



Water Resources Data Colorado Water Year 1987

Volume 2. Colorado River Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-87-2
Prepared in cooperation with the State of Colorado
and with other agencies

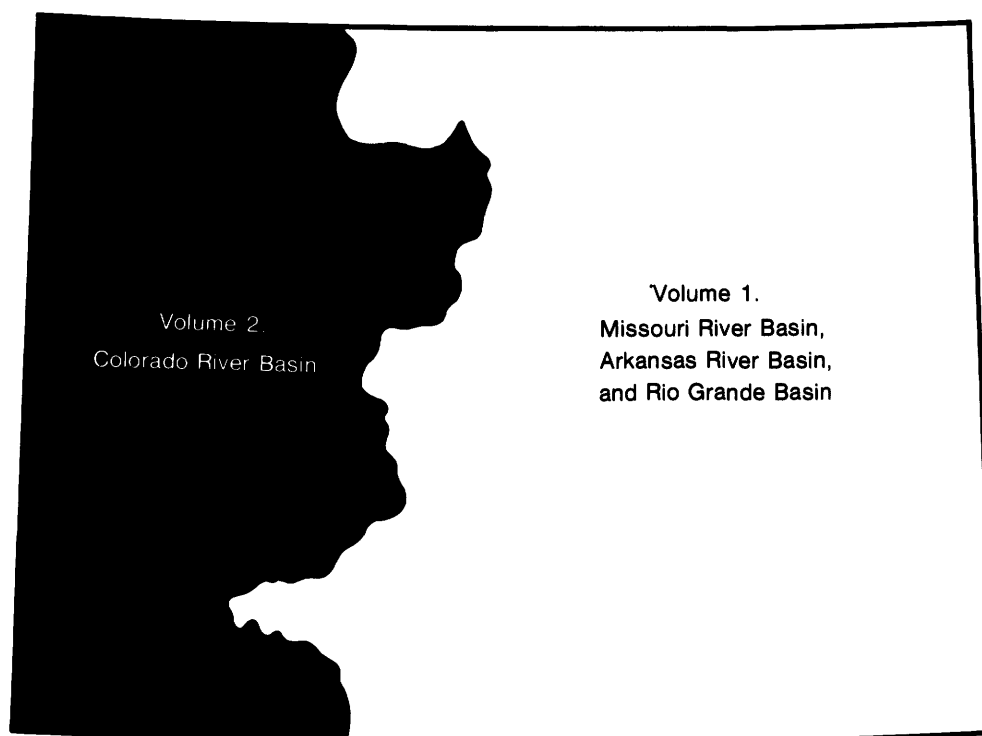
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Volume 2. Colorado River Basin

by R.C. Ugland, R.G. Kretschman, E.A. Wilson, and J.D. Bennett



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Prepared in cooperation with the State of Colorado
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

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1988

PREFACE

This volume of the annual hydrologic data report of Colorado is one of a series of annual reports that document 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 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. Hydrologic data for Colorado are contained in two volumes:

- Volume 1. Missouri River, Arkansas River, and Rio Grande
basins in Colorado,
- Volume 2. Colorado River basin.

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. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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(Letter after station name designates type and frequency of published data.

Daily tables: (D) discharge, (C) specific conductance, (S) sediment, (T) temperature, (e) elevation or contents, (O) dissolved oxygen, (P) pH.

Partial tables: (c) chemical, (b) biological, (m) microbiological, (s) sediment, (t) temperature)

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VOLUME 2: COLORADO RIVER BASIN

By R. C. Ugland, R. G. Kretschman, E. A. Wilson, and J. D. Bennett

INTRODUCTION

The Water-Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Colorado each water year. These data, accumulated during many water years, constitute 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 the report series entitled "Water Resources Data - Colorado".

This report (Volume 2 of two volumes) includes records of surface water in the State, west of the continental divide. Specifically, it contains: (1) discharge records for 195 streamflow-gaging stations, for 5 partial-record streamflow stations and 1 miscellaneous streamflow site; (2) stage and contents for 10 lakes and reservoirs; and (3) water-quality data for 57 streamflow-gaging stations, miscellaneous water-quality for 4 ungaged sites, miscellaneous water-quality data for 126 gaged sites, and meteorological data for 2 sites. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Colorado were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-water Supply of the United States," Parts 6B, 7, and 8." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States." Data on ground-water levels for the 1935 through 1955 water years were published annually under the title "Water Levels and Artesian Pressures in Observation Wells in the United States." For the 1956 through 1974 water years the data were published in four 5-year reports under the title "Ground-Water Levels in the United States." Water-supply papers may be purchased from the, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, CO 80225.

For water years 1961 through 1970, streamflow data were released by the Survey in annual reports on a State-boundary basis. Water-quality records for water 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 on 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 volume is identified as "U.S. Geological Survey Water-Data Report CO-87-2." These water-data reports are for sale, in paper copy or in micro-fiche, 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 (303) 236-4882.

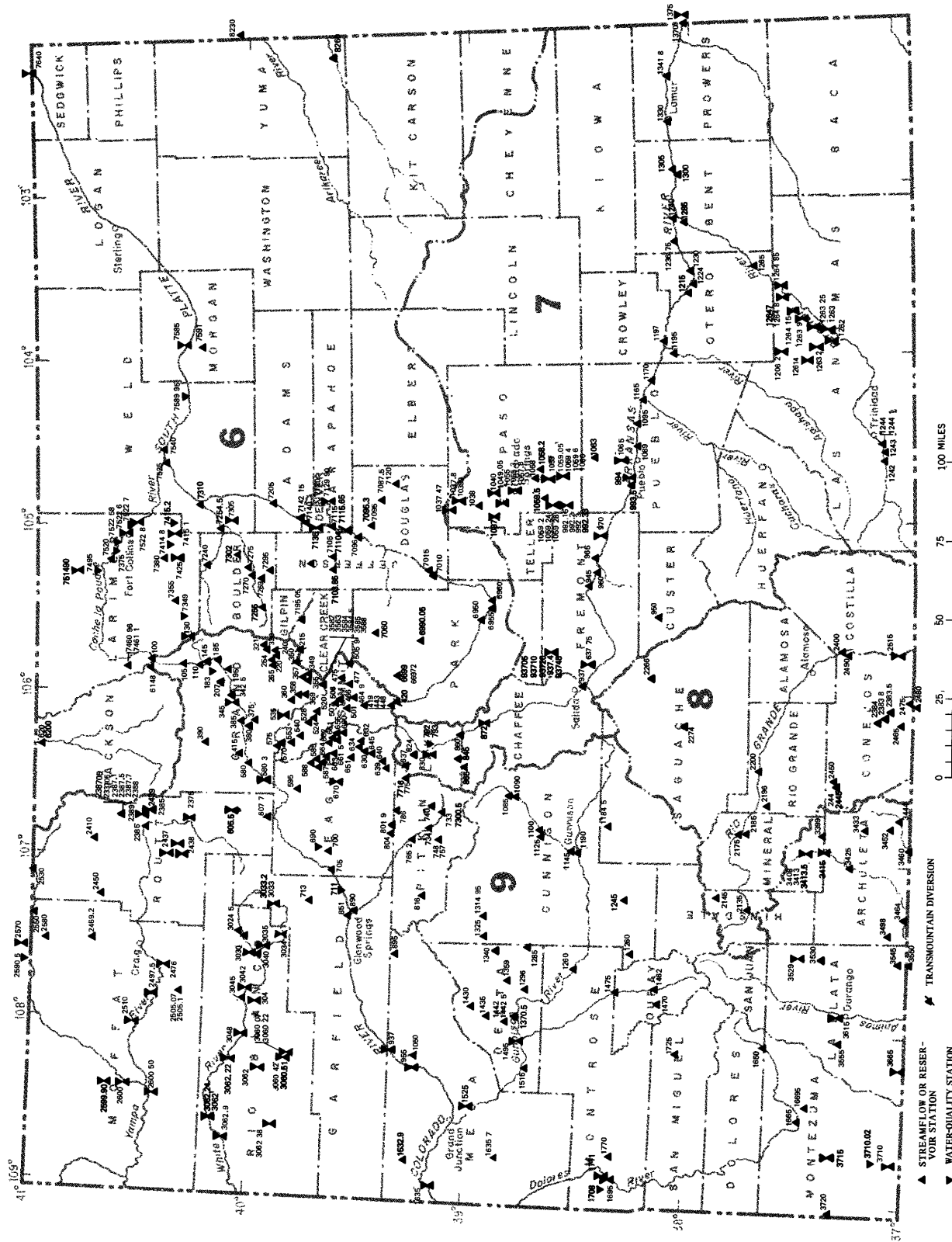


Figure 1.--Map showing locations of lakes and stream-gaging stations and water-quality stations in Colorado.

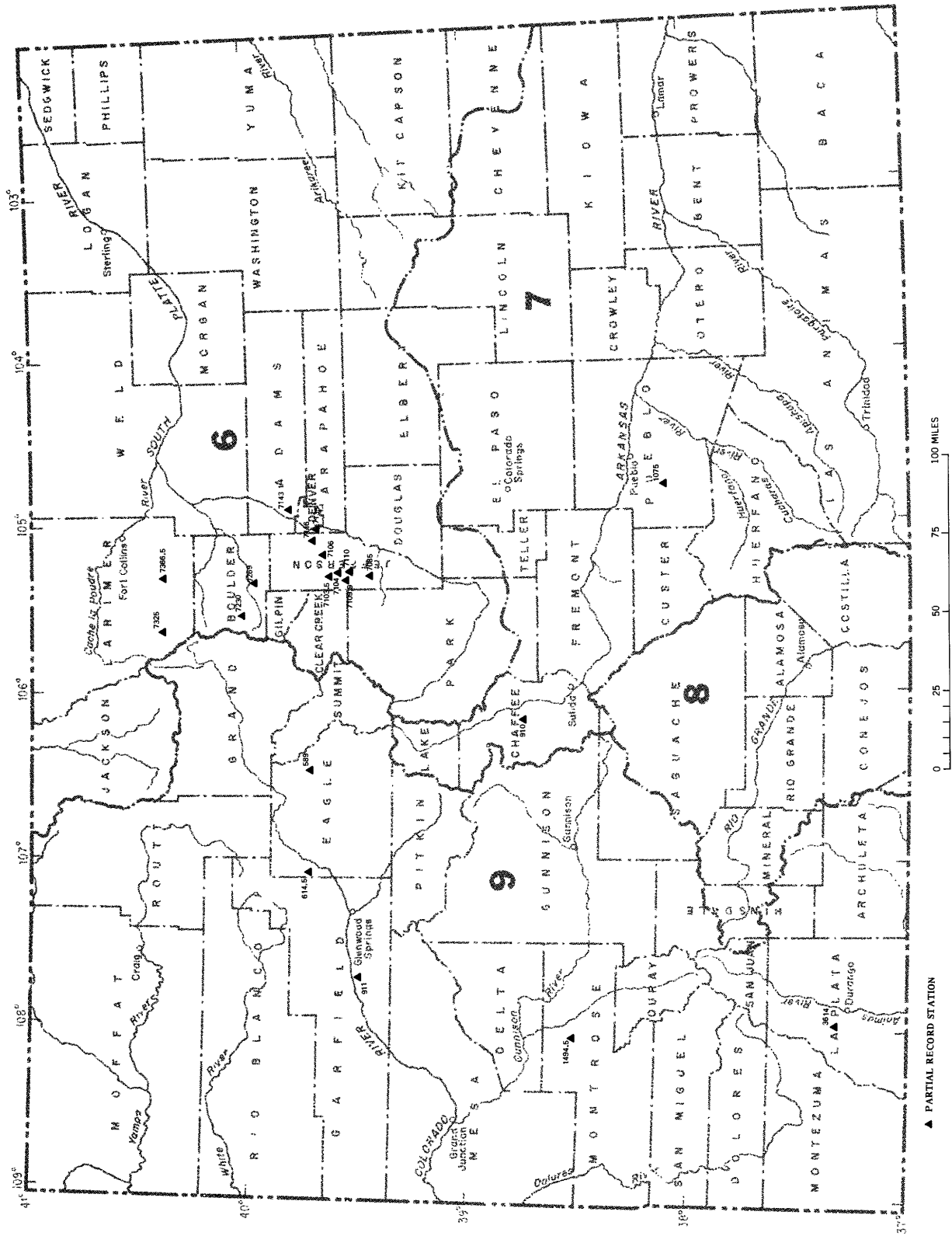


Figure 2.--Map showing locations of crest-stage partial-record stations in Colorado.

COOPERATION

The U.S. Geological Survey and organizations of the State of Colorado have had cooperative agreements for the systematic collection of surface-water records since 1895 and for water-quality records since 1941. Organizations that assisted in collecting data for this report through cooperative agreement with the Survey are:

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 City of Boulder, James Piper, City Manager.
 City of Colorado Springs, Larry N. Blick, City Manager.
 City of Englewood, Stewart Fonda, Director, Wastewater Treatment Plant.
 City of Fort Collins, Bobbi Dunham, Civil Engineer II.
 City of Fruita, Peter Haller, Mayor.
 City of Glendale, Robert Taylor.
 City of Glenwood Springs, M. Flinn, Manager.
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 Colorado Department of Health, Thomas M. Vernon, Executive Director.
 Colorado Department of Natural Resources, David H. Getches, Executive Director.
 Colorado Division of Water Resources, J. A. Danielson, State Engineer.
 Colorado Division of Mined Land Reclamation, David Shelton, Director.
 Colorado Geological Survey, John Rold, State Geologist.
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 Lost Creek Groundwater Management District, G. H. Bush, Manager.
 Lower Fountain Water-Quality Management Association, Stuart Loosely, President.
 Metropolitan Denver Sewage Disposal District No. 1, Jack B. Enger, Manager.
 Mineral County, Charles Steele, Planning Officer.
 Moffat County, Richard Gibbons, Director.
 North Kiowa-Bijou Ground Water Management District, Donald F. McClary, Attorney.
 North LaJunta Water Conservation District, Mark Korbitz.
 Northern Colorado Water Conservancy District, L. Simpson, Secretary.
 Pikes Peak Area Council of Governments, Maurice Rahimi.
 Pikes Peak Regional Building Department, Dan Bunting.
 Pitkin County Board of County Commissioners, C. Stewart, County Manager.
 Pueblo Board of Water Works, Alan Hamel, Executive Director.
 Pueblo Civil Defense, Betty Jo Hopper, Director.
 Pueblo West Metro Water District, E. M. Zamecki, Manager.
 Purgatoire River Water Conservancy District, C. Latuda, President.
 Rio Blanco County Board of County Commissioners, A. J. Jones.
 Rio Grande Water Conservation District, Ralph Curtis, Manager.
 Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
 Southwestern Water Conservation District, Edward Searle, Manager.
 St. Charles Mesa Water Association, Lee Simpson, Manager.
 Town of Breckenridge, Gary Roberts, Town Manager.
 Town of Castle Rock, Tom Gallier, Director of Utilities.
 Trinchera Water Conservancy District, L. Smith, President.
 Uncompahgre Valley Water Users Association, J. Hokit, Manager.
 Upper Yampa Water Conservancy District, J. Fetcher.
 Upper Arkansas River Water Conservancy District, K. Baker, General Manager.
 Upper Black Squirrel Groundwater Management District, Elvin Henderson, Chairman.
 Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
 Water Users No. 1, Jim Gayler, Associate Manager.
 Yellow Jacket Water Conservancy District, F. G. Cooley, Secretary-Council.

Financial assistance was also provided by the U.S. Army, Corps of Engineers, U.S. Army; U.S. Air Force; Bureau of Land Management, Bureau of Mines, Bureau of Reclamation, the National Park Service, and the U.S. Environmental Protection Agency, U. S. Federal Emergency Management Agency, and U. S. National Weather Service. Organizations that supplied data are acknowledged in station descriptions.

OVERVIEW OF WATER YEAR 1987
[West of the Continental Divide]

Prepared by Harold E. Petsch, Jr.

Precipitation

Precipitation data for water year 1987, were obtained from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Weather Service, for the National Weather Service Division in Colorado that is west of the Continental Divide. These data are listed in table 1. Precipitation and departures from normal precipitation are listed for the first 6 months of the water year when precipitation is predominately snow, and then for the remaining 6 months when precipitation is predominately rain. Also listed are the precipitation and departure from normal precipitation for the entire water year.

The Colorado Drainage Basin Division had 15 percent greater than normal precipitation during the first 6 months of the water year and 5 percent less than normal precipitation during the last 6 months; accordingly, precipitation was 5 percent greater than normal during the entire water year. Graphs of monthly precipitation for the water year and normal monthly precipitation, at selected weather stations, are shown in figure 3.

Table 1.--Precipitation during water year 1987 and departures from normal precipitation (1951-80), in inches

National Weather Service division	October-March		April-September		Water year 1987	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Colorado Drainage Basin	8.78	1.17	7.36	-0.39	16.14	0.78

Streamflow

Monthly mean discharge during water year 1987 at selected stream-gaging stations is compared with long-term mean monthly discharge in figure 3. Individual graphs show the varied streamflow conditions west of the Continental Divide during the water year. The graphs for the gaging stations indicate that discharge during the water year had the same general trend as long-term discharge. At the beginning of the water year, discharge was from 43 to 135 percent greater than the long-term mean at the selected gaging stations.

WATER RESOURCES DATA - COLORADO, 1987

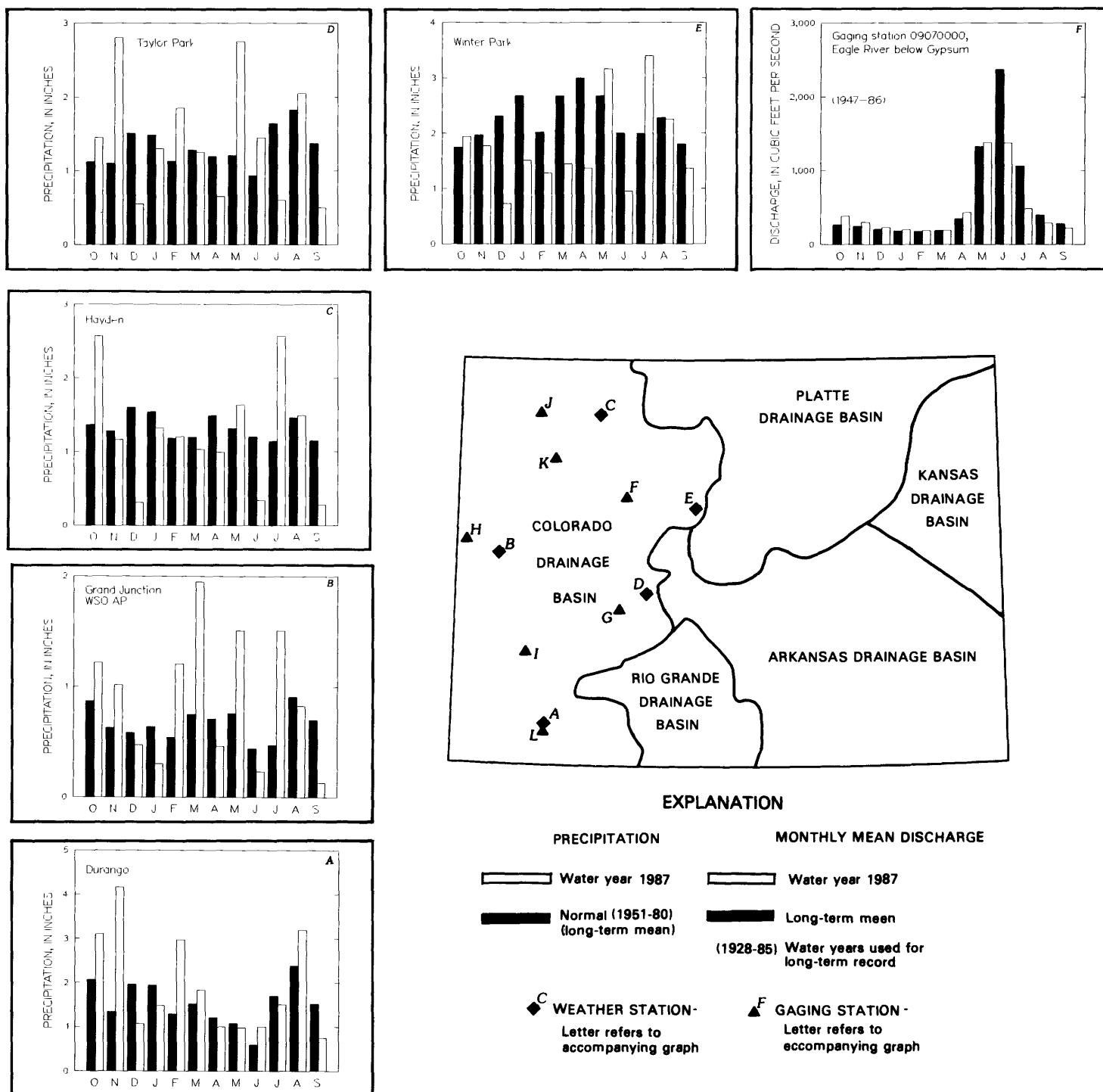


Figure 3.--Comparison of precipitation and discharge during water year 1987 to long-term means for precipitation and discharge.

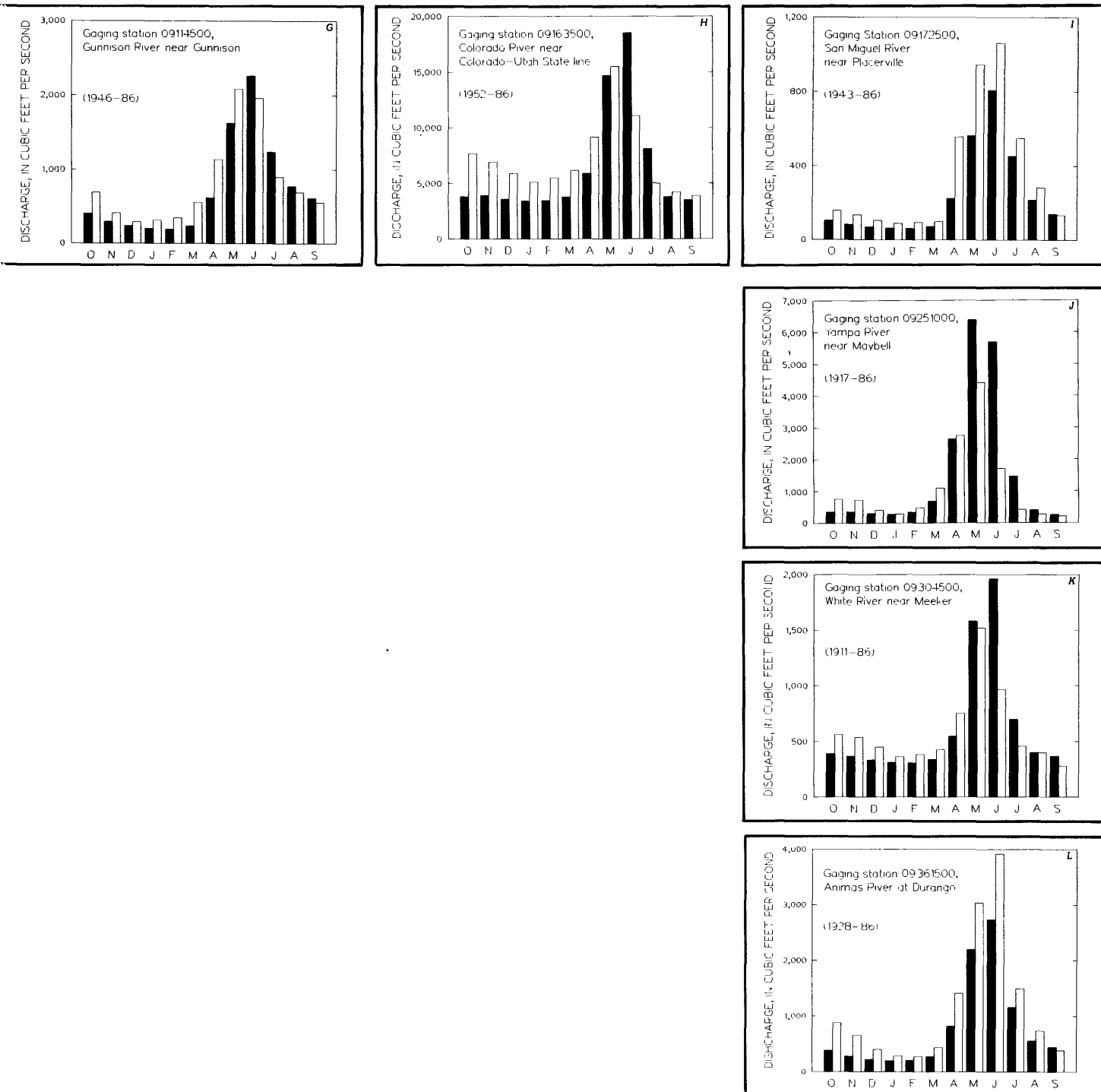


Figure 3.--(continued)

The graphs for gaging stations 09070000, Eagle River below Gypsum (fig. 3F); 09114500, Gunnison River near Gunnison (fig. 3G); and 09163500, Colorado River near Colorado-Utah State line (fig. 3H), indicate that monthly discharges for water year 1987 were greater than the long-term means through May but then declined to less than the long-term means. The graphs for gaging stations 09172500, San Miguel River near Placerville (fig. 3I); and 09361500, Animas River at Durango (fig. 3L), indicate that monthly discharges for water year 1987 were greater than the long-term means throughout most of the water year. The graphs for gaging stations 09251000, Yampa River near Maybell (fig. 3J); and 09304500, White River near Meeker (fig. 3K), indicate that monthly discharges for water year 1987 was greater than the long-term means through April but then declined to less than the long-term means. The annual mean discharge at gaging stations 09163500, Colorado River near Colorado-Utah State line; 09172500, San Miguel River near Placerville; and 09361500, Animas River at Durango, has been greater than average for 6 consecutive years. The annual mean discharge at gaging station 09114500, Gunnison River near Gunnison, has been greater than average for 5 consecutive years.

Peak discharges during water year 1987 and for the period of record for selected gaging stations are shown in table 2. The peak discharge at most of the selected gaging stations was less than the long-term median value and indicates the generally less than average runoff in the northern part of the area. No gaging station had a peak discharge greater than the 75th-percentile value. Peak discharges at gaging stations 09034500, Colorado River at Hot Sulphur Springs; 09070000, Eagle River below Gypsum; 09070500, Colorado River near Dotsero; 09085000, Roaring Fork River at Glenwood Springs; 09085100, Colorado River below Glenwood Springs; 09095500, Colorado River near Cameo, 09239500, Yampa River at Steamboat Springs; 09251000 Yampa River at Maybell; and 09304500, White River near Meeker, were less than their 25th-percentile values, but were substantially greater than their record minimums.

Chemical Quality of Streamflow

To determine whether significant changes are occurring in the chemical quality of streamflow in Colorado, an analysis was made of specific conductance measured either approximately weekly or approximately monthly at gaging stations on five representative streams. Each gaging station either is the most downstream station on that stream or is representative of a major part of the drainage area of that stream. A comparison of the range and the distribution of the specific conductance for water year 1987 to long-term values for each selected gaging station is shown in figure 4.

Specific conductance can be used to estimate the dissolved-solids concentration in water because specific conductance is directly proportional to the concentrations and types of ions in water. To determine whether significant differences in values of specific conductance for water year 1987 and values for the period of record used for comparison, a statistical technique called the t-test was used.

Table 2.--Peak discharges for water year 1987 and for the period of record at selected gaging stations

[mi², square miles; ft³/s, cubic feet per second]

Gaging station identification	Drainage area (mi ²)	Period of record (water years)	Water year 1987		Period of record		Remarks on 1987 peak discharge
			Date	Peak discharge (ft ³ /s)	Date	Peak discharge (ft ³ /s)	
09034500 Colorado River at Hot Sulphur Springs	825	1905-86	6/10	983	6/15/21	10,300	Less than 25th percentile
09070000 Eagle River below Gypsum	944	1947-86	6/8	2,850	5/25/84	7,020	Less than 25th percentile
09070500 Colorado River near Dotsero	4,394	1941-86	5/17	5,840	5/25/84	22,200	Less than 25th percentile
09085000 Roaring Fork River at Glenwood Springs	1,451	1906-9, 1911-86	6/9	6,040	7/1/57	19,000	Less than 25th percentile
09085100 Colorado River below Glenwood Springs	6,013	1967-86	6/9	11,100	5/25/84	31,500	Less than 25th percentile
09095500 Colorado River near Cameo	8,050	1934-86	5/17	13,100	5/26/84	39,300	Less than 25th percentile
09114500 Gunnison River near Gunnison	1,012	1911-27, 1945-86	6/9	3,380	6/13/18	11,400	Less than median
09132500 North Fork Gunnison River near Somerset	526	1934-86	4/28	2,820	5/24/84	9,220	Less than median
09149500 Uncompahgre River at Delta	1,129	1903-31, 1939-86	4/18	1,760	5/15/84	5,800	Greater than median
09152500 Gunnison River near Grand Junction	7,928	1897-99, 1902-6, 1917-86	5/2	9,360	5/23/20	35,700	Less than median
09163500 Colorado River near Colorado-Utah State line	17,843	1951-86	5/18	22,500	5/27/84	69,800	Less than median
09166500 Dolores River at Dolores	504	1896-1903, 1911-12, 1922-86	5/18	3,880	10/5/11	10,000	Greater than median
09171100 Dolores River near Bedrock	2,145	1972-86	4/18	5,040	4/30/73	9,500	Less than median
09239500 Vampa River at Steamboat Springs	604	1904-6, 1910-86	5/16	2,230	6/14/21	6,820	Less than 25th percentile
09251000 Vampa River near Maybell	3,410	1904-5, 1916-86	5/6	6,140	5/17/84	25,100	Less than 25th percentile (4th lowest)
09304500 White River near Meeker	755	1901-5, 1910-86	5/17	2,160	5/25/84	6,950	Less than 25th percentile
09346400 San Juan River near Carracas	1,230	1962-86	11/2	5,650	6/6/70	9,730	Greater than median
09361500 Animas River at Durango	692	1912-86	6/7	5,530	10/5/11	25,000	Greater than median

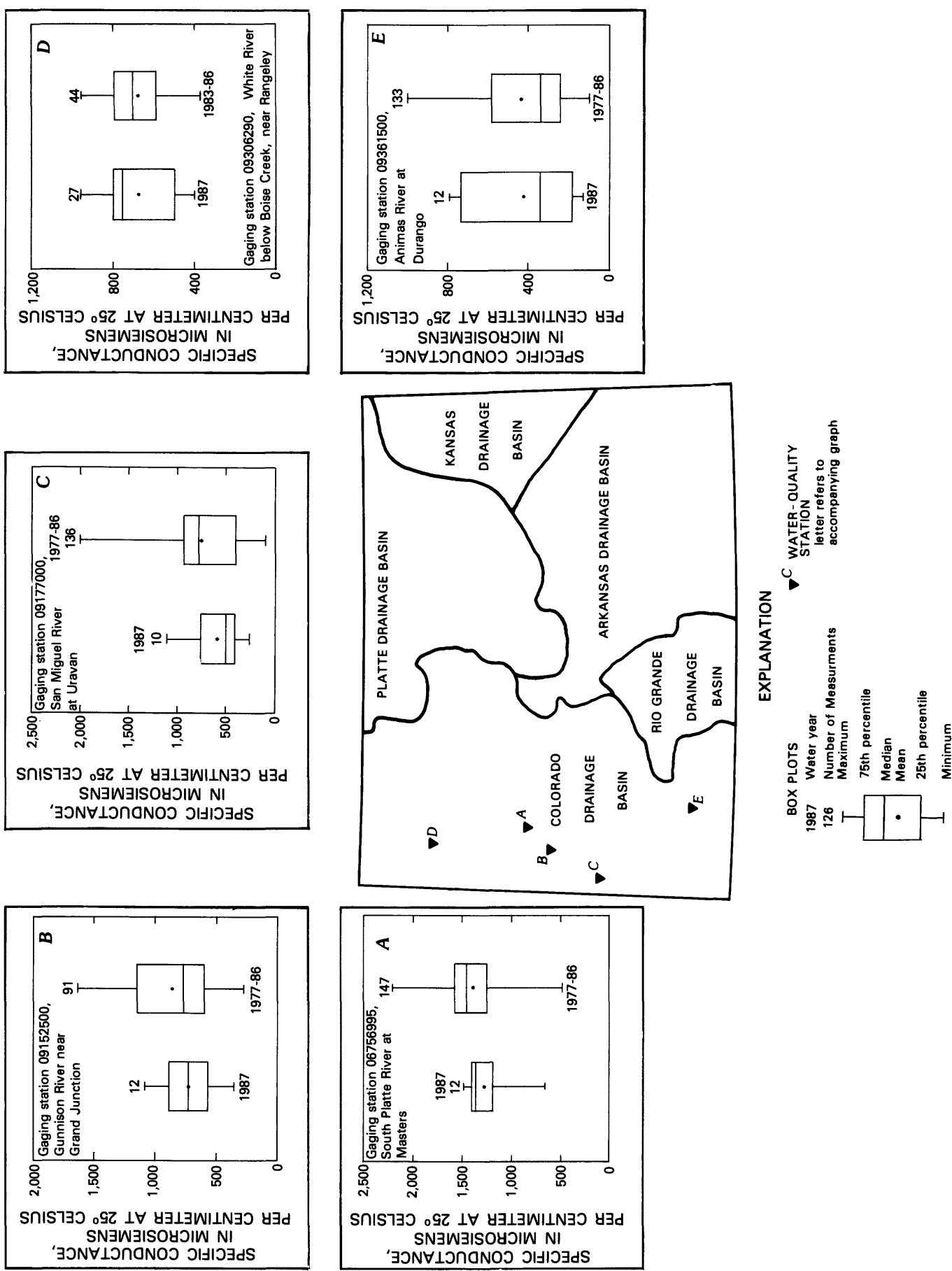


Figure 4.--Comparison of range and distribution of specific conductance measured during water year 1987 to long-term values.

The t-test technique requires proving or disproving a hypothesis that the mean specific conductance for water year 1987 was equal to the mean for the period of record. The procedure for testing the hypothesis requires computing a t statistic and comparing it to a value obtained from a table of "Student's" t values (Box, 1978). If the absolute value of the computed t value (t_c) is less than the tabular t value (t_{tab}), the hypothesis that the means are equal is proven. If the absolute value of t_c is greater than t_{tab} , the hypothesis is disproven, and the means are not equal. For specific conductance, a rejection of the hypotheses indicates a difference in water quality at a particular gaging station for water year 1987 compared to the period of record. A 95-percent level of significance ($\alpha = 0.05$) was used for each t-test, and the data were assumed to be distributed normally.

Results of the the t-tests for the five stations are listed in table 3. For four of the gaging stations, 09152500, Gunnison River near Grand Junction; 09177000, San Miguel River at Uravan; 09306290, White River below Boise Creek, near Rangely; and 09361500, Animas River at Durango, comparisons of mean specific conductance for water year 1987 to that for the period of record indicate that the means of specific conductance are not different statistically.

The mean specific conductance for water year 1987 for gaging station 09095500, Colorado River near Cameo, was substantially greater than the mean specific conductance for the 10-year period of record 1977-86 (table 3). Published records of specific conductance and coincident water discharge for the gaging station indicate an inverse relation for the two parameters. For water year 1987, mean discharge at the gaging station was less than the 10-year mean discharge by 20 percent; therefore, the mean specific conductance for water year 1987 should be substantially greater than the mean specific conductance for the period of record.

Table 3.--Results of t-tests comparing mean specific conductance of discharge for water year 1987 with mean for the period of record at selected gaging stations
[Specific conductance, in microsiemens per centimeter at 25 degrees Celsius; R, rejected; A, accepted]

Gaging station identification	Specific conductance						t-test		
	Water year 1987		Period of record		Period used (water year)	t _{tab}	t _c	Hypothesis	
	Number of values	Mean Standard devia- tion	Number of values	Mean Standard devia- tion					
09095500 Colorado River near Cameo-----	51	894	229	199	785	306	1977-86 ± 1.99	2.80	R
09152500 Gunnison River near Grand Junction-----	12	734	205	91	872	358	1977-86 ± 2.08	-1.97	A
09177000 San Miguel River at Uravan-----	10	592	252	136	740	352	1977-86 ± 2.18	-1.74	A
09306290 White River below Boise Creek, near Rangely-----	27	676	162	44	677	164	1983-86 ± 2.00	-.02	A
09361500 Animas River at Durango-----	12	421	259	133	422	197	1977-86 ± 2.18	-.01	A

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 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 water. The locations of the stations where the data were collected are shown in figures 1, and 2. 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 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 miscellaneous 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 surface-water stations where only infrequent measurements are made.

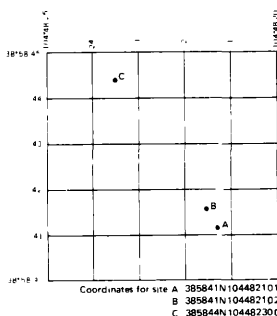
Downstream Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 09010500, which appears just to the left of the station name, includes the two-digit Part number "09" plus the six-digit downstream-order number "010500." The Part number designates the major river basin; for example, Part "09" is the Colorado River basin.

Latitude-Longitude System

The identification numbers for wells, springs, 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 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, springs, 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. Locations of crest-stage partial record stations for which data are given in this report are shown in figure 2.

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

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 Colorado District office. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

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

Classification of Records

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

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

Arrangement of Records

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

On-site Measurements and Sample Collection

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

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

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

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

Water temperature

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

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

Sediment

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

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

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

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

Laboratory Measurements

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

Data Presentation

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

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

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

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

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

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

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

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

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

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

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

Remark Codes

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

PRINTED OUTPUT REMARK

E Estimated value

> Actual value is known to be greater than the value shown

< Actual value is known to be less than the value shown

K Based on non-ideal colony count

M Presence of material verified but not quantified

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 ± 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 ± 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 ± 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 (ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic feet per second per square mile (ft³/s)/mi² is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 μ m 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 (CaCO₃).

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 (ug/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, ug/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

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

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

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

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

Organism is any living entity.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area habitat, usually square meter (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 $\text{mg C}/(\text{m}^2 \cdot \text{time})$ for periphyton and macrophytes and $\text{mg C}/(\text{m}^3 \cdot \text{time})$ for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

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

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

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

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

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

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

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

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

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

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

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

Suspended-sediment discharge (tons/day) is the rate at which dry mass of sediment passes a section of a stream or is the quantity of sediment, as measured by dry mass or volume, that passes a section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft^3/s) x 0.0027.

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

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

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

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

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

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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COLORADO RIVER MAIN STEM

09010500 COLORADO RIVER BELOW BAKER GULCH, NEAR GRAND LAKE, CO

LOCATION.--Lat 40°19'33", long 105°51'22", in NE¼NW¼ sec.12, T.4 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft downstream from Baker Gulch, 1.0 mi upstream from Bowen Gulch, and 5.5 mi northwest of town of Grand Lake.

DRAINAGE AREA.--53.4 mi².

PERIOD OF RECORD.--May 1953 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7-9, Nov. 29 to Apr. 21. Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station by Grand River ditch (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years, 64.3 ft³/s; 46,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 976 ft³/s, June 30, 1957, gage height, 7.19 ft; maximum gage height, 7.30 ft, June 25, 1971; minimum daily discharge, 3.0 ft³/s, Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 364 ft³/s at 0100 May 17, gage height, 5.85 ft; minimum daily, 9.0 ft³/s, Mar. 1-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	26	18	14	10	9.0	15	119	129	86	27	13
2	37	26	18	14	10	9.0	15	111	136	64	24	15
3	45	26	18	14	10	9.0	15	88	138	57	21	14
4	42	26	18	14	10	9.0	15	75	150	52	18	13
5	37	25	18	14	10	9.0	15	70	160	48	17	13
6	36	26	18	14	10	9.0	19	78	166	45	16	12
7	38	26	18	14	10	9.0	19	88	186	41	24	12
8	37	26	18	14	10	9.0	19	102	210	40	26	13
9	38	26	18	14	10	9.0	19	116	240	38	18	12
10	36	27	18	14	10	9.0	19	122	238	34	16	12
11	33	25	18	13	10	9.0	22	122	211	37	15	12
12	28	26	18	13	10	9.0	22	123	193	72	14	11
13	27	24	18	13	10	9.0	22	136	190	52	14	11
14	29	23	18	13	10	9.0	22	155	181	39	16	12
15	28	23	18	12	10	9.0	22	178	174	34	13	19
16	27	23	18	12	10	10	25	221	160	32	13	20
17	26	23	18	12	10	10	30	340	146	37	12	21
18	26	23	18	12	10	10	35	276	130	39	12	18
19	27	21	18	12	10	10	40	228	121	31	12	16
20	28	21	18	12	10	10	50	229	110	28	12	15
21	27	21	16	11	10	11	55	225	101	26	13	14
22	29	20	16	11	10	11	69	209	93	25	15	14
23	30	17	16	11	10	11	91	186	87	23	18	13
24	28	19	16	11	10	11	104	177	82	22	20	13
25	27	19	16	11	10	11	98	167	75	21	18	14
26	26	19	16	10	10	13	90	157	71	22	17	14
27	27	18	16	10	10	13	91	140	67	21	15	14
28	27	19	16	10	10	13	99	125	63	27	14	13
29	26	18	16	10	---	13	115	120	73	24	14	13
30	27	18	16	10	---	13	113	114	81	32	12	13
31	27	---	16	10	---	13	---	115	---	32	11	---
TOTAL	963	680	536	379	280	318.0	1385	4712	4162	1181	507	419
MEAN	31.1	22.7	17.3	12.2	10.0	10.3	46.2	152	139	38.1	16.4	14.0
MAX	45	27	18	14	10	13	115	340	240	86	27	21
MIN	26	17	16	10	10	9.0	15	70	63	21	11	11
AC-FT	1910	1350	1060	752	555	631	2750	9350	8260	2340	1010	831

CAL YR 1986 TOTAL 33767.6 MEAN 92.5 MAX 632 MIN 8.0 AC-FT 66980
WTR YR 1987 TOTAL 15522.0 MEAN 42.5 MAX 340 MIN 9.0 AC-FT 30790

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO

LOCATION.--Lat 40°19'40", long 105°34'39", in SW¼NW¼ sec.9, T.4 N., R.73W., Larimer County, Hydrologic Unit 10190006, on right bank at upstream end of Aspen Creek siphon, 700 ft downstream from east portal, and 4.5 mi southwest of Estes Park.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1946 to current year (monthly discharge only for August and September 1947).

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 8,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1950, water-stage recorder and Parshall flume at different datum. Oct. 1, 1950, to Sept. 30, 1952, water-stage recorder and Cippoletti weir at different datum.

REMARKS.--No estimated daily discharges. Records good. This is a transmountain diversion from Grand Lake and Shadow Mountain Lake for power and irrigation developments in the South Platte River basin as part of the Colorado-Big Thompson project. Diversion point is at west portal near town of Grand Lake, 13.35 mi west of east portal.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--41 years, 280 ft³/s; 202,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 592 ft³/s, June 30, 1962; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	198	115	471	502	383	24	390	550	201	299	402	435
2	198	117	471	503	384	13	392	552	202	301	404	439
3	198	116	470	503	312	13	416	547	312	304	403	441
4	198	115	470	500	304	13	456	551	247	304	402	233
5	198	117	471	500	305	13	465	549	213	301	396	188
6	191	116	498	502	302	130	544	547	200	303	345	184
7	73	207	500	502	303	160	544	547	116	381	468	186
8	75	195	501	497	303	1.2	547	552	98	391	551	188
9	74	204	502	327	303	309	546	550	5.1	395	550	268
10	83	214	501	364	385	312	552	551	98	395	552	303
11	269	207	501	383	387	311	551	520	189	421	551	153
12	284	205	500	384	387	312	549	499	154	462	515	.00
13	286	208	500	382	390	271	551	363	130	452	474	.00
14	283	207	501	384	390	160	551	276	132	390	460	.00
15	285	206	501	382	388	12	553	400	132	344	459	.00
16	229	208	501	389	390	311	551	453	203	344	459	.00
17	283	340	501	390	390	320	551	300	207	389	457	.00
18	282	344	501	491	392	305	553	201	246	404	450	.00
19	285	346	501	383	393	306	551	434	257	438	438	.00
20	282	349	499	389	396	308	553	453	256	450	430	.00
21	283	352	500	379	390	158	555	360	260	453	415	.00
22	282	350	500	379	387	12	553	386	257	450	405	.00
23	336	341	499	384	387	312	555	256	303	438	405	.00
24	369	451	500	423	391	208	483	251	305	432	414	.00
25	389	470	500	417	213	204	553	251	306	434	442	.00
26	393	481	502	378	158	385	553	251	280	434	446	.00
27	395	548	502	377	158	392	553	251	300	434	444	.00
28	396	545	501	380	8.8	393	549	251	301	423	435	.00
29	160	470	500	380	---	393	551	220	303	372	434	.00
30	132	468	502	384	---	392	552	201	300	371	435	.00
31	117	---	502	384	---	391	---	201	---	375	433	---
TOTAL	7506	8612	15369	12922	9279.8	6844.2	15823	12274	6513.1	12084	13874	3018.00
MEAN	242	287	496	417	331	221	527	396	217	390	448	101
MAX	396	548	502	503	396	393	555	552	312	462	552	441
MIN	73	115	470	327	8.8	1.2	390	201	5.1	299	345	.00
AC-FT	14890	17080	30480	25630	18410	13580	31380	24350	12920	23970	27520	5990

CAL YR 1986	TOTAL	143295.00	MEAN	393	MAX	552	MIN	35	AC-FT	284200
WTR YR 1987	TOTAL	124119.08	MEAN	340	MAX	555	MIN	.00	AC-FT	246200

09013000 ALVA B. ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1970 to current year.

REMARKS.--Field data collected prior to 1974 water year are available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 28...	1100	542	<50	7.1	7.5	9.2	13	4.0	0.80
NOV 18...	1120	536	<50	7.6	5.0	8.8	15	4.7	0.90
DEC 30...	0800	502	55	7.7	3.5	9.0	20	6.2	1.2
JAN 21...	1050	502	50	7.7	1.0	9.6	21	6.5	1.2
FEB 26...	1215	396	53	8.2	3.0	8.7	21	6.6	1.2
MAR 19...	1200	455	64	6.8	6.0	9.6	22	6.6	1.3
APR 16...	1300	548	48	7.6	7.0	7.6	20	6.0	1.2
MAY 14...	1355	398	40	7.3	9.0	8.5	15	4.8	0.82
JUN 11...	1240	244	25	7.7	13.0	8.4	10	3.1	0.62
JUL 16...	1215	619	33	7.6	18.0	7.6	13	3.8	0.74
AUG 20...	1230	441	45	8.0	16.0	7.7	18	5.4	1.0

DATE	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 28...	1.4	0.2	0.70	14	4.3	0.40	0.10
NOV 18...	1.5	0.2	0.80	16	5.8	0.40	0.10
DEC 30...	1.8	0.2	0.80	21	5.0	0.20	0.10
JAN 21...	1.9	0.2	0.60	22	5.6	0.30	0.10
FEB 26...	1.7	0.2	0.80	23	0.3	0.50	0.20
MAR 19...	1.9	0.2	0.70	23	4.4	0.50	0.10
APR 16...	1.8	0.2	0.70	21	4.3	<0.10	0.10
MAY 14...	1.6	0.2	0.60	18	4.4	0.30	0.10
JUN 11...	1.0	0.1	0.50	11	7.7	0.30	0.10
JUL 16...	1.3	0.2	0.60	14	6.4	0.20	0.10
AUG 20...	1.7	0.2	0.60	22	4.2	0.30	0.20

GRAND LAKE OUTLET BASIN

09013000 ALVA B ADAMS TUNNEL AT EAST PORTAL, NEAR ESTES PARK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
OCT 28...	3.8	24	35	0.03	<0.10	<0.10	<0.2	<0.01	0.01
NOV 18...	4.3	28	41	0.04	<0.10	<0.10	0.5	0.02	<0.01
DEC 30...	4.1	32	43	0.04	<0.10	<0.10	0.5	0.01	0.01
JAN 21...	4.1	34	45	0.05	<0.10	<0.10	0.4	0.01	0.01
FEB 26...	4.3	29	31	0.04	<0.10	<0.10	--	0.01	<0.01
MAR 19...	4.4	34	41	0.05	<0.10	<0.10	0.5	0.02	0.01
APR 16...	4.6	31	46	0.04	<0.10	<0.10	0.7	0.02	0.01
MAY 14...	4.1	28	30	0.04	<0.10	<0.10	0.8	0.01	0.01
JUN 11...	3.6	24	16	0.03	<0.10	<0.10	0.6	0.01	0.02
JUL 16...	3.1	25	41	0.03	<0.10	<0.10	1.7	0.02	<0.01
AUG 20...	3.2	30	36	0.04	<0.10	<0.10	0.3	0.01	0.01

DATE	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 28...	<1	1	44	<5	6	<1	--
NOV 18...	--	--	57	--	8	--	--
DEC 30...	--	--	42	--	4	--	--
JAN 21...	2	1	34	<5	4	<1	8
FEB 26...	--	--	33	--	5	--	--
MAR 19...	--	--	20	--	2	--	--
APR 16...	<1	<1	34	<5	3	1	10
MAY 14...	--	--	83	--	1	--	--
JUN 11...	--	--	45	--	<1	--	--
JUL 16...	<1	1	52	6	2	4	6
AUG 20...	--	--	25	--	2	--	--

COLORADO RIVER MAIN STEM

09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO

LOCATION.--Lat 40°12'26", long 105°50'27", in SW¼NW¼ sec.19, T.3 N., R.75 W., Grand County, Hydrologic Unit 14010001, in gate house on left side of outlet gates near center of Shadow Mountain Dam on Colorado River, 1.0 mi upstream from Pole Creek and 3.2 mi south of town of Grand Lake.

DRAINAGE AREA.--185 mi².

PERIOD OF RECORD.--April 1947 to current year. Prior to October 1960, published as Shadow Mountain Reservoir near Grand Lake.

REVISED RECORDS.--WSP 1149: 1947-48. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929. Supplementary water-stage recorder on Grand Lake, 800 ft north of outlet gates and 2.9 mi north of Shadow Mountain Dam.

REMARKS.--Lake is formed by earth and rockfill dam and dikes. Storage began in April 1947. Capacity, 17,860 acre-ft, including usable capacity of Grand Lake above elevation 8,365 ft, between elevation 8,347 ft, sill of outlet gate, and 8,367 ft, maximum water surface. Dead storage in Shadow Mountain Lake, 506 acre-ft. Dead storage in Grand Lake not determined. Shadow Mountain Lake is used for stabilization of water level in Grand Lake. Usable capacity for diversion through Alva B. Adams tunnel, 3,660 acre-ft between elevations 8,365 ft, crest of tunnel inlet and 8,367 ft, maximum water surface. Figures given represent usable contents as determined from summation of individual contents of Grand Lake and Shadow Mountain Lake. Transmountain diversion from Colorado River basin, including water pumped from Lake Granby, is effected through Grand Lake and Alva B. Adams tunnel, for power and irrigation in South Platte River basin.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 17,920 acre-ft, May 22, 1955, elevation, 8,367.03 ft; minimum since appreciable storage was first attained, 2,630 acre-ft, May 14, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,590 acre-ft, Apr. 11, elevation, 8,366.89 ft; minimum, 16,720 acre-ft, May 17, elevation, 8,366.35 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	8,366.71	17,370	-
Oct. 31.	8,366.78	17,450	+80
Nov. 30.	8,366.69	17,270	-180
Dec. 31.	8,366.70	17,290	+20
CAL YR 1986			-10
Jan. 31.	8,366.68	17,260	-30
Feb. 28.	8,366.77	17,430	+170
Mar. 31.	8,366.67	17,260	-170
Apr. 30.	8,366.74	17,370	+110
May 31.	8,366.66	17,240	-130
June 30.	8,366.74	17,360	+120
July 31.	8,366.82	17,480	+120
Aug. 31.	8,366.76	17,390	-90
Sept. 30.	8,366.66	17,260	-130
WTR YR 1987			-110

COLORADO RIVER BASIN

09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO

LOCATION.--Lat 40°12'25", long 105°50'56", in SW¼NE¼ sec.24, T. 3 N., R.76 W., Grand County, Hydrologic Unit 14010001, at road crossing at south end of Shadow Mountain Lake, 4 mi southwest of Grand Lake, and 13.5 mi northeast of Granby.

PERIOD OF RECORD.--September 1970 to September 1975, March 1978 to current year.

REMARKS.--No flow at time of visit for Oct., Nov., Feb., June, and Sept. of 1987 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
DEC 12...	0700	570	53	7.6	1.0	9.2	K1	K<1
JAN 28...	0710	303	52	7.3	3.5	9.0	K4	K<1
MAR 27...	0635	666	53	7.6	3.0	7.0	K2	K<1
APR 23...	0720	705	53	7.0	4.0	8.7	K7	K<1
JUL 15...	0730	745	47	7.3	6.0	5.1	K<1	K<1
AUG 13...	0725	388	51	7.2	6.5	4.4	49	K10

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 12...	<0.10	0.30	0.01	2	4	<5	1	<10
JAN 28...	<0.10	0.40	0.01	<1	2	<5	<1	<10
MAR 27...	<0.10	0.60	0.01	<1	4	<5	<1	<10
APR 23...	<0.10	0.60	0.02	<1	<1	<5	6	<10
JUL 15...	<0.10	0.40	0.35	<1	2	<5	3	<10
AUG 13...	<0.10	0.50	0.01	<1	2	<5	1	<10

K BASED ON NON-IDEAL COLONY COUNT.

09018500 LAKE GRANBY NEAR GRANBY, CO

LOCATION.--Lat 40°10'55", long 105°52'14", in NW¼NE¼ sec.35, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, in Granby pumping plant at north shore of lake, 2.5 mi north of Granby Dam on Colorado River and 7.5 mi northeast of Granby.

DRAINAGE AREA.--312 mi².

RESERVOIR ELEVATIONS AND CONTENTS RECORDS

PERIOD OF RECORD.--October 1949 to current year. Prior to October 1955, published as Granby Reservoir near Granby.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929. Prior to Apr. 9, 1951, nonrecording gage at dam at present datum.

REMARKS.--Lake is formed by earthfill dam and dikes. Regulation began Sept. 13, 1949, and usable storage began June 14, 1950, while dam was under construction. Usable capacity, 465,600 acre-ft, between elevations 8,186.00 ft, trash rack sill at outlet, and 8,280.00 ft, top of radial spillway gates. Dead storage, 74,190 acre-ft. Figures given represent usable contents. Lake is used to store water for pumping to Shadow Mountain Lake for transmountain diversion through Alva B. Adams tunnel for, power and irrigation in South Platte River basin.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 465,900 acre-ft, July 13, 1962, elevation, 8,280.05 ft; minimum since appreciable storage was attained, 13,070 acre-ft, Apr. 16, 1978, elevation, 8,190.93 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 451,100 acre-ft, Oct. 10, elevation, 8,278.00 ft; minimum, 334,600 acre-ft, Apr. 26, elevation, 8,260.81 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	8,277.74	449,300	-
Oct. 31.	8,276.95	443,600	-5,700
Nov. 30.	8,275.47	433,100	-10,500
Dec. 31.	8,271.27	403,800	-29,300
CAL YR 1986	-	-	+30,600
Jan. 31.	8,267.72	379,700	-24,100
Feb. 28.	8,265.11	362,300	-17,400
Mar. 31.	8,263.33	350,800	-11,500
Apr. 30.	8,261.33	337,900	-12,900
May 31.	8,267.51	378,300	+40,400
June 30.	8,271.86	407,900	+29,600
July 31.	8,269.35	390,700	-17,200
Aug. 31.	8,265.76	366,600	-24,100
Sept. 30.	8,265.28	363,500	-3,100
WTR YR 1987	-	-	-85,800

COLORADO RIVER BASIN

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1973 to June 1975, June 1979, June 1980, July 1981, June 1982, July 1983, June 1984, July 1985, July 1986, and July 1987.

REMARKS.--A complete taxonomic identification with cell counts for phytoplankton available in district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SAMP- LING DEPTH (FEET)	TEMPER- ATURE WATER ((DEG C)	OXYGEN, DIS- SOLVED (MG/L)						
JUL										
16...	0915	0.1	16.0	7.5						
16...	0916	5.0	16.0	7.6						
16...	0917	10.0	15.5	7.5						
16...	0918	15.0	15.0	7.3						
16...	0919	20.0	14.5	7.2						
16...	0920	25.0	14.5	7.2						
16...	0921	30.0	14.5	7.0						
16...	0922	40.0	9.0	5.5						
16...	0923	50.0	6.5	4.8						
16...	0924	60.0	6.0	4.6						
16...	0925	70.0	5.5	4.7						
16...	0926	75.0	5.5	4.7						
16...	0927	80.0	5.5	4.6						
16...	0928	90.0	5.5	4.6						
16...	0929	100	5.5	4.7						
16...	0930	110	5.0	4.7						
16...	0931	120	5.0	4.6						
16...	0932	125	5.0	4.6						
16...	0933	130	5.0	4.6						
16...	0934	140	5.0	4.6						
16...	0935	150	5.0	4.5						
16...	0936	160	5.0	4.5						
16...	0937	170	5.0	4.5						
DATE	TIME	SAM- PLING DEPTH (FEET)	TRANS- PAR- ENCY (SECCHI DISK) (IN)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
JUL										
16...	0945	0.1	139	50	7.8	16.0	7.5	K1	K<1	<0.10
16...	1025	170	--	52	--	5.0	4.5	--	--	<0.10
DATE	TIME	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)	PHYTO- PLANK- TON, TOTAL (CELLS PER ML)
JUL										
16...		0.50	0.01	2	2	<5	<1	10	52	18100
16...		0.80	0.01	1	2	<5	<1	<10	--	--

K BASED ON NON-IDEAL COLONY COUNT.

09019500 COLORADO RIVER NEAR GRANBY, CO

LOCATION.--Lat 40°07'15", long 105°54'00", in SW¼NW¼ sec.22, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, on right bank 0.3 mi upstream from bridge on U.S. Highway 34, 1.3 mi upstream from Willow Creek, and 3.2 mi northeast of Granby.

DRAINAGE AREA.--323 mi².

PERIOD OF RECORD.--October 1907 to September 1911 (published as Grand River near Granby), October 1933 to September 1953. May 1961 to current year (irrigation season only). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,960 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 10, 1908, to Sept. 30, 1911, and May 12 to June 10, 1934, nonrecording gage, at site 300 ft upstream at different datums. June 11, 1934, to Sept. 30, 1953, water-stage recorder at present site and datum.

REMARKS.--No estimated daily discharges: Records good. Flow regulated by Lake Granby (station 09018500) since Sept. 13, 1949. Several diversions for irrigation of hay meadows upstream from station. Transmountain diversions upstream from station by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF SEASONAL RECORD.--Maximum discharge, 2,510 ft³/s, July 11, 1983, gage height, 5.39 ft; minimum daily, 9.6 ft³/s, Sept. 21, 1981.

EXTREMES FOR PERIOD OF CONTINUOUS RECORD.--Maximum discharge observed, 4,100 ft³/s, June 20, 1909, gage height, 5.5 ft, site and datum then in use; minimum daily, 6.6 ft³/s, Jan. 29, 1950; minimum observed prior to starting construction of Shadow Mountain Lake, 20 ft³/s, Apr. 6, 1936 (discharge measurement).

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 91 ft³/s at 1630 June 23, gage height, 1.21 ft; minimum daily, 11 ft³/s, Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	51	62	64	34	17
2	---	---	---	---	---	---	---	75	60	59	37	16
3	---	---	---	---	---	---	---	75	61	59	38	16
4	---	---	---	---	---	---	---	76	63	62	37	15
5	---	---	---	---	---	---	---	75	60	61	36	11
6	---	---	---	---	---	---	---	76	61	61	34	14
7	---	---	---	---	---	---	---	75	62	60	33	14
8	---	---	---	---	---	---	---	73	66	60	38	20
9	---	---	---	---	---	---	---	70	64	60	33	20
10	---	---	---	---	---	---	---	72	61	60	33	17
11	---	---	---	---	---	---	---	73	61	60	35	17
12	---	---	---	---	---	---	---	80	61	66	35	17
13	---	---	---	---	---	---	---	77	61	61	35	17
14	---	---	---	---	---	---	---	69	61	63	34	16
15	---	---	---	---	---	---	---	69	60	63	33	17
16	---	---	---	---	---	---	---	72	60	63	32	16
17	---	---	---	---	---	---	---	76	63	63	32	16
18	---	---	---	---	---	---	---	78	63	66	31	16
19	---	---	---	---	---	---	---	73	63	63	32	16
20	---	---	---	---	---	---	---	76	61	61	33	15
21	---	---	---	---	---	---	---	78	63	63	34	17
22	---	---	---	---	---	---	---	68	63	63	35	19
23	---	---	---	---	---	---	---	66	62	66	35	18
24	---	---	---	---	---	---	---	81	61	66	35	17
25	---	---	---	---	---	---	---	73	61	66	35	16
26	---	---	---	---	---	---	---	66	61	63	37	16
27	---	---	---	---	---	---	---	67	63	67	38	16
28	---	---	---	---	---	---	---	64	60	67	38	16
29	---	---	---	---	---	---	---	31	64	66	38	16
30	---	---	---	---	---	---	---	30	64	66	37	16
31	---	---	---	---	---	---	---	64	---	44	32	---
TOTAL	---	---	---	---	---	---	---	2216	1858	1935	1079	490
MEAN	---	---	---	---	---	---	---	71.5	61.9	62.4	34.8	16.3
MAX	---	---	---	---	---	---	---	81	66	69	38	20
MIN	---	---	---	---	---	---	---	51	60	44	31	11
AC-FT	---	---	---	---	---	---	---	4400	3690	3840	2140	972

09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO

LOCATION.--Lat 40°08'49", long 105°56'31", in SE¼ sec.7, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, in shaft house near right end of Willow Creek Dam, 3.2 mi upstream from mouth, and 4.2 mi north of Granby.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--May 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earth and rockfill dam; storage began March 1953. Dead storage pool filled May 3, 1953. Usable capacity, 9,060 acre-ft between elevations 8,077.00 ft, trash rack sill at outlet, and 8,130.00 ft, crest of spillway. Dead storage, 1,490 acre-ft. Figures given represent usable contents. Water is pumped to Lake Granby for transmountain diversion for irrigation and power in South Platte River basin. Records are provided by U.S. Bureau of Reclamation.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,100 acre-ft, May 24, 1984, elevation, 8,130.12 ft; minimum 50 acre-ft, Dec. 4, 1985 to Jan. 17, 1986, drawdown for maintenance, elevation, 8,077.50 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,290 acre-ft, Nov. 11, elevation, 8,127.36 ft; minimum, 5,750 acre-ft, Apr. 11, elevation, 8,117.05 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	8,125.60	7,810	-
Oct. 31.	8,125.82	7,870	+60
Nov. 30.	8,118.84	6,140	-1,730
Dec. 31.	8,121.20	6,690	+550
CAL YR 1986			+6,640
Jan. 31.	8,122.53	7,020	+330
Feb. 28.	8,124.13	7,420	+400
Mar. 31.	8,126.17	7,960	+540
Apr. 30.	8,121.09	6,660	-1,300
May 31.	8,120.20	6,450	-210
June 30.	8,122.46	7,000	+550
July 31.	8,123.51	7,260	+260
Aug. 31.	8,126.30	8,000	+740
Sept. 30.	8,120.55	6,540	-1,460
WTR YR 1987			-1,270

LOCATION.--Lat 39°50'45", long 105°45'05", in Sec.26, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 0.8 mi upstream from Parsenn Creek and 2.5 mi south of Winter Park.

PERIOD OF RECORD.--May to September 1908, July to November 1909 (published as "at upper station near Fraser"), October 1968 to September 1973, Aug. 21, 1984 to current year. January to September 1911, gage heights only (published as "near Fraser"). Records for August to December 1910, published in WSP 289 as "near Fraser" are unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,520 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1968, nonrecording gage at site 0.9 mi upstream at different datum. Since Oct. 1, 1968, supplementary water-stage recorder and Parshall flume on Berthoud Pass ditch.

AVERAGE DISCHARGE.--8 years, 14.7 ft³/s; 10,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s, June 5, 1972, gage height, 2.15 ft; minimum daily, 1.3 ft³/s, Feb. 20, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined, probably occurred June 9; minimum daily, 1.4 ft³/s. Feb. 16 to Mar. 29.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	4.5	3.6	2.4	1.5	1.4	1.7	18	33	25	19	7.9
2	7.3	4.5	3.5	2.2	1.5	1.4	1.7	16	36	23	18	8.0
3	7.5	4.5	3.5	2.0	1.5	1.4	1.7	14	37	22	17	7.5
4	7.1	4.5	3.5	2.0	1.5	1.4	1.7	13	42	22	16	7.8
5	7.1	4.5	3.5	2.0	1.5	1.4	1.7	12	47	20	16	7.3
6	7.5	4.5	3.5	1.9	1.5	1.4	1.7	13	49	20	16	6.9
7	7.7	4.5	3.5	1.8	1.5	1.4	1.7	14	52	18	16	6.8
8	7.6	4.5	3.5	1.7	1.5	1.4	1.7	16	62	17	15	6.6
9	8.0	4.5	3.5	1.6	1.5	1.4	1.7	20	62	18	14	6.4
10	7.3	4.5	3.5	1.5	1.5	1.4	1.7	23	67	17	13	6.4
11	6.5	4.0	3.0	1.5	1.5	1.4	1.7	23	59	16	13	6.4
12	6.4	4.0	3.0	1.5	1.5	1.4	1.7	26	56	19	13	6.2
13	6.4	4.0	3.0	1.5	1.5	1.4	1.7	35	55	17	13	6.0
14	6.4	4.0	3.0	1.5	1.5	1.4	2.0	36	55	15	12	6.4
15	6.4	4.0	3.0	1.5	1.5	1.4	2.5	39	50	14	11	7.5
16	6.4	4.1	3.0	1.5	1.4	1.4	3.4	54	52	14	10	8.0
17	6.2	4.2	3.0	1.5	1.4	1.4	4.0	49	46	15	9.5	8.0
18	6.0	4.2	3.0	1.5	1.4	1.4	6.4	45	44	14	9.0	6.6
19	6.0	3.7	3.0	1.5	1.4	1.4	7.5	43	41	12	8.8	6.2
20	5.8	4.0	3.0	1.5	1.4	1.4	7.3	46	36	12	8.5	6.0
21	5.5	4.0	2.7	1.5	1.4	1.4	5.8	43	35	12	8.8	5.8
22	5.6	4.0	2.7	1.5	1.4	1.4	7.3	39	33	11	9.3	5.7
23	5.6	4.0	2.7	1.5	1.4	1.4	9.6	39	33	11	11	5.5
24	5.3	4.0	2.7	1.5	1.4	1.4	11	36	32	11	11	5.3
25	5.2	4.0	2.7	1.5	1.4	1.4	11	34	29	11	9.9	5.2
26	5.2	3.7	2.7	1.5	1.4	1.4	12	32	28	12	9.0	5.2
27	5.0	3.7	2.7	1.5	1.4	1.4	14	30	27	13	9.0	5.2
28	4.8	3.7	2.7	1.5	1.4	1.4	14	28	26	16	8.8	5.2
29	4.8	3.7	2.7	1.5	---	1.4	15	28	26	17	8.3	5.0
30	4.6	3.6	2.7	1.5	---	1.5	16	28	28	17	8.0	4.7
31	4.5	---	2.7	1.5	---	1.6	---	29	---	18	8.0	---
TOTAL	193.0	123.6	94.8	50.6	40.7	43.7	170.9	921	1278	499	368.9	191.7
MEAN	6.23	4.12	3.06	1.63	1.45	1.41	5.70	29.7	42.6	16.1	11.9	6.39
MAX	8.0	4.5	3.6	2.4	1.5	1.6	16	54	67	25	19	8.0
MIN	4.5	3.6	2.7	1.5	1.4	1.4	1.7	12	26	11	8.0	4.7
AC-FT	383	245	188	100	81	87	339	1830	2530	990	732	380
CAL YR 1986	TOTAL 6035.2		MEAN 16.5	MAX 98	MIN 1.7	AC-FT 11970						
WTR YR 1987	TOTAL 3975.9		MEAN 10.9	MAX 67	MIN 1.4	AC-FT 7890						

FRASER RIVER BASIN

09024000 FRASER RIVER NEAR WINTER PARK, CO

LOCATION.--Lat 39°54'00", long 105°46'34", in SE¼ sec.4, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft downstream from bridge on U.S. Highway 40, 1.1 mi northwest of Winter Park, 2.0 mi upstream from Vasquez Creek, 3.5 mi downstream from point of diversion for Moffat water tunnel, and 3.9 mi southeast of Fraser.

DRAINAGE AREA.--27.6 mi².

PERIOD OF RECORD.--September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Arrow" 1910-23 and as "near West Portal" 1924-39. Records since June 9, 1936, equivalent to earlier records if transmountain diversions are added to flow past station.

REVISED RECORDS.--WSP 929: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,906.23 ft, Colorado State Highway Datum (levels by U.S. Geological Survey). Sept. 23, 1910, to May 12, 1916, nonrecording gage at trail bridge 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 7-15, 20-25, 27-29, Dec. 1-5, 9-19, Feb. 6, 7, 16, and Feb. 19 to Apr. 27. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (not known since 1968). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft³/s, June 13, 1918, gage height, 2.9 ft; minimum daily determined, 2.0 ft³/s, Mar. 30, Apr. 9, 1912, Jan 23, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 216 ft³/s at 2300 June 9, gage height, 1.80 ft; minimum daily, 3.7 ft³/s, Feb. 15-20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	7.2	5.6	4.3	5.5	7.0	7.0	14	52	17	33	21
2	9.4	6.8	5.6	3.8	5.5	7.0	7.0	10	49	37	48	21
3	9.4	6.7	5.6	4.3	5.5	7.0	7.0	9.4	46	36	44	20
4	9.1	7.0	5.6	4.9	5.2	7.0	7.0	8.8	48	16	40	20
5	8.5	7.3	5.6	4.9	5.0	7.0	7.0	8.8	54	5.5	37	18
6	8.3	7.5	5.5	4.9	5.5	7.0	7.0	11	34	5.4	38	17
7	8.0	7.0	5.5	4.9	5.5	7.0	7.0	11	33	5.4	37	17
8	9.2	7.0	5.2	4.9	5.5	7.0	7.0	12	84	6.0	33	17
9	8.3	7.0	5.2	5.5	5.3	7.0	7.0	12	169	9.8	31	16
10	8.2	7.0	5.2	5.5	5.4	7.0	7.0	12	184	9.7	29	16
11	8.0	6.2	5.6	5.5	4.9	7.0	7.0	11	163	10	28	16
12	8.1	6.2	5.6	5.5	4.3	7.0	7.0	10	152	14	26	15
13	10	6.2	5.6	5.4	4.2	7.0	7.0	9.4	144	11	27	15
14	6.5	6.2	5.6	5.3	4.3	7.0	7.0	8.6	119	10	26	16
15	4.5	6.2	5.6	5.2	3.7	7.0	8.0	11	89	10	23	19
16	4.0	6.2	6.0	5.2	3.7	7.0	9.0	11	44	12	22	19
17	3.8	6.2	6.0	5.2	3.7	7.0	10	8.8	23	14	21	21
18	3.8	6.2	6.0	4.8	3.7	7.0	11	8.9	17	13	20	17
19	4.0	6.2	6.0	4.9	3.7	7.0	12	8.3	35	12	19	15
20	5.2	6.2	5.8	5.5	3.7	7.0	13	13	75	12	19	16
21	7.3	6.2	6.0	5.5	5.0	7.0	14	13	73	11	22	16
22	7.4	6.2	6.1	5.5	5.0	7.0	15	13	58	11	23	15
23	7.4	6.2	4.9	5.5	5.0	7.0	16	23	25	11	28	14
24	7.4	6.2	5.5	5.5	5.0	7.0	17	23	7.5	11	29	13
25	7.3	6.2	5.5	5.5	5.0	7.0	18	20	5.8	10	26	14
26	7.3	6.2	4.9	5.5	6.0	7.0	19	15	5.5	9.1	24	14
27	7.2	6.2	4.9	5.1	6.0	7.0	20	47	5.5	9.9	24	14
28	7.1	6.2	4.9	4.9	6.0	7.0	14	48	5.5	11	24	13
29	7.1	6.2	5.5	5.1	---	7.0	13	48	5.9	16	23	13
30	7.3	6.2	4.9	5.9	---	7.0	14	36	6.1	11	22	13
31	7.3	---	4.9	5.5	---	7.0	---	35	---	3.8	21	---
TOTAL	227.4	194.5	170.4	159.9	136.8	217.0	321.0	530.0	1811.8	380.6	867	491
MEAN	7.34	6.48	5.50	5.16	4.89	7.00	10.7	17.1	60.4	12.3	28.0	16.4
MAX	11	7.5	6.1	5.9	6.0	7.0	20	48	184	37	48	21
MIN	3.8	6.2	4.9	3.8	3.7	7.0	7.0	8.3	5.5	3.8	19	13
AC-FT	451	386	338	317	271	430	637	1050	3590	755	1720	974

CAL YR 1986 TOTAL 6257.6 MEAN 17.1 MAX 232 MIN 2.9 AC-FT 12410
 "R YR 1987 TOTAL 5507.4 MEAN 15.1 MAX 184 MIN 3.7 AC-FT 10920

LOCATION.--Lat 39°55'13", long 105°47'05", in NE¼NW¼ sec.33. T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 30 ft downstream from bridge on U.S. Highway 40, 0.2 mi upstream from mouth, 2.5 mi northwest of Winter Park, 2.5 mi southeast of Fraser, and 4.5 mi downstream from Moffat water tunnel diversion.

PERIOD OF RECORD.--June to August 1907, July to November 1909, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Records for June to October 1908, published in WSP 269, are unreliable and should not be used. Published as Vasquez River at lower station, near Fraser 1907-9, and as "near West Portal" 1934-39. Records for May 26, 1937, to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,768.48 ft above National Geodetic Vertical Datum of 1929. June 1, 1907, to Oct. 31, 1909, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 7-23, and Nov. 26 to Apr. 20. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 ft³/s, June 27, 1983, gage height, 4.14 ft, from rating curve extended above 286 ft³/s; no flow at times in 1944, 1946, 1956, 1960, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 129 ft³/s at 1800 June 9, gage height, 2.67 ft, from peak stage indicator; minimum daily, 1.2 ft³/s, Oct. 30.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.4	2.0	1.5	1.5	1.5	1.5	8.4	17	10	7.5	8.1
2	4.2	2.9	2.0	1.5	1.5	1.5	1.5	8.0	33	9.6	7.2	8.1
3	4.7	2.6	2.0	1.5	1.5	1.5	1.5	7.5	31	9.0	7.0	7.9
4	4.7	2.1	2.0	1.5	1.5	1.5	1.5	7.1	35	8.5	6.8	7.8
5	4.5	2.1	2.0	1.5	1.5	1.5	1.5	7.3	35	8.1	6.7	8.2
6	4.6	2.3	2.0	1.5	1.5	1.5	1.5	8.1	17	7.6	7.6	8.3
7	4.1	2.0	2.0	1.5	1.5	1.5	1.5	8.4	17	7.4	8.6	8.4
8	4.6	2.0	2.0	1.5	1.5	1.5	1.5	8.9	30	7.5	8.1	8.4
9	4.5	2.0	2.0	1.5	1.5	1.5	1.5	9.1	85	7.3	7.8	8.3
10	4.5	2.0	2.0	1.5	1.5	1.5	1.5	8.8	105	7.2	7.8	8.2
11	4.2	2.0	2.0	1.5	1.5	1.5	2.0	8.4	98	7.6	7.3	8.3
12	4.2	2.0	2.0	1.5	1.5	1.5	2.5	8.3	96	10	7.3	8.3
13	4.1	2.0	2.0	1.5	1.5	1.5	2.7	8.3	94	9.7	7.3	8.3
14	3.5	2.0	2.0	1.5	1.5	1.5	2.9	8.7	86	8.6	7.3	8.8
15	3.4	2.0	2.0	1.5	1.5	1.5	3.0	9.9	64	7.4	7.3	9.4
16	3.4	2.0	2.0	1.5	1.5	1.5	3.0	9.9	68	7.3	7.0	5.2
17	3.6	2.0	2.0	1.5	1.5	1.5	3.5	13	62	8.2	6.9	4.6
18	3.9	2.0	2.0	1.5	1.5	1.5	4.0	9.6	58	7.6	6.9	4.3
19	7.1	2.0	2.0	1.5	1.5	1.5	4.5	8.9	55	8.2	7.1	4.2
20	13	2.0	2.0	1.5	1.5	1.5	5.0	13	71	8.1	7.3	4.1
21	6.6	2.0	2.0	1.5	1.5	1.5	5.2	12	67	8.0	7.4	3.9
22	6.0	2.0	2.0	1.5	1.5	1.5	5.3	11	60	8.1	8.5	3.8
23	4.4	2.0	2.0	1.5	1.5	1.5	6.9	10	36	7.0	9.3	3.8
24	3.6	1.9	2.0	1.5	1.5	1.5	8.1	11	12	6.5	8.8	4.0
25	3.6	1.9	2.0	1.5	1.5	1.5	8.5	12	9.5	6.3	8.6	4.2
26	3.6	2.0	2.0	1.5	1.5	1.5	9.5	13	9.6	6.3	8.2	4.2
27	3.6	2.0	2.0	1.5	1.5	1.5	11	32	9.3	6.4	7.9	4.2
28	3.0	2.0	2.0	1.5	1.5	1.5	8.3	32	9.0	7.5	7.9	4.1
29	1.9	2.0	2.0	1.5	---	1.5	7.5	22	10	8.0	7.9	4.2
30	1.2	2.0	2.0	1.5	---	1.5	7.5	12	10	7.3	8.1	4.2
31	2.5	---	2.0	1.5	---	1.5	---	11	---	8.1	8.1	---
TOTAL	135.4	63.2	62.0	46.5	42.0	46.5	125.9	357.6	1389.4	244.4	237.5	187.8
MEAN	4.37	2.11	2.00	1.50	1.50	1.50	4.20	11.5	46.3	7.88	7.66	6.26
MAX	13	3.4	2.0	1.5	1.5	1.5	11	32	105	10	9.3	9.4
MIN	1.2	1.9	2.0	1.5	1.5	1.5	1.5	7.1	9.0	6.3	6.7	3.8
AC-FT	269	125	123	92	83	92	250	709	2760	485	471	373

CAL YR 1986	TOTAL 4126.5	MEAN 11.3	MAX 173	MIN 1.2	AC-FT 8180
WTR YR 1987	TOTAL 2938.2	MEAN 8.05	MAX 105	MIN 1.2	AC-FT 5830

LOCATION.--Lat 39°54'36", long 105°52'40", in SE¼SW¼ sec.34, T.1 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 300 ft downstream from West St. Louis Creek and 4.1 mi southwest of Fraser.

