8
13	3.0	1.3	1.6	3.0	2.9	3.0	27	19	34	6.9	3.0	4.1
14	4.7	1.2	1.5	3.0	2.9	2.9	27	25	25	2.8	2.7	3.4
15	2.6	1.4	1.5	3.1	2.9	2.8	29	22	21	2.5	2.4	2.8
16	2.3	1.4	1.6	3.0	3.0	2.8	31	21	20	2.3	2.7	2.3
17	2.1	1.3	1.7	2.9	3.0	2.8	26	27	19	2.1	2.6	2.1
18	2.2	1.2	1.8	2.9	3.0	2.9	22	65	16	2.0	2.3	1.7
19	2.2	1.2	1.8	3.0	3.1	3.0	33	63	14	4.1	2.1	1.6
20	1.7	1.1	1.9	3.0	3.1	2.9	25	26	12	3.6	1.9	1.5
21	2.1	1.2	2.0	3.0	3.0	2.9	24	16	10	1.4	2.5	1.6
22	2.2	1.3	2.0	2.9	3.0	2.8	22	13	10	.85	2.9	3.3
23	2.3	1.4	2.0	2.9	3.0	2.8	19	11	6.8	.75	1.9	3.6
24	3.1	1.5	2.1	2.9	3.0	2.9	16	18	5.1	.71	1.5	2.1
25	4.7	1.4	2.1	2.9	3.0	3.0	16	23	3.2	.66	1.3	1.8
26	3.4	1.3	2.1	3.0	3.0	3.1	13	22	2.5	.59	1.3	1.7
27	2.9	1.2	2.1	3.1	3.0	3.6	10	32	2.1	4.3	1.3	1.7
28	2.6	1.2	2.2	3.0	3.1	4.0	11	34	2.2	4.9	1.3	2.0
29	2.2	1.2	2.3	3.0	3.1	4.2	15	38	1.9	6.5	1.1	2.0
30	2.1	1.2	2.4	3.0	---	4.6	19	38	1.5	5.6	1.1	2.0
31	2.0	---	2.4	3.0	---	4.8	---	18	---	5.1	1.1	---
TOTAL	77.3	40.3	54.6	89.7	87.0	101.6	544.3	720.4	785.3	116.86	89.7	59.91
MEAN	2.49	1.34	1.76	2.89	3.00	3.28	18.1	23.2	26.2	3.77	2.89	2.00
MAX	4.7	1.9	2.4	3.1	3.2	4.8	33	65	79	8.7	5.5	5.0
MIN	1.7	1.1	1.3	2.4	2.8	2.8	5.0	8.4	1.5	.59	1.1	.62
AC-FT	153	80	108	178	173	202	1080	1430	1560	232	178	119

CAL YR 1987 TOTAL 2806.47 MEAN 7.69 MAX 83 MIN .10 AC-FT 5570
WTR YR 1988 TOTAL 2766.97 MEAN 7.56 MAX 79 MIN .59 AC-FT 5490

GREEN RIVER BASIN

09259000 MUDDY CREEK NEAR BAGGS, WY

LOCATION.--Lat 41°02'49", long 107°39'01", in SE1/4 SE1/4 SE1/4 sec.32, T.13 N., R.91 W., Carbon County, Hydrologic Unit 14050004, on right bank 0.7 mi upstream from mouth, and 0.7 mi north of Baggs.

DRAINAGE AREA.--1,257 mi², approximately (revised).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1915, April to July 1916, May to September 1918, October 1987 to September 1988.

GAGE.--Water stage recorder. Elevation of gage is 6,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1987, nonrecording gage at same site but different datum.

REMARKS.--Estimated daily discharges: Nov. 16 to Jan. 5, Mar. 2-4, 12-20, June 27 to July 1, and Aug. 20 to Sept. 11. Records good except those for Nov. 16 to Jan. 5, Mar. 1-20, and June 22 to Sept. 27, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 738 ft³/s, Mar. 22, 1988, gage height, 10.50 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 738 ft³/s, Mar. 22, gage height, 10.50 ft; minimum daily, 0.37 ft³/s, Feb. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	25	2.9	1.1	.60	1.3	64	53	33	7.4	1.0	.57
2	4.4	25	3.3	1.0	.60	80	55	68	32	7.1	.97	.57
3	4.9	23	3.7	.98	.53	115	56	96	31	5.3	.73	.58
4	3.9	17	4.4	.97	.49	104	78	78	27	6.6	.73	.60
5	3.9	14	5.2	.95	.51	84	112	70	27	4.7	1.0	.60
6	5.2	14	6.0	.93	.49	102	113	64	25	4.1	.77	.63
7	5.5	14	6.6	.87	.53	71	89	53	21	7.1	.72	.66
8	6.3	17	7.0	.87	.53	78	96	65	18	11	.61	.68
9	7.5	17	6.2	.87	.53	88	118	68	17	12	.57	.70
10	9.4	16	6.8	.85	.51	78	114	52	18	11	.49	.74
11	9.4	16	5.5	.73	.49	46	73	65	17	9.1	.47	.77
12	8.5	17	4.3	.78	.46	22	61	97	14	10	.63	.89
13	11	18	3.2	.78	.43	15	53	102	15	7.4	.81	1.1
14	12	18	2.4	.78	.43	24	54	96	18	7.6	.59	.92
15	16	16	2.0	.78	.43	21	61	88	18	6.0	.80	.86
16	9.5	8.9	2.0	.78	.41	18	64	95	25	3.7	.96	2.8
17	5.1	7.0	2.3	.73	.37	16	63	96	17	3.6	.73	5.9
18	4.2	5.7	2.4	.73	.37	20	77	95	16	2.4	.74	5.2
19	3.7	4.9	2.2	.71	.43	27	107	98	16	1.7	.72	4.2
20	3.6	5.8	2.1	.69	.49	100	102	109	16	2.7	.78	2.7
21	3.3	7.0	2.0	.69	.51	351	119	108	14	5.7	.83	2.1
22	5.5	8.1	1.8	.69	.49	620	115	86	15	3.5	.76	1.9
23	11	8.8	1.7	.69	.46	632	136	62	13	2.8	.70	2.0
24	13	8.8	1.6	.64	.49	501	104	51	13	2.6	.65	3.6
25	12	8.0	1.5	.60	.69	298	78	48	8.9	2.7	.60	3.6
26	12	6.7	1.4	.64	.80	208	75	45	5.7	2.8	.58	3.9
27	14	5.8	1.4	.73	.64	233	73	43	5.2	2.5	.57	4.1
28	14	4.8	1.3	.58	.71	206	62	40	6.0	2.0	.57	3.9
29	16	4.0	1.3	.56	.75	172	59	37	9.7	1.5	.56	4.0
30	18	3.2	1.4	.56	---	123	54	35	8.3	1.4	.56	4.2
31	21	---	1.3	.60	---	83	---	34	---	1.1	.56	---
TOTAL	277.4	364.5	97.2	23.86	15.17	4537.3	2485	2197	519.8	159.1	21.76	64.97
MEAN	8.95	12.1	3.14	.77	.52	146	82.8	70.9	17.3	5.13	.70	2.17
MAX	21	25	7.0	1.1	.80	632	136	109	33	12	1.0	5.9
MIN	3.3	3.2	1.3	.56	.37	1.3	53	34	5.2	1.1	.47	.57
AC-FT	550	723	193	47	30	9000	4930	4360	1030	316	43	129

WTR YR 1988 TOTAL 10763.06 MEAN 29.4 MAX 632 MIN .37 AC-FT 21350

09259000 MUDDY CREEK NEAR BAGGS, WY--Continued

WATER-QUALITY DATA

PERIOD OF RECORD.--October 1987 to September 1988.

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE.--March to September 1988.

COOPERATION.--Records provided by the Wyoming Water Research Center and reviewed by the Geological Survey.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 20,000 mg/L, May 16; minimum daily mean for period of operation, 5 mg/L, Aug. 11.

SEDIMENT LOAD: Maximum daily, 31,400 tons, Mar. 23; minimum daily for period of operation, 0.01 ton on many days during August and September.

WATER QUALITY DISCHARGE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM	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	SEDI- MENT, SUS- PEN- DED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PEN- DED (T/DAY)
MAR												
21...	1615	450	3.5	45	55	65	83	93	99	100	16600	20200
22...	1315	730	4.0	46	56	67	86	94	99	100	19900	39200
29...	1150	195	0.5	--	--	--	--	--	--	--	9650	5080
30...	0800	138	0.0	--	--	--	--	--	--	--	5960	2220
31...	1900	84	3.5	--	--	--	--	--	--	--	3980	903
MAY												
13...	0735	--	--	--	--	--	--	--	--	--	3560	--
JUN												
07...	2120	--	--	--	--	--	--	--	--	--	1050	--
17...	1735	--	--	--	--	--	--	--	--	--	166	--
AUG												
02...	1850	--	--	--	--	--	--	--	--	--	16	--
SEP												
28...	0810	--	--	--	--	--	--	--	--	--	54	--

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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)
JANUARY			FEBRUARY			MARCH			
1	1.1	---	---	.60	---	---	1.3	---	---
2	1.0	---	---	.60	---	---	80	---	---
3	.98	---	---	.53	---	---	115	---	---
4	.97	---	---	.49	---	---	104	---	---
5	.95	---	---	.51	---	---	84	---	---
6	.93	---	---	.49	---	---	102	---	---
7	.87	---	---	.53	---	---	71	---	---
8	.87	---	---	.53	---	---	78	---	---
9	.87	---	---	.53	---	---	88	---	---
10	.85	---	---	.51	---	---	78	---	---
11	.73	---	---	.49	---	---	46	---	---
12	.78	---	---	.46	---	---	22	---	---
13	.78	---	---	.43	---	---	15	---	---
14	.78	---	---	.43	---	---	24	---	---
15	.78	---	---	.43	---	---	21	---	---
16	.78	---	---	.41	---	---	18	---	---
17	.73	---	---	.37	---	---	16	---	---
18	.73	---	---	.37	---	---	20	---	---
19	.71	---	---	.43	---	---	27	---	---
20	.69	---	---	.49	---	---	100	---	---
21	.69	---	---	.51	---	---	351	14600	15100
22	.69	---	---	.49	---	---	620	18200	30500
23	.69	---	---	.46	---	---	632	18400	31400
24	.64	---	---	.49	---	---	501	14800	20000
25	.60	---	---	.69	---	---	298	10200	8210
26	.64	---	---	.80	---	---	208	6950	3900
27	.73	---	---	.64	---	---	233	8050	5060
28	.58	---	---	.71	---	---	206	6450	3590
29	.56	---	---	.75	---	---	172	8900	4130
30	.56	---	---	---	---	---	123	6100	2030
31	.60	---	---	---	---	---	83	4700	1050
TOTAL	23.86	---	---	15.17	---	---	4537.3	---	---

GREEN RIVER BASIN

09259000 MUDDY CREEK NEAR BAGGS, WY--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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	64	4230	731	53	4100	587	33	4250	379
2	55	3440	511	68	4150	762	32	4950	428
3	56	3530	534	96	6100	1580	31	4050	339
4	78	5540	1170	78	9350	1970	27	2900	211
5	112	9060	2740	70	5100	964	27	2500	182
6	113	9170	2800	64	3800	657	25	2050	138
7	89	6620	1590	53	3700	529	21	1650	94
8	96	7340	1900	65	4950	869	18	1200	58
9	118	9720	3100	68	4400	808	17	700	32
10	114	9280	2860	52	3050	428	18	500	24
11	73	5060	997	65	5000	877	17	300	14
12	61	3960	652	97	14200	3720	14	150	5.7
13	53	3270	468	102	12300	3390	15	50	2.0
14	54	3360	490	96	16300	4220	18	640	31
15	61	3960	652	88	14100	3350	18	250	12
16	64	4230	731	95	20000	5130	25	450	30
17	63	4140	704	96	18400	4770	17	440	20
18	77	5440	1130	95	15800	4050	16	320	14
19	107	8510	2460	98	13700	3630	16	20	.86
20	102	7970	2190	109	13800	4060	16	290	13
21	119	9830	3160	108	11800	3440	14	220	8.3
22	115	9390	2920	86	6500	1510	15	180	7.3
23	136	11800	4330	62	18600	3110	13	160	5.6
24	104	8190	2300	51	14000	1930	13	250	8.8
25	78	5540	1170	48	10800	1400	8.9	190	4.6
26	75	5250	1060	45	13600	1650	5.7	200	3.1
27	73	5060	997	43	12000	1390	5.2	280	3.9
28	62	5050	845	40	10100	1090	6.0	220	3.6
29	59	3400	542	37	10800	1080	9.7	180	4.7
30	54	4950	722	35	7550	713	8.3	160	3.6
31	---	---	---	34	4750	436	---	---	---
TOTAL	2485	---	46456	2197	---	64100	519.8	---	2081.06
JULY			AUGUST			SEPTEMBER			
1	7.4	80	1.6	1.0	15	.04	.57	7	.01
2	7.1	130	2.5	.97	14	.04	.57	7	.01
3	5.3	210	3.0	.73	10	.02	.58	7	.01
4	6.6	270	4.8	.73	10	.02	.60	7	.01
5	4.7	440	5.6	1.0	15	.04	.60	7	.01
6	4.1	380	4.2	.77	10	.02	.63	8	.01
7	7.1	230	4.4	.72	10	.02	.66	8	.01
8	11	250	7.4	.61	8	.01	.68	9	.02
9	12	450	15	.57	7	.01	.70	9	.02
10	11	580	17	.49	6	.01	.74	10	.02
11	9.1	260	6.4	.47	5	.01	.77	10	.02
12	10	170	4.6	.63	8	.01	.89	13	.03
13	7.4	140	2.8	.81	11	.02	1.1	17	.05
14	7.6	100	2.1	.59	7	.01	.92	13	.03
15	6.0	170	2.8	.80	11	.02	.86	12	.03
16	3.7	80	.80	.96	14	.04	2.8	60	.45
17	3.6	20	.19	.73	10	.02	5.9	1240	20
18	2.4	49	.32	.74	10	.02	5.2	320	4.5
19	1.7	30	.14	.72	10	.02	4.2	220	2.5
20	2.7	57	.42	.78	10	.02	2.7	210	1.5
21	5.7	158	2.4	.83	12	.03	2.1	210	1.2
22	3.5	81	.77	.76	10	.02	1.9	200	1.0
23	2.8	60	.45	.70	9	.02	2.0	240	1.3
24	2.6	54	.38	.65	8	.01	3.6	290	2.8
25	2.7	57	.42	.60	7	.01	3.6	160	1.6
26	2.8	60	.45	.58	7	.01	3.9	100	1.1
27	2.5	51	.34	.57	7	.01	4.1	130	1.4
28	2.0	38	.21	.57	7	.01	3.9	190	2.0
29	1.5	26	.11	.56	7	.01	4.0	210	2.3
30	1.4	23	.09	.56	7	.01	4.2	210	2.4
31	1.1	17	.05	.56	7	.01	---	---	---
TOTAL	159.1	---	91.74	21.76	---	0.57	64.97	---	46.34

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.--Water years 1981 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN, DIS- SOLVED (MG/L)
OCT 01...	1235	0.90	635	8.2	14.0	610	11.2	137
FEB 01...	1720	91	378	8.2	0.0	600	11.4	99
MAY 12...	1410	1690	204	7.9	12.0	607	8.8	103
JUL 12...	1630	5.6	405	8.2	23.0	616	9.9	144

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- PHOROUS TOTAL (MG/L AS P)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
OCT 01...	<1	<0.1	<0.01	--	0.6	0.01	<1
FEB 01...	<1	0.1	0.04	0.16	0.2	0.03	<1
MAY 12...	420	<0.1	0.04	0.56	0.6	0.06	<1
JUL 12...	170	<0.1	<0.01	--	0.5	0.03	<1

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (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 22...	0800	639	17.0	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
JUL 12...	1630	5.6	23.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01

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. Prior to Oct. 1, 1986 at datum 3.0 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. 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 and 2,600 acres downstream from station.

AVERAGE DISCHARGE.--46 years, 196 ft³/s, 142,000 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, 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)
May 17	0200	1,200	5.73	June 5	0400	*1,240	*5.78
May 27	0200	1,120	5.69				

Minimum discharge, 21 ft³/s, Nov. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	57	e51	49	e47	48	54	254	438	134	63	45
2	58	57	51	e46	e46	49	53	200	383	122	59	44
3	58	57	51	e45	e46	47	58	191	452	112	71	43
4	57	55	51	46	e46	47	64	204	745	113	75	42
5	56	52	51	46	e46	e45	59	214	975	129	66	42
6	55	57	51	47	e48	e47	65	215	875	121	61	43
7	54	56	50	45	e48	47	79	181	710	103	64	42
8	54	55	e50	45	47	e47	82	172	613	106	61	41
9	54	53	e50	45	47	e47	70	157	547	128	58	41
10	53	57	e49	46	47	48	72	171	505	134	56	42
11	53	50	e48	45	48	e48	86	236	447	148	54	45
12	53	50	e48	e43	e46	e48	105	343	404	143	54	47
13	59	56	e48	e44	e44	e49	121	515	355	138	51	51
14	68	55	e48	e45	e46	e50	134	647	325	125	49	58
15	61	48	e48	e47	51	50	174	690	308	107	47	55
16	56	38	e49	e46	49	51	189	863	288	104	48	51
17	56	51	e48	e45	e46	50	197	1080	295	101	46	48
18	56	66	e46	48	e45	e49	200	873	285	103	45	45
19	54	75	e46	e49	e45	e51	202	622	271	105	45	44
20	51	60	e46	e50	e44	53	221	512	267	90	46	44
21	51	57	e46	e46	e42	e51	215	555	345	88	46	44
22	54	52	e46	e47	e42	e50	185	661	293	86	45	50
23	56	e52	e47	48	e42	49	159	777	275	83	43	51
24	61	e52	e47	48	e44	e50	158	817	251	82	41	47
25	61	53	e47	e47	e43	e49	147	822	227	80	54	45
26	57	56	e48	e45	e42	e47	129	860	237	80	59	44
27	55	e55	e48	e45	e42	e47	142	930	226	80	48	44
28	54	e54	e48	47	e43	47	165	843	197	80	46	45
29	54	e52	e48	47	46	e47	184	861	172	79	45	45
30	57	e52	49	47	---	e49	244	714	149	74	44	45
31	63	---	48	48	---	51	---	558	---	71	44	---
TOTAL	1748	1640	1502	1437	1318	1508	4013	16738	11860	3249	1634	1373
MEAN	56.4	54.7	48.5	46.4	45.4	48.6	134	540	395	105	52.7	45.8
MAX	68	75	51	50	51	53	244	1080	975	148	75	58
MIN	51	38	46	43	42	45	53	157	149	71	41	41
AC-FT	3470	3250	2980	2850	2610	2990	7960	33200	23520	6440	3240	2720

CAL YR 1987	TOTAL	61332	MEAN	168	MAX	1280	MIN	38	AC-FT	121700
WTR YR 1988	TOTAL	48020	MEAN	131	MAX	1080	MIN	38	AC-FT	95250

e Estimated

10015700 SULPHUR CREEK ABOVE RESERVOIR, NEAR EVANSTON, WY

LOCATION (REVISED).--Lat 41°07'45", long 110°48'21", in NE1/4 SE1/4 SW1/4 sec.2, T.13 N., R.119 W., Uinta County, Hydrologic Unit 16010101, on right bank 0.2 mi downstream from La Chapelle Creek, 3.3 mi upstream from Sulphur Creek Dam, and 12.8 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. October 1957 to October 1987 not equivalent because of inflow between sites.

REVISED RECORDS.--WRD UT-74-1: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,240 ft from topographic map. Prior to October 7, 1987 at site 1.3 mi downstream at different datum.

REMARKS.--Records poor. Several diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--30 years (water years 1958-87), 19.1 ft³/s, 13,840 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, 208 ft³/s, May 14, gage height, 46.76 ft; no flow many days during July, August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.7	e1.6	e1.2	e1.8	e3.5	e21	68	8.2	.96	.05	.00
2	1.8	2.7	e1.6	e1.2	e1.4	e3.9	22	56	6.5	.76	.00	.00
3	1.8	2.7	e1.5	e1.1	e1.3	e4.1	e30	71	7.3	.68	.16	.00
4	1.4	2.7	e1.4	e1.0	e1.0	e4.1	e34	91	11	.55	.21	.00
5	1.2	2.7	e1.5	e1.1	e.89	e4.4	e39	80	13	.39	.06	.00
6	1.2	2.7	e1.4	e1.2	e1.0	e4.3	e50	63	13	.27	.01	.00
7	1.2	2.7	e1.3	e1.4	e1.1	e4.1	e58	48	10	.22	.03	.00
8	.64	3.4	e1.2	e1.3	e1.4	e3.8	e65	50	8.4	.23	.00	.00
9	.14	3.6	e1.3	e1.4	e1.5	e4.3	e79	53	9.0	.29	.00	.00
10	.09	3.2	e1.4	e1.5	e1.4	e4.2	85	42	2.1	.48	.00	.00
11	.09	3.6	e1.3	e1.8	e1.3	e3.8	96	52	1.6	.23	.00	.00
12	.08	3.5	e1.2	e1.7	e1.3	e3.6	86	80	2.5	.11	.00	.00
13	.34	3.5	e1.1	e1.6	e1.1	e4.0	78	111	3.9	.07	.00	.00
14	1.0	3.9	e1.1	e1.5	e1.3	e4.0	67	112	3.4	.05	.00	.00
15	.84	5.2	e1.2	e1.6	e1.4	e4.0	66	95	2.3	.00	.00	.00
16	.38	2.5	e1.3	e1.7	e1.4	e5.8	76	106	1.7	.00	.00	.00
17	.28	3.5	e1.4	e1.5	e1.4	e7.8	74	107	1.9	.00	.00	.00
18	.23	3.5	e1.5	e1.5	e1.6	e9.4	e70	92	3.6	.00	.00	.00
19	.18	e3.0	e1.5	e1.5	e1.7	e11	e72	71	1.9	.00	.00	.00
20	.18	e2.7	e1.4	e1.5	e1.9	12	e77	47	2.7	.00	.00	.00
21	.18	e3.0	e1.4	e1.3	e2.0	14	e80	39	2.1	.00	.00	.00
22	.23	e2.7	e1.6	e1.4	e2.2	16	e84	45	2.2	.00	.00	.00
23	.23	e2.4	e1.5	e1.4	e2.5	17	e82	36	2.2	.00	.00	.00
24	.83	e2.2	e1.3	e1.6	e2.3	17	e80	38	.52	.00	.00	.00
25	1.7	e2.2	e1.1	e1.5	e2.5	17	74	33	.29	.00	.00	.00
26	1.5	e2.0	e.98	e1.4	e2.7	e16	73	28	.24	.00	.00	.00
27	.80	e2.0	e1.1	e1.4	e2.9	e16	65	25	.48	.03	.00	.00
28	.80	e1.9	e1.2	e1.5	e2.8	e17	59	20	1.3	.08	.00	.00
29	.80	e1.6	e1.0	e1.7	e3.0	e18	50	17	1.5	.05	.00	.00
30	1.4	e1.5	e1.1	e1.8	---	e19	47	21	1.1	.03	.00	.00
31	2.7	---	e1.2	e1.9	---	e20	---	20	---	.0	.00	---
TOTAL	25.74	85.5	40.68	45.2	50.09	293.1	1939	1817	125.93	5.48	0.52	0.00
MEAN	.83	2.85	1.31	1.46	1.73	9.45	64.6	58.6	4.20	.18	.017	.00
MAX	2.7	5.2	1.6	1.9	3.0	20	96	112	13	.96	.21	.00
MIN	.08	1.5	.98	1.0	.89	3.5	21	17	.24	.00	.00	.00
AC-FT	51	170	81	90	99	581	3850	3600	250	11	1.0	.0

CAL YR 1987 TOTAL 7508.00 MEAN 20.6 MAX 143 MIN .08 AC-FT 14890
WTR YR 1988 TOTAL 4428.24 MEAN 12.1 MAX 112 MIN .00 AC-FT 8780

e Estimated

BEAR RIVER BASIN

10015900 SULPHUR CREEK BELOW RESERVOIR, NEAR EVANSTON, WY

LOCATION (REVISED).--Lat 41°09'17", long 110°50'22", in NE1/4 NW1/4 NE1/4 sec.33, T.14 N., R.119 W., Uinta County, Hydrologic Unit 16010101, on right bank 1,200 ft downstream from Sulphur Creek Dam, 6.2 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. Oct. 1, 1986 to June 9, 1987 at datum 1.0 ft higher. After June 9, 1987 at site 0.3 mi downstream at different datum.

REMARKS.--Records 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.--24 years (water years 1965-88), 27.1 ft³/s, 19,630 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, 109 ft³/s, May 18; no flow on many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	11	5.8	e1.4	e1.9	7.2	14	.54	33	e62	14	5.9
2	e.00	6.3	6.8	e1.4	e1.8	7.2	15	2.8	28	e62	10	7.1
3	e.00	.07	3.7	e1.3	e1.7	7.2	21	2.3	21	e64	14	9.6
4	e.00	.03	.14	e1.2	e1.6	7.2	28	3.0	22	e65	15	8.2
5	.00	.00	.13	e1.2	e1.5	8.9	30	2.4	22	e67	16	8.3
6	.00	3.6	.13	e1.3	e1.6	22	31	1.3	18	e66	16	8.2
7	.08	11	.13	e1.4	e1.6	13	17	1.4	1.4	68	16	8.5
8	.10	11	.17	e1.5	e1.7	.02	22	1.4	1.6	63	16	8.5
9	.15	11	e.12	e1.6	e1.8	.00	34	17	1.6	49	16	8.8
10	.07	11	e.10	e1.7	e1.7	.00	36	46	1.5	48	14	8.6
11	.00	5.1	e.09	e1.9	e1.7	.00	36	46	2.1	47	11	8.8
12	.00	.05	e.05	e1.8	e1.5	.00	34	46	2.4	49	7.5	8.8
13	.04	.02	e.00	e1.7	e1.4	.00	17	47	5.7	53	6.7	8.8
14	.05	4.8	e.00	e1.7	e1.6	.00	.43	48	2.7	52	6.4	8.9
15	.0	7.2	.00	e1.8	e1.6	.00	.42	47	8.7	49	6.3	8.8
16	.00	5.5	e.00	e1.8	e1.7	.00	.43	48	20	43	5.7	5.7
17	.00	4.9	e.00	e1.8	e1.9	.00	.34	64	24	42	6.0	6.8
18	.00	4.9	e.00	e1.7	e2.0	.00	.31	109	24	41	5.7	6.4
19	3.2	4.9	e.00	e1.6	e2.3	.00	.26	102	e24	40	5.9	6.1
20	12	2.4	e.00	e1.6	e2.5	.00	.23	99	e22	37	6.1	6.3
21	13	.15	e.01	e1.6	e2.6	.00	.32	86	e25	37	6.4	4.4
22	11	22	e.02	e1.6	e2.7	.00	.40	72	e30	35	7.0	6.1
23	12	28	e.02	e1.7	e2.7	6.4	.66	50	e33	30	8.0	6.4
24	12	10	e.10	e1.8	e2.9	15	2.0	28	e34	29	8.2	6.4
25	12	7.2	e.30	e1.3	e3.0	12	2.2	28	e33	26	3.8	6.6
26	12	6.0	e1.2	e1.7	e3.1	13	1.3	29	e32	26	.17	6.5
27	11	6.3	e1.3	e1.6	e3.6	18	1.6	30	e54	25	6.5	6.3
28	5.6	8.1	e1.4	e1.7	e4.5	18	1.1	30	e68	10	6.3	6.4
29	.43	8.1	e1.4	e1.9	e6.0	16	1.4	30	e66	15	6.1	6.4
30	9.8	6.7	e1.4	e2.0	---	16	1.1	31	e64	17	6.3	6.1
31	12	---	e1.4	e2.0	---	15	---	31	---	16	6.6	---
TOTAL	126.52	207.32	25.91	50.8	66.2	202.12	349.50	1179.14	724.7	1333	279.67	218.7
MEAN	4.08	6.91	.84	1.64	2.28	6.52	11.6	38.0	24.2	43.0	9.02	7.29
MAX	13	28	6.8	2.0	6.0	22	36	109	68	68	16	9.6
MIN	.00	.00	.00	1.2	1.4	.00	.23	.54	1.4	10	.17	4.4
AC-FT	251	411	51	101	131	401	693	2340	1440	2640	555	434
CAL YR 1987	TOTAL	9462.33	MEAN	25.9	MAX	165	MIN	.00	AC-FT	18770		
WTR YR 1988	TOTAL	4763.58	MEAN	13.0	MAX	109	MIN	.00	AC-FT	9450		

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.

WATER-DISCHARGE RECORDS

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.--Records good except those for Apr. 7 to May 14, which are fair. 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. 2 . . . 26.8
Mar. 23 . . . 142

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, 4.1 ft³/s, Sept. 11, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,380 ft³/s, May 18, gage height, 4.61 ft; minimum daily during period of operation, 4.1 ft³/s, Sept. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	139	420	452	71	47	9.3
2	---	---	---	---	---	---	162	320	375	59	31	7.7
3	---	---	---	---	---	---	229	314	342	55	23	10
4	---	---	---	---	---	---	346	459	484	48	45	11
5	---	---	---	---	---	---	382	451	734	49	41	10
6	---	---	---	---	---	---	411	384	745	64	34	11
7	---	---	---	---	---	---	590	327	540	61	32	11
8	---	---	---	---	---	---	568	308	404	55	30	9.2
9	---	---	---	---	---	---	356	320	327	28	28	8.7
10	---	---	---	---	---	---	333	330	292	27	19	7.7
11	---	---	---	---	---	---	360	363	266	26	16	4.1
12	---	---	---	---	---	---	388	475	213	36	15	5.6
13	---	---	---	---	---	---	391	630	188	51	9.2	8.2
14	---	---	---	---	---	---	324	781	167	52	7.8	13
15	---	---	---	---	---	---	324	799	142	49	8.8	14
16	---	---	---	---	---	---	367	940	126	46	8.3	12
17	---	---	---	---	---	---	346	1190	112	46	6.4	7.3
18	---	---	---	---	---	---	343	1280	115	45	6.2	7.7
19	---	---	---	---	---	---	311	971	87	44	5.8	11
20	---	---	---	---	---	---	295	776	76	40	5.4	13
21	---	---	---	---	---	---	380	726	137	33	4.8	15
22	---	---	---	---	---	---	377	721	137	32	4.7	14
23	---	---	---	---	---	---	324	825	125	33	4.2	19
24	---	---	---	---	---	---	424	811	100	30	5.9	19
25	---	---	---	---	---	---	398	819	81	32	9.1	17
26	---	---	---	---	---	---	265	814	73	37	8.9	15
27	---	---	---	---	---	---	324	930	95	46	14	15
28	---	---	---	---	---	---	314	831	119	63	11	15
29	---	---	---	---	---	---	289	831	116	53	9.6	16
30	---	---	---	---	---	---	333	744	92	57	8.3	17
31	---	---	---	---	---	---	---	606	---	51	8.6	---
TOTAL	---	---	---	---	---	---	10393	20496	7262	1419	508.0	353.5
MEAN	---	---	---	---	---	---	346	661	242	45.8	16.4	11.8
MAX	---	---	---	---	---	---	590	1280	745	71	47	19
MIN	---	---	---	---	---	---	139	308	73	26	4.2	4.1
AC-FT	---	---	---	---	---	---	20610	40650	14400	2810	1010	701

BEAR RIVER BASIN

10016900 BEAR RIVER AT EVANSTON, WY

WATER-QUALITY DATA

PERIOD OF RECORD.--April to September 1988.

INSTRUMENTATION.--All bedload samples were collected using a Helley-Smith type sampler of sheet-metal construction, 3.22 flare, 3 inch square nozzle, and equipped with 0.25 mm mesh collection bag.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)
APR								
07...	1410	60.0	20	10.0	483	240	313	4.7
28...	1115	65.0	21	10.0	336	44	40	0.71
MAY								
05...	1100	67.0	22	10.0	509	80	110	2.0
12...	1040	67.0	20	10.0	545	234	344	5.3
19...	1035	69.0	20	10.0	495	234	313	29
26...	1045	65.0	13	10.0	904	133	325	22
JUN								
02...	1005	65.0	20	10.0	443	34	41	1.3
07...	1050	65.0	12	10.0	626	54	91	8.3
09...	1000	40.0	20	10.0	340	24	22	0.97
16...	1000	30.0	15	10.0	124	9	3.0	0.05

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM
APR								
07...	0.7	1	2	52	96	99	100	--
28...	0.3	0.3	0.8	58	97	99	100	--
MAY								
05...	0.4	0.8	1	61	96	99	100	--
12...	1	2	3	60	94	98	99	100
19...	0.2	0.4	1	45	95	99	100	--
26...	0.4	0.8	2	52	97	99	100	--
JUN								
02...	0.4	0.8	2	59	97	100	--	--
07...	0.6	0.9	2	61	98	100	--	--
09...	0.1	0.5	0.9	55	97	99	100	--
16...	--	--	--	53	89	100	--	--

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., Uinta County, Hydrologic Unit 16010101, approximately 1,000 ft upstream from mouth and 4 mi northeast of Evanston.

PERIOD OF RECORD.--Water years 1985 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
NOV 05...	0945	10	655	8.1	4.0	608	9.2
MAR 03...	1715	40	565	7.9	0.0	625	11.7
MAY 19...	1430	71	400	8.1	12.0	630	9.6
AUG 24...	0945	2.4	725	8.8	16.0	635	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- PHOROUS TOTAL (MG/L AS P)
NOV 05...	88	59	0.7	0.05	0.45	0.5	0.84
MAR 03...	98	21	0.6	0.31	1.3	1.6	0.68
MAY 19...	108	130	0.1	0.05	0.35	0.4	0.31
AUG 24...	122	140	<0.1	0.02	1.1	1.1	1.90

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.--27 years, 259 ft³/s, 187,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,150 ft³/s, June 2, 1983, gage height, 6.17 ft; no flow several days during August and September 1988.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,590 ft³/s, May 18, gage height, 4.36 ft; no flow several days during August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	53	e34	e31	e22	e36	119	309	389	9.9	7.0	.00
2	16	53	e35	e30	e21	e37	124	310	302	7.9	7.2	.00
3	15	52	e34	e27	e21	e37	181	302	257	5.8	6.7	.00
4	16	43	e34	e27	e22	e36	361	356	308	5.2	5.9	.00
5	16	47	e32	e28	e23	e35	440	367	500	6.3	4.2	.01
6	17	47	e33	e29	e24	e35	386	318	585	6.5	4.3	.02
7	24	53	e35	e31	e25	e34	473	282	457	5.5	3.8	.05
8	23	60	e36	e33	e27	e34	550	248	317	6.6	3.1	.04
9	23	60	e35	e34	e29	e35	362	261	247	6.2	2.7	.07
10	23	58	e34	e34	e28	e36	248	255	218	5.4	3.9	.00
11	23	57	e33	e35	e27	e34	245	276	206	2.7	4.0	.00
12	24	56	e33	e34	e26	e34	285	350	182	2.6	3.7	.00
13	29	51	e34	e33	e24	e36	294	484	175	2.8	3.4	.13
14	35	51	e35	e33	e25	e40	257	659	159	3.1	2.6	.30
15	36	56	e34	e34	e27	e53	243	717	145	3.8	1.9	.10
16	36	51	e34	e34	e26	e50	294	862	127	3.5	1.7	.07
17	32	44	e32	e33	e24	e56	269	1120	115	3.1	1.1	.44
18	29	39	e30	e32	e24	e80	259	1420	112	2.6	.85	.50
19	27	e37	e31	e29	e25	e120	246	1130	110	2.5	.66	.57
20	28	e34	e33	e26	e28	e145	231	777	98	3.5	.60	.63
21	28	e36	e35	e27	e28	e140	256	658	84	3.9	.28	.98
22	27	e38	e34	e28	e29	e148	317	606	97	3.7	.09	1.2
23	28	e36	e33	e28	e28	e172	287	699	80	3.4	.00	1.2
24	31	e34	e31	e29	e27	160	344	649	60	4.4	.18	1.2
25	37	e37	e28	e29	e25	204	352	672	46	3.5	.05	1.2
26	37	e36	e28	e28	e27	299	281	665	28	3.9	.00	1.2
27	41	e35	e29	e27	e29	321	243	729	21	4.2	.00	1.2
28	43	e32	e28	e27	e29	259	235	702	31	5.3	.02	1.2
29	42	e32	e29	e26	e32	204	223	665	22	7.2	.02	1.2
30	44	e33	e30	e25	---	157	228	629	16	7.4	.00	1.3
31	46	---	e31	e23	---	151	---	536	---	7.7	.00	---
TOTAL	899	1351	1007	924	752	3218	8633	18013	5494	150.1	69.95	14.81
MEAN	29.0	45.0	32.5	29.8	25.9	104	288	581	183	4.84	2.26	.49
MAX	46	60	36	35	32	321	550	1420	585	9.9	7.2	1.3
MIN	15	32	28	23	21	34	119	248	16	2.5	.00	.00
AC-FT	1780	2680	2000	1830	1490	6380	17120	35730	10900	298	139	29

CAL YR 1987 TOTAL 59486 MEAN 163 MAX 1220 MIN 15 AC-FT 118000
WTR YR 1988 TOTAL 40525.86 MEAN 111 MAX 1420 MIN .00 AC-FT 80380

e Estimated

10020100 BEAR RIVER ABOVE RESERVOIR, NEAR WOODRUFF, UT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
NOV 05...	0710	33	525	8.6	4.5	608	8.8
MAR 03...	1530	--	500	8.1	0.0	625	11.2
MAY 19...	1530	1220	245	7.9	9.0	630	10.0
AUG 24...	1100	E1.0	620	7.6	17.0	640	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- PHOROUS TOTAL (MG/L AS P)
NOV 05...	86	26	<0.1	0.03	0.37	0.4	0.07
MAR 03...	94	44	0.2	0.14	0.86	1.0	0.13
MAY 19...	105	110	<0.1	0.05	0.35	0.4	0.08
AUG 24...	104	57	<0.1	<0.01	--	0.8	0.03

BEAR RIVER BASIN

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. Elevation of spillway is 6,454.50 ft; gage height, 50.4 ft. Figures given herein represent total contents.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 64,310 acre-ft, June 2, 1983, gage height, 53.5 ft; minimum observed, 880 acre-ft, Sept. 15-25, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum, 60,470 acre-ft, May 18, 19, gage height, 51.8 ft; minimum recorded, 12,870 acre-ft, Sept. 30.