PERIOD OF RECORD.--October 1933 to current year. Prior to August 1934, monthly discharge only, published in WSP 1313. Records for May 1956 to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

GAGE.--Water-stage recorder. Datum of gage is 8,980.17 ft above National Geodetic Vertical Datum of 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 470 ft³/s, June 15, 1952, gage height, 2.89 ft; maximum gage height, 3.21 ft, June 10, 1952 (backwater from log on control); minimum discharge not determined, probably occurred during January or February 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 150 ft³/s at 1815 June 9, gage height, 1.98 ft; minimum daily, 5.2 ft³/s, Mar. 1 to Apr. 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.9	7.0	6.0	6.0	5.2	5.2	15	44	38	20	12
2	10	8.3	7.0	6.0	6.0	5.2	5.2	14	73	53	20	14
3	11	7.9	7.0	6.0	6.0	5.2	5.2	11	74	50	19	12
4	10	8.0	7.0	6.0	6.0	5.2	5.2	11	58	44	18	11
5	10	8.0	7.0	6.0	6.0	5.2	5.2	11	37	30	18	11
6	10	8.0	7.0	6.0	6.0	5.2	5.6	13	40	22	18	10
7	10	8.0	7.0	6.0	6.0	5.2	5.6	13	44	22	19	10
8	10	8.0	7.0	6.0	6.0	5.2	5.6	14	75	22	18	10
9	9.9	8.0	7.0	6.0	6.0	5.2	5.6	15	127	21	17	9.6
10	9.6	8.0	7.0	6.0	6.0	5.2	5.6	15	126	22	16	9.4
11	9.6	8.0	7.0	6.0	6.0	5.2	6.2	14	117	22	16	9.3
12	9.1	8.0	7.0	6.0	6.0	5.2	6.2	14	115	27	15	9.3
13	9.1	8.0	7.0	6.0	6.0	5.2	6.2	15	116	24	15	9.1
14	9.3	8.1	7.0	6.0	6.0	5.2	6.2	15	104	23	15	9.5
15	8.7	8.1	7.0	6.0	6.0	5.2	6.2	18	80	22	14	11
16	8.3	8.0	6.6	6.0	6.0	5.2	7.0	28	53	22	14	7.9
17	8.4	7.8	6.6	6.0	6.0	5.2	7.0	29	39	26	13	8.1
18	8.5	7.7	6.6	6.0	6.0	5.2	7.0	27	35	26	12	7.5
19	12	7.7	6.6	6.0	6.0	5.2	7.0	26	54	23	11	7.1
20	17	7.6	6.6	6.0	6.0	5.2	7.0	28	73	22	11	6.8
21	11	7.5	6.0	6.0	5.4	5.2	8.0	28	70	21	12	7.0
22	9.5	7.4	6.0	6.0	5.4	5.2	8.0	29	51	21	16	6.9
23	8.7	7.4	6.0	6.0	5.4	5.2	8.0	26	26	21	18	6.9
24	8.3	7.4	6.0	6.0	5.4	5.2	9.0	27	25	23	22	6.9
25	8.8	7.4	6.0	6.0	5.4	5.2	10	27	22	23	18	6.7
26	8.3	7.4	6.0	6.0	5.4	5.2	10	36	21	23	15	6.7
27	8.3	7.4	6.0	6.0	5.4	5.2	12	53	21	28	14	6.7
28	8.2	7.4	6.0	6.0	5.4	5.2	13	60	22	32	13	6.6
29	8.1	7.4	6.0	6.0	---	5.2	13	50	25	29	13	6.5
30	8.4	7.4	6.0	6.0	---	5.2	13	34	22	27	12	6.3
31	9.0	---	6.0	6.0	---	5.2	---	33	---	23	11	---
TOTAL	297.1	234.2	204.0	186.0	163.2	161.2	224.0	749	1789	832	483	261.8
MEAN	9.58	7.81	6.58	6.00	5.83	5.20	7.47	24.2	59.6	26.8	15.6	8.73
MAX	17	8.9	7.0	6.0	6.0	5.2	13	60	127	53	22	14
MIN	8.1	7.4	6.0	6.0	5.4	5.2	5.2	11	21	21	11	6.3
AC-FT	589	465	405	369	324	320	444	1490	3550	1650	958	519
CAL YR 1986	TOTAL 8242.4											
WTR YR 1987	TOTAL 5584.5											
	MEAN	22.6	MEAN	15.3	MAX	242	MIN	5.8	AC-FT	16350		
					MAX	127	MIN	5.2	AC-FT	11080		

FRASER RIVER BASIN

09032000 RANCH CREEK NEAR FRASER, CO

LOCATION.--Lat 39°57'00", long 105°45'54", in NW¼NE¼ sec.22, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 450 ft downstream from Middle Fork and 2.7 mi east of Fraser.

DRAINAGE AREA.--19.9 mi².

PERIOD OF RECORD.--August 1934 to current year. Records since May 15, 1949, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--WSP 1243: 1935.

GAGE.--Water-stage recorder. Elevation of gage is 8,685 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 12-17, Nov. 2-10, 20, 21, Nov. 25 to Dec. 2, Mar. 20, Apr. 7, 8, 13-19, 22. Records good except for estimated daily discharges, which are poor. Diversion upstream from station for irrigation of hay meadows along Fraser River. Transmountain diversion upstream from station to Moffat water tunnel. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 451 ft³/s, June 27, 1983, gage height, 3.96 ft; minimum daily, 0.4 ft³/s, Sept. 21, Oct. 6, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 166 ft³/s at 2100 June 9, gage height, 2.76 ft; minimum daily, 1.5 ft³/s, Apr. 11, and Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	3.9	3.4	2.9	2.0	1.8	1.7	9.8	54	14	7.8	4.2
2	4.5	4.0	3.4	2.9	2.0	1.8	1.7	8.7	56	24	7.2	4.5
3	4.5	4.0	3.4	2.9	2.0	1.8	1.6	7.9	58	23	6.6	4.2
4	4.7	4.0	3.3	2.9	1.9	1.8	1.7	7.7	64	16	5.7	4.2
5	4.4	4.0	3.2	2.9	1.8	1.8	1.6	8.2	41	4.4	5.3	4.0
6	3.9	4.0	3.3	2.8	1.8	1.9	1.6	9.6	27	4.3	5.4	3.9
7	3.3	4.0	3.2	2.8	1.8	2.0	1.6	9.7	30	4.2	6.2	3.9
8	3.7	4.0	3.2	2.6	1.8	2.0	1.6	11	69	4.0	5.5	3.9
9	3.7	4.0	3.1	2.6	1.7	1.9	1.7	12	130	3.9	5.2	3.8
10	3.7	4.0	3.3	2.6	1.7	1.8	1.6	13	143	4.1	5.1	3.7
11	3.4	3.7	3.2	2.5	1.7	1.7	1.5	13	132	4.4	4.8	3.5
12	3.6	3.7	3.2	2.5	1.7	1.7	1.6	13	127	8.0	4.9	3.4
13	3.6	3.7	3.2	2.4	1.7	1.7	1.9	15	118	6.6	5.0	3.4
14	3.6	3.7	3.1	2.2	1.7	1.8	2.2	17	99	5.2	4.9	3.7
15	3.6	3.7	3.1	2.0	1.7	1.8	2.5	21	58	4.8	4.5	4.8
16	3.6	3.7	3.2	2.0	1.7	1.8	2.7	27	45	4.7	4.4	4.7
17	3.6	3.7	3.2	1.9	1.7	1.8	3.3	20	38	5.2	4.2	5.9
18	3.6	3.7	3.2	1.8	1.7	1.7	3.6	18	27	5.4	4.1	4.3
19	3.7	3.7	3.2	1.8	1.7	1.7	3.8	15	29	4.3	4.2	3.3
20	4.2	3.7	3.4	1.8	1.7	1.8	3.9	17	30	3.9	4.0	1.6
21	4.3	3.7	3.3	1.8	1.7	1.8	3.9	17	27	4.1	4.3	1.6
22	4.8	3.5	3.1	1.8	1.9	1.8	5.0	16	21	4.3	5.2	1.6
23	4.4	3.7	3.1	1.8	2.0	1.7	5.3	16	14	4.2	6.1	1.6
24	4.4	3.4	3.1	1.8	2.2	1.7	6.0	16	9.7	3.6	7.0	1.6
25	4.3	3.4	3.1	1.8	2.2	1.7	6.4	15	5.2	6.2	6.7	1.7
26	4.2	3.4	2.9	1.8	2.1	1.6	6.1	18	4.8	9.0	5.7	1.7
27	4.0	3.4	2.8	1.9	2.0	1.6	6.8	54	4.4	8.9	5.0	1.7
28	4.0	3.4	2.8	2.0	2.0	1.6	7.0	51	4.0	10	4.5	1.6
29	3.9	3.4	2.8	2.0	---	1.6	7.0	49	4.5	9.3	4.5	1.5
30	3.8	3.4	2.9	2.0	---	1.6	8.6	46	4.9	9.0	4.3	1.6
31	3.8	---	2.9	2.0	---	1.7	---	46	---	8.9	4.2	---
TOTAL	123.4	111.6	97.6	69.5	51.6	54.5	105.5	617.6	1474.5	231.9	162.5	95.1
MEAN	3.98	3.72	3.15	2.24	1.84	1.76	3.52	19.9	49.1	7.48	5.24	3.17
MAX	4.8	4.0	3.4	2.9	2.2	2.0	8.6	54	143	24	7.8	5.9
MIN	3.3	3.4	2.8	1.8	1.7	1.6	1.5	7.7	4.0	3.6	4.0	1.5
AC-FT	245	221	194	138	102	108	209	1230	2920	460	322	189

CAL YR 1986 TOTAL 3785.4 MEAN 10.4 MAX 133 MIN 1.6 AC-FT 7510
WTR YR 1987 TOTAL 3195.3 MEAN 8.75 MAX 143 MIN 1.5 AC-FT 6340

LOCATION.--Lat 39°59'09", long 105°44'40", in NW¼Sec.2, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 200 ft downstream from concrete diversion dam, 2.7 mi upstream from mouth and 4.6 mi northeast of Fraser.

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

REMARKS.--Estimated daily discharges: Nov. 1 to May 14. Records good except for estimated daily discharges, which are poor, and July 9 to Aug. 3, which are fair. Transmountain diversion upstream from station to Moffat water tunnel. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 66 ft³/s at 1700 June 9, gage height, 1.84 ft; minimum daily, 1.0 ft³/s, Feb. 1 to Apr. 10.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	3.0	2.0	2.0	1.0	1.0	1.0	2.1	21	13	5.4	3.3
2	4.1	3.0	2.0	2.0	1.0	1.0	1.0	2.2	24	12	5.1	3.2
3	4.1	3.0	2.0	2.0	1.0	1.0	1.0	2.3	25	12	4.9	3.0
4	3.9	3.0	2.0	2.0	1.0	1.0	1.0	2.4	28	11	4.5	3.0
5	4.3	3.0	2.0	2.0	1.0	1.0	1.0	2.5	31	10	4.3	2.9
6	4.1	3.0	2.0	2.0	1.0	1.0	1.0	2.6	31	9.3	4.5	2.8
7	3.8	3.0	2.0	2.0	1.0	1.0	1.0	2.7	32	8.7	4.9	2.7
8	3.6	3.0	2.0	2.0	1.0	1.0	1.0	2.8	37	8.2	4.4	2.6
9	3.4	3.0	2.0	2.0	1.0	1.0	1.0	2.9	52	7.7	4.2	2.5
10	3.3	3.0	2.0	2.0	1.0	1.0	1.0	3.0	50	7.6	3.8	2.5
11	3.0	3.0	2.0	2.0	1.0	1.0	1.1	3.0	45	7.4	3.9	2.3
12	3.9	3.0	2.0	2.0	1.0	1.0	1.2	3.0	42	11	3.8	2.2
13	3.8	3.0	2.0	2.0	1.0	1.0	1.3	3.0	39	9.4	3.7	2.2
14	3.6	3.0	2.0	2.0	1.0	1.0	1.4	3.0	34	8.1	3.4	2.4
15	3.2	3.0	2.0	2.0	1.0	1.0	1.5	5.8	33	7.5	3.2	3.3
16	3.0	3.0	2.0	1.5	1.0	1.0	1.6	14	28	7.0	3.4	3.4
17	3.0	3.0	2.0	1.5	1.0	1.0	1.7	17	29	7.8	2.0	4.5
18	2.9	3.0	2.0	1.5	1.0	1.0	1.8	22	27	7.6	3.0	3.3
19	2.9	3.0	2.0	1.5	1.0	1.0	1.9	31	26	7.4	2.9	2.8
20	3.4	3.0	2.0	1.5	1.0	1.0	2.0	33	24	7.1	2.9	2.5
21	3.3	2.5	2.0	1.5	1.0	1.0	2.0	29	22	6.8	2.7	2.5
22	12	2.5	2.0	1.5	1.0	1.0	2.0	28	20	6.2	2.9	2.3
23	10	2.5	2.0	1.5	1.0	1.0	2.0	24	19	5.0	3.9	2.2
24	1.3	2.5	2.0	1.5	1.0	1.0	2.0	23	18	4.8	4.5	2.2
25	1.3	2.5	2.0	1.5	1.0	1.0	2.0	22	17	4.6	4.2	2.2
26	1.2	2.5	2.0	1.5	1.0	1.0	2.0	19	16	4.6	3.6	2.2
27	2.1	2.5	2.0	1.5	1.0	1.0	2.0	17	15	4.9	3.3	2.1
28	3.4	2.5	2.0	1.5	1.0	1.0	2.0	16	14	6.2	3.4	2.0
29	3.6	2.5	2.0	1.5	---	1.0	2.0	16	15	5.6	3.5	1.9
30	3.2	2.5	2.0	1.5	---	1.0	2.0	15	14	6.0	3.3	1.9
31	2.9	---	2.0	1.5	---	1.0	---	16	---	6.1	3.2	---
TOTAL	116.0	85.0	62.0	54.0	28.0	31.0	45.5	385.3	828	240.6	116.7	78.9
MEAN	3.74	2.83	2.00	1.74	1.00	1.00	1.52	12.4	27.6	7.76	3.76	2.63
MAX	12	3.0	2.0	2.0	1.0	1.0	2.0	33	52	13	5.4	4.5
MIN	1.2	2.5	2.0	1.5	1.0	1.0	1.0	2.1	14	4.6	2.0	1.9
AC-FT	230	169	123	107	56	61	90	764	1640	477	231	156
CAL YR 1986	TOTAL	2377.2	MEAN	6.51	MAX	56	MIN	1.0	AC-FT	4720		
WTR YR 1987	TOTAL	2071.0	MEAN	5.67	MAX	52	MIN	1.0	AC-FT	4110		

COLORADO RIVER MAIN STEM

09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, CO

LOCATION.--Lat 40°06'30", long 106°00'13" in NW¼ sec.27, R.77 W., T.2 N., Grand County, Hydrologic Unit 14010001, on right bank 300 ft downstream from county highway bridge, 1.1 mi downstream from Windy Gap diversion dam, 2.4 mi downstream from mouth of Fraser River and 3.8 mi northwest of Granby.

DRAINAGE AREA.--789 mi².

PERIOD OF RECORD.--October 1981 to current year.

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. 10-12, Dec. 3, 5, Dec. 8 to Mar. 20, Mar. 29-31. Natural flow of stream affected by transmountain diversions, storage reservoirs, and diversions for irrigation. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 364 ft³/s; 263,700 acre-ft/year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,260 ft³/s, May 25, 1984, gage height, 7.34 ft; minimum daily, 42 ft³/s, Oct. 11, 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,110 ft³/s at 0600 June 10, gage height, 4.31 ft; minimum daily, 43 ft³/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	107	86	80	75	84	80	335	364	280	168	93
2	134	109	83	80	75	84	80	375	419	310	168	85
3	128	108	83	80	75	84	82	355	408	304	167	83
4	142	106	83	80	75	84	84	351	415	289	165	83
5	136	94	81	80	75	84	87	321	401	250	140	83
6	125	78	80	75	75	84	124	313	347	214	135	81
7	114	89	82	75	75	84	166	308	328	190	139	58
8	111	92	82	75	75	84	159	235	408	188	142	43
9	110	88	82	75	75	84	156	276	737	184	142	65
10	101	95	82	75	75	84	157	300	1010	177	139	71
11	98	100	82	75	75	84	154	292	876	178	125	71
12	100	100	82	75	75	84	153	283	819	251	114	71
13	98	101	82	75	75	84	139	288	804	234	115	70
14	88	115	82	75	75	84	122	273	756	241	110	73
15	89	124	82	75	75	84	123	264	645	226	101	73
16	97	122	82	75	80	86	203	291	509	215	100	80
17	95	122	82	75	80	86	386	327	412	224	100	87
18	94	116	82	75	80	86	395	332	391	229	100	83
19	94	122	82	75	80	86	361	333	367	223	97	72
20	82	141	82	75	80	86	349	353	463	215	97	67
21	104	114	82	75	80	87	220	216	460	205	87	67
22	126	100	82	75	80	84	230	249	436	208	80	68
23	123	97	82	75	80	85	299	185	331	187	83	68
24	122	97	82	75	80	84	349	179	276	177	116	67
25	123	97	82	75	80	86	321	238	268	160	141	63
26	121	97	80	75	80	85	310	182	232	165	130	69
27	114	95	80	75	80	84	295	209	212	171	115	73
28	112	94	80	75	80	81	297	256	214	259	110	73
29	109	94	80	75	---	80	294	258	226	236	110	68
30	108	94	80	75	---	80	286	232	255	219	112	64
31	107	---	80	75	---	80	---	346	---	212	109	---
TOTAL	3427	3108	2534	2350	2165	2606	6461	8755	13789	6871	3757	2172
MEAN	111	104	81.7	75.8	77.3	84.1	215	282	460	222	121	72.4
MAX	142	141	86	80	80	87	395	375	1010	310	168	93
MIN	82	78	80	75	75	80	80	179	212	160	80	43
AC-FT	6800	6160	5030	4660	4290	5170	12820	17370	27350	13630	7450	4310
CAL YR 1986	TOTAL	129489	MEAN	355	MAX	1500	MIN	61	AC-FT	256800		
WTR YR 1987	TOTAL	57995	MEAN	159	MAX	1010	MIN	43	AC-FT	115000		

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO

LOCATION.--Lat 40°05'00", long 106°05'15", in NE¼NE¼ sec.2, T.1 N., R.78W., Grand County, Hydrologic Unit 14010001, on left bank about 1,000 ft north of U.S. Highway 40, 1 mi northeast of Hot Sulphur Springs, and 4.5 mi upstream from Beaver Creek.

DRAINAGE AREA.--825 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to 1907 and 1914-18, published as Grand River at Hot Sulphur Springs, and as Grand River at Sulphur Springs 1907-13.

REVISED RECORDS.--WSP 1313: 1905. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,670 ft, from railroad elevations. July 28, 1904, to Apr. 16, 1906, nonrecording gage on bridge 1.7 mi downstream at different datum. Apr. 17, 1906, to Sept. 18, 1930, nonrecording gage at bridge 1.4 mi downstream at datum 7,651.26 ft, National Geodetic Vertical Datum of 1929. Supplemental water-stage recorder (nonrecording gage prior to Jan. 1, 1963) at different datum at site 1.7 mi downstream, used for winter records some years.

REMARKS.--Estimated daily discharges: Nov. 9-21, Dec. 3-6, Dec. 8 to Apr. 4. Records good except for estimated daily discharges, which are poor. Flow affected by transmountain diversions, storage reservoirs, and diversions upstream from station for irrigation of about 13,000 acres.

AVERAGE DISCHARGE.--39 years (1905-09, 1911-47), 675 ft³/s; 489,000 acre-ft, prior to storage by Lake Granby; 34 years (1954-87), 248 ft³/s; 179,700 acre-ft, subsequent to storage by Lake Granby.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 10,300 ft³/s, June 15, 1921, gage height, 8.7 ft, site and datum then in use; minimum daily, 33 ft³/s, Sept. 27, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 983 ft³/s at 0600 June 10, gage height, 2.09 ft; minimum daily, 42 ft³/s, Sept. 8.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	107	104	76	76	85	91	331	357	253	184	85
2	139	108	92	76	76	85	92	377	398	273	184	81
3	134	107	91	76	76	85	94	356	392	279	160	81
4	135	107	89	76	76	85	95	348	396	271	158	84
5	133	98	88	76	76	85	99	317	386	236	143	71
6	124	79	85	76	76	85	121	304	335	202	137	68
7	111	90	82	76	76	85	170	299	309	185	142	60
8	109	106	82	76	76	85	162	237	375	164	139	42
9	106	110	79	76	76	85	156	251	654	165	139	55
10	100	110	76	76	76	85	155	276	904	160	140	67
11	96	110	76	74	76	85	153	267	783	171	126	69
12	96	110	76	74	80	85	152	254	728	242	114	69
13	94	110	76	74	80	85	148	286	707	284	114	72
14	88	110	76	74	80	90	124	268	667	237	111	75
15	84	110	76	74	80	90	124	252	603	219	104	78
16	98	110	76	74	80	90	178	276	487	212	106	82
17	97	110	76	74	80	90	358	323	383	232	106	86
18	96	110	76	74	80	90	381	329	362	241	102	87
19	94	110	76	74	80	90	348	329	337	234	107	75
20	87	110	76	74	80	90	352	356	403	229	100	71
21	98	110	76	74	80	90	227	229	403	214	94	68
22	124	101	76	74	80	90	228	250	385	222	86	69
23	119	108	76	74	85	90	289	186	302	213	87	69
24	118	109	76	74	85	90	338	185	252	207	105	69
25	121	103	76	74	85	90	316	245	237	190	119	65
26	121	98	76	74	85	91	306	189	214	190	118	70
27	119	105	76	74	85	91	291	196	188	199	117	74
28	111	100	76	74	85	91	293	252	192	266	116	75
29	110	99	76	74	---	91	297	254	204	271	116	72
30	107	97	76	74	---	91	293	225	233	231	116	68
31	107	---	76	74	---	91	---	338	---	226	95	---
TOTAL	3408	3152	2464	2314	2226	2731	6431	8585	12576	6918	3785	2157
MEAN	110	105	79.5	74.6	79.5	88.1	214	277	419	223	122	71.9
MAX	139	110	104	76	85	91	381	377	904	284	184	87
MIN	84	79	76	74	76	85	91	185	188	160	86	42
AC-FT	6760	6250	4890	4590	4420	5420	12760	17030	24940	13720	7510	4280

CAL YR 1986 TOTAL 134442 MEAN 368 MAX 1590 MIN 64 AC-FT 266700
WTR YR 1987 TOTAL 56747 MEAN 155 MAX 904 MIN 42 AC-FT 112600

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1947 to current year.

WATER TEMPERATURES: April 1949 to current year.

REMARKS.--Limited temperature data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 524 microsiemens, Dec. 24, 1986; minimum daily, 48 microsiemens June 2, 1947.

WATER TEMPERATURES: Maximum daily, 29°C, Aug. 3, 1981; minimum daily, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 524 microsiemens, Dec. 24; minimum daily, 83 microsiemens June 12.

WATER TEMPERATURES: Maximum daily, 23°C, July 27; minimum daily, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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
DEC 11...	1540	71	136	8.2	0.0	11.2	59	18	3.3	6.9	0.4
APR 22...	0910	231	115	7.7	3.0	11.4	47	14	2.9	5.5	0.4
JUN 04...	0910	409	104	8.0	9.0	8.7	44	14	2.1	4.5	0.3
SEP 17...	0930	79	128	8.0	9.5	9.8	52	16	3.0	6.4	0.4

DATE	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 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)
DEC 11...	1.2	66	9.0	2.4	0.30	11	--	--	--	<0.10
APR 22...	2.1	53	12	2.3	0.20	10	81	0.11	50.6	<0.10
JUN 04...	1.3	50	10	2.3	0.30	11	76	0.10	83.6	<0.10
SEP 17...	1.3	61	6.3	1.5	0.20	10	81	0.11	17.3	<0.10

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
DEC 11...	<0.10	0.50	0.70	0.04	0.04	<1	2	<1	24	<0.5
APR 22...	<0.10	1.5	0.40	0.07	0.03	<1	1	<1	21	<0.5
JUN 04...	<0.10	0.90	0.40	0.07	0.02	<1	<1	<1	24	<0.5
SEP 17...	<0.10	0.50	0.30	0.04	0.04	<1	1	<1	20	<0.5

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANCA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 11...	<1	1	3	<1	3	2	98	<5	<5	39
APR 22...	--	<1	3	<1	--	<1	240	--	<5	35
JUN 04...	<1	<1	4	2	3	1	140	<5	<5	19
SEP 17...	<1	<1	10	<1	3	1	180	6	<5	11

COLORADO RIVER MAIN STEM

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
DEC 1986										
11...	<0.10	<0.1	<1	1	<1	<1	<1	<1.0	<10	<3
APR 1987										
22...	0.10	0.3	--	2	<1	<1	--	<1.0	<10	8
JUN										
04...	<0.10	<0.1	5	3	<1	<1	<1	<1.0	<10	5
SEP										
17...	<0.10	<0.1	<1	1	<1	<1	<1	<1.0	<10	<3

SPECIFIC CONDUCTANCE, (MICROSIEMENS PER CENTIMETER AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	155	158	142	144	135	125	110	114	151	136	109
2	151	153	309	148	160	145	126	109	108	147	134	114
3	158	156	151	140	145	138	124	109	106	143	129	118
4	151	152	193	141	140	138	138	109	110	141	128	130
5	156	153	147	141	137	141	137	107	114	140	127	122
6	160	154	330	150	157	141	134	105	117	151	124	125
7	145	151	142	148	160	148	110	105	124	149	124	126
8	150	143	147	149	138	156	145	110	126	152	124	128
9	152	150	303	149	171	159	146	104	102	156	125	126
10	110	151	153	145	151	164	136	108	87	149	126	122
11	145	188	164	148	135	165	149	109	84	149	124	123
12	---	239	162	147	137	167	148	106	83	148	123	124
13	148	322	159	148	151	155	146	111	86	147	124	125
14	148	147	152	141	156	156	150	110	89	147	124	126
15	147	148	135	140	146	157	148	109	98	150	123	126
16	147	151	148	140	165	159	151	107	98	154	123	133
17	150	148	138	137	173	157	132	104	106	133	125	128
18	148	306	162	139	173	151	122	102	109	133	121	132
19	---	153	137	138	167	153	116	110	112	138	124	130
20	---	151	147	139	154	156	105	105	113	134	123	134
21	152	153	141	147	153	154	114	109	106	138	120	144
22	140	157	137	144	156	151	121	---	109	135	118	137
23	147	150	270	139	168	148	120	116	117	135	116	133
24	152	151	---	137	152	155	123	117	124	131	119	134
25	158	321	145	138	169	150	116	120	138	132	117	137
26	157	151	129	134	167	148	116	121	140	129	114	135
27	162	150	157	137	140	125	113	116	143	130	114	135
28	163	146	146	144	134	128	112	107	145	131	118	136
29	158	147	139	153	---	131	113	108	146	134	116	138
30	157	148	140	140	---	146	108	109	149	129	114	136
31	154	---	138	141	---	126	---	114	---	127	115	---
MEAN	---	171	181	143	154	148	128	---	113	141	122	129

COLORADO RIVER MAIN STEM

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

TEMPERATURE, WATER, (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
ONCE DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.0	5.0	.0	.0	.0	.0	1.0	9.0	13.0	15.0	22.0	20.0
2	10.0	6.0	1.0	.0	.0	.0	.0	10.0	13.0	18.0	20.0	18.0
3	7.0	3.0	1.0	.0	.0	.0	3.0	6.0	15.0	19.0	20.0	18.0
4	9.0	1.0	1.0	.0	.0	.0	.0	8.0	14.0	17.0	20.0	13.0
5	9.0	6.0	.0	.0	.0	.0	7.0	7.0	14.0	17.0	20.0	17.0
6	12.0	4.0	1.0	.0	.0	.0	8.0	13.0	14.0	19.0	17.0	16.0
7	10.0	1.0	2.0	.0	.0	.0	4.0	10.0	14.0	18.0	18.0	12.0
8	12.0	.0	3.0	.0	.0	.0	8.0	13.0	12.0	15.0	21.0	17.0
9	9.0	.0	.0	.0	.0	1.0	3.0	16.0	12.0	17.0	21.0	17.0
10	10.0	.0	.0	.0	.0	1.0	5.0	12.0	12.0	15.0	19.0	15.0
11	10.0	.0	.0	.0	.0	1.0	1.0	13.0	12.0	14.0	15.0	16.0
12	---	.0	.0	.0	.0	1.0	3.0	10.0	14.0	12.0	20.0	17.0
13	8.0	.0	.0	.0	.0	.0	2.0	10.0	15.0	14.0	18.0	15.0
14	10.0	.0	---	.0	.0	.0	1.0	13.0	14.0	16.0	16.0	13.0
15	9.0	.0	.0	.0	.0	1.0	11.0	14.0	15.0	17.0	20.0	13.0
16	9.0	.0	.0	.0	.0	.0	6.0	16.0	11.0	18.0	20.0	9.0
17	8.0	2.0	.0	.0	.0	.0	9.0	14.0	15.0	17.0	17.0	13.0
18	9.0	4.0	.0	.0	.0	1.0	8.0	13.0	15.0	17.0	17.0	14.0
19	---	3.0	.0	.0	.0	5.0	8.0	12.0	15.0	16.0	19.0	14.0
20	---	3.0	.0	.0	.0	.0	4.0	13.0	18.0	18.0	17.0	14.0
21	6.0	4.0	.0	.0	.0	1.0	4.0	10.0	15.0	16.0	18.0	9.0
22	7.0	2.0	.0	.0	.0	1.0	6.0	---	15.0	21.0	13.0	13.0
23	4.0	1.0	.0	.0	.0	4.0	7.0	14.0	16.0	20.0	16.0	14.0
24	9.0	.0	.0	.0	.0	.0	8.0	11.0	19.0	19.0	16.0	9.0
25	8.0	2.0	.0	.0	.0	1.0	11.0	12.0	19.0	21.0	13.0	14.0
26	9.0	2.0	.0	.0	.0	2.0	12.0	13.0	20.0	20.0	18.0	16.0
27	8.0	.0	.0	.0	.0	1.0	9.0	11.0	20.0	23.0	14.0	13.0
28	9.0	1.0	.0	.0	.0	.0	9.0	12.0	19.0	17.0	16.0	13.0
29	8.0	1.0	.0	.0	---	.0	9.0	11.0	14.0	15.0	18.0	6.0
30	7.0	.0	.0	.0	---	.0	10.0	14.0	16.0	17.0	19.0	14.0
31	6.0	---	.0	.0	---	1.0	---	9.0	---	21.0	10.0	---
MEAN	---	1.50	---	.0	.0	.5	6.00	---	15.0	17.5	17.5	14.0

09034900 BOBTAIL CREEK NEAR JONES PASS, CO

LOCATION.--Lat 39°45'37", long 105°54'21", in sec.28, T.3 S., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 320 ft upstream from diversion dam and 0.4 mi south of entrance to August P. Gumlick Tunnel.

DRAINAGE AREA.--5.49 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 10,430 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 11-18, 21-23, Oct. 26 to June 7, and July 25-29. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years, 10.3 ft³/s; 7,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 199 ft³/s, June 25, 1983, gage height, 4.80 ft; maximum recorded gage height, 7.57 ft, May 15, 1984 (backwater from ice); minimum daily discharge, 0.44 ft³/s, Feb. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 90 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 19	1330	*79	*4.02				
Minimum daily, 0.76 ft ³ /s, Feb. 5 to Mar. 9.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	1.8	1.4	.96	.82	.76	.78	5.8	37	25	9.9	3.1
2	3.6	1.7	1.4	.96	.82	.76	.78	6.0	40	23	9.1	3.1
3	3.8	1.7	1.4	.96	.82	.76	.78	5.6	42	21	9.1	3.2
4	3.2	1.7	1.4	.96	.82	.76	.78	5.2	45	20	8.6	3.1
5	4.6	1.6	1.4	.94	.76	.76	.80	5.2	50	18	8.6	2.8
6	4.9	1.6	1.3	.94	.76	.76	.80	5.8	54	17	8.6	2.6
7	4.7	1.6	1.3	.94	.76	.76	.80	6.8	58	15	7.1	2.6
8	3.8	1.6	1.3	.94	.76	.76	.80	7.6	60	15	6.3	2.4
9	3.6	1.6	1.3	.94	.76	.76	.80	9.0	66	13	6.3	2.3
10	3.5	1.6	1.2	.92	.76	.78	.80	10	59	13	6.3	2.2
11	3.5	1.6	1.2	.92	.76	.78	.82	12	54	12	6.3	2.1
12	3.5	1.6	1.2	.92	.76	.78	.84	15	55	17	6.5	2.1
13	3.4	1.6	1.2	.92	.76	.78	1.0	18	52	13	6.9	2.1
14	3.4	1.6	1.2	.92	.76	.78	1.2	22	52	11	6.7	2.2
15	3.4	1.6	1.1	.90	.76	.78	1.7	26	50	11	6.7	2.4
16	3.2	1.6	1.1	.90	.76	.78	1.9	29	48	10	6.9	3.2
17	3.2	1.6	1.1	.90	.76	.78	2.3	28	42	12	7.1	3.4
18	3.1	1.6	1.1	.90	.76	.78	2.9	27	39	10	7.3	2.6
19	2.9	1.5	1.1	.90	.76	.78	3.2	27	36	9.6	7.7	2.2
20	3.3	1.5	1.0	.88	.76	.78	2.8	27	34	9.4	7.9	2.1
21	3.5	1.5	1.0	.88	.76	.78	2.5	27	34	8.6	8.2	1.9
22	3.0	1.5	1.0	.88	.76	.78	3.0	27	33	8.2	7.9	1.9
23	3.0	1.5	1.0	.88	.76	.78	4.2	26	32	7.8	7.6	1.8
24	2.7	1.5	1.0	.88	.76	.78	4.5	26	30	7.3	4.8	1.9
25	2.5	1.5	.98	.86	.76	.78	4.7	25	30	7.5	4.6	1.9
26	2.4	1.5	.98	.86	.76	.78	4.9	24	29	8.2	4.1	2.0
27	2.3	1.5	.98	.86	.76	.78	5.4	25	27	9.0	4.1	1.8
28	2.2	1.5	.98	.86	.76	.78	6.2	28	25	10	4.2	1.7
29	2.1	1.5	.98	.86	---	.78	6.6	30	30	8.8	3.7	1.9
30	2.0	1.4	.98	.86	---	.78	5.4	32	27	8.7	3.6	1.8
31	1.9	---	.96	.82	---	.78	---	34	---	11	3.3	---
TOTAL	100	47.2	35.54	28.02	21.52	24.00	73.98	602.0	1270	390.1	206.0	70.4
MEAN	3.23	1.57	1.15	.90	.77	.77	2.47	19.4	42.3	12.6	6.65	2.35
MAX	4.9	1.8	1.4	.96	.82	.78	6.6	34	66	25	9.9	3.4
MIN	1.9	1.4	.96	.82	.76	.76	.78	5.2	25	7.3	3.3	1.7
AC-FT	198	94	70	56	43	48	147	1190	2520	774	409	140
CAL YR 1986	TOTAL 5103.72	MEAN 14.0	MAX 109	MIN .96	AC-FT 10120							
WTR YR 1987	TOTAL 2868.76	MEAN 7.86	MAX 66	MIN .76	AC-FT 5690							

WILLIAMS FORK BASIN

09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

LOCATION.--Lat 39°46'44", long 105°55'40", in sec.20, T.3 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 700 ft downstream from Steelman Creek and 6.5 mi southeast of Leal.

DRAINAGE AREA.--16.3 mi².

PERIOD OF RECORD.--July 1933 to September 1941, published as Williams River below Steelman Creek, October 1965 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Elevation of gage is 9,800 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 21, 1933, nonrecording gage, and July 21, 1933, to Sept. 30, 1941, water-stage recorder at site 600 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 7 to May 5. Records fair except for estimated daily discharges, which are poor. Transmountain diversions upstream from station through August P. Gumlick Tunnel (station 09036000) since May 10, 1940. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 26.3 ft³/s; 19,060 acre-ft/yr, including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft³/s, June 21, 1938, gage height, 2.48 ft, site and datum then in use, from rating curve extended above 260 ft³/s; maximum gage height, 6.96 ft, May 15, 1984 (backwater from ice); minimum daily discharge, 0.20 ft³/s, Mar. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 165 ft³/s at 1500 June 9, gage height, 4.83 ft; minimum daily, 0.35 ft³/s, Jan. 1 to Apr. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.78	.44	.35	.35	.35	.35	1.9	66	57	24	8.9
2	.96	.78	.44	.35	.35	.35	.35	1.9	73	51	22	9.4
3	1.0	1.1	.44	.35	.35	.35	.35	1.6	79	48	21	9.3
4	.96	1.0	.43	.35	.35	.35	.35	1.5	99	45	19	9.8
5	.96	.57	.43	.35	.35	.35	.35	7.1	103	43	17	8.9
6	1.0	.66	.43	.35	.35	.35	.35	2.1	109	40	13	8.3
7	.96	.78	.42	.35	.35	.35	.35	2.6	119	38	1.1	8.5
8	2.3	.78	.42	.35	.35	.35	.35	3.0	121	36	.78	8.9
9	.90	.78	.42	.35	.35	.35	.35	3.6	153	34	.60	8.9
10	.84	.78	.41	.35	.35	.35	.35	3.8	143	32	.57	8.9
11	.78	.48	.41	.35	.35	.35	.35	13	134	32	.57	9.3
12	.72	.48	.41	.35	.35	.35	.35	4.4	134	41	6.6	9.8
13	1.0	.48	.40	.35	.35	.35	.35	4.7	129	35	14	10
14	.96	.48	.40	.35	.35	.35	.36	5.1	129	28	14	10
15	.96	.48	.40	.35	.35	.35	.41	5.6	125	26	12	13
16	.96	.48	.39	.35	.35	.35	.52	7.0	122	25	11	13
17	.90	.48	.39	.35	.35	.35	.60	6.5	105	30	11	18
18	.78	.47	.39	.35	.35	.35	.78	65	95	27	9.3	16
19	2.0	.47	.38	.35	.35	.35	.90	37	89	23	9.3	12
20	5.9	.47	.38	.35	.35	.35	.84	7.7	85	21	8.5	11
21	3.5	.47	.38	.35	.35	.35	.70	40	79	21	9.6	9.7
22	1.1	.46	.37	.35	.35	.35	.78	54	78	20	11	9.3
23	.78	.46	.37	.35	.35	.35	.96	56	74	19	16	8.5
24	.90	.46	.37	.35	.35	.35	1.2	53	69	19	16	4.5
25	.90	.46	.36	.35	.35	.35	1.3	49	64	18	15	1.2
26	.90	.45	.36	.35	.35	.35	1.4	46	63	19	12	1.1
27	1.2	.45	.36	.35	.35	.35	1.5	43	59	21	11	1.0
28	1.1	.45	.36	.35	.35	.35	1.7	42	56	29	11	1.1
29	1.3	.45	.36	.35	---	.35	2.0	42	70	25	11	1.1
30	.88	.44	.36	.35	---	.35	1.8	41	61	25	10	1.1
31	.72	---	.36	.35	---	.35	---	50	---	28	9.5	---
TOTAL	39.12	17.33	12.24	10.85	9.80	10.85	22.30	701.1	2885	956	347.42	250.5
MEAN	1.26	.58	.39	.35	.35	.35	.74	22.6	96.2	30.8	11.2	8.35
MAX	5.9	1.1	.44	.35	.35	.35	2.0	65	153	57	24	18
MIN	.72	.44	.36	.35	.35	.35	.35	1.5	56	18	.57	1.0
AC-FT	78	34	24	22	19	22	44	1390	5720	1900	689	497

CAL YR 1986 TOTAL 7420.77 MEAN 20.3 MAX 205 MIN .36 AC-FT 14720
WTR YR 1987 TOTAL 5262.51 MEAN 14.4 MAX 153 MIN .35 AC-FT 10440

09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO

LOCATION.--Lat 39°47'22", long 106°01'18", in NW¼SW¼ sec.16, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 1.0 mi upstream from Darling Creek and 1.9 mi southeast of Leal.

DRAINAGE AREA.--34.7 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1972, May 6, 1981 to Jan. 31, 1983, at site 0.6 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 5-18, and Nov. 30 to May 19. Records fair except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09036000). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years, 38.7 ft³/s; 27,680 acre-ft/yr. The figure published in the 1986 report was in error; the correct figure is, 21 years, 38.5 ft³/s; 27,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 677 ft³/s, June 24, 1971, gage height, 7.12 ft, site and datum then in use, from rating curve extended above 430 ft³/s; minimum daily, 2.7 ft³/s, Apr. 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 262 ft³/s at 1700 June 9, gage height, 4.33 ft; minimum daily, 6.0 ft³/s, Mar. 10 to Apr. 14.

REVISIONS.--Revised daily discharges, in cubic feet per second, for the period from July 18 to Sept. 30 are given below. These figures supersede those published in the report for 1986.

July 18.... 56	July 22....122	July 26.... 97	July 29.... 41		
19.... 54	23....127	27.... 87	30.... 36		
20.... 79	24....117	28.... 71	31.... 36		
21....139	25....106				
	TOTAL	MEAN	MAX	MIN	AC-FT
July 1986	4377	141	260	36	8680
Aug. 1.... 35	Aug. 9.... 31	Aug. 17.... 25	Aug. 25.... 24		
2.... 34	10.... 30	18.... 24	26.... 26		
3.... 33	11.... 29	19.... 24	27.... 23		
4.... 36	12.... 31	20.... 25	28.... 21		
5.... 33	13.... 30	21.... 26	29.... 22		
6.... 32	14.... 29	22.... 25	30.... 23		
7.... 35	15.... 27	23.... 26	31.... 24		
8.... 32	16.... 26	24.... 25			
	TOTAL	MEAN	MAX	MIN	AC-FT
August 1986	866	27.9	36	21	1720
Sept. 1.... 25	Sept. 9.... 20	Sept. 17.... 16	Sept. 24.... 15		
2.... 23	10.... 21	18.... 15	25.... 16		
3.... 22	11.... 20	19.... 15	26.... 17		
4.... 20	12.... 19	20.... 14	27.... 15		
5.... 19	13.... 18	21.... 14	28.... 15		
6.... 20	14.... 17	22.... 14	29.... 18		
7.... 21	15.... 17	23.... 14	30.... 17		
8.... 24	16.... 16				
	TOTAL	MEAN	MAX	MIN	AC-FT
September 1986	537	17.9	25	14	1070
Wtr Yr 1986	17247.5	47.3	340	5.8	34210

WILLIAMS FORK BASIN

09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	10	8.6	7.6	7.0	6.4	6.0	23	127	88	35	19
2	13	10	8.6	7.6	7.0	6.4	6.0	23	141	76	34	19
3	14	11	8.6	7.6	7.0	6.2	6.0	22	149	70	32	18
4	14	10	8.4	7.6	7.0	6.2	6.0	21	168	65	31	19
5	13	9.8	8.4	7.6	7.0	6.2	6.0	21	180	59	30	18
6	13	9.8	8.4	7.4	7.0	6.2	6.0	23	188	55	30	17
7	13	9.8	8.4	7.4	7.0	6.2	6.0	25	196	52	22	17
8	14	9.6	8.4	7.4	6.8	6.2	6.0	27	209	50	19	16
9	13	9.6	8.2	7.4	6.8	6.2	6.0	29	235	47	18	16
10	12	9.6	8.2	7.4	6.8	6.0	6.0	30	225	44	17	15
11	12	9.6	8.2	7.4	6.8	6.0	6.0	31	211	44	16	15
12	11	9.4	8.2	7.4	6.8	6.0	6.0	35	209	57	18	15
13	10	9.4	8.0	7.4	6.8	6.0	6.0	37	209	49	26	15
14	11	9.4	8.0	7.4	6.8	6.0	6.0	40	203	43	26	15
15	11	9.4	8.0	7.2	6.6	6.0	6.6	42	199	40	25	17
16	11	9.2	8.0	7.2	6.6	6.0	7.2	45	191	39	24	18
17	10	9.2	7.8	7.2	6.6	6.0	7.8	50	174	43	23	21
18	11	9.2	7.8	7.2	6.6	6.0	8.6	52	157	41	22	17
19	11	9.1	7.8	7.2	6.6	6.0	9.6	58	147	38	21	15
20	18	9.0	7.8	7.2	6.6	6.0	11	63	137	36	21	14
21	17	8.9	7.8	7.2	6.6	6.0	12	96	128	35	21	14
22	12	8.8	7.8	7.2	6.6	6.0	14	127	123	34	24	13
23	11	8.8	7.8	7.2	6.4	6.0	13	123	117	34	28	12
24	11	8.8	7.8	7.2	6.4	6.0	14	123	107	34	30	8.7
25	11	8.8	7.8	7.2	6.4	6.0	16	110	101	33	27	7.2
26	11	8.8	7.6	7.0	6.4	6.0	18	102	95	34	25	6.8
27	11	8.8	7.6	7.0	6.4	6.0	20	94	91	34	23	6.8
28	11	8.8	7.6	7.0	6.4	6.0	23	88	86	40	22	6.4
29	11	8.8	7.6	7.0	---	6.0	26	86	109	36	22	6.4
30	11	8.6	7.6	7.0	---	6.0	25	83	96	36	21	6.4
31	11	---	7.6	7.0	---	6.0	---	95	---	39	20	---
TOTAL	377	280.0	248.4	225.8	187.8	188.2	315.8	1824	4708	1425	753	423.7
MEAN	12.2	9.33	8.01	7.28	6.71	6.07	10.5	58.8	157	46.0	24.3	14.1
MAX	18	11	8.6	7.6	7.0	6.4	26	127	235	88	35	21
MIN	10	8.6	7.6	7.0	6.4	6.0	6.0	21	86	33	16	6.4
AC-FT	748	555	493	448	373	373	626	3620	9340	2830	1490	840
CAL YR 1986	TOTAL	17366.2	MEAN	47.6	MAX	340	MIN	5.8	AC-FT	34450		
WTR YR 1987	TOTAL	10956.7	MEAN	30.0	MAX	235	MIN	6.0	AC-FT	21730		

LOCATION.--Lat 39°48'20", long 106°01'05", in NE¼SW¼ sec.9, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 0.6 mi upstream from mouth and 1.4 mi southeast of Leal.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 64 ft³/s at 2100 June 9, gage height, 3.41; minimum daily, 2.3 ft³/s, Jan. 21 to Feb. 20.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.5	2.8	2.5	2.3	2.4	2.5	8.4	23	21	7.8	5.7
2	4.6	3.6	2.8	2.5	2.3	2.4	2.5	8.0	26	19	7.2	5.6
3	4.6	3.5	2.8	2.5	2.3	2.4	2.5	6.3	29	18	6.8	5.5
4	4.5	3.1	2.7	2.5	2.3	2.4	2.5	5.5	34	17	6.4	5.7
5	4.4	3.5	2.7	2.5	2.3	2.4	2.5	5.3	36	16	6.4	5.5
6	4.5	3.5	2.7	2.5	2.3	2.4	2.5	6.0	37	16	6.5	5.5
7	4.5	3.4	2.7	2.5	2.3	2.4	2.5	6.9	37	15	7.4	5.5
8	4.4	3.4	2.7	2.5	2.3	2.4	2.5	8.3	40	15	6.9	5.4
9	4.3	3.4	2.7	2.5	2.3	2.4	2.5	9.6	50	14	6.4	5.3
10	4.2	3.4	2.7	2.5	2.3	2.4	2.5	11	52	13	6.3	5.3
11	4.1	3.4	2.7	2.4	2.3	2.4	2.5	12	42	13	6.1	5.2
12	3.9	3.4	2.7	2.4	2.3	2.4	2.5	14	41	17	6.0	5.2
13	3.9	3.4	2.7	2.4	2.3	2.4	2.5	18	39	14	6.1	5.2
14	4.0	3.4	2.7	2.4	2.3	2.4	2.5	22	39	12	6.2	5.5
15	3.9	3.3	2.7	2.4	2.3	2.4	2.6	25	36	11	5.9	6.2
16	3.8	2.7	2.7	2.4	2.3	2.4	2.7	30	35	10	5.9	6.6
17	3.8	2.8	2.7	2.4	2.3	2.4	2.8	33	33	11	5.4	7.4
18	3.7	2.8	2.7	2.4	2.3	2.5	3.3	29	30	9.9	5.3	6.0
19	3.8	2.8	2.7	2.4	2.3	2.5	3.6	25	29	8.8	5.3	5.6
20	4.0	2.8	2.7	2.4	2.3	2.5	3.2	25	27	8.2	5.3	5.5
21	3.5	2.8	2.7	2.3	2.4	2.5	2.8	21	25	8.0	5.7	5.4
22	4.0	2.8	2.6	2.3	2.4	2.5	3.0	19	24	7.6	6.4	5.3
23	3.9	2.8	2.6	2.3	2.4	2.5	4.2	19	23	7.3	8.3	5.2
24	3.7	2.8	2.6	2.3	2.4	2.5	4.7	19	22	7.0	8.5	5.2
25	3.7	2.8	2.6	2.3	2.4	2.5	4.8	17	21	6.9	8.0	5.2
26	3.8	2.8	2.6	2.3	2.4	2.5	4.8	16	20	7.1	7.2	5.2
27	3.7	2.8	2.6	2.3	2.4	2.5	5.2	15	19	7.4	6.6	5.2
28	3.7	2.8	2.6	2.3	2.4	2.5	6.4	14	18	9.6	6.5	5.2
29	3.7	2.8	2.6	2.3	---	2.5	6.8	14	23	8.4	6.2	5.2
30	3.7	2.8	2.6	2.3	---	2.5	6.7	14	22	9.4	5.9	5.1
31	3.7	---	2.6	2.3	---	2.5	---	17	---	9.5	5.8	---
TOTAL	124.7	93.1	83.0	74.3	65.2	75.8	102.6	493.3	932	367.1	200.7	165.6
MEAN	4.02	3.10	2.68	2.40	2.33	2.45	3.42	15.9	31.1	11.8	6.47	5.52
MAX	4.7	3.6	2.8	2.5	2.4	2.5	6.8	33	52	21	8.5	7.4
MIN	3.5	2.7	2.6	2.3	2.3	2.4	2.5	5.3	18	6.9	5.3	5.1
AC-FT	247	185	165	147	129	150	204	978	1850	728	398	328
CAL YR 1986	TOTAL 4201.5		MEAN	11.5	MAX 79	MIN 2.2	AC-FT 8330					
WTR YR 1987	TOTAL 2777.4		MEAN	7.61	MAX 52	MIN 2.3						

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft³/s at 1630 June 13, gage height, 1.06 ft; minimum daily, 0.41 ft³/s, Mar. 6 to Apr. 5.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.5	.98	.74	.58	.44	.41	3.1	20	11	3.6	1.6
2	1.9	1.5	.96	.72	.57	.43	.41	2.9	21	10	3.2	1.6
3	1.7	1.4	.96	.72	.57	.43	.41	2.7	24	9.2	2.9	1.6
4	1.8	1.4	.96	.72	.56	.42	.41	2.5	28	8.4	2.6	1.7
5	1.7	1.4	.94	.70	.56	.42	.41	3.0	27	7.7	2.4	1.6
6	1.9	1.4	.94	.70	.55	.41	.42	3.9	28	6.9	2.6	1.5
7	1.8	1.4	.94	.68	.55	.41	.43	5.9	30	6.6	2.8	1.4
8	1.8	1.3	.92	.68	.54	.41	.44	6.5	34	6.2	2.5	1.3
9	1.7	1.3	.92	.68	.54	.41	.43	8.9	37	5.9	2.3	1.2
10	1.8	1.3	.92	.67	.53	.41	.42	11	34	5.5	2.3	1.2
11	1.9	1.3	.90	.67	.53	.41	.43	12	33	5.3	2.1	1.3
12	1.8	1.3	.90	.67	.52	.41	.45	13	34	6.6	2.1	1.4
13	1.8	1.2	.88	.67	.52	.41	.49	16	33	5.6	2.1	1.3
14	1.8	1.2	.88	.66	.51	.41	.58	18	32	4.7	2.1	1.4
15	1.8	1.2	.86	.66	.51	.41	.70	21	30	4.2	1.9	1.6
16	1.8	1.2	.86	.66	.50	.41	.80	25	28	3.8	2.1	2.0
17	1.8	1.2	.86	.65	.50	.41	1.0	25	24	5.1	2.0	2.1
18	1.7	1.2	.84	.65	.49	.41	1.2	22	22	4.3	2.0	1.7
19	1.7	1.1	.84	.64	.49	.41	1.4	19	21	3.5	1.8	1.4
20	1.7	1.1	.82	.64	.48	.41	1.5	17	19	3.3	1.8	1.3
21	1.7	1.1	.82	.63	.48	.41	1.3	14	18	3.1	2.1	1.2
22	1.7	1.1	.82	.63	.47	.41	1.4	13	17	3.0	2.3	1.1
23	1.6	1.1	.80	.62	.47	.41	1.6	13	16	2.8	3.1	1.0
24	1.6	1.0	.80	.62	.46	.41	1.8	13	15	2.6	2.7	.94
25	1.6	1.0	.80	.61	.46	.41	2.0	11	13	2.7	2.7	.98
26	1.6	1.0	.78	.61	.45	.41	2.2	11	13	3.1	2.3	1.1
27	1.6	1.0	.78	.60	.45	.41	2.4	11	12	3.0	2.0	1.1
28	1.6	1.0	.76	.60	.44	.41	2.6	9.7	11	4.6	2.0	1.0
29	1.5	1.0	.76	.59	---	.41	2.8	9.6	13	3.6	2.0	.96
30	1.5	.98	.76	.59	---	.41	2.9	9.5	12	3.7	1.7	.96
31	1.5	---	.74	.58	---	.41	---	14	---	4.0	1.6	---
TOTAL	53.1	36.18	26.70	20.26	14.28	12.80	33.74	367.2	699	160.0	71.7	40.54
MEAN	1.71	1.21	.86	.65	.51	.41	1.12	11.8	23.3	5.16	2.31	1.35
MAX	1.9	1.5	.98	.74	.58	.44	2.9	25	37	11	3.6	2.1
MIN	1.5	.98	.74	.58	.44	.41	.41	2.5	11	2.6	1.6	.94
AC-FT	105	72	53	40	28	25	67	728	1390	317	142	80
CAL YR 1986	TOTAL 2272.28		MEAN 6.23	MAX 46	MIN .50	AC-FT 4510						
WTR YR 1987	TOTAL 1535.49		MEAN 4.21	MAX 37	MIN .41	AC-FT 3050						

09035840 SOUTH FORK WILLIAMS FORK ABOVE TRIBUTARY NEAR PTARMIGAN PASS, CO

LOCATION.--Lat 39°42'13", long 105°58'54", in Grand County, Hydrologic Unit 14010001, on right bank, 1.5 mi upstream from Short Creek, 1.7 mi northeast of Ptarmigan Pass.

DRAINAGE AREA.--5.53 mi².

PERIOD OF RECORD.--October 1984 to October 1986, May to September 1987.

GAGE.--Water-stage recorder. Elevation of gage is 10,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Aug. 21-30, Sept. 14-19, 26-29. Records, good except for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 182 ft³/s, June 8, 1985, gage height, 2.17 ft; maximum gage height, 2.56 ft, May 1, 1985 (backwater from ice); minimum daily discharge, 1.1 ft³/s, Feb. 13-19, 1986.

EXTREMES FOR CURRENT YEAR--October, May to September: Maximum discharge, 83 ft³/s at 1930 June 9, gage height, 1.47 ft; minimum daily, 2.4 ft³/s, Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	---	---	---	---	---	---	---	28	13	6.1	2.8
2	3.7	---	---	---	---	---	---	---	29	12	5.7	2.7
3	3.4	---	---	---	---	---	---	---	33	12	5.2	2.6
4	3.5	---	---	---	---	---	---	---	41	11	4.9	2.6
5	3.6	---	---	---	---	---	---	6.6	39	11	4.7	2.6
6	4.0	---	---	---	---	---	---	7.6	44	10	4.8	2.7
7	3.7	---	---	---	---	---	---	12	50	9.6	5.0	2.7
8	3.9	---	---	---	---	---	---	12	60	9.3	4.4	2.6
9	4.4	---	---	---	---	---	---	15	69	8.8	4.4	2.6
10	3.5	---	---	---	---	---	---	16	60	8.4	4.3	2.6
11	---	---	---	---	---	---	---	18	57	8.2	4.2	2.7
12	---	---	---	---	---	---	---	19	54	9.7	4.1	2.7
13	---	---	---	---	---	---	---	23	53	8.7	4.1	2.6
14	---	---	---	---	---	---	---	25	52	7.7	4.1	3.0
15	---	---	---	---	---	---	---	30	48	7.3	4.0	3.3
16	---	---	---	---	---	---	---	41	44	7.0	3.9	3.7
17	---	---	---	---	---	---	---	41	35	8.2	3.9	4.1
18	---	---	---	---	---	---	---	35	31	7.4	3.8	3.7
19	---	---	---	---	---	---	---	30	28	6.6	3.7	3.0
20	---	---	---	---	---	---	---	28	26	6.2	3.7	2.6
21	---	---	---	---	---	---	---	24	24	5.9	4.0	2.4
22	---	---	---	---	---	---	---	22	22	5.6	4.6	2.5
23	---	---	---	---	---	---	---	23	21	5.4	4.9	2.6
24	---	---	---	---	---	---	---	22	19	5.2	4.6	2.5
25	---	---	---	---	---	---	---	20	17	5.2	4.1	2.5
26	---	---	---	---	---	---	---	18	16	5.5	3.8	2.6
27	---	---	---	---	---	---	---	17	15	5.5	3.5	2.8
28	---	---	---	---	---	---	---	16	14	7.4	3.2	2.6
29	---	---	---	---	---	---	---	15	18	6.5	3.1	2.5
30	---	---	---	---	---	---	---	15	15	6.3	3.0	2.5
31	---	---	---	---	---	---	---	20	---	7.0	3.0	---
TOTAL	---	---	---	---	---	---	---	---	1062	247.6	130.8	83.4
MEAN	---	---	---	---	---	---	---	---	35.4	7.99	4.22	2.78
MAX	---	---	---	---	---	---	---	---	69	13	6.1	4.1
MIN	---	---	---	---	---	---	---	---	14	5.2	3.0	2.4
AC-FT	---	---	---	---	---	---	---	---	2110	491	259	165

09035870 SOUTH FORK WILLIAMS FORK BELOW SHORT CREEK NEAR PTARMIGAN PASS, CO

LOCATION.--Lat 39°44'57", long 106°01'53", in Grand County, Hydrologic Unit 14010001 on left bank 3.25 mi downstream from Short Creek, 4.5 mi northwest of Ptarmigan Pass.

DRAINAGE AREA.--20.0 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,360 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6 to Mar. 31. Records good except for estimated daily discharges, which are poor. No diversions upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 302 ft³/s, June 8, 1985, gage height, 2.51 ft; minimum daily, 4.6 ft³/s, Feb. 12-19, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 145 ft³/s at 2100 June 7, gage height, 1.99 ft; minimum daily, 4.8 ft³/s, Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	12	9.4	6.4	5.5	5.3	5.1	39	73	55	20	10
2	16	12	9.4	6.4	5.5	5.4	5.2	38	79	49	19	10
3	15	13	9.2	6.2	5.5	5.3	5.4	30	83	45	18	10
4	15	12	9.2	6.2	5.5	5.3	5.1	26	92	43	17	11
5	15	12	9.2	6.2	5.4	5.4	4.8	24	95	40	16	10
6	17	12	9.1	6.2	5.4	5.2	5.5	26	99	38	16	9.8
7	16	12	8.8	6.2	5.4	5.2	5.7	32	108	35	18	9.5
8	16	12	8.6	6.2	5.3	5.2	5.7	38	117	34	16	9.4
9	15	12	8.4	6.2	5.3	5.2	5.2	47	126	32	15	9.1
10	14	12	8.2	6.2	5.3	5.3	5.0	52	120	30	15	9.0
11	14	11	8.0	6.2	5.2	5.2	5.2	56	113	29	14	9.1
12	15	11	8.0	6.2	5.3	5.2	5.3	61	113	36	14	9.3
13	14	11	7.8	6.2	5.2	5.2	5.7	73	113	32	14	9.1
14	14	11	7.6	6.2	5.2	5.2	6.3	84	111	28	14	9.5
15	14	10	7.4	6.2	5.2	5.2	6.7	90	109	26	13	12
16	13	10	7.4	6.0	5.2	5.2	8.0	106	104	24	13	12
17	14	10	7.2	6.0	5.2	5.3	10	113	95	29	12	14
18	12	10	7.0	6.0	5.2	5.4	12	106	89	27	11	12
19	12	10	6.8	6.0	5.2	5.3	14	98	84	23	11	10
20	13	10	6.8	5.8	5.2	5.2	15	98	80	21	11	9.5
21	12	10	6.6	5.8	5.2	5.2	13	88	76	20	11	9.2
22	13	10	6.4	5.8	5.2	5.2	14	79	73	19	13	9.2
23	13	10	6.4	5.8	5.2	5.2	17	77	70	18	17	8.8
24	13	10	6.4	5.6	5.2	5.2	21	77	66	18	18	8.6
25	12	10	6.4	5.6	5.2	5.2	21	70	62	17	16	8.5
26	13	10	6.4	5.6	5.2	5.2	24	64	60	18	14	8.6
27	13	10	6.4	5.6	5.2	5.2	27	59	58	18	13	9.3
28	13	10	6.4	5.5	5.2	5.2	31	55	56	26	12	8.5
29	13	9.8	6.4	5.5	---	5.2	34	53	65	22	12	8.2
30	12	9.6	6.4	5.5	---	5.2	35	52	60	21	12	8.2
31	12	---	6.4	5.5	---	5.2	---	59	---	23	11	---
TOTAL	429	324.4	234.1	185.0	147.8	162.4	377.9	1970	2649	896	446	291.4
MEAN	13.8	10.8	7.55	5.97	5.28	5.24	12.6	63.5	88.3	28.9	14.4	9.71
MAX	17	13	9.4	6.4	5.5	5.4	35	113	126	55	20	14
MIN	12	9.6	6.4	5.5	5.2	5.2	4.8	24	56	17	11	8.2
AC-FT	851	643	464	367	293	322	750	3910	5250	1780	885	578
CAL YR 1986	TOTAL	12128.7	MEAN	33.2	MAX	194	MIN	4.6	AC-FT	24050		
WTR YR 1987	TOTAL	8113.0	MEAN	22.2	MAX	126	MIN	4.8	AC-FT	16090		

WILLIAMS FORK BASIN

09035880 SOUTH FORK WILLIAMS FORK BELOW OLD BALDY MOUNTAIN, NEAR LEAL, CO

LOCATION.--Lat 39°45'32", long 106°02'08", in Grand County, Hydrologic Unit 14010001, on right bank 5.3 mi northwest of Ptarmigan Pass, and 3.6 mi south of Leal.

DRAINAGE AREA.--21.8 mi².

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,330 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 5 to May 5, July 29-30. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 285 ft³/s, June 19, 1986, gage height, 3.37 ft; minimum daily, 5.6 ft³/s, Feb. 12-19, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 186 ft³/s at 2030 June 7, gage height, 2.65 ft; minimum daily, 6.0 ft³/s, Mar. 5 to Apr. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	10	8.0	7.1	6.6	6.1	6.0	37	80	53	20	12
2	14	10	8.0	7.1	6.6	6.1	6.0	36	86	48	19	12
3	15	9.6	8.0	7.1	6.6	6.1	6.0	31	94	44	18	12
4	15	9.1	7.8	7.1	6.5	6.1	6.0	28	108	41	17	13
5	14	9.8	7.8	7.0	6.5	6.0	6.0	29	113	38	16	12
6	15	9.8	7.8	7.0	6.5	6.0	6.0	27	120	35	16	12
7	15	9.6	7.8	7.0	6.5	6.0	6.0	32	134	33	18	11
8	14	9.6	7.8	7.0	6.5	6.0	6.0	40	146	32	16	11
9	13	9.4	7.6	7.0	6.5	6.0	6.0	49	156	30	15	11
10	13	9.4	7.6	7.0	6.4	6.0	6.0	57	146	28	15	10
11	12	9.2	7.6	6.9	6.4	6.0	6.0	61	137	28	14	11
12	13	9.2	7.6	6.9	6.4	6.0	6.0	68	136	35	15	11
13	14	9.0	7.6	6.9	6.4	6.0	6.2	78	136	30	14	10
14	13	9.0	7.4	6.9	6.4	6.0	6.8	86	133	26	15	11
15	12	8.8	7.4	6.9	6.4	6.0	7.6	89	128	24	14	13
16	12	8.8	7.4	6.9	6.3	6.0	9.4	106	121	23	13	13
17	11	8.6	7.4	6.8	6.3	6.0	11	113	108	27	13	14
18	11	8.6	7.4	6.8	6.3	6.0	13	104	97	26	13	12
19	11	8.4	7.2	6.8	6.3	6.0	15	95	91	22	12	11
20	12	8.4	7.2	6.8	6.3	6.0	13	94	85	20	12	11
21	11	8.4	7.2	6.8	6.3	6.0	14	85	78	19	13	11
22	12	8.4	7.2	6.8	6.2	6.0	17	76	76	18	14	10
23	11	8.4	7.2	6.7	6.2	6.0	19	75	72	17	17	9.8
24	11	8.2	7.2	6.7	6.2	6.0	21	75	68	17	19	9.7
25	10	8.2	7.2	6.7	6.2	6.0	22	67	63	16	16	9.6
26	11	8.2	7.2	6.7	6.2	6.0	24	64	59	17	15	9.7
27	11	8.2	7.2	6.7	6.2	6.0	26	60	57	17	14	10
28	10	8.2	7.2	6.7	6.1	6.0	29	56	54	25	13	9.6
29	11	8.0	7.2	6.6	---	6.0	34	55	67	22	14	9.4
30	10	8.0	7.1	6.6	---	6.0	33	53	61	21	13	9.2
31	10	---	7.1	6.6	---	6.0	---	62	---	23	13	---
TOTAL	382	266.5	231.4	212.6	178.3	186.4	393.0	1988	3010	855	466	331.0
MEAN	12.3	8.88	7.46	6.86	6.37	6.01	13.1	64.1	100	27.6	15.0	11.0
MAX	15	10	8.0	7.1	6.6	6.1	34	113	156	53	20	14
MIN	10	8.0	7.1	6.6	6.1	6.0	6.0	27	54	16	12	9.2
AC-FT	758	529	459	422	354	370	780	3940	5970	1700	924	657

CAL YR 1986 TOTAL 13986.8 MEAN 38.3 MAX 245 MIN 5.6 AC-FT 27740
WTR YR 1987 TOTAL 8500.2 MEAN 23.3 MAX 156 MIN 6.0 AC-FT 16860

09035900 SOUTH FORK WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°47'45", long 106°01'48", in NE¼ sec.17, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 800 ft upstream from highway bridge, 0.6 mi upstream from mouth, and 1.2 mi southeast of Leal.

DRAINAGE AREA.--27.3 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,950 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 5 to Apr. 16. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years, 32.8 ft³/s; 23,760 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 464 ft³/s, June 15, 1978, gage height 3.37 ft; maximum gage height, 4.22 ft, Nov. 22, 1979 (backwater from ice); minimum daily discharge, 2.6 ft³/s, Mar. 6, 1967.

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)
June 9	2000	*143	*2.77				
Minimum daily, 8.6 ft ³ /s, Jan. 12-25.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	14	11	9.0	8.8	9.0	9.0	47	78	53	22	13
2	17	14	11	9.0	8.8	9.0	9.0	46	85	48	22	13
3	18	13	11	9.0	8.8	9.0	9.0	37	89	45	20	13
4	18	13	11	9.0	8.8	9.0	9.0	33	97	42	18	14
5	18	13	10	9.0	8.8	9.0	9.0	31	102	40	17	13
6	18	13	10	8.8	8.8	9.0	9.0	33	105	38	17	12
7	18	13	10	8.8	8.8	9.0	9.0	39	114	36	20	12
8	18	13	10	8.8	8.8	9.0	9.0	45	127	35	18	14
9	17	13	10	8.8	8.8	9.0	9.0	54	134	33	17	16
10	17	13	10	8.8	8.8	9.0	9.0	60	131	32	16	15
11	16	13	10	8.8	8.8	9.0	9.0	64	125	31	16	11
12	15	13	10	8.6	8.8	9.0	9.0	69	123	37	16	11
13	15	13	10	8.6	8.8	9.0	9.2	76	120	34	16	11
14	16	13	10	8.6	8.8	9.0	10	87	119	30	17	12
15	15	13	9.8	8.6	8.8	9.0	11	91	118	28	15	14
16	15	13	9.8	8.6	8.8	9.0	12	101	112	26	15	15
17	15	13	9.8	8.6	8.8	9.0	13	111	102	30	14	17
18	15	13	9.6	8.6	8.8	9.0	15	105	91	30	14	14
19	15	13	9.6	8.6	8.8	9.0	18	99	86	25	13	13
20	16	13	9.6	8.6	8.8	9.0	17	100	80	23	13	12
21	16	13	9.6	8.6	8.8	9.0	15	93	77	22	14	12
22	16	13	9.4	8.6	8.8	9.0	16	84	73	21	16	12
23	15	13	9.4	8.6	9.0	9.0	21	81	70	20	18	11
24	15	13	9.2	8.6	9.0	9.0	27	83	66	19	22	11
25	15	12	9.2	8.6	9.0	9.0	27	74	61	18	18	11
26	14	12	9.2	8.8	9.0	9.0	31	70	58	19	16	11
27	14	12	9.2	8.8	9.0	9.0	34	67	56	20	15	12
28	14	12	9.2	8.8	9.0	9.0	38	62	54	28	15	11
29	14	12	9.2	8.8	---	9.0	41	61	64	25	15	11
30	14	11	9.2	8.8	---	9.0	42	59	59	24	14	11
31	15	---	9.0	8.8	---	9.0	---	64	---	25	13	---
TOTAL	492	385	304.0	271.0	247.6	279.0	505.2	2126	2776	937	512	378
MEAN	15.9	12.8	9.81	8.74	8.84	9.00	16.8	68.6	92.5	30.2	16.5	12.6
MAX	18	14	11	9.0	9.0	9.0	42	111	134	53	22	17
MIN	14	11	9.0	8.6	8.8	9.0	9.0	31	54	18	13	11
AC-FT	976	764	603	538	491	553	1000	4220	5510	1860	1020	750

CAL YR 1986 TOTAL 14401.1 MEAN 39.5 MAX 242 MIN 6.9 AC-FT 28560
WTR YR 1987 TOTAL 9212.8 MEAN 25.2 MAX 134 MIN 8.6 AC-FT 18270

WILLIAMS FORK BASIN

09036000 WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°50'02", long 106°03'21", in sec.31, T.2 S., R.77 W., Grand County, Hydrologic Unit 14010001, on right bank at downstream side of bridge, 100 ft downstream from Kinney Creek, and 1.7 mi northwest of Leal.

DRAINAGE AREA.--89.5 mi².

PERIOD OF RECORD.--July 1933 to current year. Records since May 10, 1940, equivalent to earlier records if diversion to August P. Gumlick Tunnel is added to flow past station. Prior to October 1958, published as Williams River near Leal.

REVISED RECORDS.--WSP 1733: 1951. WSP 2124: Drainage area. WRD Colo. 1973: 1972.

GAGE.--Water-stage recorder. Elevation of gage is 8,790 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 16, 1953, at site 15 ft downstream at present datum.

REMARKS.--Estimated Daily discharges: Dec. 10-11, 25-29, Jan. 1-4, 10-12, 15-28, Feb. 19-25, Mar. 19, 22, 31, Apr. 4, May. 17-20. Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (see table below for figures of diversion). Diversions for irrigation of about 200 acres of hay meadows upstream from station and about 40 acres downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through August P. Gumlick Tunnel, provided by Colorado Division of Water Resources.

AVERAGE DISCHARGE.--54 years, 105 ft³/s; 76,070 acre-ft/yr, including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,720 ft³/s, June 10, 1952, gage height, 4.23 ft; maximum gage height, 5.46 ft, June 29, 1971 (backwater from log); minimum daily discharge, 13 ft³/s, at times in 1939, 1963, 1964, and 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 493 ft³/s at 2200 June 9, gage height, 3.02 ft; minimum daily, 17 ft³/s, Mar. 26, Apr. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	40	35	20	19	20	18	100	240	191	77	38
2	50	40	33	20	19	20	18	100	264	167	75	38
3	52	39	35	21	19	20	17	83	276	153	69	37
4	51	36	34	21	20	20	18	75	311	143	64	39
5	46	37	37	22	20	20	18	86	338	135	60	38
6	47	36	35	22	20	20	18	75	349	127	59	35
7	45	36	34	22	21	20	19	85	370	120	55	35
8	44	33	34	22	21	21	19	96	396	116	49	35
9	44	33	32	22	21	21	19	111	444	110	44	35
10	41	37	31	21	21	21	18	124	438	104	41	34
11	41	37	31	21	21	19	18	143	410	102	39	33
12	39	40	30	20	21	21	19	140	403	127	38	35
13	36	37	29	20	21	20	18	156	403	119	45	31
14	38	38	28	20	21	19	19	183	394	101	48	34
15	39	38	28	20	20	19	21	195	389	92	44	41
16	38	38	27	19	20	19	26	230	368	87	43	44
17	39	38	27	19	20	19	34	280	344	93	41	52
18	39	38	26	19	20	18	42	260	311	102	40	41
19	39	38	25	19	20	18	47	260	294	85	39	42
20	48	35	25	19	20	18	43	242	277	81	38	40
21	51	36	24	19	20	18	36	239	261	78	39	38
22	45	36	23	19	19	18	41	256	249	75	45	37
23	43	32	22	19	19	18	55	244	238	71	51	37
24	43	36	22	19	19	18	66	254	224	67	75	33
25	44	36	22	19	18	18	68	229	210	67	63	29
26	41	39	21	19	18	17	70	215	199	69	55	28
27	39	33	21	19	19	18	74	199	189	74	48	29
28	39	35	20	19	19	18	84	185	181	87	46	28
29	39	36	20	19	---	18	105	178	220	84	46	27
30	40	36	20	19	---	18	92	171	212	81	42	28
31	42	---	20	19	---	18	---	198	---	86	40	---
TOTAL	1335	1099	851	618	556	590	1160	5392	9202	3194	1558	1071
MEAN	43.1	36.6	27.5	19.9	19.9	19.0	38.7	174	307	103	50.3	35.7
MAX	53	40	37	22	21	21	105	280	444	191	77	52
MIN	36	32	20	19	18	17	75	75	181	67	38	27
AC-FT	2650	2180	1690	1230	1100	1170	2300	10700	18250	6340	3090	2120
a	594	355	184	152	62	94	322	1840	0	0	150	88

CAL YR 1986 TOTAL 44426 MEAN 122 MAX 776 MIN 16 AC-FT 88120
WTR YR 1987 TOTAL 26626 MEAN 72.9 MAX 444 MIN 17 AC-FT 52810

a-Diversions, in acre-feet, through August P. Gumlick Tunnel, furnished by Colorado Division of Water Resources.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82	68	56	31	30	33	39	161	137	58	25	18
2	79	65	56	31	30	33	39	170	193	44	23	18
3	76	64	56	32	30	33	40	143	184	33	22	18
4	77	59	54	33	30	33	40	130	220	29	21	17
5	73	61	54	33	31	33	41	139	296	26	20	17
6	71	59	54	34	31	33	41	141	359	23	19	17
7	73	58	54	34	32	33	41	158	362	22	35	16
8	73	58	52	34	34	33	41	176	307	25	58	16
9	71	58	51	34	35	35	41	200	303	23	54	15
10	70	58	49	34	35	35	42	218	284	21	42	15
11	68	58	48	32	35	35	43	245	238	22	15	15
12	67	58	47	31	35	35	42	216	229	30	15	15
13	62	58	46	31	35	35	42	229	226	36	15	15
14	62	58	45	31	35	34	42	251	216	25	16	16
15	64	58	44	31	35	34	55	252	234	23	15	35
16	62	58	43	30	34	34	75	278	216	22	15	53
17	62	58	42	30	34	34	85	328	205	22	14	62
18	62	58	41	30	34	34	93	316	182	22	13	55
19	62	58	40	30	34	34	95	332	185	19	13	46
20	67	58	39	30	34	34	87	288	223	18	13	44
21	71	56	38	30	33	35	72	241	199	17	13	43
22	70	56	37	30	33	37	75	229	146	16	14	42
23	68	56	36	30	33	40	94	188	100	15	15	40
24	67	56	35	30	33	42	112	202	82	15	28	38
25	67	56	34	30	33	44	114	192	70	15	25	36
26	65	56	33	30	33	41	124	173	62	16	22	36
27	65	56	32	30	33	38	120	141	53	18	20	36
28	65	56	31	30	33	38	132	116	48	16	19	35
29	65	56	31	30	---	39	152	105	60	18	19	35
30	68	56	31	30	---	39	151	94	76	24	18	37
31	70	---	31	30	---	39	---	91	---	29	18	---
TOTAL	2124	1748	1340	966	927	1109	2210	6143	5695	742	674	901
MEAN	68.5	58.3	43.2	31.2	33.1	35.8	73.7	198	190	23.9	21.7	30.0
MAX	82	68	56	34	35	44	152	332	362	58	58	62
MIN	62	56	31	30	30	33	39	91	48	15	13	15
AC-FT	4210	3470	2660	1920	1840	2200	4380	12180	11300	1470	1340	1790
CAL YR 1986	TOTAL	51955	MEAN	142	MAX	1010	MIN	22	AC-FT	103100		
WTR YR 1987	TOTAL	24579	MEAN	67.3	MAX	362	MIN	13	AC-FT	48750		

WILLIAMS FORK BASIN

09037500 WILLIAMS FORK NEAR PARSHALL, CO--Continued

PERIOD OF RECORD.--April 1986 to September 1987.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1986 to September 1987.

WATER TEMPERATURE: April 1986 to September 1987.

INSTRUMENTATION.--Water-quality monitor from April 1986 to September 1987 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 115 microsiemens Aug. 29, 1986; minimum, 37 microsiemens June 20, 1986.
WATER TEMPERATURE: Maximum daily, 23.0°C, July 26, 1987; minimum, 0.0°C, Oct. 13, 16-18, 22, Nov. 2, 4-12, 1986.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 111 microsiemens Aug. 12; minimum, 51 microsiemens June 8, 9, 11, 12.
WATER TEMPERATURE: Maximum, 23.0°C, July 26; minimum, 0.0°C, Oct. 13, 16-18, 22, Nov. 2, 4-12, 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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 DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	OXYGEN DEMAND, BIOCHEM 20 DAY, 20 DEG (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WHOLE WATER TOTAL FIELD MG/L AS CACO3
APR										
13...	1500	71	106	8.1	3.0	9.9	--	--	48	5
27...	1645	143	76	7.7	6.5	9.2	--	--	--	--
MAY										
06...	1240	150	70	8.2	7.5	8.7	0.4	1.3	30	0
JUN										
02...	1340	170	59	8.1	10.5	8.8	--	--	31	3
23...	1400	81	62	8.1	14.0	8.2	0.8	1.7	32	4
JUL										
20...	1400	18	96	8.0	18.5	7.8	--	--	55	10
SEP										
15...	1530	51	97	8.2	11.5	8.4	0.7	1.7	43	2

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	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)	SILICA, DIS- SOLVED (MG/L AS SI02)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
APR										
13...	15	2.6	3.0	1.3	43	7.0	1.2	0.3	11	59
27...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	9.2	1.7	2.3	1.1	31	6.6	0.8	0.2	9.3	42
JUN										
02...	9.9	1.5	1.6	0.7	28	6.5	0.5	0.3	7.6	38
23...	10	1.6	1.5	0.8	28	6.8	0.2	0.3	7.0	45
JUL										
20...	18	2.4	2.5	1.3	45	5.8	0.4	0.3	11	61
SEP										
15...	13	2.5	2.5	1.2	41	7.4	1.1	0.3	9.7	49

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)	RESIDUE VOLATILE, SUS- PENDED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	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)
APR									
13...	67	0.08	11.3	--	--	<0.01	<0.10	--	<0.01
27...	--	--	--	--	--	--	<0.10	--	<0.01
MAY									
06...	50	0.06	17.0	--	--	<0.01	<0.10	--	<0.01
JUN									
02...	45	0.05	17.4	--	--	--	<0.10	<0.10	0.02
23...	45	0.06	9.84	<1	<1	<0.01	0.10	--	<0.01
JUL									
20...	69	0.08	2.96	--	--	--	<0.10	<0.10	<0.01
SEP									
15...	62	0.07	6.75	--	--	<0.01	<0.10	--	<0.01

09037500 WILLIAMS FORK NEAR PARSHALL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO OCTOBER 1987

DATE	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)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
APR									
13...	--	--	0.30	--	--	0.02	--	0.01	--
27...	--	--	0.60	--	--	0.02	--	<0.01	--
MAY									
06...	--	--	1.1	--	--	0.02	--	0.01	--
JUN									
02...	0.03	0.18	0.20	<0.20	--	0.01	0.02	<0.01	<0.01
23...	--	--	0.40	--	0.50	0.01	--	0.03	--
JUL									
20...	<0.01	--	0.50	0.50	--	0.01	0.01	<0.01	<0.01
SEP									
15...	--	--	<0.20	--	--	<0.01	--	<0.01	--

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO OCTOBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	90	---	---	---	---	---	69	68	72	96	102
2	92	91	---	---	---	---	---	68	64	78	98	102
3	92	92	---	---	---	---	---	68	63	84	98	102
4	91	92	---	---	---	---	---	75	62	87	98	102
5	93	93	---	---	---	---	---	75	54	89	100	101
6	94	93	---	---	---	---	---	74	53	89	101	102
7	89	91	---	---	---	---	---	73	52	90	98	102
8	89	93	---	---	---	---	---	67	51	94	92	102
9	91	97	---	---	---	---	---	66	51	95	95	103
10	91	92	---	---	---	---	---	65	59	95	96	103
11	91	96	---	---	---	---	---	64	51	98	104	104
12	91	91	---	---	---	---	---	64	51	97	111	104
13	92	---	---	---	---	---	---	64	52	96	103	104
14	94	---	---	---	---	---	---	62	53	94	103	103
15	93	---	---	---	---	---	---	62	56	95	103	96
16	93	---	---	---	---	---	---	63	60	96	103	90
17	93	---	---	---	---	---	---	61	59	93	104	87
18	93	---	---	---	---	---	---	59	61	95	104	88
19	93	---	---	---	---	---	---	57	64	96	104	91
20	92	---	---	---	---	---	---	60	56	98	105	93
21	88	---	---	---	---	---	---	61	57	99	105	94
22	78	---	---	---	---	---	87	62	59	99	105	95
23	86	---	---	---	---	---	82	63	61	100	103	96
24	90	---	---	---	---	---	77	63	63	100	94	97
25	91	---	---	---	---	---	76	63	65	101	95	99
26	91	---	---	---	---	---	76	65	69	101	97	100
27	92	---	---	---	---	---	77	67	73	101	98	100
28	92	---	---	---	---	---	77	70	75	102	98	100
29	92	---	---	---	---	---	74	72	75	99	99	101
30	92	---	---	---	---	---	72	73	67	95	100	100
31	90	---	---	---	---	---	---	73	---	95	101	---
MEAN	91.0	---	---	---	---	---	---	66.1	60.1	94.3	100	98.8

WILLIAMS FORK BASIN

09037500 WILLIAMS FORK NEAR PARSHALL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO OCTOBER 1987

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO OCTOBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.1	3.0	4.8	1.5	---	---	---	---	---	---	---	---
2	9.2	4.5	3.6	.0	---	---	---	---	---	---	---	---
3	7.0	4.5	3.6	.5	---	---	---	---	---	---	---	---
4	6.7	3.5	3.7	.0	---	---	---	---	---	---	---	---
5	9.5	3.0	4.1	.0	---	---	---	---	---	---	---	---
6	9.7	3.0	2.3	.0	---	---	---	---	---	---	---	---
7	10.0	4.0	.8	.0	---	---	---	---	---	---	---	---
8	9.7	4.0	.0	.0	---	---	---	---	---	---	---	---
9	9.5	3.8	.0	.0	---	---	---	---	---	---	---	---
10	8.3	3.3	.0	.0	---	---	---	---	---	---	---	---
11	6.2	3.3	.0	.0	---	---	---	---	---	---	---	---
12	6.1	1.1	.1	.0	---	---	---	---	---	---	---	---
13	6.0	.0	---	---	---	---	---	---	---	---	---	---
14	6.6	.1	---	---	---	---	---	---	---	---	---	---
15	6.7	.5	---	---	---	---	---	---	---	---	---	---
16	6.8	.0	---	---	---	---	---	---	---	---	---	---
17	6.5	.0	---	---	---	---	---	---	---	---	---	---
18	7.0	.0	---	---	---	---	---	---	---	---	---	---
19	6.3	3.0	---	---	---	---	---	---	---	---	---	---
20	7.1	3.0	---	---	---	---	---	---	---	---	---	---
21	4.5	.5	---	---	---	---	---	---	---	---	---	---
22	3.8	.0	---	---	---	---	---	---	---	---	---	---
23	4.7	.5	---	---	---	---	---	---	---	---	---	---
24	5.6	1.2	---	---	---	---	---	---	---	---	---	---
25	5.2	1.5	---	---	---	---	---	---	---	---	---	---
26	6.2	.5	---	---	---	---	---	---	---	---	---	---
27	5.8	.5	---	---	---	---	---	---	---	---	---	---
28	5.7	.8	---	---	---	---	---	---	---	---	---	---
29	5.6	.5	---	---	---	---	---	---	---	---	---	---
30	6.1	1.5	---	---	---	---	---	---	---	---	---	---
31	3.3	1.7	---	---	---	---	---	---	---	---	---	---
MONTH	10.0	.0	---	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.8	4.1	13.2	6.7	14.8	7.9	22.2	12.3	19.6	9.1
2	---	---	5.8	3.1	12.0	5.5	18.5	8.3	22.0	12.7	18.3	10.4
3	---	---	3.5	2.2	12.5	5.5	19.3	8.8	20.6	13.2	16.8	9.2
4	---	---	6.5	1.9	12.8	5.5	19.2	8.7	21.0	11.5	14.1	10
5	---	---	7.8	2.7	11.4	6.7	17.8	8.8	20.2	11.3	16.5	7.7
6	---	---	11.6	3.0	11.0	6.6	18.9	8.7	17.3	11.8	14.7	6.9
7	---	---	11.8	3.3	9.5	6.0	17.3	9.3	19.2	12.8	14.1	6.9
8	---	---	12.0	4.3	9.4	6.5	16.8	9.1	19.3	11.9	16.3	6.3
9	---	---	12.3	4.3	8.5	6.5	19.1	8.8	19.4	11.5	16.1	8.1
10	---	---	12.2	4.5	10.8	5.2	16.8	9.0	19.2	12.1	15.0	7.2
11	---	---	8.3	4.9	11.3	5.7	13.9	9.6	20.1	11.5	15.6	6.5
12	---	---	9.0	3.9	10.7	6.2	13.6	9.1	19.8	11.4	15.9	6.4
13	---	---	11.1	3.9	12.5	6.5	17.1	7.4	16.9	11.5	13.8	7.3
14	---	---	9.1	5.2	13.6	7.5	18.9	8.4	17.0	10.4	15.2	7.2
15	---	---	10.9	4.9	12.0	7.6	20.3	9.1	19.1	9.7	11.2	8.5
16	---	---	10.9	5.6	13.4	7.6	19.8	9.8	19.7	10.3	11.9	6.5
17	---	---	9.4	4.9	10.6	7.1	16.9	10.9	18.1	9.6	11.2	6.6
18	---	---	8.7	5.0	12.2	6.7	19.1	9.0	19.2	8.9	12.0	4.3
19	---	---	8.3	4.3	13.7	7.2	20.1	9.6	19.5	8.8	12.5	4.4
20	---	---	7.4	5.7	13.0	7.8	19.6	9.5	16.9	9.7	12.3	5.4
21	---	---	7.0	4.5	14.1	7.7	19.4	10.0	17.2	10.6	13.1	5.3
22	10.2	.4	8.5	3.4	14.2	8.2	21.2	10.5	16.0	11.2	13.0	4.5
23	10.5	1.2	9.3	4.5	14.5	8.6	21.4	11.2	15.9	11.1	13.5	4.8
24	9.6	1.4	8.1	5.0	14.6	8.6	22.5	11.6	14.3	11.5	14.2	5.6
25	10.2	2.0	8.7	3.4	15.0	7.8	22.1	12.5	16.0	10.6	13.6	6.6
26	8.9	2.5	9.1	4.3	17.0	8.8	23.0	13.1	16.5	10.2	13.2	6.5
27	6.0	2.1	8.4	3.6	16.3	9.4	21.8	13.3	16.8	8.4	13.5	7.5
28	9.6	2.4	9.8	3.6	16.1	9.0	19.3	12.8	15.0	7.9	12.3	4.6
29	9.3	2.7	9.1	4.3	11.5	9.1	21.0	12.6	18.0	7.4	12.0	3.4
30	8.8	2.5	11.7	5.1	12.9	8.1	21.3	12.5	17.7	8.4	12.0	3.8
31	---	---	13.2	5.0	---	---	19.3	13.5	19.1	8.2	---	---
MONTH	---	---	13.2	1.9	17.0	5.2	23.0	7.4	22.2	7.4	19.6	3.4

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

09038000 WILLIAMS FORK RESERVOIR NEAR PARSHALL, CO

LOCATION.--Lat 40°02'06", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, at dam on Williams Fork, 2.1 mi upstream from mouth, and 2.2 mi southwest of Parshall.

DRAINAGE AREA.--230 mi².

PERIOD OF RECORD.--April 1939 to current year. Prior to October 1948, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Non recording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by city engineer of Denver); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by concrete-arch dam completed in October 1939; storage began April 1939; dam was enlarged Dec. 5, 1956, to Apr. 22, 1959. Enlarged capacity, 96,820 acre-ft, between elevations 7,634 ft, invert of outlet, and 7,811 ft, top of radial gates on spillway. No dead storage. Figures given represent usable contents. Reservoir is used for power development and to store water to compensate for water diverted through August P. Gumlick Tunnel. Water is released during periods of low flow in Colorado River to supply decreed prior water rights. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 97,130 acre-ft, July 9, 1962, elevation, 7,811.19 ft; no contents at times in 1958 (construction) and 1966 (drained for repairs).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 90,180 acre-ft, Oct. 1, elevation, 7,806.78 ft; minimum, 52,150 acre-ft, Apr. 15, elevation, 7,776.54 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	7,806.85	90,280	-
Oct. 31.	7,803.31	85,020	-5,260
Nov. 30.	7,798.57	78,350	-6,670
Dec. 31.	7,792.48	70,320	-8,030
CAL YR 1986			-2,700
Jan. 31.	7,785.18	61,500	-8,820
Feb. 28.	7,781.78	57,700	-3,800
Mar. 31.	7,777.93	53,580	-4,120
Apr. 30.	7,777.40	53,030	-550
May 31.	7,783.46	59,550	+6,520
June 30.	7,797.12	76,390	+16,840
July 31.	7,799.03	78,980	+2,590
Aug. 31.	7,799.38	79,460	+480
Sept. 30.	7,797.94	77,490	-1,970
WTR YR 1987			-12,790

09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO

LOCATION.--Lat 40°02'07", long 106°12'17", in SE¼ sec.23, T.1 N., R.79 W., Grand County, Hydrologic Unit 14010001, on left bank 400 ft downstream from Williams Fork Reservoir, 2.1 mi upstream from mouth, and 2.1 mi southwest of Parshall.

DRAINAGE AREA.--230 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1948 to September 1954, August 1958 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1958, published as Williams River below Williams Fork Reservoir.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,615.0 ft. (Denver Board of Water Commissioners Datum). See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1959.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Williams Fork Reservoir (station 09038000). Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09036000). Diversions upstream from station for irrigation of about 3,200 acres upstream from station and about 100 acres downstream from station. About 450 acres upstream from station irrigated by diversion into the drainage area.

AVERAGE DISCHARGE.--35 years, 130 ft³/s; 94,180 acre-ft/yr, adjusted for storage in Williams Fork Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft³/s, June 20, 1953, gage height, 8.50 ft, site and datum then in use, from rating curve extended above 1,500 ft³/s; no flow for part of Apr. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 188 ft³/s at 0830 Jan. 25, gage height, 1.98 ft; minimum daily, 15 ft³/s, Sept. 26 and 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	170	175	179	139	116	116	113	28	27	37	21
2	163	171	175	179	113	118	116	113	28	27	37	21
3	165	171	177	179	113	117	116	113	28	27	37	21
4	165	171	176	179	114	118	116	114	28	27	37	21
5	165	171	176	179	115	118	116	113	28	27	37	21
6	167	149	175	179	115	118	118	113	28	27	37	21
7	167	171	175	181	115	118	118	113	28	27	33	22
8	167	171	175	180	115	116	120	111	28	27	22	63
9	167	171	175	181	115	115	120	111	29	27	22	113
10	167	171	175	181	115	115	120	112	29	30	22	113
11	167	171	177	182	115	115	120	113	28	40	30	112
12	167	169	179	182	114	115	118	113	28	39	38	110
13	167	174	178	181	115	116	118	113	28	34	38	110
14	167	173	177	182	116	116	116	112	28	27	39	111
15	168	173	177	182	116	116	116	111	28	25	40	110
16	169	173	177	182	116	115	116	111	24	33	40	100
17	169	173	179	182	116	115	116	112	25	37	31	109
18	169	173	179	184	116	113	116	113	27	37	21	109
19	120	173	179	186	116	113	116	98	27	37	21	109
20	17	174	177	184	116	113	115	107	27	37	21	110
21	96	175	177	184	117	113	115	111	27	37	21	110
22	168	175	177	184	103	113	110	111	27	37	20	110
23	167	174	177	185	114	113	115	111	27	37	20	112
24	168	175	177	186	118	112	115	111	27	37	20	95
25	169	174	179	187	118	111	115	111	27	37	20	16
26	169	173	179	187	117	115	115	111	27	37	20	15
27	170	173	179	186	116	115	111	110	27	37	20	15
28	171	173	179	186	116	115	115	110	27	37	20	19
29	169	175	179	186	---	115	115	59	27	37	20	21
30	169	175	178	186	---	116	113	28	27	37	21	21
31	169	---	177	187	---	116	---	28	---	37	21	---
TOTAL	4878	5155	5491	5668	3244	3570	3482	3230	822	1026	863	2061
MEAN	157	172	177	183	116	115	116	104	27.4	33.1	27.8	68.7
MAX	171	175	179	187	139	118	120	114	29	40	40	113
MIN	17	149	175	179	103	111	110	28	24	25	20	15
AC-FT	9680	10220	10890	11240	6430	7080	6910	6410	1630	2040	1710	4090
CAL YR 1986	TOTAL	59236	MEAN	162	MAX	289	MIN	15	AC-FT	117500		
WTR YR 1987	TOTAL	39490	MEAN	108	MAX	187	MIN	15	AC-FT	78330		

09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO--Continued

PERIOD OF RECORD.--April 1986 to September 1987.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1986 to September 1987.

WATER TEMPERATURE: March 1986 to September 1987.

INSTRUMENTATION.--Water-quality monitor from March 1986 to September 1987 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 112 microsiemens Apr. 17-22, 25, 1987; minimum, 76 microsiemens June 19, July 28, 31, Aug. 1, 1986.

WATER TEMPERATURE: Maximum daily, 12.0°C, Aug. 15, 1986; Minimum, 2.8°C, Dec. 10, 1986.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 112 microsiemens Apr. 17-22, 25; minimum, 78 microsiemens Oct. 2-4, 7, 1986.

WATER TEMPERATURE: Maximum, 10.4°C, Oct. 12, 1986; Minimum, 2.8°C, Dec. 10.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L CACO3)	HARD- NESS WHOLE WATER TOTAL FIELD 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)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR												
13...	1400	122	112	8.1	4.0	8.3	48	0	15	2.6	3.1	1.5
MAY												
06...	1200	120	105	8.0	4.5	9.7	44	0	14	2.2	2.8	1.4
JUN												
02...	1300	32	107	8.1	5.5	9.8	50	2	16	2.4	2.8	1.6
23...	1310	24	104	8.0	6.5	10.2	47	1	15	2.4	2.6	1.3
JUL												
20...	1310	38	101	7.9	7.0	9.6	52	7	17	2.4	2.9	1.4
SEP												
15...	1440	123	96	7.9	8.0	6.1	53	9	17	2.6	2.9	1.4

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, 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 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR												
13...	52	6.4	0.8	0.3	12	67	73	0.09	22.1	<0.01	0.10	--
MAY												
06...	47	6.0	1.0	0.2	11	69	67	0.09	22.4	0.01	<0.10	--
JUN												
02...	48	6.5	0.8	0.4	11	68	70	0.09	5.88	--	<0.10	0.10
23...	46	7.8	0.7	0.2	10	75	68	0.10	4.86	<0.01	<0.10	--
JUL												
20...	45	7.5	0.8	0.3	9.9	65	69	0.09	6.67	--	<0.10	<0.10
SEP												
15...	44	12	0.7	0.2	11	68	74	0.09	22.6	<0.01	0.10	--

DATE	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, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHORHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHORHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHORHO, DIS- SOLVED (MG/L AS PO4)
APR												
13...	<0.01	--	--	--	0.20	--	0.30	0.03	--	0.01	--	--
MAY												
06...	0.01	--	0.29	--	0.30	--	--	0.02	--	0.01	--	--
JUN												
02...	0.01	0.03	0.59	0.77	0.60	0.80	--	0.02	0.02	0.01	0.01	0.03
23...	0.02	--	1.3	--	1.3	--	--	0.03	--	0.02	--	--
JUL												
20...	0.01	<0.01	0.59	--	0.60	0.90	--	0.02	0.01	<0.01	<0.01	--
SEP												
15...	<0.01	--	--	--	0.60	--	0.70	<0.01	--	<0.01	--	--

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09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	89	92	96	101	103	108	108	102	98	97	97
2	78	89	92	96	101	103	108	110	101	98	97	97
3	78	89	92	96	101	103	108	106	101	98	97	97
4	78	89	92	96	101	104	108	104	101	97	97	98
5	79	89	92	96	101	104	109	106	101	98	97	97
6	79	89	92	96	102	104	109	105	101	97	97	97
7	78	89	92	96	102	104	109	103	101	98	97	97
8	79	89	92	96	103	105	109	103	101	97	97	96
9	80	89	92	96	103	105	110	103	101	98	97	96
10	80	89	93	96	101	105	110	102	101	98	97	96
11	80	89	93	96	101	105	110	103	101	97	97	96
12	84	90	93	97	100	105	110	103	100	98	97	96
13	83	89	93	97	101	105	111	102	100	98	97	96
14	84	89	93	97	100	105	111	101	100	97	97	96
15	84	89	93	97	100	105	111	101	100	97	97	96
16	85	89	93	98	101	105	111	101	101	97	97	96
17	87	89	93	98	101	106	112	102	110	97	97	96
18	88	89	93	98	101	106	112	102	103	97	97	96
19	88	90	94	98	101	106	112	100	100	97	99	96
20	89	90	94	99	102	106	112	100	100	97	98	96
21	89	90	94	99	102	107	112	99	99	97	97	96
22	88	90	94	99	103	107	112	100	99	97	97	96
23	89	90	94	100	104	107	111	100	98	97	97	99
24	89	91	94	100	103	107	111	100	99	97	97	97
25	89	91	95	100	103	107	112	100	98	97	98	99
26	89	92	95	100	102	107	110	100	98	97	98	99
27	89	92	95	100	103	107	111	100	97	97	99	99
28	89	92	95	100	103	107	109	99	98	96	98	99
29	89	92	96	101	---	107	109	101	98	97	98	99
30	89	92	96	101	---	108	109	103	98	97	98	99
31	89	---	96	101	---	108	---	102	---	97	98	---
MEAN	84.5	89.8	93.5	97.9	102	106	110	102	100	97.3	97.4	97.0

09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	9.9	9.3	8.6	8.4	4.6	4.5	3.6	3.6	3.5	3.4	3.4	3.3
2	10.1	9.7	8.4	8.2	4.5	4.4	3.6	3.5	3.5	3.4	3.4	3.3
3	10.1	9.8	8.2	8.0	4.5	4.3	3.6	3.5	3.4	3.4	3.4	3.2
4	10.0	9.8	8.1	7.9	4.4	4.2	3.6	3.5	3.4	3.4	3.3	3.2
5	10	9.8	7.9	7.8	4.2	4.1	3.6	3.5	3.4	3.4	3.4	3.2
6	10.1	9.8	7.8	7.4	4.1	4.0	3.6	3.5	3.4	3.4	3.4	3.2
7	10.1	9.8	7.7	7.6	4.0	3.9	3.6	3.5	3.4	3.4	3.4	3.2
8	10.1	9.7	7.6	7.2	4.0	3.9	3.6	3.5	3.4	3.3	3.3	3.2
9	10.2	9.8	7.2	6.9	4.0	3.8	3.6	3.5	3.4	3.3	3.3	3.2
10	10.3	9.9	6.8	6.5	4.0	2.8	3.6	3.5	3.5	3.4	3.4	3.2
11	10.3	9.8	6.7	6.2	3.7	3.2	3.6	3.5	3.4	3.4	3.3	3.2
12	10.4	10	6.4	6.1	3.8	3.1	3.6	3.5	3.4	3.3	3.3	3.2
13	10.2	9.7	6.3	6.2	3.8	3.4	3.5	3.5	3.4	3.3	3.3	3.2
14	10.0	9.7	6.2	6.0	3.8	3.0	3.5	3.5	3.4	3.3	3.3	3.2
15	9.8	9.6	6.2	6.0	3.8	3.6	3.5	3.5	3.4	3.3	3.3	3.2
16	9.8	9.5	6.0	5.8	3.7	3.5	3.5	3.5	3.4	3.4	3.3	3.2
17	9.7	9.5	5.9	5.8	3.7	3.4	3.5	3.5	3.4	3.3	3.3	3.2
18	9.6	9.5	5.8	5.6	3.7	3.5	3.5	3.5	3.4	3.3	3.3	3.2
19	9.6	9.1	5.6	5.4	3.8	3.5	3.5	3.4	3.4	3.3	3.3	3.2
20	9.4	8.9	5.5	5.4	3.5	3.2	3.5	3.4	3.4	3.3	3.2	3.2
21	9.4	8.8	5.5	5.4	3.6	3.4	3.5	3.4	3.4	3.3	3.3	3.2
22	9.4	9.2	5.5	5.2	3.7	3.6	3.5	3.4	3.6	3.2	3.3	3.2
23	9.2	9.0	5.3	5.2	3.7	3.6	3.5	3.4	3.6	3.3	3.3	3.1
24	9.1	8.9	5.3	5.1	3.7	3.6	3.5	3.4	3.4	3.3	3.2	3.1
25	8.9	8.8	5.1	5.0	3.7	3.6	3.5	3.4	3.3	3.3	3.3	3.2
26	8.8	8.7	5.0	4.9	3.7	3.6	3.5	3.4	3.4	3.3	3.3	3.2
27	8.8	8.5	5.0	4.9	3.6	3.6	3.5	3.4	3.4	3.3	3.3	3.2
28	8.7	8.5	4.9	4.8	3.6	3.5	3.5	3.4	3.4	3.3	3.3	3.2
29	8.7	8.4	4.8	4.7	3.6	3.5	3.5	3.4	---	---	3.3	3.2
30	8.8	8.4	4.7	4.6	3.6	3.5	3.5	3.4	---	---	3.3	3.1
31	8.7	8.5	---	---	3.6	3.5	3.4	3.4	---	---	3.3	3.1
MONTH	10.4	8.4	8.6	4.6	4.6	2.8	3.6	3.4	3.6	3.2	3.4	3.1

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.3	3.1	3.9	3.6	5.3	4.6	6.6	6.0	7.3	6.8	8.0	7.0
2	3.3	3.1	3.9	3.6	5.2	4.5	6.7	5.9	7.3	6.8	7.9	7.1
3	3.3	3.2	4.1	3.6	5.3	4.6	6.7	5.9	7.2	6.7	7.8	7.0
4	3.3	3.1	4.1	3.8	5.5	4.7	6.6	5.9	7.2	6.7	7.8	7.0
5	3.2	3.1	4.1	3.7	5.6	5.0	6.6	5.9	7.3	6.7	7.8	6.9
6	3.3	3.1	4.0	3.8	5.6	5.0	6.7	6.0	7.1	6.8	7.6	6.8
7	3.2	3.1	4.6	3.8	5.7	5.1	6.7	6.0	7.3	6.9	7.6	6.8
8	3.3	3.1	4.3	3.8	5.7	5.2	6.7	6.1	7.5	6.8	7.8	6.8
9	3.3	3.1	5.7	3.9	5.6	5.2	6.9	6.1	7.5	6.7	8.0	7.3
10	3.3	3.1	4.3	3.9	5.9	5.1	6.6	6.0	7.5	6.8	8.1	7.3
11	3.2	3.2	7.5	4.0	5.9	5.1	6.6	6.1	7.5	6.8	8.0	7.3
12	3.2	3.1	4.6	4.1	5.9	5.1	6.5	6.2	7.4	6.9	8.0	7.3
13	3.2	3.1	4.9	4.1	6.0	5.2	6.7	6.2	7.4	6.8	8.0	7.3
14	3.3	3.1	4.9	4.1	6.1	5.3	6.9	6.2	7.4	6.9	7.8	7.4
15	3.3	3.1	4.8	4.1	6.3	5.3	7.0	6.2	7.4	6.8	7.8	7.4
16	3.3	3.1	5.0	4.2	6.2	5.4	6.8	6.2	7.6	6.9	7.8	7.4
17	3.3	3.1	4.9	4.1	6.0	5.3	6.9	6.3	7.7	6.8	8.2	7.4
18	3.3	3.1	5.4	4.1	6.2	5.3	6.9	6.3	7.6	6.8	8.5	7.5
19	3.4	3.2	6.2	4.5	6.1	5.3	7.0	6.3	7.7	6.8	8.4	7.4
20	3.3	3.2	5.6	4.5	6.2	5.4	6.9	6.3	7.7	6.9	8.2	7.4
21	3.4	3.3	6.2	4.5	6.3	5.4	7.1	6.4	7.5	7.0	8.0	7.4
22	3.8	3.3	5.8	4.4	6.2	5.5	7.0	6.6	7.5	7.2	8.0	7.5
23	3.5	3.4	5.5	4.4	6.3	5.5	7.1	6.4	7.7	7.1	7.9	7.5
24	3.5	3.4	5.8	4.5	6.4	5.6	7.2	6.6	7.6	7.2	8.1	7.3
25	3.5	3.4	5.9	4.5	6.5	5.6	7.1	6.7	7.5	7.1	7.8	7.0
26	3.6	3.4	5.5	4.6	6.7	5.7	7.2	6.7	7.6	6.9	8.0	6.9
27	4.5	3.6	6.6	4.5	6.7	5.8	7.2	6.8	7.7	6.8	7.9	6.9
28	3.7	3.6	6.1	4.7	6.6	5.7	7.2	6.8	7.6	6.7	7.6	6.7
29	3.8	3.6	6.1	4.6	6.2	6.0	7.3	6.7	7.7	6.8	7.7	6.8
30	3.8	3.6	5.0	4.5	6.5	5.9	7.3	6.7	7.8	6.8	7.7	6.9
31	---	---	5.2	4.5	---	---	7.3	6.8	7.8	6.8	---	---
MONTH	4.5	3.1	7.5	3.6	6.7	4.5	7.3	5.9	7.8	6.7	8.5	6.7

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

TROUBLESOME CREEK BASIN

09039000 TROUBLESOME CREEK NEAR PEARMONT, CO

LOCATION.--Lat 40°13'03", long 106°18'45", in SE¼ sec.14, T.3 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 45 ft downstream from small tributary, 3 mi north of Pearmont, 4 mi downstream from Rabbit Ear Creek, 5.2 mi upstream from East Fork, and 12 mi northeast of Kremmling.

DRAINAGE AREA.--44.6 mi².

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,049 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 11, 20, 21, and Nov. 23 to Mar. 25. Records good except for estimated daily discharges, which are poor. One diversion upstream from station for irrigation of about 250 acres downstream from station. Flow partly regulated during irrigation season by one reservoir, capacity, 1,070 acre-ft, upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years, 30.8 ft³/s; 22,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s, June 25, 1983, gage height, 2.81 ft; maximum gage height, 3.93 ft, Mar. 31, 1965 (backwater from ice); minimum daily discharge, 4.5 ft³/s, Dec. 20-24, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 151 ft³/s at 2100 May 18, gage height, 1.74 ft; minimum daily, 7.2 ft³/s, Sept. 22-24, 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	21	17	10	11	13	23	77	82	41	17	8.8
2	21	20	16	10	11	13	23	78	80	37	17	9.1
3	21	19	15	10	11	13	23	70	78	36	16	9.0
4	21	20	15	10	11	13	23	64	56	35	16	9.1
5	21	20	15	10	11	15	23	63	54	35	16	9.2
6	20	19	14	10	11	15	22	63	57	35	16	8.9
7	20	19	13	10	11	15	22	68	57	34	22	8.6
8	20	20	13	10	11	15	22	77	59	33	20	8.6
9	20	21	13	10	11	15	22	82	59	33	17	8.6
10	20	20	12	10	11	15	22	97	58	32	15	8.3
11	21	20	10	10	12	15	22	103	56	34	14	8.3
12	19	20	10	10	12	15	22	101	52	41	14	8.1
13	18	23	10	10	12	15	22	103	48	36	13	8.0
14	18	24	10	10	12	15	22	113	46	33	16	7.9
15	18	23	10	10	12	15	22	119	43	29	14	8.2
16	18	18	10	10	12	15	24	130	40	17	14	8.3
17	17	18	10	10	12	15	27	142	36	19	14	8.0
18	18	18	10	10	12	15	30	142	35	20	14	7.6
19	17	18	10	10	12	15	31	130	34	18	13	7.5
20	19	18	10	10	12	15	29	129	33	18	13	7.5
21	19	18	10	10	12	15	26	126	32	15	12	7.4
22	20	18	10	10	12	15	27	114	35	13	7.8	7.2
23	20	18	10	10	12	15	32	106	40	12	8.1	7.2
24	19	18	10	10	12	15	43	110	37	13	8.9	7.2
25	19	18	10	10	13	16	59	107	42	13	9.1	7.3
26	19	18	10	11	13	17	57	98	38	17	8.4	7.4
27	19	18	10	11	13	15	60	89	37	20	8.2	7.4
28	20	17	10	11	13	18	68	80	38	16	8.1	7.2
29	19	17	10	11	---	21	71	76	40	16	8.1	7.2
30	19	17	10	11	---	23	70	73	41	17	7.9	7.2
31	21	---	10	11	---	23	---	78	---	17	8.0	---
TOTAL	601	576	353	316	330	485	989	3008	1443	785	405.6	240.3
MEAN	19.4	19.2	11.4	10.2	11.8	15.6	33.0	97.0	48.1	25.3	13.1	8.01
MAX	21	24	17	11	13	23	71	142	82	41	22	9.2
MIN	17	17	10	10	11	13	22	63	32	12	7.8	7.2
AC-FT	1190	1140	700	627	655	962	1960	5970	2860	1560	805	477

CAL YR 1986 TOTAL 17605.0 MEAN 48.2 MAX 323 MIN 10 AC-FT 34920
WTR YR 1987 TOTAL 9531.9 MEAN 26.1 MAX 142 MIN 7.2 AC-FT 18910

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LOCATION.--Lat 40°03'37", long 106°23'48", in SW¼SE¼ sec. 7, T.1 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 450 ft upstream from U.S. Highway 40 bridge at Kremmling and 2.8 mi upstream from mouth.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 7,340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Supplementary recorder on diversion ditch about 2,000 ft downstream from point of diversion.

AVERAGE DISCHARGE.--5 years, 131 ft³/s; 94,910 acre-ft/yr.

EXTREMES FOR CURRENT YEAR.--Maximum combined discharge, 640 ft³/s at 1200 Apr. 29, gage height, 7.23 ft; minimum daily, 12 ft³/s, Sept. 28-30.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	32	15	15	16	22	30	557	127	78	30	18
2	32	32	15	15	17	22	32	524	120	68	29	18
3	33	32	15	15	18	23	36	420	98	63	27	18
4	36	33	15	15	18	23	42	336	95	59	26	18
5	44	28	15	15	18	23	50	300	104	56	25	18
6	39	26	15	15	18	24	60	297	105	55	24	18
7	36	24	15	15	18	24	80	311	105	54	23	18
8	33	22	15	15	18	24	99	350	105	69	22	17
9	32	21	15	15	18	24	144	350	120	63	22	17
10	37	20	15	15	18	25	91	384	150	56	21	17
11	36	20	15	15	19	25	91	381	116	50	21	17
12	37	19	15	15	19	25	96	354	105	68	20	17
13	33	19	15	15	19	26	63	326	98	80	20	17
14	32	19	15	15	19	26	52	325	94	69	19	17
15	32	19	15	15	19	26	77	320	92	53	19	17
16	32	19	15	15	19	27	184	299	90	46	19	17
17	31	19	15	15	19	27	255	315	88	39	19	17
18	29	19	15	15	20	28	262	292	86	37	19	17
19	27	19	15	15	20	28	334	296	84	36	19	17
20	30	18	15	15	20	28	339	270	80	36	19	17
21	32	18	15	15	20	29	212	270	79	35	19	17
22	32	17	15	15	21	29	205	277	77	33	19	17
23	32	17	15	15	21	30	253	215	76	32	19	17
24	32	17	15	15	21	30	306	179	74	30	26	16
25	32	17	15	15	21	31	373	193	72	27	21	15
26	32	17	15	15	22	31	393	159	70	33	20	14
27	32	17	15	15	22	31	438	137	68	60	19	13
28	32	16	15	15	22	30	493	139	67	37	19	12
29	32	16	15	15	---	32	567	150	100	35	19	12
30	32	16	15	15	---	27	563	151	90	33	19	12
31	32	---	15	15	---	30	---	138	---	31	18	---
TOTAL	1028	628	465	465	540	830	6220	9015	2835	1521	661	492
MEAN	33.2	20.9	15.0	15.0	19.3	26.8	207	291	94.5	49.1	21.3	16.4
MAX	44	33	15	15	22	32	567	557	150	80	30	18
MIN	27	16	15	15	16	22	30	137	67	27	18	12
AC-FT	2040	1250	922	922	1070	1650	12340	17880	5620	3020	1310	976
CAL YR 1986	TOTAL 52971	MEAN 145	MAX 995	MIN 15	AC-FT 105100							
WTR YR 1987	TOTAL 24700	MEAN 67.7	MAX 567	MIN 12	AC-FT 48990							

MUDDY CREEK BASIN

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1985 to September 1987.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1986 to September 1987.

WATER TEMPERATURES: April 1986 to September 1987.

INSTRUMENTATION.--Water-quality monitor since April 1986.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum mean, 1,610 microsiemens July 29, 1987; minimum mean, 212 microsiemens May 22, 1986.

WATER TEMPERATURES: Maximum, 24.8°C, July 26, 1987; minimum 0.0°C, on many days during winter.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum mean, 1,610 microsiemens July 29, 1987; minimum mean, 261 microsiemens May 11, 1987.

WATER TEMPERATURES: Maximum 24.8°C, July 26, 1987; minimum, 0.0°C, on many days during winter..

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	OXYGEN DEMAND, BIOCHEM UNINHIB 20 DAY (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT												
09...	1010	31	845	8.1	8.0	--	9.0	--	--	380	88	38
JAN												
28...	1120	40	700	7.8	0.0	13	7.9	--	--	290	76	24
MAR												
27...	1300	31	985	8.1	0.0	20	10.2	--	--	400	82	48
APR												
28...	0730	440	315	8.0	7.0	--	8.7	1.0	3.4	130	35	11
29...	1250	652	285	7.7	8.0	500	8.6	--	--	110	30	8.7
MAY												
01...	1130	569	275	7.8	7.5	270	8.7	--	--	120	32	9.0
05...	1145	295	327	7.9	7.0	95	9.0	--	--	140	37	11
08...	1125	308	281	8.1	9.5	86	8.4	--	--	110	30	9.0
13...	1230	262	305	8.0	9.0	--	8.8	--	--	120	31	9.4
14...	1305	283	288	8.1	11.5	82	8.1	--	--	120	31	9.2
21...	1150	224	555	7.9	9.5	87	8.4	--	--	240	60	23
JUN												
02...	1200	--	--	--	--	--	--	1.2	3.2	--	--	--
04...	1245	36	1020	8.4	15.0	17	8.7	--	--	520	140	42
23...	1200	29	1120	8.2	19.5	--	7.4	1.3	3.2	--	--	--
JUL												
16...	1430	45	1230	8.1	19.5	22	7.3	--	--	660	170	57
20...	1640	36	1520	8.4	20.5	--	7.2	--	--	810	200	76
AUG												
14...	1015	19	1060	8.0	16.5	52	7.4	--	--	540	130	52
17...	1450	13	1080	8.4	18.0	--	6.8	2.7	5.8	--	--	--
SEP												
15...	1300	14	1310	8.3	13.5	--	7.7	--	--	620	140	65
17...	1415	17	1200	8.1	12.0	19	8.5	--	--	600	140	60

MUDDY CREEK BASIN

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09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER QUALITY DATA, WATER OCTOBER 1986 TO SEPTEMBER 1987

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	PERCENT SODIUM	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT												
09...	44	20	1	3.3	158	310	5.8	0.20	7.1	--	590	0.80
JAN												
28...	28	17	0.7	2.2	153	210	4.8	0.30	11	456	--	0.62
MAR												
27...	66	26	1	3.2	166	390	12	0.20	8.9	725	710	0.99
APR												
28...	13	17	0.5	2.3	99	67	1.7	0.20	9.6	208	200	0.28
29...	10	16	0.4	2.4	94	66	1.5	0.10	8.5	185	180	0.25
MAY												
01...	10	15	0.4	2.1	83	49	1.2	0.10	9.4	151	160	0.21
05...	13	17	0.5	1.6	87	75	1.7	0.20	10	204	200	0.28
08...	9.8	16	0.4	1.4	76	66	1.4	0.20	9.0	172	170	0.23
13...	11	17	0.5	1.3	70	79	1.5	0.10	9.1	190	180	0.26
14...	10	16	0.4	1.6	72	76	1.4	0.20	8.7	199	180	0.27
21...	26	19	0.7	2.2	101	200	2.0	<0.10	9.3	390	380	0.53
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
04...	36	13	0.7	3.2	187	430	11	0.20	10	779	780	1.1
23...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
16...	45	13	0.8	3.3	222	510	14	0.40	7.7	983	940	1.3
20...	68	15	1	3.7	213	690	5.7	0.30	8.5	1240	1200	1.7
AUG												
14...	50	17	1	3.1	171	450	5.0	0.30	6.3	825	800	1.1
17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
15...	66	19	1	3.5	149	580	8.5	0.40	4.9	1010	960	1.4
17...	64	19	1	3.4	180	510	7.0	0.30	5.1	929	899	1.26

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	SOLIDS, VOLATILE, SUS- PENDED (MG/L)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)
OCT											
09...	49	--	--	--	--	--	<0.10	--	<0.01	--	0.79
JAN											
28...	49	--	--	--	--	--	0.20	--	0.06	--	0.34
MAR											
27...	61	40	--	--	--	--	0.20	--	0.08	--	0.72
APR											
28...	247	--	--	0.07	0.03	--	0.10	--	0.09	--	2.8
29...	326	--	--	--	--	--	0.10	--	0.11	--	6.9
MAY											
01...	232	1000	--	--	--	<0.01	0.10	0.10	0.12	0.02	2.2
05...	162	--	--	--	--	--	<0.10	--	0.08	--	1.1
08...	143	--	--	--	--	--	<0.10	--	0.05	--	1.7
13...	134	154	50	--	--	--	<0.10	<0.10	0.03	0.03	0.57
14...	152	--	--	--	--	--	<0.10	--	0.04	--	2.6
21...	236	--	--	--	--	--	<0.10	--	0.05	--	0.95
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
04...	76	--	--	--	--	--	<0.10	--	0.05	--	0.35
23...	--	--	--	--	--	--	--	--	--	--	--
JUL											
16...	119	51	--	--	--	--	<0.10	--	0.10	--	0.70
20...	121	48	3	--	--	--	<0.10	<0.10	0.06	0.06	0.74
AUG											
14...	43	--	--	--	--	--	<0.10	--	0.04	--	0.16
17...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	38	29	3	--	--	--	<0.10	--	0.04	--	0.16
17...	42	33	--	--	--	<0.01	<0.10	<0.10	0.03	0.02	0.47

MUDDY CREEK BASIN

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER QUALITY DATA, WATER OCTOBER 1986 TO SEPTEMBER 1987

DATE		NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)
OCT											
09...		--	0.80	--	--	0.04	--	<0.01	--	--	--
JAN											
28...		--	0.40	--	0.60	0.03	--	0.01	--	--	--
MAR											
27...		--	0.80	--	1.00	0.06	--	0.01	--	5.5	4.6
APR											
28...		--	2.90	--	3.00	0.07	--	0.05	--	46	--
29...		--	7.00	--	7.10	1.90	--	0.07	--	--	--
MAY											
01...		0.78	2.30	0.80	2.40	0.09	0.03	0.09	0.01	21	6.8
05...		--	1.20	--	--	0.28	--	0.03	--	--	--
08...		--	1.70	--	--	0.35	--	0.03	--	--	--
13...		0.77	0.60	0.80	--	0.12	0.02	0.02	<0.01	9.1	--
14...		--	2.60	--	--	0.26	--	0.02	--	--	--
21...		--	1.00	--	--	0.23	--	0.02	--	--	--
JUN											
02...		--	--	--	--	--	--	--	--	--	--
04...		--	0.40	--	--	0.07	--	0.02	--	8.9	8.5
23...		--	--	--	--	--	--	--	--	--	--
JUL											
16...		--	0.80	--	--	0.06	--	0.02	--	8.9	8.8
20...		0.64	0.80	0.70	--	0.04	0.02	<0.01	<0.01	8.9	--
AUG											
14...		--	0.20	--	--	0.11	--	0.02	--	--	--
17...		--	--	--	--	--	--	--	--	--	--
SEP											
15...		--	0.20	--	--	0.01	--	<0.01	--	--	--
17...		0.28	0.50	0.30	--	0.05	<0.01	<0.02	<0.01	5.7	6.0

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
OCT												
09...	1010	--	--	--	--	--	--	80	--	--	--	--
JAN												
28...	1120	--	--	--	--	--	--	--	--	--	--	--
MAR												
27...	1300	--	--	--	--	--	--	--	--	--	--	--
APR												
28...	0730	--	--	--	--	--	--	--	--	--	--	--
29...	1250	--	--	--	--	--	--	--	--	--	--	--
MAY												
01...	1130	11000	3	<1	200	44	<10	20	<1	<1	20	<10
05...	1145	--	--	--	--	--	--	--	--	--	--	--
08...	1125	--	--	--	--	--	--	--	--	--	--	--
13...	1230	--	--	--	--	--	--	--	--	--	--	--
14...	1305	--	--	--	--	--	--	--	--	--	--	--
21...	1150	--	--	--	--	--	--	--	--	--	--	--
JUN												
02...	1200	--	--	--	--	--	--	--	--	--	--	--
04...	1245	--	--	--	--	--	--	--	--	--	--	--
23...	1200	--	--	--	--	--	--	--	--	--	--	--
JUL												
16...	1430	--	--	--	--	--	--	--	--	--	--	--
20...	1640	--	--	--	--	--	--	--	--	--	--	--
AUG												
14...	1015	--	--	--	--	--	--	--	--	--	--	--
17...	1450	--	--	--	--	--	--	--	--	--	--	--
SEP												
15...	1300	--	--	--	--	--	--	--	--	--	--	--
17...	1415	1300	2	<1	100	82	<10	140	<1	<1	<10	<10

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER QUALITY DATA, WATER OCTOBER 1986 TO SEPTEMBER 1987

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)
OCT												
09...	--	--	--	--	18	--	--	--	--	--	--	--
JAN												
28...	--	--	--	--	33	--	--	--	--	--	--	--
MAR												
27...	--	--	--	--	18	--	--	--	--	--	--	--
APR												
28...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	130	--	--	--	--	--	--	--
MAY												
01...	8	40	6	20000	170	20	9	<5	420	17	<0.1	0.10
05...	--	--	--	--	82	--	--	--	--	--	--	--
08...	--	--	--	--	120	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	94	--	--	--	--	--	--	--
21...	--	--	--	--	100	--	--	--	--	--	--	--
JUN												
02...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	32	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
16...	--	--	--	--	33	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
14...	--	--	--	--	19	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
15...	--	--	--	--	--	--	--	--	--	--	--	--
17...	2	4	3	1300	11	60	7	<5	90	51	<0.1	<0.10

DATE	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT											
09...	--	--	--	--	--	--	--	--	880	--	--
JAN											
28...	--	--	--	--	--	--	--	--	--	--	--
MAR											
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
28...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
01...	2	<1	36	1	<1	<1	<1	<1	270	100	6
05...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
JUL											
16...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
14...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
SEP											
15...	--	--	--	--	--	--	--	--	--	--	--
17...	3	3	<1	3	4	4	<1	<1	1400	10	4

MUDDY CREEK BASIN

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
09...	1010	31	51	4.2	100
JAN					
28...	1120	40	45	4.8	81
FEB					
26...	1640	22	314	19	95
MAR					
27...	1300	31	57	4.8	91
APR					
24...	1115	359	1690	1640	94
27...	1150	504	2090	2840	88
29...	1115	652	2570	4520	87
MAY					
01...	1130	569	1150	1770	79
05...	1125	295	351	280	83
08...	1110	308	358	298	88
14...	1250	283	220	168	92
21...	1135	224	180	109	97
JUN					
04...	1245	36	107	10	69
JUL					
16...	1430	45	123	15	77
AUG					
14...	1015	19	154	8.0	70
SEP					
17...	1415	17	78	3.5	92

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	875	1000	862	761	716	843	273	927	1160	1320	1050
2	963	907	1010	855	724	728	844	282	933	1140	1270	1130
3	967	1020	1040	846	714	717	995	289	960	1090	1140	1190
4	940	1090	1100	846	678	723	856	311	1000	1100	1090	1140
5	1050	1090	1050	833	677	778	879	326	945	1110	1080	1120
6	911	1090	994	812	685	836	360	317	964	1160	1100	1120
7	867	1040	959	820	679	910	745	300	981	1150	1100	1120
8	845	1040	938	819	673	1090	683	286	989	1150	1010	1150
9	838	1090	976	819	668	1260	650	282	973	1140	1350	1200
10	837	1110	1110	836	669	1060	600	268	925	1120	1140	1160
11	824	1100	1160	792	663	994	690	261	957	1130	1050	1190
12	838	1020	1220	749	666	1100	702	275	961	1130	1050	1170
13	904	975	1160	716	698	975	717	296	971	1220	1050	1150
14	978	958	1030	708	712	997	740	292	1010	1180	1060	1180
15	908	1050	935	715	744	862	806	288	1020	1150	1030	1220
16	884	982	915	723	792	922	613	333	1020	1220	1010	1240
17	877	990	885	726	851	955	437	352	1040	1240	1020	1210
18	868	1050	870	727	877	1000	414	393	1060	1280	1020	1190
19	871	1130	868	725	868	1040	396	442	1060	1370	964	1280
20	902	1160	864	718	845	1020	390	477	1060	1440	966	1320
21	920	1350	855	720	783	---	455	569	1070	1420	966	1120
22	991	1310	847	717	751	---	485	620	1090	1410	989	1040
23	1050	1080	835	715	724	---	464	614	1060	1420	1020	1040
24	1220	1060	829	703	706	---	405	659	1110	1440	1030	1040
25	1040	1100	832	705	690	---	---	755	1100	1410	1040	1030
26	950	1080	843	702	694	---	---	753	1120	1340	1060	1040
27	931	1030	843	697	704	---	---	770	1120	1210	1310	1050
28	911	1020	838	704	708	968	327	798	1100	1570	1200	1060
29	906	1050	840	730	---	973	304	817	1120	1610	1050	1050
30	897	1030	845	729	---	909	269	856	1100	1330	1040	1050
31	890	---	860	770	---	948	---	889	---	1270	1060	---
MEAN	929	1063	947	759	729	---	---	466	1025	1262	1084	1135

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.0	7.8	2.7	1.7	.0	.0	.0	.0	.0	.0	.0	.0
2	10.0	7.5	2.5	1.1	.0	.0	.0	.0	.0	.0	.0	.0
3	8.8	7.3	2.1	.8	.0	.0	.0	.0	.0	.0	.0	.0
4	7.3	6.2	1.7	.4	.0	.0	.0	.0	.0	.0	.0	.0
5	8.0	5.6	1.5	.2	.0	.0	.0	.0	.0	.0	.0	.0
6	9.2	6.5	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0
7	9.3	7.3	1.2	.2	.0	.0	.0	.0	.0	.0	.0	.0
8	9.0	7.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0
9	10.3	6.6	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0
10	9.8	7.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0
11	8.4	4.7	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0
12	4.5	2.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
13	4.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
14	5.6	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
15	6.4	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
16	6.9	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17	6.5	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
18	6.9	4.1	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
19	7.0	5.0	2.5	.9	.0	.0	.0	.0	.0	.0	.0	.0
20	6.9	5.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
21	6.5	5.1	.5	.0	.0	.0	.0	.0	.0	.0	---	---
22	5.0	4.2	.3	.0	.0	.0	.0	.0	.0	.0	---	---
23	5.2	4.1	.0	.0	.0	.0	.0	.0	.0	.0	---	---
24	5.5	3.8	.0	.0	.0	.0	.0	.0	.0	.0	---	---
25	5.2	4.2	.0	.0	.0	.0	.0	.0	.0	.0	---	---
26	5.3	3.0	.0	.0	.0	.0	.0	.0	.0	.0	---	---
27	5.4	3.0	.0	.0	.0	.0	.0	.0	.0	.0	---	---
28	5.3	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0
29	4.9	3.1	.0	.0	.0	.0	.0	.0	---	---	.1	.1
30	5.5	3.6	.0	.0	.0	.0	.0	.0	---	---	.1	.1
31	4.6	2.4	---	---	.0	.0	.0	.0	---	---	.2	.1
MONTH	10.3	1.3	2.7	.0	.0	.0	.0	.0	.0	.0	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	.2	.2	7.9	7.1	16.4	14.0	16.5	14.3	22.9	18.4	18.2	14.4
2	.2	.2	7.3	5.1	16.2	14.3	19.7	16.6	24.0	20.0	18.1	14.9
3	.3	.2	5.0	4.5	15.9	14.1	21.1	16.9	23.1	20.8	18.4	14.7
4	.3	.3	8.2	4.0	---	---	20.9	16.6	22.5	18.8	16.5	14.7
5	.3	.3	8.4	6.7	17.8	15.2	20.5	16.2	21.3	17.7	16.3	13.5
6	.6	.3	10.9	6.4	18.3	16.6	20.1	15.2	20.3	17.7	14.9	12.1
7	2.3	.4	11.7	8.3	18.4	16.2	20.8	15.4	20.8	17.5	14.1	11.7
8	4.1	.4	11.7	9.1	17.3	16.2	19.5	15.6	20.4	13.9	14.1	11.2
9	3.9	.6	10.9	8.8	16.3	14.8	19.2	15.3	20.7	17.7	15.4	11.8
10	3.5	.9	10.6	9.1	15.2	13.9	18.2	16.1	21.7	18.2	15.5	12.3
11	2.3	.5	10.9	8.9	15.3	13.5	16.1	14.4	21.4	17.9	15.0	11.9
12	2.2	.9	10.2	8.3	16.2	14.5	14.1	12.7	20.6	17.6	15.1	11.5
13	3.1	.6	12.2	7.9	18.4	15.9	16.3	11.6	19.7	17.0	14.0	11.8
14	5.8	1.3	14.1	10.1	19.3	18.2	19.3	14.4	20.1	16.4	15.3	11.3
15	8.4	5.3	14.1	11.4	20.0	18.8	21.0	16.4	19.7	16.2	13.8	12.2
16	8.1	2.9	14.7	12.1	19.4	17.6	22.2	17.1	19.2	16.2	13.9	11.8
17	6.4	.8	14.4	12.3	18.3	16.9	20.4	17.6	18.4	15.7	14.1	11.4
18	6.1	1.8	13.0	11.2	18.8	17.5	19.4	15.4	18.7	15.0	13.6	9.3
19	5.4	1.2	11.7	9.4	19.1	17.9	20.6	16.1	18.8	15.0	13.7	9.3
20	4.6	.9	11.8	10.6	18.8	17.8	20.7	16.8	18.7	15.7	13.5	9.8
21	6.1	1.5	53.5	9.3	18.3	16.5	21.0	16.8	18.8	15.9	13.3	9.7
22	8.2	3.7	12.6	8.3	19.7	16.7	21.9	17.3	17.7	16.2	13.4	9.4
23	8.9	5.7	13.6	11.2	20.3	16.8	23.1	18.1	17.4	15.9	13.8	9.8
24	8.5	6.6	13.0	11.4	20.4	15.7	23.5	18.5	16.7	15.7	14.1	10.3
25	---	---	12.0	9.8	19.5	15.6	24.1	19.3	16.7	14.7	14.0	11.2
26	---	---	11.9	10.7	20.5	15.4	24.8	20.0	16.7	14.5	13.8	11.0
27	---	---	11.7	9.5	21.2	17.0	21.9	18.4	16.7	13.8	13.8	12.0
28	7.9	6.2	11.9	8.7	19.4	16.5	22.8	19.3	15.3	13.9	13.4	10.2
29	8.2	7.3	11.6	9.3	16.7	15.0	22.8	19.2	16.3	12.9	12.5	8.8
30	8.1	6.5	12.4	10.0	15.9	13.3	23.6	19.9	16.3	13.8	12.3	8.9
31	---	---	15.3	11.4	---	---	22.7	20.7	17.5	13.9	---	---
MONTH	---	---	53.5	4.0	---	---	24.8	11.6	24.0	12.9	18.4	8.8

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

BLUE RIVER BASIN

09041900 MONTE CRISTO DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'15", in NE¼SE¼ sec.2, T.8 S., R.78W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1,800 ft downstream from diversion point, 1.4 mi northwest of Hoosier Pass, and 7 mi southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 10,986 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. This is a transmountain diversion from Monte Cristo Creek in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion point is in SW¼NE¼ sec.2, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 52 ft³/s, June 29, 1985; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	.00	.00	.00	.00	.00	.00	7.9	4.6	.00	.00	37
2	46	.00	.00	.00	.00	.00	.00	7.7	4.7	.00	.00	37
3	45	.00	.00	.00	.00	.00	.00	5.7	4.5	.00	.00	33
4	43	.00	.00	.00	.00	.00	.00	4.5	4.7	.00	.00	32
5	41	.00	.00	.00	.00	.00	.00	3.6	4.9	.00	.00	31
6	40	.00	.00	.00	.00	.00	.00	3.3	4.9	.00	.00	29
7	38	.00	.00	.00	.00	.00	.00	4.4	5.0	.00	.00	28
8	38	.00	.00	.00	.00	.00	.00	7.3	5.9	.00	2.9	26
9	42	.00	.00	.00	.00	.00	.00	12	7.5	.00	5.5	23
10	39	.00	.00	.00	.00	.00	.00	15	6.5	.00	5.1	2.3
11	36	.00	.00	.00	.00	.00	.00	16	5.4	.00	3.2	31
12	33	.00	.00	.00	.00	.00	.00	18	4.9	.00	.54	36
13	30	.00	.00	.00	.00	.00	.00	23	3.2	.00	.0	34
14	19	.00	.00	.00	.00	.00	.00	30	.0	.00	.00	30
15	8.3	.00	.00	.00	.00	.00	.00	28	.00	.00	.00	26
16	13	.00	.00	.00	.00	.00	.00	29	.00	.00	.00	20
17	6.7	.00	.00	.00	.00	.00	.00	30	.00	.00	.00	15
18	.00	.00	.00	.00	.00	.00	.00	28	.00	.00	.00	.0
19	.00	.00	.00	.00	.00	.00	.00	20	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	6.1	.00	.00	9.9	.00
21	.00	.00	.00	.00	.00	.00	.00	4.8	.00	.00	42	.00
22	.00	.00	.00	.00	.00	.00	.00	3.9	.00	.00	43	.00
23	.00	.00	.00	.00	.00	.00	.00	3.6	.00	.00	43	.00
24	.00	.00	.00	.00	.00	.00	.00	4.0	.00	.00	43	.00
25	.00	.00	.00	.00	.00	.00	.00	3.3	.00	.00	42	.00
26	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00	41	.00
27	.00	.00	.00	.00	.00	.00	.00	2.4	.00	.00	41	.00
28	.00	.00	.00	.00	.00	.00	.00	2.5	.00	.00	40	.00
29	.00	.00	.00	.00	---	.00	.00	2.6	.00	.00	39	.00
30	.00	.00	.00	.00	---	.00	4.9	2.8	.00	.00	39	.00
31	.00	---	.00	.00	---	.00	---	3.4	---	.00	38	---
TOTAL	565.00	.00	.00	.00	.00	.00	4.90	335.8	66.70	.00	478.14	470.30
MEAN	18.2	.00	.00	.00	.00	.00	.16	10.8	2.22	.00	15.4	15.7
MAX	47	.00	.00	.00	.00	.00	4.9	30	7.5	.00	43	37
MIN	.00	.00	.00	.00	.00	.00	.00	2.4	.00	.00	.00	.00
AC-FT	1120	.0	.0	.0	.0	.0	9.7	666	132	.0	948	933
CAL YR 1986	TOTAL	2320.40	MEAN	6.36	MAX	47	MIN	.00	AC-FT	4600		
WTR YR 1987	TOTAL	1920.84	MEAN	5.26	MAX	47	MIN	.00	AC-FT	3810		

09044300 BEMROSE-HOOSIER DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'50", long 106°04'13", in NE¼SE¼ sec.2, T.8 S., R.78W., Summit County, Hydrologic Unit 14010002, on right bank at entrance to Hoosier Pass tunnel, 1.4 mi northwest of Hoosier Pass, 1.6 mi downstream from diversion point on Bemrose Creek, and 7 mi southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 10,986 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: June 24-27. Records good. This is a transmountain diversion from Bemrose and Hoosier Creeks in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion points are in SW¼SW¼ sec.6, T.8 S., R.77 W., and in sec.12, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

COOPERATION.--Gage-height record collected in cooperation with city of Colorado Springs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft³/s, June 21, 1965; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	3.5	9.9	9.5	3.2	.30
2	.00	.00	.00	.00	.00	.00	.00	3.5	12	8.9	3.3	.30
3	.00	.00	.00	.00	.00	.00	.00	2.2	12	8.4	3.0	.30
4	.00	.00	.00	.00	.00	.00	.00	2.1	15	7.8	2.7	.30
5	.00	.00	.00	.00	.00	.00	.00	2.0	17	7.4	2.5	.30
6	.00	.00	.00	.00	.00	.00	.00	2.2	19	7.2	2.3	.30
7	.00	.00	.00	.00	.00	.00	.00	2.9	20	6.5	2.1	.30
8	.00	.00	.00	.00	.00	.00	.00	4.0	22	6.3	2.1	.30
9	.00	.00	.00	.00	.00	.00	.00	4.8	28	6.1	2.1	.10
10	.00	.00	.00	.00	.00	.00	.00	5.0	26	5.2	1.6	.00
11	.00	.00	.00	.00	.00	.00	.00	5.6	25	3.8	2.1	.00
12	.00	.00	.00	.00	.00	.00	.00	6.5	25	3.7	2.2	.00
13	.00	.00	.00	.00	.00	.00	.00	7.4	21	3.5	2.2	.00
14	.00	.00	.00	.00	.00	.00	.00	9.5	17	3.5	2.1	.00
15	.00	.00	.00	.00	.00	.00	.00	9.5	16	3.3	2.0	.00
16	.00	.00	.00	.00	.00	.00	.00	11	15	3.0	1.9	.00
17	.00	.00	.00	.00	.00	.00	.00	10	14	3.2	1.7	.00
18	.00	.00	.00	.00	.00	.00	.00	9.7	14	2.9	1.5	.00
19	.00	.00	.00	.00	.00	.00	.00	9.3	13	2.6	.97	.00
20	.00	.00	.00	.00	.00	.00	.00	10	12	2.5	.69	.00
21	.00	.00	.00	.00	.00	.00	.00	9.7	10	2.5	.60	.00
22	.00	.00	.00	.00	.00	.00	.00	8.7	10	2.3	.54	.00
23	.00	.00	.00	.00	.00	.00	.00	9.1	11	2.2	.48	.00
24	.00	.00	.00	.00	.00	.00	.00	9.7	14	2.2	.48	.00
25	.00	.00	.00	.00	.00	.00	.00	8.9	12	2.2	.48	.00
26	.00	.00	.00	.00	.00	.00	.00	8.4	9.3	2.1	.42	.00
27	.00	.00	.00	.00	.00	.00	.00	8.0	9.7	2.1	.42	.00
28	.00	.00	.00	.00	.00	.00	.00	7.8	9.5	2.2	.42	.00
29	.00	.00	.00	.00	---	.00	.00	7.2	12	2.1	.42	.00
30	.00	.00	.00	.00	---	.00	2.3	6.9	11	2.3	.36	.00
31	.00	---	.00	.00	---	.00	---	7.6	---	3.0	.36	---
TOTAL	.00	.00	.00	.00	.00	.00	2.30	212.7	461.4	130.5	47.24	2.50
MEAN	.00	.00	.00	.00	.00	.00	.08	6.86	15.4	4.21	1.52	.08
MAX	.00	.00	.00	.00	.00	.00	2.3	11	28	9.5	3.3	.30
MIN	.00	.00	.00	.00	.00	.00	.00	2.0	9.3	2.1	.36	.00
AC-FT	.0	.0	.0	.0	.0	.0	4.6	422	915	259	94	5.0

CAL YR 1986 TOTAL 995.86 MEAN 2.73 MAX 23 MIN .00 AC-FT 1980
WTR YR 1987 TOTAL 856.64 MEAN 2.35 MAX 28 MIN .00 AC-FT 1700

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	7.8	26	25	27	.00
2	.00	.00	.00	.00	.00	.00	.00	7.2	31	21	43	.00
3	.00	.00	.00	.00	.00	.00	.00	4.2	31	19	28	.00
4	.00	.00	.00	.00	.00	.00	.00	2.9	37	17	12	.00
5	.00	.00	.00	.00	.00	.00	.00	2.3	45	15	9.3	.00
6	.00	.00	.00	.00	.00	.00	.00	2.6	48	17	9.2	.00
7	.00	.00	.00	.00	.00	.00	.00	5.1	53	26	2.2	.00
8	.00	.00	.00	.00	.00	.00	.00	9.7	66	26	1.9	.00
9	.00	.00	.00	.00	.00	.00	.00	14	76	24	11	.00
10	.00	.00	.00	.00	.00	.00	.00	18	51	23	1.2	.00
11	.00	.00	.00	.00	.00	.00	.00	18	25	.97	6.9	.00
12	.00	.00	.00	.00	.00	.00	.00	22	25	.72	3.0	.00
13	.00	.00	.00	.00	.00	.00	.00	30	17	.72	.53	.00
14	.00	.00	.00	.00	.00	.00	.00	49	.61	.61	.50	.00
15	.00	.00	.00	.00	.00	.00	.00	47	.61	.61	.50	.00
16	.00	.00	.00	.00	.00	.00	.00	53	.61	.50	.50	.00
17	.00	.00	.00	.00	.00	.00	.00	51	.61	.50	4.8	.00
18	.00	.00	.00	.00	.00	.00	.00	40	.61	.50	.0	.00
19	.00	.00	.00	.00	.00	.00	.00	31	.61	.50	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	27	.61	.50	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	23	.61	.50	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	17	.61	.50	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	17	.61	.45	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	18	8.1	.45	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	14	18	.50	.00	.00
26	.00	.00	.00	.00	.00	.00	2.0	13	20	.50	.00	.00
27	.00	.00	.00	.00	.00	.00	4.2	12	20	.50	.00	.00
28	.00	.00	.00	.00	.00	.00	6.5	11	19	.50	.00	.00
29	.00	.00	.00	.00	---	.00	7.2	12	18	.50	.00	.00
30	.00	.00	.00	.00	---	.00	6.7	11	22	.50	.00	.00
31	.00	---	.00	.00	---	.00	---	16	---	16	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	26.60	605.8	662.20	240.03	161.53	.00
MEAN	.00	.00	.00	.00	.00	.00	.89	19.5	22.1	7.74	5.21	.00
MAX	.00	.00	.00	.00	.00	.00	7.2	53	76	26	43	.00
MIN	.00	.00	.00	.00	.00	.00	.00	2.3	.61	.45	.00	.00
AC-FT	.0	.0	.0	.0	.0	.0	53	1200	1310	476	320	.0
CAL YR 1986	TOTAL	3822.81	MEAN	10.5	MAX	100	MIN	.00	AC-FT	7580		
WTR YR 1987	TOTAL	1696.16	MEAN	4.65	MAX	76	MIN	.00	AC-FT	3360		

09046490 BLUE RIVER AT BLUE RIVER, CO

LOCATION.--Lat 39°27'21", long 106°01'52", in NE¼SE¼ sec.7, T.7 S, R.77 W., Summit County, Hydrologic Unit 14010002 on left bank, 350 ft downstream from spillway of Goose Pasture Tarn Dam, 2.0 mi southeast of Breckenridge.

DRAINAGE AREA.--22.6 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,385 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 16, 18-23, 25-26, Feb. 21 to Mar. 13. Records good, except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Boreas Pass ditch and Hoosier Pass tunnel. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 506 ft³/s July 1, 1984, gage height, 2.84 ft, minimum daily, 4.5 ft³/s, Mar. 23, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 174 ft³/s, June 14, gage height, 2.07 ft, minimum daily, 4.8 ft³/s, Mar. 24-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	16	12	6.3	5.9	5.2	5.1	46	66	84	31	26
2	19	14	12	7.8	5.8	5.2	5.6	46	73	72	31	27
3	21	16	11	7.3	5.8	5.2	5.1	34	76	64	27	26
4	21	14	11	7.3	5.9	5.2	5.1	29	81	59	31	40
5	20	15	11	7.5	5.8	5.2	5.1	27	87	54	35	42
6	20	15	11	7.5	5.7	5.2	5.3	26	90	49	33	41
7	19	15	11	7.3	5.7	5.2	5.6	31	95	37	39	41
8	19	17	11	6.9	5.6	5.2	5.4	37	103	34	45	41
9	19	15	11	6.7	5.8	5.2	5.7	45	119	32	30	39
10	19	14	12	6.3	5.8	5.2	5.4	51	121	30	29	32
11	19	14	9.6	7.0	6.1	5.2	5.3	57	137	42	27	24
12	16	13	11	7.1	5.8	5.2	6.9	61	131	48	28	24
13	16	14	10	6.9	5.7	5.2	7.1	71	136	46	32	22
14	20	13	10	7.0	5.9	5.8	6.2	89	165	42	33	21
15	32	14	10	6.5	5.6	5.5	6.6	94	162	42	30	22
16	22	14	9.9	6.2	5.2	6.3	7.3	104	161	49	28	22
17	19	14	9.6	6.3	5.2	5.5	8.7	109	153	55	26	21
18	20	14	9.0	6.2	5.2	5.2	11	102	135	63	24	26
19	16	14	9.3	6.2	5.2	5.1	15	95	132	48	24	24
20	19	15	9.0	6.2	5.2	5.6	18	95	127	44	24	20
21	19	14	8.7	6.2	5.2	5.2	15	91	120	43	25	18
22	18	14	8.2	6.2	5.2	5.2	14	82	113	69	36	17
23	17	15	8.0	6.2	5.2	5.0	17	79	110	72	45	16
24	16	13	8.0	5.9	5.2	4.8	26	81	96	60	43	16
25	16	13	7.7	6.2	5.2	4.8	27	76	78	49	39	15
26	16	12	7.2	6.2	5.2	4.8	28	71	75	49	36	15
27	15	12	7.0	6.1	5.2	5.3	29	67	72	59	33	16
28	15	11	6.8	6.4	5.2	4.9	37	64	71	66	31	15
29	15	11	6.4	6.7	---	5.0	43	62	76	62	31	15
30	15	11	6.7	6.0	---	5.0	42	60	89	67	29	15
31	16	---	6.8	6.2	---	5.1	---	60	---	49	27	---
TOTAL	574	416	291.9	204.8	154.5	161.7	423.5	2042	3250	1639	982	739
MEAN	18.5	13.9	9.42	6.61	5.52	5.22	14.1	65.9	108	52.9	31.7	24.6
MAX	32	17	12	7.8	6.1	6.3	43	109	165	84	45	42
MIN	15	11	6.4	5.9	5.2	4.8	5.1	26	66	30	24	15
AC-FT	1140	825	579	406	306	321	840	4050	6450	3250	1950	1470
CAL YR 1986	TOTAL	9443.9	MEAN	25.9	MAX	111	MIN	4.5	AC-FT	18730		
WTR YR 1987	TOTAL	10878.4	MEAN	29.8	MAX	165	MIN	4.8	AC-FT	21580		

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 380 ft³/s at 0600 June 10, gage height, 3.96 ft; minimum daily, 20 ft³/s, Feb. 7, 9, 10, 13.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	47	36	26	22	23	23	116	188	224	116	66
2	60	47	35	26	21	23	23	126	205	211	100	64
3	59	46	35	26	21	23	23	126	217	196	95	63
4	60	46	35	27	22	23	23	106	232	179	87	62
5	61	44	34	27	21	24	23	93	255	164	84	63
6	61	43	34	27	21	25	23	89	270	151	84	70
7	59	44	35	27	20	25	23	90	286	141	84	72
8	58	43	35	27	21	26	24	96	313	127	86	71
9	57	42	34	28	20	27	25	108	344	119	91	71
10	56	42	33	28	20	22	25	127	369	113	84	70
11	55	41	33	28	21	24	25	144	358	110	78	68
12	56	41	32	28	21	24	27	160	352	116	75	63
13	54	40	32	28	20	24	26	177	344	123	73	58
14	51	40	31	29	21	24	26	208	353	118	75	57
15	51	40	31	28	21	24	27	243	355	111	78	57
16	53	41	31	27	21	24	32	276	343	109	75	56
17	59	41	31	27	22	24	39	304	339	112	72	57
18	57	41	30	26	22	24	45	295	322	127	68	55
19	55	41	31	26	21	24	53	274	317	126	64	54
20	55	41	30	25	22	25	58	262	311	111	62	55
21	55	41	30	25	22	25	58	263	304	103	61	54
22	55	41	30	24	22	24	58	249	291	101	62	51
23	55	39	29	24	23	24	61	233	282	115	71	48
24	53	39	29	24	22	24	68	236	271	121	86	46
25	52	38	30	24	22	24	74	239	240	111	91	45
26	51	38	29	23	23	24	82	220	216	104	86	44
27	50	37	28	23	23	24	87	208	211	103	81	44
28	49	36	28	22	23	23	93	196	208	117	77	43
29	47	36	27	22	---	23	103	190	208	125	73	42
30	46	36	27	23	---	23	111	183	230	124	71	41
31	47	---	27	22	---	23	---	178	---	129	69	---
TOTAL	1696	1232	972	797	601	743	1388	5815	8534	4041	2459	1710
MEAN	54.7	41.1	31.4	25.7	21.5	24.0	46.3	188	284	130	79.3	57.0
MAX	61	47	36	29	23	27	111	304	369	224	116	72
MIN	46	36	27	22	20	22	23	89	188	101	61	41
AC-FT	3360	2440	1930	1580	1190	1470	2750	11530	16930	8020	4880	3390
CAL YR 1986	TOTAL	32752	MEAN	89.7	MAX	389	MIN	23	AC-FT	64960		
WTR YR 1987	TOTAL	29988	MEAN	82.2	MAX	369	MIN	20	AC-FT	59480		

09047500 SNAKE RIVER NEAR MONTEZUMA, CO

LOCATION.--Lat 39°36'20", long 105°56'33", in NW¼ sec.19, T.5 S., R.76 W. (projected), Summit County, Hydrologic Unit 14010002, on right bank 200 ft downstream from North Fork and 4.5 mi northwest of Montezuma.

DRAINAGE AREA.--57.7 mi².

PERIOD OF RECORD.--July 1942 to September 1946, October 1951 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,320 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 14, 1943, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 29. Records good except for estimated daily discharges, which are poor. Small diversions upstream from station for irrigation and domestic use. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--40 years, 61.6 ft³/s; 44,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s, June 10, 1952, gage height, 3.51 ft; maximum gage height, 3.88 ft, June 6, 1972; minimum discharge not determined.