MONTHEND ELEVATION, IN FEET, AND INSTANTANEOUS CONTENTS, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	31.5	22,380	--
Oct. 31	31.4	22,240	-140
Nov. 30	33.1	24,630	+2,390
Dec. 31	34.4	26,590	+1,960
CAL YR 1987	--	--	-31,390
Jan. 31	35.5	28,470	+1,880
Feb. 29	--	*33,430	+4,960
Mar. 31	41.9	39,640	+6,210
Apr. 30	50.7	57,980	+18,340
May 31	50.5	57,530	-450
June 30	31.8	22,800	-34,730
July 31	26.7	16,440	-6,360
Aug. 31	25.0	14,390	-2,050
Sept. 30	--	*12,870	-1,520
WTR YR 1988	--	--	-9,510

* No gage reading, contents interpolated.

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.--27 years, 256 ft³/s, 185,500 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, Sept. 1, 2, 6, 7, 1979, Oct. 30, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,270 ft³/s, May 18, gage height, 6.05 ft; minimum daily, 15 ft³/s, Oct. 15-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	16	17	18	17	18	20	218	696	551	29	25
2	42	16	17	18	17	19	20	299	689	172	30	25
3	42	16	17	18	17	18	20	324	733	170	29	25
4	42	16	17	18	17	19	20	344	827	172	29	25
5	42	16	17	17	17	19	20	396	829	171	29	25
6	41	16	17	17	17	19	20	408	832	168	29	25
7	41	16	17	18	17	19	21	382	830	168	29	24
8	41	16	17	17	17	19	21	342	830	168	29	24
9	41	16	17	18	17	19	21	318	828	168	29	24
10	41	16	17	18	18	19	22	302	827	166	29	24
11	41	16	17	17	17	19	22	303	825	166	29	23
12	41	17	17	17	17	19	22	328	818	165	27	23
13	32	17	17	18	17	19	22	412	814	164	26	23
14	16	16	18	17	17	19	22	529	807	164	26	24
15	15	16	18	17	17	19	22	651	806	85	26	23
16	15	16	18	17	18	19	22	764	798	31	26	23
17	15	17	18	17	18	19	22	930	794	31	26	23
18	15	17	18	17	18	19	22	1170	784	31	26	23
19	15	17	18	17	17	20	22	1210	777	31	25	23
20	15	17	18	17	18	20	22	1010	774	31	25	23
21	15	17	18	17	18	20	22	837	767	31	25	23
22	15	17	18	17	18	20	22	742	758	30	25	23
23	15	17	18	17	18	20	22	723	750	30	25	23
24	15	17	18	17	18	20	22	845	742	30	25	23
25	15	17	18	17	18	20	22	1020	724	30	25	23
26	15	17	18	17	18	20	23	976	682	30	26	23
27	15	17	18	17	18	20	23	852	673	30	26	23
28	15	17	18	17	18	20	42	818	664	29	26	23
29	16	17	18	17	18	20	100	781	655	29	25	23
30	16	17	18	17	---	20	151	750	645	29	25	23
31	16	---	18	17	---	20	---	723	---	29	25	---
TOTAL	803	496	545	535	507	600	874	19707	22978	3300	831	707
MEAN	25.9	16.5	17.6	17.3	17.5	19.4	29.1	636	766	106	26.8	23.6
MAX	42	17	18	18	18	20	151	1210	832	551	30	25
MIN	15	16	17	17	17	18	20	218	645	29	25	23
AC-FT	1590	984	1080	1060	1010	1190	1730	39090	45580	6550	1650	1400
CAL YR 1987	TOTAL	76873	MEAN	211	MAX	1190	MIN	15	AC-FT	152500		
WTR YR 1988	TOTAL	51883	MEAN	142	MAX	1210	MIN	15	AC-FT	102900		

BEAR RIVER BASIN

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. Aug. 17, 1971 to Sept. 30, 1986, at datum 10.0 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Diversion for irrigation of about 94,500 acres upstream from station. Flow regulated by upstream reservoirs.

AVERAGE DISCHARGE.--45 years, 221 ft³/s, 160,100 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 discharge, 271 ft³/s, May 21, gage height, 12.81 ft; minimum daily, 10 ft³/s, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	60	e78	e43	e32	e47	84	75	167	e192	43	14
2	67	61	e78	e40	e32	e46	86	80	177	e172	e39	14
3	61	59	e76	e41	e32	e45	93	97	184	e161	e36	13
4	52	58	e74	e42	e32	e47	91	143	174	e161	32	14
5	50	59	e72	e42	e33	e52	86	165	179	e170	31	13
6	50	60	e74	e41	e33	e49	80	182	205	e192	29	13
7	50	63	e76	e40	e33	e46	82	204	189	224	28	13
8	53	61	e76	e39	e34	e48	81	214	201	251	26	11
9	54	61	e74	e40	e34	e50	79	217	217	248	26	10
10	53	62	e70	e40	e34	e45	77	210	228	196	27	11
11	54	64	e71	e40	e33	e41	76	198	224	129	25	11
12	51	66	e73	e38	e34	e40	77	173	216	115	22	11
13	51	67	e76	e37	e34	e43	76	102	202	104	22	12
14	55	68	e74	e37	e35	e49	75	57	182	96	23	12
15	56	68	e70	e37	e35	e48	73	48	178	91	23	12
16	53	71	e60	e38	e35	e50	70	47	181	89	21	12
17	54	e76	e55	e39	e35	e54	71	54	177	84	19	12
18	58	e79	e54	e38	e32	e60	73	69	e170	74	20	12
19	58	e82	e57	e38	e35	e66	75	102	e162	93	24	12
20	58	e83	e61	e36	e39	e73	74	183	e153	70	25	12
21	58	e86	e61	e37	e42	e72	72	253	e150	61	25	12
22	58	e82	e61	e38	e43	e70	79	247	e152	57	25	12
23	60	e78	e60	e38	e40	e67	84	202	e159	87	20	12
24	62	e77	e58	e38	e38	e66	88	159	e164	78	14	13
25	62	e77	e53	e36	e38	e66	89	149	e170	67	13	12
26	62	e76	e50	e35	e40	e76	86	157	e180	76	14	11
27	63	e75	e50	e34	e43	e80	83	168	e190	75	13	11
28	63	e75	e49	e34	e43	e77	76	174	e198	71	14	11
29	61	e76	e47	e34	e44	e74	71	152	e202	61	14	11
30	61	e78	e47	e33	---	e76	70	151	e197	60	14	11
31	61	---	e45	e33	---	e82	---	159	---	53	14	---
TOTAL	1774	2108	1980	1176	1047	1805	2377	4591	5528	3658	721	360
MEAN	57.2	70.3	63.9	37.9	36.1	58.2	79.2	148	184	118	23.3	12.0
MAX	67	86	78	43	44	82	93	253	228	251	43	14
MIN	50	58	45	33	32	40	70	47	150	53	13	10
AC-FT	3520	4180	3930	2330	2080	3580	4710	9110	10960	7260	1430	714

CAL YR 1987 TOTAL 66609 MEAN 182 MAX 742 MIN 40 AC-FT 132100
WTR YR 1988 TOTAL 27125 MEAN 74.1 MAX 253 MIN 10 AC-FT 53800

e Estimated

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 (seasonal 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.--No estimated daily discharges. Records good. 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, 346 ft³/s, July 7; minimum daily, 16 ft³/s, Sept. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	43	84	129	51	26
2	---	---	---	---	---	---	---	43	88	135	50	26
3	---	---	---	---	---	---	---	43	89	132	42	25
4	---	---	---	---	---	---	---	44	90	125	39	24
5	---	---	---	---	---	---	---	51	90	121	39	24
6	---	---	---	---	---	---	---	70	95	205	39	23
7	---	---	---	---	---	---	---	89	108	346	39	23
8	---	---	---	---	---	---	---	95	100	281	39	23
9	---	---	---	---	---	---	---	101	107	245	38	16
10	---	---	---	---	---	---	---	104	110	196	38	16
11	---	---	---	---	---	---	---	102	102	182	38	18
12	---	---	---	---	---	---	---	92	98	142	38	19
13	---	---	---	---	---	---	---	65	96	124	38	21
14	---	---	---	---	---	---	---	50	93	115	38	25
15	---	---	---	---	---	---	---	39	74	102	38	25
16	---	---	---	---	---	---	---	38	62	102	38	23
17	---	---	---	---	---	---	---	38	54	90	37	23
18	---	---	---	---	---	---	---	38	51	88	38	22
19	---	---	---	---	---	---	---	38	50	80	37	22
20	---	---	---	---	---	---	---	36	54	82	37	23
21	---	---	---	---	---	---	---	48	61	66	37	23
22	---	---	---	---	---	---	---	60	83	62	36	22
23	---	---	---	---	---	---	---	69	129	59	35	23
24	---	---	---	---	---	---	---	65	149	81	34	22
25	---	---	---	---	---	---	---	52	154	72	31	22
26	---	---	---	---	---	---	---	50	145	69	28	23
27	---	---	---	---	---	---	---	53	157	79	26	22
28	---	---	---	---	---	---	---	63	157	83	25	22
29	---	---	---	---	---	---	---	80	151	72	25	23
30	---	---	---	---	---	---	---	81	139	63	27	23
31	---	---	---	---	---	---	---	83	---	60	27	---
TOTAL	---	---	---	---	---	---	---	1923	3020	3788	1122	672
MEAN	---	---	---	---	---	---	---	62.0	101	122	36.2	22.4
MAX	---	---	---	---	---	---	---	104	157	346	51	26
MIN	---	---	---	---	---	---	---	36	50	59	25	16
AC-FT	---	---	---	---	---	---	---	3810	5990	7510	2230	1330

BEAR RIVER BASIN

10032000 SMITHS FORK NEAR BORDER, WY

LOCATION.--Lat 42°17'36", long 110°52'18", in NE1/4 SW1/4 SW1/4 sec.28, T.27 N., R.118 W., Lincoln County, Hydrologic Unit 16010102, on left bank 4.9 mi upstream from Howland Creek, 5.6 mi downstream from Hobble Creek, and 12.4 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. Elevation of gage is 6,720 ft from topographic map. Prior to Oct. 16, 1945, at site 1.2 mi downstream at different datum. Oct. 16, 1945, to November 1986, at site 0.4 mi downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. One diversion for irrigation of about 200 acres upstream from station.

AVERAGE DISCHARGE.--46 years, 199 ft³/s, 144,200 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, 586 ft³/s, May 17, gage height, 3.38 ft; minimum daily, 34 ft³/s, Jan. 2, 26, Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	82	e55	e37	e35	40	40	280	418	195	115	82
2	78	91	e52	e34	e39	39	41	263	383	191	113	82
3	78	88	57	e36	e37	37	45	257	366	186	115	81
4	77	83	55	e38	e37	38	48	254	381	183	114	80
5	77	80	54	e40	e37	38	46	257	432	179	106	80
6	78	85	53	e43	e37	38	51	272	437	176	104	80
7	78	85	55	e40	e37	39	59	267	426	172	104	78
8	78	81	61	e35	e40	40	67	263	406	168	103	78
9	78	76	53	e40	41	43	61	264	385	166	101	78
10	77	76	53	e45	39	38	62	260	364	163	101	79
11	76	75	52	50	39	41	73	277	351	160	99	82
12	76	73	51	e46	41	41	103	312	336	157	99	82
13	76	73	47	e41	e39	39	152	358	325	155	99	85
14	80	e71	50	e44	e37	40	182	383	307	145	95	85
15	76	69	e45	47	42	48	206	398	295	143	94	81
16	74	68	e48	e43	e40	40	238	431	283	140	94	79
17	73	e68	e51	e40	e38	36	267	523	282	138	92	78
18	73	71	e54	e45	e38	37	281	554	279	138	90	78
19	71	e74	e53	e40	e40	38	279	498	262	137	89	79
20	71	e70	e50	e36	44	37	264	463	255	135	88	78
21	77	e64	e47	e40	e40	39	282	452	247	133	88	79
22	83	64	e43	e45	e38	40	287	462	239	129	87	78
23	83	e62	e39	e40	e36	40	261	488	232	127	87	78
24	84	e60	e36	e36	e34	39	250	524	224	127	87	77
25	80	63	e35	e35	e36	39	251	542	219	126	86	76
26	83	e60	e40	e34	e36	37	233	553	226	128	86	76
27	87	e55	e43	e35	e35	41	235	563	215	125	86	76
28	82	e52	e43	e37	e36	43	249	567	209	123	85	77
29	82	e52	e42	e40	e37	38	259	556	206	122	84	75
30	84	e54	e43	44	---	42	279	528	200	119	83	75
31	80	---	e41	e37	---	41	---	470	---	117	82	---
TOTAL	2426	2125	1501	1243	1105	1226	5151	12539	9190	4603	2956	2372
MEAN	78.3	70.8	48.4	40.1	38.1	39.5	172	404	306	148	95.4	79.1
MAX	87	91	61	50	44	48	287	567	437	195	115	85
MIN	71	52	35	34	34	36	40	254	200	117	82	75
AC-FT	4810	4210	2980	2470	2190	2430	10220	24870	18230	9130	5860	4700
CAL YR 1987	TOTAL	41903	MEAN	115	MAX	353	MIN	35	AC-FT	83110		
WTR YR 1988	TOTAL	46437	MEAN	127	MAX	567	MIN	34	AC-FT	92110		

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. Elevation of gage is 6,140 ft from river-profile map.

REMARKS.--Records good except those 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.--34 years, 483 ft³/s, 349,700 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 discharge, 716 ft³/s, May 18, gage height, 4.05 ft; minimum daily, 82 ft³/s, Feb. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	192	201	e120	e84	e106	e121	382	589	475	130	104
2	172	207	201	e115	e82	e108	e121	374	549	509	118	105
3	184	211	207	e108	e82	e101	e127	356	506	463	117	103
4	180	200	207	e113	e84	e100	e138	350	501	429	114	94
5	162	197	210	e115	e86	e103	e142	354	490	395	111	95
6	155	207	217	e115	e86	e106	e146	379	522	369	108	96
7	152	218	220	e113	e88	e112	e167	407	536	587	104	96
8	138	216	227	e107	e91	e123	e158	438	542	554	104	96
9	168	222	218	e112	e91	e123	e151	461	525	488	115	97
10	164	222	225	e110	e88	e121	e168	479	509	440	134	94
11	164	221	240	e106	e88	e123	e189	489	505	374	140	99
12	163	218	238	e102	e90	e120	e218	495	496	352	144	108
13	166	223	e240	e97	e90	e118	e237	513	503	308	140	114
14	176	248	e230	e96	e90	e115	306	584	499	277	130	123
15	158	230	224	e98	e92	e112	346	521	471	254	130	120
16	172	195	218	e98	e90	e110	371	519	442	237	129	116
17	161	192	157	e100	e88	e114	373	579	389	235	126	112
18	166	158	230	e98	e92	e118	392	689	376	221	120	107
19	177	236	187	e96	e96	e118	419	655	353	184	120	109
20	180	236	e180	e90	e98	e118	396	587	342	168	120	108
21	183	221	173	e94	e96	e121	389	539	340	155	121	111
22	180	224	177	e96	e92	e120	389	551	344	141	119	112
23	178	204	180	e96	e94	e118	389	581	388	135	117	110
24	191	205	e160	e98	e94	e118	365	607	438	137	117	109
25	186	200	e150	e92	e92	e118	353	613	453	157	112	104
26	189	204	e135	e89	e96	e122	350	615	463	145	108	105
27	187	e200	e128	e87	e98	e129	350	638	474	148	106	102
28	188	e200	e127	e86	e100	e124	354	636	478	160	105	101
29	189	e190	e125	e88	e100	e121	364	639	490	158	104	104
30	185	e200	e120	e87	---	e126	374	660	493	146	104	105
31	189	---	e120	e85	---	e124	---	633	---	134	107	---
TOTAL	5367	6297	5872	3107	2638	3610	8363	16323	14006	8935	3674	3159
MEAN	173	210	189	100	91.0	116	279	527	467	288	119	105
MAX	191	248	240	120	100	129	419	689	589	587	144	123
MIN	138	158	120	85	82	100	121	350	340	134	104	94
AC-FT	10650	12490	11650	6160	5230	7160	16590	32380	27780	17720	7290	6270
CAL YR 1987	TOTAL	136507	MEAN	374	MAX	1150	MIN	120	AC-FT	270800		
WTR YR 1988	TOTAL	81351	MEAN	222	MAX	689	MIN	82	AC-FT	161400		

e Estimated

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.--51 years, 458 ft³/s, 331,800 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 discharge, 561 ft³/s, May 18, gage height, 3.24 ft; minimum, 67 ft³/s, Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	179	e190	e105	e83	e95	e110	357	486	356	118	74
2	156	195	e194	e98	e82	e97	e110	359	459	380	97	73
3	169	201	e189	e100	e81	e99	e113	338	422	357	90	72
4	170	193	e184	e104	e83	e100	e119	333	410	337	89	70
5	161	188	e176	e104	e84	e98	e120	330	391	317	87	69
6	154	194	e180	e103	e84	e96	e140	329	404	304	85	69
7	150	204	e186	e99	e83	e99	e160	350	416	403	83	69
8	144	204	e187	e90	e85	e104	e160	379	419	473	83	69
9	153	206	e180	e100	e88	e105	e180	402	409	422	85	69
10	157	209	e170	e100	e88	e110	e240	416	389	391	94	70
11	157	206	e175	e98	e85	e106	e279	415	380	340	99	69
12	157	203	e179	e94	e85	e110	e290	408	372	328	103	74
13	161	205	e187	e93	e88	e105	e300	410	366	289	102	78
14	170	226	e181	e92	e88	e104	e310	461	364	262	97	83
15	161	219	e170	e94	e90	e100	325	429	345	245	93	100
16	165	191	e150	e95	e90	e104	338	421	323	232	92	99
17	169	182	e130	e97	e88	e104	340	451	294	223	90	96
18	161	187	e140	e94	e91	e105	358	532	280	218	88	93
19	172	214	e149	e93	e92	e110	379	522	265	191	86	93
20	174	234	e154	e90	e95	e105	368	478	248	170	87	97
21	176	246	e150	e93	e93	e104	359	438	244	165	85	99
22	175	258	e144	e95	e93	e110	367	429	248	150	84	101
23	171	229	e150	e95	e96	e106	369	447	256	142	82	98
24	179	233	e143	e96	e93	e105	346	463	298	138	82	99
25	177	250	e134	e91	e91	e107	337	476	313	152	80	97
26	178	230	e123	e86	e91	e110	337	474	328	148	77	95
27	178	e219	e123	e86	e94	e114	332	483	338	144	74	97
28	177	e209	e120	e85	e95	e109	336	490	349	148	76	96
29	178	e210	e115	e86	e96	e110	344	496	363	154	74	95
30	177	e200	e115	e86	---	e105	349	512	371	141	73	97
31	177	---	e110	e83	---	e105	---	520	---	133	75	---
TOTAL	5168	6324	4878	2925	2575	3241	8215	13348	10550	7853	2710	2560
MEAN	167	211	157	94.4	88.8	105	274	431	352	253	87.4	85.3
MAX	179	258	194	105	96	114	379	532	486	473	118	101
MIN	144	179	110	83	81	95	110	329	244	133	73	69
AC-FT	10250	12540	9680	5800	5110	6430	16290	26480	20930	15580	5380	5080
CAL YR 1987	TOTAL	128520	MEAN	352	MAX	968	MIN	110	AC-FT	254900		
WTR YR 1988	TOTAL	70347	MEAN	192	MAX	532	MIN	69	AC-FT	139500		

e Estimated

BEAR RIVER BASIN

10039500 BEAR RIVER AT BORDER, WY--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year. Prior to 1981 water year, published in "Water Resources Data for Wyoming."

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 1987 TO SEPTEMBER 1988

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 WATER (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)
OCT 05...	1045	172	610	8.2	9.0	9.5	18	8.90	620	K38
DEC 17...	1000	133	720	8.2	-6.5	0.0	2.6	11.5	605	K2
APR 14...	1055	316	590	8.4	17.0	9.5	46	9.40	605	K14
MAY 18...	1250	561	470	8.2	13.5	11.5	44	8.30	605	320
JUL 27...	1210	142	630	8.4	27.5	19.0	16	5.90	610	140
AUG 23...	1300	80	560	8.3	19.5	17.5	5.8	10.8	610	46

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

DATE	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS TOTAL (MG/L AS CAO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3
OCT 05...	150	280	68	27	28	18	0.8	2.1	--	276
DEC 17...	42	330	83	31	34	18	0.8	2.6	--	330
APR 14...	K58	290	73	26	27	17	0.7	2.4	8	240
MAY 18...	440	270	61	28	84	40	2	6.6	--	220
JUL 27...	340	320	68	37	38	20	0.9	2.4	10	300
AUG 23...	K12	270	65	26	26	17	0.7	1.6	--	252

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

DATE	ALKA- LITY WAT DIS TOT IT FIELD MG/L AS CAO3	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, NITRITE DIS- SOLVED (MG/L AS N)
OCT 05...	226	63	32	0.2	7.9	372	322	0.51	173	--
DEC 17...	270	83	46	0.3	9.8	444	448	0.6	159	<0.01
APR 14...	213	79	26	0.2	10	422	371	0.57	360	0.01
MAY 18...	180	140	110	0.4	12	543	529	0.74	822	<0.01
JUL 27...	262	78	40	0.2	8.8	434	429	0.59	166	--
AUG 23...	207	72	25	0.2	7.2	348	347	0.47	75.4	<0.01

10039500 BEAR RIVER AT BORDER, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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)	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- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04)
OCT 05...	--	--	--	--	--	--	--	--	--	--
DEC 17...	0.22	0.04	0.04	0.05	0.16	0.2	0.02	0.02	0.01	0.03
APR 14...	<0.10	0.05	0.02	0.03	0.35	0.4	0.04	0.04	0.02	0.06
MAY 18...	0.15	0.06	0.05	0.06	0.34	0.4	0.06	0.04	0.03	0.09
JUL 27...	--	0.02	--	--	0.78	0.8	0.06	0.01	--	--
AUG 23...	<0.10	0.02	0.03	0.04	0.38	0.4	0.03	0.03	0.02	0.06

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 05...	1045	10	2	130	<0.5	<1	<1	<3	5	8	<5
APR 14...	1055	610	3	130	<0.5	<1	1	<3	3	730	<5
JUL 27...	1210	170	3	140	<0.5	2	<1	<3	1	160	<5
AUG 23...	1300	20	2	110	<0.5	<1	<1	<3	2	30	<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 05...	16	9	<0.1	<10	1	<1	<1.0	520	<6	8
APR 14...	19	92	0.2	<10	9	<1	<1.0	530	<6	9
JUL 27...	27	35	0.1	<10	<1	<1	<1.0	570	<6	26
AUG 23...	16	17	<0.1	<10	<1	<1	<1.0	590	<6	9

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	TEMPER- ATURE WATER (DEG C)	SED. SUSP. SIEVE DIAM. PERCENT FINER THAN .062 MM	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
OCT 05...	1045	172	9.5	88	91	42
DEC 17...	1000	133	0.0	27	99	36

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.--39 years, 57.6 ft³/s, 41,730 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)
Apr. 17		*103 (daily)		No peak greater than base discharge.			
Minimum daily, 8.7 ft ³ /s, Sept. 8.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	e11	e11	e11	e12	e17	99	55	24	12	9.0
2	12	19	e11	e11	e10	e12	e20	92	53	23	12	9.1
3	12	16	e11	e11	e10	e13	e18	88	51	22	13	9.3
4	12	13	e10	e10	e9.6	e13	e17	87	48	22	15	9.3
5	12	12	e10	e10	e10	e12	e18	85	46	21	13	9.2
6	12	13	e9.6	e11	e11	e12	e19	89	45	20	13	9.1
7	12	14	e9.6	e11	e11	e12	e22	90	43	20	13	9.0
8	12	13	e9.6	e11	e12	e13	e17	89	42	19	13	8.7
9	12	12	e9.8	e11	e12	e14	e14	86	41	19	12	8.9
10	12	12	e10	e12	e12	e13	e19	81	40	18	12	9.7
11	12	12	e11	e12	e12	e12	e22	83	39	18	12	10
12	12	12	e11	e11	e11	e11	e24	86	38	17	12	10
13	13	12	e9.8	e10	e11	e12	e26	91	38	16	12	11
14	17	13	e9.8	e11	e11	e13	e32	90	36	16	11	13
15	13	12	e11	e11	e12	e13	50	84	35	15	11	11
16	12	13	e12	e10	e11	e12	86	81	34	14	11	11
17	12	11	e12	e10	e10	e12	103	89	33	14	10	10
18	12	e11	e11	e9.8	e10	e12	100	91	35	14	10	9.9
19	12	e11	e11	e9.6	e11	e14	98	78	32	14	9.9	10
20	11	e11	e11	e9.4	e11	e15	86	74	31	14	9.7	11
21	11	e10	e10	e9.6	e11	e17	96	68	30	13	10	11
22	11	e10	e9.8	e9.8	e12	e14	95	67	29	12	9.9	10
23	11	e10	e9.6	e9.8	e12	e15	90	65	28	12	9.7	10
24	12	e11	e9.6	e9.8	e11	e16	87	64	27	12	9.6	9.8
25	12	e10	e9.4	e9.4	e11	e17	96	63	26	12	9.3	9.6
26	11	e9.6	e9.6	e9.6	e11	e18	85	60	30	13	9.4	9.5
27	11	e9.6	e9.8	e9.8	e12	e18	88	59	28	13	9.4	10
28	11	e9.4	e10	e10	e12	e16	88	58	26	14	9.5	10
29	11	e9.8	e10	e11	e12	e14	92	57	26	14	9.4	10
30	12	e9.8	e11	e12	---	e14	98	58	25	13	9.2	10
31	13	---	e11	e11	---	e16	---	57	---	13	9.2	---
TOTAL	373	354.2	321.0	324.6	322.6	427	1723	2409	1090	501	341.2	298.1
MEAN	12.0	11.8	10.4	10.5	11.1	13.8	57.4	77.7	36.3	16.2	11.0	9.94
MAX	17	19	12	12	12	18	103	99	55	24	15	13
MIN	11	9.4	9.4	9.4	9.6	11	14	57	25	12	9.2	8.7
AC-FT	740	703	637	644	640	847	3420	4780	2160	994	677	591

CAL YR 1987	TOTAL	8588.2	MEAN	23.5	MAX	85	MIN	9.4	AC-FT	17030
WTR YR 1988	TOTAL	8484.7	MEAN	23.2	MAX	103	MIN	8.7	AC-FT	16830

e Estimated

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, 2 mi downstream of the south boundary of Yellowstone National Park, 600 ft downstream of the confluence with Sheffield Creek.

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.

AVERAGE DISCHARGE.--5 years, 932 ft³/s, 675,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s, May 31, 1984, gage height, 8.39 ft; minimum observed, 165 ft³/s, Oct. 20, 1987, gage height, 3.11 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,010 ft³/s, May 27, gage height, 6.79 ft; minimum observed, 165 ft³/s, Oct. 20, gage height, 3.11 ft.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	188	237	237	260	280	280	280	736	2020	490	239	177
2	187	243	243	250	275	280	280	685	1890	467	231	177
3	187	224	246	235	270	280	302	648	2160	445	227	180
4	188	209	247	230	275	280	311	642	3220	440	227	180
5	190	207	250	225	285	280	306	692	3240	461	223	180
6	190	212	258	235	290	288	306	765	2960	423	219	180
7	190	199	252	245	288	293	334	741	2670	403	212	174
8	183	194	250	250	293	288	347	713	2400	388	219	170
9	184	198	260	267	298	284	316	746	2080	373	212	170
10	190	204	278	275	306	288	330	874	1930	368	208	174
11	188	209	272	275	306	288	368	1240	1770	358	204	183
12	186	231	268	293	307	284	426	1630	1580	344	212	193
13	183	224	258	298	295	284	507	2230	1430	334	223	193
14	188	199	240	311	290	267	601	2420	1320	334	212	193
15	190	218	245	320	290	280	727	2000	1230	320	204	186
16	186	209	250	305	295	280	859	2650	1170	297	200	183
17	183	213	260	295	275	271	920	3310	1110	293	196	180
18	186	211	255	275	290	267	963	3070	1040	288	196	177
19	183	212	245	260	300	267	951	2470	978	288	193	180
20	177	217	230	275	302	267	966	2170	922	280	190	180
21	175	212	235	290	302	267	895	2390	898	275	186	183
22	177	208	250	306	298	275	769	2730	834	267	183	186
23	184	212	240	311	284	280	696	3070	773	263	180	180
24	190	219	225	306	288	280	654	3200	716	259	183	177
25	186	219	220	298	284	275	613	3130	668	255	183	177
26	181	215	220	295	284	280	579	3440	648	247	183	177
27	178	205	235	290	284	284	599	3310	620	255	180	177
28	183	200	238	293	284	284	645	3350	580	288	183	190
29	186	203	242	293	280	275	784	3140	546	267	183	184
30	190	213	255	300	---	280	820	3070	514	251	180	182
31	199	---	265	285	---	280	---	2390	---	247	177	---
TOTAL	5756	6376	7669	8646	8398	8656	17454	63652	43917	10268	6248	5423
MEAN	186	213	247	279	290	279	582	2053	1464	331	202	181
MAX	199	243	278	320	307	293	966	3440	3240	490	239	193
MIN	175	194	220	225	270	267	280	642	514	247	177	170
AC-FT	11420	12650	15210	17150	16660	17170	34620	126300	87110	20370	12390	10760

CAL YR 1987	TOTAL 184943	MEAN 507	MAX 2320	MIN 175	AC-FT 366800
WTR YR 1988	TOTAL 192463	MEAN 526	MAX 3440	MIN 170	AC-FT 381800

13010065 SNAKE RIVER ABOVE JACKSON LAKE, AT FLAGG RANCH, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1986 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 WATER (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 TOTAL (MG/L AS CAC03)	CALCIUM DIS- SOLVED (MG/L AS CA)
OCT 20...	1620	165	350	--	7.0	9.0	--	--	--	--	--	--
NOV 24...	1700	219	338	8.0	-9.0	3.0	10.8	102	K52	K3	72	22
DEC 16...	1110	250	249	--	-11.0	0.5	--	--	--	--	--	--
JAN 14...	1030	311	305	8.0	-2.0	0.5	12.2	106	79	31	55	17
FEB 23...	1420	295	276	--	0.0	1.0	--	--	--	--	--	--
MAR 16...	1430	298	298	7.5	0.0	4.5	9.9	96	K10	<1	58	18
APR 07...	1541	324	284	--	10.5	7.0	--	--	--	--	--	--
MAY 03...	1700	670	221	8.1	11.5	9.5	8.5	94	K5	<1	53	16
JUN 16...	1130	1210	146	--	23.0	11.5	--	--	--	--	--	--
JUL 13...	1300	346	272	8.3	24.0	16.0	8.0	102	22	K17	66	20
AUG 23...	0950	178	370	--	8.0	12.0	--	--	--	--	--	--
SEP 14...	1200	186	375	8.4	18.0	10.0	9.8	111	K15	49	92	28

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

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	CAR- BONATE WATER WH IT FIELD MG/L AS CO3	ALKA- LINITY WAT WH TOT IT FIELD 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 20...	--	--	--	--	--	--	--	--	22	--	--	--
NOV 24...	4.0	41	53	5.5	105	0	86	41	24	2.6	40	234
DEC 16...	--	--	--	--	--	--	--	--	19	--	--	--
JAN 14...	3.0	37	57	5.1	88	0	72	31	19	2.7	41	201
MAR 16...	3.2	38	56	5.2	99	0	81	35	21	2.9	41	210
MAY 03...	3.2	23	47	3.2	77	0	63	27	12	1.7	28	146
JUL 13...	3.8	28	46	3.7	87	0	71	34	15	1.7	30	172
SEP 14...	5.4	41	47	5.3	118	1	98	46	21	1.7	35	243

DATE	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)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 24...	233	0.32	138	<0.01	<0.1	0.04	0.03	0.3	0.01	0.03	0.03
JAN 14...	208	0.27	169	<0.01	<0.1	0.04	0.06	<0.2	0.04	0.03	0.03
MAR 16...	213	0.29	169	<0.01	<0.1	0.08	0.09	0.3	<0.01	<0.01	<0.01
MAY 03...	152	0.20	264	<0.01	<0.1	0.04	0.05	0.5	0.02	0.02	0.03
JUL 13...	180	0.23	161	<0.01	<0.1	<0.01	<0.01	0.2	0.02	0.01	<0.01
SEP 14...	244	0.33	122	<0.01	<0.1	<0.01	<0.01	0.3	0.01	0.01	<0.01

13010065 SNAKE RIVER ABOVE JACKSON LAKE, AT FLAGG RANCH, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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 24...	10	43	23	<0.5	<1	<1	<3	1	15	<5
MAR 16...	10	44	18	<0.5	<1	<1	<3	8	18	<5
MAY 03...	50	30	20	<0.5	<1	1	<3	4	44	<5
JUL 13...	<10	39	25	<0.5	<1	9	<3	2	54	<5
SEP 14...	<10	51	31	<0.5	2	<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)
NOV 24...	210	3	<0.1	<10	3	<1	<1	170	<6	6
MAR 16...	190	6	4.4	<10	<1	<1	1	130	<6	11
MAY 03...	120	5	0.2	<10	5	<1	<1	110	<6	6
JUL 13...	140	6	--	<10	<1	<1	<1	150	<6	16
SEP 14...	220	5	<0.1	<10	<1	<1	<1	220	<6	6

DATE	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. THAN .062 MM
NOV 24...	25	15	71
JAN 14...	7	5.9	71
MAR 16...	3	2.4	84
MAY 03...	9	16	88
JUL 13...	3	2.8	64
SEP 14...	1	0.50	92

SNAKE RIVER MAIN STEM

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.--WDR 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-ft. 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-ft. The earth dam was raised in 1916, increasing the usable capacity to 790,000 acre-ft. In 1917, by dredging the outlet, the capacity was further increased to 847,000 acre-ft 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, 286,200 acre-ft, June 11, elevation, 6,745.08 ft; minimum, 57,000 acre-ft, Sept. 30, elevation, 6,733.27 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

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62400	61800	68000	84100	93600	96100	102600	159600	270200	278200	207000	116400
2	62700	62700	70600	84300	93400	96300	102600	161500	269200	276500	203900	113800
3	62400	62900	71100	84600	93200	96700	103500	164000	270200	275400	201300	111200
4	62500	63100	71300	85200	93200	96900	104000	166700	275000	274600	198400	109200
5	62700	63100	71500	85600	93400	97000	104200	167700	280700	273100	195000	106400
6	62400	63200	71800	86100	93400	97400	104400	170600	281700	271500	191800	104800
7	62200	63800	72400	86300	93200	97800	104600	172400	281900	269800	188700	101800
8	61800	63800	73600	86600	93400	98000	104900	174300	282200	268100	186100	98700
9	61800	64000	73800	87000	93600	98000	105300	176700	283200	266600	182900	96100
10	61600	64000	75400	87500	93900	98200	105700	178800	284900	265000	180200	94100
11	61300	64000	76500	88100	94300	98500	106000	181600	285700	262900	177600	91600
12	61300	64700	76900	88300	94700	98500	106800	186100	285300	260600	174700	89500
13	61400	65400	76900	88600	94800	98500	109200	192600	283800	258300	172000	87700
14	61400	65900	77400	88800	95000	98700	110500	200400	282400	256300	169300	85700
15	61400	65700	77600	89200	95200	98900	112300	206200	281900	254200	165800	83600
16	61400	66100	78500	89500	95400	98900	115000	214000	281900	251900	162800	82300
17	61600	66400	78700	90100	95600	99100	118500	225500	281700	249400	160200	79200
18	61400	66600	78900	90300	95400	99200	122400	235300	281900	247000	156700	77400
19	61300	66600	79600	90600	95600	99400	127100	241400	282200	244700	153800	75100
20	60900	66800	79800	90800	95800	99400	131400	245300	283000	241800	149800	73100
21	60700	67000	80000	91200	95400	99400	135700	249000	283400	239200	147100	71500
22	60600	67200	80300	91400	95200	99400	139100	254200	283200	236300	144200	69100
23	60700	67500	80800	91600	95000	100200	142400	259000	283400	233200	141800	67200
24	60900	67700	81000	91700	95000	100500	144400	261800	283200	230600	139000	65200
25	61100	67700	81600	91900	95200	100700	146700	262700	283000	227700	136300	62900
26	61300	67700	81900	92100	95400	101100	148300	265800	283200	225100	133500	60900
27	61300	67900	82100	92300	95600	101300	149600	267300	281900	222400	130800	59700
28	61300	67700	82700	92500	95800	101400	151500	270000	281100	220000	128000	57700
29	61400	67900	83000	93000	96000	102000	153300	272500	280000	217400	125600	57500
30	61600	67900	83600	93200	---	102200	156500	273600	279000	213400	122900	57400
31	61600	---	83700	93400	---	102400	---	271900	---	210600	119600	---
MAX	62700	67900	83700	93400	96000	102400	156500	273600	285700	278200	207000	116400
MIN	60600	61800	68000	84100	93200	96100	102600	159600	269200	210600	119600	57400
†	6733.53	6733.88	6734.76	6735.29	6735.43	6735.78	6738.66	6744.40	6744.74	6741.41	6736.71	6733.29
‡	1400	6300	15800	9700	2600	6400	54100	115400	7100	-68400	-91000	-62200

CAL YR 1987 MAX 285100 MIN 55000
WTR YR 1988 MAX 285700 MIN 57400

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-ft.

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.--Records good.