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 9	1800	*388	*2.93				

Minimum daily, 13 ft³/s, Mar. 16-22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	26	22	17	17	15	15	89	169	129	68	39
2	36	27	22	17	17	15	15	84	187	121	66	39
3	39	26	22	17	17	15	15	65	200	115	65	37
4	38	26	22	17	17	15	15	58	227	109	66	38
5	37	26	22	17	17	15	15	55	247	103	62	36
6	37	26	22	17	17	15	15	59	256	98	61	35
7	37	26	21	17	17	15	15	70	272	92	64	35
8	35	26	21	17	17	15	15	88	290	88	60	34
9	34	26	20	17	17	15	15	113	346	85	56	34
10	33	26	20	17	17	15	15	134	319	82	56	32
11	33	26	19	17	17	15	15	144	296	80	52	32
12	32	26	19	17	17	15	15	146	287	83	51	32
13	32	26	18	17	17	15	15	173	286	80	54	31
14	33	26	18	17	17	15	17	196	270	73	52	32
15	33	26	18	17	16	14	18	220	254	70	46	35
16	32	26	17	17	15	13	20	273	238	68	45	35
17	32	26	17	17	15	13	23	275	223	76	42	37
18	30	26	17	17	15	13	26	249	210	73	41	33
19	31	26	17	17	15	13	29	226	201	64	39	31
20	33	25	17	17	15	13	27	211	191	61	38	30
21	31	24	17	17	15	13	25	188	178	59	40	29
22	31	23	17	17	15	13	29	165	170	58	53	28
23	30	22	17	17	15	14	32	159	168	57	59	27
24	30	22	17	17	15	15	35	159	159	54	64	27
25	29	22	17	17	15	15	40	145	150	53	55	27
26	28	22	17	17	15	15	45	136	144	54	51	26
27	28	22	17	17	15	15	50	124	139	54	48	26
28	31	22	17	17	15	15	54	116	134	78	47	25
29	27	22	17	17	---	15	60	114	151	69	46	24
30	28	22	17	17	---	15	82	112	141	69	43	24
31	28	---	17	17	---	15	---	132	---	87	41	---
TOTAL	1006	743	578	527	449	449	807	4478	6503	2442	1631	950
MEAN	32.5	24.8	18.6	17.0	16.0	14.5	26.9	144	217	78.8	52.6	31.7
MAX	39	27	22	17	17	15	82	275	346	129	68	39
MIN	27	22	17	17	15	13	15	55	134	53	38	24
AC-FT	2000	1470	1150	1050	891	891	1600	8880	12900	4840	3240	1880
CAL YR 1986	TOTAL 28041	MEAN 76.8	MAX 463	MIN 11	AC-FT 55620							
WTR YR 1987	TOTAL 20563	MEAN 56.3	MAX 346	MIN 13	AC-FT 40790							

BLUE RIVER BASIN

09047700 KEYSTONE GULCH NEAR DILLON, CO

LOCATION.--Lat 39°35'40", long 105°58'19", in NE¼NE¼ sec.26, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.7 mi upstream from mouth and 4.7 mi southeast of Dillon.

DRAINAGE AREA.--9.10 mi².

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,350 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 29. Records good except for estimated daily discharges, which are poor. No known diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 6.00 ft³/s; 4,350 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 118 ft³/s, June 27, 1983, gage height, 3.01 ft, from rating curve extended above 65 ft³/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 35 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 9	1700	*24	*2.20				

Minimum daily, 2.0 ft³/s, Feb. 7-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	4.5	3.0	2.2	2.2	2.2	2.2	7.2	12	8.9	4.4	3.2
2	4.8	4.5	3.0	2.2	2.2	2.2	2.2	6.7	13	8.0	4.2	3.4
3	4.9	4.2	3.0	2.2	2.2	2.2	2.2	5.1	13	7.4	3.9	3.1
4	4.9	4.1	3.0	2.2	2.2	2.2	2.2	4.5	14	7.2	3.9	3.2
5	4.9	4.0	3.0	2.2	2.2	2.2	2.2	4.3	15	6.7	3.7	3.1
6	4.7	4.0	3.0	2.2	2.1	2.2	2.2	5.5	15	6.7	3.8	2.9
7	4.6	4.0	3.0	2.2	2.0	2.2	2.2	7.7	17	6.6	4.0	2.9
8	4.6	4.0	3.0	2.2	2.0	2.2	2.3	9.1	18	6.6	4.0	2.9
9	4.6	4.0	3.0	2.2	2.0	2.2	2.5	9.8	20	6.6	3.8	2.9
10	4.6	4.0	3.0	2.2	2.0	2.2	2.6	9.7	19	6.4	3.8	2.8
11	4.6	4.0	3.0	2.2	2.0	2.2	2.8	11	18	6.2	3.9	2.8
12	4.7	4.0	3.0	2.2	2.0	2.2	3.0	11	16	6.2	3.9	2.8
13	6.0	4.0	3.0	2.2	2.0	2.2	3.0	12	16	6.4	4.6	2.8
14	5.2	3.9	2.9	2.2	2.0	2.2	3.0	14	15	5.9	4.3	2.9
15	5.0	3.8	2.8	2.2	2.0	2.2	3.0	15	15	5.6	3.9	3.1
16	4.9	3.7	2.7	2.2	2.1	2.2	3.0	16	14	5.3	3.8	3.3
17	4.9	3.6	2.6	2.2	2.2	2.2	3.1	16	13	6.4	3.7	3.2
18	4.5	3.5	2.5	2.2	2.2	2.2	3.3	15	12	6.0	3.6	3.0
19	4.4	3.3	2.5	2.2	2.2	2.2	3.4	15	12	4.9	3.4	2.9
20	4.4	3.2	2.5	2.2	2.2	2.2	3.6	16	12	4.6	3.4	3.0
21	4.4	3.1	2.5	2.2	2.2	2.2	3.8	15	12	4.4	3.4	2.9
22	4.4	3.0	2.5	2.2	2.2	2.2	4.0	14	11	4.2	4.1	2.9
23	4.5	3.0	2.5	2.2	2.2	2.2	4.2	13	11	4.2	4.9	2.7
24	4.5	3.0	2.5	2.2	2.2	2.2	4.4	14	10	4.2	4.5	2.7
25	4.4	3.0	2.5	2.2	2.2	2.2	4.6	13	9.9	4.3	4.0	2.7
26	4.6	3.0	2.5	2.2	2.2	2.2	4.8	14	9.4	4.3	3.7	2.7
27	4.8	3.0	2.5	2.2	2.2	2.2	5.2	12	9.0	4.2	3.5	2.7
28	4.8	3.0	2.5	2.2	2.2	2.2	5.4	11	8.7	4.7	3.4	2.6
29	4.7	3.0	2.5	2.2	---	2.2	5.8	11	9.8	4.6	3.4	2.7
30	4.4	3.0	2.4	2.2	---	2.2	6.1	11	9.9	4.8	3.3	2.6
31	4.4	---	2.3	2.2	---	2.2	---	11	---	5.5	3.2	---
TOTAL	145.9	108.4	84.7	68.2	59.6	68.2	102.3	349.6	399.7	178.0	119.4	87.4
MEAN	4.71	3.61	2.73	2.20	2.13	2.20	3.41	11.3	13.3	5.74	3.85	2.91
MAX	6.0	4.5	3.0	2.2	2.2	2.2	6.1	16	20	8.9	4.9	3.4
MIN	4.4	3.0	2.3	2.2	2.0	2.2	2.2	4.3	8.7	4.2	3.2	2.6
AC-FT	289	215	168	135	113	135	203	693	793	353	237	173

CAL YR 1986 TOTAL 2683.3 MEAN 7.35 MAX 32 MIN 2.3 AC-FT 5320
WTR YR 1987 TOTAL 1771.4 MEAN 4.85 MAX 20 MIN 2.0 AC-FT 3510

09050100 TENMILE CREEK BELOW NORTH TENMILE CREEK, AT FRISCO, CO

LOCATION.--Lat 39°34'31", long 106°06'36", in SE¼NW¼ sec.34, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 220 ft upstream from bridge on U.S. Highway 6, 160 ft downstream from North Tenmile Creek, and 0.6 mi west of Frisco.

DRAINAGE AREA.--93.3 mi².

PERIOD OF RECORD.--October 1957 to current year. Prior to October 1971, published as "below North Fork, at Frisco."

GAGE.--Water-stage recorder. Elevation of gage is 9,100 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 21, 1981 at site 720 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 7-14, 21-25, 27-29, Dec. 1-26, Dec. 30 to Jan. 30, Feb. 16 to Mar. 2, Mar. 28-30, Apr. 19, 20. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by a few small diversions upstream from station for irrigation and municipal use and transbasin diversion from Robinson Reservoir, capacity, 2,520 acre-ft, in Eagle River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 99.9 ft³/s; 72,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,910 ft³/s, June 16, 1965, gage height, 6.15 ft, from rating curve extended above 750 ft³/s; minimum daily, 7 ft³/s, Mar. 8, 14, 1960.

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 16	2230	*710	*3.60	No other peak greater than base discharge.			

Minimum daily, 18 ft³/s, Feb. 23-28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	57	38	26	21	21	19	30	171	326	177	115	50
2	56	36	26	21	21	20	30	141	364	150	133	50
3	56	35	26	21	21	21	30	117	360	136	90	48
4	58	34	26	21	21	21	30	102	374	123	75	49
5	54	34	25	21	20	22	31	103	364	113	66	49
6	52	33	25	21	21	22	32	105	324	105	63	47
7	51	32	25	21	20	22	33	140	343	102	69	48
8	51	32	25	21	20	23	34	248	371	100	72	47
9	49	31	25	21	20	22	36	293	378	95	69	46
10	49	31	25	21	21	22	34	341	360	90	63	42
11	49	30	25	21	21	24	35	360	357	84	61	41
12	46	30	25	21	21	25	37	367	347	87	59	38
13	45	30	25	21	20	26	37	378	360	85	58	38
14	42	30	25	21	20	26	37	465	347	78	62	40
15	40	30	25	21	20	26	37	551	353	77	59	39
16	38	31	25	21	20	28	43	521	367	76	56	38
17	36	31	25	21	20	30	49	534	343	86	52	39
18	36	30	25	21	20	30	60	525	311	91	49	38
19	38	30	25	21	19	30	60	447	298	76	47	37
20	40	29	25	21	19	31	59	430	292	72	46	34
21	37	28	25	21	19	32	58	361	260	68	49	32
22	36	28	25	21	19	34	52	321	254	71	56	31
23	36	28	25	21	18	34	69	315	251	68	66	30
24	38	28	25	21	18	32	82	297	235	63	69	28
25	38	27	25	21	18	32	82	260	227	65	63	28
26	38	27	25	21	18	30	90	258	210	66	62	28
27	39	27	25	21	18	30	100	246	198	76	61	29
28	36	26	23	21	18	30	121	225	193	81	59	27
29	38	26	21	21	---	30	126	222	179	76	58	26
30	38	26	21	21	---	30	124	225	195	82	55	28
31	38	---	21	22	---	30	---	257	---	85	52	---
TOTAL	1355	908	765	652	552	834	1678	9326	9141	2804	2014	1145
MEAN	43.7	30.3	24.7	21.0	19.7	26.9	55.9	301	305	90.5	65.0	38.2
MAX	58	38	26	22	21	34	126	551	378	177	133	50
MIN	36	26	21	21	18	19	30	102	179	63	46	26
AC-FT	2690	1800	1520	1290	1090	1650	3330	18500	18130	5560	3990	2270

CAL YR 1986 TOTAL 42399 MEAN 116 MAX 808 MIN 16 AC-FT 84100
WTR YR 1987 TOTAL 31174 MEAN 85.4 MAX 551 MIN 18 AC-FT 61830

BLUE RIVER BASIN

09050700 BLUE RIVER BELOW DILLON, CO

LOCATION.--Lat 39°37'32", long 106°03'57", in SE¼SE¼ sec.12, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 0.3 mi downstream from Dillon Dam, 0.1 mi upstream from Straight Creek, and 1.1 mi west of Dillon.

DRAINAGE AREA.--335 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Sept. 3, 1963, by Dillon Reservoir, 0.3 mi upstream (station 09050600). Natural flow of stream affected by transmountain diversions, transbasin diversions, and diversions upstream from station for irrigation of about 400 acres of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years (water years 1964-87), 217 ft³/s; 157,200 acre-ft/yr, since completion of Dillon Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s, May 25, 1984, gage height, 3.88 ft; maximum gage height, 3.95 ft, June 22, 1983; no flow, Sept. 4 to Nov. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,360 ft³/s at 1130 June 12, gage height, 3.18 ft; minimum daily, 46 ft³/s, Mar. 20, 25-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	183	136	65	53	49	49	48	49	642	576	390	295
2	193	136	65	53	49	49	48	49	700	552	381	295
3	193	136	63	51	49	55	48	49	738	513	363	236
4	193	136	56	51	49	55	48	49	770	475	331	190
5	197	136	51	51	49	55	48	49	811	445	280	183
6	197	136	51	51	51	53	48	49	846	425	304	186
7	199	136	51	51	51	53	48	49	874	395	291	186
8	201	136	53	55	51	53	48	51	922	372	287	147
9	201	136	51	51	53	53	48	51	992	354	275	63
10	201	136	51	51	53	52	48	51	1060	331	263	63
11	201	136	51	51	53	51	48	51	1060	309	244	67
12	201	136	51	51	53	51	49	51	1040	313	251	67
13	201	136	51	51	53	53	49	50	1010	317	251	65
14	201	96	50	51	53	53	50	49	993	313	225	65
15	201	65	49	51	53	53	51	87	979	295	219	67
16	201	65	49	51	53	55	50	340	972	287	219	67
17	201	65	49	52	53	55	49	674	951	283	231	67
18	201	65	49	53	53	51	49	873	903	304	201	100
19	201	65	49	55	53	47	49	943	867	304	190	126
20	201	65	49	55	53	46	51	965	825	287	176	126
21	201	63	49	55	53	48	51	951	784	304	172	126
22	204	65	49	55	53	48	51	909	745	308	170	123
23	204	65	51	53	51	48	51	861	719	275	168	126
24	316	65	51	53	51	48	51	832	686	227	175	160
25	395	65	51	53	53	46	51	804	654	278	175	247
26	395	63	51	51	51	46	50	771	618	326	160	251
27	395	63	51	51	51	46	49	725	588	326	188	255
28	395	64	53	53	50	46	49	693	570	362	279	247
29	395	65	53	51	---	46	49	654	564	419	295	247
30	395	65	53	51	---	46	49	630	582	400	295	194
31	255	---	53	50	---	47	---	624	---	390	295	---
TOTAL	7518	2897	1619	1615	1447	1557	1476	13033	24465	11065	7744	4637
MEAN	243	96.6	52.2	52.1	51.7	50.2	49.2	420	815	357	250	155
MAX	395	136	65	55	53	55	51	965	1060	576	390	295
MIN	183	63	49	50	49	46	48	49	564	227	160	63
AC-FT	14910	5750	3210	3200	2870	3090	2930	25850	48530	21950	15360	9200

CAL YR 1986 TOTAL 116008 MEAN 318 MAX 1790 MIN 33 AC-FT 230100
WTR YR 1987 TOTAL 79073 MEAN 217 MAX 1060 MIN 46 AC-FT 156800

09051050 STRAIGHT CREEK BELOW LASKEY GULCH NR DILLON, CO.

LOCATION.--Lat 39°38'23", long 106°02'23", in SW¼SW¼ sec.5, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on left bank, 120 ft upstream from culverts on Deer Trail Drive, in the community of Dillon Valley, 0.9 mi north of Dillon, 1.1 mi downstream of Laskey Gulch and 1.8 mi upstream from mouth.

DRAINAGE AREA.--18.3 mi².

PERIOD OF RECORD.--October 1986 to September 1987.

GAGE.--Water-stage recorder. Elevation of gage is 9,070 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, Oct. 25 to Nov. 29, Dec. 2, 3, 10, Dec. 13 to Jan. 16, Mar. 4-24, Apr. 1-4, 6-8, 14-25. Records good except for estimated daily discharges, which are poor. Diversion upstream from station for municipal purposes downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55 ft³/s, June 7, 1987, gage height, 4.81 ft; minimum daily, 3.0 ft³/s, Feb. 28, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 55 ft³/s at 1900 June 7, gage height, 4.81 ft; minimum daily, 3.0 ft³/s, Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	8.2	5.3	4.3	3.1	3.2	3.7	17	29	25	8.3	7.3
2	9.4	8.0	5.2	4.3	3.3	3.5	3.7	17	31	23	8.6	7.0
3	10	7.9	5.0	4.3	3.3	3.8	3.7	14	33	22	9.5	7.4
4	11	7.8	4.8	4.3	3.2	3.9	3.7	12	37	20	9.3	7.6
5	11	7.7	4.8	4.3	3.1	3.9	3.7	11	38	20	8.5	6.8
6	10	7.6	4.6	4.3	3.6	3.9	3.7	12	39	18	9.3	7.1
7	10	7.5	4.6	4.3	3.5	3.9	3.7	15	40	17	11	6.8
8	10	7.4	4.7	4.3	3.8	3.9	3.7	17	47	17	9.7	7.0
9	9.8	7.3	4.6	4.3	3.8	3.9	3.6	20	52	17	9.3	7.8
10	9.8	7.3	6.0	4.3	3.6	3.9	3.7	23	47	15	9.4	7.2
11	9.5	7.2	5.5	4.3	3.5	3.8	3.4	25	46	15	8.5	6.6
12	9.7	7.1	5.3	4.3	3.6	3.7	3.2	26	45	18	8.8	7.3
13	10	7.0	5.5	4.3	3.4	3.7	3.6	29	45	16	8.6	7.1
14	11	6.9	5.4	4.3	3.1	3.7	3.9	32	44	14	8.4	8.2
15	11	6.8	5.4	4.3	3.1	3.7	4.3	33	43	13	7.8	8.5
16	11	6.7	5.3	4.3	3.2	3.7	5.0	38	41	9.6	7.9	8.4
17	10	6.6	5.1	4.1	3.2	3.7	5.6	40	38	13	7.7	9.9
18	9.4	6.5	5.1	4.3	3.2	3.7	6.4	36	37	11	7.3	7.4
19	9.1	6.4	5.0	4.2	3.2	3.7	8.0	36	34	8.7	7.3	6.9
20	10	6.3	5.0	4.3	3.1	3.7	7.1	34	32	8.3	6.7	6.8
21	8.9	6.2	4.9	4.2	3.2	3.7	6.6	31	33	8.1	7.7	6.5
22	9.9	6.2	4.8	4.2	3.4	3.7	7.4	30	32	7.9	8.9	6.6
23	9.7	6.2	4.7	4.1	3.5	3.7	8.2	30	30	7.8	13	6.1
24	8.8	6.1	4.6	4.0	3.7	3.7	9.0	31	29	7.3	12	6.2
25	8.7	6.0	4.6	3.8	3.7	3.2	10	29	28	7.5	9.7	6.2
26	8.6	6.0	4.5	3.7	3.3	3.6	11	27	27	8.2	9.9	6.1
27	8.6	5.9	4.5	3.5	3.1	3.3	12	26	26	8.8	9.3	6.6
28	8.6	5.8	4.4	3.4	3.0	3.4	14	26	25	13	8.4	6.2
29	8.5	5.8	4.4	3.2	---	3.1	15	25	30	9.1	8.8	5.8
30	8.4	5.7	4.3	3.1	---	3.8	15	25	27	9.8	8.2	6.0
31	8.3	---	4.3	3.1	---	3.9	---	27	---	9.6	7.8	---
TOTAL	298.1	204.1	152.2	126.0	93.8	114.0	195.6	794	1085	417.7	275.6	211.4
MEAN	9.62	6.80	4.91	4.06	3.35	3.68	6.52	25.6	36.2	13.5	8.89	7.05
MAX	11	8.2	6.0	4.3	3.8	3.9	15	40	52	25	13	9.9
MIN	8.3	5.7	4.3	3.1	3.0	3.1	3.2	11	25	7.3	6.7	5.8
AC-FT	591	405	302	250	186	226	388	1570	2150	829	547	419

WTR YR 1987 TOTAL 3967.5 MEAN 10.9 MAX 52 MIN 3.0 AC-FT 7870

BLUE RIVER BASIN

09052000 ROCK CREEK NEAR DILLON, CO

LOCATION.--Lat 39°43'23", long 106°07'41", in NE¼ sec.9, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 500 ft upstream from bridge on State Highway 9, 1,100 ft upstream from mouth, 1,200 ft downstream from confluence of North and South Rock Creeks, and 8 mi northwest of Dillon.

DRAINAGE AREA.--15.8 mi².

PERIOD OF RECORD.--July 1942 to September 1956, October 1966 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,502.52 ft, (Colorado Highway Department datum). Prior to Apr. 21, 1943, nonrecording gage, and Apr. 21, 1943, to Sept. 13, 1950, water-stage recorder, at site 500 ft downstream at datum 28.76 ft, lower.

REMARKS.--Estimated discharges: Nov. 8 to Apr. 17, Sept. 30. Records good except for estimated daily discharges, which are poor. A few small diversions for irrigation of hay meadows upstream and downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--35 years, (water years 1943-56, 1967-87), 23.2 ft³/s; 16,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 289 ft³/s, June 10, 1973, gage height, 4.35 ft, from rating curve extended above 154 ft³/s; maximum gage height, 4.36 ft, June 24, 1971; minimum daily discharge, 2.2 ft³/s, Apr. 13, 17, 1945.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 16	2400	*136	*3.77	No other peak greater than base discharge.			
Minimum daily, 3.5 ft ³ /s, Feb. 11-17.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.1	6.8	4.0	4.0	4.0	5.0	44	52	43	34	9.6
2	11	7.9	6.5	4.0	4.0	4.0	5.0	40	57	37	26	9.3
3	11	8.1	6.2	4.0	4.0	4.0	5.0	27	54	37	22	9.1
4	11	7.9	6.0	4.0	4.0	4.0	5.0	21	59	35	19	9.5
5	11	8.7	6.0	4.0	4.0	4.0	5.0	20	65	32	17	9.1
6	11	8.9	6.0	4.0	4.0	4.2	5.0	22	65	29	17	8.6
7	11	7.7	6.0	4.0	4.0	4.4	5.0	29	77	28	20	8.3
8	10	7.6	6.0	4.0	4.0	4.6	5.0	41	86	28	21	8.1
9	10	7.2	6.0	4.0	4.0	4.8	5.2	56	86	28	20	7.8
10	10	7.0	6.0	4.0	3.8	4.9	5.4	61	77	27	19	7.4
11	12	7.0	6.0	4.0	3.5	5.0	5.8	67	75	26	17	7.2
12	10	7.0	6.0	4.0	3.5	5.0	6.0	73	74	27	17	7.0
13	10	7.0	5.8	4.0	3.5	5.0	6.4	75	72	23	16	6.9
14	10	7.0	5.6	4.0	3.5	5.0	6.8	82	76	20	15	8.2
15	9.5	7.0	5.5	4.0	3.5	5.0	7.0	95	78	20	14	11
16	9.2	7.0	5.3	4.0	3.5	5.0	7.4	108	72	20	14	11
17	8.8	7.0	5.2	4.0	3.5	5.0	8.0	107	66	22	12	14
18	8.7	7.0	5.0	4.0	3.8	5.0	11	85	55	23	12	12
19	8.8	7.0	4.9	4.0	4.0	5.0	14	70	52	20	11	9.8
20	10	7.0	4.7	4.0	4.0	5.0	14	65	52	19	11	8.8
21	9.4	7.0	4.5	4.0	4.0	5.0	13	56	51	19	11	8.3
22	9.1	7.0	4.4	4.0	4.0	5.0	15	49	51	20	13	7.7
23	8.9	7.0	4.2	4.0	4.0	5.0	17	46	51	20	15	7.3
24	8.7	7.0	4.1	4.0	4.0	5.0	22	46	51	19	24	7.0
25	8.6	7.0	4.0	4.0	4.0	5.0	26	39	45	19	20	6.8
26	8.3	7.0	4.0	4.0	4.0	5.0	31	36	43	19	17	6.8
27	8.4	7.0	4.0	4.0	4.0	5.0	35	31	43	29	14	7.1
28	8.4	7.0	4.0	4.0	4.0	5.0	37	29	42	35	13	6.3
29	7.9	7.0	4.0	4.0	---	5.0	43	31	49	26	12	6.1
30	8.2	7.0	4.0	4.0	---	5.0	41	29	47	31	11	6.0
31	8.5	---	4.0	4.0	---	5.0	---	34	---	57	10	---
TOTAL	298.4	219.1	160.7	124.0	108.1	147.9	417.0	1614	1823	838	514	252.1
MEAN	9.63	7.30	5.18	4.00	3.86	4.77	13.9	52.1	60.8	27.0	16.6	8.40
MAX	12	8.9	6.8	4.0	4.0	5.0	43	108	86	57	34	14
MIN	7.9	7.0	4.0	4.0	3.5	4.0	5.0	20	42	19	10	6.0
AC-FT	592	435	319	246	214	293	827	3200	3620	1660	1020	500

CAL YR 1986 TOTAL 10283.6 MEAN 28.2 MAX 181 MIN 4.0 AC-FT 20400
WTR YR 1987 TOTAL 6516.3 MEAN 17.9 MAX 108 MIN 3.5 AC-FT 12930

09052400 BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°43'41", long 106°10'22", in SW¼SW¼ sec.6, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank 1.2 mi downstream from Boulder Lake, 3.2 mi upstream from mouth, and 9.4 mi northwest of Dillon.

DRAINAGE AREA.--8.56 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,460 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-7, Nov. 3 to Apr. 27. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years, 17.4 ft³/s; 12,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 316 ft³/s, July 1, 1984, gage height, 3.42 ft; minimum daily, 0.80 ft³/s, Jan. 6, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 120 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 16	2200	*100	*2.42				

Minimum daily, 2.5 ft³/s, Jan. 30 to Feb. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	5.8	4.3	3.0	2.5	3.0	3.0	19	38	34	23	6.9
2	7.9	5.6	4.2	3.0	2.5	3.0	3.0	16	47	30	20	6.9
3	7.8	5.8	4.2	3.0	2.5	3.0	3.0	11	47	30	18	6.9
4	7.6	6.0	4.1	3.0	2.5	3.0	3.0	8.9	56	27	15	7.1
5	7.4	6.0	4.1	3.0	2.5	3.0	3.0	8.6	59	25	14	6.9
6	7.2	6.0	4.0	3.0	2.5	3.0	3.0	11	61	23	13	6.7
7	7.0	6.0	4.0	3.0	2.5	3.0	3.0	15	73	22	15	6.3
8	7.1	6.0	4.0	3.0	2.7	3.0	3.0	24	81	22	15	5.8
9	7.1	6.0	4.0	3.0	2.8	3.0	3.2	30	80	22	13	5.3
10	7.1	6.0	4.0	3.0	3.0	3.0	3.5	38	70	22	13	5.1
11	7.4	6.0	4.0	3.0	3.0	3.0	3.8	47	67	20	12	5.1
12	6.7	6.0	4.0	3.0	3.0	3.0	4.2	50	67	22	11	4.7
13	7.1	5.6	3.9	3.0	3.0	3.0	4.5	46	69	19	11	4.7
14	6.5	5.4	3.8	3.0	3.0	3.0	4.9	55	76	16	11	5.1
15	6.3	5.0	3.7	3.0	3.0	3.0	5.3	68	75	17	9.7	6.9
16	6.0	5.0	3.6	3.0	3.0	3.0	5.7	81	70	17	9.4	7.1
17	5.8	5.0	3.5	3.0	3.0	3.0	6.2	80	62	18	9.2	9.1
18	5.8	5.0	3.4	3.0	3.0	3.0	6.8	66	52	18	8.3	8.0
19	5.8	5.0	3.2	3.0	3.0	3.0	7.3	51	50	15	7.7	7.1
20	6.5	5.0	3.1	3.0	3.0	3.0	7.8	47	48	15	7.7	6.7
21	6.3	5.0	3.1	3.0	3.0	3.0	8.5	35	47	15	7.7	5.8
22	6.3	4.9	3.0	3.0	3.0	3.0	9.2	30	44	17	8.6	5.3
23	6.3	4.8	3.0	3.0	3.0	3.0	10	30	47	18	9.4	5.1
24	6.0	4.8	3.0	3.0	3.0	3.0	11	30	43	17	13	4.8
25	5.6	4.7	3.0	3.0	3.0	3.0	12	25	39	15	13	4.7
26	5.8	4.7	3.0	3.0	3.0	3.0	13	22	38	17	11	4.7
27	5.3	4.6	3.0	2.9	3.0	3.0	14	20	35	26	9.5	4.7
28	5.3	4.5	3.0	2.7	3.0	3.0	15	18	34	30	8.9	4.7
29	5.1	4.5	3.0	2.6	---	3.0	19	18	36	22	8.0	4.7
30	5.3	4.4	3.0	2.5	---	3.0	18	18	35	22	7.4	4.6
31	5.3	---	3.0	2.5	---	3.0	---	22	---	30	7.1	---
TOTAL	200.7	159.1	110.2	91.2	80.0	93.0	216.9	1040.5	1646	663	359.6	177.5
MEAN	6.47	5.30	3.55	2.94	2.86	3.00	7.23	33.6	54.9	21.4	11.6	5.92
MAX	8.0	6.0	4.3	3.0	3.0	3.0	19	81	81	34	23	9.1
MIN	5.1	4.4	3.0	2.5	2.5	3.0	3.0	8.6	34	15	7.1	4.6
AC-FT	398	316	219	181	159	184	430	2060	3260	1320	713	352

CAL YR 1986 TOTAL 7988.8 MEAN 21.9 MAX 149 MIN 2.8 AC-FT 15850
WTR YR 1987 TOTAL 4837.7 MEAN 13.3 MAX 81 MIN 2.5 AC-FT 9600

BLUE RIVER BASIN

09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO

LOCATION.--Lat 39°45'47", long 106°11'31", in SW¼NW¼ sec.25, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on left bank 0.2 mi upstream from unnamed tributary, 2.7 mi upstream from mouth, and 12 mi northwest of Dillon.

DRAINAGE AREA.--14.2 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,040 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8-22, 13-27, and Dec. 20 to Apr. 13. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years, 26.6 ft³/s; 19,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 485 ft³/s, Aug. 5, 1983, gage height, 6.14 ft, from rating curve extended above 170 ft³/s; maximum gage height, 6.56 ft, May 2, 1975 (backwater from beaver dam and ice); minimum daily discharge, 1.0 ft³/s, Mar. 14, 1974, Jan. 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 17	0045	*146	*4.48				

Minimum daily, 2.8 ft³/s, Feb. 9-16.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	7.6	5.2	3.2	3.0	3.0	3.0	43	55	53	36	10
2	12	7.5	5.2	3.2	3.0	3.0	3.0	41	64	50	30	9.6
3	12	7.1	5.2	3.1	3.0	3.0	3.0	31	63	49	26	9.3
4	13	7.0	5.0	3.1	3.0	3.0	3.0	25	71	44	23	9.8
5	12	6.8	5.1	3.0	3.0	3.0	3.0	22	79	40	20	10
6	11	6.9	5.0	3.0	3.0	3.0	3.0	22	78	38	19	9.0
7	12	7.2	5.1	3.0	3.0	3.0	3.0	26	95	36	21	8.3
8	13	6.8	5.0	3.0	3.0	3.0	3.0	37	102	35	24	7.5
9	13	6.6	4.8	3.0	2.8	3.0	3.3	51	97	34	22	6.8
10	13	6.5	4.6	3.0	2.8	3.0	3.7	59	86	36	19	6.4
11	13	6.4	4.5	3.0	2.8	3.0	4.0	71	81	33	18	6.2
12	12	6.3	4.5	3.0	2.8	3.0	4.5	80	81	35	17	6.0
13	11	6.0	4.5	3.0	2.8	3.0	5.0	80	83	34	15	5.9
14	11	5.8	4.5	3.0	2.8	3.0	5.4	88	94	27	15	6.2
15	10	5.6	4.5	3.0	2.8	3.0	7.3	104	89	28	13	8.0
16	9.4	5.4	4.5	3.0	2.8	3.0	11	122	82	28	12	9.5
17	8.9	5.0	4.5	3.0	2.9	3.0	13	121	78	27	11	15
18	8.4	5.0	4.5	3.0	3.0	3.0	12	98	65	28	10	13
19	8.2	5.0	4.4	3.0	3.0	3.0	14	78	64	25	9.4	10
20	9.2	5.0	4.3	3.0	3.0	3.0	14	72	63	24	9.0	8.5
21	8.9	5.0	4.2	3.0	3.0	3.0	12	60	60	23	9.3	7.4
22	9.0	5.0	4.1	3.0	3.0	3.0	13	50	61	28	10	6.6
23	8.9	5.0	4.0	3.0	3.0	3.0	17	47	62	29	14	6.2
24	8.7	5.0	3.9	3.0	3.0	3.0	22	46	61	26	26	6.1
25	8.5	5.0	3.8	3.0	3.0	3.0	25	39	57	25	29	5.9
26	8.1	5.0	3.7	3.0	3.0	3.0	27	35	57	26	29	5.8
27	7.7	5.0	3.6	3.0	3.0	3.0	31	30	55	42	21	5.8
28	7.4	5.3	3.5	3.0	3.0	3.0	38	27	52	54	17	5.7
29	7.1	5.1	3.4	3.0	---	3.0	46	27	54	40	14	5.6
30	7.0	5.1	3.3	3.0	---	3.0	44	26	54	35	12	5.5
31	7.4	---	3.3	3.0	---	3.0	---	32	---	39	11	---
TOTAL	312.8	176.0	135.7	93.6	82.3	93.0	396.2	1690	2143	1071	561.7	235.6
MEAN	10.1	5.87	4.38	3.02	2.94	3.00	13.2	54.5	71.4	34.5	18.1	7.85
MAX	13	7.6	5.2	3.2	3.0	3.0	46	122	102	54	36	15
MIN	7.0	5.0	3.3	3.0	2.8	3.0	3.0	22	52	23	9.0	5.5
AC-FT	620	349	269	186	163	184	786	3350	4250	2120	1110	467

CAL YR 1986 TOTAL 12058.3 MEAN 33.0 MAX 225 MIN 2.9 AC-FT 23920
WTR YR 1987 TOTAL 6990.9 MEAN 19.2 MAX 122 MIN 2.8 AC-FT 13870

09053500 BLUE RIVER ABOVE GREEN MOUNTAIN RESERVOIR, CO

LOCATION.--Lat 39°49'32", long 106°12'50", in NE¼ sec.3, R.79 W, T.3 S, Summit County, Hydrologic Unit 14010002, on left bank, 400 ft downstream of State Highway 9, 1.1 mi downstream from Brush Creek, 0.25 mi downstream from McKinney Gulch, and 18 mi southeast of Kremmling.

DRAINAGE AREA.--511 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1943 to September 1971, October 1985 to October 1987 (discontinued).

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,965 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1943 to Sept. 30, 1971, at site 0.2 mi downstream, at different datum.

REMARKS.--Estimated daily discharges: Dec. 9 to Mar. 17. Records good. Flow regulated by Dillon Reservoir since Sept. 3, 1963 (see station 09050600). Natural flow of stream affected by transmountain and transbasin diversions and by many small diversions for irrigation of about 4,000 acres of hay meadows upstream from station.

AVERAGE DISCHARGE.--20 years (1943-63), 433 ft³/s; 313,500 acre-ft/yr; 9 years (1963-70, 1986-87); 331 ft³/s; 239,800 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,020 ft³/s, June 11, 1952, gage height, 4.93 ft; minimum daily, 33 ft³/s, Oct. 20, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,680 ft³/s, June 10, gage height, 9.45 ft; minimum daily, 100 ft³/s, Mar. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	231	145	130	130	110	117	280	877	819	572	354
2	281	226	145	130	125	110	119	284	961	752	523	354
3	286	224	146	130	120	110	118	250	978	711	507	321
4	289	219	147	130	120	110	125	228	1040	666	457	267
5	281	218	141	130	120	110	123	217	1110	626	409	264
6	278	221	128	130	120	110	123	220	1150	578	410	258
7	277	221	130	130	120	110	126	230	1230	540	422	255
8	278	218	129	130	120	110	129	258	1360	514	415	256
9	278	217	130	130	120	110	133	309	1460	480	399	168
10	278	218	130	130	120	110	127	331	1520	448	388	156
11	283	218	130	130	120	110	132	369	1510	432	358	152
12	273	217	130	130	120	105	132	393	1460	440	359	159
13	268	215	130	130	120	100	126	408	1450	438	356	152
14	274	203	130	130	120	105	124	433	1460	411	341	155
15	271	155	130	130	120	110	142	505	1470	391	324	167
16	269	152	130	130	120	115	173	752	1420	385	316	168
17	268	153	130	130	120	120	181	1160	1340	383	311	183
18	269	154	130	130	120	126	194	1370	1220	404	307	181
19	267	154	130	130	120	120	201	1410	1150	386	270	209
20	278	155	130	130	120	119	202	1400	1100	375	267	207
21	281	155	130	130	120	119	175	1340	1090	377	254	205
22	279	152	130	130	115	118	184	1230	1010	388	261	200
23	275	151	130	130	110	116	207	1160	963	371	278	198
24	331	151	130	130	110	115	232	1140	930	315	324	199
25	455	149	130	130	110	115	239	1090	879	340	306	274
26	450	145	130	130	110	114	247	1020	847	388	283	281
27	452	147	130	130	110	117	249	926	814	465	289	287
28	452	145	130	130	110	120	258	877	801	529	334	279
29	446	143	130	130	---	123	280	856	825	599	368	277
30	450	143	130	130	---	130	274	822	833	583	365	259
31	388	---	130	130	---	126	---	805	---	631	360	---
TOTAL	9793	5470	4101	4030	3310	3543	5192	22073	34258	15165	11133	6845
MEAN	316	182	132	130	118	114	173	712	1142	489	359	228
MAX	455	231	147	130	130	130	280	1410	1520	819	572	354
MIN	267	143	128	130	110	100	117	217	801	315	254	152
AC-FT	19420	10850	8130	7990	6570	7030	10300	43780	67950	30080	22080	13580

CAL YR 1986 TOTAL 190835 MEAN 523 MAX 2900 MIN 110 AC-FT 378500
WTR YR 1987 TOTAL 124913 MEAN 342 MAX 1520 MIN 100 AC-FT 247800

09053500 BLUE RIVER ABOVE GREEN MOUNTAIN RESERVOIR, CO--Continued

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

[illegible]

09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO

LOCATION.--Lat 39°47'59", long 106°16'04", in SW¼SW¼ sec.8, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on right bank 600 ft upstream from bridge, 0.3 mi downstream from Black Lake, 4.5 mi upstream from highwater line of Green Mountain Reservoir at elevation 7,950 ft, and 17 mi northwest of Dillon.

DRAINAGE AREA.--15.0 mi².

PERIOD OF RECORD.--July 1942 to September 1949, October 1966 to current year.

REVISED RECORDS.--WSP 2124: Drainage area, WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Elevation of gage is 8,750 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 17, 1942, to May 27, 1943, nonrecording gage, and May 28, 1943, to Sept. 30, 1949, water-stage recorder at site 600 ft downstream at different datums.

REMARKS.--Estimated daily discharges: Jan. 9-11, 15, 17, 18, 30, Feb. 5-10, 12, 16, 18-23, Mar. 4-7, 11, 13, 20-31, Apr. 2, 3, 14, 15. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 32.7 ft³/s; 23,690 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 555 ft³/s, June 25, 1983, gage height, 4.74 ft, from rating curve extended above 240 ft³/s, maximum gage height, 5.64 ft, June 30, 1984; minimum daily discharge, 1.3 ft³/s, Feb. 22, 1976, Jan. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 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	*233	*4.60	June 9	0100	161	4.16

Minimum daily discharge, 1.7 ft³/s, Jan. 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	11	5.1	3.7	2.1	3.1	2.9	53	51	56	48	17
2	16	9.4	5.1	3.9	2.2	2.9	3.0	49	76	56	40	17
3	17	8.4	4.9	4.0	2.3	3.0	3.0	39	77	56	38	17
4	18	7.8	4.7	3.2	2.4	3.0	2.9	33	84	54	37	17
5	17	7.3	4.7	2.6	2.4	3.0	2.9	30	96	50	35	16
6	17	7.6	4.5	2.6	2.5	3.0	3.0	30	98	46	34	16
7	19	8.7	4.4	2.6	2.6	3.0	2.9	34	135	43	36	15
8	20	8.5	4.4	2.6	2.6	2.9	2.9	45	150	42	37	15
9	20	8.6	4.4	2.6	2.6	2.9	2.9	76	151	42	36	14
10	19	9.1	4.4	2.6	2.6	2.9	2.9	82	120	45	35	13
11	20	10	4.4	2.6	2.6	2.8	2.9	111	95	42	33	12
12	19	6.8	4.4	2.6	2.8	2.9	2.9	95	96	45	32	11
13	17	6.0	4.2	2.8	2.9	3.0	2.9	92	103	43	30	10
14	16	6.1	4.0	2.6	2.9	3.1	3.0	110	131	40	28	8.2
15	15	6.9	4.0	2.4	2.9	3.1	3.0	146	117	39	25	8.3
16	14	5.8	4.0	2.3	2.9	3.1	2.9	158	121	40	23	10
17	13	6.0	3.9	2.2	2.9	3.1	3.0	179	109	41	22	12
18	13	4.9	3.7	2.1	3.0	3.1	7.2	135	86	42	21	13
19	12	5.1	3.9	2.0	3.0	3.1	14	93	83	40	20	12
20	12	5.1	4.0	2.1	3.0	3.0	20	83	82	40	19	12
21	13	5.1	3.7	1.9	3.0	3.0	21	76	78	39	19	11
22	13	5.4	3.8	1.8	3.0	3.0	20	56	81	40	20	10
23	13	5.5	4.0	1.8	3.0	3.0	21	44	82	41	21	9.5
24	14	5.2	3.9	1.7	3.1	3.0	30	43	79	40	31	5.9
25	14	5.1	3.7	1.7	3.1	3.0	36	39	76	40	38	3.9
26	13	5.1	3.9	1.8	3.1	3.0	42	37	76	40	37	3.4
27	13	5.1	4.0	1.9	3.1	3.0	47	36	74	59	31	3.4
28	13	5.1	3.7	1.9	3.1	3.0	48	34	73	63	26	3.4
29	12	5.1	3.8	1.9	---	3.0	53	34	74	55	22	3.4
30	11	5.1	4.0	2.0	---	3.0	49	33	68	46	19	3.4
31	10	---	3.9	2.1	---	3.0	---	35	---	42	18	---
TOTAL	469	200.9	129.5	74.6	77.7	93.0	458.1	2140	2822	1407	911	322.8
MEAN	15.1	6.70	4.18	2.41	2.77	3.00	15.3	69.0	94.1	45.4	29.4	10.8
MAX	20	11	5.1	4.0	3.1	3.1	53	179	151	63	48	17
MIN	10	4.9	3.7	1.7	2.1	2.8	2.9	30	51	39	18	3.4
AC-FT	930	398	257	148	154	184	909	4240	5600	2790	1810	640

CAL YR 1986 TOTAL 14003.4 MEAN 38.4 MAX 260 MIN 3.7 AC-FT 27780
WTR YR 1987 TOTAL 9105.6 MEAN 24.9 MAX 179 MIN 1.7 AC-FT 18060

BLUE RIVER BASIN

09055300 CATARACT CREEK NEAR KREMMLING, CO

LOCATION.--Lat 39°50'07", long 106°18'57", in SW¼NE¼ sec.35, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on right bank 70 ft downstream from lower Cataract Lake, 2.8 mi upstream from highwater line of Green Mountain Reservoir at elevation 7,950 ft, and 17 mi south of Kremmling.

DRAINAGE AREA.--12.0 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,605 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 15 to Apr. 8. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years, 20.6 ft³/s; 14,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 353 ft³/s, June 25, 1983, gage height, 5.20 ft, maximum gage height, 5.43 ft, June 21, 1967; minimum daily discharge, 0.28 ft³/s, Oct. 7, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 17	0500	*212	*4.35	June 9	0500	188	4.21

Minimum daily discharge, 1.0 ft³/s, Feb. 10, 13-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	4.9	2.8	1.6	1.2	1.1	1.1	52	45	35	26	5.9
2	8.1	4.8	2.7	1.5	1.2	1.1	1.1	46	70	33	23	5.5
3	8.6	4.7	2.7	1.5	1.2	1.1	1.1	36	68	31	19	4.9
4	8.4	4.5	2.6	1.5	1.1	1.1	1.1	28	76	29	15	4.7
5	8.2	4.3	2.6	1.4	1.1	1.1	1.1	24	95	27	13	4.6
6	8.0	4.1	2.5	1.4	1.1	1.1	1.1	22	85	24	12	4.4
7	8.4	4.0	2.5	1.4	1.1	1.1	1.1	24	112	23	11	4.1
8	8.9	4.4	2.5	1.4	1.1	1.1	1.1	29	141	22	12	3.8
9	9.1	4.4	2.5	1.4	1.1	1.1	1.3	39	157	20	12	3.5
10	9.0	4.5	2.5	1.4	1.0	1.1	1.5	51	116	19	11	3.3
11	9.0	4.4	2.5	1.4	1.1	1.1	1.5	69	104	19	9.9	3.1
12	8.6	4.2	2.5	1.4	1.1	1.1	1.6	78	106	21	9.2	3.0
13	7.7	4.0	2.4	1.4	1.0	1.1	1.7	72	100	24	9.0	2.8
14	7.1	3.8	2.4	1.3	1.0	1.1	1.6	82	105	20	8.4	2.7
15	6.6	3.7	2.3	1.3	1.1	1.1	1.7	111	104	17	7.6	2.8
16	6.1	3.7	2.3	1.3	1.1	1.1	2.2	118	97	16	6.9	2.9
17	5.9	3.7	2.2	1.3	1.1	1.1	3.8	176	88	16	6.2	3.2
18	5.7	3.7	2.1	1.3	1.1	1.1	4.0	142	68	20	5.8	3.4
19	5.1	3.7	2.1	1.3	1.1	1.1	5.0	102	59	18	5.2	3.6
20	5.3	3.7	2.0	1.3	1.1	1.1	7.3	82	53	15	4.6	3.5
21	5.4	3.6	2.0	1.3	1.1	1.1	8.4	64	49	15	4.3	3.3
22	5.6	3.6	1.9	1.3	1.1	1.1	9.8	46	48	14	4.2	3.2
23	5.6	3.4	1.9	1.3	1.1	1.1	11	39	47	13	4.2	3.0
24	5.4	3.3	1.8	1.3	1.1	1.1	16	39	44	13	5.3	2.9
25	5.1	3.2	1.8	1.3	1.1	1.1	24	36	41	12	8.0	2.8
26	4.9	3.3	1.8	1.3	1.1	1.1	27	33	40	12	10	2.6
27	4.9	3.2	1.7	1.2	1.1	1.1	30	29	37	17	9.5	2.6
28	4.8	3.2	1.7	1.2	1.1	1.1	31	26	35	23	8.4	2.5
29	4.8	3.0	1.7	1.2	---	1.1	36	25	36	20	7.7	2.4
30	4.8	3.0	1.6	1.2	---	1.1	45	24	37	19	7.0	2.3
31	4.9	---	1.6	1.2	---	1.1	---	27	---	23	6.4	---
TOTAL	208.1	116.0	68.2	41.6	30.8	34.1	280.2	1771	2263	630	301.8	103.3
MEAN	6.71	3.87	2.20	1.34	1.10	1.10	9.34	57.1	75.4	20.3	9.74	3.44
MAX	9.1	4.9	2.8	1.6	1.2	1.1	45	176	157	35	26	5.9
MIN	4.8	3.0	1.6	1.2	1.0	1.1	1.1	22	35	12	4.2	2.3
AC-FT	413	230	135	83	61	68	556	3510	4490	1250	599	205

CAL YR 1986	TOTAL 8748.1	MEAN 24.0	MAX 203	MIN 1.5	AC-FT 17350
WTR YR 1987	TOTAL 5848.1	MEAN 16.0	MAX 176	MIN 1.0	AC-FT 11600

RESERVOIRS IN BLUE RIVER BASIN

09050600 DILLON RESERVOIR.--Lat 39°37'14", long 106°03'53", in NE¼ sec.13, T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, in gatehouse at dam, 0.8 mi upstream from Straight Creek, about 1.3 mi southwest of Dillon, and 3.5 mi northeast of Frisco. DRAINAGE AREA, 335 mi². PERIOD OF RECORD, September 1963 to current year. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

Reservoir is earth and rockfill dam. Dam completed and storage began Sept. 3, 1963; dead storage pool filled Sept. 12, 1963. Capacity, 254,000 acre-ft between elevations 8,829.00 ft, invert of outlet valve, and 9,017.00 ft, crest of spillway. Dead storage, 3,270 acre-ft. Figures given represent usable contents. Reservoir stores water for transmountain diversion to South Platte River basin through Harold D. Roberts tunnel for municipal use by city of Denver. Records provided by Denver Board of Water Commissioners.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 262,200 acre-ft, June 30, 1983, elevation, 9,019.46 ft; minimum since appreciable storage was attained in July 1964, 45,310 acre-ft, Apr. 20, 1965, elevation, 8,904.16 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 259,300 acre-ft, June 10, elevation, 9,018.59 ft; minimum, 232,000 acre-ft, Mar. 5, elevation, 9,009.90.

09057000 GREEN MOUNTAIN RESERVOIR.--Lat 39°52'42", long 106°19'45", in NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, in hoist house at right end of dam, 0.6 mi upstream from Elliott Creek, and 13 mi southeast of Kremmling. DRAINAGE AREA, 598 mi², includes 15.3 mi² of Elliott Creek above diversion for Elliott Creek feeder canal. PERIOD OF RECORD, November 1942 to current year. REVISED RECORDS, WSP 2124: Drainage area. GAGE, Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

Reservoir is formed by an earth and rockfill dam. Dam completed and storage began November 1942. Capacity, 146,900 acre-ft between elevations 7,800 ft, sill of outlet gate, and 7,950 ft, top of radial spillway gates. Dead storage, 6,860 (revised) acre-ft. Figures given represent usable contents. Reservoir is used for power development and storage for replacement of water diverted to South Platte River basin. Water released to fill decrees during late irrigation season when flow of Colorado River is deficient. Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum contents, 148,900 acre-ft, July 10, 1947, elevation, 7,950.95 ft; minimum since appreciable storage was attained, 388 acre-ft, Jan. 12, 1963, elevation, 7,801.70 ft.

EXTREMES FOR CURRENT YEAR: Maximum contents, 143,200 acre-ft, Aug. 4, elevation, 7,948.28 ft; minimum, 51,200 acre-ft, Apr. 16, elevation, 7,888.70 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	09050600 DILLON RESERVOIR			09057000 GREEN MOUNTAIN RESERVOIR		
Sept. 30.....	9,014.51	246,100	-	7,947.01	140,500	-
Oct. 31.....	9,012.69	240,400	-5,700	7,943.52	133,400	-7,100
Nov. 30.....	9,012.74	240,600	+200	7,936.34	119,500	-13,900
Dec. 31.....	9,012.09	238,600	-2,000	7,927.26	103,300	-16,200
CAL YR 1986..	-	-	+7,900	-	-	+4,130
Jan. 31.....	9,011.09	235,500	-3,100	7,917.51	87,700	-15,600
Feb. 28.....	9,010.11	232,600	-2,900	7,906.03	71,580	-16,120
Mar. 31.....	9,010.43	233,600	+1,000	7,892.26	54,970	-16,610
Apr. 30.....	9,012.86	240,900	+7,300	7,892.79	55,560	+590
May 31.....	9,018.14	257,800	+16,900	7,914.248	82,890	+27,330
June 30.....	9,018.06	257,500	-300	7,914.334	129,100	+46,210
July 31.....	9,017.39	255,300	-2,200	7,947.73	142,000	+12,900
Aug. 31.....	9,016.38	252,000	-3,300	7,944.05	134,500	-7,500
Sept. 30.....	9,015.76	250,000	-2,000	7,934.47	116,000	-18,500
WTR YR 1987..	-	-	+3,900	-	-	-24,500

BLUE RIVER BASIN

09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO

LOCATION.--Lat 39°52'49", long 106°20'00", in SW¼NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, on left bank 0.3 mi upstream from Elliott Creek, 0.3 mi downstream from Green Mountain Dam, and 13 mi southeast of Kremmling.

DRAINAGE AREA.--599 mi², includes 15.3 mi² of Elliott Creek above diversion for Elliott Creek feeder canal.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1943, published as Blue River below Green Mountain Reservoir, near Kremmling.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,682.66 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Oct. 1, 1951, water-stage recorder at site 3.7 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Green Mountain Reservoir since November 1942 (station 09057000). Diversions for irrigation of about 5,000 acres upstream from station. Transmountain diversions upstream from station (see elsewhere in this report).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,000 ft³/s, June 4, 1938, gage height, 5.93 ft, site and datum then in use, from rating curve extended above 3,000 ft³/s; maximum gage height, 9.52 ft, July 11, 1983; minimum daily discharge (prior to construction of Green Mountain Reservoir), 80 ft³/s, Feb. 18-24, 1938, Feb. 18-19, 1940; no flow at times in 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,050 ft³/s at 1515 Aug. 5, gage height, 6.09 ft; minimum daily, 1.0 ft³/s, May 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	545	490	415	337	384	386	303	331	715	147	394	593
2	545	496	405	341	380	386	249	383	722	251	395	594
3	549	460	387	339	377	386	247	380	656	401	437	610
4	552	422	392	338	385	386	245	379	630	399	507	598
5	549	424	388	325	388	386	247	377	631	398	519	598
6	545	424	384	310	379	386	245	326	632	398	522	593
7	519	426	392	308	384	386	242	284	626	399	519	592
8	486	428	382	310	389	383	229	284	626	326	502	544
9	485	430	390	313	384	383	226	283	628	272	501	415
10	479	431	396	312	390	386	224	283	623	270	501	369
11	485	431	384	311	388	386	224	282	626	271	499	414
12	484	429	393	313	386	386	222	284	627	274	506	511
13	488	426	389	309	381	386	229	285	621	271	509	541
14	488	435	380	305	385	386	226	285	626	263	546	538
15	479	436	380	312	384	384	226	286	569	271	568	489
16	473	433	387	321	383	383	227	286	508	280	562	437
17	459	428	390	314	384	383	150	285	513	304	566	438
18	456	415	390	312	382	383	82	284	509	333	600	440
19	456	412	364	311	377	382	82	97	463	333	599	443
20	465	420	338	325	379	382	82	1.0	397	357	668	438
21	465	411	335	332	383	381	82	170	396	367	720	441
22	462	413	335	357	308	380	82	599	399	387	651	508
23	451	420	336	384	389	381	82	720	346	418	597	563
24	452	418	336	377	386	383	82	719	231	437	584	606
25	451	421	342	377	378	369	82	718	188	509	400	706
26	452	422	342	383	383	345	84	718	144	442	397	709
27	451	418	337	385	386	339	166	718	147	505	400	709
28	462	421	334	385	386	345	275	718	142	379	477	709
29	508	415	338	393	---	347	286	722	140	234	533	713
30	503	414	338	387	---	345	283	721	145	233	568	711
31	497	---	333	389	---	345	---	717	---	291	609	---
TOTAL	15141	12869	11432	10515	10668	11655	5711	12925.0	14226	10420	16356	16570
MEAN	488	429	369	339	381	376	190	417	474	336	528	552
MAX	552	496	415	393	390	386	303	722	722	509	720	713
MIN	451	411	333	305	308	339	82	1.0	140	147	394	369
AC-FT	30030	25530	22680	20860	21160	23120	11330	25640	28220	20670	32440	32870

CAL YR 1986 TOTAL 215286.0 MEAN 590 MAX 1780 MIN 305 AC-FT 427000
WTR YR 1987 TOTAL 148488.0 MEAN 407 MAX 722 MIN 1.0 AC-FT 294500

09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO--Continued

WATER QUALITY RECORDS

PERIOD OF RECORD.--January 1986 to September 1987.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1986 to September 1987.

WATER TEMPERATURES: January 1986 to September 1987.

INSTRUMENTATION.--Water quality monitor from January 1986 to September 1987 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 259 microsiemens Apr. 27, 1986; minimum, 127 microsiemens July 24, 1986.

WATER TEMPERATURE: Maximum daily, 14.0°C, SEPT. 25, 1987; minimum, 2.6°C, Apr. 2, 21, 22, 1987.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 259 microsiemens Apr. 27; minimum, 131 microsiemens July 26.

WATER TEMPERATURES: Maximum, 14.0°C, Sept. 25; minimum, 2.6°C, Apr. 2, 21, 22.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS WHOLE WATER TOTAL FIELD 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)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)
APR 14...	0850	233	220	8.4	3.0	8.4	93	34	29	4.9	4.9	1.9
MAY 13...	1430	303	195	8.1	5.5	10.2	79	26	25	4.0	4.2	1.7
JUN 02...	1500	400	190	7.7	6.0	10.1	82	30	26	4.1	4.2	1.9
JUN 23...	1510	230	170	7.6	9.0	8.6	67	22	21	3.5	3.7	1.7
JUL 20...	1130	361	175	7.9	10.0	7.6	69	15	22	3.3	3.6	1.7
SEP 16...	0740	466	195	7.7	12.5	6.1	80	33	26	3.6	4.2	2.2

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 SI02)	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 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
APR 14...	59	38	2.2	0.5	4.9	124	122	0.17	78.0	<0.01	0.20	--
MAY 13...	53	34	2.2	0.4	4.5	114	108	0.16	93.3	<0.01	0.20	--
JUN 02...	52	32	2.1	0.1	4.9	106	107	0.14	114	--	0.20	0.20
JUN 23...	45	33	2.0	0.4	5.1	110	97	0.15	68.3	<0.01	0.20	--
JUL 20...	54	39	2.1	0.4	4.5	116	109	0.16	113	--	0.20	0.15
SEP 16...	47	39	1.8	0.4	4.1	104	109	0.14	131	<0.01	0.20	--

DATE	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, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
APR 14...	0.01	--	0.19	--	0.20	--	0.40	0.01	--	<0.01	--
MAY 13...	<0.01	--	--	--	0.20	--	0.40	0.01	--	<0.01	--
JUN 02...	0.02	0.04	1.3	1.3	1.3	1.3	1.5	0.01	0.02	<0.01	<0.01
JUN 23...	<0.01	--	--	--	0.50	--	0.70	0.02	--	0.03	--
JUL 20...	<0.01	<0.01	--	--	0.50	0.60	0.70	0.01	0.06	<0.01	<0.01
SEP 16...	<0.01	--	--	--	<0.20	--	--	0.01	--	<0.01	--

BLUE RIVER BASIN

09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	149	---	162	169	185	198	168	172	180	152	165
2	151	149	---	163	170	186	190	172	170	177	152	166
3	150	150	---	162	170	188	204	173	167	175	152	166
4	150	150	---	164	170	188	212	169	167	173	152	167
5	150	150	---	161	170	187	213	163	167	171	152	168
6	149	151	---	161	171	188	215	169	166	169	153	170
7	150	151	---	161	171	188	215	168	166	168	152	171
8	150	---	---	161	172	188	215	188	162	166	153	171
9	150	---	---	161	173	189	213	203	162	164	153	175
10	149	---	---	161	174	192	216	202	161	162	153	174
11	149	---	---	162	174	194	217	200	162	159	153	175
12	148	---	---	162	175	193	217	200	162	158	153	176
13	148	---	---	163	175	191	218	197	163	156	153	178
14	148	---	---	163	176	189	220	191	163	154	153	178
15	149	---	---	157	177	187	222	189	163	151	154	179
16	148	---	---	164	177	185	224	189	164	149	154	179
17	148	---	161	164	178	183	224	189	164	149	154	179
18	148	---	159	164	178	181	227	186	163	149	154	179
19	147	---	160	164	178	182	230	---	165	149	155	179
20	146	---	162	164	179	192	234	---	165	149	156	181
21	146	---	160	164	179	203	238	---	166	149	156	181
22	148	---	159	165	174	211	243	189	166	143	158	181
23	149	---	160	165	181	210	248	187	170	149	159	181
24	150	---	162	166	182	211	250	188	193	149	159	182
25	151	---	162	166	183	213	245	184	191	149	160	180
26	151	---	163	166	184	212	246	186	189	131	161	182
27	151	---	163	167	185	212	259	180	187	150	161	182
28	149	---	162	168	185	215	249	179	185	151	162	182
29	151	---	163	168	---	215	213	181	171	152	162	182
30	151	---	160	168	---	213	194	175	181	152	163	182
31	152	---	162	169	---	211	---	177	---	152	164	---
MEAN	149	---	---	164	176	196	224	---	170	157	156	176

09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO--Continued

TEMPERATURE, WATER (DEG.C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.7	11.5	8.8	8.6	---	---	3.9	3.7	3.8	3.7	3.2	2.9
2	11.6	11.4	8.7	8.6	---	---	3.9	3.7	3.9	3.7	3.2	3.0
3	11.5	11.4	8.6	8.3	---	---	3.9	3.8	3.8	3.7	3.2	3.0
4	11.5	11.3	8.4	8.3	---	---	3.9	3.8	3.8	3.7	3.3	3.0
5	11.5	11.1	8.2	8.1	---	---	4.0	3.8	3.8	3.6	3.3	3.0
6	11.4	11.0	8.2	7.8	---	---	3.9	3.8	3.8	3.6	3.3	3.0
7	11.3	10.9	7.9	7.8	---	---	3.9	3.7	3.8	3.6	3.2	2.9
8	11.2	10.9	---	---	---	---	3.9	3.7	3.7	3.5	3.1	2.9
9	11.1	10.9	---	---	---	---	3.9	3.7	3.7	3.5	3.2	3.0
10	11.1	10.8	---	---	---	---	3.9	3.7	3.7	3.5	3.2	2.9
11	11.0	10.7	---	---	---	---	4.0	3.8	3.6	3.5	3.1	2.9
12	11.0	10.7	---	---	---	---	4.0	3.8	3.7	3.5	3.2	2.9
13	10.9	10.5	---	---	---	---	3.9	3.8	3.6	3.5	3.2	2.9
14	10.8	10.4	---	---	---	---	3.9	3.7	3.5	3.4	3.1	2.9
15	10.6	10.3	---	---	---	---	3.8	2.7	3.5	3.3	3.1	2.9
16	10.5	10.0	---	---	---	---	3.8	3.7	3.5	3.3	3.1	2.9
17	10.3	9.9	---	---	3.8	3.4	3.8	3.7	3.5	3.3	3.0	2.9
18	10.2	9.8	---	---	3.7	3.5	3.8	3.7	3.5	3.3	3.2	2.9
19	10.4	9.9	---	---	3.7	3.6	3.8	3.6	3.4	3.3	3.2	2.9
20	10.3	10.0	---	---	3.6	3.4	3.8	3.6	3.5	3.3	3.0	2.8
21	10.1	9.8	---	---	3.8	3.3	3.9	3.7	3.5	3.2	3.0	2.8
22	9.8	9.6	---	---	3.8	3.8	3.8	3.7	3.4	2.8	3.1	2.9
23	9.7	9.4	---	---	3.8	3.6	3.8	3.7	3.3	2.9	3.1	2.8
24	9.6	9.2	---	---	3.8	3.7	3.8	3.7	3.3	3.1	3.0	2.8
25	9.4	9.2	---	---	3.8	3.6	3.8	3.7	3.3	3.2	3.1	2.8
26	9.3	9.0	---	---	3.8	3.6	3.8	3.7	3.3	3.1	3.2	2.8
27	9.3	8.8	---	---	3.9	3.8	3.8	3.6	3.2	3.1	3.0	2.8
28	9.1	8.8	---	---	3.9	3.7	3.8	3.5	3.2	2.9	3.0	2.7
29	8.9	8.7	---	---	3.8	3.7	3.8	3.6	---	---	3.0	2.7
30	8.9	8.4	---	---	3.8	3.7	3.8	3.6	---	---	2.9	2.7
31	8.8	8.5	---	---	3.8	3.7	3.8	3.7	---	---	3.1	2.8
MONTH	11.7	8.4	---	---	---	---	4.0	2.7	3.9	2.8	3.3	2.7

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.2	2.8	3.6	3.3	7.3	5.2	9.4	8.2	10.4	9.6	11.9	11.6
2	3.1	2.6	3.5	3.3	7.5	5.3	9.1	8.5	10.4	9.6	12.0	11.6
3	3.3	2.7	3.5	3.3	7.8	5.8	9.0	8.4	10.4	9.8	12.0	11.6
4	3.3	2.8	3.9	3.5	7.6	6.3	9.2	8.5	10.5	10.0	12.0	11.7
5	3.4	2.8	4.6	3.8	7.5	6.7	9.5	8.5	11.0	10.1	12.1	11.8
6	3.2	2.8	4.2	3.6	7.7	6.4	9.3	8.7	10.5	10.1	12.0	11.9
7	3.3	2.8	4.3	3.7	7.4	6.5	9.3	8.7	10.7	10.1	12.0	11.9
8	3.3	2.8	4.5	3.5	7.3	6.8	9.3	8.8	10.8	10.3	12.1	11.9
9	3.3	2.9	4.6	3.6	7.3	6.9	9.4	8.8	10.8	10.2	12.1	11.8
10	3.2	2.9	4.5	3.7	7.8	6.4	9.4	8.9	10.9	10.2	12.2	11.7
11	3.2	2.9	5.4	3.8	7.9	6.7	9.6	8.9	10.9	10.2	12.3	11.8
12	3.1	2.8	4.7	4.0	7.7	7.1	9.5	9.0	10.8	10.4	12.3	11.9
13	3.1	2.7	5.2	4.4	7.9	7.1	9.6	8.9	11.1	10.4	12.2	11.9
14	3.3	2.7	5.0	4.2	8.1	7.2	9.6	9.1	11.1	10.3	12.4	12.0
15	3.4	2.9	4.9	4.5	8.1	7.4	9.7	9.1	11.1	10.6	12.2	12.0
16	3.4	2.9	5.6	4.4	7.9	7.3	9.7	9.2	11.3	10.4	12.2	11.9
17	4.8	3.0	5.8	4.5	8.6	7.3	9.8	9.1	11.2	10.6	12.3	12.0
18	4.4	2.9	6.4	4.3	8.2	7.7	9.6	9.3	11.4	10.8	12.4	11.9
19	4.6	3.0	---	---	8.3	7.6	9.7	9.3	11.4	10.9	12.4	12.0
20	3.7	2.8	---	---	8.4	7.7	9.9	9.2	11.4	10.9	12.4	12.0
21	4.1	2.6	---	---	8.6	7.7	10.2	9.3	11.5	11.0	12.4	12.1
22	4.3	2.6	6.2	4.6	8.5	8.0	10.2	9.6	11.6	11.2	12.3	12.0
23	4.5	2.8	6.5	4.7	8.8	7.9	9.9	9.5	11.6	11.3	12.3	12.0
24	4.5	3.0	6.2	4.9	8.9	7.7	10.1	9.4	11.6	11.2	12.3	12.1
25	4.4	3.0	6.6	5.4	9.4	7.9	10.1	9.7	11.7	11.2	14.0	12.0
26	4.7	3.1	6.2	4.7	9.0	8.1	12.1	9.6	11.7	11.3	12.3	12.0
27	4.1	3.2	6.9	4.6	9.3	8.2	10.2	9.6	11.7	11.3	12.2	12.0
28	3.6	3.1	7.0	5.5	8.8	8.5	10.2	9.7	11.8	11.4	12.1	11.8
29	3.6	3.1	6.5	5.6	8.8	8.2	10.5	9.5	11.8	11.5	12.0	11.8
30	3.9	3.1	6.8	5.8	9.0	8.5	10.4	9.8	11.9	11.5	12.0	11.6
31	---	---	6.7	5.8	---	---	10.3	9.6	11.9	11.6	---	---
MONTH	4.8	2.6	---	---	9.4	5.2	12.1	8.2	11.9	9.6	14.0	11.6

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

COLORADO RIVER MAIN STEM

09058000 COLORADO RIVER NEAR KREMMLING, CO

LOCATION.--Lat 40°02'12", long 106°26'22", in NE¼SW¼ sec.23, T.1 N., R.81 W., Grand County, Hydrologic Unit 14010001, on right bank at upstream end of Gore Canyon, 3.0 mi southwest of Kremmling, and 3.8 mi downstream from Blue River.

DRAINAGE AREA.--2,382 mi².

PERIOD OF RECORD.--July 1904 to September 1918 (published as Grand River near Kremmling), October 1961 to September 1970, October 1971 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,320 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1313 for history of changes prior to Oct. 1, 1961.

REMARKS.--Estimated daily discharges: Jan. 11, 16, 17. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres upstream from station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years (water years 1962-70, 1972-87), 1,060 ft³/s; 768,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 21,500 ft³/s, June 7, 1912, gage height, 21.8 ft, datum then in use, from rating curve extended above 14,000 ft³/s; minimum observed, 166 ft³/s, Dec. 19, 1907.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,940 ft³/s at 2100 June 10, gage height, 7.48 ft; minimum daily, 514 ft³/s, June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	852	935	817	695	756	681	682	1540	1320	717	850	783
2	982	934	786	711	692	683	624	1670	1350	726	835	754
3	1010	916	774	707	688	683	612	1590	1290	922	826	761
4	1030	858	783	701	697	689	632	1460	1170	920	889	753
5	1030	849	779	689	697	697	662	1360	1180	896	897	759
6	1010	835	791	675	694	699	682	1290	1150	850	866	746
7	987	837	800	675	700	710	759	1200	1130	813	875	747
8	931	838	789	672	714	723	771	1210	1180	790	890	731
9	924	818	787	694	701	742	811	1150	1410	728	840	684
10	922	841	754	690	708	745	751	1230	1820	696	818	628
11	916	820	743	700	716	769	744	1270	1840	694	793	633
12	917	871	755	709	714	791	751	1270	1740	811	787	729
13	908	830	774	699	708	802	699	1240	1640	949	785	772
14	907	844	771	697	711	840	674	1200	1600	853	790	785
15	889	888	766	704	705	808	694	1200	1530	772	809	782
16	883	899	768	700	703	785	833	1200	1350	755	803	735
17	872	890	770	700	705	761	1060	1280	1220	751	799	738
18	865	875	766	703	707	753	1090	1340	1150	813	798	732
19	861	872	762	680	695	762	1140	1300	1130	801	795	727
20	773	878	732	675	706	791	1170	1060	1060	782	809	711
21	731	878	724	712	702	741	941	1060	1100	786	896	703
22	902	871	721	700	697	740	837	1390	1080	783	880	719
23	923	827	720	746	636	726	910	1490	972	788	790	786
24	911	826	735	734	698	720	1040	1370	735	810	806	781
25	908	832	718	734	685	710	1160	1450	660	820	776	847
26	901	854	717	740	684	679	1190	1410	586	843	721	830
27	897	816	726	748	687	684	1220	1320	526	875	687	830
28	888	824	731	750	688	672	1420	1330	514	893	686	823
29	927	822	714	768	---	660	1520	1350	529	770	754	837
30	931	833	715	757	---	667	1540	1280	619	696	758	832
31	949	---	742	775	---	669	---	1260	---	715	801	---
TOTAL	28337	25711	23430	22040	19594	22582	27619	40770	34581	24818	25109	22678
MEAN	914	857	756	711	700	728	921	1315	1153	801	810	756
MAX	1030	935	817	775	756	840	1540	1670	1840	949	897	847
MIN	731	816	714	672	636	660	612	1060	514	694	686	628
AC-FT	56210	51000	46470	43720	38860	44790	54780	80870	68590	49230	49800	44980

CAL YR 1986 TOTAL 544852 MEAN 1493 MAX 4490 MIN 608 AC-FT 1081000
WTR YR 1987 TOTAL 317269 MEAN 869 MAX 1840 MIN 514 AC-FT 629300

LOCATION.--Lat 39°58'01", long 106°31'22", in NW¼NW¼ sec.24, T.1 S., R.82 W., Grand County, Hydrologic Unit 14010001, on left bank, 1.0 mi upstream from Blacktail Creek, 2.0 mi northeast of Radium, and 3.0 mi downstream from Canyon Creek.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 1,940 ft³/s at 0030 June 11, gage height, 4.57 ft; minimum daily, 560 ft³/s, June 28.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	864	975	868	759	797	722	723	1590	1290	782	868	794
2	1010	977	836	752	733	724	665	1710	1350	787	854	766
3	1040	962	829	748	729	724	653	1660	1310	995	843	776
4	1080	890	836	742	738	730	673	1520	1210	997	909	766
5	1080	883	829	730	738	738	703	1400	1210	966	916	773
6	1050	875	843	716	735	740	723	1320	1190	913	884	759
7	1020	871	850	716	741	751	800	1240	1170	868	889	762
8	953	876	840	713	755	764	812	1240	1220	843	907	745
9	946	864	833	735	742	783	852	1190	1420	777	854	696
10	944	881	739	731	749	786	792	1250	1830	742	836	639
11	930	869	780	741	757	810	785	1290	1870	741	807	647
12	934	916	811	750	755	832	792	1290	1780	859	801	751
13	930	875	832	740	749	843	740	1260	1690	1000	798	797
14	926	885	812	738	752	881	715	1230	1650	900	804	808
15	905	925	801	744	746	849	735	1220	1580	823	825	805
16	903	939	815	741	744	826	874	1220	1370	800	819	753
17	890	930	815	741	746	802	1100	1270	1250	791	815	759
18	883	917	808	744	748	794	1130	1330	1180	848	815	749
19	882	912	815	721	736	803	1180	1310	1160	836	812	745
20	805	916	784	716	747	832	1210	1080	1090	822	822	728
21	760	916	763	753	743	782	982	1090	1120	825	920	714
22	924	908	742	741	738	781	878	1350	1110	819	894	734
23	952	868	748	787	677	767	951	1510	994	822	805	804
24	946	867	797	775	739	761	1070	1380	765	839	825	804
25	944	874	749	775	726	751	1180	1460	687	848	794	863
26	935	903	748	781	725	720	1210	1420	618	871	738	854
27	937	868	773	789	728	725	1240	1330	571	898	698	853
28	917	867	794	791	729	713	1420	1320	560	932	698	847
29	961	867	766	809	---	701	1560	1350	578	799	772	860
30	968	878	773	798	---	708	1610	1300	670	723	776	857
31	993	---	790	816	---	710	---	1280	---	734	818	---
TOTAL	29212	26954	24819	23333	20742	23853	28758	41410	35493	26200	25616	23208
MEAN	942	898	801	753	741	769	959	1336	1183	845	826	774
MAX	1080	977	868	816	797	881	1610	1710	1870	1000	920	863
MIN	760	864	739	713	677	701	653	1080	560	723	698	639
AC-FT	57940	53460	49230	46280	41140	47310	57040	82140	70400	51970	50810	46030
CAL YR 1986	TOTAL	557907	MEAN	1529	MAX	4650						

COLORADO RIVER MAIN STEM

09058030 COLORADO RIVER NEAR RADIUM, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 29...	1035	900	198	8.5	7.5	4.0	10.0	<1
MAR 26...	1030	1340	255	8.1	3.5	31	11.0	K63
APR 24...	1430	2470	243	8.0	8.5	200	9.2	K110
MAY 21...	1100	3240	171	7.7	9.5	37	9.1	220
JUN 11...	1200	4440	202	8.5	10.5	20	9.1	120
JUL 16...	0910	1500	283	8.2	16.5	30	7.7	300
AUG 26...	0845	824	250	7.8	14.5	7.6	8.2	K22

DATE	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 29...	--	--	--	1.8	59	<0.5	35	1.9	152
MAR 26...	32	8.0	10	2.7	82	<0.5	57	3.2	169
APR 24...	30	7.0	10	4.3	86	<0.5	36	1.8	165
MAY 21...	22	5.0	7.0	1.7	61	<0.5	27	1.5	119
JUN 11...	23	5.6	7.0	1.5	61	<0.5	33	1.5	131
JUL 16...	33	7.0	11	2.1	88	<0.5	45	2.1	166
AUG 26...	27	6.0	9.0	2.4	76	<0.5	43	2.2	155

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDEED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	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)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)
OCT 29...	18	<0.01	<0.10	0.3	--	--	0.01	<0.01	--
MAR 26...	65	<0.01	0.10	0.6	0.7	0.08	0.02	<0.01	21
APR 24...	536	0.03	0.10	1.2	1.3	0.28	0.05	<0.01	--
MAY 21...	75	<0.01	<0.10	0.6	--	0.06	0.02	<0.01	--
JUN 11...	38	<0.01	<0.10	0.4	--	0.07	0.02	<0.01	45
JUL 16...	32	<0.01	<0.10	0.6	--	0.03	0.03	<0.01	--
AUG 26...	15	<0.01	<0.10	0.4	--	0.05	0.02	<0.01	71

K BASED ON NON-IDEAL COLONY COUNT.

09058030 COLORADO RIVER NEAR RADIUM, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 29...	1035	<1	30	<1	7	1	--	40
MAR 26...	1030	1	40	1	9	5	2000	60
APR 24...	1430	2	90	1	30	18	--	150
MAY 21...	1100	1	40	<1	10	7	2600	80
JUN 11...	1200	<1	30	<1	7	5	1200	70
JUL 16...	0910	1	30	<1	15	8	1400	60
AUG 26...	0845	1	50	<1	3	1	550	40

DATE	*LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)
OCT 29...	2	--	10	--	5	<1	2
MAR 26...	3	90	30	0.10	3	1	<1
APR 24...	10	300	30	0.10	25	2	<1
MAY 21...	4	80	10	<0.10	28	1	<1
JUN 11...	<5	50	20	<0.10	6	<1	<1
JUL 16...	<5	90	30	<0.10	7	<1	<1
AUG 26...	<5	50	10	<0.10	1	<1	<1

* The minimum reporting level for Lead was changed from <1 to <5 during June, 1986.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 08...	0840	938	208	8.0	9.0	3.4	9.3	K7
NOV 12...	1140	930	248	8.5	3.5	2.7	11.0	K5
MAR 26...	0915	674	227	7.9	1.5	2.1	11.6	K1
APR 23...	1015	959	252	8.0	8.0	45	9.8	K14
MAY 13...	1015	1230	200	8.1	9.5	21	9.1	K51
JUN 03...	0945	1330	260	8.3	9.5	5.7	9.7	33
JUL 15...	0945	814	344	8.1	15.0	2.8	9.1	40
AUG 12...	0930	803	222	7.7	13.0	3.4	8.7	K18
SEP 16...	1015	740	214	8.0	11.0	2.3	9.0	20

K BASED ON NON-IDEAL COLONY COUNT

COLORADO RIVER MAIN STEM

09058030 COLORADO RIVER NEAR RADIIUM, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT 08...	12	4.7	7.8	2.0	64	<0.5	37	2.9	136
NOV 12...	24	6.0	9.3	1.9	70	<0.5	48	2.2	155
MAR 26...	24	5.7	8.7	1.8	70	<0.5	40	2.8	141
APR 23...	34	8.5	9.8	2.4	84	<0.5	42	2.8	163
MAY 13...	25	7.7	17	2.7	66	<0.5	47	1.8	138
JUN 03...	31	6.5	7.9	1.9	77	<0.5	50	2.7	155
JUL 15...	40	9.6	11	2.2	110	<0.5	66	3.0	221
AUG 12...	26	5.1	7.8	1.9	70	<0.5	38	2.3	127
SEP 16...	24	3.7	6.4	1.6	68	<0.5	37	2.0	138

DATE	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)
OCT 08...	13	<0.01	<0.10	0.70	0.04	<0.01	<0.01	38
NOV 12...	9	<0.01	<0.10	0.40	0.02	<0.01	<0.01	--
MAR 26...	9	<0.01	<0.10	0.80	0.03	0.01	<0.01	60
APR 23...	128	0.01	<0.10	0.60	0.05	0.03	<0.01	--
MAY 13...	41	<0.01	<0.10	0.80	0.10	0.02	<0.01	--
JUN 03...	--	<0.01	<0.10	0.90	0.06	0.02	<0.01	66
JUL 15...	8	<0.01	<0.10	0.50	0.04	0.04	<0.01	--
AUG 12...	9	<0.01	<0.10	<0.20	0.03	0.01	--	--
SEP 16...	10	<0.01	<0.10	0.50	0.02	0.01	<0.01	44

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	BORON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
OCT 08...	0840	<1	20	<1	2	6	390	30
NOV 12...	1140	2	<10	<1	<1	5	320	20
MAR 26...	0915	1	60	<1	8	5	8100	20
APR 23...	1015	2	10	<1	25	7	2400	60
MAY 13...	1015	1	--	<1	4	5	1400	100
JUN 03...	0945	<1	40	<1	9	3	640	70
JUL 15...	0945	1	20	<1	14	3	480	130
AUG 12...	0930	<1	40	<1	<1	3	530	50
SEP 16...	1015	2	30	<1	7	4	470	40

09058030 COLORADO RIVER NEAR RADIIUM, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)
OCT 08...	<5	40	10	<0.10	2	<1	1
NOV 12...	<5	30	20	<0.10	3	<1	<1
MAR 26...	<5	30	20	<0.10	3	<1	<1
APR 23...	<5	90	20	0.20	6	<1	<1
MAY 13...	<5	60	10	<0.10	12	<1	<1
JUN 03...	<5	60	40	<0.10	2	<1	<1
JUL 15...	<5	70	40	<0.10	2	<1	<1
AUG 12...	<5	70	10	0.20	3	<1	<1
SEP 16...	<5	40	20	<0.10	<1	<1	<1

PINEY RIVER BASIN

09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO

LOCATION.--Lat 39°42'29", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi upstream from Dickson Creek, 2.0 mi downstream from Piney Lake, and 8.5 mi north of Minturn.

DRAINAGE AREA.--13.0 mi².

PERIOD OF RECORD.--October 1947 to September 1954, October 1963 to current year.

GAGE.--Water-stage recorder. Datum of gage is 9,145.25 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to October 1963, water-stage recorder at site 15 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 6 to Apr. 22. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--31 years (1948-54, 1964-87), 25.2 ft³/s; 18,260 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 560 ft³/s, June 8, 1985, gage height, 5.12 ft; maximum gage height observed, 6.44 ft, Apr. 13, 1977; minimum not determined.

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 17	0300	*226	*4.46	June 9	0200	196	*4.46

Minimum daily discharge, 1.3 ft³/s, Jan. 18-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	8.3	5.0	2.5	1.5	2.0	3.5	74	49	38	18	5.7
2	9.7	7.8	5.0	2.5	1.5	2.5	4.0	62	73	32	14	5.3
3	11	7.6	5.0	2.5	1.8	2.7	4.0	38	73	30	12	5.1
4	12	7.7	5.0	2.5	2.0	3.0	4.0	26	86	26	10	5.0
5	11	7.0	5.0	2.5	2.0	3.2	4.5	24	101	23	8.9	4.8
6	10	6.5	4.5	2.0	2.0	3.3	4.5	27	84	21	8.1	4.8
7	12	6.5	4.5	2.0	2.0	3.4	4.5	39	98	19	8.8	4.6
8	14	6.0	4.5	1.8	2.0	3.5	4.5	59	135	18	10	4.5
9	14	5.5	4.0	1.8	2.0	3.5	4.5	69	147	17	9.5	4.2
10	14	5.5	3.0	1.8	2.0	3.2	5.0	80	91	17	8.5	4.0
11	14	5.5	3.0	2.0	2.0	3.0	5.0	105	83	16	7.2	3.9
12	12	5.5	3.5	2.3	2.0	3.0	5.0	99	81	18	6.7	3.7
13	9.6	5.5	4.0	2.3	1.8	3.0	5.0	89	88	20	6.1	3.6
14	8.9	5.5	4.0	2.3	1.8	3.0	5.0	129	94	16	6.3	3.4
15	8.3	5.5	4.0	2.0	1.8	3.0	6.0	145	93	14	5.9	4.1
16	7.6	5.5	4.0	1.6	1.8	3.0	8.0	163	81	14	5.5	5.2
17	7.2	6.0	4.0	1.4	1.8	3.0	10	182	79	14	5.2	7.7
18	7.0	6.5	4.0	1.3	1.8	3.0	13	147	69	17	4.9	8.3
19	6.9	6.5	3.5	1.3	1.7	3.0	15	103	62	15	4.6	6.8
20	7.0	6.5	3.5	1.3	1.6	3.0	20	92	60	12	4.5	5.7
21	7.6	6.5	3.5	1.3	1.6	3.0	18	71	55	11	4.5	5.1
22	7.9	6.0	3.5	1.3	1.6	3.0	16	52	57	10	4.4	4.6
23	8.1	6.5	3.5	1.3	1.6	2.9	27	43	57	10	4.9	4.1
24	8.2	5.0	3.5	1.3	1.6	2.7	49	47	52	9.6	8.3	3.9
25	8.0	5.0	3.0	1.4	1.6	2.7	59	37	46	9.0	14	3.6
26	7.7	5.0	3.0	1.5	1.6	2.7	55	31	44	10	15	3.5
27	8.1	5.0	3.0	1.5	1.7	2.7	60	25	36	24	11	3.4
28	9.2	5.0	3.0	1.5	1.8	2.7	55	19	33	27	9.1	3.4
29	9.1	5.0	3.0	1.5	---	2.7	65	19	34	20	7.9	3.4
30	9.2	5.0	2.5	1.5	---	2.7	71	19	40	16	6.9	3.2
31	9.0	---	2.5	1.5	---	3.0	---	21	---	17	6.3	---
TOTAL	297.6	180.9	117.0	55.3	50.0	91.1	610.0	2136	2181	560.6	257.0	138.6
MEAN	9.60	6.03	3.77	1.78	1.79	2.94	20.3	68.9	72.7	18.1	8.29	4.62
MAX	14	8.3	5.0	2.5	2.0	3.5	71	182	147	38	18	8.3
MIN	6.9	5.0	2.5	1.3	1.5	2.0	3.5	19	33	9.0	4.4	3.2
AC-FT	590	359	232	110	99	181	1210	4240	4330	1110	510	275

CAL YR 1986 TOTAL 10908.9 MEAN 29.9 MAX 248 MIN 2.0 AC-FT 21640
WTR YR 1987 TOTAL 6675.1 MEAN 18.3 MAX 182 MIN 1.3 AC-FT 13240

LOCATION.--Lat 39°42'14", long 106°27'25", Eagle County, Hydrologic Unit 14010001, on right bank 0.6 mi upstream from Freeman Creek, 1.0 mi upstream from mouth, and 6 mi northwest of Vail.

PERIOD OF RECORD.--October 1971 to current year. Prior to October 1972, published as "near Minturn."

GAGE.--Water-stage recorder. Elevation of gage is 9,245 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8, and Nov. 19 to Apr.23. Records good except for estimated daily discharges, which are poor. Diversion by Willy N. ditch 75 ft upstream for irrigation of hay meadows downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years, 2.28 ft³/s; 1,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s, May 6, 1979, gage height, 2.75 ft; maximum gage height 4.89 ft, May 9, 1984 (backwater from ice); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.4 ft³/s at 1300 May 16, gage height, 2.40 ft; minimum daily, 0.40 ft³/s, Jan. 15-22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.2	.80	.60	.70	.70	1.0	2.2	3.0	1.4	1.1	1.1
2	1.5	1.1	.80	.60	.70	.80	1.2	2.2	3.1	1.3	1.0	.98
3	1.5	1.1	.80	.60	.70	1.0	1.3	1.6	2.8	1.3	.93	.94
4	1.5	1.1	.80	.60	.60	1.2	1.3	1.8	2.7	1.2	.97	1.0
5	1.4	1.1	.80	.50	.60	1.4	1.2	1.6	2.7	1.2	.90	.91
6	1.3	1.1	.70	.50	.60	1.6	1.1	2.0	2.7	1.2	.70	.95
7	1.3	1.1	.70	.50	.60	1.7	1.1	2.3	3.1	1.2	1.2	.93
8	1.2	1.0	.70	.50	.60	1.7	1.1	2.3	2.8	1.2	1.2	1.0
9	1.2	.97	.70	.50	.60	1.7	1.1	2.6	2.9	1.2	.78	.71
10	1.2	.93	.60	.50	.60	1.5	1.1	2.6	2.5	1.2	1.0	.90
11	1.2	.93	.60	.60	.60	1.3	1.1	2.9	2.3	1.4	1.0	.97
12	1.2	.89	.60	.60	.60	1.1	1.0	3.2	2.1	1.6	1.1	.91
13	1.1	.78	.70	.60	.60	1.0	.90	3.3	2.0	1.3	1.2	1.1
14	1.1	.80	.70	.50	.50	1.0	.90	3.9	2.0	1.1	1.2	1.0
15	1.0	.80	.70	.40	.50	1.0	1.0	4.4	2.1	1.2	.72	1.0
16	1.1	.85	.70	.40	.50	1.0	1.2	5.0	1.8	1.2	.95	1.7
17	1.1	.91	.70	.40	.50	1.1	1.4	5.0	1.8	1.4	1.1	1.2
18	1.1	.99	.70	.40	.50	1.1	1.6	5.1	1.7	1.2	1.1	.93
19	1.2	1.1	.70	.40	.50	1.1	1.8	4.7	1.7	1.1	1.1	.93
20	1.2	1.0	.70	.40	.50	1.1	1.5	4.7	1.7	1.1	1.2	.99
21	1.2	1.0	.70	.40	.50	.90	1.2	4.8	1.7	1.1	1.2	1.1
22	1.2	1.0	.70	.40	.50	.80	1.1	4.4	1.6	.97	1.3	.93
23	1.2	.90	.70	.50	.50	.80	1.2	4.2	1.6	.79	1.7	.98
24	1.2	.90	.70	.60	.50	.80	1.3	4.0	1.6	.89	1.5	1.0
25	1.2	.90	.70	.60	.50	.80	1.4	3.7	1.6	1.0	1.4	.99
26	1.2	1.0	.70	.60	.50	.80	1.5	3.7	1.6	1.4	1.3	.97
27	1.2	1.0	.70	.60	.50	.80	1.7	3.7	1.6	1.5	1.2	1.0
28	1.2	1.0	.80	.60	.60	.70	1.9	3.9	1.4	1.4	1.2	.98
29	1.2	1.0	.80	.60	---	.70	2.1	3.8	1.8	1.1	1.1	.93
30	1.2	.90	.80	.60	---	.70	2.2	3.3	1.6	1.0	1.2	.99
31	1.2	---	.70	.70	---	.80	---	2.9	---	1.3	1.1	---
TOTAL	38.1	29.35	22.20	16.30	15.70	32.70	39.50	105.8	63.6	37.45	34.65	30.02
MEAN	1.23	.98	.72	.53	.56	1.05	1.32	3.41	2.12	1.21	1.12	1.00
MAX	1.5	1.2	.80	.70	.70	1.7	2.2	5.1	3.1	1.6	1.7	1.7
MIN	1.0	.78	.60	.40	.50	.70	.90	1.6	1.4	.79	.70	.71
AC-FT	76	58	44	32	31	65	78	210	126	74	69	60
CAL YR 1986	TOTAL 741.60		MEAN 2.03	MAX 8.1	MIN .60	AC-FT 1470						
WTR YR 1987	TOTAL 465.37		MEAN 1.27	MAX 5.1	MIN .40	AC-FT 923						

PINEY RIVER BASIN

09058700 FREEMAN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°41'54", long 106°26'42", Eagle County, Hydrologic Unit 14010001, on right bank 0.8 mi upstream from mouth and 7.5 mi north of Minturn.

DRAINAGE AREA.--2.94 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,335 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 12-15, and Nov. 8 to May 3. Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 1.41 ft³/s; 1,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 82 ft³/s, May 25, 1984, gage height, 2.21 ft, maximum gage height, 3.51 ft, May 18, 1973 (backwater from ice); no flow for some days some years.

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 15	0100	*16	*1.88				

Minimum daily, 0.04 ft³/s, Sept. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.49	.35	.20	.07	.05	.05	.05	1.9	1.7	.49	.63	.12
2	.42	.36	.20	.06	.05	.05	.05	2.1	1.6	.41	.38	.10
3	.46	.27	.20	.05	.05	.05	.05	2.3	1.4	.36	.31	.07
4	.50	.21	.20	.05	.05	.05	.05	2.3	1.3	.34	.27	.09
5	.44	.20	.20	.05	.05	.05	.05	3.0	1.4	.30	.25	.08
6	.38	.19	.20	.05	.05	.05	.05	4.9	1.3	.28	.22	.08
7	.36	.19	.20	.05	.05	.05	.05	6.5	1.3	.28	.33	.06
8	.33	.20	.20	.05	.05	.05	.05	6.8	1.6	.28	.44	.07
9	.33	.21	.20	.05	.05	.05	.08	6.5	1.5	.26	.36	.06
10	.33	.21	.20	.05	.05	.05	.10	6.9	1.3	.26	.28	.05
11	.36	.21	.20	.05	.05	.05	.13	6.8	1.2	.28	.30	.06
12	.34	.21	.20	.05	.05	.05	.16	6.4	1.0	.37	.34	.09
13	.32	.21	.20	.05	.05	.05	.20	6.2	1.0	.33	.27	.11
14	.30	.21	.20	.05	.05	.05	.26	5.8	.91	.29	.13	.24
15	.27	.22	.20	.05	.05	.05	.34	8.7	.84	.26	.12	.37
16	.25	.22	.20	.05	.05	.05	.43	9.1	.78	.24	.11	.38
17	.24	.22	.20	.05	.05	.05	.54	9.9	.73	.27	.10	.40
18	.25	.22	.20	.05	.05	.05	.62	7.5	.69	.29	.09	.24
19	.27	.22	.20	.05	.05	.05	.68	6.3	.63	.27	.09	.17
20	.32	.22	.20	.05	.05	.05	.80	5.7	.60	.23	.21	.17
21	.33	.22	.20	.05	.05	.05	.86	5.5	.55	.21	.11	.12
22	.38	.22	.20	.05	.05	.05	.94	4.2	.51	.24	.11	.11
23	.42	.22	.18	.05	.05	.05	1.1	3.5	.48	.22	.22	.07
24	.27	.21	.17	.05	.05	.05	1.2	3.4	.47	.20	.51	.04
25	.26	.20	.16	.05	.05	.05	1.3	3.0	.44	.24	.50	.08
26	.37	.20	.14	.05	.05	.05	1.4	2.7	.42	.36	.33	.11
27	.38	.20	.13	.05	.05	.05	1.5	2.4	.42	.60	.14	.10
28	.38	.20	.11	.05	.05	.05	1.6	2.1	.39	.51	.13	.11
29	.39	.20	.10	.05	---	.05	1.7	2.1	.52	.37	.13	.11
30	.36	.20	.09	.05	---	.05	1.8	2.0	.58	.31	.13	.10
31	.36	---	.08	.05	---	.05	---	1.8	---	.50	.11	---
TOTAL	10.86	6.62	5.56	1.58	1.40	1.55	18.14	148.3	27.56	9.85	7.65	3.96
MEAN	.35	.22	.18	.05	.05	.05	.60	4.78	.92	.32	.25	.13
MAX	.50	.36	.20	.07	.05	.05	1.8	9.9	1.7	.60	.63	.40
MIN	.24	.19	.08	.05	.05	.05	.05	1.8	.39	.20	.09	.04
AC-FT	22	13	11	3.1	2.8	3.1	36	294	55	20	15	7.9

CAL YR 1986	TOTAL 636.13	MEAN 1.74	MAX 18	MIN .08	AC-FT 1260
WTR YR 1987	TOTAL 243.03	MEAN .67	MAX 9.9	MIN .04	AC-FT 482

LOCATION.--Lat 39°43'54", long 106°25'34", Eagle County, Hydrologic Unit 14010001, on left bank 1.4 mi upstream from mouth and 10 mi north of Minturn.

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

REMARKS.--Estimated daily discharges: Nov. 19 to Apr. 21, and July 17 to Sept. 1. Records fair except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81 ft³/s, June 30, 1984, gage height, 1.71 ft, but may have been higher during period of no gage height record May 11 to June 26, 1984; maximum gage height, 2.22 ft, May 12, 1970 (backwater from ice); minimum daily discharge, 0.32 ft³/s, Jan. 7, 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	1.6	1.0	.70	.68	.51	.60	9.6	17	4.0	1.9	1.0
2	2.7	1.8	1.0	.68	.63	.45	.63	7.0	17	3.4	1.6	1.1
3	2.5	1.6	1.1	.66	.60	.42	.66	5.6	18	3.0	1.4	.80
4	2.2	1.7	1.1	.64	.60	.45	.70	5.2	20	2.8	1.3	.80
5	2.7	1.7	1.1	.62	.60	.48	.75	6.0	19	2.7	1.2	.76
6	2.7	1.6	1.2	.60	.60	.51	.80	8.7	19	2.5	1.5	.80
7	2.7	1.6	1.2	.59	.60	.54	.87	11	20	2.5	1.6	.80
8	2.5	1.6	1.2	.58	.60	.54	.90	12	22	2.3	1.4	.76
9	2.6	1.6	1.2	.57	.60	.54	.98	14	18	2.1	1.3	.74
10	2.5	1.6	1.2	.56	.60	.54	1.0	17	16	2.4	1.2	.69
11	2.6	1.5	1.2	.55	.60	.54	1.1	17	15	3.1	1.1	.69
12	2.9	1.5	1.2	.54	.60	.54	1.2	17	14	2.5	1.1	.67
13	3.7	1.5	1.2	.54	.60	.54	1.2	18	12	2.1	1.1	.71
14	3.5	1.5	1.1	.54	.60	.54	1.3	21	12	1.9	1.2	.84
15	2.3	1.5	1.1	.54	.60	.54	1.4	23	12	1.9	1.0	1.0
16	2.7	1.5	1.1	.54	.60	.54	1.5	27	10	1.9	.88	1.4
17	2.5	1.2	1.1	.54	.60	.54	1.6	27	9.6	1.9	.90	1.3
18	2.1	1.1	1.0	.54	.60	.54	1.8	25	8.4	1.9	.98	.89
19	2.1	.86	1.0	.54	.60	.54	2.0	24	7.7	1.9	1.0	.80
20	2.3	.89	.98	.54	.60	.54	2.6	21	7.0	1.8	1.1	.74
21	1.9	.93	.95	.54	.60	.54	2.8	19	6.0	1.8	1.2	.67
22	2.2	.97	.90	.54	.60	.54	3.8	17	5.9	1.7	1.3	.60
23	2.0	1.0	.88	.56	.60	.54	8.5	18	5.4	1.5	1.4	.54
24	1.6	1.0	.87	.58	.60	.54	16	16	5.0	1.6	1.5	.55
25	1.6	1.0	.85	.60	.60	.54	11	15	4.5	2.0	1.4	.52
26	2.2	1.0	.83	.62	.60	.54	10	15	4.3	2.4	1.2	.52
27	1.8	1.0	.80	.64	.60	.54	9.8	12	4.1	2.9	1.1	.59
28	2.2	1.0	.78	.66	.56	.54	9.5	12	3.8	2.3	1.0	.52
29	1.7	1.0	.76	.68	---	.54	8.8	12	5.0	2.0	1.1	.54
30	1.8	1.0	.74	.70	---	.54	8.7	12	5.1	2.6	1.1	.47
31	1.9	---	.72	.69	---	.56	---	15	---	2.2	1.0	---
TOTAL	73.5	39.35	31.36	18.42	16.87	16.34	112.49	479.1	342.8	71.6	38.06	22.81
MEAN	2.37	1.31	1.01	.59	.60	.53	3.75	15.5	11.4	2.31	1.23	.76
MAX	3.7	1.8	1.2	.70	.68	.56	16	27	22	4.0	1.9	1.4
MIN	1.6	.86	.72	.54	.56	.42	.60	5.2	3.8	1.5	.88	.47
AC-FT	146	78	62	37	33	32	223	950	680	142	75	45
CAL YR 1986	TOTAL 2430.09		MEAN 6.66	MAX 49	MIN .55	AC-FT 4820						
WTR YR 1987	TOTAL 1262.70		MEAN 3.46	MAX 27	MIN .42	AC-FT 2500						

PINEY RIVER BASIN

09059500 PINEY RIVER NEAR STATE BRIDGE, CO

LOCATION.--Lat 39°48'00", long 106°35'00", in SW¼NE¼ sec.16, T.3 S., R.82 W., Eagle County, Hydrologic Unit 14010001, on left bank at downstream side of private bridge at Perry Olsen Ranch 1.2 mi downstream from Rock Creek, and 6.0 mi southeast of State Bridge.

DRAINAGE AREA.--86.2 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,272.35 ft above National Geodetic Vertical Datum of 1929. Prior to July 29, 1944, nonrecording gage, and July 29, 1944, to Oct. 24, 1947, water-stage recorder, at datum 2.38 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 7-19, 21, 24-26, and Mar. 28 to Apr. 23. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 400 acres of hay meadows upstream and downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--43 years, 77.2 ft³/s; 55,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,300 ft³/s, May 25, 1984 (occured during a period of no gage-height record); maximum recorded discharge, 1,220 ft³/s, June 27, 1983, gage height, 5.82 ft, (from peak stage indicator), but may have been higher May 25, 1984; minimum daily, 1.9 ft³/s, Sept. 1, 18, 19, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 520 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 17	0600	*536	*4.88	No other peak greater than base discharge.			
Minimum daily, 10 ft ³ /s, Dec. 11.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	33	24	15	16	12	16	227	211	80	41	16
2	37	31	20	18	15	13	16	226	241	70	31	15
3	36	30	20	19	15	13	16	176	237	65	26	15
4	41	29	20	18	15	13	18	146	248	59	24	14
5	37	29	21	20	15	15	19	142	261	55	22	15
6	36	30	22	19	14	17	19	159	246	49	20	14
7	37	29	19	18	14	18	20	198	261	44	23	14
8	38	26	19	17	15	19	21	247	299	42	26	14
9	38	27	16	17	15	21	24	261	309	40	23	14
10	38	26	11	15	15	19	23	286	252	37	21	13
11	38	28	10	17	16	17	23	319	232	37	20	12
12	35	27	12	18	16	16	25	312	219	45	19	12
13	30	26	14	18	17	17	22	308	215	43	18	13
14	30	26	16	17	17	19	20	363	210	37	19	14
15	29	27	16	16	15	18	23	406	203	32	17	15
16	27	26	15	14	15	17	32	453	184	31	16	16
17	27	26	15	15	15	16	41	472	175	32	16	21
18	28	27	14	14	14	16	55	442	151	37	15	20
19	27	28	17	16	14	16	65	383	138	32	14	18
20	29	27	19	15	13	17	72	354	130	29	14	17
21	29	26	21	16	13	15	69	308	118	27	13	16
22	30	28	20	14	12	17	65	273	115	26	14	15
23	31	27	19	15	13	16	120	249	111	25	15	15
24	32	28	22	16	13	15	168	244	106	24	20	14
25	32	29	18	16	14	15	187	227	97	22	27	14
26	30	29	17	16	13	15	182	209	90	29	28	14
27	32	26	19	16	13	16	190	194	81	50	24	13
28	34	26	20	16	13	15	195	173	75	50	21	13
29	33	27	18	15	---	15	210	168	80	39	19	14
30	34	28	17	15	---	14	211	163	91	33	18	14
31	34	---	18	15	---	15	---	171	---	33	17	---
TOTAL	1024	832	549	506	405	497	2167	8259	5386	1254	641	444
MEAN	33.0	27.7	17.7	16.3	14.5	16.0	72.2	266	180	40.5	20.7	14.8
MAX	41	33	24	20	17	21	211	472	309	80	41	21
MIN	27	26	10	14	12	12	16	142	75	22	13	12
AC-FT	2030	1650	1090	1000	803	986	4300	16380	10680	2490	1270	881
CAL YR 1986	TOTAL 37127	MEAN 102	MAX 720	MIN 10	AC-FT 73640							
WTR YR 1987	TOTAL 21964	MEAN 60.2	MAX 472	MIN 10	AC-FT 43570							

09060550 ROCK CREEK AT CRATER, CO

LOCATION.--Lat 39°58'42", long 106°42'34", in NW¼NE¼ sec. 17, T.1 S., R.83 W., Routt County, Hydrologic Unit 14010001, on right bank 250 ft downstream from county bridge crossing, 2 miles downstream from Kayser Mutual Ditch diversion and 0.8 miles northwest of Crater, Colorado.

DRAINAGE AREA.--72.6 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 7,185 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of approximately 1,025 acres upstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 422 ft³/s, May 6, 1985, gage height, 3.97 ft, but may have been higher during period of no gage-height record May 7-14, 1985; minimum daily, 4.4 ft³/s, Sept. 13, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 227 ft³/s at 2100 Apr. 24, gage height, 3.44 ft; minimum daily, 4.4 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	21	15	10	11	11	12	156	51	21	13	5.0
2	29	19	15	9.7	11	10	12	148	45	14	9.0	4.9
3	36	19	13	9.6	11	10	12	123	40	11	7.8	4.9
4	31	19	14	9.9	11	10	13	110	36	9.9	7.1	5.1
5	22	18	14	11	11	11	14	108	33	9.1	6.6	5.3
6	15	18	14	11	12	12	15	120	33	7.7	6.5	5.2
7	17	17	14	11	12	13	17	128	32	6.7	11	5.0
8	17	15	14	11	11	13	18	133	60	6.7	19	4.9
9	16	14	15	11	11	13	20	142	80	6.9	10	4.9
10	15	17	14	11	11	12	19	135	65	6.7	8.1	4.9
11	18	15	12	11	11	12	20	186	46	6.5	7.5	4.8
12	14	19	12	11	11	12	17	171	41	24	7.0	4.5
13	11	16	13	11	11	13	15	165	33	22	6.7	4.4
14	11	16	13	10	11	13	15	166	28	11	6.3	4.7
15	11	17	13	10	11	12	21	164	26	8.0	6.2	5.1
16	15	17	13	10	12	12	37	166	24	7.1	5.9	5.1
17	19	17	13	10	12	11	63	155	21	6.7	5.8	5.1
18	20	17	12	10	12	10	91	140	19	6.7	5.3	5.1
19	20	18	11	9.9	12	11	115	142	18	6.6	4.9	4.8
20	22	15	12	9.6	12	11	103	136	16	6.2	4.8	4.6
21	23	16	12	9.6	12	12	70	130	16	5.8	4.8	4.6
22	23	22	12	9.4	12	11	86	117	15	5.5	4.8	4.6
23	22	19	12	9.4	12	11	129	100	13	5.4	5.1	4.6
24	21	14	11	9.7	12	11	163	95	13	5.3	8.6	4.6
25	23	16	11	9.7	12	11	161	96	12	4.9	12	4.6
26	23	16	11	9.7	11	11	147	86	11	5.8	9.2	4.6
27	24	17	10	10	11	11	151	80	10	8.9	7.5	4.6
28	23	14	10	10	11	11	158	72	10	27	6.2	4.6
29	21	15	10	11	---	11	148	68	11	29	5.7	4.6
30	21	15	10	11	---	12	146	65	25	13	5.6	4.6
31	22	---	10	11	---	11	---	60	---	17	5.2	---
TOTAL	632	508	385	318.2	320	355	2008	3863	883	332.1	233.2	144.3
MEAN	20.4	16.9	12.4	10.3	11.4	11.5	66.9	125	29.4	10.7	7.52	4.81
MAX	36	22	15	11	12	13	163	186	80	29	19	5.3
MIN	11	14	10	9.4	11	10	12	60	10	4.9	4.8	4.4
AC-FT	1250	1010	764	631	635	704	3980	7660	1750	659	463	286
CAL YR 1986	TOTAL	18464.2	MEAN	50.6	MAX	310	MIN	8.2	AC-FT	36620		
WTR YR 1987	TOTAL	9981.7	MEAN	27.3	MAX	186	MIN	4.4	AC-FT	19800		

ROCK CREEK BASIN

09060550 ROCK CREEK AT CRATER, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1986 to September 1987 (discontinued).

WATER TEMPERATURES: April 1986 to September 1987 (discontinued).

INSTRUMENTATION.--Water-quality monitor since April 1986.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office. Water-quality monitor was not operated during winter.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 187 microsiemens Aug.28, 1986; minimum, 46 microsiemens several days during May and June, 1986.

WATER TEMPERATURE: Maximum, 19.0°C July 26, 1987; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum during period of operation, 178 microsiemens Aug.19, 20; minimum during period of operation, 51 microsiemens May 15.

WATER TEMPERATURES: Maximum, 19.0°C July 26; minimum, 0.0°C several days during November, March, and April.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT											
15...	1500	8.0	131	8.0	4.0	--	10.2	69	5	21	4.0
NOV											
18...	1020	16	132	8.1	0.5	1.4	12.2	57	0	17	3.6
JAN											
21...	1030	9.6	144	7.8	0.5	1.0	11.6	65	2	19	4.2
MAR											
10...	1430	12	136	7.7	2.0	1.5	12.1	64	3	19	3.9
APR											
14...	1500	16	134	7.7	0.5	1.5	11.2	65	4	19	4.3
MAY											
06...	1530	96	65	7.8	6.5	4.5	9.8	33	0	10	1.9
20...	1025	115	55	7.6	7.0	3.7	9.9	28	1	8.3	1.7
JUN											
02...	1055	45	76	7.7	7.0	2.1	9.0	34	0	10	2.2
JUL											
07...	1050	7.0	141	7.8	10.0	0.70	8.5	66	0	20	3.9
AUG											
05...	1100	6.6	159	8.1	10.5	0.80	8.6	76	0	23	4.4
SEP											
01...	1315	4.9	165	7.8	9.0	0.40	9.5	83	4	26	4.5

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT											
15...	3.7	0.2	1.5	64	11	1.1	0.20	12	93	0.13	2.01
NOV											
18...	3.4	0.2	1.0	58	10	1.0	0.10	13	84	0.14	4.28
JAN											
21...	4.4	0.2	1.0	63	13	0.70	0.20	15	95	0.16	3.10
MAR											
10...	3.6	0.2	1.0	61	10	0.80	0.10	14	89	0.12	2.87
APR											
14...	3.6	0.2	1.1	61	12	6.4	0.10	14	97	0.12	3.80
MAY											
06...	2.5	0.2	0.8	33	7.8	0.60	<0.10	12	56	0.08	14.5
20...	2.2	0.2	0.6	27	11	0.40	<0.10	11	52	0.06	14.6
JUN											
02...	2.7	0.2	0.7	37	<5.0	0.60	<0.10	11	--	--	--
JUL											
07...	3.7	0.2	1.0	67	12	0.80	0.20	12	94	0.13	1.85
AUG											
05...	4.0	0.2	1.1	76	11	0.70	0.20	12	102	0.12	1.56
SEP											
01...	4.2	0.2	1.3	79	8.7	0.40	0.20	11	104	0.16	1.53

09060550 ROCK CREEK AT CRATER, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)
OCT										
15...	--	--	<0.10	--	<0.01	--	--	--	<0.20	--
NOV										
18...	1	--	<0.10	--	<0.01	--	--	--	0.20	--
JAN										
21...	--	--	0.20	--	<0.01	--	--	--	<0.20	--
MAR										
10...	--	--	0.10	--	<0.01	--	--	--	2.8	--
APR										
14...	7	--	0.10	--	<0.01	--	--	--	0.40	--
MAY										
06...	<1	<0.01	<0.10	<0.10	0.02	0.01	0.28	0.69	0.30	0.70
20...	--	--	<0.10	--	0.02	--	0.48	--	0.50	--
JUN										
02...	9	--	<0.10	--	<0.01	--	--	--	0.70	--
JUL										
07...	--	--	<0.10	--	0.02	--	0.58	--	0.60	--
AUG										
05...	<1	<0.01	<0.10	0.12	<0.01	<0.01	--	--	0.30	<0.20
SEP										
01...	--	--	<0.10	--	<0.01	--	--	--	<0.20	--

DATE	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
OCT										
15...	--	0.02	--	0.02	--	--	--	10	130	110
NOV										
18...	--	0.02	--	0.01	--	2.7	3.0	--	160	--
JAN										
21...	--	0.03	--	0.02	--	--	--	--	170	--
MAR										
10...	2.9	0.03	--	0.03	--	--	--	--	160	--
APR										
14...	0.50	0.03	--	0.02	--	2.8	2.7	--	150	--
MAY										
06...	--	0.03	0.03	0.01	0.01	6.5	4.8	<10	200	62
20...	--	0.03	--	0.01	--	--	--	--	160	--
JUN										
02...	--	0.02	--	<0.01	--	5.7	4.0	--	130	--
JUL										
07...	--	0.04	--	0.02	--	--	--	--	21	--
AUG										
05...	--	0.02	0.02	0.01	0.01	3.9	3.6	10	8	110
SEP										
01...	--	0.03	--	0.02	--	--	--	--	9	--

ROCK CREEK BASIN

09060550 ROCK CREEK AT CRATER, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
MAY 06...	1530	300	<1	<1	100	38	<10	<1	<1	<10	<10
AUG 05...	1100	30	1	<1	200	62	<10	<1	<1	<10	30

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)
MAY 06...	<1	5	1	<5	<5	<10	10	4	1.8	0.2
AUG 05...	<1	1	1	<5	<5	<10	10	2	<0.10	<0.1

DATE	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAY 06...	1	<1	1	<1	<1	<1	<1	<1.0	20	13
AUG 05...	<1	<5	<1	2	<1	<1	<1	<1.0	<10	5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 18...	1020	16	12	0.51	46
APR 14...	1500	16	15	0.65	62
15...	1025	18	5	0.24	85
MAY 06...	1530	96	9	2.3	66
21...	0935	120	17	5.5	66
JUN 02...	1055	45	9	1.1	--
03...	0905	42	6	0.68	57
JUL 07...	1050	7.0	4	0.08	68
08...	1510	6.9	24	0.45	--
23...	0920	5.4	10	0.15	56
AUG 05...	1100	6.6	3	0.05	--
SEP 01...	1315	4.9	3	0.04	38
02...	1520	4.9	4	0.05	15

09060550 ROCK CREEK AT CRATER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	121	---	---	---	---	146	67	80	108	136	171
2	133	127	---	---	---	---	144	67	82	120	149	171
3	119	125	---	---	---	---	140	72	83	129	155	171
4	121	128	---	---	---	---	138	75	86	132	159	170
5	130	131	---	---	---	---	138	75	88	135	163	168
6	135	133	---	---	---	---	136	72	89	136	165	168
7	129	130	---	---	---	---	131	67	89	144	151	170
8	123	138	---	---	---	---	127	65	79	147	129	170
9	125	144	---	---	---	---	125	63	74	147	150	170
10	127	137	---	---	---	---	135	63	78	151	158	171
11	125	136	---	---	---	137	149	60	83	151	161	172
12	137	130	---	---	---	136	136	61	87	119	163	173
13	143	134	---	---	---	136	138	61	90	110	165	173
14	141	136	---	---	---	137	133	58	94	129	166	168
15	141	132	---	---	---	139	121	57	97	141	168	167
16	139	131	---	---	---	138	103	57	98	147	169	167
17	133	132	---	---	---	138	90	58	102	150	169	167
18	130	---	---	---	---	138	81	59	106	150	173	168
19	128	---	---	---	---	137	79	60	109	153	176	170
20	125	---	---	---	---	136	78	61	111	157	177	171
21	122	---	---	---	---	140	90	62	112	160	175	171
22	125	---	---	---	---	140	87	63	115	162	173	172
23	135	---	---	---	---	139	77	65	118	164	170	172
24	136	---	---	---	---	143	70	67	120	167	155	172
25	132	---	---	---	---	143	67	69	122	170	146	173
26	134	---	---	---	---	144	69	70	126	163	151	172
27	130	---	---	---	---	143	70	72	128	148	158	172
28	130	---	---	---	---	144	68	73	129	119	163	168
29	129	---	---	---	---	144	68	74	126	119	164	168
30	126	---	---	---	---	145	68	74	107	136	165	168
31	121	---	---	---	---	145	---	77	---	132	169	---
MEAN	130	---	---	---	---	---	107	65.9	100	142	161	170

ROCK CREEK BASIN

09060550 ROCK CREEK AT CRATER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER	NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH			
1	7.5	3.4	3.3	1.2	---	---	---	---	---	---	---	---
2	8.5	5.2	2.7	.6	---	---	---	---	---	---	---	---
3	6.6	5.1	2.8	.3	---	---	---	---	---	---	---	---
4	5.8	3.7	2.2	.3	---	---	---	---	---	---	---	---
5	7.1	3.0	2.1	.1	---	---	---	---	---	---	---	---
6	7.9	3.6	2.3	.2	---	---	---	---	---	---	---	---
7	8.6	4.7	.8	.0	---	---	---	---	---	---	---	---
8	7.5	4.4	.2	.0	---	---	---	---	---	---	---	---
9	8.4	4.4	.2	.0	---	---	---	---	---	---	---	---
10	7.5	4.2	.2	.0	---	---	---	---	---	---	---	---
11	6.8	3.2	.2	.1	---	---	---	---	---	---	.9	.0
12	4.6	2.3	.5	.0	---	---	---	---	---	---	2.3	.4
13	6.5	2.1	.3	.0	---	---	---	---	---	---	2.2	.1
14	7.0	2.1	.5	.0	---	---	---	---	---	---	1.7	.4
15	7.2	2.3	1.3	.2	---	---	---	---	---	---	1.4	.3
16	7.2	2.4	1.4	.5	---	---	---	---	---	---	1.5	.5
17	5.0	1.6	1.4	.9	---	---	---	---	---	---	1.4	.3
18	5.7	2.4	---	---	---	---	---	---	---	---	2.0	.3
19	5.8	3.7	---	---	---	---	---	---	---	---	2.5	.6
20	6.3	3.9	---	---	---	---	---	---	---	---	1.4	.0
21	5.2	2.1	---	---	---	---	---	---	---	---	.3	.0
22	3.5	1.8	---	---	---	---	---	---	---	---	2.2	.1
23	4.3	1.8	---	---	---	---	---	---	---	---	2.0	.0
24	4.8	1.5	---	---	---	---	---	---	---	---	.5	.0
25	5.3	2.8	---	---	---	---	---	---	---	---	.8	.0
26	4.4	1.4	---	---	---	---	---	---	---	---	1.1	.0
27	4.2	1.4	---	---	---	---	---	---	---	---	1.1	.0
28	4.2	1.6	---	---	---	---	---	---	---	---	.4	.0
29	4.2	1.6	---	---	---	---	---	---	---	---	.4	.0
30	4.8	2.6	---	---	---	---	---	---	---	---	.4	.0
31	3.7	1.6	---	---	---	---	---	---	---	---	.7	.0
MONTH	8.6	1.4	---	---	---	---	---	---	---	---	---	---
APRIL	MAY		JUNE		JULY		AUGUST		SEPTEMBER			
1	2.0	.0	7.4	3.7	14.0	7.7	14.6	10.0	18.1	12.6	15.2	9.2
2	2.1	.0	4.6	2.4	13.5	7.1	16.7	10.3	18.5	11.9	12.7	9.7
3	2.3	.0	4.4	2.8	13.9	7.1	16.4	9.6	16.9	12.1	14.2	9.0
4	2.3	.2	6.3	2.6	14.3	7.2	16.1	9.6	17.7	10.2	12.3	9.9
5	3.1	.5	7.3	3.0	14.8	8.8	15.6	9.7	16.4	10.2	13.5	8.5
6	4.4	.0	9.9	3.0	15.1	10.2	16.2	9.3	14.9	11.2	12.1	7.6
7	3.3	.0	10.2	3.0	14.4	10.1	14.4	9.8	16.6	12.2	11.5	7.9
8	3.7	.1	9.9	3.7	13.4	10.5	14.2	9.8	16.2	11.8	12.4	7.4
9	2.5	.2	8.2	3.8	12.2	9.9	15.9	9.5	16.5	11.1	13.1	8.4
10	3.4	.0	8.9	3.8	12.9	8.7	13.7	9.1	14.9	11.0	12.7	7.7
11	1.9	.0	9.1	5.7	13.7	8.2	11.7	9.8	16.4	10.5	12.1	7.3
12	1.5	.0	9.1	4.1	15.1	9.3	12.9	9.9	15.5	10.7	12.0	7.4
13	2.4	.0	8.5	4.3	15.9	9.2	14.4	8.4	14.9	10.4	11.0	7.7
14	3.3	.0	10.8	4.5	16.6	10.5	16.1	9.4	14.1	10.8	12.3	7.9
15	5.7	.1	12.3	5.4	15.6	10.7	17.1	9.5	15.6	10.1	11.6	8.4
16	4.5	.4	12.0	6.7	15.9	10.8	17.1	9.9	14.9	9.8	11.4	8.2
17	3.9	.2	11.2	7.1	15.6	9.3	13.1	10.9	15.3	9.2	11.7	8.1
18	3.8	.2	10.2	6.5	15.7	9.5	15.7	9.3	15.6	8.8	11.6	5.9
19	4.6	.5	10.1	5.5	15.5	9.1	16.4	9.5	15.7	8.8	11.4	5.9
20	2.1	.1	9.2	7.1	15.5	9.5	15.9	8.9	13.6	9.5	11.8	6.3
21	4.5	.0	8.9	5.6	14.5	9.6	17.3	10.3	14.3	11.1	11.6	6.2
22	4.8	.0	10.9	5.3	15.6	9.6	17.5	11.1	13.2	11.1	11.7	6.0
23	4.8	.4	12.0	6.9	14.9	9.9	17.7	10.5	13.7	10.9	11.8	6.0
24	6.8	.8	9.6	7.4	15.9	9.9	17.9	9.9	12.6	11.6	12.1	6.7
25	6.6	.8	9.9	5.5	15.9	9.3	17.5	12.0	13.1	11.1	11.6	7.6
26	5.9	1.3	9.5	6.1	16.6	10.2	18.9	12.5	13.3	9.7	12.4	7.3
27	7.7	1.6	8.9	4.3	15.7	10.3	18.2	12.3	14.3	8.7	11.6	8.2
28	7.4	2.1	10.7	4.3	13.4	10.0	17.8	13.4	11.6	8.4	10.5	5.7
29	7.0	1.7	9.5	5.6	12.7	11.2	18.1	12.5	14.6	8.2	10.4	5.1
30	7.2	2.0	9.8	5.9	12.6	10.2	18.8	12.9	14.5	8.4	10.7	5.6
31	---	---	12.6	5.5	---	---	17.9	13.2	15.0	8.5	---	---
MONTH	7.7	.0	12.6	2.4	16.6	7.1	18.9	8.4	18.5	8.2	15.2	5.1

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

09060770 ROCK CREEK AT McCOY, CO

LOCATION.--Lat 39°54'44", long 106°43'30", in SE¼NE¼ sec.6, T.2 S., R.83 W., Eagle County, Hydrologic Unit 14010001, on right bank 1,900 ft downstream from bridge on State Highway 131 and 0.25 mi south of McCoy.

DRAINAGE AREA.--198 mi².

PERIOD OF RECORD.--October 1982 to September 1983 (measurements only), October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,660 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 10 to Feb. 3, 5-10, 12, 16, 18-24, 27, 28, and March 1-7. Records good except for periods of estimated daily discharges, which are fair. Diversions for irrigation of approximately 5,000 acres upstream from station. Several observations of specific conductance and water temperature were obtained and published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,760 ft³/s, May 16, 1984, gage height, 4.74 ft, (outside highwater mark); minimum daily, 7.4 ft³/s, July 24, 25, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 550 ft³/s at 0400 April 19, gage height, 2.58 ft; minimum daily, 7.4 ft³/s, July 24, 25, 1987.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	51	37	25	28	27	34	322	78	42	29	11
2	54	52	45	25	29	27	35	298	66	34	22	12
3	61	51	42	25	29	26	40	254	62	26	17	14
4	63	48	38	27	28	26	45	209	58	24	14	15
5	55	48	44	27	29	27	53	199	53	21	11	16
6	48	51	38	28	30	29	62	211	50	18	12	14
7	49	48	38	28	30	31	73	226	47	17	20	13
8	47	41	38	28	30	34	92	238	68	16	30	13
9	45	46	38	28	30	42	104	247	111	16	21	13
10	44	45	35	27	30	38	88	235	102	15	18	12
11	52	50	34	27	27	39	92	297	69	13	17	11
12	48	49	35	27	27	34	69	277	60	30	15	11
13	41	46	38	27	27	35	62	271	49	39	16	12
14	43	46	38	26	28	36	58	253	41	25	16	14
15	42	48	39	25	28	41	99	238	38	19	17	15
16	41	46	39	25	28	38	196	226	34	16	16	15
17	45	45	35	25	28	34	293	208	30	14	14	16
18	45	44	34	25	29	34	323	190	27	15	13	16
19	44	51	35	26	29	36	388	208	26	15	12	17
20	46	42	34	26	28	38	314	202	24	13	12	18
21	51	49	34	25	29	40	158	196	23	12	12	16
22	56	48	34	25	29	36	189	181	21	11	13	16
23	57	37	31	25	28	34	250	147	20	9.2	14	16
24	55	43	30	25	28	34	324	144	20	7.4	19	15
25	56	44	30	26	27	34	348	152	18	7.4	24	15
26	54	42	29	26	26	33	342	136	17	8.8	22	15
27	52	40	27	26	27	31	326	132	17	16	18	16
28	51	44	26	27	26	34	353	114	19	31	16	14
29	50	45	27	27	---	33	338	106	24	34	15	13
30	50	39	26	28	---	37	322	102	43	28	15	13
31	51	---	26	28	---	36	---	96	---	30	13	---
TOTAL	1550	1379	1074	815	792	1054	5470	6315	1315	622.8	523	427
MEAN	50.0	46.0	34.6	26.3	28.3	34.0	182	204	43.8	20.1	16.9	14.2
MAX	63	52	45	28	30	42	388	322	111	42	30	18
MIN	41	37	26	25	26	26	34	96	17	7.4	11	11
AC-FT	3070	2740	2130	1620	1570	2090	10850	12530	2610	1240	1040	847

CAL YR 1986 TOTAL 42198.0 MEAN 116 MAX 802 MIN 24 AC-FT 83700
WTR YR 1987 TOTAL 21336.8 MEAN 58.5 MAX 388 MIN 7.4 AC-FT 42320

ROCK CREEK BASIN
09060770 ROCK CREEK AT MCCOY, CO--Continued
WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT											
15...	1520	43	390	8.8	7.5	--	11.8	200	34	56	14
NOV											
18...	1400	42	339	8.8	3.0	6.1	10.8	160	12	45	11
JAN											
21...	1430	25	362	8.8	0.0	2.1	12.2	180	25	51	12
MAR											
10...	1100	39	316	8.3	1.5	4.0	12.8	150	23	43	11
APR											
14...	1030	43	382	8.0	0.0	2.5	11.4	180	28	50	13
MAY											
07...	1020	235	206	7.7	5.5	6.2	9.8	100	17	32	6.0
20...	1245	210	195	8.8	9.5	12	8.9	88	4	25	6.1
JUN											
02...	1345	65	220	8.1	12.0	3.4	8.7	110	5	32	7.8
JUL											
07...	1350	17	350	8.7	17.5	0.80	8.0	180	15	49	13
AUG											
05...	1400	11	360	8.6	18.5	0.90	8.4	180	17	48	15
SEP											
01...	1345	11	412	8.4	13.5	0.60	9.6	180	16	49	14

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT											
15...	10	0.3	3.0	164	51	2.7	0.20	14	250	0.34	29.1
NOV											
18...	9.0	0.3	2.4	146	41	2.0	0.20	14	212	0.30	25.1
JAN											
21...	11	0.4	3.3	152	39	3.3	0.20	17	228	0.31	15.6
MAR											
10...	8.8	0.3	5.3	130	37	3.3	0.20	14	201	0.27	20.9
APR											
14...	11	0.4	4.6	150	41	3.5	0.20	14	227	0.31	26.3
MAY											
07...	4.6	0.2	1.5	88	21	1.9	0.10	12	132	0.18	85.0
20...	4.8	0.2	1.4	84	19	1.1	<0.10	12	120	0.17	71.4
JUN											
02...	6.9	0.3	2.0	107	22	1.1	0.40	12	148	0.22	28.7
JUL											
07...	12	0.4	4.2	161	42	2.3	0.30	12	231	0.30	9.98
AUG											
05...	15	0.5	5.9	165	46	2.6	0.30	13	245	0.34	7.43
SEP											
01...	14	0.5	5.0	164	45	1.7	0.30	13	240	0.34	7.23

09060770 ROCK CREEK AT MCCOY, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	
OCT 15...	--	--	<0.10	--	<0.01	--	--	--	0.30	--	
NOV 18...	13	--	<0.10	--	<0.01	--	--	--	0.30	--	
JAN 21...	--	--	0.40	--	0.04	--	0.16	--	0.20	--	
MAR 10...	--	--	0.20	--	0.02	--	2.9	--	2.9	--	
APR 14...	14	--	0.20	--	0.02	--	0.48	--	0.50	--	
MAY 07...	20	<0.01	<0.10	0.20	0.02	0.02	0.88	0.58	0.90	0.60	
MAY 20...	--	--	<0.10	--	0.01	--	0.69	--	0.70	--	
JUN 02...	7	--	<0.10	--	<0.01	--	--	--	0.90	--	
JUL 07...	--	--	<0.10	--	0.02	--	0.68	--	0.70	--	
AUG 05...	2	<0.01	<0.10	<0.10	<0.01	<0.01	--	--	1.1	0.70	
SEP 01...	--	--	<0.10	--	0.02	--	--	--	<0.20	--	
DATE	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	
OCT 15...	--	0.02	--	0.01	--	--	--	30	27	350	
NOV 18...	--	0.01	--	0.01	--	3.6	3.6	--	38	--	
JAN 21...	0.60	0.02	--	0.01	--	--	--	--	41	--	
MAR 10...	3.1	0.14	--	0.09	--	--	--	--	130	--	
APR 14...	0.70	0.08	--	0.05	--	7.6	6.4	--	130	--	
MAY 07...	--	0.08	0.02	0.02	0.01	8.1	5.9	10	150	170	
MAY 20...	--	0.04	--	0.02	--	--	--	--	120	--	
JUN 02...	--	0.03	--	0.01	--	5.9	4.6	--	56	--	
JUL 07...	--	0.03	--	<0.01	--	--	--	--	24	--	
AUG 05...	--	0.02	0.02	0.01	<0.01	5.8	5.8	40	27	360	
SEP 01...	--	0.03	--	0.01	--	--	--	--	11	--	
DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)
MAY 07...	1020	850	<1	<1	<100	61	<10	<1	<1	<10	<10
AUG 05...	1400	50	1	1	200	91	<10	<1	<1	<10	30

ROCK CREEK BASIN

09060770 ROCK CREEK AT MCCOY, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)
MAY 07...	<1	3	2	<5	<5	<10	40	8	0.30	0.6
AUG 05...	<1	1	1	<5	5	10	40	21	<0.10	0.1

DATE	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
MAY 07...	2	<1	2	<1	<1	<1	<1	<1.0	10	120
AUG 05...	<1	<5	2	2	<1	<1	<1	<1.0	20	15

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 18...	1400	42	23	2.6	89
APR 14...	1030	43	64	7.4	63
15...	1130	56	25	3.8	80
MAY 07...	1020	235	57	36	83
20...	1245	210	27	15	88
21...	1045	225	34	21	76
JUN 02...	1345	65	9	1.6	88
03...	1010	63	8	1.4	79
JUL 07...	1350	17	2	0.09	--
23...	1030	9.5	18	0.46	51
AUG 05...	1400	11	27	0.81	53
SEP 01...	1345	11	16	0.47	52
02...	1605	11	8	0.24	62

09063000 EAGLE RIVER AT RED CLIFF, CO

LOCATION.--Lat 39°30'30", long 106°21'58", in NW¼SW¼ sec.20, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank at Redcliff, 0.3 mi upstream from Turkey Creek.

DRAINAGE AREA.--70.0 mi².

PERIOD OF RECORD.--October 1910 to September 1925, May 1944 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area. WRD Colo. 1972: 1971.

GAGE.--Water-stage recorder. Datum of gage is 8,653.79 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Jan. 8, 1911, to Sept. 30, 1925, nonrecording gage at bridge 0.2 mi downstream at different datum. May 25, 1944, to Oct. 12, 1952, water-stage recorder at site 200 ft upstream at datum 1.46 ft, lower. Prior to May 6, 1982, at site 250 ft downstream at datum 5.00 ft, lower.

REMARKS.--Estimated daily discharges: Nov. 9-11, 13-15, Nov. 23 to Dec. 6, Dec. 8-26, 28-30, Jan. 2-5, 7-9, and Jan. 12 to May 1. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Columbine, Ewing, and Wurtz ditches. Transbasin diversion upstream from station from Robinson Reservoir, capacity, 2,520 acre-ft to Tenmile Creek for mining development. Small diversions for irrigation of 400 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--58 years (water years 1911-25, 1945-87), 48.4 ft³/s; 35,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,010 ft³/s, June 5, 1912, gage height, 4.0 ft, site and datum then in use, from rating curve extended above 500 ft³/s; maximum gage height recorded, 6.43 ft, May 24, 1984; minimum daily discharge, 1.0 ft³/s, Oct. 1, 5, 1917.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 280 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Dec. 12	0200	---	*a5.23	May 17	0100	*251	4.53

Minimum daily discharge, 8.5 ft³/s, Jan. 16.
a Backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	17	15	11	9.5	10	10	120	107	58	19	13
2	23	17	15	10	9.5	10	10	106	111	50	23	13
3	23	19	15	10	9.5	11	11	90	111	44	19	13
4	24	18	15	10	9.5	11	11	81	115	41	17	13
5	24	19	15	9.5	9.5	11	11	77	119	38	16	13
6	24	18	15	9.4	9.5	12	12	81	119	37	16	14
7	24	19	15	9.5	9.5	11	12	95	118	35	18	12
8	22	19	14	9.5	9.5	11	12	105	132	34	18	12
9	22	18	14	9.5	9.5	11	13	116	130	33	16	12
10	21	18	14	9.6	9.5	10	13	130	124	30	15	12
11	21	18	14	9.5	9.5	10	13	149	117	29	14	12
12	20	18	14	9.5	9.5	10	12	154	111	30	14	12
13	19	17	14	9.5	9.5	9.5	15	163	106	29	14	12
14	20	17	13	9.5	9.5	9.5	21	199	101	27	14	13
15	19	17	13	9.0	9.0	9.5	30	219	97	25	13	13
16	19	16	13	8.5	9.0	9.5	35	225	94	24	13	14
17	18	16	13	8.5	9.0	9.5	45	230	87	24	12	14
18	18	16	12	9.0	9.0	9.5	52	221	83	25	12	14
19	19	16	12	9.0	9.0	9.5	57	205	79	22	11	14
20	20	17	12	9.5	9.0	10	53	194	73	21	11	13
21	20	18	12	10	9.0	10	50	180	71	20	12	13
22	20	17	12	11	9.0	10	58	168	66	20	15	13
23	18	17	11	11	9.0	10	68	157	63	19	17	13
24	19	17	11	11	9.0	10	76	149	59	18	19	12
25	19	16	11	10	9.0	10	85	140	58	17	18	13
26	18	16	11	9.5	9.0	10	88	133	55	16	16	13
27	19	16	11	9.5	9.5	10	92	127	51	24	15	13
28	18	16	11	9.5	9.5	10	100	119	49	32	15	13
29	18	16	11	9.5	---	10	133	114	55	22	15	13
30	19	16	11	9.5	---	10	127	109	74	19	14	12
31	18	---	11	9.5	---	10	---	105	---	18	13	---
TOTAL	629	515	400	299.5	260.0	314.5	1325	4461	2735	881	474	386
MEAN	20.3	17.2	12.9	9.66	9.29	10.1	44.2	144	91.2	28.4	15.3	12.9
MAX	24	19	15	11	9.5	12	133	230	132	58	23	14
MIN	18	16	11	8.5	9.0	9.5	10	77	49	16	11	12
AC-FT	1250	1020	793	594	516	624	2630	8850	5420	1750	940	766

CAL YR 1986 TOTAL 17633.4 MEAN 48.3 MAX 273 MIN 8.5 AC-FT 34980
WTR YR 1987 TOTAL 12680.0 MEAN 34.7 MAX 230 MIN 8.5 AC-FT 25150

EAGLE RIVER BASIN

09063200 WEARYMAN CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'14", long 106°19'06", in SW¼SE¼ sec.15, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.4 mi upstream from mouth and 2.5 mi east of Red Cliff.

DRAINAGE AREA.--8.78 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,158 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 13-14, and Nov. 4 to May 12. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 8.87 ft³/s; 6,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 155 ft³/s, June 20, 1983, gage height, 3.61 ft; minimum daily, 0.30 ft³/s, Feb. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 7	2100	*49	*2.50				
Minimum Daily, 0.95 ft ³ /s, Feb. 26 to Mar. 2.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.2	2.1	1.6	1.3	.95	1.1	9.0	24	17	7.3	3.4
2	3.5	2.3	2.2	1.6	1.3	.95	1.1	9.0	24	17	7.3	3.7
3	3.5	2.4	2.2	1.6	1.2	1.0	1.1	8.0	26	16	6.9	3.8
4	3.5	2.4	2.2	1.6	1.2	1.0	1.1	7.5	30	15	6.6	3.5
5	3.3	2.4	2.2	1.6	1.2	1.0	1.2	7.5	34	15	6.3	3.5
6	3.4	2.4	2.2	1.6	1.2	1.0	1.2	7.5	39	14	6.6	3.6
7	3.3	2.5	2.2	1.6	1.2	1.0	1.2	8.0	43	14	6.6	3.7
8	3.4	2.5	2.2	1.6	1.2	1.0	1.2	9.0	43	13	6.4	3.7
9	3.2	2.5	2.2	1.6	1.2	1.0	1.2	10	41	13	5.9	3.4
10	3.1	2.5	2.2	1.6	1.2	1.0	1.2	11	41	13	5.7	3.3
11	3.1	2.4	2.2	1.6	1.1	1.0	1.3	12	41	11	6.1	3.3
12	2.9	2.4	2.2	1.5	1.1	1.0	1.7	13	40	11	6.0	3.4
13	2.8	2.4	2.1	1.5	1.1	1.0	1.9	14	39	11	5.8	3.4
14	2.8	2.4	2.0	1.4	1.1	1.0	2.1	16	39	10	5.8	3.8
15	2.9	2.4	1.9	1.4	1.1	1.0	2.3	17	39	9.8	5.4	4.5
16	2.9	2.4	1.9	1.4	1.1	1.0	2.3	20	38	9.6	5.3	4.2
17	2.6	2.4	1.9	1.4	1.1	1.0	2.3	22	36	9.6	5.1	4.4
18	2.4	2.4	1.9	1.4	1.1	1.0	2.3	23	34	9.3	4.7	4.0
19	2.6	2.4	1.9	1.3	1.0	1.0	2.4	25	30	8.8	4.5	3.8
20	2.7	2.5	1.8	1.3	1.0	1.1	2.6	27	27	8.7	4.5	3.7
21	2.6	2.4	1.8	1.3	1.0	1.0	2.7	27	25	8.5	4.8	3.8
22	2.6	2.3	1.8	1.3	1.0	1.0	3.0	26	24	8.1	5.4	3.8
23	3.3	2.3	1.8	1.3	1.0	1.0	3.2	27	23	7.8	5.7	3.8
24	2.6	2.3	1.8	1.3	1.0	1.1	3.5	26	22	7.5	5.8	3.8
25	2.4	2.3	1.7	1.3	1.0	1.1	3.7	25	21	7.7	5.3	3.7
26	2.4	2.2	1.7	1.3	.95	1.1	4.0	25	20	7.5	5.0	3.7
27	2.4	2.1	1.7	1.3	.95	1.1	5.0	24	19	8.6	4.6	3.7
28	2.4	2.1	1.7	1.3	.95	1.1	6.0	23	19	8.5	4.3	3.6
29	2.3	2.1	1.7	1.3	---	1.1	7.0	23	19	7.8	3.9	3.6
30	2.3	2.1	1.7	1.3	---	1.1	8.5	23	18	7.5	3.8	3.6
31	2.3	---	1.6	1.3	---	1.1	---	23	---	7.5	3.7	---
TOTAL	89.0	70.4	60.7	44.5	30.85	31.80	79.4	547.5	918	332.8	171.1	111.2
MEAN	2.87	2.35	1.96	1.44	1.10	1.03	2.65	17.7	30.6	10.7	5.52	3.71
MAX	3.5	2.5	2.2	1.6	1.3	1.1	8.5	27	43	17	7.3	4.5
MIN	2.3	2.1	1.6	1.3	.95	.95	1.1	7.5	18	7.5	3.7	3.3
AC-FT	177	140	120	88	61	63	157	1090	1820	660	339	221

CAL YR 1986	TOTAL 3745.10	MEAN 10.3	MAX 93	MIN 1.1	AC-FT 7430
WTR YR 1987	TOTAL 2487.25	MEAN 6.81	MAX 43	MIN .95	AC-FT 4930

09063400 TURKEY CREEK NEAR RED CLIFF, CO

LOCATION.--Lat 39°31'22", long 106°20'08", in NW¼SW¼ sec.16, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 400 ft downstream from Lime Creek, 1.9 mi northeast of Red Cliff, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--23.9 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,918 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4 to May 1. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 23.2 ft³/s; 16,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 556 ft³/s, June 8, 1985, gage height, 2.87 ft, from rating curve extended above 325 ft³/s; maximum recorded gage height, 3.22 ft, June 24, 1983 (backwater from debris); minimum discharge, not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 7	2330	*103	*2.24				

Minimum daily, 1.5 ft³/s, Jan. 15-22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.4	3.5	2.0	2.5	2.5	3.5	30	63	33	13	7.1
2	9.6	7.4	3.5	2.0	2.5	3.0	3.5	29	65	31	13	7.3
3	9.9	7.3	3.5	2.0	2.5	3.0	3.5	27	69	29	12	7.2
4	9.9	7.0	3.5	2.0	2.5	3.0	3.5	25	77	28	12	7.2
5	9.6	7.0	3.5	2.0	2.5	3.5	3.5	23	84	26	11	6.9
6	9.4	7.0	3.5	2.0	2.5	4.0	4.0	22	90	25	11	6.8
7	9.3	7.0	3.5	2.0	3.0	5.0	4.0	23	93	24	12	6.8
8	9.3	6.0	3.5	2.0	3.0	5.0	4.0	26	96	23	11	6.7
9	9.0	5.0	3.0	2.0	3.0	5.0	4.0	32	101	22	10	6.5
10	8.9	5.0	2.5	2.0	3.0	5.0	4.0	37	101	21	10	6.5
11	9.2	5.0	2.5	2.5	3.0	4.5	4.0	42	94	21	9.8	6.4
12	8.2	5.0	2.5	2.5	3.0	4.5	4.0	48	88	21	9.7	6.4
13	8.2	5.0	2.5	2.5	2.5	4.5	4.0	51	90	20	9.6	6.5
14	8.8	5.0	2.5	2.0	2.5	4.5	4.0	57	93	19	9.5	6.9
15	8.4	5.0	2.5	1.5	2.5	4.5	5.0	66	91	18	9.0	7.5
16	8.2	5.0	2.5	1.5	2.5	4.0	7.0	76	82	17	8.8	7.2
17	8.1	5.0	2.5	1.5	2.5	4.0	9.0	86	75	17	8.5	7.4
18	8.0	5.5	2.5	1.5	2.0	4.0	11	88	71	17	8.2	6.8
19	8.1	5.5	2.5	1.5	2.0	4.0	13	90	65	16	8.0	6.5
20	8.5	5.5	2.5	1.5	2.0	4.0	12	92	60	15	7.9	6.4
21	8.3	5.5	2.5	1.5	2.0	3.5	11	88	57	15	8.3	6.3
22	8.4	5.5	2.5	1.5	2.0	3.5	12	79	53	15	9.1	6.3
23	8.1	4.5	2.5	2.0	2.0	3.5	14	74	49	14	10	6.2
24	8.2	4.0	2.5	2.0	2.0	3.5	15	72	46	14	9.8	6.1
25	8.0	4.0	2.5	2.0	2.0	3.5	17	69	43	14	9.1	6.1
26	7.6	4.0	2.0	2.0	2.0	3.0	19	67	41	14	8.5	6.0
27	7.4	4.0	2.0	2.0	2.0	3.0	21	64	38	17	7.9	6.3
28	7.4	4.0	2.0	2.0	2.0	3.0	22	60	36	15	8.0	6.0
29	7.2	4.0	2.0	2.0	---	3.0	23	59	38	14	7.8	6.0
30	7.3	4.0	2.0	2.0	---	3.0	27	57	36	13	7.4	6.0
31	7.5	---	2.0	2.0	---	3.0	---	59	---	14	7.2	---
TOTAL	264.0	161.1	83.0	59.5	67.5	117.0	291.5	1718	2085	602	297.1	198.3
MEAN	8.52	5.37	2.68	1.92	2.41	3.77	9.72	55.4	69.5	19.4	9.58	6.61
MAX	10	7.4	3.5	2.5	3.0	5.0	27	92	101	33	13	7.5
MIN	7.2	4.0	2.0	1.5	2.0	2.5	3.5	22	36	13	7.2	6.0
AC-FT	524	320	165	118	134	232	578	3410	4140	1190	589	393

CAL YR 1986 TOTAL 9284.8 MEAN 25.4 MAX 170 MIN 2.0 AC-FT 18420
WTR YR 1987 TOTAL 5944.0 MEAN 16.3 MAX 101 MIN 1.5 AC-FT 11790

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 180 ft³/s at 2215 June 7, gage height, 3.29 ft; minimum daily, 0.60 ft³/s, Feb. 20 to Mar. 3.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	3.5	2.0	1.3	.80	.60	.70	9.1	15	19	11	3.9
2	6.4	3.5	2.0	1.3	.80	.60	.70	6.5	15	15	9.3	3.7
3	6.8	3.5	2.0	1.3	.80	.60	.70	4.1	15	14	7.8	3.9
4	7.5	3.5	2.0	1.3	.80	.70	.70	3.0	16	12	6.6	3.7
5	6.8	3.5	2.0	1.3	.80	1.0	.70	2.6	16	10	5.8	3.5
6	7.2	3.5	2.0	1.1	.80	1.2	.80	3.5	17	9.4	5.2	3.1
7	7.4	3.0	2.0	.90	.80	1.2	.80	6.5	42	8.9	6.7	2.8
8	7.4	3.0	2.0	.80	.80	1.2	.80	10	62	8.3	10	2.7
9	7.0	3.0	2.0	.80	.80	1.0	.80	14	20	7.9	7.2	2.6
10	6.8	3.0	1.5	.80	.80	1.0	.80	13	13	7.4	6.0	2.3
11	8.0	2.5	1.5	.90	.70	1.0	.80	17	11	12	5.3	2.2
12	6.9	2.5	1.5	1.0	.70	1.0	.80	20	9.4	15	5.1	2.3
13	7.1	2.0	1.5	1.0	.70	1.0	.80	23	10	13	4.7	2.2
14	7.6	2.0	1.5	1.0	.70	1.0	.80	34	10	11	4.3	2.7
15	6.9	2.0	1.5	.80	.70	1.0	.90	45	8.7	11	3.7	2.9
16	6.2	2.5	1.5	.80	.70	.80	1.0	40	8.0	11	3.5	3.3
17	5.5	2.5	1.5	.70	.70	.80	1.2	35	6.6	12	3.0	3.7
18	5.0	2.5	1.5	.70	.70	.80	1.3	30	6.1	10	2.7	3.5
19	4.7	2.5	1.5	.70	.70	.80	1.3	25	5.4	8.8	2.4	3.0
20	4.7	2.5	1.5	.70	.60	.80	1.3	20	5.0	8.1	2.2	2.7
21	4.5	2.5	1.5	.70	.60	.80	1.3	18	4.8	9.0	2.2	2.5
22	4.6	2.5	1.5	.70	.60	.80	1.5	16	4.6	11	3.0	2.3
23	5.4	2.0	1.5	.80	.60	.80	2.0	15	10	9.0	6.7	2.1
24	5.2	2.0	1.5	.90	.60	.70	3.5	15	17	7.9	10	1.9
25	4.8	2.0	1.5	.90	.60	.70	7.2	13	16	7.6	11	1.8
26	4.7	2.0	1.5	.90	.60	.70	10	13	16	11	8.6	1.7
27	4.3	2.0	1.5	.90	.60	.70	8.4	11	15	23	6.6	1.7
28	4.7	2.0	1.5	.90	.60	.70	6.2	10	16	23	6.0	1.6
29	4.7	2.0	1.5	.90	---	.70	7.2	10	20	14	6.3	1.4
30	4.5	2.0	1.5	.80	---	.70	7.6	10	18	12	5.2	1.4
31	4.2	---	1.5	.80	---	.70	---	12	---	11	4.4	---
TOTAL	184.1	77.5	51.0	28.40	19.70	26.10	72.60	504.3	448.6	362.3	182.5	79.1
MEAN	5.94	2.58	1.65	.92	.70	.84	2.42	16.3	15.0	11.7	5.89	2.64
MAX	8.0	3.5	2.0	1.3	.80	1.2	10	45	62	23	11	3.9
MIN	4.2	2.0	1.5	.70	.60	.60	.70	2.6	4.6	7.4	2.2	1.4
AC-FT	365	154	101	56	39	52	144	1000	890	719	362	157
CAL YR 1986	TOTAL 6247.14		MEAN 17.1	MAX 135	MIN .61	AC-FT 12390						
WTR YR 1987	TOTAL 2036.20		MEAN 5.58	MAX 62	MIN .60	AC-FT 4040						

09064000 HOMESTAKE CREEK AT GOLD PARK, CO

LOCATION.--Lat 39°24'20", long 106°25'58", Eagle County, Hydrologic Unit 14010003, on left bank at Gold Park, 400 ft downstream from ford, at Gold Park Campground, 0.5 mi downstream from French Creek, and 8 mi southwest of Red Cliff.

DRAINAGE AREA.--36.1 mi².

PERIOD OF RECORD.--October 1947 to September 1954, August 1972 to current year.

REVISED RECORDS.--WRD Colo. 1973: Drainage area at former site.

GAGE.--Water-stage recorder. Elevation of gage is 9,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 1, 1972, water-stage recorder at site 1,500 ft upstream at datum 9,245 ft, above National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--Estimated daily discharges: Oct. 13, 14, Nov. 2 to Mar. 5, Mar. 21, 28-31, Apr. 1, and Apr. 7-14. Records good except for estimated daily discharges, which are poor. Flow regulated by Homestake Lake, capacity, 44,360 acre-ft, since June 7, 1966. Transmountain diversion upstream from station to Arkansas River basin through Homestake tunnel since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1948-54), 63.4 ft³/s; 45,930 acre-ft/yr, prior to diversion through Homestake tunnel; 15 years (water years 1973-87), 30.3 ft³/s; 21,950 acre-ft/yr, subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,080 ft³/s, June 13, 1953, gage height, 6.84 ft, site and datum then in use, from rating curve extended above 700 ft³/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 325 ft³/s at 0100 June 8, gage height, 5.30 ft; minimum daily, 5.5 ft³/s, Feb. 26 to Mar. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	17	12	10	9.0	5.5	8.5	53	34	61	40	18
2	23	16	12	10	9.0	5.5	8.6	44	35	55	40	18
3	25	16	12	10	9.0	5.5	8.7	32	35	51	35	19
4	27	16	12	10	9.0	6.5	8.1	25	35	48	32	18
5	25	16	12	10	9.0	8.0	7.7	25	36	46	29	18
6	28	15	12	10	9.0	9.7	7.8	33	37	44	27	17
7	26	15	12	10	9.0	11	7.5	40	63	42	31	16
8	26	15	12	9.0	9.0	11	7.5	47	167	41	37	16
9	25	15	12	9.0	9.0	11	7.5	52	75	40	30	16
10	24	14	10	9.0	9.0	11	7.5	57	52	40	26	15
11	28	14	10	10	8.0	10	8.0	59	47	49	24	14
12	25	14	10	10	8.0	9.8	8.0	61	43	54	24	12
13	24	12	11	10	8.0	9.4	8.0	62	41	43	23	11
14	24	12	11	10	8.0	9.0	9.0	95	43	31	21	13
15	25	12	11	9.0	7.0	8.8	11	103	42	30	20	13
16	24	13	11	8.0	7.0	8.5	16	97	39	29	19	14
17	21	13	11	8.0	7.0	8.5	23	86	36	32	17	15
18	19	13	11	8.0	7.0	8.4	30	65	34	34	16	14
19	19	13	11	8.0	6.0	8.1	35	58	32	30	16	13
20	19	13	11	8.0	6.0	8.0	33	58	31	28	15	12
21	18	13	11	8.0	6.0	8.0	24	53	29	29	15	12
22	20	12	11	8.0	6.0	8.8	26	49	33	33	18	11
23	20	12	11	9.0	6.0	8.7	30	45	55	30	25	10
24	20	12	11	9.0	6.0	8.9	38	43	58	28	34	9.9
25	18	12	11	10	6.0	8.8	41	39	56	27	36	9.9
26	18	12	10	10	5.5	8.7	39	38	56	30	31	9.5
27	20	12	10	10	5.5	8.3	41	36	54	61	26	9.7
28	20	12	10	10	5.5	8.0	45	33	55	72	24	9.5
29	19	12	10	10	---	8.0	47	33	63	44	24	9.2
30	17	12	10	9.0	---	8.0	52	31	63	37	21	9.2
31	17	---	10	9.0	---	8.0	---	31	---	35	19	---
TOTAL	688	405	341	288.0	208.5	265.4	643.4	1583	1479	1254	795	401.9
MEAN	22.2	13.5	11.0	9.29	7.45	8.56	21.4	51.1	49.3	40.5	25.6	13.4
MAX	28	17	12	10	9.0	11	52	103	167	72	40	19
MIN	17	12	10	8.0	5.5	5.5	7.5	25	29	27	15	9.2
AC-FT	1360	803	676	571	414	526	1280	3140	2930	2490	1580	797

CAL YR 1986 TOTAL 20516.9 MEAN 56.2 MAX 353 MIN 8.6 AC-FT 40700
WTR YR 1987 TOTAL 8352.2 MEAN 22.9 MAX 167 MIN 5.5 AC-FT 16570

09064500 HOMESTAKE CREEK NEAR RED CLIFF. CO

LOCATION.--Lat 39°28'24", long 106°22'02", in NE¼NE¼ sec.6, T.7 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank at downstream side of Forest Service road bridge, 2.4 mi south of Red Cliff, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--58.3 mi².

PERIOD OF RECORD.--October 1910 to September 1918, May 1944 to current year. Published as "at Redcliff"
October 1910 to September 1916.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,783 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). See WSP 1713 or 1733 for history of changes prior to May 8, 1961.

REMARKS.--Estimated daily discharges: Nov. 1 to May 1. Records good except for estimated daily discharges, which are poor. Flow regulated by Homestake Lake (capacity, 44,360 acre-ft) since June 7, 1966. Transmountain diversions upstream from station through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-18, 1945-66), 86.6 ft³/s; 62,740 acre-ft/yr, prior to diversion through Homestake tunnel; 21 years (water years 1967-87), 44.4 ft³/s; 32,170 acre-ft/yr, subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,300 ft³/s, June 24, 1918, gage height, 6.2 ft, site and datum then in use; minimum observed, 0.60 ft³/s, Jan. 25, 1915 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 431 ft³/s at 0300 June 8, gage height, 3.15 ft; minimum daily, 2.5 ft³/s, Jan. 16-23, and Feb. 16-27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	23	15	5.0	3.0	4.0	5.0	100	63	71	60	24
2	35	23	15	4.0	3.5	6.0	7.0	99	65	60	66	23
3	37	23	15	4.0	3.5	7.0	9.0	75	63	53	51	24
4	42	23	15	4.0	3.5	9.0	11	61	64	47	44	24
5	39	23	15	4.0	3.5	10	12	58	67	44	39	23
6	41	23	14	3.0	3.5	10	13	65	68	40	35	22
7	39	21	14	3.0	3.5	10	13	77	83	38	39	21
8	38	18	14	3.0	3.5	10	13	88	228	37	51	21
9	37	18	12	3.0	3.5	10	13	97	113	35	40	21
10	36	18	10	3.0	3.0	9.0	14	104	85	34	35	21
11	41	18	10	4.0	3.0	8.0	15	107	74	41	31	20
12	37	18	11	4.0	3.0	8.0	15	118	70	50	32	17
13	39	18	12	4.0	3.0	8.0	15	109	64	47	29	16
14	45	18	12	4.0	3.0	7.0	15	143	64	40	28	18
15	37	19	12	3.0	3.0	7.0	17	168	63	37	25	19
16	35	19	12	2.5	2.5	7.0	18	153	60	36	24	20
17	32	20	10	2.5	2.5	7.0	19	150	54	38	22	20
18	29	20	10	2.5	2.5	7.0	19	122	49	42	21	20
19	29	20	10	2.5	2.5	7.0	19	110	45	35	20	19
20	30	20	10	2.5	2.5	7.0	21	109	42	32	19	18
21	30	20	8.0	2.5	2.5	6.0	23	102	39	30	19	16
22	32	18	8.0	2.5	2.5	6.0	27	96	39	37	22	16
23	31	17	8.0	2.5	2.5	6.0	40	87	60	33	30	14
24	30	17	8.0	3.0	2.5	5.0	60	86	64	30	47	13
25	30	17	6.0	3.0	2.5	5.0	80	78	58	27	47	13
26	29	17	6.0	3.0	2.5	5.0	110	72	56	32	41	14
27	28	17	6.0	3.0	2.5	5.0	90	67	56	73	33	14
28	27	17	6.0	3.0	3.0	5.0	70	62	55	119	30	14
29	30	17	6.0	3.0	---	4.0	80	63	66	67	32	13
30	24	17	5.0	3.0	---	4.0	90	59	79	54	27	13
31	24	---	5.0	3.0	---	4.0	---	58	---	51	24	---
TOTAL	1049	577	320.0	99.0	82.0	213.0	953.0	2943	2056	1410	1063	551
MEAN	33.8	19.2	10.3	3.19	2.93	6.87	31.8	94.9	68.5	45.5	34.3	18.4
MAX	45	23	15	5.0	3.5	10	110	168	228	119	66	24
MIN	24	17	5.0	2.5	2.5	4.0	5.0	58	39	27	19	13
AC-FT	2080	1140	635	196	163	422	1890	5840	4080	2800	2110	1090

CAL YR 1986	TOTAL	27990.0	MEAN	76.7	MAX	415	MIN	5.0	AC-FT	55520
WTR YR 1987	TOTAL	11316.0	MEAN	31.0	MAX	228	MIN	2.5	AC-FT	22450

09065100 CROSS CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°34'05", long 106°24'43", in SW¼SW¼ sec.36, T.5 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.4 mi upstream from mouth and 1.5 mi southeast of Minturn.