COOPERATION.--Gage readings for current reporting purposes provided by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--85 years, 1,448 ft³/s, 1,049,000 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, 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, 6,190 ft³/s, May 27, gage height, 7.94 ft; minimum, 88 ft³/s, Dec. 4, gage height, 1.68 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	309	205	217	203	430	281	301	309	4890	1560	1730	1590
2	309	205	217	205	428	283	301	309	3840	1550	1700	1550
3	308	205	219	205	425	285	304	310	3160	1550	1720	1530
4	305	205	213	205	425	285	305	313	2980	1550	1770	1510
5	240	205	221	208	425	287	305	312	3460	1550	1760	1480
6	394	204	221	208	425	293	309	312	5680	1550	1740	1440
7	471	205	211	211	425	293	311	313	5220	1530	1730	1420
8	222	205	189	211	425	293	305	317	4660	1530	1720	1390
9	224	205	196	211	425	293	297	318	3830	1530	1700	1380
10	224	205	195	212	425	293	297	321	3150	1530	1680	1340
11	221	205	198	214	425	293	301	451	3150	1510	1680	1310
12	216	205	198	243	425	293	306	546	3520	1510	1750	1280
13	217	208	198	308	422	293	310	551	3520	1500	1730	1250
14	215	211	198	309	420	293	315	561	3510	1530	1710	1210
15	214	211	198	309	420	294	309	569	2870	1610	1710	1200
16	213	209	198	307	419	293	301	577	2460	1680	1720	1200
17	211	207	198	308	416	293	308	590	2460	1680	1730	1200
18	211	208	198	308	416	293	314	861	2460	1680	1710	1180
19	210	208	198	357	414	293	314	1350	2450	1670	1700	1160
20	208	211	198	434	412	293	314	1860	2160	1660	1700	1190
21	206	211	524	433	412	295	317	2090	1960	1740	1660	1200
22	205	211	528	430	412	297	317	2100	2150	1790	1630	1220
23	205	211	198	430	412	297	318	2860	2090	1780	1610	1280
24	205	211	198	430	356	297	321	4350	1970	1770	1590	1280
25	205	211	198	430	291	297	321	5110	1970	1760	1560	1250
26	204	211	198	430	284	297	321	5120	1970	1730	1580	1210
27	205	211	198	429	281	298	321	5160	1970	1720	1580	1210
28	205	210	200	428	281	297	321	4990	1730	1710	1550	1170
29	205	211	201	425	281	299	321	5090	1560	1790	1560	517
30	205	218	201	428	---	301	312	5420	1560	2090	1580	247
31	205	---	201	430	---	301	---	5520	---	1840	1620	---
TOTAL	7397	6248	6924	9899	11457	9093	9317	58860	88360	51180	51910	37394
MEAN	239	208	223	319	395	293	311	1899	2945	1651	1675	1246
MAX	471	218	528	434	430	301	321	5520	5680	2090	1770	1590
MIN	204	204	189	203	281	281	297	309	1560	1500	1550	247
AC-FT	14670	12390	13730	19630	22720	18040	18480	116700	175300	101500	103000	74170

CAL YR 1987 TOTAL 328952 MEAN 901 MAX 4100 MIN 111 AC-FT 652500
WTR YR 1988 TOTAL 348039 MEAN 951 MAX 5680 MIN 189 AC-FT 690300

13011500 PACIFIC CREEK AT MORAN, WY

LOCATION.--Lat^o43 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.

WATER-DISCHARGE RECORDS

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.--Records good except for estimated daily discharges, which are poor. No diversion or regulation.

AVERAGE DISCHARGE.--41 years (1944-75, 1979-88), 265 ft³/s, 21.29 in./yr, 192,000 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)
May 18	0215	*1,910	*5.74	June 5	0145	1,690	5.29
May 26	0100	1,830	5.48				

Minimum daily discharge, 27 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e38	36	e32	e31	e28	e35	e46	323	829	e190	48	44
2	e38	38	e33	e30	e28	e36	e48	280	762	e184	48	41
3	e38	45	e33	e30	e28	e35	50	257	825	e176	50	41
4	e37	45	e33	e29	e29	e34	53	242	1170	e168	50	39
5	e37	44	e32	e30	e29	e33	52	248	1400	e160	47	40
6	e36	43	e31	e31	e30	e33	50	280	1340	e148	44	40
7	e36	43	e31	e32	e30	e33	59	289	1170	e139	45	40
8	e36	42	e30	e33	e30	e32	65	269	1040	e132	44	41
9	e36	40	e31	e33	e32	e32	66	265	877	e126	43	41
10	36	37	e32	e34	e33	e33	66	276	784	e118	40	41
11	34	36	e31	e32	e34	e33	68	388	729	e110	40	40
12	33	36	e30	e31	e33	e32	82	609	624	e102	40	41
13	33	38	e29	e32	e33	e32	110	917	540	93	43	42
14	33	39	e29	e33	e33	e33	141	1080	484	87	40	45
15	32	40	e28	e34	e32	e35	188	915	430	77	39	45
16	32	39	e29	e32	e32	e36	236	1190	411	76	39	43
17	32	e37	e29	e30	e31	e37	308	1560	381	74	40	44
18	32	e35	e30	e27	e31	e38	359	1520	357	74	38	43
19	32	e36	e30	e28	e32	e38	436	1170	328	75	39	46
20	32	e36	e30	e29	e33	e39	385	1020	300	70	40	45
21	33	e37	e31	e29	e32	e41	375	1080	281	65	42	48
22	33	e37	e31	e28	e31	e42	328	1220	272	57	42	47
23	34	33	e31	e28	e31	e42	284	1390	e265	57	42	46
24	34	e34	e30	e28	e31	e42	260	1450	e245	54	43	45
25	34	e34	e29	e28	e32	e43	243	1320	e235	56	43	43
26	35	e34	e29	e28	e32	e43	204	1490	e222	51	44	43
27	35	e32	e30	e28	e33	e42	203	1380	e214	53	43	42
28	35	e31	e30	e29	e34	e42	216	1430	e208	66	43	46
29	36	e30	e30	e30	e34	e44	252	1450	e200	57	45	47
30	36	e31	e31	e29	---	e45	347	1380	e195	52	44	45
31	36	---	e32	e29	---	e45	---	1050	---	50	44	---
TOTAL	1074	1118	947	935	911	1160	5580	27738	17118	2997	1332	1294
MEAN	34.6	37.3	30.5	30.2	31.4	37.4	186	895	571	96.7	43.0	43.1
MAX	38	45	33	34	34	45	436	1560	1400	190	50	48
MIN	32	30	28	27	28	32	46	242	195	50	38	39
AC-FT	2130	2220	1880	1850	1810	2300	11070	55020	33950	5940	2640	2570

CAL YR 1987 TOTAL 51930 MEAN 142 MAX 956 MIN 28 AC-FT 103000
WTR YR 1988 TOTAL 62204 MEAN 170 MAX 1560 MIN 27 AC-FT 123400

e Estimated.

PACIFIC CREEK BASIN

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13011500 PACIFIC CREEK AT MORAN, WY

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1987 to current year.

WATER QUALITY DISCHARGE, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (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								
20...	1108	32	232	0.0	2.0	--	--	--
DEC								
15...	1340	28	252	-5.0	0.0	--	--	--
FEB								
24...	1225	31	218	0.0	0.0	--	--	--
APR								
07...	1023	56	232	10.0	2.0	--	--	--
MAY								
03...	1205	247	203	6.0	5.5	--	--	--
11...	1420	370	188	15.0	11.0	28	28	83
19...	0720	1180	136	12.5	3.0	215	685	52
26...	1240	1380	125	21.5	5.0	152	566	46
JUN								
02...	1130	768	135	10.5	6.0	49	102	99
09...	1000	824	123	12.0	6.0	80	178	22
14...	1120	501	133	15.0	10.0	24	32	39
23...	1100	265	163	--	--	8	5.7	58
JUL								
12...	1225	104	203	17.5	16.0	--	--	--
AUG								
23...	1540	44	226	24.0	19.0	--	--	--

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.--Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--23 years (1966-88), 548 ft³/s, 23.04 in./yr, 397,000 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	0540	*3,810	*6.44	No other peak greater than base discharge.			

Minimum daily, 88 ft³/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	137	e108	e102	e97	e140	e170	368	1350	788	245	152
2	145	143	e114	e99	e94	e142	e180	325	1210	738	240	153
3	144	170	e112	e98	e92	e130	e200	307	1320	714	252	153
4	143	160	e110	e96	e97	e126	e195	310	2090	692	273	153
5	141	143	e108	e100	e104	e124	e190	322	3090	640	242	153
6	129	138	e110	e105	e104	e128	e185	371	3300	609	228	153
7	129	147	e106	e102	e102	e124	e180	356	3080	560	227	152
8	129	138	e104	e99	e107	e116	e190	341	2770	522	240	147
9	129	124	e106	e98	e110	e118	e200	353	2410	490	225	148
10	128	125	e112	e96	e115	e122	e205	361	2350	466	217	151
11	121	137	e108	e100	e118	e120	e215	449	2200	442	214	172
12	123	129	e104	e104	e122	e118	230	627	1880	406	218	170
13	129	e125	e100	e105	e118	e114	260	890	1700	390	228	164
14	129	e120	e97	e108	e115	e118	311	1080	1550	381	213	164
15	126	e115	e93	e114	e114	e128	360	918	1550	370	209	163
16	120	e110	e100	e110	e116	e127	398	1150	1650	356	203	158
17	119	e105	e105	e102	e112	e126	441	1620	1790	343	198	157
18	136	e100	e108	e96	e115	e132	502	1740	1990	332	194	158
19	128	e104	e102	e88	e118	e134	568	1400	2010	330	190	162
20	117	e106	e97	e95	e124	e140	493	1150	1790	323	187	165
21	115	e110	e104	e99	e122	e145	468	1190	1870	315	185	175
22	116	e114	e108	e106	e118	e150	406	1360	1900	306	184	171
23	116	e110	e105	e104	e120	e146	356	1600	1700	298	185	166
24	122	e106	e100	e100	e122	e150	324	1840	1620	290	181	162
25	123	e110	e94	e97	e126	e155	303	1810	1510	279	180	161
26	120	e110	e97	e95	e130	e152	266	2020	1450	275	177	159
27	117	e110	e100	e100	e132	e150	262	2050	1210	275	174	159
28	120	e106	e98	e102	e136	e148	276	2180	1080	281	175	162
29	130	e100	e98	e108	e138	e150	304	2330	953	271	174	e165
30	133	e104	e102	e105	---	e152	361	2240	907	259	173	e154
31	137	---	e105	e99	---	e158	---	1690	---	251	154	---
TOTAL	3961	3656	3215	3132	3338	4183	8999	34748	55280	12992	6385	4782
MEAN	128	122	104	101	115	135	300	1121	1843	419	206	159
MAX	147	170	114	114	138	158	568	2330	3300	788	273	175
MIN	115	100	93	88	92	114	170	307	907	251	154	147
AC-FT	7860	7250	6380	6210	6620	8300	17850	68920	109600	25770	12660	9490

CAL YR 1987 TOTAL 128016 MEAN 351 MAX 2020 MIN 93 AC-FT 253900
WTR YR 1988 TOTAL 144671 MEAN 395 MAX 3300 MIN 88 AC-FT 287000

e Estimated.

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.--Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--26 years, 13.5 ft³/s, 17.30 in/yr, 9,780 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 discharges 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)
Dec. 1	0700	ice jam	*3.34	May 17	2000	54	3.25
				May 26	2330	*61	3.30

Minimum discharge, 3.5 ft³/s, Mar. 18, gage height, 2.49 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	6.1	e4.9	e4.3	e4.3	5.2	4.4	11	37	15	9.0	6.3
2	6.8	6.3	e5.0	e4.3	e4.4	5.1	4.4	11	34	14	8.9	6.3
3	6.8	6.2	e5.1	e4.4	4.6	5.0	4.5	11	34	14	9.3	6.1
4	6.8	e6.2	e4.9	e4.5	4.8	e4.7	e4.4	11	36	e14	8.8	6.0
5	6.8	e6.5	e4.8	e4.7	4.8	e4.5	e4.2	11	41	e14	8.8	5.9
6	6.7	6.7	e4.8	e4.7	4.8	e4.7	e4.0	12	42	e13	8.5	5.8
7	6.6	6.6	e4.7	e4.7	4.7	e4.6	4.1	12	40	e13	8.9	5.7
8	6.6	6.6	e4.7	e4.7	4.6	e4.5	4.2	11	38	e13	8.8	5.6
9	6.6	6.4	e4.7	e4.6	4.6	e4.6	4.3	12	37	e13	8.6	5.4
10	6.5	6.4	e4.6	e4.6	4.6	e4.7	4.9	12	35	e13	8.4	5.5
11	6.5	6.4	e4.6	e4.5	4.6	e4.8	4.6	14	33	e13	8.4	5.8
12	6.3	6.4	e4.5	e4.3	4.6	e4.3	5.1	18	30	e12	8.5	5.8
13	6.4	6.4	e4.3	e4.3	4.4	e4.1	5.7	24	28	e12	8.4	5.8
14	6.3	6.4	e4.3	e4.3	4.4	e4.3	6.4	27	25	e12	8.1	5.6
15	6.2	6.1	e4.0	e4.3	4.4	e4.4	7.3	27	23	e12	8.0	5.6
16	6.3	e5.9	e4.3	e4.2	4.4	e4.1	8.4	35	23	e12	7.9	5.5
17	6.2	e5.6	e4.4	e4.1	4.3	e3.9	9.6	47	23	e11	7.9	5.4
18	6.2	e5.5	e4.3	e4.0	4.2	3.6	9.9	48	23	e11	7.9	5.3
19	6.2	e5.1	e4.3	e3.9	e4.2	3.8	10	41	22	e10	8.0	5.2
20	7.0	4.7	e4.3	e4.0	e4.1	3.8	9.8	37	22	e10	7.9	5.3
21	6.3	4.7	e4.3	e4.1	e4.0	3.8	11	37	21	10	7.8	5.4
22	6.1	e4.6	e4.3	e4.2	4.2	3.8	9.7	42	20	9.9	7.8	5.2
23	6.2	e4.4	e4.4	e4.3	4.3	3.8	8.9	48	19	9.8	7.8	5.3
24	6.2	e4.6	e4.4	e4.4	4.7	3.6	8.6	49	19	9.6	7.5	5.3
25	6.1	e4.8	e4.5	e4.4	5.0	3.6	8.4	50	19	9.6	7.3	5.2
26	6.0	e4.7	e4.5	e4.3	5.0	3.7	8.6	56	19	9.7	7.3	5.2
27	6.0	e4.7	e4.5	e4.3	5.0	3.8	8.6	57	18	9.9	7.1	5.4
28	6.0	e4.8	e4.5	e4.1	5.0	4.1	9.3	57	17	9.8	6.9	5.4
29	6.0	e4.6	e4.6	e4.2	5.1	e4.2	10	55	16	9.6	6.7	5.1
30	6.0	e4.7	e4.6	e4.3	---	4.3	11	51	16	9.3	6.5	5.0
31	6.0	---	e4.4	e4.4	---	e4.3	---	44	---	9.2	6.4	---
TOTAL	197.5	169.1	140.5	134.4	132.1	131.7	214.3	978	810	357.4	248.1	166.4
MEAN	6.37	5.64	4.53	4.34	4.56	4.25	7.14	31.5	27.0	11.5	8.00	5.55
MAX	7.0	6.7	5.1	4.7	5.1	5.2	11	57	42	15	9.3	6.3
MIN	6.0	4.4	4.0	3.9	4.0	3.6	4.0	11	16	9.2	6.4	5.0
AC-FT	392	335	279	267	262	261	425	1940	1610	709	492	330
CAL YR 1987	TOTAL 3831.2 MEAN 10.5 MAX 33 MIN 4.0 AC-FT 7600											
WTR YR 1988	TOTAL 3679.5 MEAN 10.1 MAX 57 MIN 3.6 AC-FT 7300											

e Estimated.

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 1987 TO SEPTEMBER 1988

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 WATER (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 TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
NOV 25...	1000	4.8	326	8.3	0.0	0.0	10.8	95	K3	<1	180	48
JAN 13...	1500	4.2	309	8.2	-4.0	0.0	12.6	109	36	<1	180	46
MAR 17...	1600	4.0	333	8.4	2.0	0.0	11.4	98	<1	<1	180	47
MAY 04...	1700	11	344	8.6	10.0	5.0	10.0	100	<1	<1	190	53
JUL 13...	1800	13	303	8.6	26.0	13.5	8.0	98	16	55	160	44
SEP 13...	1312	6.1	303	8.7	--	6.0	9.6	95	K7	140	170	45

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

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3	CAR- BONATE WATER WH IT FIELD MG/L AS CO3	ALKA- LINITY WAT WH TOT IT 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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
NOV 25...	15	2.4	3	0.6	210	0	172	5.5	2.3	0.2	5.4	180
JAN 13...	15	2.4	3	0.5	214	0	175	5.9	0.8	0.2	5.3	177
MAR 17...	15	2.6	3	0.7	207	6	179	6.0	0.7	0.2	5.2	180
MAY 04...	15	4.4	5	0.8	219	1	182	12	0.7	0.2	5.4	197
JUL 13...	13	1.9	2	0.6	167	12	157	4.3	0.7	0.1	4.6	164
SEP 13...	15	2.1	3	0.6	187	5	161	4.6	0.8	0.1	4.8	169

DATE	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)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 25...	200	0.24	2.33	<0.01	0.1	0.03	0.02	1.6	0.02	0.04	0.03
JAN 13...	185	0.24	2.01	<0.01	<0.1	0.03	0.04	<0.2	0.01	0.02	0.02
MAR 17...	184	0.24	1.94	<0.01	<0.1	0.03	0.05	<0.2	<0.01	0.03	0.01
MAY 04...	199	0.27	5.85	<0.01	<0.1	0.10	0.03	<0.2	0.02	0.02	0.02
JUL 13...	163	0.22	5.76	<0.01	<0.1	0.01	0.01	0.3	0.01	0.01	<0.01
SEP 13...	170	0.23	2.78	<0.01	<0.1	<0.01	<0.01	0.4	0.01	0.01	<0.01

13018300 CACHE CREEK NEAR JACKSON, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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 25...	<10	1	30	<0.5	<1	<1	<3	2	6	<5
MAR 17...	<10	<1	30	<0.5	<1	<1	<3	1	5	<5
MAY 04...	<10	<1	42	<0.5	<1	<1	<3	2	7	<5
JUL 13...	<10	1	33	<0.5	<1	<1	<3	3	5	<5
SEP 13...	<10	<1	29	<0.5	2	<1	<3	3	7	<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 25...	4	11	<0.1	<10	2	<1	<1	61	<6	8
MAR 17...	<4	2	--	<10	<1	<1	<1	62	<6	5
MAY 04...	9	3	0.7	<10	5	<1	<1	110	<6	31
JUL 13...	6	3	--	<10	<1	<1	<1	59	<6	6
SEP 13...	6	3	<0.1	<10	<1	<1	<1	56	<6	13

DATE	SEDI- MENT, DIS- SOLVED (MG/L)	SEDI- MENT, DIS- SOLVED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 25...	38	0.49	74
JAN 13...	40	0.45	34
MAR 17...	3	0.03	71
MAY 04...	26	0.77	76
JUL 13...	11	0.39	77
SEP 13...	4	0.07	88

SNAKE RIVER MAIN STEM

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.--Records good except for estimated daily discharges, which are fair.

AVERAGE DISCHARGE.--12 years (1977-88), 3,651 ft³/s, 2,645,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,600 ft³/s, June 6, 1986, gage height, 10.22 ft; minimum daily, 690 ft³/s, Jan. 19, 1988.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 12,900 ft³/s, June 7; minimum daily, 690 ft³/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	1020	e890	e860	e1020	923	1020	2350	e10200	4300	2920	2390
2	1260	e1020	e920	e845	e930	923	1030	2220	e9150	4110	2810	2370
3	1240	e1020	e885	e840	e870	924	1100	2070	e8350	3960	2860	2400
4	1210	e1020	e870	e810	e920	932	1390	2020	8520	3880	2930	2440
5	1190	e1010	e915	e780	e950	923	1340	1990	10000	3760	2930	2430
6	1140	e1010	e875	e800	e990	917	1300	2010	e12100	3560	2850	2420
7	1170	e1010	e855	e810	e980	930	1400	2180	e12900	3480	2830	2330
8	1260	e1020	e825	e830	e1010	922	1430	2140	e12200	3410	2830	2280
9	1110	e1020	e845	e850	1050	914	1390	2060	10900	3330	2760	2260
10	1070	1020	e870	e880	1050	914	1290	2060	9570	3270	2720	2240
11	1050	1020	e835	e885	1050	912	1280	2150	8940	3220	2670	2240
12	1040	1020	e795	e865	1050	921	1360	2850	8800	3120	2740	2260
13	1040	1020	e755	e860	1050	905	1560	3830	8590	3050	2810	2220
14	1040	1020	e715	e895	1050	905	1790	5020	8230	2990	2740	2170
15	1040	1020	e750	e930	1040	909	1980	5190	7850	3030	2690	2130
16	1030	e1000	e820	e920	1050	907	2200	5210	6950	3070	2670	2100
17	1030	e970	e850	e870	1040	905	2420	6230	6950	3080	2650	2080
18	1020	e920	e860	e790	e1010	905	2650	7310	7050	3050	2640	2050
19	1020	e910	e835	e690	1030	905	2940	7000	7340	3010	2620	2050
20	1020	e915	e800	e750	1040	908	3050	6550	7150	2970	2590	2050
21	1010	e925	e805	e810	1030	946	3000	6640	6690	2920	2570	2100
22	1010	e945	e910	e870	1050	1010	2850	6810	6850	2980	2520	2100
23	1010	e930	e1000	e940	1060	1020	2550	7620	6830	2990	2480	2120
24	1020	e920	e900	e950	1030	1030	2380	9390	6420	2960	2440	2140
25	1030	e940	e810	e940	995	1010	2330	11100	6160	2940	2410	2130
26	1030	e905	e800	e920	942	1080	2150	11700	6210	2920	2360	2110
27	1030	e895	e825	e940	916	1260	1960	11900	5990	2930	2370	2060
28	1030	e860	e840	e960	906	1180	1910	12100	5590	3000	2380	2080
29	1020	e845	e850	e1020	923	1090	1950	12200	4920	2960	2350	1960
30	1020	e865	e865	1100	---	1060	2090	e12000	4540	3100	2360	1460
31	1020	---	e870	1050	---	1040	---	e11600	---	3260	2400	---
TOTAL	33550	29015	26240	27260	29032	30030	57090	185500	241940	100610	81900	65170
MEAN	1082	967	846	879	1001	969	1903	5984	8065	3245	2642	2172
MAX	1340	1020	1000	1100	1060	1260	3050	12200	12900	4300	2930	2440
MIN	1010	845	715	690	870	905	1020	1990	4540	2920	2350	1460
AC-FT	66550	57550	52050	54070	57580	59560	113200	367900	479900	199600	162400	129300

CAL YR 1987 TOTAL 902672 MEAN 2473 MAX 10600 MIN 715 AC-FT 1790000
WTR YR 1988 TOTAL 907337 MEAN 2479 MAX 12900 MIN 690 AC-FT 1800000

e Estimated.

13019430 GRANITE CREEK NEAR BONDURANT, WY

WATER-QUALITY RECORDS

LOCATION.--Lat 43°17'44", long 110°29'58", in sec.35, T.35 N, R.114 W., Teton County, Hydrologic Unit 17040103, at Chevron Oil Co. bridge crossing, 1.0 mi upstream of Little Granite Creek confluence, 2.5 mi upstream from mouth and 12.3 mi east of Hoback Junction on U.S. Highway 187/189.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT								
21...	1030	56	266	-3.0	0.5	--	--	--
MAY								
12...	0840	170	281	9.0	4.0	25	11	66
18...	1410	404	250	12.0	4.5	35	38	76
27...	0850	569	114	12.5	5.0	93	143	71
JUN								
01...	1025	285	217	14.0	5.0	11	8.5	74
08...	1410	532	182	28.0	8.0	27	39	74
15...	1030	385	172	15.0	6.0	8	8.3	79
22...	1230	346	156	--	--	7	6.5	63
JUL								
14...	1130	118	236	24.0	12.0	--	--	--
AUG								
24...	0930	67	259	20.0	8.0	--	--	--

HOBACK RIVER BASIN

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, 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, 11.3 mi east of Hoback Junction on U.S. 187/189 and 1.4 mi northeast of U.S. 187/189 on Granite Creek Road.

DRAINAGE AREA.--21.1 mi².

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.--Records good except for estimated daily discharges, which are fair. No diversion upstream from station.

AVERAGE DISCHARGE.--6 years, 33.8 ft³/s, 21.75 in/yr, 24,500 acre-ft/yr.

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, 2.5 ft³/s, Feb. 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 202 ft³/s, May 16, gage height, 2.92 ft; minimum observed, 3.3 ft³/s, Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	5.9	e5.3	5.2	e5.0	5.5	e11	e54	88	30	11	5.8
2	8.4	6.3	e5.4	5.2	e4.9	5.5	e11	e50	80	29	11	5.9
3	8.4	6.8	e5.6	5.2	e4.9	e5.4	12	e48	80	28	12	5.9
4	8.2	6.2	5.5	5.3	e5.0	e5.4	e11	47	92	28	11	5.7
5	7.9	6.0	5.5	5.4	e5.1	e5.3	e11	50	103	26	9.9	5.7
6	7.9	6.0	5.5	5.4	e5.2	e5.6	12	54	92	25	9.6	5.5
7	7.9	6.4	e5.4	5.4	e5.0	e5.4	14	52	79	24	10	5.5
8	7.9	6.2	e5.4	5.3	e5.1	e5.2	16	50	72	24	10	5.5
9	7.9	5.7	5.5	5.2	e5.1	e5.4	16	50	63	23	9.4	5.5
10	7.9	5.9	e5.4	5.2	5.2	5.7	17	54	58	22	9.1	5.9
11	e7.8	e5.9	e5.4	5.0	5.2	e5.6	18	65	56	21	8.9	6.3
12	e7.6	e5.8	e5.3	e4.9	5.2	e5.5	22	81	53	20	9.1	6.5
13	7.5	e5.7	e5.3	e4.8	e5.1	e5.4	27	110	51	19	8.9	6.1
14	7.4	e5.5	e5.2	e4.9	e5.0	e5.5	30	127	50	17	8.5	5.7
15	7.2	5.1	e5.1	e5.0	5.2	5.8	36	130	50	16	8.3	5.7
16	e7.0	e5.0	e5.3	e4.9	e5.2	e5.5	42	159	49	16	8.3	5.5
17	e6.9	e4.9	e5.5	e4.8	e5.0	e5.4	45	188	49	15	7.8	5.5
18	6.8	e4.8	e5.5	e4.7	e5.1	e5.4	e52	164	48	15	7.6	5.7
19	6.9	e5.0	e5.4	e4.5	e5.2	e5.9	e70	144	46	15	7.4	5.9
20	e7.0	e5.2	5.5	e4.8	5.4	e6.3	e61	135	43	14	7.1	5.9
21	e6.7	e5.3	5.5	e4.9	e5.0	e6.8	e58	137	43	14	7.0	5.7
22	e6.5	e5.6	5.5	e5.0	5.1	e7.4	e53	142	41	13	6.8	5.5
23	e6.0	e5.4	5.5	e5.1	e5.0	e7.7	e47	148	40	13	6.8	5.4
24	e5.8	e5.3	5.4	5.1	e4.9	e7.9	e43	148	36	13	6.9	5.5
25	5.9	e5.5	5.5	5.1	e5.0	8.4	e39	137	35	13	6.8	5.4
26	5.8	e5.4	5.5	5.1	e5.1	8.8	e37	138	35	13	6.6	5.2
27	e5.7	e5.2	5.5	5.1	e5.2	9.0	e38	140	34	13	6.3	5.5
28	e5.5	e5.3	5.5	5.1	e5.3	e9.4	e42	135	34	12	6.4	6.8
29	e5.6	e5.0	5.5	5.1	e5.4	e9.6	e47	125	33	12	6.3	5.9
30	5.7	e5.1	5.5	5.1	---	e9.8	e57	119	32	11	5.9	5.7
31	5.7	---	5.3	5.1	---	e10	---	99	---	11	5.9	---
TOTAL	217.8	167.4	168.2	156.9	148.1	205.5	995	3280	1665	565	256.6	172.3
MEAN	7.03	5.58	5.43	5.06	5.11	6.63	33.2	106	55.5	18.2	8.28	5.74
MAX	8.4	6.8	5.6	5.4	5.4	10	70	188	103	30	12	6.8
MIN	5.5	4.8	5.1	4.5	4.9	5.2	11	47	32	11	5.9	5.2
AC-FT	432	332	334	311	294	408	1970	6510	3300	1120	509	342

CAL YR 1987 TOTAL 7391.7 MEAN 20.3 MAX 111 MIN 4.8 AC-FT 14660
WTR YR 1988 TOTAL 7997.8 MEAN 21.9 MAX 188 MIN 4.5 AC-FT 15860

e Estimated.

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1981 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: December 1981 to September 1985.

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 ton, Dec. 11, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 WATER (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									
21...	0940	3.3	452	--	-6.0	0.0	--	--	--
NOV									
24...	1300	5.3	473	7.8	0.5	0.0	11.8	101	<1
DEC									
18...	1020	10	470	--	-11.0	0.0	--	--	--
FEB									
25...	1208	4.1	450	--	-3.0	0.5	--	--	--
MAR									
17...	1050	4.9	495	8.0	0.0	0.0	11.4	97	K3
APR									
06...	1045	8.6	515	--	1.0	0.5	--	--	--
MAY									
04...	1100	47	382	8.7	10.0	4.5	9.7	92	<1
12...	1112	68	347	--	19.0	5.0	--	--	--
18...	1255	156	332	--	12.0	6.5	--	--	--
27...	1346	129	300	--	25.0	10.0	--	--	--
JUN									
03...	0957	75	336	--	16.5	6.0	--	--	--
10...	0915	59	321	--	18.0	6.0	--	--	--
15...	1200	48	317	--	22.0	11.0	--	--	--
22...	1455	41	318	--	--	--	--	--	--
JUL									
14...	1010	15	359	--	20.0	11.0	--	--	--
SEP									
15...	0915	7.0	426	8.6	--	6.0	11.2	112	K7

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 TOTAL (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)	BICAR- BONATE WATER WH IT FIELD MG/L AS HCO3
NOV								
24...	<1	250	75	16	4.6	4	0.1	242
MAR								
17...	K2	260	78	17	5.3	4	0.1	251
MAY								
04...	<1	210	63	13	3.5	3	0.1	201
SEP								
15...	48	230	67	16	4.1	4	0.1	219

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

HOBACK RIVER BASIN

13019438 LITTLE GRANITE CREEK AT MOUTH, NEAR BONDURANT, WY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CAR- BONATE WATER WH IT FIELD MG/L AS CO3	ALKA- LINITY WAT WH TOT IT 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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)
NOV 24...	0	198	64	2.2	0.2	5.3	285	<0.1	0.01
MAR 17...	0	206	82	1.1	0.2	5.2	311	<0.1	--
MAY 04...	11	182	29	0.7	0.3	4.5	224	0.1	--
SEP 15...	6	189	50	0.7	0.1	4.3	263	<0.1	<0.01

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 24...	1300	5.3	89	1.3	71
MAR 17...	1050	4.9	5	0.07	68
MAY 04...	1100	47	54	6.9	80
12...	1112	68	81	15	73
18...	1255	156	147	62	66
27...	1346	129	53	18	70
JUN 03...	0957	75	47	9.5	70
10...	0915	59	21	3.3	75
15...	1200	48	27	3.5	64
22...	1455	41	10	1.1	67
SEP 15...	0915	7.0	4	0.08	76

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.

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.--Records good.

AVERAGE DISCHARGE.--36 years (1938, 1954-88), 4,602 ft³/s, 3,334,000 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 discharge, 16,100 ft³/s, June 6, gage height, 8.85 ft; minimum daily, 925 ft³/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1680	1380	e1220	e1050	e1360	e1160	1310	3860	12700	5180	3340	2700
2	1600	1380	e1250	e1030	e1240	e1160	1360	3600	10900	4910	3230	2670
3	1590	1380	e1180	e1010	e1130	e1170	1510	3390	9730	4750	3290	2660
4	1570	1380	e1150	e1000	e1150	e1160	1790	3280	10200	4640	3350	2730
5	1540	1380	e1220	e980	e1170	1190	1710	3260	12200	4570	3310	2690
6	1500	1380	e1180	e1010	e1190	e1160	1710	3440	14700	4290	3230	2690
7	1520	1380	e1140	e1020	e1160	e1170	1900	3600	15800	4190	3210	2620
8	1640	1380	e1120	e1080	e1200	1190	2000	3480	14600	4090	3230	2550
9	1460	1380	e1150	e1120	e1250	e1160	1890	3380	13200	3980	3150	2530
10	1420	1380	e1160	e1150	e1260	e1140	1810	3410	11600	3870	3100	2520
11	1410	1380	e1070	e1130	e1250	1170	1910	3690	10800	3810	3070	2550
12	1400	1380	e1030	e1100	e1240	1180	2160	4590	10600	3700	3110	2580
13	1400	1380	e995	e1110	e1230	1170	2530	6040	10300	3580	3210	2500
14	1400	1370	e960	e1170	e1220	e1130	2990	7470	9720	3520	3130	2470
15	1390	1360	e1000	e1200	e1250	e1150	3490	7630	9400	3520	3070	2440
16	1380	1320	e1040	e1180	e1310	1170	3990	7700	8550	3550	3060	2400
17	1390	1320	e1140	e1130	1290	1180	4380	9070	8580	3550	3030	2380
18	1380	1230	e1120	e1070	e1220	1160	4670	10200	8700	3520	3010	2350
19	1390	1230	e1080	e925	1290	1190	5060	9800	8970	3470	2970	2370
20	1390	1220	e1030	e990	1340	1210	5000	9060	8750	3440	2930	2380
21	1390	1240	e1040	e1040	1300	1270	4960	9070	8270	3410	2900	2400
22	1390	1270	e1200	e1140	e1220	1340	4690	9420	8340	3430	2870	2440
23	1380	1260	e1260	e1180	1280	1350	4080	10100	8320	3430	2830	2410
24	1380	1240	e1050	e1170	1290	1340	3790	11900	7860	3420	2780	2430
25	1380	1260	e1040	e1160	1270	1300	3680	13500	7500	3390	2740	2440
26	1380	1220	e1020	e1150	e1200	1390	3360	14100	7480	3360	2700	2420
27	1380	1200	e1040	e1200	e1170	1560	3120	14500	7270	3380	2700	2410
28	1380	e1170	e1050	e1260	e1160	1450	3070	14600	6730	3450	2710	2450
29	1380	e1140	e1070	e1320	e1150	1350	3200	14800	6000	3380	2680	2320
30	1380	e1170	e1080	e1380	---	e1280	3570	14700	5480	3440	2690	1880
31	1380	---	e1060	e1400	---	e1250	---	14200	---	3630	2710	---
TOTAL	44650	39160	34145	34855	35790	38250	90690	250840	293250	117850	93340	74380
MEAN	1440	1305	1101	1124	1234	1234	3023	8092	9775	3802	3011	2479
MAX	1680	1380	1260	1400	1360	1560	5060	14800	15800	5180	3350	2730
MIN	1380	1140	960	925	1130	1130	1310	3260	5480	3360	2680	1880
AC-FT	88560	77670	67730	69130	70990	75870	179900	497500	581700	233800	185100	147500

CAL YR 1987 TOTAL 1167905 MEAN 3200 MAX 13000 MIN 960 AC-FT 2317000
WTR YR 1988 TOTAL 1147200 MEAN 3134 MAX 15800 MIN 925 AC-FT 2275000

e Estimated.

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, 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.--Records good except for estimated daily discharges, which are fair. Less than 500 acres irrigated by diversions from Greys River and tributaries upstream from station.

AVERAGE DISCHARGE.--36 years (1938, 1954-88), 660 ft³/s, 20.01 in./yr, 478,200 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, 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)
May 18	0140	*2,340	4.21	May 27	0350	2130	4.03
Jan. 3	1600	ice jam	*5.45				

Minimum daily discharge, 110 ft³/s, Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	238	215	201	e150	e185	e200	185	1010	1490	706	381	274
2	238	217	215	e140	e175	e190	204	964	1370	674	371	275
3	238	227	219	e125	e155	e175	259	916	1360	654	385	273
4	238	220	213	e135	e180	e170	319	879	1570	637	395	271
5	238	212	200	e145	e175	e175	267	879	1810	631	371	270
6	238	215	181	e155	e180	e180	281	996	1810	600	362	268
7	238	226	e176	e165	e185	e185	390	962	1740	582	368	262
8	238	219	e172	e180	e190	e182	471	915	1660	577	366	259
9	238	210	179	e190	e200	e185	406	919	1550	559	351	261
10	238	200	e195	e195	e200	e188	403	935	1490	549	346	276
11	235	202	e202	e205	e205	e185	502	1100	1450	548	350	290
12	226	202	e150	e185	e208	e185	660	1380	1380	529	350	282
13	226	202	e132	e170	e210	e188	824	1700	1310	516	355	276
14	234	212	e122	e185	e212	e180	939	1790	1250	511	336	281
15	235	195	e124	e190	e215	e185	1060	1690	1200	501	325	275
16	231	170	e138	e170	e210	e182	1230	1910	1160	492	322	268
17	226	e162	e162	e155	e190	e180	1400	2150	1150	475	314	263
18	223	e154	e175	e130	e202	e180	1420	2150	1130	476	309	260
19	223	e150	e182	e110	e205	e178	1450	1870	1110	468	305	267
20	221	e160	e168	e135	e220	181	1320	1700	1080	461	301	268
21	219	e168	e184	e165	e215	184	1350	1720	1040	446	296	271
22	214	e177	e192	e160	e205	197	1220	1770	1010	441	295	264
23	204	e174	e172	e175	e205	202	1060	1850	965	436	295	262
24	211	e168	e154	e160	e208	194	979	1900	931	422	293	258
25	214	e164	e146	e145	e210	186	932	1890	894	420	288	256
26	206	e163	e140	e155	e212	185	844	1940	882	420	288	253
27	210	162	e154	e160	e210	203	815	2030	856	420	286	262
28	212	165	e160	e165	e210	202	838	2000	804	420	286	282
29	216	178	e154	e175	e210	182	904	1950	773	406	285	260
30	213	193	e155	e195	---	188	1040	1920	733	396	280	256
31	211	---	e155	e190	---	185	---	1700	---	383	277	---
TOTAL	6995	5682	5272	5060	5787	5762	23972	47485	36958	15756	10132	8043
MEAN	226	189	170	163	200	186	799	1532	1232	508	327	268
MAX	238	227	219	205	220	203	1450	2150	1810	706	395	290
MIN	204	150	122	110	155	170	185	879	733	383	277	253
AC-FT	13870	11270	10460	10040	11480	11430	47550	94190	73310	31250	20100	15950

CAL YR 1987 TOTAL 150226 MEAN 412 MAX 1560 MIN 122 AC-FT 298000
WTR YR 1988 TOTAL 176904 MEAN 483 MAX 2150 MIN 110 AC-FT 350900

e Estimated.

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.--No estimated daily discharges. Records good. Diversions upstream from station for power developments, industry, municipal supply, and irrigation of about 60,500 acres of which about 1,000 acre are below station (1966 determination). For details on adjudication of diversions, see Remarks for this station in WSP 1347.

AVERAGE DISCHARGE.--35 years, 803 ft³/s, 581,800 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, 1,210 ft³/s, May 18, 19, gage height, 2.90 ft; minimum, 326 ft³/s, Feb. 3, gage height, 1.54 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	475	431	361	358	352	402	928	964	428	375	362
2	449	493	438	348	354	352	417	870	880	419	370	362
3	448	502	445	339	340	348	457	835	805	417	379	363
4	449	493	443	341	356	345	547	798	716	417	382	360
5	453	480	439	345	350	341	598	787	690	414	376	362
6	454	486	439	356	351	349	633	813	732	405	374	369
7	457	498	447	362	352	351	772	839	715	403	378	371
8	458	490	444	367	361	348	897	851	678	400	383	369
9	462	485	443	371	367	348	743	889	632	400	378	373
10	463	482	461	374	364	352	697	873	588	400	370	382
11	465	482	477	384	364	349	754	885	545	400	359	388
12	470	477	453	374	366	348	840	938	531	397	365	390
13	481	473	404	362	367	350	909	1040	519	394	368	391
14	490	469	401	377	365	351	944	1130	497	392	363	392
15	486	465	396	383	368	352	957	1100	480	390	364	395
16	482	463	419	381	366	351	997	1110	461	392	364	398
17	483	460	411	375	356	351	1080	1180	448	387	363	399
18	480	446	401	367	362	351	1070	1210	462	388	363	399
19	477	439	408	349	359	350	948	1180	455	382	361	401
20	485	447	389	355	367	352	907	1130	450	379	361	406
21	488	450	396	368	360	356	981	1080	445	376	357	411
22	483	454	412	357	361	359	997	1060	443	376	357	410
23	483	450	410	363	356	366	964	1050	441	378	357	406
24	490	446	378	358	357	373	894	1070	434	378	358	405
25	492	445	354	349	357	376	906	1070	428	381	359	401
26	487	443	353	350	357	389	870	1060	436	380	359	400
27	480	434	363	354	357	413	824	1040	449	383	359	404
28	482	431	374	355	358	408	822	1050	436	388	363	408
29	480	426	361	360	356	401	862	1020	430	386	364	407
30	478	422	363	369	---	399	931	1010	427	383	360	406
31	477	---	366	365	---	398	---	1020	---	380	361	---
TOTAL	14662	13906	12719	11219	10412	11229	24620	30916	16617	12193	11350	11690
MEAN	473	464	410	362	359	362	821	997	554	393	366	390
MAX	492	502	477	384	368	413	1080	1210	964	428	383	411
MIN	448	422	353	339	340	341	402	787	427	376	357	360
AC-FT	29080	27580	25230	22250	20650	22270	48830	61320	32960	24180	22510	23190

CAL YR 1987	TOTAL 188398	MEAN 516	MAX 1040	MIN 353	AC-FT 373700
WTR YR 1988	TOTAL 181533	MEAN 496	MAX 1210	MIN 339	AC-FT 360100

13046680 BOUNDARY CREEK NEAR BECHLER RANGER STATION, WY

LOCATION.--Lat 44°11'09", long 111°00'19", T.49 N., R.118 W., Teton County, Hydrologic Unit 17040203, Yellowstone National Park, on right bank 0.4 mi upstream from confluence with the Bechler River, 3.8 mi north of the Bechler Ranger Station, and 28.0 mi northeast of Ashton, Idaho.

DRAINAGE AREA.--86.9 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 6,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 810 ft³/s, June 2, 1986; maximum gage height, 4.82 ft, June 18, 1986; minimum, 55 ft³/s, Feb. 16, 1988, gage height, 1.71 ft.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 263 ft³/s, May 30, June 6, gage height, 3.97; minimum, 55 ft³/s, Feb. 16, gage height, 1.71 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	68	66	63	61	61	66	191	195	74	64	60
2	64	69	67	63	61	60	67	146	168	73	64	60
3	64	71	67	63	60	61	71	147	167	73	64	60
4	64	69	67	63	61	61	71	170	196	73	64	60
5	65	68	66	63	60	61	69	193	233	73	64	60
6	65	68	66	63	60	62	69	198	252	71	64	59
7	65	69	67	63	60	61	72	151	243	71	63	59
8	65	68	66	63	60	62	74	146	222	70	63	59
9	65	68	66	63	61	62	71	153	169	70	63	59
10	65	68	67	63	60	62	71	166	142	69	63	59
11	65	68	67	64	60	62	72	208	127	69	63	59
12	65	69	66	63	60	62	78	217	115	69	64	59
13	65	70	65	63	60	62	83	220	106	68	64	59
14	65	71	65	62	60	62	92	225	101	68	63	59
15	65	68	65	63	60	62	111	193	96	68	63	59
16	65	68	65	63	60	63	136	186	93	67	62	58
17	66	68	65	62	59	63	165	193	91	67	62	58
18	66	67	65	62	60	63	182	180	89	67	62	59
19	66	67	65	61	59	63	164	166	86	66	61	60
20	66	67	65	61	59	63	198	167	85	66	61	60
21	66	67	65	62	59	64	223	175	85	66	61	60
22	66	67	65	61	59	65	220	188	83	66	61	59
23	66	67	64	62	59	65	197	204	81	66	61	59
24	67	67	e64	61	59	65	170	218	80	66	61	59
25	67	67	64	61	59	65	164	230	79	65	61	60
26	67	67	64	61	59	65	143	239	78	65	60	60
27	67	66	64	61	59	66	147	245	78	65	60	60
28	67	66	63	61	59	66	166	247	76	65	61	61
29	67	66	63	61	60	66	194	251	75	65	60	60
30	67	66	63	62	---	67	224	254	74	65	60	60
31	67	---	63	61	---	66	---	242	---	64	60	---
TOTAL	2034	2035	2020	1928	1733	1958	3830	6109	3765	2110	1927	1783
MEAN	65.6	67.8	65.2	62.2	59.8	63.2	128	197	125	68.1	62.2	59.4
MAX	67	71	67	64	61	67	224	254	252	74	64	61
MIN	64	66	63	61	59	60	66	146	74	64	60	58
AC-FT	4030	4040	4010	3820	3440	3880	7600	12120	7470	4190	3820	3540

CAL YR 1987 TOTAL 31604 MEAN 86.6 MAX 420 MIN 63 AC-FT 62690
WTR YR 1988 TOTAL 31232 MEAN 85.3 MAX 254 MIN 58 AC-FT 61950

e Estimated.

DISCHARGE AT MISCELLANEOUS SITES

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 1988

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin						
West Tensleep Creek	Tensleep Creek	Lat 44°10'08", long 107°14'59", in SE1/4 SW1/4 SE1/4 sec.31, T.49 N., R.86 W., Big Horn County, Hydrologic Unit 10080008, Bighorn National Forest, at bridge on West Lake Road, and 0.2 mi north of Deer Haven Lodge.			7-16-88	11.5
East Tensleep Creek	Tensleep Creek	Lat 44°09'55", long 107°13'54", in NW1/4 NE1/4 NE1/4 sec.6, T.48 N., R.86 W., Washakie County, Hydrologic Unit 10080008, Bighorn National Forest, at outlet of Meadowlark Lake, and 0.9 mi east of Deer Haven Lodge.			7-16-88	9.50
Unnamed Tributary	Tensleep Creek	Lat 44°08'57", long 107°15'00" in NW1/4 NW1/4 NW1/4 sec.7, T.48 N., R.86 W., Washakie County, Hydrologic Unit 10080008, Bighorn National Forest, at US Hwy 16, 0.3 mi downstream from confluence of East Tensleep Creek and West Tensleep Creek, and 1.2 mi south of Deer Haven Lodge.			7-16-88	4.29
Indian Creek	Tensleep Creek	Lat 44°07'46", long 107°14'39" in NW1/4 SE1/4 NW1/4 sec.18, T.48 N., R.86 W., Washakie County, Hydrologic Unit 10080008, Bighorn National Forest, at Wyo 435, 0.7 mi south of US Hwy 16 intersection, and 2.7 mi south of Deer Haven Lodge.			7-16-88	1.25
Leigh Creek 06270200	Tensleep Creek	Lat 44°09'49", long 107°09'14" in NE1/4 NW1/4 NE1/4 sec.2, T.48 N., R.86 W., Washakie County, Hydrologic Unit 10080008, Bighorn National Forest, at Culverton Forest Service Road, 1.4 mi west of Washakie-Johnson County Line, and 16.9 mi northeast of Ten Sleep.	2.54	1961-74†	7-15-88	1.72
Leigh Creek	Tensleep Creek	Lat 44°05'09", long 107°13'25" in NE1/4 SW1/4 NW1/4 sec.32, T.48 N., R.86 W., Washakie County, Hydrologic Unit 10080008, Bighorn National Forest, 5.4 mi south of Meadowlark Lake, and 7.7 miles east of Ten Sleep.			7-17-88	.84
Leigh Creek	Tensleep Creek	Lat 44°04'54", long 107°18'30" in SW1/4 NW1/4 SW1/4 sec.34, T.48 N., R.87 W., Washakie County, Hydrologic Unit 10080008, Bighorn National Forest, at Tensleep Fish Hatchery, 0.8 mi east of intersection of US Hwy 16 and Wyo 435, and 7.5 mi east of Ten Sleep.			7-15-88 7-17-88	5.84 5.42
Leigh Creek	Tensleep Creek	Lat 44°04'53", long 107°18'36" in SE1/4 NE1/4 SE1/4 sec.33, T.48 N., R.87 W., Washakie County, Hydrologic Unit 10080008, Bighorn National Forest, 100 ft upstream from mouth, 0.8 mi east of intersection of U.S. Hwy 16 and Wyo 435, and 7.5 mi east of Ten Sleep.			7-16-88	5.47
Tensleep Creek	Nowood River	Lat 44°04'03", long 107°21'08" in NE1/4 NE1/4 SE1/4 sec.6, T.47 N., R.87 W., Washakie County, Hydrologic Unit 10080008, at US Hwy 16 bridge at Canyon Lodge, 5.2 mi east of Ten Sleep.			7-16-88	33.9

† Operated as a crest-stage station.

Discharge measurements made at special study and miscellaneous sites during water year 1988--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
Canyon Creek 06270500	Tensleep Creek	Lat 44°03'39", long 107°23'03" in SW1/4 NE1/4 NW1/4 sec.12, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, at US Hwy 16, 300 ft upstream from mouth, and 4.4 mi northeast of Ten Sleep.	86.1	1939-44†	7-16-88	17.6
Unnamed Tributary	Tensleep Creek	Lat 44°03'42", long 107°23'03" in NW1/4 NE1/4 NW1/4 sec.12, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, at mouth, discharge from spring Wigwam Fish Rearing Station, at US Hwy 16 and Canyon Creek, and 4.4 mi northeast of Ten Sleep.			7-16-88	0.67
Tensleep Creek 06271000	Nowood River	Lat 44°03'28", long 107°23'14" in NW1/4 SW1/4 NW1/4 sec.12, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, 0.3 mi downstream from Canyon Creek, and 3.2 mi northeast of Ten Sleep.	247	1910-12† 1914-24† 1943-71†	7-16-88	51.1
Paintrock Creek	Nowood River	Lat 44°16'16", long 107°25'40" in NE1/4 SE1/4 SE1/4 sec.27, T.50 N., R.88 W., Big Horn County, Hydrologic Unit 10080008, 500 ft downstream from Laddie Creek, 4.2 mi east of Hyatt Ranch buildings, and 8.7 mi northeast of Hyattville.			7-14-88	73.1
Paintrock Creek	Nowood River	Lat 44°17'12", long 107°29'13" in NE1/4 SW1/4 SE1/4 sec.24, T.50 N., R.89 W., Big Horn County, Hydrologic Unit 10080008, 500 ft downstream from BLM boundary, 1.7 mi east of Hyatt Ranch buildings, and 6.1 mi northeast of Hyattville.			7-14-88	70.0
Shell Creek	Bighorn River	Lat 44°34'56", long 107°40'53" in NE1/4 SE1/4 SE1/4 sec.9, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, Big Horn National Forest, at base of switchbacks on US Hwy 14, 1.6 mi northeast of station 06278500, and 5.8 mi northeast of Shell.			7-12-88	108
Shell Creek	Bighorn River	Lat 44°34'07", long 107°42'31" in SW1/4 NW1/4 SE1/4 sec.17, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, at bridge on US Hwy 14 at Wagon Wheel Inn, 0.4 mi upstream from station 06278500, and 4.2 mi northeast of Shell.			7-12-88	98.6
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.		1983-87	10-01-87 11-04-87	.91 .46
Unnamed tributary to North Fork Sayles Creek	North Fork Sayles Creek	Lat 44°24'20", long 106°54'09", in NE1/4 NE1/4 SE1/4 sec.12, T.51 N., R.84 W. (unsurveyed), Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 0.1 mi upstream from forest boundary, 3.6 mi south of H F Bar Ranch, and 11 mi northwest of Buffalo.		1974 1975 1985	10-01-87	.07
North Fork Sayles Creek	Sayles Creek	Lat 44°24'26", long 106°54'22", in SE1/4 SW1/4 NE1/4 sec.12, T.51 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, 0.2 mi upstream from forest boundary, 0.2 mi upstream from mouth, and 11 mi northwest of Buffalo.		1974 1985	10-01-87	0.07

† Operated as a continuous-record gaging station.

DISCHARGE AT MISCELLANEOUS SITES

Discharge measurements made at special study and miscellaneous sites during water year 1988--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Yellowstone River Basin--Continued						
North Fork Sayles Creek	Sayles Creek	Lat 44°24'36", long 106°53'29", in SE1/4 NE1/4 NW1/4 sec.7, T.51 N., R.83 W., Johnson County, Hydrologic Unit 10090206, 0.5 mi downstream from Bighorn National Forest boundary, 3.4 mi south of H F Bar ranch and and 10 mi northwest of Buffalo.		1974 1975 1985	10-01-87	0.21
Bighorn River	Yellowstone River	Lat 44°36'14", long 108°08'24" in SW1/4 NE1/4 NW1/4 sec.2, T.53 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, at west end of Sheep Canyon, 5.8 mi northwest of Greybull Airport.			7-12-88	836
Bighorn River	Yellowstone River	Lat 44°37'00", long 108°07'48" in NW1/4 SE1/4 NE1/4 sec.35, T.54 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, at east end of Sheep Canyon 7.8 mi northwest of Greybull Airport.			7-12-88	799
Platte River Basin						
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.		1985	8-04-88	.64
Smith Creek 06645160	Muddy Creek	Lat 42°39'24", long 106°09'40", in NE1/4 NW1/4 SW1/4 sec.14, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, 0.2 mi upstream from Otter Creek, and 16 mi southeast of Casper.	10.9	1974-79† 1985 1987	10-23-87	0
Smith Creek	Muddy Creek	Lat 42°40'08", long 106°09'09", in SW1/4 NW1/4 SE1/4 sec.11, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, 800 ft upstream from road crossing, 0.9 mi downstream from Otter Creek, and 14.6 mi southeast of Casper.			10-23-87	2.38
Laramie River	North Platte River	Lat 42°11'56", long 104°34'00", in SE1/4 SE1/4 NW1/4 sec.29, T.26 N., R.64 W., Goshen County, Hydrologic Unit 10180011, at bridge on County Road 160, 1.2 mi upstream from Deer Creek, and and 2.8 mi southwest of Fort Laramie.			10-20-87	41.0
Laramie River	North Platte River	Lat 42°11'59", long 104°33'28", in SE1/4 SE1/4 NE1/4 sec.29, T.26 N., R.64 W., Goshen County, Hydrologic Unit 10180011, Fort Laramie Historic Site, 2 ft downstream from Deer Creek, and 2.6 mi southwest of Fort Laramie.			10-20-87 10-21-87 11-19-87 12-18-87 12-24-88 4-04-88 6-22-88 9-12-88	48.0 48.2 43.1 44.8 68.9 138 53.6 44.5
Crow Creek 06755700	South Platte River	Lat 41°10'35", long 105°01'29", in SE1/4 SW1/4 SE1/4 sec.17, T.14 N., R.68 W., Laramie County, Hydrologic Unit 10190009, on the left bank 150 ft down- stream from Burlington Northern rail- road track, 1.6 mi northeast of inter- section of Happy Jack Road and Boundary Road, and 12 mi west of Cheyenne city limits.		1987	12-03-87 2-18-88 4-15-88 4-27-88 5-24-88 6-09-88 7-05-88 7-29-88 9-12-88	.49 1.53 4.56 6.08 7.81 .98 .61 .70 .43

† Operated as a continuous-record gaging station.

a Measured by personnel of Wyoming State Engineer's Office.

Discharge measurements made at special study and miscellaneous sites during water year 1988--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured pre- viously (water years)	Measurements	
					Date	Dis- charge (cfs)
Platte River Basin--Continued						
Dry Creek 06756030	Crow Creek	Lat 41°10'27", long 104°50'31", in NW1/4 NE1/4 NW1/4 sec.24, T.14 N., R.67 W., Laramie County, Hydrologic Unit 10190009, on the left bank 30 ft upstream from culverts on Vista Lane, 500 ft upstream from North Fork, in Cheyenne.		1987	7-07-88 9-12-88	3.84 .43
Dry Creek Tributary 06756040	Dry Creek	Lat 41°09'44", long 104°47'04", in NE1/4 NW1/4 NW1/4 sec.21, T.14 N., R.66 W., Laramie County, Hydrologic Unit 10190009, on the left bank 1,000 ft upstream from mouth, 1,200 ft north of junction of Converse Ave. and Dell Range Blvd, in Cheyenne.		1987	5-18-88 5-20-88 7-07-88	5.87 .72 1.08
Green River Basin						
East Fork River 09203500	New Fork River	Lat 42°40'24", long 109°34'13" in SE1/4 NE1/4 NW1/4 sec.11, T.31 N., R.107 W., Sublette County, Hydrologic Unit 14040102, 1.0 mi below Muddy Creek, and 8.1 mi southeast of Boulder.	106	1915-17 1920-23	6-1-88 6-2-88 6-3-88 6-4-88 6-5-88	82.6 83.0 134 262 388
West Side Canal	Little Snake River	Lat 41°01'36", long 107°33'03", in SE1/4 SW1/4 NW1/4 sec.8, T.12 N., R.90 W., Carbon County, Hydrologic Unit 14050003, 0.1 mi downstream from Willow Creek, 600 ft upstream from Highway 70, and 1.0 mi southwest of Dixon.			5-11-88 5-12-88 5-14-88 5-18-88 6-17-88	27.5 34.3 96.1 190 158

Water-quality miscellaneous sites are locations where chemical-quality, biological and/or sediment data are collected on a limited frequency and are not expected to be monitored for a long-term basis. Water-quality analyses that are collected as part of a special study may be grouped under a title descriptive of that study and may be listed in order of increasing magnitude of station number (latitude/longitude and/or eight digit downstream order number) rather than in the conventional downstream order.

YELLOWSTONE RIVER BASIN

431612108355601 STATE WILDLIFE MANAGEMENT POND NEAR PAVILLION, WY (LAT 43 16 12 LONG 108 35 56)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TURBIDITY (NTU)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (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	SODIUM PERCENT
AUG 16...	0930	1300	8.5	2.6	18.0	120	17	20	240	10	80

DATE	TIME	POTASSIUM DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE DIS-SOLVED (MG/L AS CL)	ALKALINITY LAB (MG/L AS CACO3)	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)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	ARSENIC DIS-SOLVED (MG/L AS AS)	BORON, DIS-SOLVED (MG/L AS B)
AUG 16...	3.2	410	22	192	858	828	1.17	0.0	<0.1	2	190	

DATE	TIME	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)	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM DIS-SOLVED (UG/L AS MO)	SELENIUM DIS-SOLVED (UG/L AS SE)	SELENIUM TOTAL (UG/L AS SE)	VANADIUM DIS-SOLVED (UG/L AS V)	ZINC DIS-SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
AUG 16...	1	<1	1	<5	>0.1	<1	2	2	<1	9	5.9	

DATE	TIME	DI-AZINON, TOTAL IN BOTTOM MATERIAL (UG/KG)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHYL TRITHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHYL PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	PARATHION, TOTAL IN BOTTOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 16...	0930	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

DATE	TIME	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDOSULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 16...		<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

DATE	TIME	HEPTACHLOR EPOXIDE, TOTAL IN BOTTOM MATERIAL (UG/KG)	LINDANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	METHOXYCHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG)	PERTHANE, TOTAL IN BOTTOM MATERIAL (UG/KG)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG)
AUG 16...		<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<10

YELLOWSTONE RIVER BASIN--Continued

06246000 PAVILLION DRAIN NEAR PAVILLION, WY (LAT 43 13 00 LONG 108 30 00)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
AUG 04...	1900	19	790	8.2	45	20.0	633	6.7	89	250

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINEITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
AUG 04...	73	17	70	2	37	3.5	240	6.4	144	520

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
AUG 04...	503	0.71	26.7	1.4	2	80	<1	<1	9

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
AUG 04...	5	<0.1	<1	2	2	4	10	54	2.8

DATE	TIME	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)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 04...	1900	0.12	<0.01	0.08	<0.01	<0.01	<0.01	--	<0.01
18...	1245	--	--	--	--	--	--	<0.1	<0.1

DATE	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)
AUG 04...	<0.01	--	<0.01	--	<0.01	--	0.03	--	0.13
18...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

06246000 PAVILLION DRAIN NEAR PAVILLION, WY (LAT 43 13 00 LONG 108 30 00)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PARA-THION, TOTAL IN BOT-TOM MATERIAL (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MATERIAL (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MATERIAL (UG/KG)	DDD, TOTAL IN BOT-TOM MATERIAL (UG/KG)	DDE, TOTAL IN BOT-TOM MATERIAL (UG/KG)	DDT, TOTAL IN BOT-TOM MATERIAL (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MATERIAL (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MATERIAL (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MATERIAL (UG/KG)
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AUG 04... 18...	--	--	--	--	--	--	--	--	--
	<0.1	<0.1	<1.0	0.4	0.1	0.6	<0.1	<0.1	<0.1

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MATERIAL (UG/KG)	HEPTA-CHLOR EPOXIDE, TOT. IN BOTTOM MATL. (UG/KG)	LINDANE, TOTAL IN BOT-TOM MATERIAL (UG/KG)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MATERIAL (UG/KG)	PCB, TOTAL IN BOT-TOM MATERIAL (UG/KG)	PCN, TOTAL IN BOT-TOM MATERIAL (UG/KG)	PER-THANE, TOTAL IN BOT-TOM MATERIAL (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MATERIAL (UG/KG)
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AUG 04... 18...	--	--	--	--	--	--	--	--	--
	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<10

431240108372201 OCEAN LAKE DRAIN NO. 6 NEAR PAVILLION, WY (LAT 43 12 40 LONG 108 37 22)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TUR-BID-ITY (NTU)	TEMPER-ATURE WATER (DEG C)	BARO-METRIC PRES-SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (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)
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AUG 16...	1635	1100	8.2	4.5	22.0	610	7.4	107	240	73	14	150
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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)	ALKA-LINITY LAB (MG/L AS CAC03)	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)	ARSENIC DIS-SOLVED (UG/L AS AS)
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AUG 16...	4	57	2.4	320	6.3	251	737	717	1.00	--	0.25	2
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DATE	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
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AUG 16...	60	<1	<1	1	<5	>0.1	1	2	2	3	4	20
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DATE	TIME	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)	DI-AZINON, TOTAL IN BOT-TOM MATERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT-TOM MATERIAL (UG/KG)
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AUG 16...	1635	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.1
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YELLOWSTONE RIVER BASIN--Continued

431240108372201 OCEAN LAKE DRAIN NO. 6 NEAR PAVILLION, WY (LAT 43 12 40 LONG 108 37 22)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TOTAL TRI-THION (UG/L)	TRI-THION, TOTAL IN BOT-TOM MATL. (UG/KG)	METHYL TRI-THION, TOTAL (UG/L)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG)	MALA-THION, TOTAL (UG/L)	MALA-THION, TOTAL IN BOT-TOM MATL. (UG/KG)	METHYL PARA-THION, TOTAL (UG/L)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA-THION, TOTAL (UG/L)
AUG 16...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	0.02

DATE	PARA-THION, TOTAL IN BOT-TOM MATL. (UG/KG)	ALDRIN, TOTAL IN BOT-TOM MATL. (UG/KG)	CHLOR-DANE, TOTAL IN BOT-TOM MATL. (UG/KG)	DDD, TOTAL IN BOT-TOM MATL. (UG/KG)	DDE, TOTAL IN BOT-TOM MATL. (UG/KG)	DDT, TOTAL IN BOT-TOM MATL. (UG/KG)	DI-ELDRIN, TOTAL IN BOT-TOM MATL. (UG/KG)	ENDO-SULFAN, TOTAL IN BOT-TOM MATL. (UG/KG)	ENDRIN, TOTAL IN BOT-TOM MATL. (UG/KG)
AUG 16...	<0.1	<0.1	<1.0	<0.1	0.2	<0.1	<0.1	<0.1	<0.1

DATE	HEPTA-CHLOR, TOTAL IN BOT-TOM MATL. (UG/KG)	HEPTA-CHLOR EPOXIDE, TOTAL IN BOT-TOM MATL. (UG/KG)	LINDANE, TOTAL IN BOT-TOM MATL. (UG/KG)	METH-OXY-CHLOR, TOTAL IN BOT-TOM MATL. (UG/KG)	MIREX, TOTAL IN BOT-TOM MATL. (UG/KG)	PCB, TOTAL IN BOT-TOM MATL. (UG/KG)	PCN, TOTAL IN BOT-TOM MATL. (UG/KG)	PER-THANE, TOTAL IN BOT-TOM MATL. (UG/KG)	TOXA-PHENE, TOTAL IN BOT-TOM MATL. (UG/KG)
AUG 16...	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<10

431109108380801 OCEAN LAKE DRAIN NO. 7 NEAR KINNEAR, WY (43 11 09 LONG 108 38 08)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	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, (PER-CENT SATUR-ATION)	HARD-NESS TOTAL (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)
AUG 18...	0845	1200	8.1	17	15.0	691	9.6	106	350	100	24	150

DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)
AUG 18...	4	48	2.8	420	7.7	261	891	864	1.21	--	0.6	3

DATE	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SELE-NIUM, TOTAL (UG/L AS SE)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
AUG 18...	70	<1	<1	3	20	>0.1	1	3	3	3	17	27

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

431109108380801 OCEAN LAKE DRAIN NO. 7 NEAR KINNEAR, WY (LAT 43 11 09 LONG 108 38 08)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	DI-AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOTAL TOT. IN BOTTOM MATL. (UG/KG)	MALA- THION, TOTAL MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)
AUG 18...	0845	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01

DATE	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 18...	<0.1	<0.01	<0.1	<0.1	<1.0	<0.1	0.1	<0.1	<0.1	<0.1

DATE	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 18...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<10

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY (LAT 43 11 56 LONG 108 34 08)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 04...	1230	62	1280	8.5	37	24.0	635	7.0	101	260	66	22

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)
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DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
AUG 04...	4	100	<1	<1	7	5	<0.1	1	4	4	6	8

YELLOWSTONE RIVER BASIN--Continued

06246500 OCEAN DRAIN AT OCEAN LAKE OUTLET, NEAR PAVILLION, WY (LAT 43 11 56 LONG 108 34 08)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	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)
AUG 04...	1230	0.07	<0.01	0.04	<0.01	<0.01	<0.01

DATE	ETHION, TOTAL (UG/L)	TOTAL TRI- THION (UG/L)	METHYL TRI- THION, TOTAL (UG/L)	MALA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOTAL (UG/L)	PARA- THION, TOTAL (UG/L)
AUG 04...	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

431135108331901 POND NO. 4 NEAR MIDVALE, WY (LAT 43 11 35 LONG 108 33 19)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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	
AUG 18...	1400	400	19	31.0	691	16.8	251	47	14	3.0	66	4

DATE	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LAB LINEITY (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
AUG 18...	73	4.0	56	10	140	315	237	0.43	<0.1	4	50

DATE	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 18...	<1	<1	1	<5	>0.1	<1	<1	<1	4	17	<0.4

06251500 SAND GULCH NEAR SHOSHONI, WY (LAT 43 11 38 LONG 108 18 50)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	
AUG 04...	1430	22	630	8.7	100	22.0	643	8.0	109	170

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

06251500 SAND GULCH NEAR SHOSHONI, WY (LAT 43 11 38 LONG 108 18 50)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
AUG 04...	50	11	79	3	50	1.9	130	4.0	201	415

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
AUG 04...	407	0.56	24.7	2.4	2	60	<1	<1	9

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
AUG 04...	6	<0.1	<1	1	2	5	3	149	8.9

DATE	TIME	DICAMBA (MED- IBEN) (BAN- 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)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 04...	1430	0.02	<0.01	0.02	<0.01	<0.01	<0.01	--	<0.01	--
17...	1730	--	--	--	--	--	--	<0.1	--	<0.1

DATE	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)
AUG 04...	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
17...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--

DATE	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 04...	--	--	--	--	--	--	--	--	--
17...	<0.1	<0.1	<1.0	<0.1	0.1	<0.1	<0.1	<0.1	<0.1

YELLOWSTONE RIVER BASIN--Continued

06251500 SAND GULCH NEAR SHOSHONI, WY (LAT 43 11 38 LONG 108 18 50)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATT. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATT. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 04... 17...	-- <0.1	-- <0.1	-- <0.1	-- <0.1	-- <0.1	-- <1	-- <1.0	-- <1.00	-- <10

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY (LAT 43 13 20 LONG 108 13 06)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
AUG 03...	1015	275	1000	8.4	200	18.0	646	8.5	107	240

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
AUG 03...	67	18	130	4	54	3.1	320	8.5	188	676

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
AUG 03...	665	0.92	502	1.2	2	80	<1	1	14

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
AUG 03...	8	<0.1	1	2	2	4	12	290	215

YELLOWSTONE RIVER BASIN--Continued

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY (LAT 43 13 20 LONG 108 13 06)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	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)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	
AUG 05...	0930	0.13	0.11	<0.01	<0.01	<0.01	--	<0.01	--	<0.01	--	<0.01	
17...	1400	--	--	--	--	--	<0.1	--	<0.1	--	<0.1	--	
DATE		METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	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)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	
AUG 05...	--	<0.01	--	<0.01	--	0.01	--	--	--	--	--	--	
17...	<0.1	--	<0.1	--	<0.1	--	<0.1	<0.1	<1.0	<0.1	<0.1	<0.1	
DATE		DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 05...	--	--	--	--	--	--	--	--	--	--	--	--	--
17...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.00	<1.00	<10

06257500 MUDDY CREEK NEAR PAVILLION, WY (LAT 43 21 46 LONG 108 36 08)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
AUG 02...	1530	E0.10	3300	7.8	27.5	2
E-Estimate.						

431907108202501 MIDDLE RESERVOIR NEAR MIDVALE, WY (LAT 43 19 07 LONG 108 20 25)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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)
AUG 15...	1900	260	8.0	2.1	18.0	631	6.0	77	94	26	7.1	18

YELLOWSTONE RIVER BASIN--Continued

431907108202501 MIDDLE RESERVOIR NEAR MIDVALE, WY (LAT 43 19 07 LONG 108 20 25)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CAC03)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	
AUG 15...	0.8	29	1.5	40	3.9	85	155	147	0.21	<0.1	1	
DATE	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 15...	20	<1	<1	2	<5	>0.1	1	1	<1	2	<3	3.7
DATE	TIME	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)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL (UG/L)	ETHION, TOTAL (UG/KG)		
AUG 17...	1245	0.13	<0.02	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.1		
DATE	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)	METHYL TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/L)		
AUG 17...	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1	<0.01	<0.1		
DATE	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)		
AUG 17...	<0.1	<0.1	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		
DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)		
AUG 17...	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<10	<10		

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

YELLOWSTONE RIVER BASIN--Continued

06258000 MUDDY CREEK NEAR SHOSHONI, WY (LAT 43 17 10 LONG 108 16 30)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS)	SPE-CIFIC CON-DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR-BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
AUG 03...	1215	30	1100	8.4	95	18.5	646	8.3	105	320

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
AUG 03...	84	26	92	2	39	2.4	400	7.8	154	750

DATE	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 SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
AUG 03...	708	1.02	60.7	0.69	1	120	<1	1	9

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
AUG 03...	6	<0.1	3	2	3	2	15	168	14

DATE	TIME	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)	DI- AZINON, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ETHION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 05...	1000	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01
17...	1100	--	--	--	--	--	--	<0.1	<0.1

DATE	TOTAL TRI- THION (UG/L)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL TRI- THION, TOTAL (UG/L)	METHYL THION, TOT. IN BOTTOM MATL. (UG/KG)	MALA- THION, TOTAL (UG/L)	MALA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METHYL PARA- THION, TOTAL (UG/L)	METHYL PARA- THION, TOT. IN BOTTOM MATL. (UG/KG)	PARA- THION, TOTAL (UG/L)
AUG 05...	<0.01	--	<0.01	--	<0.01	--	<0.01	--	<0.01
17...	--	<0.1	--	<0.1	--	<0.1	--	<0.1	--

YELLOWSTONE RIVER BASIN--Continued

06258000 MUDDY CREEK NEAR SHOSHONI, WY (LAT 43 17 10 LONG 108 16 30)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 05...	--	--	--	--	--	--	--	--	--
17...	<0.1	<0.1	<1.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)	PER- THANE IN BOT- TOM MA- TERIAL (UG/KG)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG)
AUG 05...	--	--	--	--	--	--	--	--	--
17...	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<1.00	<10

431938108151901 SAND MESA INFLOW DITCH NEAR SHOSHONI, WY (LAT 43 19 38 LONG 108 15 19)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (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)
AUG 17...	1550	730	8.3	5.0	22.0	636	8.5	117	310	91	20	55

DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)
AUG 17...	1	28	1.4	270	6.7	140	553	533	0.75	0.0	1.1	1

DATE	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
AUG 17...	100	<1	<1	1	<5	>0.1	1	6	6	2	30	42

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

GREEN RIVER BASIN

430546109361501 HARROWER-1 LAKE AT INLET, NEAR PINEDALE, WY (LAT 43 05 46 LONG 109 36 15)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ALKA- LINITY LAB (MG/L AS CACO3)
AUG 18...	1730	9	7.2	10.5	3.0

430631109344101 TRENCH-1 ON KNIFEPOINT GLACIER, NEAR PINEDALE, WY (LAT 43 06 31 LONG 109 34 41)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	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)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
AUG									
19...	1200	2	5.6	0.7	--	--	--	--	--
19...	1210	3	5.7	<0.5	--	--	--	--	--
19...	1220	3	5.8	<0.5	--	--	--	--	--
19...	1230	3	6.0	<0.5	--	--	--	--	--
19...	1240	2	5.9	<0.5	--	--	--	--	--
19...	1250	2	5.8	<0.5	--	--	--	--	--
19...	1300	3	5.9	<0.5	--	--	--	--	--
19...	1310	3	6.2	<0.5	--	--	--	--	--
19...	1320	4	6.0	0.8	--	--	--	--	--
19...	1330	1	6.0	<0.5	--	--	--	--	--
19...	1340	2	5.7	<0.5	--	--	--	--	--
20...	1200	--	--	--	0.07	0.15	0.03	0.04	<0.01
20...	1210	--	--	--	0.06	0.15	0.02	0.07	<0.01
20...	1220	--	--	--	0.10	0.17	0.02	0.11	<0.01
20...	1230	--	--	--	0.10	0.20	0.03	0.12	<0.01
20...	1240	--	--	--	0.23	0.21	<0.01	0.10	<0.01
20...	1250	--	--	--	0.33	0.18	0.05	0.07	<0.01
20...	1300	--	--	--	0.66	0.39	0.04	0.20	<0.01
20...	1310	--	--	--	0.49	0.35	0.04	0.17	<0.01
20...	1320	--	--	--	0.13	<0.01	0.05	<0.01	<0.01
20...	1330	--	--	--	0.15	0.14	0.01	0.04	<0.01
20...	1340	--	--	--	0.65	0.24	0.03	0.18	<0.01
20...	1350	--	--	--	0.56	0.26	0.03	0.15	<0.01
20...	1400	--	--	--	0.31	0.22	0.03	0.10	<0.01
20...	1410	--	--	--	0.36	0.55	0.08	0.12	<0.01
20...	1420	--	--	--	0.13	0.15	0.02	0.05	<0.01
20...	1430	--	--	--	0.20	0.21	0.02	0.04	<0.01
20...	1440	--	--	--	0.10	0.19	0.02	0.03	<0.01
20...	1450	--	--	--	0.09	0.10	0.01	0.04	<0.01
20...	1500	--	--	--	0.18	0.15	0.01	0.05	<0.01
20...	1510	--	--	--	0.13	0.17	0.03	0.04	<0.01

430723109381401 TITCOMB-1 LAKE AT OUTLET, NEAR PINEDALE, WY (LAT 43 07 23 LONG 109 38 14)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ALKA- LINITY LAB (MG/L AS CACO3)
AUG 18...	1445	8	6.9	10.0	2.7