DRAINAGE AREA.--33.5 mi².

PERIOD OF RECORD.--May 1956 to September 1963, October 1967 to current year.

REVISED RECORDS.--WDR-CO-81-2: 1980 (M).

GAGE.--Water-stage recorder. Elevation of gage is 7,992 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 18, 1956, nonrecording gage at site 0.3 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 6-16, 20-25, and Nov. 27 to Apr. 23. Records good except for estimated daily discharges, which are poor. Bolts ditch exports water upstream from station to tailings ponds and recreation lake along Eagle River. Diversion 0.2 mi upstream from station for water supply of school and for municipal supply of Minturn. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 53.4 ft³/s; 38,690 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 754 ft³/s, June 30, 1957, gage height, 5.45 ft; maximum gage height, 6.14 ft, Aug. 6, 1983; minimum daily discharge, 0.1 ft³/s, Dec. 27-31, 1962, Jan. 6-8, 11-15, 1963.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 8	0700	*488	*4.87	No other peak greater than base discharge.			
Minimum daily, 2.0 ft ³ /s, Jan. 17 to Apr. 12.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	17	8.0	3.2	2.0	2.0	2.0	123	106	109	109	24
2	28	18	7.5	3.2	2.0	2.0	2.0	108	148	102	72	23
3	29	16	7.5	3.0	2.0	2.0	2.0	76	149	91	58	25
4	30	16	7.0	3.0	2.0	2.0	2.0	59	176	81	49	25
5	28	16	7.0	2.8	2.0	2.0	2.0	50	197	73	41	24
6	28	15	6.5	2.8	2.0	2.0	2.0	52	195	66	37	22
7	29	14	6.0	2.8	2.0	2.0	2.0	69	220	63	41	20
8	29	13	6.0	2.6	2.0	2.0	2.0	93	389	60	56	19
9	29	12	6.0	2.6	2.0	2.0	2.0	125	314	57	47	18
10	28	12	5.5	2.6	2.0	2.0	2.0	143	248	57	37	16
11	30	12	5.0	2.4	2.0	2.0	2.0	155	207	53	35	15
12	28	12	5.0	2.4	2.0	2.0	2.0	166	189	55	37	15
13	26	11	5.0	2.2	2.0	2.0	2.1	148	201	50	34	14
14	27	11	5.0	2.2	2.0	2.0	2.2	190	230	42	33	16
15	24	10	5.0	2.2	2.0	2.0	2.5	257	229	42	29	20
16	23	10	5.0	2.1	2.0	2.0	3.0	282	215	40	27	22
17	22	10	5.0	2.0	2.0	2.0	5.0	278	194	48	25	25
18	22	9.2	5.0	2.0	2.0	2.0	8.0	226	164	53	22	25
19	21	9.4	4.8	2.0	2.0	2.0	12	181	146	40	22	22
20	21	10	4.6	2.0	2.0	2.0	16	156	145	36	20	19
21	22	10	4.4	2.0	2.0	2.0	21	128	134	34	20	17
22	21	10	4.4	2.0	2.0	2.0	30	108	132	44	22	16
23	20	10	4.2	2.0	2.0	2.0	40	94	132	39	27	14
24	22	10	4.0	2.0	2.0	2.0	62	94	124	35	51	12
25	23	10	3.8	2.0	2.0	2.0	77	83	112	34	64	13
26	19	10	3.8	2.0	2.0	2.0	82	76	115	39	61	12
27	20	10	3.6	2.0	2.0	2.0	89	68	106	82	43	13
28	20	10	3.6	2.0	2.0	2.0	103	60	109	193	35	12
29	18	9.5	3.4	2.0	---	2.0	110	64	108	87	35	11
30	19	9.0	3.4	2.0	---	2.0	105	63	119	88	31	10
31	19	---	3.4	2.0	---	2.0	---	64	---	76	27	---
TOTAL	754	352.1	158.4	72.1	56.0	62.0	793.8	3839	5253	1969	1247	539
MEAN	24.3	11.7	5.11	2.33	2.00	2.00	26.5	124	175	63.5	40.2	18.0
MAX	30	18	8.0	3.2	2.0	2.0	110	282	389	193	109	25
MIN	18	9.0	3.4	2.0	2.0	2.0	2.0	50	106	34	20	10
AC-FT	1500	698	314	143	111	123	1570	7610	10420	3910	2470	1070

CAL YR 1986 TOTAL 25330.9 MEAN 69.4 MAX 532 MIN 3.4 AC-FT 50240
WTR YR 1987 TOTAL 15095.4 MEAN 41.4 MAX 389 MIN 2.0 AC-FT 29940

EAGLE RIVER BASIN

09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO

LOCATION.--Lat 39°37'33", long 106°16'39", in NE¼NW¼ sec.18, T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on right bank 10 ft downstream from bridge pier on Interstate 70, 0.2 mi upstream from Black Gore Creek, 4.4 mi east of Vail, and 8.4 mi northeast of Minturn.

DRAINAGE AREA.--14.3 mi².

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1947 to Sept. 30, 1956, Oct. 1, 1963 to Sept. 30, 1980, at various sites about 1200 ft upstream at different datums. See WDR-CO-80-2 for history of changes prior to Oct. 1, 1980.

REMARKS.--Estimated daily discharges: Nov. 6-10, 20-24, Dec. 10 to Apr. 7. Records good, except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--33 years, 30.3 ft³/s; 22,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 662 ft³/s, June 24, 1983, gage height, 2.60 ft, from rating curve extended above 140 ft³/s; maximum gage height, 6.65 ft, June 18, 1951, datum then in use; minimum daily discharge, 1.2 ft³/s, Mar. 5, 1977.

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 16	1700	*260	*1.62	No other peak greater than base discharge			
Minimum daily, 3.8 ft ³ /s, Mar. 4-10.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	6.8	4.5	4.0	4.0	4.0	63	116	45	22	9.3
2	12	11	6.5	4.5	4.0	4.0	4.0	56	121	41	19	9.3
3	12	10	6.5	4.5	4.0	3.9	4.0	42	119	40	16	9.0
4	12	8.9	6.5	4.5	4.0	3.8	4.0	34	132	36	15	8.7
5	12	9.3	6.2	4.5	4.0	3.8	4.3	31	128	32	14	8.4
6	12	9.0	6.2	4.5	4.0	3.8	4.6	32	128	30	14	8.0
7	12	9.0	6.2	4.5	4.0	3.8	5.0	45	141	28	15	8.0
8	12	9.0	6.2	4.5	4.0	3.8	5.7	68	155	26	15	8.0
9	12	9.0	6.5	4.5	4.0	3.8	6.2	90	147	25	14	8.0
10	12	9.0	6.0	4.5	4.0	3.8	5.8	102	130	24	13	7.7
11	12	9.3	6.0	4.5	4.0	4.0	5.8	101	126	23	13	7.4
12	9.8	8.5	6.0	4.5	4.0	4.0	5.8	106	126	23	12	7.4
13	9.8	7.7	6.0	4.5	4.0	4.0	5.8	125	120	22	12	6.8
14	10	7.4	6.0	4.5	4.0	4.0	6.1	170	125	20	12	8.0
15	12	7.7	6.0	4.5	4.0	4.0	7.4	177	117	20	11	9.5
16	12	7.4	6.0	4.5	4.0	4.0	12	198	106	18	11	12
17	12	7.7	6.0	4.5	4.0	4.0	17	180	92	19	8.5	16
18	12	7.4	5.8	4.4	4.0	4.0	21	147	79	18	8.4	14
19	11	7.7	5.6	4.3	4.0	4.0	23	123	76	17	8.4	12
20	12	7.0	5.3	4.1	4.0	4.0	22	114	74	15	8.0	11
21	10	7.0	5.0	4.0	4.0	4.0	18	91	68	15	8.0	9.8
22	10	7.0	4.8	4.0	4.0	4.0	19	82	69	15	11	9.3
23	14	7.0	4.5	4.0	4.0	4.0	26	84	68	15	15	8.5
24	12	7.0	4.5	4.0	4.0	4.0	36	82	63	14	21	8.4
25	10	7.1	4.5	4.0	4.0	4.0	42	71	57	14	18	7.9
26	9.8	6.8	4.5	4.0	4.0	4.0	49	66	57	14	15	7.7
27	9.8	6.8	4.5	4.0	4.0	4.0	46	62	50	18	14	7.7
28	10	6.8	4.5	4.0	4.0	4.0	46	59	50	21	13	7.1
29	9.8	6.8	4.5	4.0	---	4.0	53	60	53	18	12	7.4
30	11	6.8	4.5	4.0	---	4.0	56	57	50	19	11	7.4
31	11	---	4.5	4.0	---	4.0	---	77	---	28	10	---
TOTAL	349.0	241.1	172.6	133.3	112.0	122.5	564.5	2795	2943	713	409.3	269.7
MEAN	11.3	8.04	5.57	4.30	4.00	3.95	18.8	90.2	98.1	23.0	13.2	8.99
MAX	14	11	6.8	4.5	4.0	4.0	56	198	155	45	22	16
MIN	9.8	6.8	4.5	4.0	4.0	3.8	4.0	31	50	14	8.0	6.8
AC-FT	692	478	342	264	222	243	1120	5540	5840	1410	812	535

CAL YR 1986 TOTAL 10621.9 MEAN 29.1 MAX 184 MIN 4.5 AC-FT 21070
WTR YR 1987 TOTAL 8825.0 MEAN 24.2 MAX 198 MIN 3.8 AC-FT 17500

09066000 BLACK GORE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°35'47", long 106°15'52", Eagle County, Hydrologic Unit 14010003, on right bank 200 ft from U.S. Highway 6, 0.3 mi upstream from Timber Creek, 2.5 mi upstream from mouth, and 9 mi east of Minturn.

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,150 ft above National Geodetic Vertical Datum of 1925, from topographic map. Prior to October 1963, at site 15 ft upstream, at present datum.

REMARKS.--Estimated daily discharges: Nov. 20 to Apr. 27, May 4 to June 19. Records fair except for estimated daily discharges, which are poor. No diversion upstream from station. Natural regulation by two small recreation lakes upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--33 years, 11.7 ft³/s; 12,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 365 ft³/s, June 7, 1952, gage height, 5.42 ft; maximum gage height, 6.00 ft, Mar. 30, 1968 (backwater from ice); minimum daily discharge, 0.90 ft³/s, Feb. 22, 1968, Jan. 30, 1970, Feb. 4 to Mar. 6, 1979.

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 4	unknown	unknown	unknown				

Minimum daily, 2.7 ft³/s, Mar. 3-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	5.8	5.6	4.0	3.0	3.0	3.0	37	43	15	7.4	4.2
2	5.9	5.8	5.6	4.0	3.0	3.0	3.0	38	52	13	7.4	4.2
3	6.3	6.1	5.6	4.0	3.0	2.7	3.0	30	54	12	6.5	4.1
4	6.8	5.7	5.6	4.0	3.0	2.7	3.0	26	64	12	6.0	4.1
5	6.3	6.7	5.6	4.0	3.0	2.7	3.0	29	65	11	5.6	4.1
6	6.3	6.8	5.6	4.0	3.0	2.7	3.4	32	70	11	5.8	4.1
7	6.1	5.9	5.4	4.0	3.0	2.7	3.8	34	74	10	7.0	4.0
8	5.7	7.9	5.2	4.0	3.0	2.7	4.4	37	80	9.9	6.7	4.0
9	5.6	8.2	5.0	4.0	3.0	2.7	5.0	40	68	9.5	5.7	3.9
10	5.8	6.7	5.0	4.0	3.0	2.7	5.5	45	60	9.2	5.4	3.8
11	5.9	6.5	5.0	4.0	3.0	3.0	6.0	48	52	9.1	5.1	3.8
12	5.3	6.3	5.0	4.0	3.0	3.0	6.0	52	48	10	5.1	3.6
13	5.9	6.0	5.0	4.0	3.0	3.0	6.0	58	44	9.5	5.1	3.6
14	6.3	5.8	5.0	4.0	3.0	3.0	6.0	80	33	8.7	4.9	4.3
15	6.3	5.6	5.0	4.0	3.0	3.0	6.0	90	33	8.3	4.6	5.7
16	5.9	5.1	4.8	3.9	3.0	3.0	6.3	110	30	8.0	4.6	5.2
17	5.4	5.1	4.5	3.7	3.0	3.0	6.7	85	28	8.3	4.3	5.6
18	5.2	5.2	4.4	3.5	3.0	3.0	7.0	70	26	7.9	4.3	4.4
19	5.3	5.5	4.2	3.5	3.0	3.0	7.4	66	24	7.3	4.2	4.1
20	5.7	5.6	4.0	3.5	3.0	3.0	7.8	60	23	7.0	4.1	4.1
21	5.4	5.6	4.0	3.5	3.0	3.0	8.0	58	21	7.3	4.6	4.0
22	6.7	5.6	4.0	3.5	3.0	3.0	8.4	54	20	7.1	5.7	3.9
23	7.0	5.6	4.0	3.5	3.0	3.0	8.8	50	19	6.4	7.4	3.6
24	6.5	5.6	4.0	3.5	3.0	3.0	9.3	48	19	6.2	6.5	3.5
25	6.1	5.6	4.0	3.5	3.0	3.0	9.8	45	17	6.1	6.3	3.4
26	6.0	5.6	4.0	3.5	3.0	3.0	9.0	42	16	6.5	5.5	3.3
27	6.1	5.6	4.0	3.5	3.0	3.0	8.6	40	15	9.1	4.9	3.7
28	5.9	5.6	4.0	3.4	3.0	3.0	8.2	38	15	8.6	4.8	3.4
29	5.9	5.6	4.0	3.3	---	3.0	18	36	17	7.5	4.6	3.5
30	5.9	5.6	4.0	3.2	---	3.0	28	37	16	10	4.4	3.3
31	5.9	---	4.0	3.0	---	3.0	---	39	---	8.4	4.3	---
TOTAL	185.5	178.3	145.1	115.5	84.0	90.6	218.4	1554	1146	279.9	168.8	120.5
MEAN	5.98	5.94	4.68	3.73	3.00	2.92	7.28	50.1	38.2	9.03	5.45	4.02
MAX	7.0	8.2	5.6	4.0	3.0	3.0	28	110	80	15	7.4	5.7
MIN	5.2	5.1	4.0	3.0	3.0	2.7	3.0	26	15	6.1	4.1	3.3
AC-FT	368	354	288	229	167	180	433	3080	2270	555	335	239

CAL YR 1986	TOTAL 7316.3	MEAN 20.0	MAX 145	MIN 4.0	AC-FT 14510
WTR YR 1987	TOTAL 4286.6	MEAN 11.7	MAX 110	MIN 2.7	AC-FT 8500

EAGLE RIVER BASIN

09066100 BIGHORN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'24", long 106°17'34", in N½ sec.12, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.3 mi upstream from U.S. Highway 6, 0.4 mi upstream from mouth, 4.5 mi east of Vail, and 8.5 mi northeast of Minturn.

DRAINAGE AREA.--4.37 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,625 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 25 to Apr. 29, May 6-10. Records good, except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 10.1 ft³/s; 7,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 338 ft³/s, June 8, 1985, gage height, 4.10 ft, from rating curve extended above 82 ft³/s; maximum gage height, 4.26 ft, June 8, 1985 (backwater from debris); minimum daily discharge determined, 0.10 ft³/s, Feb. 8, 1967, Jan. 30, 1970.

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 17	0230	*96	*3.47	June 8	2330	70	3.38

Minimum daily discharge, 1.5 ft³/s, Feb. 5-11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.5	1.6	1.6	1.6	1.7	2.0	22	32	15	9.2	3.0
2	2.6	2.5	1.6	1.6	1.6	1.7	2.0	20	42	15	8.1	3.0
3	3.0	2.5	1.6	1.6	1.6	1.7	2.0	14	44	15	7.5	2.8
4	2.8	2.5	1.6	1.6	1.6	1.7	2.0	12	44	14	6.5	2.9
5	2.8	2.5	1.6	1.6	1.5	1.7	2.0	11	51	14	6.2	2.7
6	3.5	2.5	1.6	1.6	1.5	1.7	2.0	12	46	13	6.0	2.5
7	3.9	2.5	1.6	1.6	1.5	1.7	2.0	15	54	12	6.7	2.5
8	4.0	2.5	1.6	1.6	1.5	1.7	2.0	19	57	12	6.5	2.3
9	4.0	2.5	1.6	1.6	1.5	1.7	2.0	23	56	12	5.5	2.3
10	4.1	2.5	1.6	1.6	1.5	1.7	2.0	28	48	11	5.7	2.3
11	4.1	2.5	1.6	1.6	1.5	1.7	2.0	33	44	9.9	5.3	2.3
12	3.7	2.5	1.6	1.6	1.6	1.7	2.2	34	42	10	5.3	2.2
13	2.9	2.5	1.6	1.6	1.7	1.7	2.5	35	44	8.9	4.9	2.1
14	2.9	2.5	1.6	1.6	1.7	1.7	2.9	54	46	8.3	4.9	2.1
15	3.2	2.5	1.6	1.6	1.7	1.7	3.2	61	40	8.6	4.2	2.6
16	2.8	2.5	1.6	1.6	1.7	1.8	3.5	61	35	8.9	4.1	2.9
17	2.8	2.5	1.6	1.6	1.7	1.9	4.0	72	30	9.2	3.8	5.1
18	2.7	2.5	1.6	1.6	1.7	2.0	4.5	59	22	8.3	3.3	4.6
19	2.7	2.5	1.6	1.6	1.7	2.0	5.0	44	22	8.1	3.3	3.8
20	2.7	2.5	1.6	1.6	1.7	2.0	5.6	35	22	8.1	3.2	3.2
21	2.5	2.5	1.6	1.6	1.7	2.0	6.2	23	20	7.5	3.3	2.9
22	2.3	2.5	1.6	1.6	1.7	2.0	7.0	20	19	8.3	4.0	2.7
23	2.8	2.5	1.6	1.6	1.7	2.0	8.0	20	19	8.3	4.1	2.5
24	3.0	2.4	1.6	1.6	1.7	2.0	9.0	19	18	7.8	6.7	2.2
25	2.9	2.2	1.6	1.6	1.7	2.0	10	15	17	7.5	5.8	2.1
26	2.7	2.0	1.6	1.6	1.7	2.0	12	14	17	7.5	5.2	2.0
27	2.5	1.8	1.6	1.6	1.7	2.0	14	13	16	10	4.3	2.1
28	2.5	1.6	1.6	1.6	1.7	2.0	16	13	15	11	4.0	2.0
29	2.5	1.6	1.6	1.6	---	2.0	17	13	16	8.9	3.6	1.9
30	2.5	1.6	1.6	1.6	---	2.0	18	13	15	8.1	3.3	1.8
31	2.5	---	1.6	1.6	---	2.0	---	14	---	11	3.0	---
TOTAL	92.4	70.7	49.6	49.6	45.7	57.2	172.6	841	993	317.2	157.5	79.4
MEAN	2.98	2.36	1.60	1.60	1.63	1.85	5.75	27.1	33.1	10.2	5.08	2.65
MAX	4.1	2.5	1.6	1.6	1.7	2.0	18	72	57	15	9.2	5.1
MIN	2.3	1.6	1.6	1.6	1.5	1.7	2.0	11	15	7.5	3.0	1.8
AC-FT	183	140	98	98	91	113	342	1670	1970	629	312	157

CAL YR 1986 TOTAL 4347.6 MEAN 11.9 MAX 79 MIN 1.6 AC-FT 8620
WTR YR 1987 TOTAL 2925.9 MEAN 8.02 MAX 72 MIN 1.5 AC-FT 5800

09066150 PITKIN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'37", long 106°18'07", in SW¼SW¼ sec.1, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft downstream from Pitkin ditch headgate, 1,000 ft upstream from U.S. Highway 6, 1,200 ft upstream from mouth, 4.0 mi east of Vail, and 8 mi northeast of Minturn.

DRAINAGE AREA.--5.39 mi².

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements water years 1965-66. October 1966 to current year.

REVISED RECORDS.--WRD Colo. 1971: 1967-70.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,525 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1964, to Sept. 30, 1966, crest-stage gage at datum 0.98 ft, lower.

REMARKS.--Estimated daily discharges: Oct. 9 to Apr. 14. Records good, except for estimated daily discharges, which are poor. Diversions upstream from station by Pitkin ditch for irrigation downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--21 years, 12.2 ft³/s; 8,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 265 ft³/s, June 8, 1985, gage height, 2.85 ft; maximum gage height, 3.60 ft, June 21, 1983 (backwater from debris); minimum daily discharge, 0.24 ft³/s, Oct. 29 to Nov. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 60 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 15	0100	49	2.48				

Minimum daily, 1.4 ft³/s, Mar. 2-10.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	5.0	2.0	1.5	1.5	1.5	1.5	23	30	17	6.9	3.5
2	6.9	5.0	2.0	1.5	1.5	1.4	1.5	21	35	16	6.3	3.4
3	6.9	5.0	2.0	1.5	1.5	1.4	1.5	15	36	15	5.6	3.3
4	6.9	5.0	1.9	1.5	1.5	1.4	1.5	12	39	14	5.3	3.3
5	6.9	5.0	1.8	1.5	1.5	1.4	1.5	10	39	12	5.0	3.2
6	7.6	5.0	1.7	1.5	1.5	1.4	1.5	10	37	11	4.8	3.1
7	8.3	5.0	1.6	1.5	1.5	1.4	1.5	14	39	11	5.4	2.9
8	8.3	5.0	1.5	1.5	1.5	1.4	1.5	22	41	10	5.3	2.9
9	8.0	5.0	1.5	1.5	1.5	1.4	1.5	29	39	9.8	4.8	2.8
10	8.0	4.8	1.5	1.5	1.5	1.4	1.5	32	36	9.7	4.7	2.6
11	8.0	4.6	1.5	1.5	1.5	1.5	1.5	37	35	9.0	4.4	2.6
12	6.8	4.3	1.5	1.5	1.5	1.5	1.5	35	35	9.5	4.3	2.5
13	5.0	4.0	1.5	1.5	1.5	1.5	1.5	36	36	8.5	4.2	2.5
14	5.0	3.8	1.5	1.5	1.5	1.5	1.5	44	37	8.0	4.1	2.9
15	5.0	3.5	1.5	1.5	1.5	1.5	1.7	45	36	7.7	3.9	4.0
16	5.2	3.3	1.5	1.5	1.5	1.5	2.3	45	34	7.6	3.8	4.5
17	5.6	3.1	1.5	1.5	1.5	1.5	3.5	46	32	7.8	3.6	6.0
18	6.0	3.0	1.5	1.5	1.5	1.5	4.8	42	28	7.5	3.4	5.1
19	6.0	2.8	1.5	1.5	1.5	1.5	6.7	38	26	7.1	3.2	4.4
20	6.0	2.6	1.5	1.5	1.5	1.5	7.7	35	26	6.9	3.1	4.0
21	6.0	2.5	1.5	1.5	1.5	1.5	6.7	28	24	6.7	3.1	3.8
22	6.0	2.3	1.5	1.5	1.5	1.5	6.4	26	24	7.0	3.5	3.5
23	6.0	2.2	1.5	1.5	1.5	1.5	9.3	25	23	6.6	4.4	3.3
24	7.0	2.0	1.5	1.5	1.5	1.5	14	24	22	6.3	5.6	3.2
25	6.6	2.0	1.5	1.5	1.5	1.5	15	20	21	6.0	5.3	3.1
26	6.0	2.0	1.5	1.5	1.5	1.5	17	18	20	5.9	4.8	3.1
27	5.6	2.0	1.5	1.5	1.5	1.5	19	16	18	9.1	4.3	3.2
28	5.2	2.0	1.5	1.5	1.5	1.5	18	15	16	9.4	4.2	3.1
29	5.0	2.0	1.5	1.5	---	1.5	21	14	18	7.3	4.0	2.9
30	5.0	2.0	1.5	1.5	---	1.5	22	14	18	6.9	3.8	2.9
31	5.0	---	1.5	1.5	---	1.5	---	19	---	7.0	3.6	---
TOTAL	196.7	105.8	49.0	46.5	42.0	45.6	196.1	810	900	283.3	138.7	101.6
MEAN	6.35	3.53	1.58	1.50	1.50	1.47	6.54	26.1	30.0	9.14	4.47	3.39
MAX	8.3	5.0	2.0	1.5	1.5	1.5	22	46	41	17	6.9	6.0
MIN	5.0	2.0	1.5	1.5	1.5	1.4	1.5	10	16	5.9	3.1	2.5
AC-FT	390	210	97	92	83	90	389	1610	1790	562	275	202

CAL YR 1986 TOTAL 4699.9 MEAN 12.9 MAX 58 MIN 1.3 AC-FT 9320
WTR YR 1987 TOTAL 2915.3 MEAN 7.99 MAX 46 MIN 1.4 AC-FT 5780

EAGLE RIVER BASIN

09066200 BOOTH CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'54", long 106°19'21", at NE¼SE¼ of sec.3, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on center bridge pier 100 ft upstream from U.S. Highway 6, 0.4 mi upstream from mouth, 3.0 mi northeast of Vail, and 7.0 mi northeast of Minturn.

DRAINAGE AREA.--6.03 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,325 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 4, 1984, gage at site 1,000 ft upstream at different datum (gage destroyed by rock slide).

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 27, May 18 to June 3. Records good, except for estimated daily discharges, which are poor. No diversion or regulation upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 12.6 ft³/s; 9,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 355 ft³/s, June 15, 1978, gage height, 4.07 ft; maximum gage height, 4.62 ft, June 18, 1983 (backwater from debris); minimum daily discharge, 0.20 ft³/s, Feb. 8, 1967, Jan. 29, 1970, Feb. 10-11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 73 ft³/s at 0600 May 17, gage height 2.99 ft; minimum daily, 0.60 ft³/s, Sept. 13.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.8	3.9	1.0	.90	.80	1.2	34	33	22	6.9	1.7
2	4.9	5.7	3.4	1.0	.90	.80	1.3	33	39	18	5.8	1.6
3	5.3	5.8	3.7	1.0	.90	.80	1.3	28	42	18	5.1	1.4
4	5.5	5.6	3.6	1.0	.90	.80	1.7	24	50	16	4.5	1.4
5	5.5	5.5	3.5	1.0	.90	.80	1.6	22	53	15	3.7	1.4
6	6.1	5.8	3.6	1.0	.80	.80	1.5	21	51	14	3.4	1.2
7	6.4	5.5	3.5	1.0	.80	.80	1.7	25	51	13	4.4	1.1
8	6.0	5.9	3.5	1.0	.80	.80	1.8	29	53	12	4.8	1.1
9	5.7	4.5	3.5	1.0	.80	.80	1.9	33	53	11	3.9	.92
10	5.6	3.3	3.2	1.0	.80	.80	1.8	36	50	10	3.3	.83
11	5.7	5.4	3.1	1.0	.80	.80	1.7	41	49	9.3	2.9	.73
12	5.3	5.0	3.1	1.0	.80	.80	1.6	44	48	11	2.5	.76
13	5.2	4.8	3.0	1.0	.80	.80	1.5	42	49	9.6	2.3	.60
14	5.1	4.8	2.3	1.0	.80	.80	1.7	51	49	8.1	2.3	.97
15	4.8	4.8	2.0	1.0	.80	.80	2.6	55	49	7.6	2.0	1.7
16	4.6	4.6	2.0	1.0	.80	.80	5.8	55	45	7.2	1.9	2.2
17	4.4	4.6	2.0	1.0	.80	.80	9.5	58	44	7.2	1.7	4.4
18	4.4	4.7	2.0	1.0	.80	.80	14	54	39	8.0	1.5	3.7
19	4.5	4.9	2.0	1.0	.80	.80	15	52	38	6.5	1.2	2.8
20	4.7	5.6	2.0	1.0	.80	.80	15	48	37	6.0	1.1	2.3
21	4.4	5.8	2.0	1.0	.80	.80	12	45	34	5.7	1.4	1.8
22	4.4	5.5	2.0	1.0	.80	.80	13	42	32	6.6	2.2	1.7
23	5.4	5.5	1.5	1.0	.80	.80	19	40	31	5.7	3.8	1.3
24	5.2	5.6	1.0	1.0	.80	.80	25	37	29	5.2	9.1	1.1
25	4.9	4.9	1.0	1.0	.80	.80	27	35	27	4.6	7.7	1.2
26	4.8	4.6	1.0	.90	.80	.80	27	32	25	4.7	6.5	1.2
27	5.3	4.4	1.0	.90	.80	.80	31	30	22	11	5.0	1.3
28	5.5	4.3	1.0	.90	.80	.80	29	28	20	13	4.2	1.2
29	5.4	4.1	1.0	.90	---	1.0	32	27	22	7.8	3.7	1.1
30	5.7	4.1	1.0	.90	---	1.1	37	25	23	6.8	2.9	1.1
31	5.9	---	1.0	.90	---	1.3	---	28	---	6.6	2.1	---
TOTAL	161.2	151.4	72.4	30.40	22.90	25.80	336.2	1154	1187	307.2	113.8	45.81
MEAN	5.20	5.05	2.34	.98	.82	.83	11.2	37.2	39.6	9.91	3.67	1.53
MAX	6.4	5.9	3.9	1.0	.90	1.3	37	58	53	22	9.1	4.4
MIN	4.4	3.3	1.0	.90	.80	.80	1.2	21	20	4.6	1.1	.60
AC-FT	320	300	144	60	45	51	667	2290	2350	609	226	91

CAL YR 1986 TOTAL 5216.90 MEAN 14.3 MAX 86 MIN 1.0 AC-FT 10350
WTR YR 1987 TOTAL 3608.11 MEAN 9.89 MAX 58 MIN .60 AC-FT 7160

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	1.9	1.1	.50	.40	.40	.60	7.8	17	8.5	2.9	.80
2	2.0	1.8	1.0	.48	.40	.40	.59	7.7	21	7.5	2.3	.77
3	2.0	1.9	1.0	.47	.40	.37	.58	6.7	22	6.9	1.9	.71
4	2.0	1.8	.98	.46	.40	.37	.62	6.1	23	6.5	1.7	.75
5	2.0	2.1	.96	.45	.40	.37	.60	5.8	24	6.1	1.6	.87
6	2.0	1.5	.94	.44	.40	.37	.60	6.0	24	5.8	1.5	.70
7	2.0	1.6	.92	.43	.40	.37	.60	6.7	26	5.5	1.9	.70
8	2.0	1.4	.90	.42	.40	.37	.60	7.8	32	5.3	1.9	.70
9	2.2	1.3	.88	.41	.40	.37	.62	8.9	32	4.9	1.5	.67
10	2.3	1.2	.86	.40	.40	.37	.61	10	29	4.6	1.4	.61
11	2.4	1.2	.84	.40	.40	.37	.60	12	26	4.7	1.3	.60
12	2.1	1.3	.82	.40	.40	.37	.61	14	25	5.4	1.2	.63
13	1.9	1.3	.80	.40	.40	.37	.58	15	24	5.0	1.1	.51
14	2.1	1.3	.78	.40	.40	.38	.62	18	24	4.4	1.1	.46
15	2.0	1.4	.76	.40	.40	.40	.79	21	24	4.1	.95	.76
16	1.9	1.4	.74	.40	.40	.40	1.1	25	23	3.7	.95	.96
17	1.9	1.5	.72	.40	.40	.40	1.5	28	22	3.5	.79	1.4
18	1.8	1.5	.70	.40	.40	.43	2.1	27	20	3.6	.72	1.1
19	1.9	1.5	.68	.40	.40	.44	2.4	25	18	3.0	.81	.80
20	2.0	1.5	.66	.40	.40	.45	2.4	24	17	2.8	.77	.74
21	1.9	1.5	.64	.40	.40	.48	2.1	22	16	2.7	.76	.69
22	1.8	1.5	.62	.40	.40	.50	2.3	20	14	2.8	.82	.65
23	2.1	1.5	.62	.40	.40	.49	3.1	20	13	2.5	1.3	.63
24	2.0	1.7	.60	.40	.40	.49	4.2	19	12	2.1	3.8	.60
25	1.9	1.5	.60	.40	.40	.49	4.9	18	11	2.1	2.4	.60
26	1.8	1.4	.58	.40	.40	.50	5.0	16	10	2.6	1.8	.57
27	1.9	1.2	.56	.40	.40	.50	5.3	15	9.3	4.7	1.3	.60
28	1.8	1.2	.54	.40	.40	.50	5.7	14	8.6	4.0	1.1	.59
29	1.8	1.2	.54	.40	---	.54	6.2	14	9.0	2.7	1.1	.54
30	1.9	1.2	.52	.40	---	.54	6.8	13	9.2	2.6	.97	.56
31	1.9	---	.50	.40	---	.56	---	14	---	3.0	.87	---
TOTAL	61.3	44.3	23.36	12.86	11.20	13.36	64.32	467.5	585.1	133.6	44.51	21.27
MEAN	1.98	1.48	.75	.41	.40	.43	2.14	15.1	19.5	4.31	1.44	.71
MAX	2.4	2.1	1.1	.50	.40	.56	6.8	28	32	8.5	3.8	1.4
MIN	1.8	1.2	.50	.40	.40	.37	.58	5.8	8.6	2.1	.72	.46
AC-FT	122	88	46	26	22	26	128	927	1160	265	88	42
CAL YR 1986	TOTAL 2905.95		MEAN 7.96	MAX 67	MIN .50	AC-FT 5760						
WTR YR 1987	TOTAL 1482.68		MEAN 4.06	MAX 32	MIN .37	AC-FT 2940						

EAGLE RIVER BASIN

09066400 RED SANDSTONE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°40'58", long 106°24'03", Eagle County, Hydrologic Unit 14010003, on left bank 150 ft upstream from road culvert, 1,400 ft upstream from Indian Creek, and 6.8 mi north of Minturn.

DRAINAGE AREA.--7.27 mi².

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,212 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 13-17, 19, 23-25, 27, Nov. 2 to May 14, and Aug. 19-20. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 9.29 ft³/s; 6,730 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 215 ft³/s, June 19, 1983, gage height, 4.66 ft, maximum gage height, 5.18 ft, Apr. 17, 1987 (backwater from ice); minimum daily discharge, 0.20 ft³/s, Jan. 30, 1970.

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 16	1700	*57	3.68	Apr. 17	0745	---	a*5.18

Minimum daily discharge, 0.40 ft³/s, Jan. 10-15.
a Backwater from ice.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	1.4	1.0	.62	.56	.46	.46	10	24	9.4	3.9	1.0
2	2.7	1.4	1.0	.58	.56	.46	.46	11	25	8.7	2.3	.96
3	2.6	1.4	1.0	.56	.54	.46	.46	12	26	7.7	1.9	.94
4	2.4	1.4	1.0	.54	.54	.46	.46	13	28	6.9	1.8	.92
5	2.2	1.4	1.0	.52	.54	.46	.46	15	29	6.3	1.5	.96
6	2.3	1.3	1.0	.49	.52	.46	.46	16	28	6.0	1.5	1.0
7	2.1	1.3	1.0	.47	.52	.46	.46	17	27	5.5	2.0	1.0
8	2.1	1.3	1.0	.45	.50	.46	.46	18	27	5.2	2.0	1.0
9	1.9	1.3	1.0	.43	.49	.46	.52	20	29	5.2	1.7	.98
10	1.6	1.2	1.0	.40	.48	.46	.66	22	29	5.0	1.5	.92
11	1.6	1.2	1.0	.40	.47	.46	.80	24	27	4.5	1.4	.92
12	1.5	1.2	1.0	.40	.46	.46	.90	26	26	4.5	1.4	.92
13	1.4	1.2	1.0	.40	.46	.46	1.1	28	24	4.5	1.3	.92
14	1.4	1.2	1.0	.40	.46	.46	1.3	30	23	3.9	1.3	.92
15	1.4	1.2	1.0	.40	.46	.46	1.5	39	24	3.3	1.3	.96
16	1.4	1.2	1.0	.42	.46	.46	1.8	46	22	3.0	1.2	1.2
17	1.3	1.1	1.0	.43	.46	.46	2.1	47	20	3.2	1.1	1.7
18	1.3	1.1	1.0	.45	.46	.46	2.5	41	18	3.4	1.1	1.3
19	1.3	1.0	1.0	.48	.46	.46	2.9	37	16	2.9	1.0	1.1
20	1.3	1.0	1.0	.52	.46	.46	3.5	35	15	2.5	1.0	1.0
21	1.3	1.0	1.0	.56	.46	.46	4.0	33	14	2.4	1.1	.99
22	1.3	1.0	1.0	.60	.46	.46	5.0	31	14	2.4	1.1	.92
23	1.3	1.0	.98	.66	.46	.46	5.2	29	13	2.1	1.3	.91
24	1.4	1.0	.94	.64	.46	.46	5.6	27	12	1.9	2.8	.85
25	1.5	1.0	.88	.64	.46	.46	6.0	27	11	1.7	2.8	.85
26	1.5	1.0	.84	.62	.46	.46	6.4	26	11	3.2	1.8	.85
27	1.5	1.0	.80	.62	.46	.46	7.0	24	10	6.0	1.4	.85
28	1.5	1.0	.76	.68	.46	.46	7.6	23	9.9	4.3	1.3	.85
29	1.5	1.0	.72	.58	---	.46	8.0	22	9.9	2.8	1.3	.85
30	1.5	1.0	.70	.58	---	.46	9.0	21	9.6	2.5	1.2	.85
31	1.4	---	.66	.58	---	.46	---	20	---	3.6	1.1	---
TOTAL	52.2	34.8	29.28	16.12	13.54	14.26	87.06	790	601.4	134.5	49.4	29.39
MEAN	1.68	1.16	.94	.52	.48	.46	2.90	25.5	20.0	4.34	1.59	.98
MAX	2.7	1.4	1.0	.68	.56	.46	9.0	47	29	9.4	3.9	1.7
MIN	1.3	1.0	.66	.40	.46	.46	.46	10	9.6	1.7	1.0	.85
AC-FT	104	69	58	32	27	28	173	1570	1190	267	98	58
CAL YR 1986	TOTAL 3445.98	MEAN 9.44	MAX 72	MIN .66	AC-FT 6840							
WTR YR 1987	TOTAL 1851.95	MEAN 5.07	MAX 47	MIN .40	AC-FT 3670							

09067000 BEAVER CREEK AT AVON, CO

LOCATION.--Lat 39°37'47", long 106°31'20", in NE¼SW¼ sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft upstream from U.S. Highways 6 and 24, and 700 ft upstream from mouth.

DRAINAGE AREA.--15.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to December 1911, January 1912 to September 1914 (gage heights and discharge measurements only), May 1974 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 7,453 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 1, 1974, nonrecording gage near present site at different datum.

REMARKS.--Estimated daily discharges: Nov. 9-15, Nov. 23 to Feb. 1, Feb. 5 to Mar. 15, Mar. 21 to Apr. 1, and Apr. 13, 14. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation upstream and downstream from station. Slight natural regulation by several small lakes in headwaters.

AVERAGE DISCHARGE.--13 years (water years 1975-87), 13.7 ft³/s; 9,930 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 249 ft³/s, June 27, 1983, gage height, 3.46 ft; minimum daily, 0.55 ft³/s, Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 80 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 8	0300	*77	*2.49				

Minimum daily, 2.0 ft³/s, Jan. 15-21, and Feb. 15-24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.9	4.7	4.0	3.0	2.6	3.5	3.3	22	31	28	20	4.3
2	6.6	4.9	4.0	3.0	2.7	4.0	3.6	21	34	24	14	4.6
3	7.3	4.2	4.0	3.0	2.7	4.5	4.2	17	35	22	11	4.4
4	7.2	4.4	4.0	2.5	2.6	5.0	4.0	14	40	22	10	4.7
5	6.5	4.5	4.0	2.5	2.4	5.5	3.9	14	47	21	8.9	5.0
6	6.4	4.5	3.5	2.5	2.3	5.5	4.1	14	49	20	8.4	4.9
7	6.2	4.5	3.5	2.5	2.3	5.5	3.9	16	53	18	9.8	5.3
8	6.2	4.6	3.5	2.5	2.3	5.5	4.2	17	69	16	11	5.8
9	6.2	4.5	3.5	2.5	2.3	5.5	4.1	20	63	15	9.4	4.9
10	6.2	4.5	3.0	2.5	2.3	5.0	4.1	23	59	14	8.2	4.7
11	6.8	4.5	3.0	2.7	2.3	4.0	4.0	26	55	13	7.7	4.7
12	6.2	4.5	3.0	3.0	2.3	3.5	4.0	29	55	14	7.3	4.4
13	5.8	4.0	3.5	3.0	2.3	3.5	3.8	30	54	13	7.6	4.7
14	5.8	4.0	3.5	2.5	2.3	3.5	4.0	32	54	12	6.7	4.6
15	5.9	4.2	3.5	2.0	2.0	3.5	4.6	35	52	11	6.1	5.3
16	5.8	4.3	3.5	2.0	2.0	3.5	5.9	39	53	11	5.7	5.3
17	5.8	4.3	3.5	2.0	2.0	3.8	7.3	46	52	14	5.6	5.6
18	5.9	4.5	3.5	2.0	2.0	3.8	9.6	46	47	14	5.3	5.0
19	5.9	4.9	3.5	2.0	2.0	3.8	11	43	45	12	5.0	4.5
20	5.9	4.8	3.5	2.0	2.0	3.6	10	44	43	10	4.8	4.1
21	5.8	4.5	3.5	2.0	2.0	3.5	8.2	41	41	9.9	5.1	3.8
22	6.0	4.9	3.5	2.3	2.0	3.0	8.5	37	38	9.8	5.2	3.7
23	5.3	4.5	3.5	2.5	2.0	3.0	11	35	36	9.0	6.7	3.6
24	5.1	4.5	3.5	2.5	2.0	3.0	14	35	35	8.4	9.9	3.6
25	5.3	5.0	3.5	2.5	2.5	3.0	16	32	33	7.3	8.5	3.9
26	4.9	5.2	3.5	2.5	2.5	3.0	17	31	32	7.4	7.8	3.7
27	4.7	5.5	3.5	2.5	2.5	3.0	16	29	30	11	6.2	3.7
28	4.7	5.5	4.0	2.5	3.0	2.5	17	28	28	21	5.6	3.4
29	4.5	5.0	4.5	2.5	---	2.5	19	28	29	15	5.2	3.4
30	4.6	4.5	4.5	2.5	---	2.5	19	27	30	18	4.9	3.4
31	4.9	---	3.5	2.5	---	3.0	---	27	---	17	4.5	---
TOTAL	181.3	138.4	112.0	76.5	64.2	118.0	249.3	898	1322	457.8	242.1	133.0
MEAN	5.85	4.61	3.61	2.47	2.29	3.81	8.31	29.0	44.1	14.8	7.81	4.43
MAX	7.3	5.5	4.5	3.0	3.0	5.5	19	46	69	28	20	5.8
MIN	4.5	4.0	3.0	2.0	2.0	2.5	3.3	14	28	7.3	4.5	3.4
AC-FT	360	275	222	152	127	234	494	1780	2620	908	480	264

CAL YR 1986	TOTAL 5333.4	MEAN 14.6	MAX 85	MIN 2.6	AC-FT 10580
WTR YR 1987	TOTAL 3992.6	MEAN 10.9	MAX 69	MIN 2.0	AC-FT 7920

EAGLE RIVER BASIN

09067000 BEAVER CREEK AT AVON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- January 1975 to current year.

INSTRUMENTATION.--Turbidity recorder since September 1974.

REMARKS.--Daily record for turbidity data available in district office. Turbidity data at this station will continue to be published in the annual reports. Records published will be the daily maximum and minimum turbidity.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	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)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 29...	1233	4.3	237	8.2	6.0	0.40	9.8	120	34	8.2	2.3	0.1
NOV 26...	1300	5.7	263	7.9	1.5	0.60	10.0	130	37	9.2	2.7	0.1
DEC 16...	1133	3.5	337	8.4	0.5	0.40	13.2	150	42	10	3.0	0.1
JAN 28...	0730	2.5	290	--	0.0	0.40	10.0	150	42	11	3.0	0.1
MAR 04...	1235	12	322	7.9	0.5	3.5	10.9	160	44	11	3.9	0.1
APR 01...	1144	3.4	248	8.3	1.5	1.5	10.2	150	44	10	2.8	0.1
MAY 13...	1120	30	131	--	6.0	4.4	9.0	60	16	4.9	1.6	0.1
JUN 02...	1830	33	--	--	9.5	1.5	10.0	44	12	3.3	1.4	0.1
JUL 13...	1400	13	118	8.4	12.0	0.40	8.1	52	15	3.6	1.4	0.1
30...	1415	17	99	8.2	14.5	1.3	7.6	46	13	3.3	1.6	0.1
SEP 02...	1045	4.5	202	8.4	9.5	0.30	8.6	97	28	6.5	2.3	0.1
30...	1225	3.7	229	8.5	6.5	0.50	9.1	100	29	7.1	2.0	0.1

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)	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)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 29...	1.0	72	49	1.6	<0.10	7.8	162	147	0.22	1.88	<0.100	<0.010
NOV 26...	1.0	80	57	1.4	0.10	7.8	162	164	0.22	2.49	0.100	<0.010
DEC 16...	1.0	81	63	1.6	<0.10	7.9	193	177	0.26	1.82	0.190	<0.010
JAN 28...	0.90	83	65	1.8	0.10	8.4	179	182	0.24	1.21	0.220	0.010
MAR 04...	1.3	92	73	3.8	0.10	7.7	201	200	0.27	6.70	0.340	0.020
APR 01...	0.90	88	67	1.0	<0.10	7.8	191	186	0.26	1.75	<0.100	0.020
MAY 13...	0.90	53	12	0.70	<0.10	7.2	91	75	0.12	7.30	<0.100	<0.010
JUN 02...	0.80	36	15	0.60	0.30	7.4	64	62	0.09	5.70	<0.100	<0.010
JUL 13...	0.90	38	16	1.8	<0.10	7.3	76	69	0.10	2.71	<0.100	<0.010
30...	0.60	34	15	0.40	0.10	7.0	62	61	0.08	2.86	0.100	0.020
SEP 02...	1.0	64	39	0.90	0.10	7.9	129	124	0.17	1.56	<0.100	<0.010
30...	0.90	70	45	0.70	0.10	7.1	137	134	0.19	1.35	<0.100	0.010

TURBIDITY (NTU), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	1.5	1.0	2.0	1.0	---	---	---	---	1.5	1.0
2	---	---	2.0	1.0	1.5	1.0	---	---	---	---	1.5	1.0
3	---	---	9.0	1.0	10	1.0	---	---	---	---	2.5	1.0
4	---	---	2.0	1.0	10	2.0	---	---	---	---	9.0	1.0
5	---	---	10	1.0	1.5	1.0	---	---	---	---	10	2.0
6	---	---	2.0	1.0	1.5	1.0	---	---	---	---	10	1.5
7	---	---	2.0	1.0	1.5	1.0	---	---	---	---	10	1.5
8	4.0	2.8	2.0	1.0	1.5	1.0	---	---	---	---	8.0	2.0
9	---	---	10	1.0	10	1.0	---	---	---	---	9.0	2.0
10	5.0	1.0	2.0	1.0	10	2.0	---	---	---	---	9.0	2.0
11	10	1.0	4.0	1.0	10	1.0	---	---	---	---	7.0	1.5
12	4.0	1.0	2.0	1.0	1.5	1.0	---	---	---	---	5.0	1.5
13	---	1.0	2.0	1.0	10	1.0	---	---	---	---	7.0	1.5
14	---	---	10	1.0	10	1.0	---	---	---	---	6.0	1.5
15	---	---	10	1.0	10	1.0	---	---	---	---	2.0	1.0
16	---	---	2.5	2.0	---	.60	---	---	---	---	2.0	1.0
17	---	---	3.0	1.5	---	---	---	---	---	---	1.5	1.0
18	---	---	3.0	2.0	---	---	---	---	---	---	1.5	1.0
19	---	---	10	2.0	---	---	---	---	1.0	1.0	10	1.0
20	---	---	10	2.0	---	---	---	---	1.0	1.0	1.0	2.0
21	---	---	10	2.0	---	---	---	---	2.0	1.0	4.0	1.0
22	---	---	4.0	1.5	---	---	---	---	1.5	1.0	1.5	1.0
23	---	---	5.0	1.0	---	---	---	.60	2.0	1.0	2.0	1.0
24	---	---	3.0	1.0	---	---	---	---	1.0	1.0	9.0	1.0
25	---	---	10	1.5	---	---	---	---	1.5	1.0	8.0	1.0
26	---	---	3.0	1.0	---	---	---	---	1.0	1.0	9.0	1.0
27	---	---	10	1.0	---	---	---	---	2.5	1.0	8.0	1.0
28	---	---	10	1.0	---	---	---	---	1.0	1.0	8.0	1.0
29	2.0	1.0	2.0	1.0	---	---	---	---	---	---	9.0	1.0
30	2.0	1.0	1.5	1.0	---	2.2	---	---	---	---	3.0	1.0
31	1.5	1.0	---	---	---	---	---	---	---	---	5.0	1.0
MONTH	---	---	10	1.0	---	---	---	---	---	---	10	1.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	3.0	1.0	---	---	---	---	---	---	---	---	10	1.0
2	3.0	1.0	---	---	---	2.5	---	---	---	---	2.0	.80
3	9.0	1.0	---	---	---	2.2	---	---	---	---	2.0	1.0
4	4.0	1.0	---	---	---	---	---	---	---	---	2.0	1.0
5	10	1.0	---	---	---	1.0	---	---	---	---	2.0	1.0
6	5.0	1.0	---	---	---	1.0	---	---	---	---	2.5	1.0
7	10	1.0	---	---	---	2.5	---	---	---	---	2.0	1.0
8	5.0	1.0	---	---	---	---	---	---	---	---	2.0	1.0
9	2.0	1.0	---	---	---	---	---	---	---	---	10	1.0
10	2.0	1.0	---	---	---	---	---	---	---	---	2.0	1.0
11	9.0	1.0	---	---	---	---	---	---	---	---	2.0	1.0
12	3.0	1.0	---	---	---	---	---	---	---	---	2.0	1.5
13	1.0	1.0	---	6.5	---	---	2.0	1.0	---	---	2.0	2.0
14	2.0	1.0	---	---	---	---	2.0	1.0	4.0	1.0	10	1.0
15	1.5	1.0	---	---	---	---	2.0	1.0	1.0	1.0	2.0	1.0
16	3.0	1.0	---	---	---	---	2.0	1.0	1.5	1.0	2.0	1.0
17	10	1.0	---	---	---	---	4.0	2.0	10	1.0	10	2.0
18	10	1.0	---	---	---	---	4.0	2.0	2.0	1.0	10	2.0
19	8.0	1.0	---	---	---	---	4.0	1.0	10	1.0	---	---
20	3.0	2.0	---	---	---	---	10	1.0	10	1.0	---	---
21	2.0	1.0	---	---	---	---	10	1.0	10	1.0	---	---
22	5.0	1.0	---	---	---	---	3.0	1.0	3.0	1.0	---	---
23	10	1.0	---	---	---	---	2.0	1.0	10	1.0	---	---
24	10	2.0	---	---	---	---	3.0	1.0	10	1.0	---	---
25	10	3.0	---	---	---	---	6.0	2.0	10	1.0	---	---
26	6.0	2.0	---	---	---	---	---	---	2.0	1.0	---	---
27	5.0	2.0	---	---	---	---	---	---	1.5	1.0	---	---
28	3.0	2.0	---	---	---	---	---	---	1.5	1.0	---	---
29	---	---	---	---	---	---	---	---	1.5	1.0	---	---
30	---	---	---	---	---	---	---	---	1.5	1.0	---	---
31	---	---	---	---	---	---	---	---	2.0	1.0	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

EAGLE RIVER BASIN

09069000 EAGLE RIVER AT GYPSUM, CO

LOCATION.--Lat 39°39'00", long 106°57'06", Eagle County, Hydrologic Unit 14010003, at bridge at Gypsum, about 400 ft upstream from Gypsum Creek, about 520 ft upstream from bridge on U.S. Highways 6 and 24, and about 550 ft upstream from gaging station.

DRAINAGE AREA.--944 mi², at gaging station.

PERIOD OF RECORD.--April 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1947 to current year.

WATER TEMPERATURE: April 1949 to current year.

REMARKS.--Records of discharge are given for Eagle River below Gypsum (station 09070000), located 550 ft, downstream from Eagle River at Gypsum (station 09069000).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,850 microsiemens Aug. 6, 1949; minimum daily, 130 microsiemens June 9, 10, 1976.

WATER TEMPERATURES: Maximum daily, 24°C Aug. 24, 1949; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,300 microsiemens Jan.2; minimum daily, 180 microsiemens several days in May and June.

WATER TEMPERATURES: Maximum daily, 20.0°C several days in August; minimum daily, 0.0°C on many days in December and January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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
DEC 15...	1520	231	996	8.2	0.0	12.6	330	99	21	67	2
APR 13...	1630	205	946	8.2	7.5	10.2	320	93	21	63	2
JUN 03...	1230	1430	232	7.6	10.0	9.6	95	28	6.0	8.3	0.4
AUG 31...	1700	284	874	8.5	18.0	8.9	320	97	19	55	1

DATE	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)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
DEC 15...	2.8	142	220	100	0.10	8.6	604	0.82	377	15	0.50
APR 13...	2.5	133	200	95	0.20	8.3	563	0.77	312	29	0.60
JUN 03...	0.70	62	39	12	<0.10	5.5	137	0.19	528	--	<0.10
AUG 31...	2.8	109	210	81	0.20	7.7	538	0.73	413	4	<0.10

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)
DEC 15...	0.54	0.80	0.40	1.3	0.06	0.04	<1	<1	<1	49	<0.5
APR 13...	0.41	1.1	0.30	1.7	0.09	0.04	<1	<1	<1	53	<0.5
JUN 03...	<0.10	0.70	0.40	--	0.02	0.03	<1	<1	<1	39	<0.5
AUG 31...	<0.10	<0.20	0.30	--	0.06	0.02	<2	<1	<1	47	<0.5

09069000 EAGLE RIVER AT GYPSUM, CO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 15...	<1	1	<1	<1	5	2	6	7	<5	170
APR 13...	<1	<1	<1	<1	5	3	4	<5	<5	160
JUN 03...	<1	<1	2	<1	5	2	60	<5	<5	30
AUG 31...	<1	1	<1	<1	2	1	9	<5	<5	27

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
DEC 15...	0.20	0.3	<1	<1	1	1	<1	<1.0	100	78
APR 13...	<0.10	0.4	3	1	<1	<1	<1	<1.0	90	40
JUN 03...	<0.10	<0.1	1	<1	1	<1	<1	<1.0	70	44
AUG 31...	<0.10	<0.1	<1	<1	<1	<1	<1	<1.0	40	8

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	800	750	850	1000	1000	1200	1100	260	320	350	700	850
2	800	750	850	1300	1000	1200	1100	280	300	350	700	900
3	750	750	850	1100	1000	1200	1100	290	300	380	600	900
4	750	750	850	1100	1050	1100	1050	260	250	400	650	900
5	750	750	850	1100	1050	1200	1000	260	250	450	600	900
6	---	750	850	1100	1000	1000	1000	260	200	450	700	900
7	750	750	850	1000	1000	900	1000	250	200	450	700	900
8	---	750	850	1100	1050	900	1000	250	180	500	---	950
9	---	750	900	1100	1050	900	1000	250	180	500	750	900
10	750	750	1000	1100	1100	900	950	240	200	450	800	900
11	---	750	1000	1100	1100	900	1000	225	200	450	900	950
12	---	800	1000	1100	1100	850	1000	225	200	450	800	950
13	750	800	1000	1100	1050	850	1000	240	220	450	900	950
14	750	800	1000	1000	1050	800	1000	200	240	500	900	950
15	750	800	1000	1100	1050	1000	800	180	240	580	850	---
16	750	800	1000	1100	1050	1000	700	180	240	580	900	---
17	750	800	1000	1100	1050	900	700	180	250	580	850	950
18	750	800	1000	1100	1100	900	650	200	300	550	900	950
19	750	800	1000	1100	1100	900	600	200	300	580	850	---
20	750	800	1000	1000	1100	---	600	225	300	590	850	---
21	---	800	1000	1100	1100	---	550	240	300	620	---	---
22	750	850	1000	1100	1150	---	525	240	320	600	800	1000
23	750	900	1000	1100	1150	1000	450	240	300	550	800	1000
24	750	950	1000	1000	1100	1000	400	280	300	600	800	1000
25	750	850	---	1000	1150	1000	350	280	300	400	850	1000
26	800	850	---	1100	1100	1100	350	280	320	440	800	1000
27	750	850	1000	1000	1200	1000	350	280	350	320	---	1000
28	800	850	1000	1000	1200	---	350	280	320	300	800	1100
29	750	850	1000	1000	---	---	300	280	300	400	800	1100
30	750	850	1000	1000	---	1000	280	280	340	440	850	1100
31	750	---	1000	1000	---	1100	---	290	---	450	850	---
MEAN	---	802	---	1071	1079	---	742	246	267	475	---	---

EAGLE RIVER BASIN

09069000 EAGLE RIVER AT GYPSUM, CO.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
INSTANTANEOUS VALUES

	DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	7.0	2.0	.0	1.0	5.0	8.0	10.0	13.0	14.0	20.0	17.0	
2	11.0	7.0	2.0	.0	1.0	4.0	8.0	6.0	13.0	15.0	20.0	16.0	
3	9.0	5.0	2.0	.0	1.0	5.0	8.0	8.0	13.0	16.0	19.0	15.0	
4	9.0	4.0	2.0	.0	1.0	5.0	9.0	10.0	13.0	16.0	20.0	15.0	
5	9.0	3.0	2.0	.0	1.0	6.0	10.0	10.0	13.0	17.0	19.0	15.0	
6	---	2.0	2.0	.0	1.0	6.0	10.0	10.0	11.0	17.0	20.0	15.0	
7	11.0	2.0	3.0	.0	1.0	8.0	10.0	11.0	10.0	17.0	20.0	15.0	
8	---	2.0	2.0	.0	1.0	7.0	10.0	11.0	10.0	17.0	---	14.0	
9	---	2.0	1.0	.0	1.0	7.0	10.0	11.0	10.0	17.0	20.0	15.0	
10	10.0	2.0	.0	.0	1.0	8.0	10.0	11.0	12.0	17.0	18.0	15.0	
11	---	3.0	.0	.0	1.0	8.0	10.0	12.0	12.0	17.0	17.0	14.0	
12	---	4.0	.0	.0	1.0	7.0	10.0	12.0	12.0	17.0	19.0	14.0	
13	8.0	4.0	.0	.0	1.0	7.0	11.0	11.0	12.0	17.0	18.0	14.0	
14	9.0	5.0	.0	.0	1.0	7.0	11.0	11.0	13.0	18.0	18.0	14.0	
15	8.0	5.0	.0	.0	1.0	6.0	11.0	11.0	14.0	19.0	18.0	---	
16	7.0	5.0	.0	.0	2.0	5.0	12.0	11.0	14.0	19.0	18.0	---	
17	8.0	6.0	.0	.0	3.0	7.0	12.0	11.0	14.0	19.0	17.0	14.0	
18	8.0	6.0	.0	.0	3.0	6.0	13.0	12.0	14.0	18.0	18.0	14.0	
19	8.0	6.0	.0	.0	2.0	7.0	13.0	12.0	14.0	18.0	17.0	---	
20	9.0	5.0	.0	.0	2.0	---	13.0	11.0	14.0	19.0	17.0	---	
21	---	4.0	.0	.0	2.0	---	12.0	9.0	14.0	19.0	---	---	
22	7.0	4.0	.0	.0	2.0	---	12.0	9.0	14.0	19.0	15.0	15.0	
23	8.0	3.0	.0	.0	2.0	8.0	11.0	9.0	14.0	19.0	16.0	15.0	
24	8.0	3.0	.0	.0	2.0	8.0	11.0	9.0	14.0	19.0	16.0	14.0	
25	7.0	2.0	---	.0	2.0	8.0	11.0	9.0	14.0	18.0	17.0	14.0	
26	8.0	2.0	---	.0	2.0	8.0	11.0	9.0	14.0	18.0	16.0	14.0	
27	8.0	2.0	.0	.0	3.0	8.0	11.0	9.0	14.0	17.0	---	14.0	
28	8.0	2.0	.0	.0	3.0	---	11.0	9.0	14.0	17.0	16.0	13.0	
29	7.0	2.0	.0	.0	---	---	10.0	9.0	14.0	19.0	16.0	13.0	
30	7.0	2.0	.0	.0	---	8.0	10.0	10.0	14.0	19.0	17.0	13.0	
31	7.0	---	.0	.0	---	8.0	---	11.0	---	19.0	17.0	---	
MEAN	---	3.5	---	.0	1.5	---	10.5	10.0	13.0	17.5	---	---	

EAGLE RIVER BASIN

09070000 EAGLE RIVER BELOW GYPSUM, CO

LOCATION.--Lat 39°38'58", long 106°57'11", in SW¼NW¼ sec.5, T.5 S., R.85W., Eagle County, Hydrologic Unit 14010003, on right bank 30 ft downstream from bridge on U.S. Highways 6 and 24 at Gypsum and 150 ft downstream from Gypsum Creek.

DRAINAGE AREA.--944 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,275.11 ft, above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Transmountain diversions upstream from station (see elsewhere in this report). Transbasin diversions upstream from station from Robinson Reservoir, capacity, 2,520 acre-ft, to Tenmile Creek for mining development. Many small diversions for irrigation of hay meadows upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--41 years, 585 ft³/s; 423,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,020 ft³/s, May 25, 1984, gage height, 9.46 ft; minimum daily, 110 ft³/s, Feb. 21, 1955, Feb. 3, 1956, Dec. 26, 27, 1962.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 8	1200	*2,850	*6.66				

Minimum daily, 162 ft³/s, March 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	422	367	263	176	204	167	193	1220	1070	859	510	248
2	406	350	241	204	202	172	193	1230	1320	783	450	236
3	423	347	254	218	199	176	188	1010	1330	715	394	232
4	436	337	260	206	197	177	200	824	1440	661	359	233
5	413	320	258	230	196	185	210	722	1580	612	325	244
6	397	317	268	224	189	201	208	698	1580	573	300	230
7	397	334	278	217	190	215	211	789	1720	534	315	223
8	395	313	267	209	194	222	212	960	2470	511	369	217
9	390	287	262	211	192	236	227	1170	2330	479	346	214
10	385	302	181	205	192	229	218	1310	2000	460	294	210
11	431	287	175	190	200	204	221	1420	1770	451	268	206
12	410	314	195	206	197	194	239	1590	1670	485	259	198
13	375	296	211	213	202	201	215	1600	1650	483	258	195
14	377	289	240	212	207	208	199	1780	1670	424	261	210
15	380	292	239	201	194	202	217	2160	1680	381	252	225
16	369	299	244	180	188	194	267	2280	1570	363	231	241
17	362	293	237	192	189	190	327	2420	1490	366	221	260
18	359	295	218	180	181	187	418	2260	1310	417	211	266
19	353	303	247	198	178	189	496	2010	1200	372	201	252
20	360	308	238	188	172	195	555	1890	1130	338	186	234
21	375	292	237	199	172	177	461	1740	1060	319	177	223
22	381	304	227	182	167	193	424	1550	997	322	194	208
23	371	273	210	190	171	189	496	1410	974	314	219	203
24	364	254	235	201	173	180	652	1360	951	296	307	194
25	361	279	210	201	180	175	789	1270	889	278	353	191
26	351	283	187	201	177	175	852	1180	863	294	364	188
27	345	264	181	198	174	187	920	1100	812	390	318	185
28	344	261	217	204	172	172	975	996	793	795	281	188
29	339	269	199	193	---	173	1040	953	797	591	274	184
30	337	279	192	196	---	162	1090	915	972	531	274	182
31	360	---	201	197	---	181	---	889	---	504	266	---
TOTAL	11768	9008	7072	6222	5249	5908	12913	42706	41088	14901	9037	6520
MEAN	380	300	228	201	187	191	430	1378	1370	481	292	217
MAX	436	367	278	230	207	236	1090	2420	2470	859	510	266
MIN	337	254	175	176	167	162	188	698	793	278	177	182
AC-FT	23340	17870	14030	12340	10410	11720	25610	84710	81500	29560	17920	12930

CAL YR 1986	TOTAL 267035	MEAN 732	MAX 3700	MIN 175	AC-FT 529700
WTR YR 1987	TOTAL 172392	MEAN 472	MAX 2470	MIN 162	AC-FT 341900

09070500 COLORADO RIVER NEAR DOTSERO, CO

LOCATION.--Lat 39°38'38", long 107°04'38", in NW¼SE¼ sec.6, T.5 S., R.86 W., Eagle County, Hydrologic Unit 14010001, on left bank about 500 ft south of Interstate Highway 70, 1.5 mi west of Dotsero, and 1.5 mi downstream from Eagle River.

DRAINAGE AREA.--4,394 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 6,130 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 8-11, Dec. 13 to Mar. 4. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of 68,000 acres upstream from station, and return flow from irrigated areas.

COOPERATION.--Gage-height record collected in cooperation with the Colorado Division of Water Resources.

AVERAGE DISCHARGE.--47 years, 2,160 ft³/s; 1,565,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,200 ft³/s, May 25, 1984, gage height, 14.20 ft; minimum daily, 350 ft³/s, Jan. 5, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,840 ft³/s at 1000 May 17, gage height, 6.35 ft; minimum daily, 1,000 ft³/s, Jan. 10, 11, 17, 18, 21, 22, and Feb. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1700	1760	1380	1100	1100	1100	1140	4070	3070	1890	1580	1270
2	1740	1670	1330	1200	1200	1100	1140	4150	3380	1870	1600	1230
3	1910	1650	1320	1200	1100	1100	1080	3810	3410	1790	1560	1200
4	1970	1610	1330	1100	1200	1100	1110	3360	3410	1900	1440	1210
5	1900	1530	1330	1200	1100	1130	1170	3060	3500	1820	1440	1220
6	1870	1530	1340	1300	1100	1160	1210	2960	3510	1730	1420	1210
7	1860	1530	1380	1200	1100	1190	1250	3050	3590	1620	1430	1180
8	1840	1500	1360	1200	1100	1220	1360	3250	4550	1560	1510	1180
9	1780	1450	1320	1100	1100	1310	1430	3510	4860	1490	1520	1160
10	1760	1500	1120	1000	1100	1300	1410	3690	4720	1410	1390	1100
11	1810	1500	1100	1000	1200	1240	1370	4010	4610	1360	1320	1030
12	1780	1520	1230	1100	1200	1240	1400	4230	4320	1480	1290	1040
13	1710	1490	1270	1100	1200	1270	1310	4260	4110	1680	1270	1140
14	1680	1460	1300	1200	1200	1310	1230	4430	4030	1660	1280	1220
15	1660	1500	1300	1100	1100	1330	1270	4940	4000	1470	1270	1240
16	1620	1550	1300	1100	1100	1270	1500	5190	3720	1370	1250	1250
17	1630	1550	1300	1000	1200	1230	1930	5470	3380	1340	1230	1210
18	1610	1540	1200	1000	1100	1210	2350	5380	3080	1410	1240	1220
19	1590	1540	1300	1100	1100	1220	2580	5080	2890	1430	1210	1210
20	1590	1540	1300	1100	1100	1240	2670	4680	2750	1340	1200	1190
21	1510	1510	1250	1000	1100	1210	2260	4360	2600	1310	1230	1150
22	1560	1540	1300	1000	1100	1210	1950	4030	2510	1300	1320	1120
23	1700	1430	1300	1100	1100	1190	2120	4060	2430	1300	1280	1140
24	1670	1380	1300	1200	1000	1160	2630	3880	2290	1270	1310	1190
25	1650	1430	1190	1200	1100	1160	3130	3760	2000	1290	1460	1190
26	1640	1460	1140	1200	1200	1140	3170	3630	1840	1330	1420	1240
27	1620	1410	1140	1200	1100	1130	3280	3400	1690	1460	1300	1230
28	1610	1380	1200	1200	1100	1090	3500	3160	1600	1950	1230	1210
29	1600	1400	1200	1200	---	1090	3810	3100	1610	1780	1230	1210
30	1620	1420	1100	1100	---	1030	4000	3020	1860	1610	1270	1220
31	1670	---	1100	1100	---	1120	---	2880	---	1590	1250	---
TOTAL	52860	45280	39030	34900	31500	36800	59760	121860	95320	47810	41750	35610
MEAN	1705	1509	1259	1126	1125	1187	1992	3931	3177	1542	1347	1187
MAX	1970	1760	1380	1300	1200	1330	4000	5470	4860	1950	1600	1270
MIN	1510	1380	1100	1000	1000	1030	1080	2880	1600	1270	1200	1030
AC-FT	104800	89810	77420	69220	62480	72990	118500	241700	189100	94830	82810	70630
CAL YR 1986	TOTAL 1071000 MEAN 2934 MAX 10600 MIN 1100 AC-FT 2124000											
WTR YR 1987	TOTAL 642480 MEAN 1760 MAX 5470 MIN 1000 AC-FT 1274000											

09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°43'00", long 107°18'35", in NE¼SW¼ sec.7, T.4 S., R.88 W., Garfield County, Hydrologic Unit 14010001, on left bank 0.5 mi west of Grizzly Cow Camp and 14 mi north of Glenwood Springs.

DRAINAGE AREA.--5.73 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 10,435 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 19, 1978, at site 600 ft upstream, at datum, 25.33 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 3-5, 7-11, 19-21, Dec. 20 to Jan. 22, April 26 to May 4. Records good except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 15.3 ft³/s; 11,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 364 ft³/s, June 5, 1986, gage height, 4.99 ft, maximum gage height observed, 8.63 ft, May 4, 1982 (backwater from ice); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 85 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
April 27	2200		*a6.79	June 7	2300	135	4.19
May 16	1600	*176	4.39				

a Backwater from ice.

Minimum daily discharge, 0.79 ft³/s, April 11-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	5.5	3.5	2.0	1.3	1.1	.84	80	82	7.3	2.2	1.3
2	5.2	5.1	3.3	2.1	1.3	1.1	.84	78	107	6.9	2.1	1.4
3	5.7	5.2	3.3	2.1	1.3	1.1	.84	70	109	5.9	1.6	1.4
4	5.5	5.0	3.3	1.9	1.3	1.1	.84	60	116	5.9	1.3	1.4
5	5.0	4.8	3.2	2.1	1.2	1.1	.84	31	126	4.4	1.2	1.3
6	4.9	4.8	3.2	2.0	1.2	1.0	.84	17	128	3.6	1.2	1.3
7	5.1	4.7	3.2	2.0	1.2	1.0	.84	19	129	3.6	1.8	1.3
8	5.2	4.4	3.1	2.0	1.2	1.0	.84	28	129	3.4	1.7	1.4
9	5.3	4.2	3.1	1.8	1.2	1.0	.84	43	119	3.2	1.5	1.3
10	5.6	4.4	3.0	1.7	1.2	1.0	.83	63	97	3.0	1.3	1.3
11	5.9	4.3	3.0	1.8	1.2	.99	.79	71	73	3.4	1.1	1.2
12	5.9	4.2	3.0	1.8	1.2	.97	.79	74	59	5.1	1.1	1.2
13	6.0	4.1	3.0	1.8	1.2	.97	.79	87	48	4.0	1.2	1.2
14	6.0	4.1	2.9	1.6	1.2	.97	.79	110	41	3.3	1.2	1.3
15	6.2	4.1	2.9	1.5	1.2	.97	.79	141	35	2.9	1.2	1.3
16	6.1	3.9	2.7	1.6	1.3	.97	.82	164	29	2.6	1.2	1.3
17	6.0	3.9	2.6	1.6	1.2	.97	.98	134	26	2.7	1.2	1.2
18	5.9	4.0	2.6	1.5	1.2	.97	1.2	133	22	2.7	1.1	1.2
19	5.6	4.4	2.5	1.6	1.2	.97	1.2	133	19	2.5	1.1	1.2
20	5.5	4.0	2.5	1.6	1.2	.91	1.2	130	17	2.2	1.1	1.2
21	5.5	4.3	2.3	1.5	1.2	.91	1.2	123	14	2.2	1.2	1.1
22	5.6	4.0	2.2	1.5	1.2	.91	1.3	92	12	2.1	1.2	1.0
23	5.5	3.8	2.3	1.5	1.2	.91	2.4	69	11	2.0	1.3	1.0
24	5.5	3.6	2.2	1.5	1.2	.86	7.6	68	10	2.0	1.7	1.1
25	5.5	3.6	1.9	1.4	1.2	.87	20	66	9.1	1.9	2.3	1.1
26	5.2	3.5	1.9	1.4	1.2	.91	41	58	8.4	2.1	1.8	1.1
27	5.2	3.5	2.0	1.4	1.2	.91	45	47	7.7	2.3	1.5	1.1
28	5.0	3.3	2.1	1.4	1.1	.91	53	41	7.1	2.1	1.4	1.1
29	4.8	3.4	2.0	1.4	---	.90	62	36	7.1	2.0	1.8	.98
30	4.7	3.5	2.0	1.4	---	.84	76	36	7.3	2.0	1.6	.97
31	4.8	---	1.9	1.4	---	.84	---	51	---	2.7	1.3	---
TOTAL	168.9	125.6	82.7	51.9	34.0	29.93	327.24	2353	1604.7	102.0	44.5	36.25
MEAN	5.45	4.19	2.67	1.67	1.21	.97	10.9	75.9	53.5	3.29	1.44	1.21
MAX	6.2	5.5	3.5	2.1	1.3	1.1	76	164	129	7.3	2.3	1.4
MIN	4.7	3.3	1.9	1.4	1.1	.84	.79	17	7.1	1.9	1.1	.97
AC-FT	335	249	164	103	67	59	649	4670	3180	202	88	72

CAL YR 1986 TOTAL 8878.34 MEAN 24.3 MAX 290 MIN .79 AC-FT 17610
WTR YR 1987 TOTAL 4960.72 MEAN 13.6 MAX 164 MIN .79 AC-FT 9840

COLORADO RIVER MAIN STEM

09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°33'38", long 107°17'59", Garfield County, Hydrologic Unit 14010001, 100 yards downstream of No Name Creek and two miles above Glenwood Springs.

DRAINAGE AREA.--4,556 mi².

PERIOD OF RECORD.--December 1985 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1985 to current year.

WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1985.

REMARKS.--Discharge obtained by subtracting the flow in Roaring Fork River at Glenwood Springs (station 09085000) from the flow in the Colorado River below Glenwood Springs (station 09085100). Water-quality data collection was moved downstream to this site from previous site 09071100 on Dec.12,1985. Water-quality data collected at this site are considered equivalent to data collected at old site. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 806 microsiemens Aug.21, 1986; minimum, 228 microsiemens June 10, 1986.

WATER TEMPERATURE: Maximum, 22.5°C July 26, 1987; minimum, 0.0°C many days in winter period, 1986.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 790 microsiemens Dec. 12; minimum, 253 microsiemens May 31.