GREEN RIVER BASIN--Continued

430727109380001 MISTAKE-1 LAKE AT OUTLET, NEAR PINEDALE, WY (LAT 43 07 27 LONG 109 38 00)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	ALKA- LILITY LAB (MG/L AS CACO3)
AUG 18...	1300	17	7.3	12.5	5.1

430729109344801 KNIFEPOINT-1 BELOW KNIFEPOINT GLACIER, NEAR PINEDALE, WY (LAT 43 07 29 LONG 109 34 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	TEMPER- ATURE WATER (DEG C)	ALKA- LILITY LAB (MG/L AS CACO3)
AUG 19...	1530	3.0	2.1

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Fish and Wildlife Sites

PLATTE RIVER BASIN

424133106352101 FW-3 NEAR CASPER, WY (LAT 42 41 33 LONG 106 35 21)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 14...	1535	1540	9.4	26.5	13.8	710	170	69

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 14...	130	11	51	880	14	0.3	280	1

424431106370901 FW-1 NEAR CASPER, WY (LAT 42 44 31 LONG 106 37 09)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 13...	1615	13500	9.7	29.5	19.8	3400	210	700

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 13...	2900	30	235	7800	320	0.6	860	50

424753106351201 FW-8 NEAR CASPER, WY (LAT 42 47 53 LONG 106 35 12)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 17...	1215	435	9.2	29.0	12.2	150	34	15

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 17...	35	9.0	138	79	5.4	0.4	180	<1

KENDRICK IRRIGATION DRAINAGE STUDY
Fish and Wildlife Sites--Continued

PLATTE RIVER BASIN--Continued

424822106362301 FW-7 NEAR CASPER, WY (LAT 42 48 22 LONG 106 36 23)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 17...	1010	5180	9.7	22.0	11.2	1600	210	250

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 17...	810	9.0	80	3000	56	1.4	1200	6

424844106345901 FW-2 NEAR CASPER, WY (LAT 42 48 44 LONG 106 34 59)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 14...	1210	1570	8.3	20.5	7.4	570	120	66
14...	1510	1570	8.3	20.5	7.4	200	51	17

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 14...	190	10	205	780	25	0.4	260	4
14...	33	2.8	132	120	8.7	0.4	50	1

424924106334801 FW-4 NEAR CASPER, WY (LAT 42 49 24 LONG 106 33 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 15...	1410	1570	8.0	24.0	7.3	560	130	57

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 15...	220	5.0	255	730	45	0.5	220	3

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Fish and Wildlife Sites--Continued

PLATTE RIVER BASIN--Continued

424956106263701 FW-5 NEAR CASPER, WY (LAT 42 49 56 LONG 106 26 37)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 16...	0930	11000	9.1	20.5	7.1	4000	280	800

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 16...	1900	20	177	7400	140	0.3	1500	<1

425130106292301 FW-6 NEAR CASPER, WY (LAT 42 51 30 LONG 106 29 23)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 16...	1235	2750	8.7	22.5	11.4	910	150	130

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 16...	330	7.3	210	1300	22	0.5	460	<1

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites

PLATTE RIVER BASIN

423506106402601 IR-43 NEAR CASPER, WY (LAT 42 35 06 LONG 106 40 26)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)
JUN 25...	1715	3000	8.2	27.5	7.2	1500	390	130
AUG 26...	1150	2650	8.2	17.0	11.0	1400	360	110
26...	1212	2740	8.3	17.0	11.0	1300	370	98

DATE	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	BORON, DIS-SOLVED (UG/L AS B)	SELENIUM, DIS-SOLVED (UG/L AS SE)
JUN 25...	230	5.3	250	1700	4.2	0.3	590	60
AUG 26...	180	6.5	233	1500	17	0.8	330	29
26...	180	6.5	237	1500	18	0.7	340	29

423650106381501 IR-42 NEAR CASPER, WY (LAT 42 36 50 LONG 106 38 15)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CaCO3)	CALCIUM DIS-SOLVED (MG/L AS Ca)	MAGNESIUM, DIS-SOLVED (MG/L AS Mg)
JUN 25...	1455	1100	8.0	25.5	6.4	370	94	34
AUG 26...	1305	1420	8.1	18.0	7.5	470	110	48

DATE	SODIUM, DIS-SOLVED (MG/L AS Na)	POTASSIUM, DIS-SOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CaCO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLORIDE, DIS-SOLVED (MG/L AS CL)	FLUORIDE, DIS-SOLVED (MG/L AS F)	BORON, DIS-SOLVED (UG/L AS B)	SELENIUM, DIS-SOLVED (UG/L AS SE)
JUN 25...	96	7.6	210	360	4.1	0.2	120	10
AUG 26...	130	8.1	260	470	23	0.5	140	18

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

423742106374101 IR-41 NEAR CASPER, WY (LAT 42 37 42 LONG 106 37 41)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

		SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 25...	1310	1020	7.4	17.0	2.1	420	110	36
SEP 02...	1330	1470	7.5	14.5	3.8	590	150	52
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 25...	65	3.2	317	260	6.1	0.2	180	<1
SEP 02...	77	5.0	343	380	11	1.0	180	2

424218106343301 IR-48 NEAR CASPER, WY (LAT 42 42 18 LONG 106 34 33)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER	OXYGEN, DIS- SOLVED	HARD- NESS TOTAL	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED
		(US/CM)		(DEG C)	(MG/L)	(MG/L AS CACO3)	(MG/L AS CA)	(MG/L AS MG)
JUN 27...	1025	4280	8.7	22.5	12.3	980	180	130
SEP 02...	1507	5100	8.4	21.0	12.9	1100	200	150
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	BORON, DIS- SOLVED	SELE- NIUM, DIS- SOLVED
		(MG/L AS K)		(MG/L AS SO4)	(MG/L AS CL)	(MG/L AS F)	(UG/L AS B)	(UG/L AS SE)
JUN 27...	840	10	325	2300	60	0.8	650	110
SEP 02...	850	10	352	2400	64	1.4	680	73

424245106334201 IR-46 NEAR CASPER, WY (LAT 42 42 45 LONG 106 33 42)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 26...	1355	510	8.6	29.0	5.8	200	52	16
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 26...	33	3.2	131	120	8.3	0.2	50	1

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

424250106354501 IR-47 NEAR CASPER, WY (LAT 42 42 50 LONG 106 35 45)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 27...	0830	9700	7.5	13.5	6.5	3200	570	420
SEP 02...	1415	920	8.1	22.0	6.2	300	77	27
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	1900	15	623	5500	110	0.2	1600	2100
SEP 02...	82	6.6	166	280	12	0.4	120	63

424325106360701 IR-45 NEAR CASPER, WY (LAT 42 43 25 LONG 106 36 07)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

		SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 26...	1210	4400	8.2	20.0	15.8	1100	210	140
SEP 02...	1545	4100	8.1	20.0	8.3	2500	180	500
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 26...	740	10	405	2200	50	1.1	630	140
SEP 02...	2400	25	338	6100	250	0.7	1400	30

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

424437106360501 IR-40 NEAR CASPER, WY (42 44 37 LONG 106 36 05)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 25...	1030	1320	7.5	22.0	--	580	160	45
AUG 25...	1740	573	7.8	24.0	10.4	210	53	18

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 25...	99	1.1	389	400	17	0.2	390	<1
AUG 25...	40	3.1	137	150	9.1	0.4	70	2

424439106370901 IR-39 NEAR CASPER, WY (LAT 42 44 39 LONG 106 37 09)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 25...	0820	758	7.7	18.0	0.8	260	59	27
AUG 13...	0825	760	7.6	12.0	2.6	300	72	29

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 25...	62	6.4	306	81	16	0.5	150	11
AUG 13...	54	8.0	243	160	13	0.4	90	5

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

424636106330601 IR-32 NEAR CASPER, WY (LAT 42 46 36 LONG 106 33 06)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 23...	1345	811	8.4	27.0	6.8	280	65	28
AUG 25...	1355	1210	8.4	20.0	8.4	370	78	42

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 23...	66	3.4	146	240	11	0.5	90	100
AUG 25...	100	3.8	161	390	15	0.4	130	250

424636106351901 IR-31 NEAR CASPER, WY (LAT 42 46 36 LONG 106 35 19)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 23...	1112	7450	8.1	17.5	10.1	860	200	87
AUG 23...	1740	2370	8.0	14.5	9.1	960	220	99

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 23...	270	6.5	280	1100	13	0.4	320	16
AUG 23...	300	6.0	283	1300	16	0.7	320	31

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

424637106330701 IR-33 NEAR CASPER, WY (LAT 42 46 37 LONG 106 33 07)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 23...	1430	2260	7.9	19.0	9.2	880	200	92
AUG 25...	1425	2020	7.7	17.0	7.0	690	160	71

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 23...	250	7.8	322	960	20	0.4	290	16
AUG 25...	200	7.4	348	830	20	0.4	310	15

424727106331001 IR-34 NEAR CASPER, WY (LAT 42 47 27 LONG 106 33 10)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 23...	1520	684	7.5	31.0	1.9	280	72	25
AUG 25...	1510	615	7.5	21.5	3.1	240	61	21

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MC/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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 23...	41	4.8	254	100	8.8	0.6	80	<1
AUG 25...	37	3.1	175	140	8.6	0.4	60	2

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

424755106342301 IR-30 NEAR CASPER, WY (LAT 42 47 55 LONG 106 34 23)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 22...	1720	672	7.5	27.5	6.3	260	62	26
AUG 19...	1320	11500	8.1	18.0	8.8	5500	370	1100
19...	1345	11500	8.5	18.0	9.6	5500	390	1100

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 22...	46		8.9	182	150	13	1.2	80	3
AUG 19...	1700		15	382	8800	63	0.3	1100	30
19...	1700		16	407	8500	61	0.3	1100	51

424818106331101 IR-50 NEAR CASPER, WY (LAT 42 48 18 LONG 106 33 11)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 18...	1305	540	7.9	26.5	4.9	200	53	16
AUG 25...	1630	653	8.1	25.5	5.1	240	63	19

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 18...	33		7.4	142	120	9.3	0.4	70	11
AUG 25...	38		10	158	160	13	0.5	100	2

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

424819106323101 IR-35 NEAR CASPER, WY (LAT 42 48 19 LONG 106 32 31)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 23...	1620	500	8.1	26.0	6.9	200	52	16
AUG 25...	1555	620	7.9	19.0	6.9	230	59	19

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 23...	32		3.0	131	120	8.2	0.4	50	1
AUG 25...	36		4.2	156	130	8.9	0.3	50	1

424848106353101 IR-29 NEAR CASPER, WY (LAT 42 48 48 LONG 106 35 31)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 22...	1555	1590	8.2	29.5	10.8	580	120	69
AUG 25...	1310	1650	8.0	18.0	11.0	570	140	53

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 22...	200		6.2	185	850	18	0.4	260	7
AUG 25...	160		11	318	580	21	0.4	210	2

424941106245201 IR-6 NEAR CASPER, WY (LAT 42 49 41 LONG 106 24 52)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 12...	1420	920	8.5	19.0	9.2	330	73	37

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
AUG 12...	70		4.8	174	300	13	0.4	110	12

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

424944106345501 IR-23 NEAR CASPER, WY (LAT 42 49 44 LONG 106 34 55)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

		SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
JUN 16...	1309	780	7.4	23.0	7.6	290	65	30	
AUG 25...	1140	720	8.2	15.5	9.9	260	59	27	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 16...	62		5.2	171	230	11	0.4	90	2
AUG 25...	49		5.5	170	180	11	0.4	80	1

424952106343001 IR-37 NEAR CASPER, WY (LAT 42 49 52 LONG 106 34 30)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 24...	1115	3110	8.0	18.0	8.6	870	210	83
AUG 25...	1110	2180	8.2	13.0	9.3	560	130	57
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 24...	380	7.1	313	1100	86	0.3	300	4
AUG 25...	280	7.8	271	840	61	0.5	230	4

424959106270901 IR-49 NEAR CASPER, WY (LAT 42 49 59 LONG 106 27 09)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUL 17...	0755	1740	7.9	15.5	4.9	530	70	86
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 17...	180	6.7	217	690	17	0.4	540	1

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425000106342701 IR-36 NEAR CASPER, WY (LAT 42 50 00 LONG 106 34 27)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 24...	0910	2700	8.2	15.5	8.5	680	150	73

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 24...	370		7.6	302	1100	89	0.2	290	3

425000106354601 IR-44 NEAR CASPER, WY (LAT 42 50 00 LONG 106 35 46)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 26...	0905	675	7.6	19.0	5.8	250	59	26
AUG 25...	1240	695	7.7	16.5	5.0	250	56	26

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 26...	51		3.6	191	160	9.0	0.4	100	1
AUG 25...	48		4.8	180	170	11	0.4	90	1

425035106250801 IR-1 NEAR CASPER, WY (LAT 42 50 35 LONG 106 25 08)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 13...	1240	690	8.2	20.0	6.9	440	110	41

DATE	TIME	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 13...	55		6.9	171	370	10	0.6	170	30

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425035106271901 IR-7 NEAR CASPER, WY (LAT 42 50 35 LONG 106 27 19)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 14...	1340	142	8.2	21.0	7.5	610	120	76
AUG 12...	1813	2720	8.2	19.5	6.6	1400	270	170
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 14...	84	5.8	173	610	8.4	0.5	290	2
AUG 12...	170	8.0	284	1500	14	0.4	510	2

425037106260001 IR-2 NEAR CASPER, WY (LAT 42 50 37 LONG 106 26 00)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER-	OXYGEN,	HARD- NESS	CALCIUM	MAGNE-
		(US/CM)	(STAND- ARD UNITS)	ATURE WATER	DIS- SOLVED	TOTAL (MG/L AS CACO3)	DIS- SOLVED (MG/L AS CA)	SIUM, DIS- SOLVED (MG/L AS MG)
JUN 13...	1430	2390	8.2	17.0	8.8	1100	210	140
AUG 12...	1500	742	8.5	21.0	9.2	280	68	27
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS-	ALKA-	SULFATE	CHLO-	FLUO-	BORON,	SELE-
		SIUM, DIS- SOLVED (MG/L AS K)	LINITY LAB (MG/L AS CACO3)	DIS- SOLVED (MG/L AS SO4)	RIDE, DIS- SOLVED (MG/L AS CL)	RIDE, DIS- SOLVED (MG/L AS F)	DIS- SOLVED (UG/L AS B)	NIUM, DIS- SOLVED (UG/L AS SE)
JUN 13...	190	6.4	262	1100	25	0.6	310	230
AUG 12...	42	3.5	144	220	9.7	0.4	70	11

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425044106273501 IR-5 NEAR CASPER, WY (LAT 42 50 44 LONG 106 27 35)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 13...	1800	4000	8.2	19.0	7.7	1200	140	210
AUG 12...	1720	1360	8.4	20.5	11.2	440	77	59
12...	1930	1360	8.4	20.5	11.2	440	78	60

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 13...	630	8.9	311	1900	77	1.0	630	9
AUG 12...	150	7.6	191	540	25	0.5	180	4
12...	150	8.1	191	550	26	0.5	180	4

425046106262901 IR-3 NEAR CASPER, WY (LAT 42 50 46 LONG 106 26 29)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 13...	1550	985	8.7	20.0	8.9	320	64	39
AUG 12...	1550	755	8.5	22.5	8.6	270	59	31

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 13...	85	5.8	177	300	20	0.6	140	9
AUG 12...	58	4.9	179	210	14	0.5	100	7

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425053106285901 IR-8 NEAR CASPER, WY (LAT 42 50 53 LONG 106 28 59)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 14...	1425	4600	7.1	18.5	3.2	2900	570	360
AUG 13...	1005	1070	8.0	16.0	7.6	450	99	49

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY 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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 14...	260	--	441	2800	19	0.4	880	2
AUG 13...	55	5.8	185	390	10	0.4	220	<1

425122106271301 IR-4 NEAR CASPER, WY (LAT 42 51 22 LONG 106 27 13)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 13...	1730	780	7.6	16.0	2.8	280	61	31
AUG 12...	1635	945	7.4	19.5	1.9	340	77	37

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY 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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 13...	57	8.3	189	200	11	0.7	200	10
AUG 12...	63	8.0	194	270	18	0.4	140	3

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425135106282301 IR-9 NEAR CASPER, WY (LAT 42 51 35 LONG 106 28 23)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 14...	1515	9100	7.6	19.0	6.9	4600	500	810
AUG 24...	0805	1320	8.3	13.0	9.1	530	120	55

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 14...	1400	7.9	388	6800	84	0.9	1000	21
AUG 24...	100	4.9	196	530	12	0.4	170	2

425146106260301 IR-10 NEAR CASPER, WY (LAT 42 51 46 LONG 106 26 03)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 14...	1615	780	8.6	17.5	16.8	280	58	34
AUG 24...	0855	605	8.3	15.0	7.5	220	55	21
24...	1355	605	8.3	15.0	7.5	220	55	21

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 14...	64	4.8	161	230	15	0.8	160	6
AUG 24...	39	3.3	151	150	10	0.3	70	2
24...	39	3.2	151	150	10	0.4	70	2

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425225106305001 IR-27 NEAR CASPER, WY (LAT 42 52 25 LONG 106 30 50)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 22...	1120	4020	8.0	22.5	6.4	2300	570	210
AUG 25...	0930	3550	8.0	12.5	8.2	2000	500	180

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 22...	280	8.0	306	2500	22	0.9	710	2
AUG 25...	220	5.2	283	2200	20	0.5	490	<1

425232106333001 IR-28 NEAR CASPER, WY (LAT 42 52 32 LONG 106 33 30)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 22...	1320	870	7.4	19.5	7.7	380	110	25
AUG 25...	1010	625	7.8	16.0	2.9	240	65	18
25...	1610	625	7.8	16.0	2.9	230	64	17

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 22...	42	3.4	199	240	13	0.4	60	4
AUG 25...	41	2.9	182	130	8.5	0.3	80	<1
25...	41	2.9	182	130	8.5	0.4	80	1

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425239106263901 IR-11 NEAR CASPER, WY (LAT 42 52 39 LONG 106 26 39)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 14...	1750	2580	7.6	20.0	12.8	1200	200	180
AUG 24...	0940	565	8.6	16.5	8.0	220	55	20

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 14...	230	10	550	930	62	1.8	790	25
AUG 24...	37	3.2	143	140	9.3	0.5	60	<1

425252106304701 IR-26 NEAR CASPER, WY (LAT 42 52 52 LONG 106 30 47)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 22...	0939	3010	8.1	19.0	7.5	1200	110	230
AUG 25...	0855	2340	8.3	12.5	8.4	800	140	110

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 22...	290	9.4	287	1500	33	0.6	290	39
AUG 25...	290	8.0	249	1100	31	0.7	260	37

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425312106270601 IR-12 NEAR CASPER, WY (LAT 42 53 12 LONG 106 27 06)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
		(US/CM)						
JUN 14...	1845	2500	8.2	17.5	10.4	840	140	120
AUG 24...	1015	2360	7.8	14.5	5.6	980	210	110
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
		(MG/L AS K)						
JUN 14...	260	7.1	255	960	34	0.8	430	250
AUG 24...	230	6.6	267	1100	37	0.6	400	93

425330106293701 IR-13 NEAR CASPER, WY (LAT 42 53 30 LONG 106 29 37)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

		SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 15...	0915	3080	7.5	13.5	4.5	1300	260	150
AUG 24...	1105	4750	7.9	14.0	6.3	1700	330	220
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 15...	330	6.8	352	1300	110	2.0	750	310
AUG 24...	530	10	446	2100	210	2.0	1100	150

425347106304701 IR-22 NEAR CASPER, WY (LAT 42 53 47 LONG 106 30 47)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 16...	1003	6600	8.0	19.5	11.0	2400	310	390
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 16...	1000	9.1	334	3700	120	0.8	1300	980

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425403106301601 IR-25 NEAR CASPER, WY (LAT 42 54 03 LONG 106 30 16)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
		(US/CM)						
JUN 22...	0802	4200	8.2	19.5	4.4	1600	170	280
AUG 25...	0810	2340	7.8	13.0	1.1	940	130	150
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED	ALKA- LINEITY 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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
		(MG/L AS K)						
JUN 22...	530	11	270	2100	39	1.2	840	240
AUG 25...	240	7.6	214	1200	23	0.3	400	120

425506106304801 IR-21 NEAR CASPER, WY (LAT 42 55 06 LONG 106 30 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER	OXYGEN, DIS- SOLVED	HARD- NESS TOTAL	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED
		(US/CM)		(DEG C)	(MG/L)	(MG/L AS CACO3)	(MG/L AS CA)	(MG/L AS MG)
JUN 16...	0900	690	7.3	19.0	3.6	240	59	23
SEP 02...	1220	620	8.1	18.0	7.2	240	61	21
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	BORON, DIS- SOLVED	SELE- NIUM, DIS- SOLVED
		(MG/L AS K)		(MG/L AS SO4)	(MG/L AS CL)	(MG/L AS F)	(UG/L AS B)	(UG/L AS SE)
JUN 16...	50	4.8	158	180	10	0.4	70	5
SEP 02...	40	3.7	152	160	9.3	0.4	60	3

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425604106304701 IR-20 NEAR CASPER, WY (LAT 42 56 04 LONG 106 30 47)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD	TEMPER- ATURE WATER	OXYGEN, DIS- SOLVED	HARD- NESS TOTAL (MG/L AS	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
		(US/CM)	UNITS)	(DEG C)	(MG/L)	CAC03)		
JUN 15...	1815	5180	8.2	19.0	6.7	540	120	59
AUG 24...	1755	1190	8.6	27.0	5.4	350	60	48
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED	ALKA- LINITY LAB (MG/L AS	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
		(MG/L AS K)	CAC03)					
JUN 15...	920	10	206	2300	39	0.6	430	10
AUG 24...	130	5.1	131	470	13	0.4	140	2

425605106315401 IR-38 NEAR CASPER, WY (LAT 42 56 05 LONG 106 31 54)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE	PH	TEMPER- ATURE	OXYGEN, DIS- SOLVED	HARD- NESS TOTAL	CALCIUM DIS- SOLVED	MAGNE- SIUM, DIS- SOLVED
		(US/CM)	(STAND- ARD UNITS)	(DEG C)	(MG/L)	(MG/L AS CACO3)	(MG/L AS CA)	(MG/L AS MG)
JUN 24...	1615	1120	8.2	31.0	7.5	400	86	46
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED	ALKA- LINITY LAB	SULFATE DIS- SOLVED	CHLO- RIDE, DIS- SOLVED	FLUO- RIDE, DIS- SOLVED	BORON, DIS- SOLVED	SELE- NIUM, DIS- SOLVED
		(MG/L AS K)	(MG/L AS CACO3)	(MG/L AS SO4)	(MG/L AS CL)	(MG/L AS F)	(UG/L AS B)	(UG/L AS SE)
JUN 24...	96	9.4	215	380	18	1.3	170	1

425626106264001 IR-16 NEAR CASPER, WY (LAT 42 56 26 LONG 106 26 40)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 15...	1325	3120	8.2	20.0	12.4	1200	230	150
AUG 24...	1435	2950	8.0	17.5	7.4	1000	210	120
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 15...	400	7.4	246	1600	27	0.7	830	18
AUG 24...	370	8.4	245	1500	28	0.6	760	15

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425628106282701 IR-14 NEAR CASPER, WY (LAT 42 56 28 LONG 106 28 27)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 15...	1100	6300	8.3	18.0	14.4	1800	210	320
AUG 24...	1145	5050	7.8	16.5	8.2	1600	230	250

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY 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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 15...	1000	11	291	3700	86	0.6	830	15
AUG 24...	740	10	364	2800	63	0.7	690	6

425659106271701 IR-15 NEAR CASPER, WY (LAT 42 56 59 LONG 106 27 17)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 15...	1200	1390	8.2	18.5	11.7	480	110	51
AUG 24...	1250	5280	8.0	15.0	8.6	1600	310	210

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY 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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 15...	180	6.5	176	710	17	0.5	460	23
AUG 24...	860	10	323	3100	51	0.8	2000	83

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425752106290801 IR-18 NEAR CASPER, WY (LAT 42 57 52 LONG 106 29 08)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 15...	1607	5400	8.0	21.0	11.6	1800	280	270
AUG 24...	1620	1390	8.0	26.5	4.7	460	95	54
24...	1645	1440	7.9	26.5	4.5	460	97	54

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 15...	860	10	280	3200	42	0.8	1700	70
AUG 24...	140	8.0	194	570	16	0.5	300	8
24...	150	8.1	195	600	17	0.4	320	10

425753106321301 IR-24 NEAR CASPER, WY (LAT 42 57 53 LONG 106 32 13)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 21...	1515	1590	7.9	26.0	--	570	110	72
SEP 02...	1125	745	7.8	18.0	2.9	280	72	25

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 21...	230	9.5	292	700	51	0.3	200	6
SEP 02...	49	1.9	181	180	11	0.4	80	1

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

425758106272901 IR-17 NEAR CASPER, WY (LAT 42 57 58 LONG 106 27 29)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 15...	1420	530	7.8	19.5	10.6	200	53	17
AUG 24...	1520	6	8.8	24.5	11.0	210	53	20

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY 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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 15...	34	5.1	139	130	9.7	0.4	50	1
AUG 24...	41	7.2	150	140	11	0.3	60	<1

425830106305701 IR-19 NEAR CASPER, WY (LAT 42 58 30 LONG 106 30 57)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
JUN 15...	1700	540	8.0	27.0	4.8	200	53	16
SEP 02...	1043	630	7.9	16.5	5.4	240	62	20

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MC/L AS K)	ALKA- LINEITY 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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 15...	34	10	134	130	9.2	0.4	110	1
SEP 02...	41	9.0	150	160	11	0.4	70	1

KENDRICK IRRIGATION DRAINAGE STUDY
Irrigation Drainage Sites--Continued

PLATTE RIVER BASIN--Continued

430012106295901 IR-51 NEAR CASPER, WY (LAT 43 00 12 LONG 106 29 59)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 11...	1145	2240	7.9	18.0	6.8	920	170	120
SEP 02...	0935	6050	8.0	10.0	9.5	2300	350	350

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	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)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
AUG 11...	230	5.4	244	1000	15	0.5	300	19
SEP 02...	740	8.0	426	3300	33	0.8	830	43

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites

PLATTE RIVER BASIN

424121106345301 NORTH PLATTE RIVER OXBOW BELOW BATES CREEK, NEAR ALCOVA, WY (LAT 42 41 21 LONG 106 34 53)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
APR 26...	1245	--	1990	8.2	12	13.0	623	11.8	138	--
MAY 23...	1355	--	2480	8.5	--	29.5	623	15.6	255	--
JUN 28...	0915	--	1650	8.3	--	24.5	622	8.7	129	700
AUG 12...	1145	--	2020	8.4	--	18.0	--	8.5	--	800
12...	1215	--	--	--	--	--	--	--	--	--
12...	1215	--	2030	8.6	--	21.5	--	12.8	--	790
12...	1245	--	--	--	--	--	--	--	--	--
SEP 22...	1430	--	1620	8.0	--	16.0	--	8.2	--	810

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)
APR 26...	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--
JUN 28...	170	68	120	2	27	10	890	14	70
AUG 12...	180	84	150	2	29	13	1000	23	114
12...	--	--	--	--	--	--	--	--	--
12...	180	83	150	2	29	15	1000	22	103
12...	--	--	--	--	--	--	--	--	--
SEP 22...	210	70	110	2	22	11	820	15	252

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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)
APR 26...	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	370	--	--
JUN 28...	1450	1310	1.97	<0.1	1	300	370	<1
AUG 12...	--	1520	2.07	--	--	350	--	--
12...	--	--	--	--	--	--	--	--
12...	--	1520	2.06	--	--	340	--	--
12...	--	--	--	--	--	--	--	--
SEP 22...	--	1400	1.91	--	--	220	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

424121106345301 NORTH PLATTE RIVER OXBOW BELOW BATES CREEK, NEAR ALCOVA, WY--Continued
(LAT 42 41 21 LONG 106 34 53)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	CHROMIUM, DIS-SOLVED (UG/L AS CR)	COPPER, DIS-SOLVED (UG/L AS CU)	LEAD, DIS-SOLVED (UG/L AS PB)	MOLYB- DENUM, DIS-SOLVED (UG/L AS MO)	SELE- NIUM, DIS-SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
APR 26...	--	--	--	--	2	1	--	--	--
MAY 23...	--	--	--	--	3	--	--	--	--
JUN 28...	<1	<1	<5	<1	1	1	<1	4	3.4
AUG 12...	--	--	--	--	1	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	<1	--	--	--	--
12...	--	--	--	--	--	--	--	--	--
SEP 22...	--	--	--	--	<1	--	--	--	--

424413106365601 RASMUS LEE LAKE (SEEP) NEAR CASPER, WY (LAT 42 44 13 LONG 106 36 56)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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-SORPTION RATIO	SODIUM PERCENT
MAY 24...	0920	9250	8.0	19.0	--	--	--	--	--	--
JUN 28...	1100	1550	8.4	30.0	--	--	--	--	--	--
SEP 16...	0915	6100	8.1	9.0	1400	150	240	980	12	61

DATE	POTAS- SIUM, DIS-SOLVED (MG/L AS K)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS-SOLVED (MG/L AS CL)	ALKA- LITY LAB (MG/L AS CACO3)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	BORON, DIS-SOLVED (UG/L AS B)	SELE- NIUM, DIS-SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)
MAY 24...	--	--	--	--	--	--	--	6	--
JUN 28...	--	--	--	--	--	--	--	8	11
SEP 16...	10	3200	85	398	4900	6.67	670	7	--

424414106365201 RASMUS LEE LAKE NEAR OUTLET, NEAR GOOSE EGG, WY (LAT 42 44 14 LONG 106 36 52)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS-SOLVED (MG/L)	OXYGEN, DIS-SOLVED (PER- CENT SATURATION)	HARD- NESS TOTAL (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)
MAR 02...	0830	15000	8.4	100	0.0	--	0.1	--	3300	230	650	2600
JUN 22...	1220	10100	10.2	--	31.0	622	15.4	265	2300	130	490	2400

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

424415106365201 RASMUS LEE LAKE NEAR OUTLET, NEAR GOOSE EGG, WY (LAT 42 44 15 LONG 106 36 52)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)
MAR 02...	20	63	35	7700	420	471	12000	11900	16.3	0.18	12
JUN 22...	22	69	19	5800	220	277	9410	9230	12.8	0.26	6

DATE	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 02...	1700	--	<1	2	<1	<5	0.2	2	11	12	12	30
JUN 22...	1200	1100	1	<1	5	<5	<0.1	4	110	100	10	20

424423106363801 RASMUS LEE LAKE NEAR ISLAND ON EAST END, NEAR GOOSE EGG, WY (LAT 42 44 23 LONG 106 36 38)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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
MAY 24...	0945	9500	10.1	16.5	618	14.7	193	--	--	--	--	--	--
JUN 22...	1230	10200	10.2	30.0	622	19.0	322	2800	170	570	2100	17	17
AUG 18...	1520	9500	8.7	23.0	--	10.5	--	2500	180	500	1900	17	17
SEP 16...	0930	10100	9.0	10.5	--	9.4	--	2300	160	470	1900	17	17
16...	1000	10100	9.0	10.5	--	9.4	--	2300	150	470	1900	17	17

DATE	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
MAY 24...	--	--	--	--	--	--	--	--	--	1200
JUN 22...	62	19	6000	220	243	9320	9230	12.7	4	1200
AUG 18...	62	25	5500	210	329	--	8510	11.6	--	1200
SEP 16...	64	19	5900	240	360	--	8910	12.1	--	1400
16...	64	23	6000	240	360	--	9010	12.2	--	1400

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

424423106363801 RASMUS LEE LAKE NEAR ISLAND ON EAST END, NEAR GOOSE EGG, WY--Continued
(LAT 42 44 23 LONG 106 36 38)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	BORON, TOTAL RECOV- ERABLE (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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAY 24...	--	--	--	--	--	--	120	--	--	--	--
JUN 22...	1200	<1	<1	1	<5	3	120	94	9	10	40
AUG 18...	--	--	--	--	--	--	26	--	--	--	--
SEP 16...	--	--	--	--	--	--	38	--	--	--	--
16...	--	--	--	--	--	--	44	--	--	--	--

424427106372801 IRRIGATION DITCH BELOW CASPER CANAL, NEAR ALCOVA, WY (LAT 42 44 27 LONG 106 37 28)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION (PER- CENT)	HARD- NESS TOTAL (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 28...	1145	E50	485	8.3	23.0	616	6.4	93	200	52	17	33
AUG 19...	1125	--	520	8.6	21.5	--	7.8	--	190	50	17	33
SEP 20...	1630	--	550	8.9	15.0	618	8.5	105	200	50	18	35

E-Estimate.

DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)
JUN 28...	1	26	3.0	120	8.1	131	349	312	0.47	<0.1	2
AUG 19...	1	27	3.0	120	8.5	133	--	314	0.43	--	--
SEP 20...	1	27	3.3	130	8.9	129	--	325	0.44	--	--

DATE	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
JUN 28...	50	140	<1	<1	<1	7	1	1	<1	3	4	7.3
AUG 19...	50	--	--	--	--	--	--	1	--	--	--	--
SEP 20...	50	--	--	--	--	--	--	<1	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

424435106370300 RASMUS LEE LAKE NEAR GOOSE EGG, WY (LAT 42 44 35 LONG 106 37 03)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)
MAR										
18...	1530	12500	8.7	--	2.0	625	2.0	19	32	35
20...	1500	12000	8.8	--	1.0	620	17.3	157	630	650
21...	1530	6300	--	--	2.0	--	--	--	730	800
22...	1000	3800	--	--	--	--	--	--	--	1300
22...	1500	3600	--	--	--	--	--	--	--	1000
23...	1500	7600	--	--	--	--	--	--	--	740
24...	1500	10000	--	--	--	--	--	--	--	140
25...	1500	8550	--	--	--	--	--	--	--	520
26...	1500	7050	--	--	--	--	--	--	--	560
27...	1500	7500	--	--	--	--	--	--	--	150
28...	1500	5500	--	--	--	--	--	--	--	56
29...	1500	2440	--	--	--	--	--	--	--	19
30...	1500	1580	--	--	--	--	--	--	--	15
31...	1315	1620	--	--	--	--	--	--	--	17
31...	1500	1840	--	--	--	--	--	--	--	22
APR										
01...	1500	1760	--	--	--	--	--	--	--	32
02...	1500	2680	--	--	--	--	--	--	--	63
03...	1500	5600	--	--	--	--	--	--	--	98
04...	1500	7500	--	--	--	--	--	--	--	95
05...	1500	8200	--	--	--	--	--	--	--	110
06...	1500	8400	--	--	--	--	--	--	--	110
07...	1310	8450	--	--	--	--	--	--	--	95
07...	1500	8470	--	--	--	--	--	--	--	95
08...	1500	8500	--	--	--	--	--	--	--	98
09...	1500	8490	--	--	--	--	--	--	--	110
10...	1500	8900	--	--	--	--	--	--	--	78
11...	1500	8750	--	--	--	--	--	--	--	100
22...	1005	9050	--	--	--	--	--	--	--	210
22...	1010	9000	9.3	--	3.5	617	13.2	127	83	--
22...	1500	9900	--	--	--	--	--	--	--	470
23...	1500	9950	--	--	--	--	--	--	--	450
24...	1500	9100	--	--	--	--	--	--	--	150
MAY										
02...	1320	9000	--	--	--	--	--	--	--	140
24...	1015	10000	10.2	--	21.5	--	15.2	--	110	--
JUN										
22...	1240	10100	10.1	--	32.0	622	20.0	350	120	110
SEP										
01...	1519	10000	8.0	10	--	--	--	--	--	21
02...	1525	9800	8.3	7.5	--	--	--	--	--	22
03...	1525	10000	8.0	8.0	--	--	--	--	--	29
04...	1525	10000	8.3	6.0	--	--	--	--	--	30
05...	1525	10000	8.4	6.8	--	--	--	--	--	24
06...	1525	10000	8.4	7.8	--	--	--	--	--	23
07...	1525	10000	8.3	9.5	--	--	--	--	--	31
08...	1525	10000	8.4	9.0	--	--	--	--	--	29
09...	1525	10000	8.4	8.0	--	--	--	--	--	33
13...	1745	10000	9.0	35	11.0	--	--	--	38	20
14...	1525	9800	8.4	25	--	--	--	--	--	45
15...	1525	9900	8.5	8.7	--	--	--	--	--	39
16...	0855	10000	9.1	--	9.5	--	10.0	--	46	--
16...	1100	--	--	--	--	--	--	--	42	--
16...	1525	9900	8.5	5.7	--	--	--	--	--	46
17...	1525	9900	8.5	10	--	--	--	--	--	38
18...	1525	--	8.6	10	--	--	--	--	--	38

PLATTE RIVER BASIN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	HARDNESS TOTAL (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	SODIUM PERCENT
JUN 22...	1240	10100	2600	150	540	2200	19	65
SEP 16...	0855	10000	2700	200	540	2000	17	61
16...	1100	--	2300	150	470	2000	18	65

DATE	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)	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)
JUN 22...	2.6	263	6000	250	--	9330	9300	12.7
SEP 16...	24	365	6000	240	0.6	--	9220	12.5
16...	22	366	6100	240	0.6	--	9200	12.5

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHROMIUM, DIS- SOLVED (UG/L AS CR)	COPPER, DIS- SOLVED (UG/L AS CU)
APR 22...	1010	9000	--	--	1100	--	--	--	--	--
MAY 24...	1015	10000	--	--	1300	--	--	--	--	--
JUN 22...	1240	10100	2	10	1200	1200	1	20	<1	1
SEP 13...	1745	10000	--	--	1400	--	--	--	--	--
16...	0855	10000	--	--	1400	--	--	--	--	--
16...	1100	--	--	--	1400	--	--	--	--	--

[illegible]

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

424509106361801 GOOSE LAKE NEAR EAST END, NEAR GOOSE EGG, WY (LAT 42 45 09 LONG 106 36 18)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
MAR 02...	1000	13000	9.3	45	0.0	--	0.6	--	2000	50
APR 22...	0845	11000	9.4	--	5.0	609	10.1	103	--	--
MAY 24...	0810	11000	9.1	--	14.0	--	11.6	--	--	--
JUN 22...	1615	9500	9.1	--	30.0	619	9.4	160	2600	75
AUG 10...	1645	12500	9.9	--	30.0	--	13.8	--	2600	55
SEP 21...	1530	13000	9.7	--	15.0	--	16.8	--	3000	190
21...	1600	13000	9.7	--	15.0	--	16.8	--	3000	82

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
MAR 02...	460	2300	22	71	4.6	6500	430	630	11100	10100
APR 22...	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 22...	580	2000	17	63	19	5400	390	534	9210	8790
AUG 10...	600	2700	23	69	24	6500	460	499	--	10700
SEP 21...	620	2500	20	64	27	7000	500	511	--	11200
21...	680	2400	19	63	23	7100	490	514	--	11100

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (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)
MAR 02...	15.1	1.4	12	910	--	<1	2	1	<5
APR 22...	--	--	--	780	--	--	--	--	--
MAY 24...	--	--	--	880	--	--	--	--	--
JUN 22...	12.5	--	18	780	770	<1	200	2	<5
AUG 10...	14.5	--	--	920	--	--	--	--	--
SEP 21...	15.2	--	--	970	--	--	--	--	--
21...	15.1	--	--	970	--	--	--	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

424509106361801 GOOSE LAKE NEAR EAST END, NEAR GOOSE EGG, WY (LAT 42 45 09 LONG 106 36 18)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAR 02...	<0.1	14	--	--	16	30	--	--	--
APR 22...	0.2	--	70	--	--	--	-61.5	-4.65	--
MAY 24...	--	--	64	--	--	--	--	--	--
JUN 22...	0.4	11	54	57	22	20	--	--	36
AUG 10...	--	--	47	--	--	--	--	--	--
SEP 21...	--	--	54	--	--	--	--	--	--
21...	--	--	62	--	--	--	--	--	--

424514106362901 GOOSE LAKE (MIDDLE) NEAR CASPER, WY (LAT 42 45 14 LONG 106 36 29)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (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
MAY 24...	0800	11100	9.2	15.5	619	9.7	125	--	--	--	--	--
JUN 22...	1630	11000	8.9	27.0	620	7.6	123	3100	78	710	2300	18
AUG 18...	1720	12500	9.4	28.0	--	6.9	--	3300	70	760	2300	17
SEP 21...	1455	12500	9.4	12.5	--	8.7	--	2800	68	640	2400	20

DATE	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 22...	61	20	6000	420	563	9980	9870	13.6	16	860
AUG 18...	60	23	6400	450	554	--	10300	14.1	--	860
SEP 21...	65	50	6800	490	577	--	10800	14.7	--	930

DATE	BORON, TOTAL RECOV- ERABLE (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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAY 24...	--	--	--	--	--	--	60	--	--	--	--
JUN 22...	830	1	<1	1	<5	9	64	56	23	30	34
AUG 18...	--	--	--	--	--	--	44	--	--	--	--
SEP 21...	--	--	--	--	--	--	45	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

425818106302701 THIRTY-THREE MILE RESERVOIR NEAR OUTLET, NEAR ILLCO, WY (LAT 42 58 18 LONG 106 30 27)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
MAR 02...	1245	1510	7.9	170	0.5	636	11.0	92	220	47
APR 21...	0940	4170	8.6	--	13.0	612	11.3	136	--	--
MAY 24...	1340	1320	8.6	--	19.0	--	9.6	--	--	--
JUN 22...	0905	925	8.2	110	23.0	625	6.1	88	290	64
AUG 18...	0900	1290	8.7	--	19.5	--	7.6	--	400	83
SEP 21...	0930	1000	8.6	--	11.0	--	9.0	--	320	69

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
MAR 02...	26	250	7	70	5.9	620	14	114	1080	1030
APR 21...	--	--	--	--	--	--	--	--	--	--
MAY 24...	--	--	--	--	--	--	--	--	--	--
JUN 22...	32	98	3	42	4.5	330	12	153	640	632
AUG 18...	47	140	3	43	5.6	520	17	178	--	922
SEP 21...	37	100	2	40	4.4	370	13	157	--	693

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (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)
MAR 02...	1.47	0.4	1	130	--	2	2	6	<5
APR 21...	--	--	--	440	--	--	--	--	--
MAY 24...	--	--	--	130	--	--	--	--	--
JUN 22...	0.87	<0.1	1	100	60	<1	<1	2	<5
AUG 18...	1.25	--	--	140	--	--	--	--	--
SEP 21...	0.94	--	--	100	--	--	--	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

425818106302701 THIRTY-THREE MILE RESERVOIR NEAR OUTLET, NEAR ILLCO, WY (LAT 42 58 18 LONG 106 30 27)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAR 02...	0.1	3	4	3	<1	17	--	--	--
APR 21...	0.1	--	17	--	--	--	-138.0	-16.50	--
MAY 24...	--	--	3	--	--	--	--	--	--
JUN 22...	<0.1	1	3	4	2	6	--	--	9.4
AUG 18...	--	--	5	--	--	--	--	--	--
SEP 21...	--	--	4	--	--	--	--	--	--

425828106303501 THIRTY-THREE MILE RESERVOIR (MID-POINT) NEAR CASPER, WY (LAT 42 58 28 LONG 106 30 35)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (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)
MAY 24...	1305	1220	8.4	--	20.0	--	8.0	--	--	--	--	--
JUN 22...	0850	930	8.2	230	22.0	625	5.8	82	300	66	32	98
AUG 18...	1040	1350	8.6	--	20.0	--	7.9	--	390	82	46	140
SEP 21...	0945	990	8.5	--	11.0	--	8.7	--	320	69	36	100

DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
MAY 24...	--	--	--	--	--	--	--	--	--	--	--
JUN 22...	3	41	4.5	330	12	155	663	636	0.90	1	110
AUG 18...	3	43	4.6	530	17	179	--	933	1.27	--	140
SEP 21...	2	40	4.2	370	13	157	--	689	0.94	--	100

DATE	BORON, TOTAL RECOV- ERABLE (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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAY 24...	--	--	--	--	--	--	3	--	--	--	--
JUN 22...	80	<1	<1	2	<5	2	2	2	2	<3	8.8
AUG 18...	--	--	--	--	--	--	6	--	--	--	--
SEP 21...	--	--	--	--	--	--	5	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

425841106304701 THIRTY-THREE MILE RESERVOIR NEAR INLET, NEAR ILLCO, WY (LAT 42 58 41 LONG 106 30 47)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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)
MAY 24...	1250	800	8.1	--	22.0	620	6.8	96	--	--	--	--	--
JUN 22...	0840	948	8.1	340	21.0	625	6.3	87	290	67	31	91	
AUG 18...	1245	1570	8.6	--	24.0	--	12.0	--	510	91	68	210	
SEP 21...	1155	2260	8.3	--	12.0	626	10.5	120	620	110	84	270	

DATE	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
MAY 24...	--	--	--	--	--	--	--	--	--	--	80
JUN 22...	2	40	4.0	320	12	148	648	614	0.88	1	100
AUG 18...	4	47	5.4	790	24	185	--	1300	1.77	--	170
SEP 21...	5	48	5.3	1000	29	203	--	1620	2.20	--	180

DATE	BORON, TOTAL RECOV- ERABLE (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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAY 24...	--	--	--	--	--	--	2	--	--	--	--
JUN 22...	60	<1	<1	1	<5	2	2	2	2	8	9.4
AUG 18...	--	--	--	--	--	--	10	--	--	--	--
SEP 21...	--	--	--	--	--	--	20	--	--	--	--

430018106300201 ILLCO SEEP NEAR OUTLET, NEAR ILLCO, WY (LAT 43 00 18 LONG 106 30 02)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (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
MAY 23...	0830	4380	7.8	12.0	624	2.6	30	--	--	--	--	--
JUN 27...	0750	1450	7.4	20.5	623	0.9	12	450	78	62	160	3
AUG 11...	1045	1280	8.0	17.5	--	6.9	--	450	83	59	120	3
SEP 22...	1155	5000	8.5	11.5	626	9.6	109	2100	280	330	660	6

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

430018106300201 ILLCO SEEP NEAR OUTLET, NEAR ILLCO, WY (LAT 43 00 18 LONG 106 30 02)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINEITY LAB (MG/L AS CACO3)	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)
MAY 23...	--	--	--	--	--	--	--	--	--	--	--
JUN 27...	43	6.5	580	14	206	1050	1020	1.43	<0.1	2	180
AUG 11...	36	5.9	510	13	178	--	906	1.23	--	--	180
SEP 22...	41	13	3200	39	259	--	4690	6.37	--	--	830

DATE	BORON, TOTAL RECOV- ERABLE (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)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAY 23...	--	--	--	--	--	--	4	--	--	--	--
JUN 27...	180	2	<1	1	<5	<1	2	2	2	7	6.1
AUG 11...	--	--	--	--	--	--	9	--	--	--	--
SEP 22...	--	--	--	--	--	--	33	--	--	--	--

430029106300001 ILLCO SEEP NEAR ILLCO, WY (LAT 43 00 29 LONG 106 30 00)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
MAR 02...	1400	4200	8.1	75	1.0	635	5.9	51	1300	230
APR 21...	1345	5220	8.6	--	14.5	617	12.1	150	--	--
MAY 23...	0845	6050	8.6	--	13.0	623	6.0	71	--	--
JUN 27...	0800	1200	8.5	--	21.0	623	4.3	60	370	57
AUG 11...	0955	1240	8.2	--	17.5	--	6.8	--	470	89
SEP 22...	1125	4400	8.3	--	11.5	626	8.2	93	1900	270

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

430029106300001 ILLCO SEEP NEAR ILLCO, WY (LAT 43 00 29 LONG 106 30 00)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)
MAR 02...	180	510	6	46	9.4	2300	31	255	3770	3420
APR 21...	--	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--	--
JUN 27...	55	120	3	41	4.9	470	10	144	830	803
AUG 11...	59	88	2	29	8.0	420	13	251	--	829
SEP 22...	300	550	6	38	10	2700	35	253	--	4030

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (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)
MAR 02...	5.13	0.85	<1	420	--	<1	2	3	<5
APR 21...	--	--	--	760	--	--	--	--	--
MAY 23...	--	--	--	890	--	--	--	--	--
JUN 27...	1.13	<0.10	2	150	180	2	<1	1	<5
AUG 11...	1.13	--	--	210	--	--	--	--	--
SEP 22...	5.48	--	--	780	--	--	--	--	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	H-2 / H-1 STABLE ISOTOPE RATIO PER MIL	O-18 / O-16 STABLE ISOTOPE RATIO PER MIL	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAR 02...	0.2	4	17	17	<1	30	--	--	--
APR 21...	0.2	--	11	--	--	--	-96.0	-9.95	--
MAY 23...	--	--	13	--	--	--	--	--	--
JUN 27...	<0.1	1	2	2	2	6	--	--	6.2
AUG 11...	--	--	2	--	--	--	--	--	--
SEP 22...	--	--	18	--	--	--	--	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

430104106421601 BURLINGTON LAKE NEAR BUCKNUM, WY (LAT 43 01 04 LONG 106 42 16)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
MAR 08...	1000	2940	8.5	11	2.0	699	13.8	110	--	--
APR 21...	1210	3750	8.3	--	13.0	606	9.0	109	--	--
MAY 23...	1025	3980	8.5	--	14.5	618	10.6	130	--	--
JUN 27...	1045	4100	8.6	--	24.5	618	7.9	119	730	110
AUG 11...	1330	4200	8.7	--	22.0	--	10.6	--	650	96
11...	1830	4200	8.7	--	22.0	--	10.6	--	770	110
SEP 22...	0930	4650	8.6	--	10.0	622	8.7	96	700	100
22...	1015	4300	8.6	--	10.0	--	8.7	--	660	100

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
MAR 08...	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--
MAY 23...	--	--	--	--	--	--	--	--	--
JUN 27...	110	790	13	70	10	2100	41	179	3250
AUG 11...	100	920	16	75	14	2300	44	152	--
11...	120	910	15	72	16	2300	46	150	--
SEP 22...	110	880	15	73	13	2500	50	162	--
22...	100	940	16	75	12	2500	50	161	--

DATE	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
MAR 08...	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	390	--	--	--
MAY 23...	--	--	--	--	400	--	--	--
JUN 27...	3270	4.42	<0.1	2	420	390	<1	<1
AUG 11...	3570	4.85	--	--	440	--	--	--
11...	3600	4.89	--	--	430	--	--	--
SEP 22...	3760	5.11	--	--	470	--	--	--
22...	3810	5.18	--	--	500	--	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Lake and Reservoir Sites--Continued

PLATTE RIVER BASIN--Continued

430104106421601 BURLINGTON LAKE NEAR BUCKNUM, WY (LAT 43 01 04 LONG 106 42 16)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
MAR 08...	--	--	--	--	--	--	--	--	--
APR 21...	--	--	0.2	--	<1	--	--	--	--
MAY 23...	--	--	--	--	<1	--	--	--	--
JUN 27...	<1	<5	--	3	<1	1	1	<10	12
AUG 11...	--	--	--	--	<1	--	--	--	--
11...	--	--	--	--	1	--	--	--	--
SEP 22...	--	--	--	--	<1	--	--	--	--
22...	--	--	--	--	<1	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06643000 BATES CREEK NEAR ALCOVA, WY (LAT 42 40 34 LONG 106 36 09)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
JAN 12...	--	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--	--
AUG 05...	1130	1.62	19.5	<0.1	1	180	<1	1	1	6
05...	1130	1.60	19.4	<0.1	1	180	<1	<1	1	<5
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL SOLVED (UG/L AS U)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JAN 12...	--	--	5	5	--	--	--	--	--
FEB 09...	--	--	4	4	--	--	--	--	--
29...	--	--	3	3	--	--	--	--	--
APR 07...	--	--	3	4	--	--	--	--	--
MAY 12...	--	--	1	2	--	--	--	1470	548
JUN 21...	--	--	6	6	--	--	--	93	1.5
AUG 05...	<0.1	2	6	6	1	15	30	22	0.36
05...	<0.1	3	7	7	1	<3	23	--	--
SEP 15...	--	--	6	7	--	--	--	32	0.43

06643060 POISON SPRING CREEK AT CASPER CANAL, NEAR ALCOVA, WY (LAT 42 43 33 LONG 106 39 13)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED SATUR- ATION	HARD- NESS TOTAL (MG/L AS CaCO3)
MAR 08...	1500	0.14	4200	8.4	10	2.0	620	10.6	96	--
APR 19...	1350	0.45	2300	8.0	6.9	10.5	611	9.2	104	--
MAY 19...	1045	0.69	2300	8.1	10	9.5	620	8.8	96	--
JUN 27...	1240	0.05	2670	7.8	12	25.0	618	6.8	103	500
AUG 10...	1418	--	--	--	--	--	--	--	--	--
10...	1425	0.13	2470	7.9	4.5	19.0	--	8.5	--	440
SEP 15...	1250	0.40	2530	8.1	14	12.5	620	8.3	97	--

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06643060 POISON SPRING CREEK AT CASPER CANAL, NEAR ALCOVA, WY (LAT 42 43 33 LONG 106 39 13)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
MAR 08...	--	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	--	--	--	--
MAY 19...	--	--	--	--	--	--	--	--	--	--
JUN 27...	98	62	470	9	67	7.6	1000	17	468	2060
AUG 10...	--	--	--	--	--	--	--	--	--	--
10...	91	52	420	9	67	6.2	890	18	459	1790
SEP 15...	--	--	--	--	--	--	--	--	--	--

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (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)
MAR 08...	--	--	--	--	--	--	--	--	--	--
APR 19...	--	--	--	--	--	--	500	--	--	--
MAY 19...	--	--	--	--	--	340	--	--	--	--
JUN 27...	1940	2.80	0.28	<0.1	3	460	--	<1	<1	2
AUG 10...	--	--	--	--	--	--	--	--	--	--
10...	1750	2.43	0.63	<0.1	2	390	--	1	<1	<1
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAR 08...	--	--	--	--	--	--	--	--	26	0.01
APR 19...	--	--	--	<1	<1	--	--	--	114	0.14
MAY 19...	--	--	--	<1	<1	--	--	--	38	0.07
JUN 27...	<5	--	<1	<1	<1	3	<10	11	120	0.02
AUG 10...	--	--	--	--	--	--	--	--	12	--
10...	<5	<0.1	2	<1	<1	2	<10	10	--	--
SEP 15...	--	--	--	<1	<1	--	--	--	19	0.02

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06643100 POISON SPRING CREEK NEAR ALCOVA, WY (LAT 42 42 55 LONG 106 34 43)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
JAN 13...	0850	0.83	5240	8.1	32	0.0	635	11.0	92	--
FEB 09...	1410	0.94	4400	8.3	4.0	3.5	619	13.6	128	--
MAR 01...	1230	10	1900	7.6	450	4.0	634	10.6	98	310
APR 07...	1145	2.1	4600	8.2	35	10.0	620	11.4	126	--
MAY 12...	1205	1.8	4420	8.2	18	17.0	625	10.8	139	--
JUN 21...	0840	0.98	4380	8.1	10	16.0	624	7.7	97	930
AUG 05...	0945	2.0	3850	8.0	16	15.0	624	7.2	89	930
SEP 15...	1115	1.8	5700	8.1	12	11.0	626	9.5	107	--

[illegible][illegible]

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06643100 POISON SPRING CREEK NEAR ALCOVA, WY (LAT 42 42 55 LONG 106 34 43)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JAN 13...	--	--	130	130	--	--	--	84	0.19
FEB 09...	--	--	160	160	--	--	--	42	0.11
MAR 01...	<0.1	6	28	31	<1	5	--	300	8.1
APR 07...	--	--	94	100	--	--	--	120	0.68
MAY 12...	--	--	89	82	--	--	--	119	0.58
JUN 21...	--	8	76	70	3	10	57	140	0.37
AUG 05...	<0.1	5	68	61	2	10	48	96	0.52
SEP 15...	--	--	89	80	--	--	--	35	0.17

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY (LAT 42 46 18 LONG 106 31 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CACO3)
JAN 13...	0700	875	610	8.4	--	3.0	630	12.5	113	--
FEB 08...	1430	920	650	8.4	--	1.5	625	11.6	101	--
MAR 01...	0900	E850	625	8.1	--	5.0	638	11.4	107	--
APR 07...	1450	E460	695	8.4	--	14.5	619	8.2	100	--
MAY 12...	1310	E1120	524	8.4	110	18.0	627	9.7	125	--
JUN 23...	1315	E1510	520	8.4	16	20.0	625	10.0	135	--
JUL 13...	1200	--	529	8.2	7.3	14.5	--	10.2	--	--
AUG 04...	1330	--	562	8.2	52	17.0	628	7.4	93	220
SEP 15...	1115	2710	550	8.1	28	16.0	--	9.2	--	--

E-Estimate.

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06643510 NORTH PLATTE RIVER ABOVE POISON SPIDER CREEK, NEAR GOOSE EGG, WY--Continued
(LAT 42 46 18 LONG 106 31 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LINITY LAB (MG/L AS CACO3)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
JAN 13...	--	--	--	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--
JUL 13...	--	--	--	--	--	--	--	--	--	--
AUG 04...	57	18	35	1	26	3.1	130	8.8	133	351
SEP 15...	--	--	--	--	--	--	--	--	--	--

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
JAN 13...	--	--	--	--	--	--	--	--	--	--
FEB 08...	--	--	--	--	--	--	--	--	--	--
MAR 01...	--	--	--	--	--	--	--	--	--	--
APR 07...	--	--	--	--	--	--	--	--	--	--
MAY 12...	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--
JUL 13...	--	--	--	--	--	--	--	--	--	--
AUG 04...	332	0.48	0.0	<0.1	2	50	<1	6	3	<5
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SEDI- MENT, DIS- SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JAN 13...	--	--	2	2	--	--	--	--	--
FEB 08...	--	--	2	2	--	--	--	--	--
MAR 01...	--	--	3	3	--	--	--	--	--
APR 07...	--	--	4	4	--	--	--	--	--
MAY 12...	--	--	2	2	--	--	--	116	--
JUN 23...	--	--	1	1	--	--	--	18	--
JUL 13...	--	--	4	--	--	--	--	30	--
AUG 04...	1.9	<1	1	1	2	6	7.7	519	--
SEP 15...	--	--	2	2	--	--	--	67	490

PLATTE RIVER BASIN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible][illegible][illegible]

PLATTE RIVER BASIN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible]

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644040 OREGON TRAIL DRAIN NEAR GOOSE EGG, WY (LAT 42 49 41 LONG 106 24 51)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)
JAN							
13...	0945	1.4	6750	8.0	28	0.0	627
FEB							
09...	0800	0.68	5850	8.1	14	1.0	623
MAR							
01...	1715	2.9	6350	8.2	160	0.5	637
18...	1505	1.3	7020	8.3	--	1.5	629
19...	1230	1.8	7030	8.3	--	0.5	626
20...	1620	8.5	7150	9.5	--	2.0	625
21...	1430	--	5020	--	--	--	--
21...	1500	--	5080	--	--	--	--
31...	1300	--	5770	--	--	--	--
31...	1500	--	5780	--	--	--	--
APR							
08...	1320	--	5780	--	--	--	--
08...	1335	--	5780	--	--	--	--
08...	1340	0.78	5950	8.4	26	7.0	626
08...	1350	--	5720	--	--	--	--
08...	1500	--	5760	--	--	--	--
09...	1500	--	5720	--	--	--	--
10...	1500	--	4390	--	--	--	--
22...	1145	--	7100	--	--	--	--
22...	1500	--	6730	--	--	--	--
23...	1500	--	7250	--	--	--	--
24...	1500	--	7240	--	--	--	--
26...	1450	--	7200	--	--	--	--
26...	1500	--	6950	--	--	--	--
27...	1500	--	6800	--	--	--	--
28...	1500	--	6520	--	--	--	--
29...	1500	--	8400	--	--	--	--
MAY							
13...	1420	0.25	7200	8.3	95	24.0	621
JUN							
14...	1240	--	2100	8.5	--	17.0	--
21...	1130	17	1100	8.0	650	22.5	628
JUL							
19...	0740	--	1710	8.6	62	22.0	--
19...	1500	--	1830	8.6	83	22.0	--
20...	1500	--	1280	8.4	97	22.0	--
21...	1500	--	1220	8.7	97	22.0	--
22...	1500	--	1010	8.1	120	22.0	--
23...	1500	--	995	8.4	79	22.0	--
24...	1500	--	990	8.6	76	--	--
25...	1500	--	989	8.4	81	--	--
26...	1500	--	1030	8.3	150	--	--
27...	1500	--	1010	8.4	63	--	--
28...	1250	--	1190	8.7	83	--	--
28...	1500	--	1270	8.6	55	--	--
31...	1500	--	1070	8.6	82	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644040 OREGON TRAIL DRAIN NEAR GOOSE EGG, WY (LAT 42 49 41 LONG 106 24 51)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)
AUG							
01...	1500	--	1180	8.6	130	--	--
02...	1500	--	1300	8.5	65	--	--
03...	1500	--	1090	8.7	87	--	--
04...	0845	17	1300	8.2	74	16.5	--
04...	1500	--	1110	8.7	65	--	--
05...	1500	--	1010	8.6	60	--	--
06...	1500	--	1310	8.6	70	--	--
07...	1500	--	975	8.6	55	--	--
08...	1500	--	1030	8.5	55	--	--
09...	1500	--	1460	8.6	58	--	--
10...	1500	--	1080	8.6	48	--	--
11...	1500	--	995	8.6	49	--	--
12...	1500	--	968	8.5	40	--	--
13...	1500	--	1070	8.5	42	--	--
14...	1500	--	1330	8.5	37	--	--
15...	1500	--	1530	8.5	34	--	--
16...	1500	--	2160	8.5	29	--	--
17...	1500	--	1520	8.5	30	--	--
17...	1635	--	1750	8.7	30	--	--
17...	1645	--	1550	8.5	--	--	--
18...	1500	--	1280	8.6	37	--	--
19...	0925	--	1290	8.6	44	--	--
19...	1500	--	1210	8.6	37	--	--
20...	1500	--	1180	8.6	31	--	--
21...	1500	--	1220	8.5	30	--	--
26...	1413	--	1290	8.5	40	--	--
26...	1500	--	1290	8.5	41	--	--
27...	1500	--	1410	8.5	38	--	--
28...	1500	--	1550	8.4	36	--	--
29...	1500	--	1650	8.4	44	--	--
30...	1500	--	1290	8.5	43	--	--
31...	1500	--	1530	8.5	42	--	--
SEP							
01...	1610	--	1280	8.6	53	19.0	--
02...	0755	--	1350	8.4	37	--	--
02...	1500	--	1200	8.5	21	--	--
03...	1500	--	1280	8.5	20	--	--
04...	1500	--	1110	8.6	1.8	--	--
05...	1500	--	1110	8.6	40	--	--
06...	1500	--	1070	8.5	19	--	--
07...	1500	--	2010	8.5	20	--	--
08...	1500	--	1620	8.4	20	--	--
09...	1500	--	1140	8.6	23	--	--
10...	1500	--	1040	8.6	20	--	--
11...	1500	--	1370	8.5	17	--	--
12...	1500	--	1230	8.5	17	--	--
13...	1500	--	1190	8.5	26	--	--
13...	1645	--	1220	8.3	48	11.0	--
14...	1500	--	1770	8.5	23	--	--
14...	1640	2.0	1720	8.4	27	13.0	--
14...	1700	20	1720	8.4	--	13.0	--
15...	1500	--	1290	8.6	23	--	--
16...	1500	--	1230	8.5	22	--	--
17...	1500	--	1540	8.5	28	--	--
18...	1500	--	1600	8.5	27	--	--
19...	1500	--	1790	8.5	13	--	--
20...	1500	--	1350	8.5	30	--	--
21...	1500	--	1940	8.5	11	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644040 OREGON TRAIL DRAIN NEAR GOOSE EGG, WY (LAT 42 49 41 LONG 106 24 51)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
JAN						
13...	11.2	96	480	590	--	--
FEB						
09...	10.4	92	510	480	24	0.04
MAR						
01...	12.6	107	250	250	278	2.2
18...	12.4	110	390	400	--	--
19...	12.2	106	400	390	--	--
20...	11.8	107	140	200	--	--
21...	--	--	--	170	--	--
21...	--	--	--	200	--	--
31...	--	--	--	490	--	--
31...	--	--	--	420	--	--
APR						
08...	--	--	--	480	--	--
08...	--	--	--	540	--	--
08...	12.4	127	530	490	43	0.09
08...	--	--	--	380	--	--
08...	--	--	--	350	--	--
09...	--	--	--	440	--	--
10...	--	--	--	440	--	--
22...	--	--	--	430	--	--
22...	--	--	--	470	--	--
23...	--	--	--	360	--	--
24...	--	--	--	410	--	--
26...	--	--	--	410	--	--
26...	--	--	--	380	--	--
27...	--	--	--	440	--	--
28...	--	--	--	530	--	--
29...	--	--	--	370	--	--
MAY						
13...	11.2	168	440	440	211	0.14
JUN						
14...	4.6	--	74	--	--	--
21...	6.8	96	12	11	771	35
JUL						
19...	--	--	--	--	--	--
19...	--	--	--	--	--	--
20...	--	--	--	--	--	--
21...	--	--	--	--	--	--
22...	--	--	--	--	--	--
23...	--	--	--	--	--	--
24...	--	--	--	--	--	--
25...	--	--	--	--	--	--
26...	--	--	--	--	--	--
27...	--	--	--	--	--	--
28...	--	--	--	26	--	--
28...	--	--	--	27	--	--
31...	--	--	--	19	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644040 OREGON TRAIL DRAIN NEAR GOOSE EGG, WY (LAT 42 49 41 LONG 106 24 51)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
AUG						
01...	--	--	--	--	--	--
02...	--	--	--	24	--	--
03...	--	--	--	14	--	--
04...	7.7	--	12	12	207	9.6
04...	--	--	--	11	--	--
05...	--	--	--	10	--	--
06...	--	--	--	29	--	--
07...	--	--	--	14	--	--
08...	--	--	--	12	--	--
09...	--	--	--	57	--	--
10...	--	--	--	15	--	--
11...	--	--	--	12	--	--
12...	--	--	--	10	--	--
13...	--	--	--	13	--	--
14...	--	--	--	48	--	--
15...	--	--	--	32	--	--
16...	--	--	--	25	--	--
17...	--	--	--	23	--	--
17...	--	--	--	18	--	--
17...	--	--	23	--	--	--
18...	--	--	--	10	--	--
19...	--	--	--	11	--	--
19...	--	--	--	10	--	--
20...	--	--	--	11	--	--
21...	--	--	--	15	--	--
26...	--	--	--	43	--	--
26...	--	--	--	39	--	--
27...	--	--	--	35	--	--
28...	--	--	--	35	--	--
29...	--	--	--	28	--	--
30...	--	--	--	20	--	--
31...	--	--	--	24	--	--
SEP						
01...	--	--	16	--	--	--
02...	--	--	--	25	--	--
02...	--	--	--	20	--	--
03...	--	--	--	19	--	--
04...	--	--	--	16	--	--
05...	--	--	--	14	--	--
06...	--	--	--	16	--	--
07...	--	--	--	17	--	--
08...	--	--	--	34	--	--
09...	--	--	--	17	--	--
10...	--	--	--	14	--	--
11...	--	--	--	15	--	--
12...	--	--	--	17	--	--
13...	--	--	--	14	--	--
13...	--	--	17	--	--	--
14...	--	--	--	53	--	--
14...	8.8	--	49	53	114	0.63
14...	8.8	--	--	--	--	--
15...	--	--	--	21	--	--
16...	--	--	--	20	--	--
17...	--	--	--	33	--	--
18...	--	--	--	40	--	--
19...	--	--	--	51	--	--
20...	--	--	--	25	--	--
21...	--	--	--	63	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644040 OREGON TRAIL DRAIN NEAR GOOSE EGG, WY (LAT 42 49 41 LONG 106 24 51)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	HARD- NESS TOTAL (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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
MAR 01...	1715	2.9	1900	230	320	730	7	45	14
JUN 14...	1240	--	840	140	120	230	4	37	6.5
21...	1130	17	370	77	42	90	2	35	4.8
AUG 04...	0845	17	500	96	63	100	2	30	6.2
SEP 01...	1610	--	470	97	56	97	2	31	5.1

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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
MAR 01...	324	3200	46	--	18.0	5430	4810	7.38	
JUN 14...	232	890	33	0.7	--	--	1580	2.15	
21...	166	370	16	--	0.59	717	702	0.98	
AUG 04...	191	500	17	--	0.96	959	901	1.30	
SEP 01...	194	450	15	0.5	--	--	837	1.14	

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	ARSENIC DIS- SOLVED (UG/L AS AS)	ARSENIC TOTAL (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)
MAR 01...	1715	2.9	1	2	1000	--	<1	--
MAY 13...	1420	0.25	--	--	410	--	--	--
JUN 14...	1240	--	--	--	330	--	--	--
21...	1130	17	2	--	160	--	<1	--
AUG 04...	0845	17	2	--	170	--	<1	--
17...	1645	--	--	--	310	--	--	--
SEP 01...	1610	--	--	--	170	--	--	--
13...	1645	--	--	--	170	--	--	--

DATE	TIME	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)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAR 01...		2	4	<5	0.1	8	--	1	20
MAY 13...		--	--	--	--	--	--	--	--
JUN 14...		--	--	--	--	--	--	--	--
21...		<1	2	<5	--	2	15	3	3
AUG 04...		<1	4	<5	<0.1	2	15	2	8
17...		--	--	--	--	--	--	--	--
SEP 01...		--	--	--	--	--	--	--	--
13...		--	--	--	--	--	--	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644085 NORTH PLATTE RIVER AT MILLS, WY (LAT 42 50 31 LONG 106 21 33)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 DIS-SOLVED (MG/L AS N)	ARSENIC DIS-SOLVED (UG/L AS AS)	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)
JAN 13...	--	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--	--
MAR 03...	--	--	--	--	--	--	--	--	--	--
APR 08...	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--
JUN 23...	--	--	--	--	--	--	--	--	--	--
JUL 11...	--	--	--	--	--	--	--	--	--	--
AUG 05...	334	0.49	--	0.1	3	50	<1	<1	2	<5
SEP 15...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS-SOLVED (UG/L AS HG)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO)	SELENIUM, DIS-SOLVED (UG/L AS SE)	SELENIUM, TOTAL (UG/L AS SE)	VANADIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)	SEDIMENT, DIS-SOLVED SUSPENDED (MG/L)	SEDIMENT, DIS-SOLVED SUSPENDED (T/DAY)
JAN 13...	--	--	3	8	--	--	--	--	--
FEB 09...	--	--	4	4	--	--	--	--	--
MAR 03...	--	--	6	6	--	--	--	--	--
APR 08...	--	--	6	8	--	--	--	--	--
MAY 13...	--	--	5	4	--	--	--	152	--
JUN 23...	--	--	2	2	--	--	--	40	--
JUL 11...	--	--	2	2	--	--	--	78	--
AUG 05...	<0.1	2	1	2	3	5	7.9	50	--
SEP 15...	--	--	3	3	--	--	--	156	1310

PLATTE RIVER BASIN--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)
MAR 08...	1055	0.90	1620	7.9	37	1.0	701	10.4
APR 19...	1000	2.0	4210	8.2	110	11.0	614	6.3
MAY 19...	0810	1.6	4840	8.2	40	10.5	620	6.4
JUN 27...	1000	0.0	--	--	--	--	--	--

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
MAR 08...	80	--	--	--	--	36	0.09
APR 19...	72	--	320	<1	<1	139	0.75
MAY 19...	72	460	--	<1	<1	39	0.17
JUN 27...	--	--	--	--	--	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

[illegible][illegible]

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644490 SIX MILE DRAW NEAR MILLS, WY (LAT 42 53 47 LONG 106 25 57)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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 DIS- SOLVED (MG/L AS N)	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	BORON, TOTAL RECOV- ERABLE (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)
JUN 28...	1800	2.57	10.2	6.7	2	540	500	<1	2	1
AUG 09...	1480	2.22	35.1	1.9	2	340	--	<1	<1	3
10...	--	--	--	--	--	--	--	--	--	--
SEP 14...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
JUN 28...	<5	--	6	190	170	4	10	39	--	--
AUG 09...	<5	<0.1	3	55	58	2	7	21	--	--
10...	--	--	--	--	--	--	--	--	17	--
SEP 14...	--	--	--	93	96	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	311	--

06644500 CASPER CREEK AT CASPER, WY (LAT 42 50 52 LONG 106 21 52)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS TOTAL (MG/L AS CaCO3)
JAN 13...	1145	13	5460	8.0	8	1.0	630	12.0	104	--
FEB 09...	1015	9.0	5230	8.2	16	0.5	622	10.9	95	--
MAR 01...	1615	17	6400	8.0	160	6.0	637	10.1	100	1800
APR 08...	1130	12	5550	8.2	22	8.0	625	9.3	98	--
MAY 13...	1130	12	6450	8.3	11	17.0	623	8.6	112	--
JUN 21...	1345	41	1780	8.2	130	27.0	627	6.4	99	550
AUG 03...	1600	29	2310	8.4	12	22.0	--	7.2	--	760
SEP 14...	1300	45	2080	8.3	43	11.0	--	--	--	--

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

06644500 CASPER CREEK AT CASPER, WY (LAT 42 50 52 LONG 106 21 52)--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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	SODIUM PERCENT	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	ALKA- LITY LAB (MG/L AS CAC03)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
JAN 13...	--	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--	--
MAR 01...	240	280	880	9	52	6.1	3300	84	315	5490
APR 08...	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	--	--	--	--	--
JUN 21...	110	67	230	4	47	6.4	810	22	208	1410
AUG 03...	150	93	280	5	44	6.7	1000	31	236	1750
SEP 14...	--	--	--	--	--	--	--	--	--	--

DATE	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)	ARSENIC DIS- SOLVED (UG/L AS AS)	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)
JAN 13...	--	--	--	--	--	--	--	--	--	--
FEB 09...	--	--	--	--	--	--	--	--	--	--
MAR 01...	5020	7.47	252	8.6	<1	730	<1	2	5	<5
APR 08...	--	--	--	--	--	--	--	--	--	--
MAY 13...	--	--	--	--	--	810	--	--	--	--
JUN 21...	1370	1.92	156	--	1	280	<1	<1	2	<5
AUG 03...	1710	2.38	139	1.3	2	330	<1	<1	2	6
SEP 14...	--	--	--	--	--	--	--	--	--	--

DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
JAN 13...	--	--	120	130	--	--	--	35	1.2
FEB 09...	--	--	110	110	--	--	--	28	0.68
MAR 01...	0.1	7	180	200	1	20	--	216	9.9
APR 08...	--	--	100	100	--	--	--	77	2.5
MAY 13...	--	--	190	180	--	--	--	124	4.0
JUN 21...	--	3	15	15	1	4	17	213	24
AUG 03...	<0.1	3	26	27	1	10	21	150	12
SEP 14...	--	--	23	21	--	--	--	145	17.6

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
North Platte River and Tributaries Sites--Continued

PLATTE RIVER BASIN--Continued

425733106392001 SOUTH FORK CASPER CREEK ABOVE CASPER CANAL, NEAR BUCKNUM, WY (LAT 42 57 33 LONG 106 39 20)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TUR- BID- ITY (NTU)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)
MAR 08...	0830	0.19	2040	8.6	240	0.5	700
APR 19...	0900	0.30	8700	8.6	38	9.5	618
MAY 19...	0725	0.0	--	--	--	--	--
JUN 27...	1015	0.0	--	--	--	--	--

DATE	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
MAR 08...	13.6	104	--	--	--	172	0.09
APR 19...	8.8	98	800	3	3	168	0.14
MAY 19...	--	--	--	--	--	--	--
JUN 27...	--	--	--	--	--	--	--

430157106304701 NORTH FORK CASPER CREEK NEAR BUCKNUM, WY (LAT 43 01 57 LONG 106 30 47)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)
APR 19...	1030	0.0
MAY 19...	0850	0.0
JUN 27...	0940	0.0

KENDRICK IRRIGATION DRAINAGE STUDY
Stock Pond Sites

PLATTE RIVER BASIN

424635106344001 SP-1 NEAR CASPER, WY (LAT 42 46 35 LONG 106 34 40)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 24...	1330	870	27.5	10.1	8.8	3

424603106332701 SP-2 NEAR CASPER, WY (LAT 42 46 03 LONG 106 33 27)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	1340	8800	32.5	18.8	10.2	1300

424822106344401 SP-3 NEAR CASPER, WY (LAT 42 48 22 LONG 106 34 40)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	1525	750	31.0	7.2	8.5	1

425400106304801 SP-4 NEAR CASPER, WY (LAT 42 54 00 LONG 106 30 48)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 27...	1645	15000	28.5	8.1	5300

425122106265601 SP-5 NEAR CASPER, WY (LAT 42 51 22 LONG 106 26 56)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	0900	538	24.0	8.5	2

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

KENDRICK IRRIGATION DRAINAGE STUDY
Stock Pond Sites--Continued

PLATTE RIVER BASIN--Continued

425657106271401 SP-6 NEAR CASPER, WY (LAT 42 56 57 LONG 106 27 14)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	1135	1100	28.0	12.8	5

425742106285801 SP-7 NEAR CASPER, WY (LAT 42 57 42 LONG 106 28 58)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	1220	1960	26.0	11.8	2

425704106311001 SP-8 NEAR CASPER, WY (LAT 42 57 04 LONG 106 31 10)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	1330	1490	26.0	6.8	1

425602106305101 SP-9 NEAR CASPER, WY (LAT 42 56 02 LONG 106 30 51)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	1410	1300	26.0	10.0	2

425233106305401 SP-10 NEAR CASPER, WY (LAT 42 52 33 LONG 106 30 54)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUN 28...	1500	1950	28.5	10.6	<1

KENDRICK IRRIGATION DRAINAGE STUDY
Stock Pond Sites--Continued

PLATTE RIVER BASIN--Continued

424244106350901 SP-11 NEAR CASPER, WY (LAT 42 42 44 LONG 106 35 09)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 14...	1715	4850	27.0	18.4	9.3	260

424959106271201 SP-12 NEAR CASPER, WY (LAT 42 49 59 LONG 106 27 12)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 16...	1050	1120	22.5	8.2	8.3	1

425159106281901 SP-13 NEAR CASPER, WY (LAT 42 51 59 LONG 106 28 19)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 16...	1505	2850	24.5	5.7	9.2	1500

423523106411501 SP-14 NEAR CASPER, WY (LAT 42 35 23 LONG 106 41 15)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 18...	1035	2290	19.0	9.5	7.6	6

424814106324001 SP-15 NEAR CASPER, WY (LAT 42 48 14 LONG 106 32 40)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 18...	1435	528	24.0	7.4	8.4	1

425354106313201 SP-16 NEAR CASPER, WY (LAT 42 53 54 LONG 106 31 32)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
JUL 18...	1615	4230	23.5	8.5	9.3	1700

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

BEDLOAD SEDIMENT SAMPLING

All bedload samples were collected using a Helley-Smith type sampler of sheet-metal construction, 3.22 flare, 3 inch square nozzle, and equipped with 0.25 mm mesh collection bag.