WATER TEMPERATURE: Maximum 22.5°C July 26; minimum, 0.4°C many days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
AUG 27...	1200	1460	650	19.0	190	93	57	12	65	2
DATE	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)	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)
AUG 27...	5.0	99	90	88	0.30	7.7	384	0.52	1520	0.460

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	620	597	619	675	563	653	667	347	278	574	---	679
2	616	595	631	666	562	654	660	336	303	578	---	635
3	601	596	631	655	564	653	664	340	300	564	650	684
4	579	602	623	652	564	654	656	349	300	551	665	694
5	567	604	621	646	564	652	654	361	311	544	---	692
6	555	629	619	633	564	650	664	373	327	544	---	694
7	558	647	617	628	563	654	667	374	332	541	---	693
8	558	644	616	626	562	658	676	367	337	544	---	702
9	552	645	615	625	559	668	673	356	338	540	---	701
10	561	655	631	625	556	665	672	346	342	558	---	680
11	567	661	704	624	552	657	673	338	352	543	---	---
12	569	654	763	625	551	664	673	326	360	---	706	---
13	570	650	694	621	548	661	674	324	373	---	711	---
14	570	640	659	628	546	655	678	320	385	---	701	707
15	570	634	642	627	544	659	671	310	394	---	712	685
16	570	631	640	624	570	668	656	295	402	---	716	687
17	571	625	638	626	619	673	617	294	416	---	733	683
18	574	622	635	616	648	669	565	300	427	---	736	692
19	580	619	632	569	633	669	520	293	435	---	734	687
20	584	621	630	559	623	671	479	264	444	---	742	688
21	591	620	626	568	629	671	470	266	455	---	734	698
22	594	620	626	575	631	668	468	266	464	---	697	708
23	595	620	640	583	673	667	489	269	473	---	645	711
24	596	622	661	592	672	669	483	267	510	---	630	703
25	592	618	663	585	692	659	455	268	526	---	626	682
26	592	617	662	568	670	668	445	267	532	---	636	667
27	601	618	666	565	655	670	423	265	520	---	616	632
28	605	616	668	565	651	669	406	264	533	---	631	626
29	605	616	671	564	---	667	386	261	551	---	---	638
30	608	614	685	563	---	673	368	261	636	---	701	638
31	610	---	685	565	---	669	---	262	---	---	686	---
MEAN	583	625	649	608	597	663	575	307	412	---	---	---

09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO.--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	10.9	10.0	7.1	5.4	2.5	1.6	.5	.4	1.0	.4	3.3	1.8
2	11.4	10.6	6.6	5.9	2.3	1.1	.6	.5	1.0	.5	3.8	2.1
3	11.6	11.1	6.7	6.4	1.8	.9	.5	.4	1.2	.5	4.5	2.6
4	11.3	10.5	6.8	5.8	2.0	1.2	.7	.4	1.1	.6	5.0	3.4
5	11.2	10.0	6.3	5.2	2.0	1.6	1.0	.6	.9	.4	6.1	4.0
6	10.7	10.0	5.8	4.8	2.6	2.1	.9	.5	1.0	.4	6.8	4.6
7	11.3	10.8	5.6	4.6	3.7	2.7	.9	.5	1.1	.4	7.3	5.1
8	11.9	11.0	4.8	3.1	3.8	3.3	.9	.5	1.2	.4	7.5	5.6
9	11.9	10.7	3.1	2.0	3.8	2.4	.6	.4	1.2	.5	7.1	6.1
10	11.6	10.4	2.5	1.7	2.3	.4	.5	.4	1.3	.4	6.8	5.8
11	11.2	9.3	2.6	1.5	.5	.4	.5	.4	1.5	.8	6.6	5.0
12	9.3	7.3	3.4	2.3	.5	.4	.6	.4	1.5	.6	6.5	5.4
13	7.3	5.9	3.5	2.7	.6	.4	.6	.5	2.0	1.2	7.4	5.9
14	7.1	6.4	3.5	2.7	.7	.4	.6	.5	2.3	1.6	7.1	5.9
15	7.8	6.9	3.9	3.2	.9	.4	.5	.4	2.8	1.8	7.3	6.2
16	8.2	7.4	4.7	4.0	.9	.5	.5	.4	3.0	2.3	6.3	5.1
17	8.4	7.6	5.7	4.9	.8	.5	.5	.4	3.5	2.5	5.1	4.2
18	8.8	8.1	6.0	5.6	.7	.5	.5	.4	3.1	2.3	6.0	4.4
19	9.2	8.5	6.3	5.9	.9	.6	.6	.5	3.2	2.5	6.6	5.6
20	9.2	8.7	6.4	4.8	.9	.5	.5	.5	2.6	1.8	6.1	5.2
21	9.0	7.9	5.1	4.1	.8	.4	.5	.4	2.5	1.4	6.1	4.6
22	8.0	7.6	4.9	4.4	.6	.4	.5	.4	2.4	1.1	5.9	4.8
23	8.2	7.6	4.6	2.5	.7	.4	.5	.5	2.2	1.5	6.4	4.5
24	8.4	7.3	3.2	2.1	.7	.5	.6	.5	3.0	1.5	5.8	4.5
25	8.1	7.5	2.8	2.2	.5	.4	.8	.6	3.1	1.9	5.8	4.0
26	8.0	7.1	3.2	2.6	.5	.4	.9	.5	3.2	2.2	6.2	4.3
27	8.0	7.0	3.4	2.2	.6	.4	.8	.5	2.1	1.2	5.8	4.5
28	8.0	7.1	2.8	2.0	.6	.4	.9	.5	2.8	1.3	5.6	3.8
29	8.1	7.3	2.8	2.0	.5	.4	.8	.4	---	---	5.8	3.6
30	8.1	7.4	2.7	2.2	.5	.4	.7	.4	---	---	4.5	2.4
31	8.2	7.1	---	---	.5	.4	.9	.4	---	---	5.7	2.7
MONTH	11.9	5.9	7.1	1.5	3.8	.4	1.0	.4	3.5	.4	7.5	1.8
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	4.4	11.1	10.0	14.0	12.1	16.1	15.0	20.1	19.5	19.7	13.5
2	8.4	6.0	10.5	8.6	13.9	12.1	16.6	15.4	21.4	20.4	20.0	17.5
3	8.9	6.8	8.5	7.2	13.9	12.2	18.1	16.9	21.6	20.5	19.6	17.0
4	9.1	7.4	8.7	7.0	14.4	12.3	18.0	17.4	20.6	19.4	18.1	16.0
5	9.2	8.1	9.9	8.5	14.9	13.1	18.0	17.4	20.5	17.5	18.1	15.5
6	10.4	8.8	11.5	9.1	14.9	13.2	18.1	17.1	20.1	19.0	17.6	15.1
7	10.2	8.4	12.3	10.5	15.1	13.6	18.4	17.1	19.9	19.1	16.4	13.9
8	10.0	8.7	12.4	11.1	15.0	13.0	18.6	17.5	20.1	19.0	16.5	13.9
9	9.9	8.4	12.2	10.5	12.9	12.2	18.5	17.5	19.6	18.9	17.0	14.3
10	9.0	7.9	12.3	11.1	13.9	11.7	18.6	17.0	20.1	19.1	17.9	14.8
11	9.0	7.8	12.2	10.6	14.7	12.3	17.6	15.6	20.0	18.6	18.9	13.9
12	8.1	6.3	12.2	10.5	14.8	13.6	17.5	15.0	20.0	19.0	18.0	13.5
13	6.9	6.1	11.2	9.8	15.5	13.7	16.6	15.6	19.1	18.0	16.5	13.9
14	8.1	6.4	12.1	10.0	16.1	13.6	18.5	16.5	18.6	16.5	15.4	13.5
15	10.3	7.6	12.0	10.6	16.0	14.8	19.1	17.5	18.1	16.2	15.5	13.9
16	11.8	9.7	12.0	10.8	16.1	15.0	20.1	18.4	18.3	16.3	16.4	14.3
17	11.9	11.2	11.7	10.5	16.2	14.4	19.6	17.9	18.4	16.7	16.5	14.3
18	11.9	10.5	11.0	10.0	16.1	14.4	17.9	16.9	18.8	16.9	15.4	12.8
19	10.9	9.7	10.6	9.2	16.2	14.7	18.5	16.9	19.0	17.3	15.4	12.9
20	9.7	7.9	10.4	9.5	16.4	15.2	18.6	17.0	18.1	17.0	15.5	12.9
21	8.6	6.8	10.1	8.9	16.9	15.5	19.1	17.5	18.7	17.1	17.4	12.5
22	9.7	8.5	10.7	8.6	17.1	15.9	20.6	19.0	17.3	16.7	16.3	12.8
23	11.5	9.8	11.3	9.6	17.4	16.3	21.1	19.5	17.2	16.7	16.4	13.2
24	12.0	11.1	11.5	10.3	17.2	16.2	21.1	19.5	17.3	16.4	15.9	13.3
25	12.0	11.0	11.3	9.5	17.0	16.1	22.1	20.1	17.0	15.9	16.9	13.9
26	12.0	10.5	10.0	8.9	17.6	16.9	22.5	21.1	17.4	15.9	16.4	13.9
27	11.9	10.4	10.2	8.5	18.0	17.4	22.4	20.5	18.6	15.6	15.9	14.3
28	11.3	10.2	10.9	8.7	18.4	16.9	21.5	20.0	19.6	16.1	15.3	12.9
29	11.3	9.8	11.3	10.1	17.4	15.1	20.0	18.6	19.6	15.1	14.3	11.8
30	11.0	9.7	12.4	9.8	15.6	14.6	20.1	19.5	18.6	16.0	14.3	11.7
31	---	---	13.4	11.1	---	---	20.6	19.5	18.7	16.1	---	---
MONTH	12.0	4.4	13.4	7.0	18.4	11.7	22.5	15.0	21.6	15.1	20.0	11.7
YEAR	MAXIMUM 22.5		MINIMUM .4									

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°08'28", long 106°46'25", Pitkin County, Hydrologic Unit 14010004, on left bank in the White River National Forest at Difficult Creek Campground, 0.45 mi above Difficult Creek tributary and 4.25 mi southeast of Aspen.

DRAINAGE AREA.--75.8 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,120 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-15, Oct. 23 to Nov. 4, Nov. 6 to Mar. 3, and Sept. 29, 30. Records fair except for estimated daily discharges, which are poor. Transmountain diversion 11 mi upstream through Twin Lakes Tunnel to Arkansas River basin since May 24, 1935 (17,900 acre-ft diverted, during current year, furnished by U.S. Bureau of Reclamation). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 144 ft³/s; 104,300 acre-ft/yr, including diversion by Twin Lakes tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,350 ft³/s, June 8, 1985, gage height, 5.10 ft, from rating curve extended above 910 ft³/s; minimum daily, 8.0 ft³/s, Jan. 11, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,450 ft³/s at 2200 June 8, gage height, 4.16 ft; minimum daily, 14 ft³/s, Feb. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	33	28	25	20	15	16	121	443	325	34	29
2	51	32	27	24	19	15	16	115	491	302	35	25
3	50	29	27	24	19	15	16	92	610	283	33	24
4	49	26	27	24	19	15	17	79	705	265	31	31
5	46	28	27	23	19	15	17	81	765	251	32	26
6	52	33	26	23	19	15	18	105	800	249	33	21
7	60	32	26	23	18	16	18	115	825	215	35	21
8	61	31	27	22	18	16	18	140	1100	169	38	21
9	63	31	28	22	18	16	20	171	1260	149	39	20
10	90	31	28	21	18	16	20	189	1160	90	38	20
11	84	32	28	21	18	16	19	214	1020	65	34	20
12	80	33	28	21	18	16	20	240	990	61	35	19
13	76	32	27	21	18	16	19	245	979	60	35	19
14	72	32	28	20	18	17	20	286	1030	58	35	21
15	70	32	26	20	18	17	20	376	1040	54	33	28
16	67	32	25	21	18	17	24	385	972	53	33	28
17	63	32	25	20	19	17	30	412	893	52	32	28
18	61	32	25	19	20	17	36	315	741	53	31	27
19	59	31	25	20	20	17	41	288	565	49	31	25
20	58	31	25	20	19	17	43	305	564	46	31	24
21	40	30	26	19	17	17	36	293	540	44	32	23
22	36	32	26	18	17	17	40	328	549	42	40	22
23	34	30	25	19	16	17	52	372	540	40	46	24
24	36	29	25	19	16	17	67	448	511	40	45	25
25	36	28	25	19	15	17	76	447	498	38	45	24
26	36	28	26	19	15	17	91	433	456	39	41	22
27	35	29	26	19	15	17	105	381	435	44	37	21
28	35	29	26	20	14	18	109	363	428	42	35	21
29	35	30	25	20	---	18	112	385	396	41	35	19
30	34	28	25	21	---	21	117	334	359	38	33	19
31	34	---	25	20	---	17	---	353	---	39	31	---
TOTAL	1653	918	813	647	498	514	1253	8411	21665	3296	1098	697
MEAN	53.3	30.6	26.2	20.9	17.8	16.6	41.8	271	722	106	35.4	23.2
MAX	90	33	28	25	20	21	117	448	1260	325	46	31
MIN	34	26	25	18	14	15	16	79	359	38	31	19
AC-FT	3280	1820	1610	1280	988	1020	2490	16680	42970	6540	2180	1380
CAL YR 1986	TOTAL	30784	MEAN	84.3	MAX	509	MIN	15	AC-FT	61060		
WTR YR 1987	TOTAL	41463	MEAN	114	MAX	1260	MIN	14	AC-FT	82240		

LOCATION.--Lat 39°10'48", long 106°48'05", Pitkin County, Hydrologic Unit 14010004, on right bank 25 ft upstream from private bridge, 115 ft upstream from Salvation ditch headgate, 1.0 mi southeast of Aspen, and 2.0 mi upstream from Hunter Creek.

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

REMARKS.--Estimated daily discharges: Oct. 1-15, Dec. 16-18, 20, 22, 23, 25-27, Dec. 29 to Jan. 1, Jan. 3, 10, 11, 15-18, 22, 30, Feb. 27 to Mar. 1, June 2, 3, 10-12, and June 15-23. Records good except for estimated daily discharges, which are poor. Transmountain diversion 14 mi upstream through Twin Lakes tunnel to Arkansas River basin since May 24, 1935 (17,900 acre-ft diverted, current year, provided by U.S. Bureau of Reclamation). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,230 ft³/s, June 9, 1985, gage height, 5.29 ft; minimum daily, 12 ft³/s, Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s at 0700 June 9, gage height, 4.24 ft; minimum daily, 29 ft³/s, Feb. 28.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	61	54	39	35	30	33	195	531	411	58	45
2	70	61	53	40	35	33	33	183	620	373	62	42
3	70	60	55	39	35	32	33	143	640	349	56	39
4	68	58	54	40	33	32	35	120	685	334	52	45
5	66	60	55	39	33	32	34	111	733	322	52	44
6	64	62	54	39	33	33	34	123	730	306	52	38
7	70	61	54	38	36	35	34	154	806	271	57	37
8	78	55	54	38	35	35	36	186	1050	223	66	38
9	78	61	51	36	34	34	38	223	1190	212	56	38
10	110	59	44	34	33	34	36	254	1160	153	64	36
11	100	59	47	37	33	33	37	280	1100	117	55	35
12	94	63	50	39	33	33	37	313	1050	115	54	36
13	92	59	50	40	33	34	35	332	979	112	52	35
14	90	61	49	36	33	34	35	401	1010	103	52	37
15	88	62	49	35	33	34	41	448	1100	96	50	43
16	87	61	48	36	33	34	47	454	1060	91	48	48
17	86	59	47	35	33	34	59	438	1020	93	48	47
18	86	59	46	33	33	34	74	416	920	94	45	45
19	84	61	46	35	32	33	82	378	840	83	44	42
20	84	60	44	35	33	33	85	388	600	77	43	41
21	65	57	45	34	34	33	69	354	580	76	43	40
22	58	62	43	32	34	34	73	384	570	74	56	42
23	56	52	42	33	33	34	95	429	560	69	69	39
24	58	57	43	33	33	33	119	472	528	65	71	41
25	57	57	42	33	32	32	136	471	516	62	70	41
26	58	59	40	34	31	32	146	455	474	61	62	39
27	57	55	43	35	30	33	169	420	460	73	54	38
28	58	59	45	35	29	33	178	393	451	78	51	38
29	58	56	43	35	---	39	179	390	431	73	53	37
30	59	55	42	34	---	31	186	366	412	67	51	37
31	60	---	41	36	---	32	---	406	---	65	47	---
TOTAL	2281	1771	1473	1117	927	1032	2228	10080	22806	4698	1693	1203
MEAN	73.6	59.0	47.5	36.0	33.1	33.3	74.3	325	760	152	54.6	40.1
MAX	110	63	55	40	36	39	186	472	1190	411	71	48
MIN	56	52	40	32	29	30	33	111	412	61	43	35
AC-FT	4520	3510	2920	2220	1840	2050	4420	19990	45240	9320	3360	2390
CAL YR 1986	TOTAL 39609	MEAN 109	MAX 516	MIN 29	AC-FT 78560							
WTR YR 1987	TOTAL 51309	MEAN 141	MAX 1190	MIN 29	AC-FT 101800							

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	14	11	11	11	6.8	5.6	74	281	95	38	12
2	44	14	11	12	10	6.8	5.8	68	351	74	30	12
3	41	15	11	12	9.6	7.0	5.8	60	367	61	26	11
4	44	16	11	12	9.4	7.0	6.0	56	430	52	23	11
5	44	16	11	11	9.0	6.8	6.0	57	510	48	20	11
6	39	16	11	12	8.4	6.8	6.0	58	483	41	19	11
7	40	15	12	12	8.2	7.0	6.0	60	554	35	27	10
8	39	16	13	11	8.4	7.2	6.1	70	737	29	40	10
9	36	15	14	11	8.4	8.0	6.2	90	624	29	25	10
10	35	15	14	11	8.6	7.5	6.2	120	436	28	20	9.4
11	39	15	14	11	9.0	7.0	6.6	150	358	29	18	9.0
12	35	16	13	12	9.2	6.8	7.8	200	393	31	18	9.0
13	32	14	12	12	9.6	6.6	7.0	288	406	29	17	9.0
14	31	15	12	12	9.2	6.2	6.8	414	368	28	17	9.4
15	28	14	12	12	8.6	7.0	6.9	535	364	26	15	11
16	25	14	12	12	8.4	6.4	7.2	542	341	26	14	13
17	25	14	11	12	8.0	6.6	8.0	517	250	31	13	14
18	23	14	11	12	7.6	6.8	9.0	424	178	39	12	14
19	21	14	12	13	7.2	6.6	11	306	150	28	11	11
20	21	14	12	12	7.0	6.2	12	326	136	27	11	10
21	21	13	12	11	7.2	6.0	11	252	120	25	12	9.9
22	21	13	11	11	7.4	6.0	12	184	117	28	20	9.4
23	19	13	11	10	7.8	6.0	15	169	106	25	25	9.4
24	18	13	12	10	7.4	6.2	20	169	108	22	32	9.0
25	18	13	12	11	7.0	5.8	26	140	100	21	31	9.0
26	18	12	11	11	6.8	6.0	35	134	97	24	25	9.0
27	16	12	11	11	6.6	6.0	45	122	86	39	18	9.0
28	15	12	12	11	6.4	5.0	56	103	83	39	15	9.0
29	15	12	13	10	---	5.6	66	100	62	42	15	8.7
30	14	12	12	10	---	5.0	78	97	58	40	14	8.7
31	14	---	11	10	---	5.2	---	149	---	50	12	---
TOTAL	876	421	368	351	231.4	199.9	506.0	6034	8654	1141	633	307.9
MEAN	28.3	14.0	11.9	11.3	8.26	6.45	16.9	195	288	36.8	20.4	10.3
MAX	45	16	14	13	11	8.0	78	542	737	95	40	14
MIN	14	12	11	10	6.4	5.0	5.6	56	58	21	11	8.7
AC-FT	1740	835	730	696	459	397	1000	11970	17170	2260	1260	611
CAL YR 1986	TOTAL	20440.8	MEAN	56.0	MAX	417	MIN	5.0	AC-FT	40540		
WTR YR 1987	TOTAL	19723.2	MEAN	54.0	MAX	737	MIN	5.0	AC-FT	39120		

09074800 CASTLE CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°05'15", long 106°48'42", Pitkin County, Hydrologic Unit 14010004, on right bank 0.4 mi downstream from Forest Service bridge, 0.4 mi upstream from Sandy Creek, and 7 mi south of Aspen.

DRAINAGE AREA.--32.2 mi.

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 23 to Apr. 14, and July 29 to Aug. 25. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 44.7 ft³/s; 32,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 559 ft³/s, June 30, 1984, gage height, 3.64 ft; maximum gage height, 3.88 ft, June 23, 1970; minimum daily discharge, 6.0 ft³/s, Jan. 7, 1982.

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 16	2300	216	2.37	June 8	2400	*364	*3.01

Minimum daily discharge, 10 ft³/s, Mar.4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	25	17	15	13	11	12	84	103	128	60	28
2	34	25	17	15	13	11	13	79	126	129	58	28
3	34	24	17	16	14	11	13	66	140	124	58	28
4	33	24	17	17	14	10	13	58	167	116	58	28
5	32	24	17	18	14	12	13	54	190	109	58	27
6	31	23	17	18	13	14	12	53	197	105	60	26
7	31	23	17	17	13	14	12	59	226	102	60	26
8	31	21	17	16	14	14	12	68	271	100	62	27
9	31	20	17	15	14	13	12	80	306	100	62	25
10	31	20	18	15	13	14	12	88	258	98	60	23
11	33	20	17	15	14	13	12	94	255	91	60	23
12	30	21	17	15	14	12	13	105	264	88	58	23
13	29	20	18	15	15	12	14	105	257	80	56	22
14	30	20	18	15	14	13	15	119	262	82	53	23
15	30	20	18	14	14	14	15	150	264	81	50	25
16	29	20	17	14	14	13	16	192	256	79	48	25
17	29	19	17	13	14	12	16	176	229	82	48	24
18	28	19	17	14	13	12	17	145	207	74	46	23
19	29	20	18	14	13	13	17	138	199	69	44	23
20	29	19	18	13	12	13	18	119	186	69	44	22
21	28	19	17	13	12	13	19	111	172	69	46	23
22	27	19	17	13	12	13	19	101	162	74	58	22
23	27	17	17	13	12	13	20	98	169	72	66	22
24	26	18	16	13	12	12	23	97	168	66	74	22
25	26	17	15	14	12	12	27	90	162	67	65	22
26	26	17	15	14	13	12	38	86	160	69	49	22
27	26	17	15	14	13	11	54	79	153	75	41	22
28	25	17	15	13	12	11	64	76	142	81	36	22
29	25	17	15	13	---	11	76	74	129	76	34	22
30	24	17	16	13	---	11	81	72	123	70	31	21
31	25	---	15	13	---	11	---	81	---	66	29	---
TOTAL	904	602	519	450	370	381	698	2997	5903	2691	1632	719
MEAN	29.2	20.1	16.7	14.5	13.2	12.3	23.3	96.7	197	86.8	52.6	24.0
MAX	35	25	18	18	15	14	81	192	306	129	74	28
MIN	24	17	15	13	12	10	12	53	103	66	29	21
AC-FT	1790	1190	1030	893	734	756	1380	5940	11710	5340	3240	1430
CAL YR 1986	TOTAL 20579	MEAN 56.4	MAX 324	MIN 13	AC-FT 40820							
WTR YR 1987	TOTAL 17866	MEAN 48.9	MAX 306	MIN 10	AC-FT 35440							

ROARING FORK RIVER BASIN

09075700 MAROON CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°07'25", long 106°54'17", Pitkin County, Hydrologic Unit 14010004, on left bank 0.3 mi upstream from Silver Queen Forest Service campground, 1.2 mi downstream from confluence of East and West Maroon Creeks, and 7.2 mi southwest of Aspen.

DRAINAGE AREA.--35.4 mi².

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,720 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 10 to Apr. 15. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Natural regulation by Maroon Lake. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 69.3 ft³/s; 50,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 836 ft³/s, June 22, 1980, gage height, 3.39 ft, from rating curve extended above 350 ft³/s, but may have been higher during a period of indefinite stage-discharge relationship in June, 1984; maximum gage height, 4.53 ft, Feb. 3, 1972 (backwater from ice); minimum daily discharge, 9.0 ft³/s, Mar. 29, 1975.

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)
June 14	2100	*230	*2.72				

Minimum daily, 13 ft³/s, Mar. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	52	38	23	16	18	14	53	93	163	105	63
2	72	51	37	23	17	17	14	54	108	158	111	62
3	72	50	36	23	18	17	14	50	124	152	104	61
4	70	49	36	23	16	17	15	47	135	139	101	60
5	69	48	36	25	16	18	15	52	147	132	99	58
6	68	48	36	25	16	19	15	57	167	132	96	57
7	67	48	36	25	18	21	15	61	176	130	96	57
8	66	47	35	25	17	21	15	71	197	130	97	56
9	65	46	35	25	16	20	15	72	210	128	92	54
10	65	45	27	24	15	18	15	78	199	127	89	53
11	67	45	29	24	16	17	15	82	192	121	86	52
12	65	44	32	24	16	16	15	89	202	120	84	51
13	64	44	30	24	16	16	15	95	204	113	82	50
14	62	44	30	24	16	15	15	101	217	112	80	50
15	62	44	30	24	17	15	15	121	217	107	78	50
16	60	43	31	24	16	15	17	128	194	106	75	49
17	60	42	31	23	16	15	18	139	205	107	73	48
18	59	42	28	23	16	15	19	139	211	104	71	47
19	59	43	27	22	15	15	19	139	207	100	69	46
20	59	42	27	22	17	15	20	137	197	100	67	46
21	59	41	24	21	18	15	20	130	182	100	66	45
22	58	41	24	21	17	15	21	126	166	102	68	45
23	56	41	24	20	17	15	22	126	164	104	69	44
24	56	40	24	20	17	15	24	118	163	102	74	43
25	55	40	25	18	17	14	26	109	159	105	73	43
26	54	39	25	18	14	14	30	105	159	107	69	42
27	53	39	25	17	17	14	33	98	158	110	66	41
28	52	39	24	17	16	14	38	92	156	111	65	41
29	52	38	27	17	---	13	43	88	155	111	65	41
30	51	38	25	20	---	14	48	87	158	106	64	40
31	51	---	26	17	---	14	---	86	---	106	64	---
TOTAL	1900	1313	920	681	459	497	620	2930	5222	3645	2498	1495
MEAN	61.3	43.8	29.7	22.0	16.4	16.0	20.7	94.5	174	118	80.6	49.8
MAX	72	52	38	25	18	21	48	139	217	163	111	63
MIN	51	38	24	17	14	13	14	47	93	100	64	40
AC-FT	3770	2600	1820	1350	910	986	1230	5810	10360	7230	4950	2970
CAL YR 1986	TOTAL 34600	MEAN 94.8	MAX 519	MIN 18	AC-FT 68630							
WTR YR 1987	TOTAL 22180	MEAN 60.8	MAX 217	MIN 13	AC-FT 43990							

CAL	YR	1986	TOTAL	1367.25	MEAN	3.75	MAX	39	MIN	.25	AC-FT	2710
WTR	YR	1987	TOTAL	915.46	MEAN	2.51	MAX	28	MIN	.12	AC-FT	1820

09078600 FRYINGPAN RIVER NEAR THOMASVILLE, CO

LOCATION.--Lat 39°20'41", long 106°40'23", in NW¼ sec.21, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 400 ft upstream from private bridge, 400 ft downstream from North Fork, 1.6 mi southeast of Thomasville, and 1.7 mi northwest of Norrie.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,210 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 18, 22-30, Jan. 1, 3-7, Jan. 8 to Mar. 20, and July 6-9. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years, 106 ft³/s; 76,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s, June 8, 1987, gage height, 4.50 ft; minimum daily, 10 ft³/s, Nov. 28, 1976, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,550 ft³/s at 0330 June 8, gage height, 4.50 ft; minimum daily, 15 ft³/s, Jan. 2, 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	64	40	16	22	23	27	416	467	360	99	51
2	91	66	38	15	23	24	27	355	564	294	90	50
3	90	61	40	15	24	25	28	257	571	266	83	51
4	93	56	38	16	25	26	31	208	620	255	84	50
5	93	53	40	18	25	27	31	197	669	212	77	50
6	90	51	40	20	25	28	31	205	676	197	74	47
7	90	51	41	21	25	29	35	270	773	156	90	45
8	86	42	41	20	25	29	37	318	1200	122	126	48
9	84	44	38	19	25	28	38	371	904	99	93	44
10	80	53	28	19	25	28	37	436	773	110	82	41
11	88	53	38	19	25	28	38	508	698	139	77	40
12	80	58	44	19	25	27	37	606	676	144	75	38
13	73	50	44	20	25	27	34	620	669	133	74	38
14	76	50	44	21	25	28	35	758	648	121	70	45
15	75	49	44	20	25	28	50	896	641	115	64	50
16	75	49	42	19	24	28	74	896	662	113	58	54
17	74	50	38	18	24	28	106	870	585	128	56	57
18	72	50	38	18	24	28	141	781	522	136	50	51
19	72	54	38	18	23	29	160	669	406	106	45	45
20	74	51	35	18	23	30	153	698	371	99	45	42
21	75	49	30	18	23	27	115	592	329	95	47	40
22	75	50	26	18	22	29	128	501	308	97	60	38
23	70	38	25	19	22	28	173	467	308	91	82	36
24	74	49	26	19	23	28	204	455	308	87	101	35
25	70	51	23	19	24	28	232	400	350	82	104	34
26	66	49	20	19	25	28	248	371	344	97	95	34
27	66	40	21	20	25	27	287	339	313	147	69	34
28	66	41	20	21	24	26	350	299	313	153	69	34
29	64	42	21	22	---	26	371	303	327	146	67	33
30	66	44	22	23	---	25	388	289	329	136	61	31
31	69	---	20	22	---	26	---	329	---	117	56	---
TOTAL	2412	1508	1043	589	675	846	3646	14680	16324	4553	2323	1286
MEAN	77.8	50.3	33.6	19.0	24.1	27.3	122	474	544	147	74.9	42.9
MAX	95	66	44	23	25	30	388	896	1200	360	126	57
MIN	64	38	20	15	22	23	27	197	308	82	45	31
AC-FT	4780	2990	2070	1170	1340	1680	7230	29120	32380	9030	4610	2550
CAL YR 1986	TOTAL	57799	MEAN	158	MAX	862	MIN	20	AC-FT	114600		
WTR YR 1987	TOTAL	49885	MEAN	137	MAX	1200	MIN	15	AC-FT	98950		

09080190 RUEDI RESERVOIR NEAR BASALT, CO

LOCATION.--Lat 39°21'50", long 106°49'05", in NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, in gatehouse of Ruedi Dam just upstream from Rocky Fork Creek and 13 mi east of Basalt.

DRAINAGE AREA.--223 mi².

PERIOD OF RECORD.--May 1968 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began in May 1968; dam completed July 16, 1968. Capacity, 102,300 acre-ft, 1969 survey, between elevations 7,540.00 ft, sill of auxiliary outlet, and 7,766.00 ft, crest of spillway. Dead storage below elevation 7,540.00 ft, 61 acre-ft. Figures given are total contents.

COOPERATION.--Records provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 103,900 acre-ft, July 15, 1973, elevation, 7,767.56 ft; minimum after first filling, 48,000 acre-ft, May 13, 1971, elevation, 7,698.03 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 101,400 acre-ft, July 30, elevation, 7,764.99 ft; minimum contents, 55,400 acre-ft, April 17, 18, elevation, 7,709.35 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	7,764.50	100,900	-
Oct. 31.	7,761.12	97,600	-3,300
Nov. 30.	7,755.84	92,600	-5,000
Dec. 31.	7,747.00	84,500	-8,100
CAL YR 1986			+3,900
Jan. 31.	7,736.96	75,000	-8,500
Feb. 28.	7,726.87	68,000	-8,000
Mar. 31.	7,715.18	59,400	-8,600
Apr. 30.	7,714.33	58,800	-600
May 31.	7,739.42	78,000	+19,200
June 30.	7,762.70	99,100	+21,100
July 31.	7,764.97	101,300	+2,200
Aug. 31.	7,762.98	99,400	-1,900
Sept. 30.	7,759.17	95,700	-3,700
WTR YR 1987.			-5,200

ROARING FORK RIVER BASIN

09080400 FRYINGPAN RIVER NEAR RUEDI, CO

LOCATION.--Lat 39°21'56", long 106°49'30", in SE¼SE¼ sec.12, T.8 S., R.85 W., Eagle County, Hydrologic Unit 14010004, on right bank 0.4 mi downstream from Rocky Fork Creek and Ruedi Dam, 1.5 mi west of former site of Ruedi, and 12.5 mi east of Basalt.

DRAINAGE AREA.--238 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,473.25 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 7, 1970, at site 2.0 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 13 to Apr. 24. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of hay meadows upstream from station. Transmountain diversions upstream from station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Flow regulated by Ruedi Reservoir (station 09080190) since May 18, 1968. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years (water years 1968-87), 190 ft³/s; 137,700 acre-ft/yr, subsequent to completion of Ruedi Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,690 ft³/s, June 18, 1965, gage height, 5.16 ft, site and datum then in use; minimum daily, 16 ft³/s, Feb. 2, 1968 (result of storage in Ruedi Reservoir); minimum daily prior to construction of Ruedi Reservoir, 28 ft³/s, Mar. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 403 ft³/s at 0700, June 19, gage height, 2.45 ft; minimum daily, 120 ft³/s, Aug. 24-27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	152	169	188	190	190	180	236	376	218	147	122
2	157	152	170	188	190	190	180	273	376	226	147	123
3	157	152	170	188	190	190	180	273	381	259	147	124
4	157	152	170	188	190	190	180	292	381	259	147	124
5	157	150	171	188	190	190	180	325	381	259	145	124
6	157	150	176	188	190	190	175	325	381	263	145	125
7	157	150	176	188	190	190	175	325	381	263	145	126
8	156	150	209	188	190	190	175	325	381	227	145	126
9	155	150	251	188	190	190	175	325	381	188	145	126
10	155	152	263	188	190	190	175	325	381	188	145	126
11	155	155	270	188	190	190	175	325	381	188	143	127
12	155	155	217	188	190	190	175	325	381	151	143	128
13	155	157	191	188	190	190	175	329	381	148	143	128
14	155	157	191	190	190	190	175	337	381	149	143	128
15	155	159	191	190	190	190	175	345	381	150	143	128
16	155	160	191	190	190	185	177	349	381	150	143	129
17	155	160	191	190	190	185	179	354	381	150	141	130
18	155	160	191	190	190	185	183	363	390	150	141	130
19	155	161	191	190	190	185	187	367	403	150	141	130
20	155	162	191	190	190	185	190	367	403	150	131	131
21	155	162	191	190	190	185	194	372	403	150	124	132
22	155	162	191	190	190	185	194	376	403	150	124	132
23	155	164	188	190	190	185	194	376	350	150	122	132
24	155	165	188	190	190	185	194	376	305	150	120	132
25	157	165	188	190	190	185	201	376	291	150	120	133
26	165	165	188	190	190	180	200	376	281	150	120	134
27	165	166	188	190	190	180	200	376	280	150	120	134
28	165	167	188	190	190	180	200	376	280	150	121	134
29	160	167	188	190	---	180	203	376	255	150	122	134
30	153	167	188	190	---	180	217	376	225	148	122	136
31	152	---	188	190	---	180	---	376	---	147	122	---
TOTAL	4852	4746	6014	5864	5320	5780	5563	10617	10736	5531	4207	3868
MEAN	157	158	194	189	190	186	185	342	358	178	136	129
MAX	165	167	270	190	190	190	217	376	403	263	147	136
MIN	152	150	169	188	190	180	175	236	225	147	120	122
AC-FT	9620	9410	11930	11630	10550	11460	11030	21060	21290	10970	8340	7670

CAL YR 1986 TOTAL 95034 MEAN 260 MAX 639 MIN 65 AC-FT 188500
WTR YR 1987 TOTAL 73098 MEAN 200 MAX 403 MIN 120 AC-FT 145000

09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO

LOCATION.--Lat 39°13'56", long 107°13'36", in SE¼SW¼ sec.33, T.9 S., R.88 W., Pitkin County, Hydrologic Unit 14010004, on right bank 1.2 mi upstream from Avalanche Creek and 3.6 mi north of Redstone.

DRAINAGE AREA.--167 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 6,905 ft, from river-profile map.

REMARKS.--Estimated daily discharges: Jan. 22 to Mar. 2. Records good except for estimated daily discharges, which are poor. A few small diversions for irrigation upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--32 years, 305 ft³/s; 221,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,180 ft³/s, June 25, 1983, gage height, 6.12 ft; minimum daily, 22 ft³/s, Dec. 5, 1955, Feb. 15, 1964, Jan 2, Feb. 17, 18, 1978.

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)
May 17	0100	*1,670	*4.21

Minimum daily, 52 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	181	114	64	66	66	85	873	689	615	223	126
2	258	177	113	77	66	68	90	827	862	592	242	130
3	286	177	113	72	70	60	97	666	969	581	211	126
4	257	172	109	84	74	65	104	559	1110	543	194	128
5	246	166	109	87	72	73	100	525	1190	504	183	125
6	252	167	108	83	70	85	105	554	1250	475	177	119
7	266	165	107	79	70	98	113	651	1370	450	230	117
8	273	157	102	77	70	103	122	757	1450	429	266	117
9	271	151	100	73	74	100	130	866	1490	427	202	109
10	272	156	72	57	76	94	134	934	1330	416	184	103
11	302	150	76	62	74	89	141	974	1240	370	173	101
12	264	150	80	74	76	87	140	1030	1240	363	168	99
13	230	145	88	72	78	92	130	1050	1220	337	162	99
14	223	145	87	73	80	93	128	1130	1270	328	158	104
15	216	143	93	58	80	91	144	1320	1300	323	148	100
16	206	140	96	74	78	88	187	1520	1320	318	144	98
17	200	141	91	59	78	83	268	1520	1220	341	139	97
18	200	144	86	52	76	84	356	1320	1120	315	135	94
19	195	183	95	75	74	85	378	1170	1050	274	131	91
20	196	163	90	69	70	83	336	1060	970	268	129	87
21	201	154	86	62	70	79	282	929	897	258	130	85
22	193	159	76	68	68	84	298	801	873	284	140	84
23	186	142	75	66	66	79	399	731	853	282	175	81
24	185	141	91	64	64	76	506	715	815	256	223	79
25	184	140	73	64	64	74	562	650	780	242	231	82
26	178	137	62	64	70	73	634	616	784	268	208	82
27	173	127	65	66	66	77	709	544	752	267	171	82
28	168	126	73	66	66	73	771	498	736	278	155	80
29	163	124	66	68	---	75	820	489	730	258	144	77
30	161	123	69	68	---	67	859	467	646	242	134	75
31	169	---	65	68	---	78	---	520	---	284	129	---
TOTAL	6834	4546	2730	2145	2006	2522	9128	26266	31526	11188	5439	2977
MEAN	220	152	88.1	69.2	71.6	81.4	304	847	1051	361	175	99.2
MAX	302	183	114	87	80	103	859	1520	1490	615	266	130
MIN	161	123	62	52	64	60	85	467	646	242	129	75
AC-FT	13560	9020	5410	4250	3980	5000	18110	52100	62530	22190	10790	5900
CAL YR 1986	TOTAL 168130	MEAN 461	MAX 2530	MIN 62	AC-FT 333500							
WTR YR 1987	TOTAL 107307	MEAN 294	MAX 1520	MIN 52	AC-FT 212800							

ROARING FORK RIVER BASIN

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°32'37", long 107°19'44", IN SW¼SE¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010004, on left bank at Glenwood Springs, 2,1000 ft, upstream from mouth.

DRAINAGE AREA.--1,451 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to September 1909, September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Roaring Fork at Glenwood Springs.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,720.73 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1915, nonrecording gage on highway bridge 800 ft downstream, at different datum. Nov. 20, 1915, to Oct. 26, 1917, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station for irrigation of about 35,000 acres. Transmountain diversions to Arkansas River basin through Busk-Ivanhoe tunnel since 1925, Twin Lakes tunnel since 1935, and Charles H. Boustead tunnel since 1972. Natural flow of stream affected by storage in Ruedi Reservoir on Fryingspan River (station 09080190) since May 1968.

AVERAGE DISCHARGE.--65 years (water years 1906-9, 1911-71), 1,368 ft³/s; 991,100 acre-ft/yr prior to diversion through Charles H. Boustead tunnel; 16 years (water years 1972-87), 1,301 ft³/s, 942,600 acre-ft/yr, subsequent to diversions through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft³/s, July 1, 1957, gage height, 8.65 ft; maximum gage height, 8.7 ft, June 14, 1921, from floodmarks; minimum discharge, 145 ft³/s, Jan. 21, 1935, gage height, 0.65 ft; minimum daily discharge, 179 ft³/s, Jan. 21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,040 ft³/s at 0900, June 9, gage height, 5.62 ft; minimum daily 485 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1240	974	691	592	600	536	592	2510	2260	2600	1100	740
2	1200	894	676	643	600	575	615	2620	2900	2480	1080	730
3	1260	866	700	624	608	584	616	2210	3270	2370	1040	740
4	1250	850	700	647	616	600	639	1820	3730	2240	977	740
5	1190	850	700	671	600	608	648	1660	4100	2110	917	750
6	1180	870	710	660	584	647	656	1600	4310	1990	861	730
7	1180	892	720	640	592	679	664	1750	4660	1910	915	720
8	1180	856	695	640	615	690	672	1970	5290	1740	1140	730
9	1190	791	749	644	608	700	699	2250	5720	1670	980	701
10	1170	849	666	577	608	673	680	2420	5270	1570	917	665
11	1290	811	672	615	624	656	719	2550	4860	1480	881	648
12	1240	849	676	647	616	632	740	2830	4730	1460	851	624
13	1170	811	656	644	639	640	701	2890	4680	1360	821	616
14	1160	815	664	632	640	656	665	3120	4730	1270	810	624
15	1140	820	672	601	593	648	709	3750	4850	1220	761	616
16	1140	810	704	616	584	632	798	4270	4900	1190	750	616
17	1120	810	681	600	584	616	978	4450	4670	1220	740	624
18	1100	800	656	569	568	608	1190	4080	4310	1260	720	632
19	1070	902	675	623	560	624	1310	3760	4050	1150	691	616
20	1060	886	680	624	536	624	1280	3500	3810	1100	657	592
21	1110	831	664	593	559	593	1110	3280	3600	1080	656	584
22	1060	869	640	576	560	624	1070	2910	3470	1110	672	545
23	1010	782	636	615	576	608	1260	2710	3400	1120	778	544
24	994	760	679	632	568	592	1520	2750	3260	1040	937	536
25	976	770	633	632	591	584	1750	2620	3100	977	1050	520
26	941	785	604	624	592	576	1880	2510	3060	1030	1010	506
27	905	741	608	608	584	599	2060	2320	2930	1080	918	506
28	892	740	639	631	552	576	2260	2120	2940	1130	861	506
29	866	743	616	616	---	576	2360	2050	2850	1140	831	499
30	840	740	610	592	---	537	2420	1960	2690	1070	791	485
31	869	---	616	608	---	575	---	1950	---	1240	761	---
TOTAL	33993	24767	20688	19236	16557	19068	33261	83190	118400	45407	26874	18685
MEAN	1097	826	667	621	591	615	1109	2684	3947	1465	867	623
MAX	1290	974	749	671	640	700	2420	4450	5720	2600	1140	750
MIN	840	740	604	569	536	536	592	1600	2260	977	656	485

CAL YR 1986 TOTAL 621494 MEAN 1703 MAX 7020 MIN 601
WTR YR 1987 TOTAL 460126 MEAN 1261 MAX 5720 MIN 485

LOCATION.--Lat 39°33'18", long 107°20'13", in NW¼NW¼ sec.9, T.6 S., R.89W., Garfield County, Hydrologic Unit 14010005, on left bank 0.6 mi downstream from Roaring Fork River and 1.0 mi northwest of Post Office in Glenwood Springs.

DRAINAGE AREA.--6.013 mi².

PERIOD OF RECORD.--October 1966 to current year.

GAGE---Water-stage recorder. Datum of gage is 5,700.75 ft above National Geodetic Vertical Datum of 1929 (Colorado State Highway Department benchmark).

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of 110,000 acres.

AVERAGE DISCHARGE.--21 years, 3,621 ft³/s; 2,623,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,500 ft³/s, May 25, 1984, gage height, 12.49 ft; minimum daily, 870 ft³/s, Feb. 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,100 ft³/s at 1300 June 9, gage height, 7.54 ft; minimum daily, 1,540 ft³/s, Mar. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3010	3120	2240	1680	1830	1660	1670	6650	5520	4370	2630	2020
2	3030	2960	2170	1740	1860	1690	1690	6860	6350	4260	2650	1990
3	3270	2910	2160	1780	1810	1700	1650	6300	6750	4060	2520	1950
4	3330	2850	2150	1780	1840	1700	1660	5510	7220	4060	2390	1950
5	3200	2750	2140	1880	1760	1730	1730	5000	7660	3910	2320	1990
6	3160	2720	2150	1950	1730	1790	1770	4810	7900	3740	2260	1980
7	3130	2750	2180	1880	1730	1860	1810	5020	8320	3530	2330	1930
8	3120	2610	2170	1810	1780	1910	1930	5130	9690	3300	2580	1930
9	3040	2490	2200	1750	1790	2010	2000	5920	10600	3190	2470	1880
10	3010	2570	1860	1600	1790	2010	2020	6280	9850	3010	2300	1810
11	3180	2510	1690	1580	1860	1900	2020	6680	9360	2890	2190	1710
12	3120	2580	1830	1700	1850	1850	2030	7280	8950	2950	2120	1690
13	2970	2590	1910	1780	1890	1900	1990	7420	8700	3090	2080	1760
14	2920	2510	1990	1780	1910	1920	1830	7770	8610	3050	2080	1860
15	2920	2530	2000	1690	1820	1960	1890	8840	8660	2850	2040	1890
16	2900	2570	2060	1680	1780	1920	2100	9600	8440	2750	2040	1910
17	2870	2570	2040	1570	1860	1830	2750	10100	7950	2740	2000	1880
18	2840	2550	1960	1560	1740	1750	3430	9690	7230	2790	1990	1890
19	2810	2690	2040	1770	1730	1800	3820	9120	6720	2730	1940	1870
20	2810	2640	2050	1730	1690	1810	3970	8450	6300	2670	1910	1840
21	2800	2540	1980	1570	1680	1780	3490	7880	5980	2560	1900	1770
22	2780	2610	1870	1590	1660	1770	3080	7110	5830	2580	2010	1710
23	2890	2440	1790	1660	1700	1770	3280	6910	5680	2520	2160	1700
24	2870	2310	1920	1870	1580	1700	4040	6740	5370	2440	2270	1770
25	2850	2360	1830	1940	1750	1670	4750	6500	4970	2370	2470	1740
26	2820	2410	1690	1920	1730	1690	5140	6290	4770	2430	2430	1770
27	2780	2340	1700	1870	1710	1670	5480	5890	4510	2520	2250	1790
28	2750	2270	1800	1910	1690	1640	5870	5450	4380	3010	2080	1780
29	2750	2280	1800	1870	---	1610	6270	5270	4310	3020	2010	1750
30	2770	2310	1740	1800	---	1540	6470	5130	4410	2700	2060	1750
31	2870	---	1730	1830	---	1620	---	5010	---	2840	2010	---
TOTAL	91570	77340	60840	54520	49550	55160	91630	210910	210990	94930	68490	55260
MEAN	2954	2578	1963	1759	1770	1779	3054	6804	7033	3062	2209	1842
MAX	3330	3120	2240	1950	1910	2010	6470	10100	10600	4370	2650	2020
MIN	2750	2270	1690	1560	1580	1540	1650	4810	4310	2370	1900	1690
AC-FT	181600	153400	120700	108100	98280	109400	181700	418300	418500	188300	135800	109600
CAL YR 1986	TOTAL 1757810		MEAN 4816	MAX 19400	MIN 1690	AC-FT 3487000						
WTR YR 1987	TOTAL 1121190		MEAN 3072	MAX 10600	MIN 1540	AC-FT 2224000						

DIVIDE CREEK BASIN

09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in NE¼SW¼ sec.29, T.8 S., R.91 W., Mesa County, Hydrologic Unit 14010005, on left bank 10 ft, downstream from private road bridge, 0.8 mi upstream from Brook Creek, 8 mi south of Raven, and 16 mi south of Silt.

DRAINAGE AREA.--64.6 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,050 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6-16, 19, 20, 24-30, Dec. 1-17, 27-29, Jan. 2-12, Mar. 6-10, 13-15, 21, 23-26, 28-30. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by water imported from Thompson Creek (Roaring Fork basin), Muddy Creek (Muddy Creek basin), and Buzzard Creek (Plateau Creek basin). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--32 years, 36.3 ft³/s; 26,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s, May 14, 1984, gage height, 5.83 ft, from rating curve extended above 670 ft³/s; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 160 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr 19	2000	170	3.98	May 16	2300	246	4.25
Apr 28	2200	*344	*4.55	June 9	0300	202	3.99

Minimum daily discharge, 1.6 ft³/s, Sept. 23-25, 28-30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	19	9.6	4.3	4.1	3.3	8.9	296	116	36	9.9	2.6
2	11	17	9.2	4.7	4.2	3.4	9.9	264	125	29	6.8	2.5
3	20	15	8.8	4.4	4.2	4.0	14	205	125	26	5.2	2.3
4	15	14	8.6	4.9	4.0	4.7	14	191	128	23	4.0	4.4
5	11	13	8.4	5.2	3.9	5.1	12	186	140	21	3.3	4.0
6	10	13	8.6	5.0	3.8	5.6	15	164	142	19	3.0	3.1
7	12	14	8.4	5.0	3.9	6.6	23	189	152	17	6.9	2.7
8	11	14	8.2	5.0	4.1	7.4	27	205	151	16	7.7	2.6
9	11	13	7.8	4.8	4.1	7.0	27	207	170	15	5.3	2.5
10	11	14	6.0	4.4	4.1	7.0	25	212	125	13	3.9	2.4
11	15	14	6.2	4.6	4.0	7.0	28	213	112	13	3.3	1.9
12	13	13	6.6	5.0	4.1	7.0	25	217	109	19	2.9	1.7
13	12	13	6.8	5.2	4.5	7.2	22	219	115	14	3.2	1.7
14	12	13	6.8	5.0	4.7	7.2	23	223	118	11	4.1	2.2
15	11	13	6.6	4.9	4.4	6.8	36	218	112	10	2.8	2.5
16	10	12	6.6	4.9	4.3	7.0	55	221	107	9.7	2.3	2.5
17	10	12	6.8	4.8	4.1	6.1	78	220	94	10	2.0	2.6
18	10	12	6.6	4.6	3.9	6.2	118	212	85	13	1.8	2.6
19	9.7	17	6.7	4.6	3.7	6.5	130	203	76	9.1	1.7	2.1
20	10	14	6.7	4.7	3.6	5.5	98	206	74	8.0	1.7	1.9
21	12	14	6.6	4.7	3.5	6.4	77	203	69	7.4	2.0	1.8
22	13	13	6.2	4.6	3.5	6.5	94	187	61	6.6	5.6	1.7
23	11	12	5.9	4.6	3.6	7.8	132	161	58	5.9	5.7	1.6
24	11	12	6.1	4.6	3.6	7.8	190	162	52	4.9	7.5	1.6
25	12	12	5.6	4.3	3.4	7.8	190	144	48	4.0	11	1.6
26	10	11	5.0	4.2	3.4	8.0	215	140	44	3.6	6.6	1.7
27	10	11	5.0	4.1	3.4	8.0	234	125	41	5.3	4.6	1.7
28	10	10	5.0	4.1	3.3	8.6	260	114	39	4.7	3.8	1.6
29	9.5	10	4.8	4.2	---	8.8	273	111	42	6.4	4.3	1.6
30	9.3	10	4.7	4.0	---	9.0	277	118	40	16	3.6	1.6
31	11	---	4.5	4.2	---	10	---	109	---	18	3.0	---
TOTAL	353.4	394	209.4	143.6	109.4	209.3	2730.8	5845	2870	414.6	139.5	67.3
MEAN	11.4	13.1	6.75	4.63	3.91	6.75	91.0	189	95.7	13.4	4.50	2.24
MAX	20	19	9.6	5.2	4.7	10	277	296	170	36	11	4.4
MIN	9.3	10	4.5	4.0	3.3	3.3	8.9	109	39	3.6	1.7	1.6
AC-FT	701	781	415	285	217	415	5420	11590	5690	822	277	133

CAL YR 1986 TOTAL 19855.4 MEAN 54.4 MAX 369 MIN 2.2 AC-FT 39380
WTR YR 1987 TOTAL 13486.2 MEAN 36.9 MAX 296 MIN 1.6 AC-FT 26750

09089500 WEST DIVIDE CREEK NEAR RAVEN, CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
MAY											
04...	1330	186	267	8.1	6.5	9.0	130	4	44	6.0	9.3
13...	1245	223	221	7.9	7.5	9.4	100	0	33	4.7	7.6
JUN											
08...	1300	138	180	8.0	9.0	9.3	97	0	31	4.7	7.4
AUG											
14...	1215	4.2	445	8.4	14.5	7.8	200	7	55	16	30

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)
MAY										
04...	0.4	1.6	131	10	2.3	0.10	9.6	162	0.22	81.2
13...	0.3	1.0	111	11	1.7	0.10	9.9	136	0.18	81.7
JUN										
08...	0.3	1.0	99	9.8	1.7	0.10	9.5	125	0.17	46.4
AUG										
14...	0.9	2.2	196	32	12	0.20	9.2	274	0.37	3.09

DATE	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)
MAY										
04...	0.46	0.04	0.02	0.50	0.75	0.11	0.05	0.99	1.0	1.1
13...	--	0.02	--	<0.10	--	0.05	--	0.45	--	0.50
JUN										
08...	--	0.03	--	<0.10	--	0.06	--	0.74	--	0.80
AUG										
14...	--	<0.01	--	<0.10	--	<0.01	--	--	--	0.70

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS ORTH, DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
MAY										
04...	1.1	1.6	0.32	0.02	0.08	0.03	6.0	4.5	<10	42
13...	--	--	0.08	--	0.04	--	6.6	4.2	10	75
JUN										
08...	--	--	0.27	--	0.02	--	28	5.0	<10	87
AUG										
14...	--	--	0.02	--	<0.01	--	4.6	5.0	20	25

DIVIDE CREEK BASIN

09089500 WEST DIVIDE CREEK NEAR RAVEN, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	BARIIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
MAY 04...	1330	5500	200	<10	<1	4	12	4300	<5

DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAY 04...	160	0.20	<1	9	<1	<1	320	30

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 07...	1125	14	11	0.40	--
APR 08...	1205	30	4400	356	89
MAY 04...	1330	186	343	172	76
MAY 13...	1245	223	290	175	79
JUN 08...	1300	138	1020	330	82
JUL 10...	1100	14	41	1.5	77
JUL 24...	1110	5.0	15	0.20	29
AUG 14...	1215	4.2	27	0.30	46
SEP 03...	1110	2.1	34	0.19	72

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3680	3570	2710	2100	2000	1980	2010	7810	6030	4680	2950	2130
2	3630	3430	2620	2000	2100	1960	2040	8170	6860	4600	2840	2140
3	3870	3290	2580	2000	2110	1990	2060	7920	7340	4360	2790	2070
4	3920	3230	2570	2000	2130	2030	2030	7010	7710	4240	2640	2050
5	3800	3110	2550	2100	2110	2060	2110	6290	8120	4140	2490	2090
6	3680	3050	2580	2200	2040	2140	2160	5940	8490	3960	2450	2110
7	3660	3130	2630	2200	2000	2240	2200	5950	8800	3780	2460	2070
8	3650	3050	2630	2100	2030	2360	2280	6310	9830	3560	2610	2050
9	3590	2940	2620	2100	2050	2560	2410	6740	11400	3360	2710	2020
10	3540	2860	2490	2000	2060	2600	2440	7250	11000	3180	2540	1960
11	3630	2920	2010	1900	2130	2400	2480	7690	10200	3040	2400	1850
12	3740	2900	2190	1900	2210	2300	2510	8000	9610	3080	2270	1810
13	3600	2970	2250	2000	2270	2300	2510	8260	9210	3110	2200	1790
14	3470	2910	2300	2000	2490	2390	2340	8500	9010	3140	2170	1940
15	3450	2890	2400	2000	2290	2380	2270	9450	8930	2970	2160	1990
16	3430	2920	2400	2000	2100	2410	2490	10500	8820	2730	2130	2000
17	3360	2950	2400	1900	2060	2280	3040	11400	8300	2710	2100	1990
18	3340	2940	2400	1900	2130	2190	3810	11300	7640	2760	2050	1970
19	3290	3050	2300	2000	2010	2170	4560	10600	7170	2700	2000	1980
20	3290	3160	2350	1900	1980	2250	4810	9720	6710	2630	1970	1960
21	3300	3000	2400	1800	1940	2190	4060	9220	6420	2540	1940	1900
22	3290	3000	2300	1850	1930	2230	3920	8390	6210	2480	1970	1850
23	3290	2970	2200	1900	1920	2160	3900	7760	6020	2460	2140	1820
24	3340	2760	2200	2000	1970	2110	4670	7630	5780	2450	2310	1840
25	3290	2760	2200	2100	1890	2050	5530	7430	5420	2370	2550	1880
26	3270	2820	2100	2100	2040	2060	6050	7210	5150	2380	2630	1850
27	3290	2790	2000	2100	2080	2050	6440	6900	4940	2490	2480	1880
28	3120	2700	2000	2100	1990	2000	6840	6420	4720	2750	2290	1900
29	3110	2700	2100	2000	---	1980	7280	6070	4620	3310	2170	1900
30	3110	2730	2100	1900	---	1930	7570	5980	4660	2980	2160	1860
31	3160	---	2100	2000	---	1900	---	5770	---	2970	2160	---
TOTAL	107190	89500	72680	62150	58060	67650	108820	243590	225120	97910	72730	58650
MEAN	3458	2983	2345	2005	2074	2182	3627	7858	7504	3158	2346	1955
MAX	3920	3570	2710	2200	2490	2600	7570	11400	11400	4680	2950	2140
MIN	3110	2700	2000	1800	1890	1900	2010	5770	4620	2370	1940	1790
AC-FT	212600	177500	144200	123300	115200	134200	215800	483200	446500	194200	144300	116300
CAL YR 1986	TOTAL 1999560		MEAN 5478	MAX 21400	MIN 1910	AC-FT 3966000						
WTR YR 1987	TOTAL 1264050		MEAN 3463	MAX 11400	MIN 1790	AC-FT 2507000						

09095500 COLORADO RIVER NEAR CAMEO, CO

LOCATION.--Lat 39°14'20", long 108°16'00", in SW¼SW¼ sec.30, T.9 S., R.97 W., Mesa County, Hydrologic Unit 14010006, on left bank 100 ft north of U.S. Highways 6 and 24, 0.5 mi upstream from Jackson Canyon, 5.9 mi upstream from Grand Valley project diversion dam, and 7 mi northeast of Cameo.

DRAINAGE AREA.--8,050 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1970.

GAGE.--Water-stage recorder. Datum of gage is 4,813.73 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 10, 1934, nonrecording gage on river and water-stage recorder on Highline Canal, about 10 mi downstream at different datum. Oct. 10, 1934, to Feb. 27, 1958, water-stage recorder at site 3.0 mi downstream at datum 22.55 ft. lower.

REMARKS.--Estimated daily discharges: Jan. 17 to Feb. 1. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 160,000 acres.

AVERAGE DISCHARGE.--54 years, 3,966 ft³/s; 2,873,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,300 ft³/s, May 26, 1984, gage height, 14.36 ft, minimum daily, 700 ft³/s, Dec. 29, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13,100 ft³/s at 2000 May 17, gage height, 8.00 ft, minimum daily, 1,900 ft³/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3550	3450	2810	2220	2230	2130	2150	8340	5680	4360	2940	2370
2	3500	3390	2760	2130	2260	2100	2200	8790	6630	4280	2770	2350
3	3790	3260	2730	2200	2290	2140	2220	8490	7330	4050	2790	2240
4	3750	3250	2710	2210	2300	2180	2190	7290	7820	3880	2670	2240
5	3660	3100	2700	2250	2300	2220	2260	6390	8300	3830	2560	2270
6	3570	2870	2690	2340	2170	2330	2300	5950	8780	3750	2510	2320
7	3560	2960	2720	2350	2100	2430	2340	6010	9120	3580	2520	2270
8	3560	2950	2740	2290	2110	2540	2410	6480	10300	3400	2650	2240
9	3530	2900	2710	2180	2130	2800	2550	7030	12200	3280	2850	2240
10	3510	2860	2660	2080	2170	2800	2580	7540	12000	3110	2800	2190
11	3520	2980	2220	2010	2250	2580	2610	7970	11000	3010	2750	2140
12	3670	2930	2310	2030	2330	2500	2700	8410	10400	3100	2440	2030
13	3590	2930	2400	2170	2410	2440	2700	8850	9760	3120	2330	1970
14	3500	2930	2450	2270	2900	2550	2520	8980	9430	3190	2280	2070
15	3480	2880	2530	2320	2510	2520	2420	10100	9380	3030	2260	2130
16	3440	2930	2550	2220	2270	2610	2620	11300	9260	2790	2240	2160
17	3390	2960	2590	2000	2190	2480	3010	12400	8710	2720	2210	2150
18	3380	2950	2590	1980	2250	2390	3780	12300	7890	2770	2150	2140
19	3250	3080	2490	2010	2110	2360	4400	11500	7290	2710	2080	2150
20	3260	3160	2540	1970	2100	2490	4700	10500	6730	2680	2030	2130
21	3360	3040	2560	1900	2060	2410	4490	9840	6360	2590	2170	2100
22	3330	3030	2480	1980	2070	2490	4000	8890	6090	2530	2200	2050
23	3320	3010	2370	2000	2070	2370	3860	8060	5820	2500	2360	1980
24	3350	2870	2330	2180	2140	2310	4450	7890	5580	2480	2580	1980
25	3330	2840	2400	2280	1990	2240	5440	7680	5200	2380	2830	2030
26	3280	2900	2280	2300	2190	2210	5970	7410	4860	2350	2860	2030
27	3260	2900	2200	2220	2180	2210	6460	7060	4620	2440	2670	2060
28	3200	2830	2230	2200	2140	2180	7020	6420	4400	2610	2450	2050
29	3150	2760	2270	2190	---	2120	7590	5930	4300	3120	2390	2070
30	3080	2820	2260	2200	---	2080	7960	5790	4360	2900	2310	2040
31	3130	---	2240	2210	---	2010	---	5510	---	2840	2360	---
TOTAL	106250	89720	77520	66890	62220	73220	111900	255100	229600	95380	77010	64190
MEAN	3427	2991	2501	2158	2222	2362	3730	8229	7653	3077	2484	2140
MAX	3790	3450	2810	2350	2900	2800	7960	12400	12200	4360	2940	2370
MIN	3080	2760	2200	1900	1990	2010	2150	5510	4300	2350	2030	1970
AC-FT	210700	178000	153800	132700	123400	145200	222000	506000	455400	189200	152700	127300
CAL YR 1986	TOTAL 2106450 MEAN 5771 MAX 22100 MIN 2090 AC-FT 4178000											
WTR YR 1987	TOTAL 1309000 MEAN 3586 MAX 12400 MIN 1900 AC-FT 2596000											

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1933 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1935 to current year.

WATER TEMPERATURES: April 1949 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1982.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,970 microsiemens Jan. 19, 1940; minimum, 230 microsiemens June 2,3 1984.

WATER TEMPERATURES: Maximum, 25.0°C July 27, 1987; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,560 microsiemens Dec. 29, 30; minimum, 293 microsiemens May 20.

WATER TEMPERATURES: Maximum recorded, 25.0°C July 27; minimum, 0.0°C many days in December and January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
AUG 26...	1100	2780	978	8.2	16.0	250	120	73	17	110	3
SEP 30...	1200	1900	1120	8.4	12.0	260	120	73	18	130	4

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)	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)
AUG 26...	4.1	136	150	140	0.30	9.6	586	0.80	4400	0.13
SEP 30...	4.4	141	140	170	0.40	7.0	627	0.85	3220	<0.10

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
03...	1100	3650	1040	10200	96
08...	1200	3610	51	497	68
15...	1300	3450	28	261	63
30...	1200	3120	18	152	64
NOV					
05...	1200	3170	40	342	77
12...	1300	2900	28	219	70
20...	1200	3170	221	1890	93
26...	1100	2880	37	288	75
DEC					
03...	1200	2710	49	359	79
10...	1300	2680	20	145	77
17...	1200	2550	25	172	83
30...	1300	2210	45	269	77
JAN					
07...	1200	2400	38	246	81
14...	1200	2340	26	164	73
31...	1200	2210	43	257	80
FEB					
04...	1200	2170	139	814	91
11...	1400	2250	80	486	92
18...	1200	2400	70	454	83
26...	1100	2190	32	189	78
MAR					
04...	1100	2170	78	457	86
11...	1400	2600	160	1120	91
18...	1000	2380	104	668	93
24...	1100	2320	102	639	81

COLORADO RIVER MAIN STEM

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
01...	0935	2130	46	265	82
08...	1300	2440	112	738	89
15...	1300	2440	97	639	93
22...	1200	3960	303	3240	80
28...	1000	6610	1060	18900	76
MAY					
07...	1300	5920	229	3660	79
13...	1200	8640	349	8140	66
20...	1400	10400	220	6180	57
26...	1300	7390	105	2100	67
JUN					
03...	1300	7160	100	1930	52
10...	1200	11900	206	6620	58
17...	0955	8420	86	1960	56
24...	1300	5410	67	979	46
JUL					
01...	1200	4310	30	349	55
08...	1200	3390	25	229	63
15...	1300	2990	29	234	65
23...	1000	2550	33	227	68
29...	1200	3260	371	3270	89
AUG					
06...	1100	2550	285	1960	20
12...	1400	2380	38	244	85
19...	0930	2150	21	122	60
26...	1100	2750	410	3040	96
SEP					
02...	1300	2320	32	200	80
09...	1100	2330	28	176	74
16...	1045	2210	35	209	77
23...	1230	2010	33	179	67
30...	1200	2030	31	170	80

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	935	888	964	1400	1060	1090	1130	439	573	655	840	1040
2	947	864	966	1390	1060	1090	1090	431	524	629	874	1050
3	966	879	984	1200	1050	1090	1070	431	464	647	865	1060
4	921	893	997	1100	1040	1080	1060	465	443	669	860	1070
5	834	904	999	1170	1050	1080	1070	505	427	691	836	1070
6	874	915	1000	1100	1060	1060	1050	539	413	711	914	1060
7	863	925	1000	1020	1080	1030	1040	545	406	734	914	1060
8	855	923	998	1030	1080	1020	1020	525	396	741	915	1060
9	860	931	996	---	1080	989	1010	494	382	754	878	1040
10	838	945	984	1090	1070	959	922	464	367	775	866	1060
11	853	959	1040	1130	1070	968	936	448	369	800	894	1040
12	839	946	1090	1170	1030	1050	928	431	395	828	932	1080
13	840	973	1050	1060	1020	998	943	412	413	852	959	1110
14	853	951	1070	1080	1020	1020	947	431	424	837	984	1130
15	865	928	1050	1090	1010	1000	989	423	430	824	975	1100
16	867	954	1020	1050	1040	997	984	358	422	---	978	1070
17	866	951	1000	1140	1060	1010	943	346	429	---	981	1070
18	870	950	991	1160	1070	1040	824	358	436	935	983	1070
19	878	956	989	1180	1070	1060	705	370	464	---	998	1080
20	881	949	977	1140	1090	1060	631	355	495	---	1020	1080
21	880	931	947	1090	1110	954	610	364	522	884	1050	1090
22	884	948	944	1100	1120	990	645	369	547	911	1060	1110
23	897	940	957	1090	1130	1040	700	412	568	---	1050	1140
24	896	943	1070	1010	1130	1050	683	436	532	---	1010	1160
25	882	973	1020	966	1130	1060	599	456	503	935	1010	1170
26	887	979	1200	918	1140	1070	535	477	531	956	951	1170
27	895	966	1290	904	1090	1070	505	497	562	958	909	1150
28	900	956	1310	914	1090	1080	483	523	595	881	943	1130
29	904	973	1380	990	---	1080	462	546	623	882	990	1120
30	897	980	1290	1000	---	1100	445	560	655	774	1030	1110
31	897	---	1520	1040	---	1100	---	568	---	826	1040	---
MEAN	883	939	1068	---	1075	1041	832	451	477	---	954	1092

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.2	9.5	7.2	6.3	3.1	1.6	1.1	1.0	2.8	.7	5.2	1.8
2	10.9	9.9	6.9	5.9	2.9	1.2	1.1	1.1	3.3	.9	5.9	2.3
3	10.9	9.6	7.4	5.1	2.9	1.1	1.1	1.1	3.4	1.8	6.5	2.9
4	12.0	9.7	7.3	5.7	3.1	1.4	1.1	1.1	3.9	2.7	6.5	3.7
5	12.0	10.0	7.1	5.5	3.0	1.8	1.2	1.1	3.5	1.6	7.3	3.6
6	12.6	10.5	6.2	5.2	3.3	2.3	2.8	1.2	3.5	1.2	8.2	4.4
7	13.6	11.3	5.5	4.0	4.0	3.0	2.6	.2	3.8	1.2	8.6	5.0
8	14.1	12.0	4.2	2.8	4.3	3.0	1.5	.2	3.9	1.8	8.6	6.2
9	14.0	12.0	3.0	1.8	4.0	1.9	.4	.0	3.8	1.8	7.7	6.5
10	13.2	11.7	3.8	1.9	1.7	.0	.0	.0	3.8	1.9	8.6	5.5
11	12.1	9.4	3.7	1.8	.4	.0	.0	.0	5.5	3.4	8.3	6.2
12	9.2	7.6	4.2	2.2	.0	.0	.3	.0	4.3	3.2	8.8	5.3
13	8.5	6.3	4.5	2.7	.3	.0	.4	.0	5.3	3.9	9.2	5.8
14	8.7	6.5	4.7	2.9	.7	.0	.9	.0	5.0	3.9	9.3	6.0
15	9.3	6.9	4.8	3.1	.8	.0	.3	.0	5.0	3.3	8.1	7.0
16	9.8	7.5	5.2	3.2	2.0	.2	.0	.0	5.0	3.6	6.9	5.4
17	9.7	7.8	6.7	4.3	1.4	.2	.0	.0	5.3	3.0	7.1	5.2
18	10.0	8.5	6.4	5.3	1.0	.1	.0	.0	5.0	2.7	8.8	5.1
19	10.6	8.9	7.6	6.3	1.6	.5	.0	.0	4.2	2.7	7.6	6.3
20	10.2	8.6	6.9	5.8	1.7	.6	.0	.0	5.2	2.3	6.2	5.2
21	9.2	8.3	6.4	5.2	2.0	.6	.0	.0	5.0	2.3	6.7	4.2
22	9.6	7.9	6.8	5.4	1.4	.4	.0	.0	4.9	2.0	7.9	4.9
23	9.5	7.6	5.4	4.1	.5	.5	.0	.0	3.9	2.4	7.7	4.5
24	9.7	7.7	5.1	3.7	.9	.5	.0	.0	3.4	2.1	7.4	4.4
25	9.9	7.9	4.3	3.2	.7	.6	.0	.0	4.8	2.6	7.7	4.3
26	9.4	7.5	4.7	3.8	.8	.7	.0	.0	4.3	3.1	8.3	4.4
27	9.4	7.5	4.7	3.3	.8	.8	.6	.0	3.4	2.0	7.3	5.2
28	9.2	7.4	4.4	2.9	.9	.8	1.5	.5	4.5	1.5	6.7	3.3
29	9.0	7.5	3.2	2.7	.9	.9	1.5	.2	---	---	6.2	3.2
30	9.1	6.0	4.0	2.7	1.0	.9	.9	.1	---	---	6.6	2.5
31	8.5	7.2	---	---	1.0	1.0	2.3	.2	---	---	8.5	3.7
MONTH	14.1	6.0	7.6	1.8	4.3	.0	2.8	.0	5.5	.7	9.3	1.8
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	5.2	11.8	10.0	16.6	13.8	18.7	15.7	21.9	18.1	20.6	16.6
2	10.5	6.0	10.9	9.4	16.4	13.6	19.4	16.4	23.0	19.5	21.1	17.3
3	11.0	6.5	9.5	7.9	16.6	13.5	19.2	16.3	23.9	20.6	21.0	17.4
4	10.0	8.0	11.2	7.9	16.4	13.2	19.4	16.6	23.4	19.8	19.5	17.4
5	10.3	8.1	12.2	9.7	16.2	13.6	19.4	16.6	23.1	19.3	18.9	16.1
6	12.7	8.3	14.2	11.1	16.6	13.5	19.7	16.7	22.7	19.4	18.2	14.9
7	13.9	9.5	15.0	12.3	16.3	13.7	19.9	16.9	23.1	19.7	17.5	15.1
8	13.8	9.8	15.3	12.6	15.3	13.7	19.5	17.7	23.3	19.5	17.8	14.0
9	13.8	10.4	15.3	12.5	14.0	12.6	20.1	17.4	22.1	19.4	17.4	14.5
10	12.2	9.5	15.0	12.6	14.7	11.6	19.2	17.2	23.0	18.9	18.0	14.4
11	10.6	9.1	15.2	12.5	15.6	12.4	17.8	16.0	22.6	19.5	18.0	14.3
12	9.5	7.8	14.7	12.5	16.1	13.2	19.4	15.2	22.2	18.8	17.5	14.0
13	9.9	6.6	14.1	12.1	16.5	13.6	20.3	16.6	21.5	19.1	16.3	14.4
14	11.1	6.7	14.3	11.8	17.5	14.1	21.3	17.5	20.1	17.6	15.6	13.4
15	13.0	7.8	14.8	12.6	17.2	14.4	21.8	18.0	19.5	16.7	15.9	13.2
16	14.5	10.4	14.6	12.5	16.9	14.4	22.3	18.8	20.6	16.8	17.2	13.4
17	15.2	11.2	13.7	12.4	16.7	14.1	20.3	18.8	20.9	16.7	16.8	13.7
18	14.2	12.2	13.5	11.5	16.8	13.4	19.8	16.6	20.9	16.7	15.9	12.5
19	12.5	10.6	13.4	11.4	17.3	13.8	20.5	16.7	21.2	17.0	16.0	11.1
20	10.5	9.0	13.7	11.9	17.4	14.7	19.2	16.8	19.1	17.3	16.0	12.2
21	11.2	7.7	12.4	11.4	18.4	15.1	21.2	17.0	19.9	17.4	16.2	12.6
22	12.6	9.4	14.0	10.8	18.9	16.0	22.4	18.7	20.8	18.1	16.2	12.5
23	14.1	10.9	13.8	11.5	19.1	16.5	22.7	18.2	19.6	17.5	16.2	12.4
24	14.5	11.9	13.8	11.7	21.2	15.9	22.9	18.5	17.8	16.5	16.2	12.7
25	14.3	12.6	13.0	11.6	21.4	18.2	23.4	20.4	18.0	15.7	16.8	13.4
26	13.9	11.6	11.9	8.3	20.7	18.4	24.3	20.2	18.1	14.9	16.9	14.0
27	14.7	12.1	11.8	9.2	21.0	18.1	25.0	20.9	18.8	15.3	18.0	14.9
28	13.5	9.6	13.2	9.5	20.1	18.4	24.0	21.0	19.2	15.7	16.3	13.2
29	12.9	10.2	12.8	10.3	18.9	17.0	22.3	20.2	19.2	15.3	15.3	11.8
30	12.0	10.0	14.8	11.1	18.7	15.7	22.0	19.4	19.9	15.9	15.5	11.7
31	---	---	15.9	12.7	---	---	20.4	19.6	20.3	16.1	---	---
MONTH	15.2	5.2	15.9	7.9	21.4	11.6	25.0	15.2	23.9	14.9	21.1	11.1
YEAR	MAXIMUM	25.0	MINIMUM	.0								

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

09105000 PLATEAU CREEK NEAR CAMEO, CO

LOCATION.--Lat 39°11'00", long 108°16'02", in SW¼SW¼ sec.18, T.10 S., R.97 W., Mesa County, Hydrologic Unit 14010005, on left bank 300 ft from State Highway 65, 1.15 mi upstream from mouth and 4 mi northeast of Cameo.

DRAINAGE AREA.--592 mi².

PERIOD OF RECORD.--October 1935 to September 1983. October 1985 to current year. Prior to May 1936, monthly discharges only, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1942. WSP 2124: Drainage area. WDR-CO-83-2: 1973 (M), 1975 (M).

GAGE.--Water-stage recorder. Elevation of gage is 4,840 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 27, 1936, nonrecording gage.

REMARKS.--Estimated daily discharges: Dec. 2 to Jan. 29. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 25,000 acres, return flow from irrigated areas, and for power development. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--50 years (water years 1935-83, 1986-87) 192 ft³/s; 139,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,010 ft³/s, June 22, 1983, gage height, 8.51 ft; maximum gage height, 8.59 ft, May 28, 1983; minimum daily discharge, 8.2 ft³/s, Aug. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,270 ft³/s, at 0100 May 17, gage height 5.32 ft; minimum daily, 90 ft³/s, Jan. 22.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	347	231	141	101	102	99	145	1110	747	171	152	131
2	332	226	138	101	104	108	165	1170	916	163	131	127
3	364	207	136	104	114	108	160	875	911	147	125	124
4	320	202	135	106	137	119	194	652	974	137	115	123
5	294	192	134	108	110	135	182	613	916	131	112	126
6	280	193	133	108	104	156	183	657	887	126	115	123
7	269	217	132	106	108	191	228	709	919	122	156	121
8	264	198	131	100	116	215	249	797	884	120	141	120
9	258	171	130	98	116	257	292	836	1040	121	132	119
10	255	199	130	98	118	225	256	837	864	111	125	110
11	290	185	130	98	153	197	283	814	687	111	120	108
12	304	201	130	99	143	170	275	801	546	142	119	109
13	272	196	130	98	169	190	215	959	503	137	119	105
14	274	204	130	98	239	228	219	1210	486	132	127	121
15	265	208	130	97	159	193	279	1570	433	124	124	117
16	251	205	128	94	141	186	413	1830	414	125	127	115
17	235	206	127	93	133	164	533	2000	356	134	128	115
18	234	205	122	94	122	162	644	1950	317	147	126	114
19	233	250	127	100	124	186	712	1910	299	128	127	116
20	231	284	127	96	121	178	560	1520	281	121	127	115
21	235	230	125	93	108	149	398	1420	257	123	132	115
22	245	238	118	90	117	220	403	1190	234	124	133	118
23	239	200	118	91	131	163	542	1100	219	118	151	118
24	228	199	118	96	123	139	713	1080	222	108	195	119
25	224	220	110	100	119	126	760	1030	216	100	186	122
26	217	231	106	102	114	125	750	957	201	100	185	117
27	213	183	106	100	102	136	851	842	178	119	159	114
28	205	169	108	110	100	116	1060	739	172	110	147	111
29	196	176	106	108	---	123	1110	682	180	128	144	104
30	192	183	104	100	---	104	992	660	187	136	138	106
31	185	---	102	100	---	123	---	588	---	137	136	---
TOTAL	7951	6209	3842	3087	3547	4991	13766	33108	15446	3953	4254	3503
MEAN	256	207	124	99.6	127	161	459	1068	515	128	137	117
MAX	364	284	141	110	239	257	1110	2000	1040	171	195	131
MIN	185	169	102	90	100	99	145	588	172	100	112	104
AC-FT	15770	12320	7620	6120	7040	9900	27300	65670	30640	7840	8440	6950
CAL YR 1986	TOTAL	138911	MEAN	381	MAX	2430	MIN	90	AC-FT	275500		
WTR YR 1987	TOTAL	103657	MEAN	284					AC-FT	205600		

09108500 TAYLOR PARK RESERVOIR AT TAYLOR PARK, CO

LOCATION.--Lat 38°49'07", long 106°36'24", Gunnison County, Hydrologic Unit 14020001, at dam on Taylor River just downstream from Taylor Park, 16 mi northeast of Almont.