PLATTE RIVER BASIN

411711107071801 JACK CREEK AT CAMPGROUND, NEAR SARATOGA, WY (LAT 41 17 11 LONG 107 07 18)

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
MAY											
17...	1245	6.0	31.0	30	10.0	-4.29	50	26	3.5	1.8	0.3
17...	1315	6.0	23.0	22	10.0	-4.40	55	29	4.3	2.3	0.3
17...	1440	6.0	23.0	22	10.0	-4.38	57	24	3.7	3.4	0.3
26...	1320	8.5	31.0	30	10.0	-4.28	62	11	1.8	1.4	0.3
26...	1625	10.5	31.0	30	10.0	-4.22	83	13	2.9	1.4	0.4
26...	1700	--	31.0	30	10.0	-4.20	87	--	--	1.7	0.5
26...	1915	--	31.0	30	10.0	-4.18	89	--	--	1.3	1
26...	1955	8.0	31.0	30	10.0	-4.18	90	35	8.5	1.7	1
27...	0535	2.5	29.0	29	10.0	-4.19	86	13	3.0	0.94	0
29...	1355	8.0	24.0	24	10.0	-0.33	92	11	2.7	11	0.2

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
MAY										
17...	0.6	2	9	20	35	52	74	93	100	--
17...	0.6	1	5	12	21	31	50	81	100	--
17...	0.6	1	3	8	14	23	34	58	100	--
26...	0.5	1	8	19	31	42	60	78	100	--
26...	0.8	2	10	21	34	46	63	77	100	--
26...	0.9	2	13	25	39	54	76	100	--	--
26...	2	4	22	39	52	64	77	95	100	--
26...	2	4	21	39	52	62	75	85	100	--
27...	0.7	3	17	32	46	59	76	94	100	--
29...	0.4	1	6	13	20	27	37	52	71	100

BEDLOAD SEDIMENT SAMPLING--Continued

GREEN RIVER BASIN

410932107022901 HASKIN CREEK TRIBUTARY WEST OF ENCAMPMENT, WY (LAT 41 09 32 LONG 107 02 29)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)
APR 29...	1208	2.0	7.60	15	10.0	-4.54	5.5	6	0.09	0.07
MAY 08...	1338	--	7.00	13	10.0	--	13	8	0.28	0.51
08...	1355	--	7.00	13	10.0	--	13	8	0.28	0.51
09...	1315	3.5	9.50	18	10.0	-0.08	14	5	0.19	0.34
09...	1420	4.0	9.50	18	10.0	-0.05	17	7	0.32	0.03
09...	1600	3.5	9.50	18	10.0	0.02	18	22	1.1	0.05

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
APR 29...	0.6	1	2	8	13	23	48	86	100	--
MAY 08...	2	4	6	22	34	49	73	97	100	--
08...	2	3	4	23	35	46	66	89	100	--
09...	1	3	11	19	29	42	58	81	100	--
09...	8	12	18	46	63	75	83	94	100	--
09...	3	5	7	22	32	40	45	50	72	100

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

BEDLOAD SEDIMENT SAMPLING--Continued

GREEN RIVER BASIN--Continued

410920107025001 HASKIN CREEK WEST OF ENCAMPMENT, WY (LAT 41 09 20 LONG 107 02 50)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
APR 29...	1617	2.0	9.50	19	10.0	-2.51	9.6	3	0.08
MAY 08...	1504	4.0	9.00	11	10.0	--	14	9	0.34
08...	1517	4.0	9.00	11	10.0	--	14	9	0.34
09...	1025	3.0	8.80	17	10.0	-2.42	13	4	0.14

DATE	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM
APR 29...	0.0	4	6	14	52	88	100	--	--
MAY 08...	0.04	5	7	9	63	85	92	94	100
08...	0.03	9	12	17	55	79	93	99	100
09...	0.0	3	9	16	48	66	98	100	--

410911107042801 LOST CREEK WEST OF ENCAMPMENT, WY (LAT 41 09 11 LONG 107 04 28)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
APR 29...	1045	0.5	7.00	14	10.0	-2.76	3.1	6	0.05	0.0
29...	1640	0.5	7.00	14	10.0	-2.75	3.3	14	0.12	0.0
MAY 08...	1638	--	8.50	11	10.0	--	18	24	1.2	0.11
08...	1652	--	8.50	11	10.0	-1.94	18	24	1.2	0.06
09...	1118	1.0	9.50	20	10.0	-2.14	13	4	0.14	0.40

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
APR 29...	4	6	12	31	65	94	100	--	--	--
29...	2	5	16	49	71	87	100	--	--	--
MAY 08...	2	2	4	12	23	39	62	76	100	--
08...	3	4	7	25	43	61	75	100	--	--
09...	2	3	5	33	62	79	88	93	95	100

GREEN RIVER BASIN--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.	SED.
	BEDLOAD	BEDLOAD	BEDLOAD	BEDLOAD	BEDLOAD	BEDLOAD	BEDLOAD	BEDLOAD	BEDLOAD	BEDLOAD
	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE	SIEVE
	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.	DIAM.
	% FINER THAN .125 MM	% FINER THAN .250 MM	% FINER THAN .500 MM	% FINER THAN 1.00 MM	% FINER THAN 2.00 MM	% FINER THAN 4.00 MM	% FINER THAN 8.00 MM	% FINER THAN 16.0 MM	% FINER THAN 32.0 MM	% FINER THAN 64.0 MM
3...	0	0	21	50	79	100	--	--	--	--
3...	0	0	20	40	60	100	--	--	--	--
7...	0	0	9	30	60	100	--	--	--	--
7...	0	0	3	8	20	33	100	--	--	--
5...	0	0	16	42	74	100	--	--	--	--
5...	0	0	8	29	75	100	--	--	--	--
6...	0.5	2	11	25	39	48	59	65	65	65

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
MAY										
12...	1225	6.0	3.20	7	10.0	0.78	4.3	33	0.38	0.10
17...	1625	10.5	4.10	8	10.0	--	8.3	196	4.4	0.04
DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
MAY										
12...	2	4	5	11	18	27	38	54	79	100
17...	5	13	23	49	69	85	100	--	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

BEDLOAD SEDIMENT SAMPLING--Continued

GREEN RIVER BASIN--Continued

411935107124101 DEEP GULCH TRIBUTARY WEST OF ENCAMPMENT, WY (LAT 41 19 35 LONG 107 12 41)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
APR 22...	1820	4.5	7.00	14		2.7	56	0.41	0.40	4
29...	0838	2.0	7.00	14		6.4	53	0.92	0.68	2
MAY 10...	1237	5.0	5.00	8		1.4	11	0.04	0.0	10

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
APR 22...	8	12	23	37	53	68	82	97	100
29...	5	7	17	33	53	72	87	97	100
MAY 10...	27	44	71	90	100	--	--	--	--

411650107111901 BEAR CREEK WEST OF ENCAMPMENT, WY (LAT 41 16 50 LONG 107 11 19)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)
APR 22...	1425	--	--	--	--	0.89	16	0.04	--
29...	1120	4.0	4.50	9	10.0	1.5	11	0.04	0.04
MAY 08...	1655	--	4.60	4	10.0	1.1	11	0.03	0.06

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM
APR 22...	--	--	--	--	--	--	--	--	--
29...	1	2	3	25	46	63	80	100	--
MAY 08...	0.9	2	3	11	21	32	46	93	100

BEDLOAD SEDIMENT SAMPLING--Continued

GREEN RIVER BASIN--Continued

411707107120601 HATCH CREEK WEST OF ENCAMPMENT, WY (LAT 41 17 07 LONG 107 12 06)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
APR 22...	1600	4.5	3.90	7	10.0	--	1.8	157	0.76
29...	1000	4.5	5.00	10	10.0	--	3.3	12	0.11
MAY 08...	1355	10.5	5.00	9	10.0	1.20	2.5	30	0.20

DATE	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM
APR 22...	0.88	30	45	60	82	93	96	98	100
29...	0.77	7	11	17	51	79	94	99	100
MAY 08...	0.01	15	21	25	32	40	63	97	100

411440107114201 DIRTYMAN FORK WEST OF ENCAMPMENT, WY (LAT 41 14 40 LONG 107 11 42)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)
APR 29...	1028	2.0	5.50	10	10.0	2.7	12	0.09	0.11
MAY 08...	1820	6.0	5.40	11	10.0	5.7	26	0.40	0.12

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM
APR 29...	2	4	7	32	70	92	99	10	--
MAY 08...	4	6	10	23	35	52	74	90	100

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

BEDLOAD SEDIMENT SAMPLING--Continued

GREEN RIVER BASIN--Continued

411213107110701 DEEP CREEK WEST OF ENCAMPMENT, WY (LAT 41 12 13 LONG 107 11 07)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	TEMPER- ATURE WATER (DEG C)	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	GAGE HEIGHT (FEET)	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)
APR										
29...	1250	--	8.50	15	10.0	-0.5	11	26	0.77	0.04
29...	1352	2.0	9.50	18	10.0	--	13	26	0.91	0.11
29...	1418	7.0	9.50	16	10.0	--	13	22	0.77	0.09
MAY										
08...	1703	7.0	9.00	16	10.0	-0.38	12	36	1.2	0.15

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
APR										
29...	6	8	10	40	75	91	96	100	--	--
29...	8	13	18	37	69	90	98	100	--	--
29...	8	12	16	47	76	88	92	100	--	--
MAY										
08...	3	4	5	14	25	32	36	38	38	100

BEDLOAD SEDIMENT SAMPLING--Continued

BEAR RIVER BASIN

411526110554701 BEAR RIVER AT HOSPITAL BRIDGE, NEAR EVANSTON, WY (LAT 41 15 26 LONG 110 55 47)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT DIS- CHARGE, BEDLOAD (TONS/ DAY)
APR								
07...	1045	42.0	21	10.0	483	276	360	12
28...	0820	62.0	20	10.0	336	50	45	1.5
MAY								
05...	0820	63.0	20	10.0	509	193	265	12
12...	0815	62.0	20	10.0	545	286	421	20
19...	0815	64.0	20	10.0	495	260	347	22
26...	0820	60.0	12	10.0	904	122	298	20
JUN								
02...	0755	60.0	20	10.0	443	44	53	2.2
07...	0820	55.0	10	10.0	626	71	120	14
09...	0815	42.0	20	10.0	340	28	26	0.83
16...	0805	30.0	15	10.0	124	10	3.4	0.35

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM
APR								
07...	1	2	3	47	98	100	--	--
28...	0.3	0.6	0.8	49	98	100	--	--
MAY								
05...	0.4	0.6	2	53	98	100	--	--
12...	1	2	4	61	97	99	100	--
19...	0.4	0.7	1	40	94	98	99	100
26...	0.6	1	2	49	95	100	--	--
JUN								
02...	0.2	0.3	1	51	98	100	--	--
07...	0.7	1	2	62	98	100	--	--
09...	0.2	0.7	1	59	98	100	--	--
16...	1	2	4	86	99	100	--	--

ANALYSES OF SAMPLES COLLECTED AT SPECIAL STUDY AND MISCELLANEOUS SITES

BEDLOAD SEDIMENT SAMPLING--Continued

BEAR RIVER BASIN--Continued

411826111002001 BEAR RIVER ABOVE YELLOW CREEK, NEAR EVANSTON, WY (LAT 41 18 26 LONG 111 00 20)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

DATE	TIME	STREAM WIDTH (FT)	NUMBER OF SAM- PLING POINTS (COUNT)	SAM- PLING METHOD, CODES	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SEDI- MENT, DIS- CHARGE, BEDLOAD (TONS/ DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM
APR 28...	1415	84.0	21	10.0	336	39	35	17	0.2
MAY 05...	1410	95.0	23	10.0	509	235	323	5.3	0.1
12...	1315	97.0	21	10.0	545	241	355	23	1
19...	1330	96.0	24	10.0	495	299	400	14	0.4
26...	1330	100	17	10.0	904	176	430	40	0.4
JUN 02...	1130	32.0	16	10.0	443	44	53	2.3	--
07...	1355	90.0	17	10.0	626	329	556	14	0.2
09...	1020	30.0	15	10.0	340	78	72	0.28	--
16...	1135	18.0	18	10.0	124	12	4.0	0.01	--

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM
APR 28...	0.3	2	36	98	100	--	--	--	--
MAY 05...	0.4	0.8	36	98	100	--	--	--	--
12...	2	4	47	94	98	100	--	--	--
19...	0.6	2	40	65	68	68	68	72	100
26...	0.7	2	52	94	99	100	--	--	--
JUN 02...	0.1	0.4	64	97	100	--	--	--	--
07...	0.4	1	72	99	100	--	--	--	--
09...	--	--	52	98	100	--	--	--	--
16...	--	--	42	75	100	--	--	--	--

LARAMIE COUNTY

410111104223102. 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 1987 TO SEPTEMBER 1988

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	26.04	24.37	23.22	22.27	21.58	20.89	20.22	19.67	22.10	24.81	27.28	30.09
10	25.84	24.16	23.03	22.09	21.43	20.74	20.10	19.67	22.98	26.04	27.01	30.18
15	25.56	23.93	22.89	22.02	21.28	20.67	20.01	19.97	23.79	26.86	27.09	29.55
20	25.23	23.91	22.73	21.80	21.21	20.57	19.93	21.13	24.36	27.36	28.15	28.90
25	24.96	23.61	22.59	21.80	21.08	20.44	19.83	20.95	24.31	27.62	28.68	28.46
EOM	24.60	23.40	22.40	21.66	21.01	20.31	19.78	21.24	24.22	27.72	29.56	27.96

WTR YR 1988 HIGHEST 19.62 MAY 7, 8 LOWEST 30.23 SEPT 11

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 1987 TO SEPTEMBER 1988

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	130.15	129.94	129.61	129.77	129.92	129.68	129.56	129.69	130.05	130.26	130.39	130.68
10	130.14	130.00	129.49	129.54	129.64	129.19	129.93	129.94	130.27	130.26	130.31	130.46
15	129.72	129.42	129.58	129.35	129.40	129.59	129.74	129.92	130.28	130.31	130.45	130.42
20	130.03	129.87	129.59	129.65	129.61	129.69	129.54	129.87	130.26	130.56	130.31	130.26
25	129.89	129.73	129.79	129.76	129.83	129.55	129.57	129.84	130.35	130.56	130.65	130.45
EOM	129.88	129.69	129.65	129.52	129.73	129.67	129.48	129.65	130.22	130.30	130.38	130.38

WTR YR 1988 HIGHEST 129.19 MAR 10 LOWEST 130.86 SEPT 3, 4

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, 214.08 ft below land-surface datum, Nov. 19, 20, 25, 26, 27, 1987.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	213.92	214.05	214.07	214.00	213.82	213.42	211.10	210.00	209.35	210.08	212.02	213.31
10	213.96	214.07	214.06	213.96	213.75	213.23	210.92	209.86	209.28	210.30	212.26	213.46
15	213.98	214.06	214.06	213.93	213.68	212.88	210.68	209.74	209.32	210.51	212.46	213.61
20	214.00	214.08	214.05	213.91	213.63	212.41	210.47	209.64	209.38	211.17	212.69	213.72
25	214.02	214.08	214.04	213.88	213.58	211.86	210.30	209.50	209.51	211.56	212.90	213.78
EOM	214.04	214.07	214.01	213.84	213.51	211.42	210.14	209.37	209.75	211.80	213.14	213.88

WTR YR 1988 HIGHEST 209.26 JUNE 11, 12, 13, 14 LOWEST 214.08 NOV 19, 20, 25, 26, 27

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, 37.73 ft below land-surface datum, Sept. 1, 1988.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	34.31	34.09	33.86	33.41	33.18	33.16	32.95	33.40	34.94	34.57	36.14	36.83
10	34.22	34.06	33.62	33.34	33.11	33.01	32.93	33.43	35.21	35.44	36.92	36.68
15	34.25	34.00	33.61	33.31	33.05	33.19	32.86	33.99	34.17	36.30	36.38	36.99
20	34.22	33.93	33.59	33.31	33.05	33.04	32.81	33.85	34.04	35.85	37.32	36.95
25	34.17	33.90	33.58	33.20	33.19	33.10	32.77	34.25	34.78	35.87	37.19	36.65
EOM	34.14	33.89	33.56	33.01	33.18	33.13	33.05	34.26	35.21	36.82	37.50	36.56

WTR YR 1988 HIGHEST 32.75 APR 28, 29 LOWEST 37.73 SEPT 1

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.

REMARKS.--Record lost between July 16 and September 30 because clock stopped.

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

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 20.13 ft below land-surface datum, Nov. 19, 1986; lowest, 28.93 ft below land-surface datum, Aug. 10, 1982.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

Highest water level for the day, from digital recorder

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	23.31	21.83	21.39	21.33	21.22	21.22	21.26	22.60	24.59	25.88	---	---
10	23.08	21.80	21.28	21.18	21.33	21.08	21.37	23.05	24.76	26.07	---	---
15	22.51	21.58	21.43	20.97	21.40	21.18	21.38	23.52	24.17	26.49	---	---
20	22.34	21.58	21.40	21.12	21.41	21.05	21.51	23.90	24.61	---	---	---
25	22.12	21.56	21.42	21.17	21.31	21.05	21.72	23.93	24.98	---	---	---
EOM	21.99	21.48	21.34	21.05	21.20	21.22	22.13	24.40	24.89	---	---	---

WTR YR 1988 HIGHEST 20.95 MAR 23 LOWEST 26.49 JULY 15

BIG HORN COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
441011107315800	49-089-4dca		317TSLP	GW	08-30-88	1300	300.00	1130	7.5
441027107535201	49-092-34cba01	A. NELSON	124WLWD	GW	09-02-88	1330	113.00	1330	8.5
441038107313000	49-089-35bcb		331MDSN	GW	08-30-88	1400	--	415	7.7
441048107562001	49-092-32ba 01	C.FRITZ WELL	--	GW	09-02-88	1145	420.00	3500	8.0
441114107280700	49-088-29dac01		374FLTD	GW	08-30-88	1500	2287.00	308	7.3
441115107275200	49-088-29daa		317TSLP	GW	08-30-88	1630	--	570	7.4
441144107340600	49-089-29abb		331MDSN	GW	08-30-88	0900	960.00	350	7.8
441149107330100	49-089-28baa		331MDSN	GW	08-29-88	1000	944.00	350	7.8
441155107292001	49-089-24dcb01		317TSLP	GW	08-30-88	1530	--	500	7.2
441351107434701	49-091-12Dbc	WORLAND-1	331MDSN	GW	09-01-88	1630	--	353	8.1
441432107440101	49-091-01cd 01	WORLAND-3	331MDSN	GW	09-01-88	1530	2334.00	355	7.8
441449107464801	49-091-03cbb01	NEAL	111ALVM	GW	07-22-88	1115	40.00	1570	9.5
441450107480901	49-091-05daa01	THARP	211CODY	GW	09-02-88	1100	55.00	8800	--
441453107582801	49-93- 01acd01	DUNNE WELL	--	GW	06-29-88	1600	25.40	900	7.4
441459107342200	49-089-05bda		331MDSN	GW	08-31-88	1100	2214.00	325	7.6
441459107355801	49-089-06bcb01		331MDSN	GW	08-31-88	1200	9255.00	460	7.9
441526107384900	50-090-34dca00	MERCER	331MDSN	GW	09-01-88	1430	2985.00	330	8.0
441543107563201	50-090-32cab01	MANDERSON	211LNCE	GW	09-01-88	1800	967.00	1960	8.6
441549107325601	50-089-33acb01	FORSHEE	317TSLP	GW	08-29-88	1700	--	510	7.7
441550107331401	50- 89-33bdb01	REA WELL	317TSLP	GW	08-29-88	1600	1120.00	940	7.5
441554107582401	50-093-36adb01	CARR WELL	124WLWD	GW	09-02-88	1400	245.00	1040	8.5
441603107353400	50-089-31bab		374FLTD	GW	08-31-88	1330	3995.00	280	8.3
441614108010301	50-093-27dcc01	VESSEY WELL	--	GW	07-19-88	1510	140.00	3200	7.7
441622107304301	50-089-26cac01		317TSLP	GW	08-29-88	1400	30.00	335	7.6
441659108021201	50-093-28aba01	COLWELL WELL	--	GW	09-02-88	1500	305.00	2400	8.0
441705108011901	50-093-22cdd01	MERCADO WELL	111TRRC	GW	07-21-88	1400	25.40	2480	7.4
441716107375400	50-090-23cad00	HAMILTON	331MDSN	GW	09-01-88	1400	2500.00	318	8.2
441726108004901	50-093	LA BUDDA	111TRRC	GW	06-29-88	1000	60.00	4900	7.3
441804107380100	50-090-14cac		317TSLP	GW	09-01-88	1300	2000.00	342	8.4
441829107375901	50-090-14bdb01	HAMILTON	331MDSN	GW	09-01-88	1000	2800.00	330	7.7
441906107380800	50-090-14bbd		317TSLP	GW	09-01-88	1100	1625.00	730	7.6
441937108012801	50-093-10bab01	STILDAHL	111TRRC	GW	07-18-88	1315	24.90	2500	7.2
441940107370401	50-090-01ccd01	Hamilton	331MDSN	GW	08-31-88	1545	--	325	8.1
442030108010001	59-093-03aba01	STEWART WELL	--	GW	07-21-88	0905	120.00	1680	7.5
442043108014801	51-093-33dda01	KESTNER WELL	--	GW	06-29-88	1415	52.40	3400	7.4
442101108015101	51-093-33add01	FABRICIUS	--	GW	07-18-88	1200	44.90	1550	7.4
442121108014601	51-093-34bbb01	DICKENSON	--	GW	07-21-88	0800	54.40	2630	6.9
442307108230301	51-096-22bab01	MCINTOSH	111ALVM	GW	06-27-88	1600	50.94	1580	7.2
442307108230302	51-096-22bab02	MCINTOSH	124WLWD	GW	06-27-88	1500	200.00	1130	8.6
442418108224401	51-096-10dbd01	LOWE WELL	111TRRC	GW	05-25-88	1300	7.00	800	--
442446108110301	51-094-08ba 01	BULLINGER	111TRRC	GW	06-26-88	1000	38.10	1620	7.4
442459108183001	51-095-05cca01	VIGIL WELL	124WLWD	GW	06-26-88	1300	82.00	4350	7.5
442546108031601	52-093-32d 01	MILLER WELL	111TRRC	GW	07-21-88	1235	27.20	2680	7.3
442634108232701	52-096-34bbb01	MCNIVEN WELL	111ALVM	GW	06-26-88	0800	23.75	1530	7.5
442658108024401	52-093-28cba01	LINDSE WELL	--	GW	09-01-88	1700	350.00	5200	7.7
442701108060901	52-094-25cab01	RIVER ROAD	--	GW	08-31-88	1300	265.00	3920	8.2
442747108052201	52-093-19cbc01	JONES WELL	--	GW	08-31-88	0850	200.00	3100	7.6
442912108240601	52-096-16abb01	KELSO WELL	111ALVM	GW	06-27-88	1300	27.00	1830	--
442930108021501	52-093-09dbc01	KUNKEL	211FRNR	GW	09-01-88	1830	109.00	1280	7.2

GEOLOGIC UNIT (AQUIFER)

111ALVM	HOLOCENE ALLUVIUM	211LNCE	LANCE FORMATION	317TSLP	TENSLEEP SANDSTONE
111TRRC	TERRACE DEPOSITS	211MVRD	MESAVERDE FORMATION OR GROUP	331MDSN	MADISON GROUP
124WLWD	WILLWOOD FORMATION	217CLVL	CLOVERLY FORMATION	374FLTD	FLATHEAD QUARTZIDE OR SANDSTON
125FRUN	FORT UNION FORMATION	221GPSP	GYPSPUM SPRING FORMATION	400PCMB	PRECAMBRIAN ERATHEM
211CODY	CODY SHALE	231SNDG	SUNDANCE FORMATION		
211FRNR	FRONTIER FORMATION	231CGTR	CHUGWATER FORMATION OR GROUP		

QUALITY OF GROUND WATER
BIG HORN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
443020108171001	52-095	KILLAM WELL	111ALVM	GW	06-27-88	0900	--	1470	7.5
443020108223801	52-096-03d 01	MAYLAND WELL	111TRRC	GW	06-27-88	1030	30.00	1040	7.4
443111107541201	52-092-04aaa01	BENTLEY	217CLVL	GW	08-31-88	1730	106.00	3650	7.0
443136107544601	53-092-34abb01	BARNETT WELL	--	GW	06-28-88	1000	--	1720	7.1
443151107514701	53-092-36ada01	GREYBULL	331MDSN	GW	08-30-88	0910	3250.00	2550	7.6
443201107454800	53-091-35aa 01	SHELL VALLEY	331MDSN	GW	08-29-88	1030	3500.00	460	7.6
443205107454701	53-091-35aaa02	TRAPPER	331MDSN	GW	08-29-88	1130	3379.00	450	7.5
443223107503001	53-091-29cbc	WHALEY WELL	111ALVM	GW	06-28-88	1500	--	1620	7.1
443227107492501	53-091-29daa01		111ALVM	GW	06-28-88	1000	34.55	1530	7.1
443234107453301	53-091-25bcc01	LEAVITT WELL	111ALVM	GW	08-30-88	1745	--	950	7.4
443253107454901	53-091-26aaa01		317TSLP	GW	08-30-88	1030	3055.00	2260	7.6
443337107465101	53-091-23bbc01	DURWENSKI	221SNDG	GW	08-30-88	1415	60.00	1020	7.3
444105108073601	54-094-02dad01	SCHOTT WELL	221GPSP	GW	07-28-88	0930	56.00	4300	6.9
444112107501201	54-091-05cba01	C. MILLER		GW	08-29-88	1645	250.00	1300	8.0
444147107555401	55-092-33cda01		374FLTD	GW	08-29-88	1430	9000.00	690	8.7
444338108100001	55-094-21dad01	STEIGER BARN	231CGTR	GW	07-28-88	1100	91.00	4200	7.7
444530108351701	55-097-07cba01		111ALVM	GW	06-20-88	0700	--	1210	7.6
444557108323001	55-097 01	FINK WELL	211MVRD	GW	07-26-88	1600	110.00	3400	7.5
444743108260401	56-096-32abb01	MOODY WELL	211MVRD	GW	07-27-88	1330	85.00	4000	8.5
444814108260801	56-096-29acd01	MONCUR WELL	111TRRC	GW	07-26-88	1430	30.00	1100	8.0
444832108302501	56-097-26ca 01	BYRON	111TRRC	GW	07-27-88	0830	13.50	1700	7.6
444914108214101	56-096-24bda01	HASKINS WELL	111TRRC	GW	07-26-88	1345	22.00	1320	8.0
444936108274201	56-096-19abb01		111ALVM	GW	06-20-88	0945	--	1700	7.4
444957107511201	56-091-18bdd01	PORCUPINE	400PCMB	GW	07-28-88	1630	160.00	212	8.8
445012108253301	56-096	WAMBECKE	111ALVM	GW	07-15-88	1400	16.00	1720	7.3
445053108222001	56-096-11	JOLLEY WELL	111ALVM	GW	07-14-88	1000	18.00	1720	7.4
445217108341101	56-097-05bbb01	ROBERTS WELL	211MVRD	GW	07-26-88	1730	92.00	6600	7.7
445242108173001	57-095-34adb01		111ALVM	GW	06-19-88	0950	--	5400	7.4
445730108340501	57-097-04abb01	WEBBER WELL	111ALVM	GW	07-27-88	1130	13.00	2500	7.4
445735108251801	58-096-34cda01	MADISON #1	331MDSN	GW	09-02-88	1200	2300.00	406	7.5
445755108361701	57-097-31dab01	BANKS WELL	111ALVM	GW	07-27-88	1000	11.00	2900	7.5
445814108365501	58-097-31bca01		331MDSN	GW	07-27-88	1100	5250.00	1500	7.3
445824108201201	58-095-29dca01	MARCHANT	111ALVM	GW	07-26-88	0930	28.00	1450	7.3

QUALITY OF GROUND WATER

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BIG HORN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
441011107315800	08-30-88	11.0	540	100	70	38	0.7	3.7	190	420	
441027107535201	09-02-88	22.0	32	8.5	2.5	300	24	2.1	406	22	
441038107313000	08-30-88	12.5	220	43	28	2.0	0.1	2.3	211	14	
441048107562001	09-02-88	17.0	270	66	26	710	19	7.1	122	1500	
441114107280700	08-30-88	19.5	160	32	19	2.9	0.1	1.9	147	9.9	
441115107275200	08-30-88	10.0	300	62	35	4.6	0.1	1.3	212	74	
441144107340600	08-30-88	13.0	190	39	23	2.5	0.1	1.5	181	8.1	
441149107330100	08-29-88	14.0	190	39	23	1.8	0.1	0.9	185	5.7	
441155107292001	08-30-88	13.0	270	57	30	3.6	0.1	1.2	204	59	
441351107434701	09-01-88	24.5	190	39	23	2.6	0.1	1.0	177	13	
441432107440101	09-01-88	26.0	200	39	24	2.6	0.1	1.1	180	13	
441449107464801	07-22-88	12.0	12	3.2	0.9	280	37	0.8	200	370	
441450107480901	09-02-88	18.0	1500	310	180	2000	23	7.1	495	5200	
441453107582801	06-29-88	13.0	400	110	30	110	2	5.7	272	330	
441459107342200	08-31-88	17.0	180	37	22	2.5	0.1	1.1	170	7.4	
441459107355801	08-31-88	18.0	240	55	26	5.0	0.1	1.7	190	57	
441526107384900	09-01-88	20.0	180	37	21	2.4	0.1	1.0	170	7.8	
441543107563201	09-01-88	13.0	160	38	15	420	15	1.5	406	440	
441549107325601	08-29-88	11.0	260	54	31	5.4	0.1	1.6	236	19	
441550107331401	08-29-88	13.0	470	120	42	11	0.2	2.3	206	270	
441554107582401	09-02-88	24.0	12	2.9	1.1	250	33	1.9	422	4.2	
441603107353400	08-31-88	25.0	140	24	19	6.0	0.2	5.1	131	20	
441614108010301	07-19-88	14.0	140	35	13	540	20	3.9	389	690	
441622107304301	08-29-88	11.0	170	41	16	2.2	0.1	1.3	165	4.5	
441659108021201	09-02-88	17.0	150	44	10	530	19	3.0	220	540	
441705108011901	07-21-88	--	800	220	60	300	5	6.4	317	1100	
441716107375400	09-01-88	14.5	180	36	21	2.1	0.1	0.8	167	6.6	
441726108004901	06-29-88	14.0	1200	300	98	780	10	10	276	2300	
441804107380100	09-01-88	10.5	180	29	26	4.2	0.1	1.9	143	39	
441829107375901	09-01-88	14.5	180	38	21	2.9	0.1	0.8	176	7.1	
441906107380800	09-01-88	14.0	390	94	38	8.6	0.2	1.9	155	240	
441937108012801	07-18-88	16.0	980	280	68	250	4	10	410	1000	
441940107370401	08-31-88	12.0	180	34	23	2.6	0.1	1.1	166	13	
442030108010001	07-21-88	19.0	450	97	50	140	3	4.1	287	460	
442043108014801	06-29-88	15.5	1200	310	99	380	5	8.6	284	1600	
442101108015101	07-18-88	17.0	520	130	48	130	3	6.3	287	520	
442121108014601	07-21-88	13.0	630	170	51	320	6	9.7	278	1100	
442307108230301	06-27-88	12.0	440	120	34	190	4	3.5	392	420	
442307108230302	06-27-88	--	12	3.2	0.86	240	32	1.1	369	67	
442418108224401	06-25-88	12.5	280	81	18	71	2	3.4	287	140	
442446108110301	06-26-88	10.0	330	86	29	300	7	3.7	500	450	
442459108183001	06-26-88	13.5	1100	290	95	700	9	6.8	377	1800	
442546108031601	07-21-88	17.0	1300	380	76	240	3	5.0	331	1400	
442634108232701	06-26-88	13.0	--	130	--	--	--	3.3	355	510	
442658108024401	09-01-88	17.0	26	8.2	1.4	1400	120	3.1	2070	5.6	
442701108060901	08-31-88	21.0	74	17	7.7	930	48	4.4	396	1500	
442747108052201	08-31-88	16.0	400	58	62	630	14	5.0	335	1400	
442912108240601	06-27-88	--	520	110	59	150	3	1.6	377	460	
442930108021501	09-01-88	16.0	650	190	42	67	1	3.2	249	540	

QUALITY OF GROUND WATER
BIG HORN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
443020108171001		06-27-88	14.0	440	130	29	170	4	2.5	401	410
443020108223801		06-27-88	15.0	320	79	29	100	3	1.5	334	200
443111107541201		08-31-88	18.0	810	210	70	620	10	5.6	262	2000
443136107544601		06-28-88	15.0	750	200	60	110	2	2.4	393	580
443151107514701		08-30-88	18.0	1800	460	150	31	0.3	14	10	1800
443201107454800		08-29-88	18.0	220	42	27	2.9	0.1	1.0	198	21
443205107454701		08-29-88	19.0	230	47	28	3.6	0.1	1.1	187	19
443223107503001		06-28-88	10.5	820	250	48	52	0.8	2.7	302	600
443227107492501		06-28-88	13.0	--	--	--	--	--	1.0	370	440
443234107453301		08-30-88	18.0	520	160	30	4.8	0.1	2.9	218	310
443253107454901		08-30-88	17.0	1700	400	160	35	0.4	8.7	87	1400
443337107465101		08-30-88	17.0	550	110	66	43	0.8	2.5	323	270
444105108073601		07-28-88	16.0	1100	300	83	410	6	2.1	362	2300
444112107501201		08-29-88	17.0	62	14	6.6	280	16	2.5	278	330
444147107555401		08-29-88	32.0	23	7.6	0.9	150	14	3.3	142	160
444338108100001		07-28-88	16.0	1400	380	120	170	2	5.2	210	1900
444530108351701		06-20-88	16.0	440	100	46	220	5	2.8	307	590
444557108323001		07-26-88	--	1600	450	110	220	3	8.3	255	1500
444743108260401		07-27-88	17.0	28	9.3	1.1	970	84	2.4	610	1400
444814108260801		07-26-88	25.0	310	80	26	100	3	3.4	286	240
444832108302501		07-27-88	16.0	490	110	53	170	3	3.0	306	510
444914108214101		07-26-88	22.0	370	100	30	69	2	1.1	139	680
444936108274201		06-20-88	25.0	530	140	45	88	2	2.5	317	370
444957107511201		07-28-88	6.0	50	17	1.8	1.9	0.1	0.4	69	2.6
445012108253301		07-15-88	13.0	580	150	49	200	4	3.7	473	470
445053108222001		07-14-88	16.0	480	130	38	190	4	2.8	326	510
445217108341101		07-26-88	12.0	2000	330	280	940	9	10	382	3800
445242108173001		06-19-88	17.0	1600	430	130	440	5	5.2	400	1900
445730108340501		07-27-88	22.0	1400	410	86	110	1	3.6	203	1300
445735108251801		09-02-88	17.5	230	51	26	1.9	0.1	0.9	186	41
445755108361701		07-27-88	19.0	1300	320	110	220	3	62	338	1400
445814108365501		07-27-88	32.0	850	220	74	2.8	0.0	2.1	164	720
445824108201201		07-26-88	16.0	910	240	75	86	1	2.6	228	790

BIG HORN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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- PHOROUS TOTAL (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
441011107315800	08-30-88	8.0	0.6	9.7	768	1.04	0.94	--	--	--	--
441027107535201	09-02-88	200	2.0	6.1	787	1.07	<0.10	<0.01	200	<1	<1
441038107313000	08-30-88	0.5	0.3	8.4	226	0.31	0.26	--	--	--	--
441048107562001	09-02-88	170	0.8	7.0	2560	3.48	0.27	<0.01	180	21	21
441114107280700	08-30-88	0.5	0.2	10	166	0.23	0.31	--	--	--	--
441115107275200	08-30-88	3.0	0.2	10	328	0.45	2.40	--	--	--	--
441144107340600	08-30-88	0.7	0.3	9.3	195	0.26	0.37	--	--	--	--
441149107330100	08-29-88	0.5	0.2	9.6	194	0.26	0.43	--	--	--	--
441155107292001	08-30-88	2.0	0.3	10	291	0.40	1.30	--	--	--	--
441351107434701	09-01-88	0.8	0.2	12	200	0.27	0.51	--	--	--	--
441432107440101	09-01-88	0.8	0.2	12	203	0.28	0.53	--	--	--	--
441449107464801	07-22-88	29	0.3	7.1	815	1.11	0.8	0.01	--	--	--
441450107480901	09-02-88	220	0.5	16	8290	11.3	14.0	0.02	1300	27	27
441453107582801	06-29-88	15	0.9	25	806	1.10	3.60	0.02	130	2	2
441459107342200	08-31-88	0.8	0.2	9.5	184	0.25	0.41	--	--	--	--
441459107355801	08-31-88	1.3	0.5	9.7	274	0.37	0.78	--	--	--	--
441526107384900	09-01-88	0.8	0.2	10	185	0.25	0.54	0.01	--	--	--
441543107563201	09-01-88	86	2.9	11	1260	1.71	<0.10	<0.01	230	<1	<1
441549107325601	08-29-88	3.2	0.5	10	275	0.37	2.00	--	--	--	--
441550107331401	08-29-88	5.6	0.7	12	595	0.81	1.90	--	--	--	--
441554107582401	09-02-88	100	3.6	6.6	623	0.85	<0.10	<0.01	130	1	1
441603107353400	08-31-88	1.0	0.2	11	165	0.22	0.12	--	--	--	--
441614108010301	07-19-88	140	1.4	10	1670	2.27	0.18	<0.01	140	7	7
441622107304301	08-29-88	0.6	0.2	10	175	0.24	0.12	--	--	--	--
441659108021201	09-02-88	320	1.7	6.5	1720	2.34	30.0	<0.01	100	350	350
441705108011901	07-21-88	22	0.6	27	1950	2.66	6.50	0.04	280	9	9
441716107375400	09-01-88	0.7	0.2	9.6	179	0.24	0.52	--	--	--	--
441726108004901	06-29-88	120	0.5	8.6	3790	5.16	2.30	<0.01	180	21	21
441804107380100	09-01-88	1.0	0.4	7.7	196	0.27	0.18	--	--	--	--
441829107375901	09-01-88	0.8	0.2	9.8	188	0.26	0.44	--	--	--	--
441906107380800	09-01-88	1.5	0.5	9.0	490	0.67	0.77	--	--	--	--
441937108012801	07-18-88	24	0.7	27	1910	2.60	0.90	0.04	300	7	7
441940107370401	08-31-88	0.9	0.2	8.8	185	0.25	0.52	--	--	--	--
442030108010001	07-21-88	19	0.3	9.6	954	1.30	0.32	0.01	130	<1	<1
442043108014801	06-29-88	29	0.4	12	2630	3.58	5.70	0.01	390	29	29
442101108015101	07-18-88	16	0.4	10	1050	1.43	4.30	0.01	110	5	5
442121108014601	07-21-88	24	0.5	14	1860	2.53	0.80	0.04	240	2	2
442307108230301	06-27-88	8.0	0.5	24	1080	1.47	9.60	0.01	80	11	11
442307108230302	06-27-88	83	3.6	6.8	627	0.85	0.11	0.02	140	<1	<1
442418108224401	06-25-88	6.1	0.4	29	532	0.72	2.40	0.10	--	--	--
442446108110301	06-26-88	15	0.5	24	1250	1.70	9.80	0.02	170	27	27
442459108183001	06-26-88	150	1.4	9.2	3320	4.52	10.0	0.01	320	290	290
442546108031601	07-21-88	26	0.9	29	2380	3.23	4.70	0.03	360	7	7
442634108232701	06-26-88	1.2	1.3	--	--	--	5.80	0.05	170	26	26
442658108024401	09-01-88	640	3.4	7.9	3320	4.50	<0.10	0.03	4900	<1	<1
442701108060901	08-31-88	130	1.8	7.4	2850	3.87	2.10	<0.01	140	<1	<1
442747108052201	08-31-88	31	0.4	17	2410	3.27	0.73	<0.01	370	3	3
442912108240601	06-27-88	12	1.6	28	1070	1.45	4.50	0.02	190	7	7
442930108021501	09-01-88	7.0	1.7	14	1020	1.39	1.3	0.10	150	4	4

QUALITY OF GROUND WATER
BIG HORN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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- PHOROUS TOTAL (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)
443020108171001	06-27-88	4.6	2.2	37	1050	1.43	5.60	0.01	220	12	
443020108223801	06-27-88	5.3	2.0	35	668	0.91	3.60	0.03	--	--	
443111107541201	08-31-88	7.5	0.4	12	3080	4.19	<0.10	<0.01	1600	<1	
443136107544601	06-28-88	5.6	0.4	21	1220	1.66	1.40	0.03	--	--	
443151107514701	08-30-88	5.1	2.5	0.8	2470	3.36	<0.10	<0.01	--	--	
443201107454800	08-29-88	1.2	0.3	9.1	226	0.31	0.64	0.02	--	--	
443205107454701	08-29-88	1.4	0.3	9.8	224	0.30	0.42	<0.01	--	--	
443223107503001	06-28-88	4.3	0.5	16	1160	1.58	1.40	0.01	190	3	
443227107492501	06-28-88	3.7	0.6	--	--	--	1.40	<0.01	380	4	
443234107453301	08-30-88	1.0	0.3	15	656	0.89	0.28	0.02	--	--	
443253107454901	08-30-88	5.8	2.1	9.0	2070	2.82	0.11	<0.01	--	--	
443337107465101	08-30-88	2.7	0.2	13	708	0.96	1.50	<0.01	260	5	
444105108073601	07-28-88	16	0.4	26	3360	4.57	1.50	0.01	550	7	
444112107501201	08-29-88	3.8	0.7	9.7	814	1.11	<0.10	<0.01	460	<1	
444147107555401	08-29-88	20	1.9	14	443	0.60	<0.10	<0.01	--	--	
444338108100001	07-28-88	37	0.8	20	2840	3.87	19.0	0.01	700	29	
444530108351701	06-20-88	17	0.7	18	1210	1.64	6.70	0.02	200	8	
444557108323001	07-26-88	12	0.3	9.9	2510	3.41	10.0	0.01	240	3	
444743108260401	07-27-88	23	0.8	7.1	2780	3.78	<0.10	0.02	250	<1	
444814108260801	07-26-88	9.1	1.0	25	691	0.94	7.90	0.02	150	3	
444832108302501	07-27-88	26	0.7	20	1100	1.50	5.50	0.02	230	4	
444914108214101	07-26-88	7.8	0.5	14	1000	1.36	3.30	0.03	200	1	
444936108274201	06-20-88	19	0.6	19	878	1.19	0.76	0.02	180	4	
444957107511201	07-28-88	0.4	0.1	8.7	75	0.10	0.11	0.02	<10	<1	
445012108253301	07-15-88	31	0.4	22	1250	1.70	9.00	0.02	250	4	
445053108222001	07-14-88	25	0.8	26	1160	1.58	9.80	0.03	270	4	
445217108341101	07-26-88	3.8	0.1	8.6	5610	7.62	0.74	0.01	400	1	
445242108173001	06-19-88	30	0.4	27	3210	4.36	1.30	0.02	650	11	
445730108340501	07-27-88	15	0.9	30	2090	2.84	1.90	0.01	560	10	
445735108251801	09-02-88	0.9	1.4	9.0	245	0.33	0.26	--	--	--	
445755108361701	07-27-88	13	0.6	31	2380	3.24	5.10	0.63	630	6	
445814108365501	07-27-88	0.9	2.1	16	1140	1.55	<0.10	0.01	30	2	
445824108201201	07-26-88	1.8	0.7	12	1350	1.83	0.12	<0.01	160	1	

QUALITY OF GROUND WATER
BIG HORN COUNTY--Continued

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WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	ALA- CHLOR TOTAL RECOVER (UG/L)	METOLA- CHLOR WATER WHOLE TOT. REC (UG/L)	TRI- FLURA- LIN TOTAL RECOVER (UG/L)
41449107464801	49-091-03cbb01	NEAL	111ALVM	GW	07-22-88	1115	--	--	--
41453107582801	49-093-01acd01	DUNNE	111TRRC	GW	06-29-88	1600	<0.1	<0.1	<0.1
41726108004901	50-093	LA BUDDA	125FRUN	GW	06-29-88	1000	<0.1	<0.1	<0.1
42043108014801	51-093-33dda01	KESTNER, C.	125FRUN	GW	07-22-88	1230	--	--	--
42043108014801	51-093-33dda01	KESTNER, C.	125FRUN	GW	06-29-88	1415	--	--	--
42307108230301	51-096-22bab01	MCINTOSH	111ALVM	GW	06-27-88	1600	<0.1	<0.1	<0.1
42418108224401	51-096-10dbd01	LOWE	111TRRC	GW	06-25-88	1300	<0.1	<0.1	<0.1
42446108110301	51-094-08ba 01	BULLING, B.	111TRRC	GW	06-26-88	1000	<0.1	<0.1	<0.1
42459108183001	51-095-05cca01	VIGIL	124WLWD	GW	06-26-88	1300	<0.1	<0.1	<0.1
42546108031601	52-093-32d 01	MILLER	111TRRC	GW	07-21-88	1235	--	--	--
42634108232701	52-096-34bbb01	MCNIVEN	111ALVM	GW	06-26-88	0800	--	--	--
42912108240601	52-096-16abb01	KELSO	111ALVM	GW	06-27-88	1300	<0.1	<0.1	<0.1
43020108171001	52-095-09b 01	KILLAM	111TRRC	GW	06-27-88	0900	--	--	--
43020108223801	52-096-03d 01	MAYLAND	111TRRC	GW	09-02-88	0900	--	--	--
43020108223801	52-096-03d 01	MAYLAND	111TRRC	GW	06-27-88	1030	--	--	--
43136107544601	53-092-34dbb01	BARNETT(DRN)	111ALVM	GW	06-28-88	1000	--	--	--
43223107503001	53-091-29cbc01	WHALEY	111ALVM	GW	06-28-88	1500	--	--	--
43227107492501	53-091-29daa01	GARLAND	111ALVM	GW	06-28-88	1000	<0.1	<0.1	<0.1
44530108351701	55-097-07cba01	ABRAHAM	111ALVM	GW	06-20-88	0700	--	--	--
44832108302501	56-097-26ca 01	BYRON	111TRRC	GW	07-27-88	0830	<0.1	<0.1	<0.1
44936108274201	56-096-19abb01	HATCH FARM	111TRRC	GW	06-20-88	0945	--	--	--
45012108253301	56-096-16bb 01	J. MAXINE	111ALVM	GW	07-15-88	1400	<0.1	<0.1	<0.1
45053108222001	56-096-11adc01	H. JOLLEY	111ALVM	GW	07-14-88	1000	--	--	--
45242108173001	57-095-34abd01	STAHL	111ALVM	GW	06-19-88	0950	--	--	--

STATION	NUMBER	DATE	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)	AME- TRYNE TOTAL	ATRA- ZINE, TOTAL (UG/L)	CYAN- AZINE TOTAL (UG/L)
41449107464801		07-22-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
41453107582801		06-29-88	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
41726108004901		06-29-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
42043108014801		07-22-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
42043108014801		06-29-88	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
42307108230301		06-27-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
42418108224401		06-25-88	--	--	--	--	--	--	<0.1	0.4	<0.1
42446108110301		06-26-88	--	--	--	--	--	--	<0.1	<0.1	<0.1
42459108183001		06-26-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
42546108031601		07-21-88	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
42634108232701		06-26-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
42912108240601		06-27-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
43020108171001		06-27-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
43020108223801		09-02-88	0.01	0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
43020108223801		06-27-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
43136107544601		06-28-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
43223107503001		06-28-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
43227107492501		06-28-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
44530108351701		06-20-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
44832108302501		07-27-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
44936108274201		06-20-88	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	--	--
45012108253301		07-15-88	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.1	<0.1	<0.1
45053108222001		07-14-88	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	--	--	--
45242108173001		06-19-88	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	--	--	--

QUALITY OF GROUND WATER
BIG HORN COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	DATE	METRI- BUZIN WATER WHOLE TOT.REC (UG/L)	PROME- TONE TOTAL (UG/L)	PROME- TRYNE TOTAL (UG/L)	PRO- PAZINE TOTAL (UG/L)	SIMA- ZINE TOTAL (UG/L)	SIME- TRYNE TOTAL (UG/L)	METHO- MYL TOTAL (UG/L)	PROPHAM TOTAL (UG/L)	SEVIN, TOTAL (UG/L)
441449107464801	07-22-88	--	--	--	--	--	--	--	--	--	--
441453107582801	06-29-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
441726108004901	06-29-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
442043108014801	07-22-88	--	--	--	--	--	--	--	--	--	--
442043108014801	06-29-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
442307108230301	06-27-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
442418108224401	06-25-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--
442446108110301	06-26-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
442459108183001	06-26-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
442546108031601	07-21-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
442634108232701	06-26-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
442912108240601	06-27-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--
443020108171001	06-27-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
443020108223801	09-02-88	--	--	--	--	--	--	--	--	--	--
443020108223801	06-27-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
443136107544601	06-28-88	--	--	--	--	--	--	--	--	--	--
443223107503001	06-28-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
443227107492501	06-28-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	--	--	--
444530108351701	06-20-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
444832108302501	07-27-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
444936108274201	06-20-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
445012108253301	07-15-88	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.5	<0.5	<0.5
445053108222001	07-14-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5
445242108173001	06-19-88	--	--	--	--	--	--	--	<0.5	<0.5	<0.5

[illegible]

CAMPBELL COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	HARD- NESS TOTAL (MG/L AS CACO3)
445510105590401	57-076-15ddb01	JX	--	GW	09-08-88	1000	2200	52

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)
445510105590401	09-08-88	7.5	8.1	600	37	1.9	1280	1.2	

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- PHOROUS TOTAL (MG/L AS P)
445510105590401	09-08-88	27	2.6	9.3	1430	1.95	1.5	0.04	

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
445510105590401	57-076-15ddb01	JX	GW	09-08-88	1000	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
445510105590401	09-08-88	<0.01	<0.01	<0.01	<0.01	<0.01	

QUALITY OF GROUND WATER

CONVERSE COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	HARD- NESS TOTAL (MG/L AS CACO3)
424310105232601	32-071-29adb01	ANDERSON	--	GW	09-20-88	1100	1890	31
424621105371501	32-073-04cbb01	NATURAL BRIDGE	--	GW	09-20-88	0945	1680	53
424826105245601	33-071-30aad01	HOME	--	GW	09-20-88	1345	653	100
424834105244301	33-071-29bbb01		--	GW	09-21-88	1415	761	240
424908105242601	33-071-20bdc01		--	GW	09-20-88	1400	603	44
425209105533501	34-075-31dca01		--	GW	09-21-88	1040	1250	480
430127105414401	35-074-11aac01		--	GW	08-29-88	1245	613	320

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)
424310105232601		09-20-88	9.1	2.0	480	39	9.3	500	420
424621105371501		09-20-88	9.2	7.3	340	21	13	400	430
424826105245601		09-20-88	23	11	120	5	2.2	240	78
424834105244301		09-21-88	49	29	94	3	4.6	250	150
424908105242601		09-20-88	9.2	5.1	130	9	1.1	270	42
425209105533501		09-21-88	100	57	130	3	2.1	330	360
430127105414401		08-29-88	85	25	29	0.7	6.6	170	180

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- PHOROUS TOTAL (MG/L AS P)
424310105232601		09-20-88	31	0.5	34	1300	1.77	2.9	0.07
424621105371501		09-20-88	12	0.9	67	1120	1.52	0.4	<0.03
424826105245601		09-20-88	19	0.8	6.8	406	0.55	0.2	<0.03
424834105244301		09-21-88	18	0.6	7.0	504	0.69	0.5	<0.03
424908105242601		09-20-88	8.9	1.5	7.6	367	0.50	<0.1	<0.03
425209105533501		09-21-88	20	0.5	13	884	1.20	0.7	<0.03
430127105414401		08-29-88	4.5	0.4	17	452	0.61	0.5	<0.03

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
424310105232601	32-071-29adb01	ANDERSON	GW	09-20-88	1100	<0.01
424621105371501	32-073-04cbb01	NATURAL BRIDGE	GW	09-20-88	0945	0.09
424826105245601	33-071-30aad01	HOME	GW	09-20-88	1345	<0.01
424834105244301	33-071-29bbb01		GW	09-21-88	1415	<0.01
424908105242601	33-071-20bdc01		GW	09-20-88	1400	<0.01
430127105414401	35-074-11aac01		GW	08-29-88	1245	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2,4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
424310105232601		09-20-88	<0.01	<0.01	<0.01	<0.01	<0.01
424621105371501		09-20-88	0.16	<0.01	0.01	<0.01	<0.01
424826105245601		09-20-88	<0.01	<0.01	<0.01	<0.01	<0.01
424834105244301		09-21-88	<0.01	<0.01	<0.01	<0.01	<0.01
424908105242601		09-20-88	<0.01	<0.01	<0.01	<0.01	<0.01
430127105414401		08-29-88	<0.01	<0.01	<0.01	<0.01	<0.01

GOSHEN COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	HARD- NESS TOTAL (MG/L AS CAC03)
423527104112901	30-061-09acc01	TADEWALD	--	GW	09-12-88	1445	341	130

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- LITY LAB (MG/L AS CAC03)	SULFATE DIS- SOLVED (MG/L AS SO4)
423527104112901		09-12-88	30	14	24	0.9	5.9	140	15

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- PHOROUS TOTAL (MG/L AS P)
423527104112901		09-12-88	5.0	0.4	68	269	0.37	5.2	0.03

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
423527104112901	30-061-09acc01	TADEWALD	GW	09-12-88	1445	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
423527104112901		09-12-88	<0.01	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

HOT SPRINGS COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
434301108362701	9N-2E-35bdb01		--	SP	08-19-88	0920	2000	12.0
434337108315101	43-097-05becb01		--	GW	08-19-88	1030	2630	13.0
434339108314901	43-097-05becb02		--	GW	08-19-88	1100	720	17.0

STATION	NUMBER	DATE	HARD- NESS TOTAL (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)
434301108362701	08-19-88	680	160	69	110	2	2.7	419	570	
434337108315101	08-19-88	630	120	80	430	8	5.9	493	920	
434339108314901	08-19-88	140	26	19	85	3	3.2	102	230	

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- PHOROUS TOTAL (MG/L AS P)
434301108362701	08-19-88	5.2	0.2	26	1190	1.62	<0.10	<0.01	
434337108315101	08-19-88	28	0.6	50	1930	2.62	<0.10	0.04	
434339108314901	08-19-88	11	0.4	9.8	447	0.61	0.28	<0.01	

QUALITY OF GROUND WATER

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JOHNSON COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	HARD- NESS TOTAL (MG/L AS CACO3)	
440932106421001	48-082-03bdc01		--	GW	09-07-88	1500	545	220	
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)
440932106421001		09-07-88	47	26	41	1	<0.2	190	110
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- PHOROUS TOTAL (MG/L AS P)
440932106421001		09-07-88	3.5	0.2	13	355	0.48	<0.1	<0.03
STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)			
440932106421001	48-082-03bdc01		GW	09-07-88	1500	<0.01			
STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)		
440932106421001		09-07-88	<0.01	<0.01	<0.01	<0.01	<0.01		

QUALITY OF GROUND WATER

NATRONA COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	PH (STAND- ARD UNITS)
423536106392401	30-082-03ccc01		--	GW	08-26-88	1109	4540	7.4
423648106375701	31-081-35bdc01		--	GW	08-26-88	0959	1490	7.4

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
423536106392401		08-26-88	16.5	1700	390	170	620	7	8.9	451
423648106375701		08-26-88	15.5	590	150	52	120	2	11	344

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- PHOROUS TOTAL (MG/L AS P)
423536106392401		08-26-88	2600	45	0.4	18	4140	5.89	4.2	<0.03
423648106375701		08-26-88	480	23	0.6	41	1100	1.51	4.7	<0.03

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
23536106392401	30-082-03ccc01			GW	08-26-88	1109	<1	870	1	2
23648106375701	31-081-35bdc01			GW	08-26-88	0959	2	240	<1	1

STATION	NUMBER	DATE	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, TOTAL (UG/L AS SE)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	URANIUM NATURAL DIS- SOLVED (UG/L AS U)
423536106392401		08-26-88	5	<5	>0.1	<1	120	120	<1	30	91
423648106375701		08-26-88	18	<5	>0.1	4	11	12	5	24	58

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
423536106392401	30-082-03ccc01		GW	08-26-88	1109	0.01
423648106375701	31-081-35bdc01		GW	08-26-88	0959	0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
423536106392401		08-26-88	<0.01	<0.01	<0.01	<0.01	<0.01
423648106375701		08-26-88	0.08	<0.01	<0.01	<0.01	<0.01

NIOBRARA COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	HARD- NESS TOTAL (MG/L AS CACO3)
424303104070701	32-060-30cbd01	SHOULTS	--	GW	09-13-88	1220	326	160
424539104222401	32-063-12cbd01	CHRISTON	--	GW	09-13-88	1420	403	170
424654104182501	32-062-04aca01	BRUCH	--	GW	09-13-88	1020	363	170
424859104073001	33-061-24ddc01	STORY	--	GW	09-14-88	1120	302	150

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)
424303104070701		09-13-88	36	16	9.2	0.3	5.6	160	2.3
424539104222401		09-13-88	43	14	19	0.7	4.7	190	13
424654104182501		09-13-88	42	17	12	0.4	3.1	170	9.7
424859104073001		09-14-88	37	14	9.2	0.3	2.6	160	2.6

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- PHOROUS TOTAL (MG/L AS P)
424303104070701		09-13-88	2.0	0.2	55	231	0.31	2.1	0.03
424539104222401		09-13-88	3.5	0.3	61	286	0.39	3.1	<0.03
424654104182501		09-13-88	3.5	0.2	53	255	0.35	2.8	0.03
424859104073001		09-14-88	1.5	0.2	48	218	0.30	1.5	<0.03

STATION	NUMBER	LOCAL IDENT- IFIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
424303104070701	32-060-30cbd01	SHOULTS	GW	09-13-88	1220	<0.01
424539104222401	32-063-12cbd01	CHRISTON	GW	09-13-88	1420	<0.01
424654104182501	32-062-04aca01	BRUCH	GW	09-13-88	1020	<0.01
424859104073001	33-061-24ddc01	STORY	GW	09-14-88	1120	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDN) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
424303104070701		09-13-88	<0.01	<0.01	<0.01	<0.01	<0.01
424539104222401		09-13-88	<0.01	<0.01	<0.01	<0.01	<0.01
424654104182501		09-13-88	<0.01	<0.01	<0.01	<0.01	<0.01
424859104073001		09-14-88	<0.01	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

PARK COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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)	PH (STAND- ARD UNITS)
444147108472801	55-099-33cdb01		--	GW	09-02-88	1300	--	954	--
444217108390900	55-098-34bcb01		125FRUN	GW	09-29-88	1730	100.00	1700	7.6

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
444147108472801		09-02-88	--	370	96	31	99	2	1.0	300
444217108390900		09-29-88	13.0	200	42	24	340	11	4.7	420

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- PHOROUS TOTAL (MG/L AS P)
444147108472801		09-02-88	200	9.9	0.8	26	664	0.90	4.6	<0.03
444217108390900		09-29-88	440	9.7	0.8	14	1150	1.56	4.3	<0.30

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
444147108472801	55-099-33cdb01		GW	09-02-88	1300	<0.01
444217108390900	55-098-34bcb01		GW	09-29-88	1730	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
444147108472801		09-02-88	<0.01	<0.01	<0.01	<0.01	<0.01
444217108390900		09-29-88	<0.01	<0.01	0.02	<0.01	<0.01

SHERIDAN COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE LAB (US/CM)	HARD- NESS TOTAL (MG/L AS CACO3)
443938106565601	54-084-14bb 01		--	GW	08-31-88	0836	824	45
443938106565602	54-084-14bb 02		--	GW	08-31-88	0900	501	250
443939107014901	54-084-18bbb01		--	GW	08-31-88	1030	562	320
444155106561801	55-084-35acd01		--	GW	09-01-88	0845	1840	730
445131106033901	56-076-06cab01	KENDRICK RANCH	--	GW	09-08-88	0900	1650	59
445436107163401	57-086-17ccc01		--	GW	08-30-88	1500	591	280

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)
443938106565601		08-31-88	8.8	5.5	190	13	1.3	240	180
443938106565602		08-31-88	58	25	21	0.6	0.4	270	12
443939107014901		08-31-88	49	48	11	0.3	<0.2	320	12
444155106561801		09-01-88	140	92	190	3	7.8	460	620
445131106033901		09-08-88	7.7	9.6	440	25	0.1	940	1.2
445436107163401		08-30-88	61	30	26	0.7	3.1	280	46

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- PHOROUS TOTAL (MG/L AS P)
443938106565601		08-31-88	3.5	0.3	7.3	544	0.74	0.7	<0.03
443938106565602		08-31-88	1.5	0.1	11	292	0.34	0.3	<0.03
443939107014901		08-31-88	1.5	0.3	11	327	0.44	0.5	<0.03
444155106561801		09-01-88	5.0	0.3	7.8	1340	1.82	<0.1	<0.03
445131106033901		09-08-88	26	1.9	7.7	1060	1.44	<0.1	<0.03
445436107163401		08-30-88	3.0	0.2	14	351	0.48	<0.1	<0.03

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
443938106565601	54-084-14bb 01		GW	08-31-88	0836	0.01
443938106565602	54-084-14bb 02		GW	08-31-88	0900	<0.01
443939107014901	54-084-18bbb01		GW	08-31-88	1030	0.01
444155106561801	55-084-35acd01		GW	09-01-88	0845	<0.01
445131106033901	56-076-06cab01	KENDRICK RANCH	GW	09-08-88	0900	<0.01
445436107163401	57-086-17ccc01		GW	08-30-88	1500	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
			(AMDON) TOTAL (UG/L)				
443938106565601		08-31-88	<0.01	<0.01	<0.01	<0.01	<0.01
443938106565602		08-31-88	<0.01	<0.01	<0.01	<0.01	<0.01
443939107014901		08-31-88	<0.01	<0.01	<0.01	<0.01	<0.01
444155106561801		09-01-88	<0.01	<0.01	<0.01	<0.01	<0.01
445131106033901		09-08-88	<0.01	<0.01	<0.01	<0.01	<0.01
445436107163401		08-30-88	<0.01	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

WASHAKIE COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- IFIER	GEO- LOGIC UNIT	SITE	DATE	TIME	DEPTH OF WELL, TOTAL (FEET)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)
435309108155601	45-095-09bdb01	BLAZIER	125FRUN	GW	08-18-88	1130	90.00	5600	--
435533108040701	46-093-30dba01	BOWER	124WLWD	GW	08-20-88	0945	205.00	1600	--
435720108005701	46-093-15cab01	BOYS SCHOOL	124WLWD	GW	08-18-88	1000	360.00	990	--
435724108010901	46-093-15bdd01	BOYS SCHOOL	--	GW	08-18-88	0915	65.00	2450	--
435932108102401	46-094-06aab01	BERENS	124WLWD	GW	08-20-88	1030	79.00	6200	--
440120107514201	47-092-26bab01	DEROMEDI	124WLWD	GW	08-17-88	0915	272.00	3500	--
440334107542301	47-092-09bcc01	COOK	124WLWD	GW	08-17-88	1200	--	1900	--
440547107525701	48-092-27ccd01	SCHEURMAN	124WLWD	GW	08-17-88	1315	--	1360	--
440601107314201	48-089-28dba01	--	231CGTR	GW	08-20-88	1315	--	1900	--
440915107532501	48-092-04ddc01	SALZMAN	--	GW	08-17-88	1410	135.00	4000	--
440939107314800	48-089-04acb	--	331MDSN	GW	08-30-88	1100	1362.00	362	7.7

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
435309108155601		08-18-88	11.0	1300	270	150	870	11	7.0	492
435533108040701		08-20-88	13.0	17	4.6	1.3	330	36	2.2	454
435720108005701		08-18-88	12.0	13	3.7	0.9	240	30	1.3	350
435724108010901		08-18-88	13.5	360	97	29	470	11	7.0	350
435932108102401		08-20-88	14.0	830	200	80	1300	20	7.9	268
440120107514201		08-17-88	13.0	220	40	30	1200	36	6.7	124
440334107542301		08-17-88	17.0	450	120	36	280	6	5.4	360
440547107525701		08-17-88	17.0	30	8.1	2.4	290	24	2.8	410
440601107314201		08-20-88	14.0	950	230	92	58	0.8	3.3	162
440915107532501		08-17-88	22.0	610	150	58	790	14	7.4	180
440939107314800		08-30-88	14.0	200	40	25	1.7	0.0	0.9	194

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- PHOROUS TOTAL (MG/L AS P)
435309108155601	08-18-88	2100	360	0.5	16	4070	5.54	0.36	<0.01	
435533108040701	08-20-88	0.9	250	2.0	6.7	870	1.18	<0.1	<0.01	
435720108005701	08-18-88	50	86	3.6	6.4	602	0.82	0.1	<0.03	
435724108010901	08-18-88	910	51	0.8	11	1810	2.46	4.9	<0.03	
435932108102401	08-20-88	3200	81	1.0	7.6	5040	6.85	<0.1	<0.01	
440120107514201	08-17-88	2500	160	0.5	7.1	4030	5.48	1.9	<0.01	
440334107542301	08-17-88	600	26	0.7	22	1320	1.80	3.8	0.03	
440547107525701	08-17-88	140	75	2.0	6.7	773	1.05	0.1	0.01	
440601107314201	08-20-88	940	4.6	0.4	17	1450	1.97	1.4	<0.01	
440915107532501	08-17-88	1800	160	0.5	4.3	3080	4.19	0.1	0.02	
440939107314800	08-30-88	6.9	0.6	0.3	9.2	203	0.28	0.4	--	

QUALITY OF GROUND WATER
WASHAKIE COUNTY--Continued

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WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- I- FIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
435533108040701	46-093-30dba01	BOWER	GW	08-20-88	0945	<0.01
435720108005701	46-093-15cab01	BOYS SCHOOL	GW	08-18-88	1000	0.01
435724108010901	46-093-15bdd01	BOYS SCHOOL	GW	08-18-88	0915	0.01
440120107514201	47-092-26bab01	DEROMEDI	GW	08-17-88	0915	<0.01
440334107542301	47-092-09bcc01	COOK	GW	08-17-88	1200	<0.01
440547107525701	48-092-27ccd01	SCHEURMAN	GW	08-17-88	1315	0.02
440915107532501	48-092-04ddc01	SALZMAN	GW	08-17-88	1410	0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
435533108040701		08-20-88	<0.01	<0.01	<0.01	<0.01	<0.01
435720108005701		08-18-88	<0.01	<0.01	<0.01	<0.01	<0.01
435724108010901		08-18-88	0.11	<0.01	<0.01	<0.01	<0.01
440120107514201		08-17-88	<0.01	<0.01	<0.01	<0.01	<0.01
440334107542301		08-17-88	0.01	<0.01	<0.01	<0.01	<0.01
440547107525701		08-17-88	<0.01	<0.01	<0.01	<0.01	<0.01
440915107532501		08-17-88	<0.01	<0.01	<0.01	<0.01	<0.01

QUALITY OF GROUND WATER

WESTON COUNTY

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

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)	PH (STAND- ARD UNITS)
435722104210701	46-062-19bca01		--	GW	08-24-88	1137	--	428	--
440610104471901	48-066-33abc01		--	GW	08-24-88	0920	--	940	--
440632104455603	48-066-26ccb03		--	GW	06-21-88	1000	160.00	671	7.6
440636104451804	48-066-26cbd04		--	GW	09-27-88	1440	--	1050	--
440640104450001	48-066-26cad01		--	GW	06-21-88	0910	160.00	1340	7.5
440642104443802	48-066-26dbc02		--	GW	06-21-88	1100	22.00	2530	7.6

STATION	NUMBER	DATE	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (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)
435722104210701	08-24-88	--		270	65	26	3.9	0.1	1.1	220
440610104471901	08-24-88	--		620	140	66	31	0.6	5.9	410
440632104455603	06-21-88	12.0	--	--	--	33	52	--	3.4	360
440636104451804	09-27-88	--		11	2.5	1.1	240	33	2.1	290
440640104450001	06-21-88	14.0		530	120	56	140	3	2.8	410
440642104443802	06-21-88	16.0		1100	240	130	250	3	5.8	420

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- PHOROUS TOTAL (MG/L AS P)
435722104210701	08-24-88	20		2.2	0.2	12	264	0.36	0.3	0.01
440610104471901	08-24-88	140		3.3	0.2	15	649	0.88	0.4	0.01
440632104455603	06-21-88	41		3.1	0.2	13	--	--	3.7	<0.03
440636104451804	09-27-88	210		29	0.4	3.2	663	0.04	0.2	<0.03
440640104450001	06-21-88	380		9.5	0.2	10	1010	1.37	10.0	<0.03
440642104443802	06-21-88	910		70	0.2	8.4	1960	2.66	21.0	0.29

STATION	NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT	SITE	DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)
440632104455603	48-066-26ccb03		--	GW	06-21-88	1000	<5
440636104451804	48-066-26cbd04		--	GW	09-27-88	1440	--
440640104450001	48-066-26cad01		--	GW	06-21-88	0910	<5
440642104443802	48-066-26dbc02		--	GW	06-21-88	1100	<5

STATION	NUMBER	DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	LEAD, DIS- SOLVED (UG/L AS PB)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)
440632104455603	06-21-88		<100	<5	<5	<2	6	<5.0
440636104451804	09-27-88		--	--	--	--	7	--
440640104450001	06-21-88		<100	<5	<5	<2	<5	<5.0
440642104443802	06-21-88		<100	<5	<5	3	9	<5.0

QUALITY OF GROUND WATER

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WESTON COUNTY--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1987 TO SEPTEMBER 1988

STATION	NUMBER	LOCAL IDENT- IFIER	SITE	DATE	TIME	DICAMBA (MED- IBEN) (BAN- VEL D) TOTAL (UG/L)
435722104210701	46-062-19bca01		GW	08-24-88	1137	<0.01
440610104471901	48-066-33abc01		GW	08-24-88	0920	<0.01
440632104455603	48-066-26ccb03		GW	04-06-88	1505	0.02
			GW	05-04-88	1535	0.03
			GW	06-21-88	1000	<0.01
			GW	08-23-88	1150	<0.01
			GW	09-27-88	1415	<0.01
440636104451804	48-066-26cbd04		GW	09-27-88	1440	0.01
440640104450001	48-066-26cad01		GW	04-06-88	1425	<0.01
			GW	05-04-88	1420	<0.01
			GW	06-21-88	0910	<0.01
			GW	08-23-88	0911	<0.01
			GW	09-27-88	1400	<0.01
440642104443802	48-066-26dbc02		GW	04-06-88	1435	<0.01
			GW	05-04-88	1510	<0.01
			GW	06-21-88	1100	<0.01
			GW	08-23-88	0925	<0.01
			GW	09-27-88	1500	<0.01

STATION	NUMBER	DATE	PICLO- RAM (TOR- DON) (AMDON) TOTAL (UG/L)	SILVEX, TOTAL (UG/L)	2,4-D, TOTAL (UG/L)	2, 4-DP TOTAL (UG/L)	2,4,5-T TOTAL (UG/L)
435722104210701		08-24-88	<0.01	<0.01	<0.01	<0.01	<0.01
440610104471901		08-24-88	<0.01	<0.01	<0.01	<0.01	<0.01
440632104455603		04-06-88	1.9	<0.01	0.01	<0.01	<0.01
		05-04-88	1.8	<0.01	<0.01	<0.01	<0.01
		06-21-88	2.7	<0.01	<0.01	<0.01	<0.01
		08-23-88	2.0	<0.01	<0.01	<0.01	<0.01
		09-27-88	--	<0.01	<0.01	<0.01	<0.01
440636104451804		09-27-88	--	<0.01	<0.01	<0.01	<0.01
440640104450001		04-06-88	6.2	<0.01	<0.01	<0.01	<0.01
		05-04-88	6.9	<0.01	0.01	<0.01	<0.01
		06-21-88	18	<0.01	<0.01	<0.01	<0.01
		08-23-88	15	<0.01	<0.01	<0.01	<0.01
		09-27-88	--	<0.01	<0.01	<0.01	<0.01
440642104443802		04-06-88	0.67	<0.01	0.01	<0.01	<0.01
		05-04-88	0.89	<0.01	0.06	<0.01	<0.01
		06-21-88	2.3	<0.01	<0.01	<0.01	<0.01
		08-23-88	1.1	<0.01	<0.01	<0.01	<0.01
		09-27-88	--	<0.01	<0.01	<0.01	<0.01

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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).

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

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