DRAINAGE AREA.--254 mi².

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1938, published in WSP 1313.

REVISED RECORDS.-- WSP 1089: 1940(M), 1942(M), 1945-46. WSP 1924: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,187 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by an earth and rockfill dam. Dam completed by U. S. Bureau of Reclamation in September 1937. Capacity of reservoir, 106,200 acre-ft between elevations 9,187 ft, bottom of outlet gates, and 9,330 ft, crest of spillway. No dead storage. Water used for irrigation in Uncompahgre Valley. Figures given are usable contents.

COOPERATION.--Records provided by Uncompahgre Valley Water Users Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 111,000 acre-ft, July 1, 1957, elevation, 9,332.35 ft; minimum after first filling, 8,780 acre-ft, Oct. 19, 20, 1956, elevation, 9,240.70 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 106,200 acre-ft, July 2-5, elevation, 9,330.10 ft; minimum contents, 53,800 acre-ft, Apr. 21, elevation, 9,299.20 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	9,316.60	80,700	--
Oct. 31.	9,313.80	75,900	-4,800
Nov. 30.	9,313.30	75,000	-900
Dec. 31.	9,314.30	76,700	+1,700
CAL YR 1986	-	-	+7,700
Jan. 31.	9,313.90	76,000	-700
Feb. 28.	9,313.60	75,500	-500
Mar. 31.	9,305.40	62,600	-12,900
Apr. 30.	9,301.00	56,300	-6,300
May 31.	9,313.70	75,700	+19,400
June 30.	9,329.10	104,200	+28,500
July 31.	9,327.10	100,200	-4,000
Aug. 31.	9,323.00	92,300	-7,900
Sept. 30.	9,316.80	81,000	-11,300
WTR YR 1987.	-	-	+300

GUNNISON RIVER BASIN

09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO

LOCATION.--Lat 38°49'06", long 106°36'31", Gunnison County, Hydrologic Unit 14020001, on left bank 1,000 ft downstream from Taylor Park Reservoir Dam, 3.4 mi upstream from Lottis Creek, and 17 mi northeast of Almont.

DRAINAGE AREA.--254 mi².

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharges only, published in WSP 1313), October 1938 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,169.67 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 11, 1952, at site 1,600 ft downstream, at datum 1.00 ft, lower. Oct. 15, 1946, to May 4, 1952, supplementary nonrecording gage just downstream from reservoir outlet at different sites and datums used during winter months.

REMARKS.--Estimated daily discharges: Nov. 24 to Apr. 22. Records good, except for estimated daily discharges, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500) since 1937. One small diversion for irrigation from Willow Creek upstream from reservoir. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1930-34), 156 ft³/s; 113,000 acre-ft/yr; 49 years (water years 1939-87), 200 ft³/s; 144,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,270 ft³/s, July 1, 1957, gage height, 7.56 ft; no flow May 1 to July 3, 1940, May 7-22, 1942, May 5-21, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 512 ft³/s at 1100 June 20, gage height, 4.68 ft; minimum daily, 69 ft³/s, many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	236	166	69	90	122	122	314	379	272	460	325	310
2	201	166	69	92	122	122	314	375	273	449	313	318
3	193	164	69	94	122	150	314	377	268	431	303	317
4	197	162	69	96	122	190	314	374	267	409	317	314
5	197	161	69	98	122	240	314	373	274	390	299	313
6	196	160	69	100	122	300	314	373	277	373	299	316
7	196	165	69	100	122	314	314	376	278	360	301	314
8	214	159	69	102	122	314	314	377	279	349	301	314
9	300	157	69	102	122	314	314	373	281	342	300	315
10	400	156	69	104	122	314	314	376	279	338	301	314
11	468	158	69	104	122	314	314	372	282	338	298	314
12	494	158	69	104	122	314	314	381	281	336	296	313
13	497	158	69	106	122	314	314	378	275	323	297	314
14	499	157	69	106	122	314	314	381	267	321	297	313
15	441	156	69	108	122	314	314	382	269	327	296	315
16	347	153	69	108	122	314	314	378	272	327	297	315
17	259	152	69	110	122	314	314	380	295	331	297	314
18	198	153	69	112	122	314	314	382	374	329	313	314
19	174	145	70	112	122	314	314	361	423	325	317	314
20	156	146	70	114	122	314	205	317	489	314	309	314
21	148	146	72	116	122	314	205	285	507	317	292	314
22	141	144	74	116	122	314	316	287	505	320	293	308
23	136	140	74	118	122	314	376	288	486	311	295	307
24	136	130	76	118	122	314	375	283	421	296	295	296
25	133	94	78	120	122	314	378	288	361	316	295	309
26	139	69	78	120	122	314	376	282	336	317	295	300
27	146	69	80	122	122	314	374	280	342	317	294	291
28	142	69	82	122	122	314	374	278	359	320	292	312
29	154	69	84	122	---	314	376	277	395	321	292	313
30	162	69	86	122	---	314	379	275	448	321	292	314
31	164	---	88	122	---	314	---	274	---	325	293	---
TOTAL	7464	4151	2254	3380	3416	8974	9700	10562	10135	10653	9304	9349
MEAN	241	138	72.7	109	122	289	323	341	338	344	300	312
MAX	499	166	88	122	122	314	379	382	507	460	325	318
MIN	133	69	69	90	122	122	205	274	267	296	292	291
AC-FT	14800	8230	4470	6700	6780	17800	19240	20950	20100	21130	18450	18540
CAL YR 1986	TOTAL	113791	MEAN	312	MAX	1240	MIN	69	AC-FT	225700		
WTR YR 1987	TOTAL	89342	MEAN	245	MAX	507	MIN	69	AC-FT	177200		

09110000 TAYLOR RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'41", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 15 ft downstream from bridge on State Highway 306, and 800 ft upstream from confluence with East River.

DRAINAGE AREA.--477 mi².

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1911. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,010.76 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1922, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 4 to Apr. 21. Records good except for estimated daily discharges, which are poor. Flow partly regulated since September 1937 by Taylor Park Reservoir (station 09108500), 24 mi upstream from station. Diversions for irrigation of about 360 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--77 years, 340 ft³/s; 246,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,760 ft³/s, June 9, 1920, gage height, 5.00 ft, from rating curve extended above 2,300 ft³/s; maximum gage height, 5.32 ft, July 1, 1957; minimum discharge observed before storage began in Taylor Park Reservoir, 50 ft³/s for several days in August, 1913, gage height, 1.2 ft; minimum daily discharge, subsequent to completion of Taylor Park Dam, 24 ft³/s, Mar. 12, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft³/s at 2330 May 16, gage height, 3.48 ft, from maximum indicator; minimum daily, 113 ft³/s, Dec. 13-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	349	245	120	130	180	170	330	798	685	718	421	370
2	299	246	120	130	180	200	320	784	715	693	420	385
3	279	247	130	140	180	230	330	709	726	661	391	384
4	281	234	140	140	180	270	360	678	752	631	411	384
5	279	230	140	150	180	300	340	676	792	605	380	379
6	283	230	130	150	170	320	340	682	816	583	375	377
7	281	230	120	150	170	330	340	694	828	562	397	375
8	275	225	120	150	180	340	340	707	969	546	393	376
9	356	220	115	150	190	344	350	719	1040	531	375	372
10	465	220	115	150	200	350	350	736	936	514	372	368
11	559	220	115	150	200	350	340	750	880	495	367	369
12	578	215	115	145	200	340	340	848	845	495	368	369
13	575	215	113	145	210	360	340	871	817	476	371	368
14	585	210	113	140	205	390	360	924	774	461	371	372
15	558	200	113	140	200	390	360	1010	774	463	366	372
16	464	200	113	140	190	360	360	1120	798	455	362	371
17	377	200	113	150	190	350	360	1120	756	468	360	368
18	296	200	115	150	185	340	370	1080	786	478	365	367
19	269	200	115	160	180	350	370	1020	810	465	372	364
20	254	195	115	170	180	360	370	982	845	440	372	364
21	239	180	120	170	180	360	330	900	845	437	353	364
22	229	180	120	170	180	360	409	849	824	446	370	362
23	216	180	120	160	180	350	546	816	804	437	385	354
24	215	180	125	170	170	330	593	806	738	402	385	334
25	213	170	125	180	160	330	617	773	672	423	378	329
26	215	170	125	180	160	320	627	745	626	427	372	332
27	225	160	130	180	170	320	652	714	611	440	369	309
28	220	150	130	180	170	330	697	691	622	450	369	331
29	225	140	130	180	---	330	735	680	653	440	367	331
30	238	125	135	180	---	350	748	670	711	428	363	334
31	240	---	130	180	---	350	---	667	---	426	361	---
TOTAL	10137	6017	3780	4860	5120	10174	12924	25219	23450	15496	11681	10834
MEAN	327	201	122	157	183	328	431	814	782	500	377	361
MAX	585	247	140	180	210	390	748	1120	1040	718	421	385
MIN	213	125	113	130	160	170	320	667	611	402	353	309
AC-FT	20110	11930	7500	9640	10160	20180	25630	50020	46510	30740	23170	21490

CAL YR 1986 TOTAL 171648 MEAN 470 MAX 1610 MIN 85 AC-FT 340500
WTR YR 1987 TOTAL 139692 MEAN 383 MAX 1120 MIN 113 AC-FT 277100

GUNNISON RIVER BASIN

09112500 EAST RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'51", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 200 ft upstream from bridge on State Highway 135, and 400 ft upstream from confluence with Taylor River.

DRAINAGE AREA.--289 mi².

PERIOD OF RECORD.--April to October 1905, July 1910 to September 1922, October 1934 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911. WSP 1733: 1952. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,006.29 ft above National Geodetic Vertical Datum of 1929. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, nonrecording gages at bridge 200 ft downstream, at different datums. Oct. 1, 1934, to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 24 to Apr. 21. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 7,400 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--65 years (water years 1911-22, 1935-87), 343 ft³/s; 248,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,500 ft³/s, June 15, 1921, gage height, 6.6 ft, site and datum then in use, from rating curve extended above 3,000 ft³/s; minimum daily, 19 ft³/s, Aug. 13, 1913.

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 17	0500	1,790	5.67	June 9	0500	*1,820	*5.71

Minimum daily discharge, 70 ft³/s, Feb. 21-23, 28, Mar. 1-3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	272	220	122	82	78	70	96	1460	696	518	198	162
2	267	216	123	83	80	70	108	1320	855	495	197	164
3	265	208	133	83	82	70	120	1030	956	470	189	164
4	260	199	126	83	80	78	125	880	1060	446	184	163
5	248	192	129	82	78	98	122	833	1150	420	175	166
6	246	192	143	82	76	110	122	822	1230	398	170	172
7	262	199	141	80	78	110	124	894	1270	375	205	165
8	268	174	122	82	82	100	126	979	1470	361	223	163
9	268	167	128	80	82	100	128	1130	1710	352	208	152
10	270	197	82	80	84	100	130	1230	1470	340	196	142
11	304	169	90	86	86	103	136	1210	1350	316	219	137
12	291	187	103	86	90	110	140	1260	1300	310	234	134
13	256	169	105	80	90	120	150	1270	1260	295	225	131
14	259	170	107	80	86	118	190	1330	1260	268	218	134
15	261	171	107	74	84	110	260	1460	1250	264	203	130
16	259	169	129	74	80	103	330	1640	1200	267	193	126
17	256	163	125	74	78	102	370	1710	1110	269	184	117
18	246	166	124	76	78	109	380	1550	1000	275	176	115
19	247	191	135	74	76	107	335	1450	948	249	168	112
20	252	173	111	74	74	100	310	1300	885	246	152	109
21	252	158	105	76	70	96	380	1180	829	244	151	106
22	245	177	99	76	70	96	474	1020	775	244	179	102
23	231	132	98	72	70	92	684	960	735	242	245	100
24	225	139	92	72	74	90	846	956	699	214	303	98
25	218	152	88	74	76	90	1000	876	665	202	295	82
26	208	163	88	74	74	90	1070	805	655	201	251	77
27	201	128	86	74	72	88	1170	701	619	215	220	79
28	197	139	86	76	70	86	1220	603	607	210	201	79
29	197	142	88	76	---	78	1340	574	588	208	190	79
30	192	153	89	76	---	76	1420	548	559	204	178	80
31	196	---	82	76	---	84	---	555	---	197	169	---
TOTAL	7619	5175	3386	2417	2198	2954	13406	33536	30161	9315	6299	3740
MEAN	246	172	109	78.0	78.5	95.3	447	1082	1005	300	203	125
MAX	304	220	143	86	90	120	1420	1710	1710	518	303	172
MIN	192	128	82	72	70	70	96	548	559	197	151	77
AC-FT	15110	10260	6720	4790	4360	5860	26590	66520	59820	18480	12490	7420
CAL YR 1986	TOTAL 185761	MEAN 509	MAX 2810	MIN 76	AC-FT 368500							
WTR YR 1987	TOTAL 120206	MEAN 329	MAX 1710	MIN 70	AC-FT 238400							

CAL YR 1986	TOTAL 406227	MEAN 1113	MAX 4690	MIN 230	AC-FT 805800
WTR YR 1987	TOTAL 302831	MEAN 830	MAX 3150	MIN 270	AC-FT 600700

GUNNISON RIVER BASIN

09118450 COCHETOPA CREEK BELOW ROCK CREEK, NEAR PARLIN, CO

LOCATION.--Lat 38°20'08", long 106°46'18", in SW¼NE¼ sec.17, T.47 N., R.2 E. Saguache County, Hydrologic Unit 14020003, on left bank 0.75 mi downstream from Rock Creek and 12 mi southeast of Parlin.

DRAINAGE AREA.--334 mi².

PERIOD OF RECORD.--October 1981 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,470 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7 to Mar. 13, 21-30, Apr. 7-10, 13-20. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of hay meadows upstream from station. Transmountain diversion by Tarbell ditch exports water upstream from station to Saguache Creek, since 1913. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 65.8 ft³/s; 47,670 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft³/s, May 23, 1984, gage height, 4.49 ft; minimum daily, 8.4 ft³/s, Feb. 7, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 304 ft³/s at 1900 May 17, gage height, 3.46 ft; maximum gage height, 4.42 ft, Mar. 27 (backwater from ice); minimum daily discharge, 20 ft³/s, Feb. 22, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	52	30	28	22	21	49	183	74	83	84	71
2	42	51	34	24	23	21	57	186	74	84	123	69
3	41	50	32	25	25	21	56	137	81	87	103	69
4	41	50	32	25	25	21	57	100	98	71	107	74
5	41	46	32	25	24	24	65	83	124	68	88	79
6	41	46	33	26	23	27	67	79	138	66	85	62
7	41	43	35	24	23	33	100	78	149	67	82	57
8	41	39	34	25	25	33	130	106	181	62	73	56
9	40	32	33	25	25	37	110	133	248	56	61	48
10	40	37	24	24	25	42	100	137	254	50	67	39
11	41	35	24	24	26	46	91	129	228	46	87	38
12	42	36	31	28	26	43	112	165	208	48	73	40
13	40	36	30	25	30	45	170	199	195	49	68	41
14	40	35	33	24	32	34	200	210	179	46	67	44
15	42	37	32	24	26	28	220	237	187	44	70	52
16	42	37	32	22	26	23	200	255	216	41	71	42
17	42	36	32	22	25	29	170	270	209	49	65	37
18	42	37	28	23	25	28	180	246	194	67	62	35
19	42	52	29	22	23	22	190	228	175	67	64	36
20	50	42	29	23	22	33	200	213	161	61	63	39
21	59	40	29	22	21	36	115	175	162	60	70	40
22	54	43	28	22	20	33	127	162	145	51	92	40
23	49	40	28	28	21	32	154	141	132	44	120	40
24	51	36	26	22	20	34	179	130	131	44	120	40
25	49	38	27	22	22	33	131	115	131	45	98	41
26	48	39	26	22	24	32	128	104	116	48	89	44
27	47	35	26	22	22	34	168	92	105	48	79	45
28	47	35	26	23	21	38	161	88	99	57	73	44
29	47	35	25	22	---	42	169	85	99	59	76	42
30	47	35	28	23	---	45	186	82	106	53	75	44
31	47	---	25	23	---	48	---	75	---	59	67	---
TOTAL	1378	1205	913	739	672	1018	4042	4623	4599	1780	2522	1448
MEAN	44.5	40.2	29.5	23.8	24.0	32.8	135	149	153	57.4	81.4	48.3
MAX	59	52	35	28	32	48	220	270	254	87	123	79
MIN	40	32	24	22	20	21	49	75	74	41	61	35
AC-FT	2730	2390	1810	1470	1330	2020	8020	9170	9120	3530	5000	2870
CAL YR 1986	TOTAL 20138		MEAN 55.2	MAX 192	MIN 16	AC-FT 39940						
WTR YR 1987	TOTAL 24939		MEAN 68.3	MAX 270	MIN 20	AC-FT 49470						

LOCATION.--Lat 38°31'18", long 106°56'25", in NE&SW¼ sec.11, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020003, on right bank 300 ft downstream from highway bridge, 1.8 mi southwest of Post Office in Gunnison, and 2.0 mi upstream from mouth.

PERIOD OF RECORD.--November and December 1910 (gage heights and discharge measurements only), October 1937 to current year. Monthly discharges only for some periods, published in WSP 1313. Published as "near Gunnison" 1910.

GAGE.--Water-stage recorder. Datum of gage is 7,628.58 ft above National Geodetic Vertical Datum of 1929. Nov. 25 to Dec. 24, 1910, nonrecording gage 300 ft upstream at different datum. Apr. 20, 1938, to Oct. 2, 1940, water-stage recorder at present site at datum 1.00 ft, higher.

AVERAGE DISCHARGE.--50 years (water years 1938-87), 178 ft³/s; 129,000 acre-ft/yr.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,510 ft³/s at 2400 May 18, gage height, 4.39 ft; minimum daily, 80 ft³/s, many days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	182	140	105	90	80	150	767	500	388	190	111
2	160	181	150	100	90	80	190	783	509	347	217	109
3	160	187	145	100	95	80	210	790	544	297	231	114
4	150	185	145	100	95	80	230	692	571	263	216	113
5	150	165	145	100	95	100	200	593	618	249	198	121
6	150	165	150	100	90	200	200	542	692	236	178	115
7	140	160	155	95	90	250	200	518	735	221	200	108
8	140	155	145	95	95	230	200	522	829	204	196	110
9	135	140	135	95	95	210	220	569	1090	182	174	107
10	140	150	105	95	95	230	220	616	1320	179	167	101
11	180	145	105	95	100	230	240	652	1210	166	167	90
12	180	150	110	95	100	210	240	682	980	166	161	88
13	170	150	110	95	105	250	260	733	856	171	158	85
14	170	145	110	95	110	270	240	822	781	172	162	89
15	165	150	105	95	100	250	320	923	736	173	158	93
16	165	150	105	90	100	230	480	1080	790	169	150	95
17	159	145	105	90	95	210	640	1300	799	179	141	94
18	158	150	105	90	95	210	760	1400	716	231	132	91
19	160	180	110	90	90	230	740	1420	632	232	122	90
20	168	160	110	90	85	210	680	1280	576	210	115	90
21	188	155	110	90	80	180	494	1170	541	192	100	92
22	191	160	105	90	80	180	412	1110	513	185	112	89
23	183	155	105	100	80	150	492	1010	462	177	145	87
24	174	150	100	90	80	150	601	939	429	171	184	81
25	173	155	100	90	80	130	632	877	399	171	182	83
26	167	160	100	90	85	130	591	801	374	168	166	91
27	166	150	100	95	80	150	598	683	355	172	149	91
28	166	150	100	90	80	150	661	619	323	182	139	89
29	163	150	100	90	---	130	706	591	343	212	138	85
30	165	150	105	90	---	100	722	592	425	208	132	80
31	164	---	100	90	---	110	---	554	---	190	125	---
TOTAL	5070	4730	3615	2915	2555	5400	12529	25630	19648	6463	5005	2882
MEAN	164	158	117	94.0	91.2	174	418	827	655	208	161	96.1
MAX	191	187	155	105	110	270	760	1420	1320	388	231	121
MIN	135	140	100	90	80	80	150	518	323	166	100	80
AC-FT	10060	9380	7170	5780	5070	10710	24850	50840	38970	12820	9930	5720
CAL YR 1986	TOTAL 79667	MEAN 218	MAX 640	MIN 75	AC-FT 158000							
WTR YR 1987	TOTAL 96442	MEAN 264	MAX 1420	MIN 80	AC-FT 191300							

GUNNISON RIVER BASIN

09124500 LAKE FORK AT GATEVIEW, CO

LOCATION.--Lat 38°17'56", long 107°13'46", in SE¼NE¼ sec.29, T.47 N., R.3 W., Gunnison County, Hydrologic Unit 14020002, on left bank at old village of Gateview, 25 ft downstream from private bridge, 0.2 mi upstream from Indian Creek, and 6.3 mi upstream from waterline of Blue Mesa Reservoir, at elevation 7,519 ft.

DRAINAGE AREA.--334 mi².

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,827.66 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1938, at datum 2.00 ft, higher, and Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 5 to Apr. 22, July 19 to Aug. 21. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,600 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--50 years, 242 ft³/s, 175,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,720 ft³/s, July 10, 1983, gage height, 4.18 ft; minimum daily, 22 ft³/s, Jan. 21, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 9	0600	*1,810	*3.43	No other peak greater than base discharge.			
Minimum daily, 47 ft ³ /s, Jan. 18.							

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	157	144	78	58	58	50	78	604	625	811	300	158
2	153	146	84	62	58	52	84	628	827	772	330	159
3	153	138	84	62	60	52	98	522	968	738	310	153
4	153	139	84	62	60	60	100	424	1130	700	290	147
5	153	129	86	62	58	70	94	371	1200	641	280	146
6	154	110	88	62	56	82	90	343	1340	609	280	143
7	153	105	88	60	56	88	92	351	1470	574	320	135
8	151	100	86	62	60	84	92	419	1580	540	350	134
9	153	92	82	60	62	86	92	519	1700	513	310	134
10	154	105	74	56	60	90	92	600	1600	518	270	125
11	160	94	64	56	62	90	94	595	1540	505	250	120
12	167	98	64	56	66	84	96	723	1590	473	240	111
13	150	98	64	54	74	94	94	851	1610	446	229	108
14	150	94	66	54	76	94	110	935	1620	433	214	109
15	150	92	68	54	68	88	140	1090	1600	425	201	109
16	150	92	70	50	64	84	190	1220	1620	415	182	105
17	145	94	70	48	62	82	210	1280	1440	423	175	101
18	146	120	70	47	62	82	230	1230	1330	425	169	99
19	145	110	72	50	58	88	210	1060	1270	350	153	94
20	154	100	70	54	56	80	190	896	1210	270	145	92
21	156	103	70	54	54	76	170	819	1120	280	148	85
22	153	103	68	50	52	72	190	712	1100	330	154	84
23	142	96	68	54	54	72	244	658	1100	340	218	81
24	142	94	64	56	52	68	329	646	1070	320	269	81
25	137	98	66	58	56	68	399	607	1100	330	335	79
26	136	98	64	58	58	68	423	561	1070	370	317	81
27	131	90	62	60	56	72	501	504	1030	370	271	82
28	132	88	64	60	52	72	522	452	955	360	235	81
29	129	88	64	60	---	66	533	423	921	340	205	77
30	127	84	60	58	---	64	585	413	845	320	188	76
31	130	---	56	58	---	68	---	474	---	320	173	---
TOTAL	4566	3142	2218	1755	1670	2346	6372	20930	37581	14261	7511	3289
MEAN	147	105	71.5	56.6	59.6	75.7	212	675	1253	460	242	110
MAX	167	146	88	62	76	94	585	1280	1700	811	350	159
MIN	127	84	56	47	52	50	78	343	625	270	145	76
AC-FT	9060	6230	4400	3480	3310	4650	12640	41510	74540	28290	14900	6520
CAL YR 1986	TOTAL 101177	MEAN 277	MAX 1680	MIN 54	AC-FT 200700							
WTR YR 1987	TOTAL 105641	MEAN 289	MAX 1700	MIN 47	AC-FT 209500							

LOCATION.--Lat 38°15'36", long 107°32'43", in NW¼NE¼ sec.8, T.46 N., R.6 W., Gunnison County, Hydrologic Unit 140200002, on right bank 100 ft upstream from Forest Service bridge, 0.6 mi upstream from headgate on Cimarron ditch, 2.1 mi downstream from Silver Jack Dam, and 13 mi south of Cimarron.

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1965, published as Cimarron Creek near Cimarron.

GAGE.--Water-stage recorder. Datum of gage is 8,631.48 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1972, at site 0.2 mi downstream at different datum.

COOPERATION.--For period Oct. 1-8, gage-height record provided by Colorado Division of Water Resources.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s, June 28, 1957, gage height, 8.32 ft, site and datum then in use; no flow Dec. 24, 1970, to Jan. 9, 1971 (result of storage in Silver Jack Dam); minimum daily prior to construction of Silver Jack Dam, 8.0 ft³/s, Dec. 27, 28, 1962, Jan. 13, 1963; minimum daily, 4.4 ft³/s, Apr. 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 737 ft³/s at 0100 May 17, gage height, 4.71 ft, minimum daily, 21 ft³/s, Oct. 7, Nov. 9.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	25	25	29	25	24	27	86	349	239	129	96
2	26	26	25	25	26	24	28	79	420	209	126	96
3	27	26	25	26	28	24	29	72	457	189	122	89
4	27	26	25	26	28	24	32	71	502	173	116	86
5	27	24	25	26	27	26	32	73	490	151	114	88
6	26	24	25	27	26	30	33	75	552	148	112	88
7	21	23	26	25	26	27	33	78	580	138	115	88
8	29	22	26	26	28	25	33	78	591	146	115	88
9	29	21	25	26	28	23	33	79	658	156	114	89
10	24	22	25	25	28	25	34	79	583	162	112	89
11	24	23	26	25	29	25	36	78	545	159	110	89
12	26	24	27	29	29	24	37	123	563	159	110	89
13	25	25	28	26	33	31	36	418	580	158	110	89
14	25	26	28	25	35	35	37	484	580	153	108	86
15	25	27	28	25	29	33	39	607	544	153	107	82
16	24	27	28	23	29	32	44	648	519	156	107	81
17	23	28	28	23	28	30	47	667	476	155	101	80
18	23	29	26	24	28	30	50	614	437	156	96	79
19	24	33	26	23	26	34	52	522	394	156	96	80
20	25	29	28	24	25	32	51	473	367	150	95	81
21	24	27	27	23	24	31	50	425	334	146	93	80
22	23	26	26	23	23	31	55	383	341	146	93	77
23	23	25	27	29	24	30	57	367	337	145	95	74
24	22	25	27	23	23	29	60	359	318	143	100	75
25	22	25	28	23	24	29	65	320	319	143	100	73
26	22	25	27	23	26	31	69	281	302	143	98	70
27	23	25	27	23	25	31	68	206	292	137	99	49
28	22	25	27	25	24	29	71	203	267	132	99	32
29	22	25	26	26	---	27	76	208	279	132	99	32
30	22	25	29	26	---	26	80	194	259	132	98	32
31	23	---	26	26	---	26	---	219	---	130	97	---
TOTAL	754	763	822	778	754	878	1394	8569	13235	4795	3286	2327
MEAN	24.3	25.4	26.5	25.1	26.9	28.3	46.5	276	441	155	106	77.6
MAX	29	33	29	29	35	35	80	667	658	239	129	96
MIN	21	21	25	23	23	23	27	71	259	130	93	32
AC-FT	1500	1510	1630	1540	1500	1740	2760	17000	26250	9510	6520	4620
CAL YR 1986	TOTAL	40600	MEAN	111	MAX	786	MIN	21	AC-FT	80530		
WTR YR 1987	TOTAL	38355	MEAN	105	MAX	667	MIN	21	AC-FT	76080		

GUNNISON RIVER BASIN

09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO

LOCATION.--Lat 38°31'45", long 107°38'54", in NE¼NW¼ sec.10, T.49 N., R.7 W., Montrose County, Hydrologic Unit 14020002, on left bank 0.4 mi downstream from east portal of Gunnison tunnel, 4.7 mi downstream from Crystal Creek, and 12 mi northeast of Montrose.

DRAINAGE AREA.--3,965 mi².

PERIOD OF RECORD.--October 1903 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at east portal of Gunnison tunnel" 1905-6 and as "at River portal" 1907-11.

REVISED RECORDS.--WSP 1313: 1906(M). WSP 1733: 1918-19, 1948. WSP 2124: Drainage area. WDR CO-77-2: 1926, 1941.

GAGE.--Water-stage recorder. Datum of gage is 6,526.06 ft above National Geodetic Vertical Datum of 1929. Apr. 9, 1905, to Aug. 20, 1915, nonrecording gage at site 300 ft upstream from diversion dam at east portal of Gunnison tunnel, at different datum. Aug. 21, 1915, to Jan. 19, 1943, nonrecording gage at site 500 ft downstream from diversion dam at east portal of Gunnison tunnel, at different datum. Jan. 20, 1943, to Sept. 30, 1956, water-stage recorder at present site at datum 1.0 ft, higher.

REMARKS.--Estimated daily discharges: Sept. 23-30. Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison tunnel for irrigation of about 75,000 acres in Uncompahgre Valley (see table below for figures of diversion), Taylor Park Reservoir (station 09108500), Blue Mesa Reservoir (station 09124600), Morrow Point Reservoir (station 09125400), Crystal Reservoir (station 09127600), diversions for irrigation of about 63,000 acres, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through Gunnison tunnel; provided by Uncompahgre Valley Water Users Association.

AVERAGE DISCHARGE.--84 years, 1,402 ft³/s; 1,016,000 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,000 ft³/s, June 15, 1921, gage height, about 15.8 ft, present datum, from rating curve extended above 14,000 ft³/s; no flow Sept. 25-26, 1936, Oct. 8, 1949, Sept. 5-6, 15-16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,570 ft³/s at 1000 Mar. 12, gage height, 5.34 ft; minimum daily, 566 ft³/s, Oct. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1780	1850	1850	2350	2160	2500	1590	1140	870	1270	1160	574
2	1800	1890	1860	2340	2180	2490	1600	1310	867	1390	1160	571
3	1790	1910	2070	2330	2180	2470	1350	1410	819	1390	1160	568
4	1780	1900	2160	2340	2160	2480	1110	1410	863	1390	1190	568
5	1780	1620	2160	2350	2210	2450	1120	1420	862	1390	1240	568
6	1780	1670	2150	2250	2240	2440	1120	1420	865	1400	1270	568
7	1780	1850	2160	2340	2240	2450	1100	1420	885	1400	1270	568
8	1780	1830	2170	2360	2240	2500	1120	1410	873	1390	1280	568
9	1770	1850	2180	2350	2230	2430	1120	1410	879	1410	1270	568
10	1820	1850	2170	2360	2250	2490	1030	1400	858	1400	1270	568
11	1920	1840	2110	2350	2250	2500	951	1400	858	1400	1270	568
12	1920	1740	2170	2290	2240	2490	938	1410	870	1390	1210	568
13	1910	1730	2180	2140	2250	2470	938	1410	859	1410	1270	568
14	1920	1720	2190	2140	2230	2470	941	1280	871	1320	1280	568
15	1920	1840	2170	2130	2250	2470	944	1150	1010	1410	1280	568
16	1870	1840	2190	2160	2250	2460	923	1150	1060	1410	1270	568
17	1910	1850	2170	2160	2330	2460	931	1140	1170	1420	995	568
18	1910	1550	2180	2150	2490	2470	935	1220	1210	1430	714	568
19	1910	1860	2190	2160	2490	2480	955	1270	1120	1420	710	568
20	1310	1850	2190	2160	2490	2470	1060	1260	997	1420	635	568
21	699	1850	2190	2160	2500	2480	1170	1230	967	1420	573	568
22	566	1850	2170	2180	2500	2470	1150	1150	1090	1420	582	568
23	648	1850	2170	2180	2480	2470	1150	1150	1160	1420	579	640
24	648	1850	2190	2180	2480	2470	1160	1170	1140	1290	579	710
25	652	1850	2190	2180	2480	2470	1150	1170	1150	1150	576	830
26	652	1850	2200	2180	2500	2250	1160	1160	1140	1150	578	860
27	605	1850	2200	2150	2500	2190	1150	1130	1140	1160	578	860
28	657	1850	2210	2140	2490	2170	1170	1110	1140	1150	577	860
29	1020	1850	2250	2160	---	2180	1160	1040	1150	1150	568	860
30	1800	1850	2340	2180	---	2150	1170	915	1150	1160	575	870
31	1780	---	2340	2170	---	1870	---	834	---	1170	574	---
TOTAL	46087	54540	67120	69070	65290	74610	33366	38499	29893	41500	29243	18995
MEAN	1487	1818	2165	2228	2332	2407	1112	1242	996	1339	943	633
MAX	1920	1910	2340	2360	2500	2500	1600	1420	1210	1430	1280	870
MIN	566	1550	1850	2130	2160	1870	923	834	819	1150	568	568
AC-FT	91410	108200	133100	137000	129500	148000	66180	76360	59290	82320	58000	37680
a	28400	0	0	0	0	3180	49600	47000	58500	67800	64000	57900

CAL YR 1986 TOTAL 695689 MEAN 1906 MAX 4300 MIN 566 AC-FT 1380000
WTR YR 1987 TOTAL 568213 MEAN 1557 MAX 2500 MIN 566 AC-FT 1127000

a-Diversions, in acre-feet, through Gunnison Tunnel, provided by Uncompahgre Valley Water Users Association.

09128500 SMITH FORK NEAR CRAWFORD, CO

LOCATION.--Lat 38°43'40", long 107°30'22", in SW¼SE¼ sec.24, T.15 S., R.91 W., Delta County, Hydrologic Unit 14020002, on left bank 20 ft upstream from Forest Service bridge, 0.4 mi upstream from Second Creek, 6 mi northeast of Crawford, and 6.5 mi upstream from Iron Creek.

DRAINAGE AREA.--42.8 mi².

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1941. WDR CO-83-2: Drainage area. WDR CO-85-2: 1984, 1984 (M).

GAGE.--Water-stage recorder. Elevation of gage is 7,091 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 16, 1938, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 9, 11, Dec. 1-3, 10-15, 22, 23, Dec. 25 to Mar. 4, Apr. 11-15, July 20-27. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of a few small hay meadows upstream from station. Saddle Mountain ditch diverts water upstream from station for irrigation of about 800 acres downstream. One small ditch diverts water from Virginia Creek to Iron Creek drainage. Head and Ferrier ditch imports water from Curecanti Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--52 years, 42.9 ft³/s; 31,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,410 ft³/s, May 15, 1984, gage height, 8.28 ft, but may have been higher during period of indefinite stage-discharge relationship May 16-21, 1984; minimum daily discharge, 1.8 ft³/s, July 30-31, Aug. 1, 1963, Sept. 5-6, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 260 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 29	2100	*370	*3.42	May 15	2000	318	3.13

Minimum daily discharge, 1.7 ft³/s, Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	31	24	21	21	19	26	351	96	50	8.8	5.6
2	34	30	27	17	22	19	27	350	104	47	7.7	5.6
3	35	28	26	18	23	19	31	285	107	46	7.4	5.6
4	35	27	25	18	23	25	35	239	110	32	7.4	6.3
5	34	27	22	18	22	25	36	224	115	30	6.7	6.3
6	33	27	25	19	21	27	38	231	118	28	5.9	5.6
7	32	27	24	16	21	30	44	252	121	23	9.2	5.6
8	31	27	23	17	22	32	49	279	122	22	10	5.6
9	30	23	21	17	22	32	55	296	129	20	7.8	5.6
10	30	27	16	17	22	32	58	294	125	18	6.7	5.9
11	36	26	16	17	23	32	63	288	115	19	5.9	5.2
12	37	25	18	19	23	31	62	290	107	20	5.6	4.7
13	33	24	17	14	25	32	59	278	103	18	5.9	5.5
14	33	24	18	13	26	33	62	276	98	18	6.3	6.3
15	32	25	16	13	23	32	72	301	95	17	4.9	6.3
16	32	25	20	12	23	30	96	313	92	17	4.1	5.2
17	32	25	20	12	22	29	127	290	86	18	2.7	5.2
18	32	28	21	13	22	28	156	287	80	17	2.2	4.9
19	32	61	19	12	21	27	165	262	75	17	2.0	4.9
20	32	49	19	13	20	26	157	230	71	15	1.7	4.9
21	33	41	20	12	19	34	139	206	67	14	2.2	4.6
22	32	39	19	12	19	25	147	181	62	13	3.5	3.8
23	29	34	19	21	19	25	182	161	57	12	5.2	3.3
24	29	32	20	18	19	29	228	151	54	11	7.3	3.2
25	27	30	21	18	20	30	254	141	51	10	7.5	4.3
26	27	29	20	18	21	28	269	130	50	9.0	6.7	5.5
27	26	27	20	19	20	25	286	115	51	8.0	5.6	5.6
28	26	26	20	20	19	32	305	103	52	7.6	5.9	5.6
29	25	26	19	19	---	25	336	94	56	7.7	5.2	4.4
30	25	27	21	21	---	33	343	88	52	7.4	5.2	3.5
31	25	---	19	21	---	32	---	86	---	8.8	5.6	---
TOTAL	962	897	635	515	603	878	3907	7072	2621	600.5	178.8	154.6
MEAN	31.0	29.9	20.5	16.6	21.5	28.3	130	228	87.4	19.4	5.77	5.15
MAX	37	61	27	21	26	34	343	351	129	50	10	6.3
MIN	25	23	16	12	19	19	26	86	50	7.4	1.7	3.2
AC-FT	1910	1780	1260	1020	1200	1740	7750	14030	5200	1190	355	307

CAL YR 1986 TOTAL 22640.6 MEAN 62.0 MAX 326 MIN 7.0 AC-FT 44910
WTR YR 1987 TOTAL 19023.8 MEAN 52.1 MAX 351 MIN 1.7 AC-FT 37730

GUNNISON RIVER BASIN

09129600 SMITH FORK NEAR LAZEAR, CO

LOCATION.--Lat 38°42'27", long 107°42'35", in SE¼NE¼ sec.31, T.15 S., R.92 W., Delta County, Hydrologic Unit 14020002, on left bank 25 ft downstream from bridge, 1.8 mi upstream from Diamond Joe Gulch, and 6.4 mi southeast of Lazear.

DRAINAGE AREA.--166 mi².

PERIOD OF RECORD.--June 1976 to September 1987 (discontinued).

REVISED RECORDS.--WRD-CO-85-2: 1984, 1984 (M).

GAGE.--Water-stage recorder. Elevation of gage is 5,830 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 26, 30, 31, Jan. 9-13, Jan. 17 to Mar. 3, and Mar. 7 to July 10. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by reservoirs, diversions into basin, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 38.8 ft³/s; 28,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,610 ft³/s, May 18, 1984, gage height, 9.28 ft, from floodmarks; minimum daily, 0.10 ft³/s, Aug. 12-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 1.1 ft³/s, July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	21	8.8	41	30	36	48	278	75	31	9.6	1.7
2	8.2	18	8.8	33	32	34	64	262	60	27	10	1.3
3	9.9	13	8.8	37	34	33	68	190	90	17	9.5	1.3
4	10	10	9.1	34	46	32	80	144	110	17	9.1	1.4
5	9.5	10	19	34	36	39	57	120	140	11	9.1	3.6
6	9.0	10	28	36	33	52	55	160	136	14	8.8	5.1
7	7.6	11	38	35	33	66	76	195	138	11	10	4.8
8	7.4	11	43	34	34	75	90	175	144	8.2	9.4	5.2
9	7.4	9.6	44	33	34	72	114	150	162	1.8	8.1	5.1
10	7.7	9.5	43	35	32	62	128	166	134	2.0	8.6	4.7
11	13	9.0	49	41	36	58	136	162	114	2.8	9.1	4.3
12	14	8.8	46	38	36	54	134	182	90	3.2	9.2	3.9
13	12	8.3	43	34	43	62	87	215	78	2.9	9.3	3.8
14	11	8.2	45	34	72	67	105	240	73	2.5	9.5	4.2
15	11	8.2	47	38	44	59	150	327	69	2.1	9.0	3.9
16	12	7.8	48	32	40	56	232	336	57	1.9	9.5	4.1
17	14	7.8	43	32	37	52	282	336	47	2.7	9.8	4.1
18	14	8.0	44	38	33	50	312	300	44	3.1	11	4.1
19	14	12	45	40	34	57	336	303	41	2.1	8.1	3.9
20	14	11	44	36	33	50	240	280	36	2.4	6.2	3.9
21	16	9.5	44	38	34	48	174	295	29	3.2	4.3	4.0
22	16	11	43	40	34	54	200	285	16	3.5	3.5	4.0
23	15	12	43	43	32	51	268	240	20	2.0	4.0	4.0
24	15	12	41	36	31	47	306	228	31	1.9	5.9	4.1
25	15	11	41	30	32	45	295	208	20	1.1	4.9	4.1
26	14	11	41	30	34	44	280	192	29	1.5	4.2	3.9
27	14	8.5	40	31	33	45	285	184	30	1.6	3.2	3.9
28	14	8.2	38	37	35	44	275	150	25	1.7	3.4	3.9
29	13	8.2	42	33	---	43	260	136	33	3.6	3.2	4.0
30	12	9.0	42	30	---	41	250	120	51	4.8	2.9	4.0
31	11	---	42	30	---	42	---	100	---	5.8	2.5	---
TOTAL	370.7	312.6	1161.5	1093	1017	1570	5387	6659	2122	196.4	224.9	114.3
MEAN	12.0	10.4	37.5	35.3	36.3	50.6	180	215	70.7	6.34	7.25	3.81
MAX	16	21	49	43	72	75	336	336	162	31	11	5.2
MIN	7.4	7.8	8.8	30	30	32	48	100	16	1.1	2.5	1.3
AC-FT	735	620	2300	2170	2020	3110	10690	13210	4210	390	446	227

CAL YR 1986 TOTAL 20476.8 MEAN 56.1 MAX 280 MIN 1.7 AC-FT 40620
WTR YR 1987 TOTAL 20228.4 MEAN 55.4 MAX 336 MIN 1.1 AC-FT 40120

09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO

LOCATION.--Lat 38°55'33", long 107°26'01", in SE¼SW¼ sec.10, T.13 S., R.90 W., Gunnison County, Hydrologic Unit 14020004, on left bank 2.3 mi east of Somerset and 4.8 mi upstream from Hubbard Creek.

DRAINAGE AREA.--526 mi².

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Water-quality data available, October 1977 to September 1982. Sediment data available, November 1978 to September 1982.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-77-2: 1976.

GAGE.--Water-stage recorder. Elevation of gage is 6,280 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1982, at various sites 0.8 mi downstream, at different datums. See WDR CO-81-2, for history of changes.

REMARKS.--Estimated daily discharges: Jan. 15 to Feb. 12. Records good except those for estimated daily discharges, which are fair. Natural flow of stream affected by small diversions for irrigation in nearby drainage areas, irrigation of about 3,000 acres upstream from station, storage in Overland Reservoir, capacity, 6,280 acre-ft, and storage in Paonia Reservoir, capacity, 18,300 acre-ft, since February 1962. See table below for contents of Paonia Reservoir.

COOPERATION.--Monthend contents, in acre-feet, in Paonia Reservoir; provided by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--54 years, 464 ft³/s; 336,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,220 ft³/s, May 24, 1984, gage height, 8.20 ft, from outside highwater mark; minimum daily, 17 ft³/s, Nov. 10, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,820 ft³/s at 2200 Apr. 28, gage height, 5.11 ft; minimum daily, 75 ft³/s, Sept. 24-26, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	387	384	221	150	120	87	108	2580	1170	500	268	221
2	380	361	222	152	115	97	124	2510	1310	452	260	239
3	373	351	232	147	120	108	134	2230	1380	412	254	237
4	373	346	234	150	125	110	158	1780	1470	371	247	234
5	354	338	239	153	125	120	154	1560	1510	337	244	237
6	346	345	234	153	125	143	165	1600	1550	316	238	234
7	346	347	227	150	115	167	189	1740	1610	300	256	234
8	345	333	206	149	115	178	370	1680	1640	314	264	228
9	289	317	188	120	125	452	526	1620	1920	292	254	222
10	608	338	151	77	125	649	598	1670	1720	275	252	228
11	838	310	171	88	125	727	673	1640	1550	259	248	230
12	804	327	200	127	101	764	687	1700	1500	281	245	232
13	768	319	200	138	105	765	636	1690	1420	293	237	230
14	753	321	186	132	111	762	619	1830	1380	286	241	233
15	743	323	187	125	104	750	682	2000	1350	279	234	230
16	728	327	186	115	100	753	922	2260	1340	274	231	232
17	726	286	182	115	98	748	1210	2610	1210	283	226	227
18	706	253	176	115	99	724	1400	2430	1090	291	224	228
19	690	447	186	115	97	503	1630	2230	988	268	231	233
20	517	405	175	115	97	280	1740	2010	871	257	232	229
21	438	331	178	115	91	271	1520	1920	785	258	236	230
22	428	333	166	115	93	270	1340	1760	746	277	238	232
23	376	280	169	110	102	265	1730	1580	709	278	251	145
24	353	273	179	115	96	257	2110	1490	656	275	279	75
25	345	270	172	115	96	214	2200	1390	619	269	258	75
26	338	270	164	115	94	175	2330	1310	591	267	230	75
27	338	254	169	115	92	107	2470	1230	550	281	218	76
28	216	243	176	120	91	102	2510	1100	530	277	218	76
29	152	246	165	120	---	100	2520	1030	561	282	218	75
30	152	250	156	120	---	94	2500	997	535	275	225	75
31	231	---	144	120	---	102	---	994	---	281	222	---
TOTAL	14441	9528	5841	3866	3002	10844	33955	54171	34261	9360	7479	5752
MEAN	466	318	188	125	107	350	1132	1747	1142	302	241	192
MAX	838	447	239	153	125	765	2520	2610	1920	500	279	239
MIN	152	243	144	77	91	87	108	994	530	257	218	75
AC-FT	28640	18900	11590	7670	5950	21510	67350	107400	67960	18570	14830	11410
a	7160	7730	7090	8580	9970	14100	5080	18100	18200	14900	8410	890

CAL YR 1986 TOTAL 300589 MEAN 824 MAX 3690 MIN 80 AC-FT 596200
WTR YR 1987 TOTAL 192500 MEAN 527 MAX 2610 MIN 75 AC-FT 381800

a-Monthend contents, in acre-feet, in Paonia Reservoir.

GUNNISON RIVER BASIN

09134000 MINNESOTA CREEK NEAR PAONIA, CO

LOCATION.--Lat 38°52'12", long 107°30'13", in SE¼NE¼ of sec.1, T. 14 S., R. 91 W., Delta County, Hydrologic Unit 14020004, on right bank .25 mi downstream from South Fork, 6 mi upstream from mouth, and 4.5 mi east of Paonia.

DRAINAGE AREA.--41.3 mi².

PERIOD OF RECORD.--April 1936 to September 1947, October 1985 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1936 to October 1941, staff gages at different datums. October 1941 to September 1947, water-stage recorder at different datum. December 1985 to present, water-stage recorder, datum lowered 2.0 ft.

REMARKS.--Estimated daily discharges: Dec. 10-15, 22, 23, 25-27, Dec. 29-Jan. 1, 3, Jan. 9-22, 28, 29, Feb. 18 to Apr. 3. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by two small storage reservoirs, one of which obtains water from the East Muddy Creek Basin. Small trans-basin diversion from Coal Creek into Minnesota Creek. Diversions upstream from station for irrigation of about 100 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--13 years (water years 1936-47, 1986-87), 25.8 ft³/s; 18,690 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 356 ft³/s, July 10, 1936 (gage height 3.00 ft, site and datum then in use); minimum daily, 3.0 ft³/s, Mar. 30, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 176 ft³/s at 1930 May 11, gage height, 2.49 ft, from peak-stage indicator; minimum daily, 3.0 ft³/s, Mar. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	25	10	8.5	5.5	3.5	5.0	107	80	42	23	17
2	10	14	13	7.0	5.6	3.5	6.0	115	86	39	22	16
3	13	11	11	7.5	5.7	3.5	8.0	98	88	38	21	20
4	12	11	9.6	7.9	5.7	3.5	12	106	74	40	21	41
5	10	10	9.7	6.8	5.6	4.0	12	122	60	39	19	32
6	9.8	10	11	6.6	5.9	5.0	15	117	60	37	16	7.4
7	9.7	11	10	6.4	6.1	6.0	15	117	64	35	25	7.2
8	9.5	9.8	9.5	6.2	6.0	5.5	17	128	67	35	25	7.1
9	9.3	14	9.5	5.6	5.8	5.0	17	132	75	36	24	7.0
10	9.7	11	8.0	5.4	5.8	5.5	17	137	72	35	21	6.8
11	21	12	8.0	5.2	7.1	5.5	18	144	69	32	20	6.6
12	16	10	9.0	5.1	6.8	5.0	22	141	68	32	23	6.4
13	13	9.1	8.5	5.1	8.5	6.0	18	133	68	35	19	6.6
14	12	8.8	9.0	5.0	8.4	6.5	18	124	67	35	20	7.0
15	12	8.8	8.5	5.0	6.6	6.0	22	144	68	34	20	6.6
16	11	8.8	10	5.2	6.2	6.0	26	146	84	33	19	6.0
17	11	9.4	10	5.2	6.0	5.0	33	148	90	33	18	5.7
18	11	12	12	5.2	6.0	5.0	42	150	86	32	16	5.4
19	11	44	8.1	5.2	5.5	6.0	48	151	83	30	17	4.7
20	11	21	8.0	5.0	5.0	5.0	45	139	81	28	20	4.1
21	11	15	8.6	5.0	4.5	4.5	42	134	78	28	20	4.4
22	11	17	8.0	5.0	4.5	4.5	44	128	73	27	21	4.4
23	10	11	3.0	5.7	4.5	4.0	53	120	47	27	22	4.5
24	10	12	7.7	5.6	4.5	4.0	61	115	44	26	26	4.6
25	11	11	8.0	5.5	4.5	3.5	66	103	43	26	24	4.5
26	10	11	8.0	5.5	5.0	3.5	69	104	41	26	22	3.9
27	10	10	8.0	5.3	4.5	4.0	73	93	33	25	20	3.7
28	9.2	9.9	8.4	5.0	4.0	4.0	79	88	40	25	19	3.7
29	9.0	9.7	8.0	5.5	---	3.5	88	84	43	24	19	3.8
30	8.8	9.8	8.5	5.5	---	3.0	95	92	44	24	18	4.2
31	9.0	---	8.0	5.4	---	4.0	---	78	---	24	18	---
TOTAL	341.0	387.1	281.6	178.1	159.8	143.5	1086.0	3733	1981	982	638	262.3
MEAN	11.0	12.9	9.08	5.75	5.71	4.63	36.2	120	66.0	31.7	20.6	8.74
MAX	21	44	13	8.5	8.5	6.5	95	151	90	42	26	41
MIN	8.8	8.8	7.7	5.0	4.0	3.0	5.0	78	33	24	16	3.7
AC-FT	676	768	559	353	317	285	2150	7400	3930	1950	1270	520

CAL YR 1986 TOTAL 14744.6 MEAN 40.4 MAX 203 MIN 4.9 AC-FT 29250
WTR YR 1987 TOTAL 10173.4 MEAN 27.9 MAX 151 MIN 3.0 AC-FT 20180

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	84	32	19	26	30	18	368	31	2.9	8.3	5.6
2	81	79	39	20	25	28	25	285	60	3.2	8.3	5.6
3	87	75	36	20	25	20	28	149	65	3.7	7.5	5.6
4	69	68	32	20	29	10	36	96	60	4.0	7.5	5.6
5	62	59	31	20	27	18	28	74	55	4.0	7.1	6.2
6	67	55	32	20	26	37	24	92	54	4.0	7.1	5.9
7	80	51	35	20	26	48	35	138	49	3.7	6.9	5.9
8	82	50	32	20	27	52	50	138	51	3.7	6.6	5.9
9	84	49	29	19	30	49	62	127	67	3.2	6.6	6.2
10	98	55	22	19	29	43	68	131	43	3.9	6.6	6.2
11	143	47	24	20	31	40	77	148	27	5.6	6.4	6.2
12	133	50	26	19	32	37	73	188	15	5.4	6.6	6.2
13	125	40	26	18	37	40	54	160	3.5	5.6	7.1	6.2
14	126	38	26	18	44	41	55	166	4.5	7.9	5.4	7.0
15	124	37	25	17	34	39	83	247	3.4	10	5.5	7.5
16	108	35	24	18	32	38	143	239	3.4	9.2	5.4	7.7
17	95	35	23	18	30	33	232	257	3.2	8.4	5.1	7.9
18	85	38	23	15	30	32	308	233	3.1	7.9	5.4	6.7
19	74	96	24	17	31	35	333	184	3.1	7.5	5.8	6.2
20	79	64	22	18	32	32	252	143	3.1	7.5	5.6	6.6
21	87	50	21	23	30	29	162	168	2.7	7.9	5.9	6.2
22	85	51	22	25	27	31	187	99	2.7	7.5	6.4	5.9
23	75	45	22	25	24	28	259	60	2.7	8.1	6.2	7.9
24	72	49	19	25	20	30	333	46	2.1	8.3	6.6	6.0
25	68	49	20	25	18	31	357	24	1.9	8.3	7.1	7.0
26	63	44	18	25	21	27	328	11	1.9	9.2	6.1	7.5
27	59	41	18	25	23	26	314	9.2	1.9	8.8	5.6	7.5
28	57	39	20	27	27	23	340	7.5	1.9	8.8	5.1	7.5
29	60	38	19	28	---	21	350	7.5	2.0	8.4	5.1	7.1
30	60	36	20	27	---	21	329	7.9	2.4	8.3	4.9	6.6
31	63	---	18	26	---	20	---	8.8	---	8.3	4.8	---
TOTAL	2609	1547	780	656	793	989	4943	4011.9	626.5	203.2	194.6	196.1
MEAN	84.2	51.6	25.2	21.2	28.3	31.9	165	129	20.9	6.55	6.28	6.54
MAX	143	96	39	28	44	52	357	368	67	10	8.3	7.9
MIN	57	35	18	15	18	10	18	7.5	1.9	2.9	4.8	5.6
AC-FT	5170	3070	1550	1300	1570	1960	9800	7960	1240	403	386	389
CAL YR 1986	TOTAL 20544.0											
WTR YR 1987	TOTAL 17549.3											
			MEAN	56.3	MAX 425	MIN 4.0	AC-FT 40750					
			MEAN	48.1	MAX 36							

GUNNISON RIVER BASIN

09137050 CURRANT CREEK NEAR READ, CO

LOCATION.--Lat 38°47'05", long 107°56'18", in SW¼ sec.31, T.14 S., R.94 W., Delta County, Hydrologic Unit 14020005, on right bank 0.2 mi downstream from Dry Creek, 0.4 mi upstream from mouth, 0.7 mi northeast of Austin, and 2.4 mi northeast of Read.

DRAINAGE AREA.--56.9 mi².

PERIOD OF RECORD.--May 1976 to September 1987 (discontinued).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,035 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges, Jan. 18-25. Records good. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 14.6 ft³/s; 10,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 644 ft³/s, June 7, 1984, gage height, 5.73 ft, no flow, Aug. 2, 4, 5, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 320 ft³/s at 0230 Apr. 26, gage height, 4.81 ft, from peak-stage indicator; minimum daily, 0.78, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	56	21	19	16	16	20	62	11	4.4	3.4	2.5
2	23	43	21	16	18	16	27	62	13	3.9	2.1	1.8
3	28	38	23	17	19	17	29	49	13	2.6	2.3	1.3
4	27	36	23	17	24	19	37	34	11	2.7	1.8	2.0
5	25	33	23	17	21	20	30	35	11	1.9	1.6	1.7
6	24	36	29	18	18	24	27	25	13	2.3	1.0	2.1
7	25	34	29	17	17	32	31	16	13	2.0	1.7	3.1
8	27	31	25	17	18	40	39	22	15	1.8	.78	3.5
9	27	25	24	17	18	37	44	18	20	1.2	1.1	3.3
10	28	27	19	17	17	33	51	12	18	1.3	1.5	3.2
11	45	26	20	20	19	32	57	11	19	1.4	1.6	2.4
12	45	28	22	19	19	27	57	22	16	1.7	2.3	1.9
13	37	27	21	18	23	31	42	31	13	1.8	3.4	1.3
14	41	26	21	17	36	35	37	17	10	1.8	2.4	2.2
15	40	26	20	17	24	31	47	52	13	1.5	1.8	1.8
16	37	26	20	16	20	29	81	37	13	1.7	2.8	1.8
17	35	26	20	16	18	25	111	31	13	2.4	3.0	2.2
18	33	28	19	19	17	25	150	25	12	2.9	2.2	3.0
19	33	78	20	20	17	29	155	20	8.0	1.7	2.0	3.2
20	33	60	19	18	17	24	108	14	5.4	1.8	2.5	2.4
21	36	42	19	19	16	21	55	16	3.1	2.2	2.9	2.8
22	35	41	18	20	16	24	70	22	1.7	2.6	3.1	2.3
23	35	30	18	21	17	22	112	15	2.0	2.3	3.7	.84
24	35	29	18	17	14	21	148	17	3.3	2.1	5.5	1.4
25	35	28	18	16	16	20	158	19	2.0	1.5	4.8	2.0
26	33	30	18	16	17	20	133	21	3.0	1.2	4.0	3.8
27	31	25	18	16	16	21	57	25	3.2	1.6	2.6	3.0
28	30	25	17	20	13	19	71	21	2.7	1.2	2.5	3.0
29	30	25	17	19	---	20	45	19	3.7	1.4	2.4	2.4
30	29	26	17	17	---	17	61	17	5.5	1.6	2.7	2.5
31	30	---	17	16	---	18	---	13	---	3.2	2.5	---
TOTAL	996	1011	634	549	521	765	2090	800	290.6	63.7	77.98	70.74
MEAN	32.1	33.7	20.5	17.7	18.6	24.7	69.7	25.8	9.69	2.05	2.52	2.36
MAX	45	78	29	21	36	40	158	62	20	4.4	5.5	3.8
MIN	23	25	17	16	13	16	20	11	1.7	1.2	.78	.84
AC-FT	1980	2010	1260	1090	1030	1520	4150	1590	576	126	155	140

CAL YR 1986 TOTAL 9429.30 MEAN 25.8 MAX 186 MIN 2.2 AC-FT 18700
WTR YR 1987 TOTAL 7869.02 MEAN 21.6 MAX 158 MIN .78 AC-FT 15610

09143000 SURFACE CREEK NEAR CEDAREGE, CO

LOCATION.--Lat 38°59'05", long 107°51'13", in NW¼NW¼ sec.25, T.12 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 5 ft downstream from private bridge, 1.4 mi downstream from Caesar Creek, and 7.0 mi northeast of Cedaredge.

DRAINAGE AREA.--27.4 mi².

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WDR CO-83-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,261 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 2-16, Dec. 1-Jan. 14, 29, 30, Feb. 14, 15, 25-28, May 8-12. Records good except for estimated daily discharges, which are poor. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--48 years, 43.6 ft³/s; 31,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 824 ft³/s, June 7, 1984, gage height, 3.67 ft, from rating curve extended above 310 ft³/s; maximum gage height, 5.10 ft, Apr. 13, 1958 (ice jam); minimum daily discharge, 0.80 ft³/s, Jan. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 382 ft³/s at 2200 May 14. gage height, 2.80 ft; minimum daily, 11 ft³/s Feb. 7, 9, 10, Mar. 31.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	28	19	15	12	14	12	210	167	110	72	40
2	28	22	19	15	12	12	13	192	195	117	70	42
3	31	21	18	16	12	12	13	141	204	117	70	62
4	26	20	17	16	12	13	14	116	213	106	66	66
5	28	19	16	15	12	14	13	131	215	102	65	71
6	32	20	20	16	12	15	13	165	213	98	61	69
7	31	20	20	17	11	16	13	179	217	86	62	68
8	28	19	18	15	12	16	15	185	214	86	62	34
9	30	19	17	15	11	17	17	175	220	89	60	31
10	34	18	13	16	11	17	21	190	203	86	62	52
11	38	19	17	18	12	15	25	185	195	69	80	53
12	29	18	18	16	12	16	24	195	189	69	73	48
13	32	18	16	16	12	15	22	201	183	62	89	48
14	29	17	16	16	14	14	23	230	177	84	86	47
15	26	17	16	15	17	14	36	249	170	84	63	42
16	26	17	30	17	16	16	61	252	162	76	61	41
17	29	18	15	16	13	15	89	245	148	78	62	36
18	30	17	15	15	13	14	116	235	135	60	53	34
19	30	21	16	15	13	14	107	234	123	56	53	24
20	30	20	16	15	12	15	79	224	117	52	46	23
21	29	20	15	15	12	18	71	217	112	57	45	23
22	26	19	15	14	12	17	96	195	104	58	44	21
23	26	23	15	13	12	16	140	186	103	78	43	20
24	26	24	16	12	12	14	161	183	101	80	50	18
25	25	21	15	12	13	12	167	165	97	82	47	18
26	24	17	15	12	13	12	161	145	91	84	45	23
27	24	21	14	12	12	12	172	129	89	82	37	23
28	24	19	14	13	12	13	190	121	88	77	34	22
29	24	17	16	12	---	12	199	114	92	74	31	21
30	24	17	16	12	---	12	208	112	116	78	31	21
31	26	---	16	13	---	11	---	128	---	77	30	---
TOTAL	869	586	519	455	349	443	2291	5629	4653	2514	1753	1141
MEAN	28.0	19.5	16.7	14.7	12.5	14.3	76.4	182	155	81.1	56.5	38.0
MAX	38	28	30	18	17	18	208	252	220	117	89	71
MIN	24	17	13	12	11	11	12	112	88	52	30	18
AC-FT	1720	1160	1030	902	692	879	4540	11170	9230	4990	3480	2260

CAL YR 1986 TOTAL 26208 MEAN 71.8 MAX 388 MIN 4.9 AC-FT 51980
WTR YR 1987 TOTAL 21202 MEAN 58.1 MAX 252 MIN 11 AC-FT 42050

GUNNISON RIVER BASIN

09143500 SURFACE CREEK AT CEDAREGE, CO

LOCATION.--Lat 38°54'06", long 107°55'14", in SW¼SE¼ sec.20, T.13 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank at Cedarege, 700 ft east of State Highway 65, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--39.0 mi².

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WDR-CO-83-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,220 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 8, 1917, nonrecording gage at present site at datum 0.50 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 24 to Jan. 3, 10, 11, 19, 20, 24, Feb. 3-5, Mar. 3, 4, 25-30. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--71 years, 28.4 ft³/s; 20,580 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,190 ft³/s, May 13, 1941, gage height, 2.50 ft, from rating curve extended above 640 ft³/s; no flow, Sept. 25, 1939, and practically no flow at times during some winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 431 ft³/s at 2300 May 14, gage height, 2.76 ft; minimum daily 2.5 ft³/s, Dec. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	28	6.5	9.0	10	13	16	174	72	51	31	11
2	32	26	7.0	11	11	13	18	143	87	52	31	10
3	37	26	6.5	13	11	12	19	106	95	51	30	19
4	31	26	6.0	16	15	12	21	80	101	39	33	20
5	30	24	5.5	14	12	13	18	83	103	34	33	23
6	33	24	8.0	15	10	15	18	107	105	33	27	21
7	33	23	8.0	18	11	17	21	119	104	30	29	21
8	30	21	7.0	16	11	18	25	119	94	27	26	18
9	30	28	5.5	15	12	18	30	111	99	42	23	18
10	34	25	2.5	16	12	18	35	107	77	47	23	23
11	40	23	5.5	18	13	17	40	103	66	33	30	26
12	34	24	6.5	16	13	17	39	111	57	30	23	22
13	27	21	6.0	18	13	18	34	129	55	28	27	23
14	28	20	5.5	16	15	18	35	168	58	35	27	23
15	30	19	5.5	15	17	16	49	112	55	36	8.5	21
16	31	18	5.5	14	15	17	79	200	54	31	4.5	20
17	32	18	5.0	15	13	16	115	203	46	33	4.7	21
18	34	19	4.5	15	14	16	144	188	44	28	11	21
19	34	34	5.5	16	14	16	134	185	50	23	16	15
20	34	28	5.5	14	15	16	89	165	64	22	15	14
21	34	24	5.0	11	14	18	74	169	66	24	15	14
22	29	22	5.0	11	14	18	105	143	65	26	14	14
23	26	17	5.0	12	13	18	144	118	63	27	13	13
24	27	13	6.0	15	13	16	162	109	61	25	17	12
25	26	11	5.5	12	12	15	161	92	58	23	16	12
26	25	12	5.5	12	12	15	155	83	52	22	15	16
27	23	9.0	5.0	13	12	15	169	71	49	19	11	16
28	22	9.0	5.0	14	12	15	162	65	48	17	9.8	16
29	22	8.5	7.0	12	---	14	161	60	48	17	10	16
30	23	8.0	7.0	12	---	12	172	55	58	23	11	16
31	24	---	7.0	11	---	13	---	57	---	27	10	---
TOTAL	924	608.5	180.5	435.0	359	485	2444	3740	2054	955	594.5	535
MEAN	29.8	20.3	5.82	14.0	12.8	15.6	81.5	121	68.5	30.8	19.2	17.8
MAX	40	34	8.0	18	17	18	172	203	105	52	33	26
MIN	22	8.0	2.5	9.0	10	12	16	55	44	17	4.5	10
AC-FT	1830	1210	358	863	712	962	4850	7420	4070	1890	1180	1060

CAL YR 1986 TOTAL 17441.3 MEAN 47.8 MAX 310 MIN 2.5 AC-FT 34590
WTR YR 1987 TOTAL 13314.5 MEAN 36.5 MAX 203 MIN 2.5 AC-FT 26410

LOCATION.--Lat 38°47'16", long 107°59'41", in SE¼SE¼ sec.34, T.14 S., R.95 W., Delta County, Hydrologic Unit 14020005, on left bank at downstream side of bridge, 500 ft upstream from North Delta canal headgate, 0.5 mi west of Cory, and 1.0 mi upstream from mouth.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 440 ft³/s at 0100 May 15, gage height, 3.21 ft; minimum daily, 17 ft³/s, Aug. 6.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	185	63	58	56	65	79	295	132	61	21	36
2	115	150	64	56	58	62	102	282	144	56	20	36
3	129	138	64	58	61	61	105	213	137	45	20	35
4	123	131	62	60	77	64	119	165	152	45	20	35
5	114	125	61	56	63	70	91	140	153	37	18	35
6	113	131	71	57	60	87	88	156	151	41	17	37
7	119	127	72	59	60	105	114	180	154	37	20	37
8	115	123	67	57	62	115	127	184	160	34	21	37
9	111	108	65	56	62	111	150	173	180	23	22	35
10	118	124	54	59	60	99	162	191	151	24	22	37
11	174	115	60	65	65	95	169	187	134	25	26	36
12	172	120	65	62	65	89	165	207	112	27	22	37
13	144	116	64	60	74	101	114	241	96	28	26	41
14	144	115	61	60	112	107	117	263	94	23	28	45
15	142	111	62	59	74	97	174	342	91	22	27	42
16	136	107	62	59	70	93	255	349	77	22	25	42
17	134	107	60	58	66	86	300	350	65	40	26	37
18	132	113	59	65	61	83	328	323	61	37	26	36
19	129	277	60	69	62	92	347	326	58	31	29	39
20	130	159	59	63	61	83	261	304	53	28	33	40
21	131	117	58	65	62	81	197	320	48	27	32	39
22	125	106	56	68	62	88	225	308	34	25	34	42
23	122	88	57	72	60	84	285	271	38	23	37	42
24	124	83	59	63	58	78	321	261	50	23	61	39
25	118	75	57	56	60	74	314	240	38	25	55	39
26	113	78	57	55	62	73	298	226	48	25	58	39
27	112	71	55	57	61	74	302	199	49	23	48	39
28	107	71	55	64	63	73	293	174	45	20	44	36
29	105	70	59	59	---	72	279	156	53	20	40	35
30	104	68	59	56	---	67	270	139	71	19	40	34
31	110	---	59	55	---	69	---	121	---	22	38	---
TOTAL	3880	3509	1886	1866	1817	2598	6151	7286	2829	938	956	1139
MEAN	125	117	60.8	60.2	64.9	83.8	205	235	94.3	30.3	30.8	38.0
MAX	174	277	72	72	112	115	347	350	180	61	61	45
MIN	104	68	54	55	56	61	79	121	34	19	17	34
AC-FT	7700	6960	3740	3700	3600	5150	12200	14450	5610	1860	1900	2260
CAL YR 1986	TOTAL 40914	MEAN 112	MAX 480	MIN 32	AC-FT 81150							
WTR YR 1987	TOTAL 34855	MEAN 95.5	MAX 350	MIN 17	AC-FT 69130							

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,460 ft³/s at 0300 May 2, gage height, 6.98 ft; minimum daily, 1,040 ft³/s, Sept. 2.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2980	3720	2870	3130	2910	3290	2500	6100	2810	2020	1750	1080
2	3010	3550	2840	3170	2930	3310	2550	6170	2950	2220	1700	1040
3	3100	3340	2940	3150	2980	3310	2570	5720	3000	2130	1690	1050
4	3070	3290	3150	3160	3040	3360	2160	4980	3050	2060	1670	1050
5	2990	3130	3150	3200	3030	3360	2120	4340	3100	2010	1660	1080
6	2960	2940	3220	3120	3050	3410	2120	4290	3130	1950	1720	1080
7	2980	3160	3280	3180	3040	3540	2220	4450	3170	1900	1730	1080
8	2970	3170	3220	3180	3060	3680	2350	4650	3250	1870	1760	1100
9	2930	3080	3210	3150	3070	3680	2740	4370	3770	1870	1780	1090
10	2940	3150	3040	3070	3070	4070	2790	4470	3600	1810	1750	1090
11	3790	3080	3030	3060	3100	4050	2890	4490	3290	1820	1710	1090
12	3860	3080	3090	3070	3130	4040	3020	4700	3080	1810	1670	1090
13	3620	2970	3100	2900	3180	4030	2780	4760	2900	1890	1650	1100
14	3600	2950	3130	2870	3440	4070	2670	4670	2810	1830	1730	1150
15	3540	3080	3140	2850	3290	4010	2820	4970	2820	1790	1750	1150
16	3500	3080	3140	2870	3190	4010	3290	5130	2900	1840	1740	1150
17	3440	3080	3140	2850	3140	3960	4030	5680	2840	1880	1700	1140
18	3470	2830	3120	2800	3330	3900	4700	5500	2730	2000	1240	1150
19	3460	3730	3140	2850	3320	3920	5000	5340	2550	1950	1200	1150
20	3290	3690	3160	2880	3290	3600	4920	4960	2300	1930	1180	1150
21	2330	3300	3130	2830	3290	3550	4340	4880	2100	1900	1100	1160
22	1810	3270	3110	2840	3280	3580	4050	4590	2050	1870	1100	1160
23	1920	3120	3090	2870	3300	3550	4600	4060	2150	1860	1170	1160
24	1890	3060	3130	2910	3290	3510	5490	3870	2060	1830	1290	1250
25	1870	3030	3090	2920	3300	3500	5780	3730	2030	1550	1330	1260
26	1860	3020	3060	2910	3340	3300	5820	3570	1940	1570	1270	1350
27	1840	2960	3060	2890	3320	3170	5810	3460	1920	1610	1230	1350
28	1780	2930	3060	2900	3290	3080	5900	3200	1880	1600	1190	1340
29	1680	2930	3060	2960	---	3080	5890	3060	1990	1620	1170	1350
30	2490	2950	3170	2940	---	3030	5950	2900	2080	1710	1160	1350
31	2860	---	3130	2920	---	2910	---	2770	---	1690	1130	---
TOTAL	87830	94670	96200	92400	89000	110860	113870	139830	80250	57390	45920	34790
MEAN	2833	3156	3103	2981	3179	3576	3796	4511	2675	1851	1481	1160
MAX	3860	3730	3280	3200	3440	4070	5950	6170	3770	2220	1780	1350
MIN	1680	2830	2840	2800	2910	2910	2120	2770	1880	1550	1100	1040
AC-FT	174200	187800	190800	183300	176500	219900	225900	277400	159200	113800	91080	69010
WTR YR 1986	TOTAL 1348840		MEAN 3695	MAX 8010	MIN 1680	AC-FT 2675000						
WTR YR 1987	TOTAL 1043010		MEAN 2858	MAX 6170	MIN 1040	AC-FT 2069000						

09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO

LOCATION.--Lat 38°11'02", long 107°44'43", in SW¼NE¼ sec.4, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft downstream from bridge, 0.2 mi downstream from Dry Creek, 0.5 mi upstream from Dallas Creek, and 2.3 mi north of Ridgway.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,877.58 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Dec. 2, 11-14, 27, Dec. 30 to Jan. 1, Jan. 10-23, and July 9 to Aug. 26. Records good except for estimated daily discharges, which are fair. Diversions for irrigation upstream from station. Water is imported upstream from station in some years by Red Mountain ditch from Mineral Creek in San Juan River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years, 169 ft³/s; 122,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s, June 24, 1983, gage height, 5.73 ft; from rating curve extended above 1,800 ft³/s; minimum daily, 26 ft³/s, Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 15	0100	*1,020	*4.44	No other peak greater than base discharge.			
Minimum daily, 42 ft ³ /s, Jan. 18.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	151	119	72	50	50	46	59	466	310	497	200	138
2	145	122	70	54	52	45	68	450	424	475	210	140
3	146	122	77	56	55	46	75	330	518	466	190	140
4	139	121	77	56	55	48	89	284	601	435	170	136
5	136	106	77	56	54	52	82	280	587	391	150	136
6	135	106	80	57	51	69	83	277	668	377	150	132
7	132	99	83	54	51	78	83	317	748	360	220	130
8	132	93	80	55	55	74	83	375	686	347	200	128
9	129	77	78	55	56	69	86	448	843	340	160	126
10	130	86	62	50	55	74	86	464	811	340	150	122
11	143	82	60	50	57	75	88	458	746	330	130	118
12	142	85	60	50	58	69	91	549	740	310	120	116
13	129	85	60	48	64	78	93	560	814	290	110	114
14	130	83	60	48	69	85	90	586	851	290	100	116
15	124	86	62	48	57	80	104	688	872	280	100	114
16	122	86	62	46	57	77	141	739	866	270	95	109
17	118	85	62	44	55	69	187	711	699	310	90	106
18	114	87	62	42	55	69	216	671	671	290	85	104
19	110	117	64	44	53	77	211	567	665	230	80	99
20	118	98	64	46	50	72	186	507	637	190	75	98
21	121	93	64	46	48	65	153	459	588	200	80	96
22	110	99	62	44	47	66	180	395	569	230	85	93
23	103	94	62	48	48	62	246	363	578	230	140	91
24	101	85	58	49	47	62	293	353	571	210	280	88
25	101	88	59	49	49	59	330	326	596	220	330	88
26	96	91	58	49	52	58	365	295	587	220	260	88
27	96	83	55	50	49	61	383	259	565	260	190	88
28	96	82	57	51	47	61	383	235	516	260	162	85
29	96	82	56	50	---	58	425	230	533	230	157	85
30	94	82	55	51	---	50	465	225	493	220	146	85
31	93	---	50	51	---	52	---	235	---	220	140	---
TOTAL	3732	2824	2008	1547	1496	2006	5424	13102	19353	9318	4755	3309
MEAN	120	94.1	64.8	49.9	53.4	64.7	181	423	645	301	153	110
MAX	151	122	83	57	69	85	465	739	872	497	330	140
MIN	93	77	50	42	47	45	59	225	310	190	75	85
AC-FT	7400	5600	3980	3070	2970	3980	10760	25990	38390	18480	9430	6560
CAL YR 1986	TOTAL 77574	MEAN 213	MAX 1130	MIN 42	AC-FT 153900							
WTR YR 1987	TOTAL 68874	MEAN 189	MAX 872	MIN 42	AC-FT 136600							

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	40	30	24	26	22	36	178	59	98	98	48
2	48	38	28	26	26	22	41	192	54	92	87	47
3	47	37	30	26	29	22	43	163	41	92	82	47
4	47	39	30	26	30	26	46	131	42	98	74	42
5	46	36	30	26	29	25	42	125	42	91	66	42
6	44	35	33	26	26	29	47	123	53	80	64	41
7	44	33	35	26	26	34	47	112	89	71	111	41
8	43	29	34	26	26	36	57	107	70	66	88	41
9	43	26	33	26	28	41	74	110	88	61	77	41
10	44	28	29	24	28	45	84	107	96	61	72	40
11	49	26	28	24	28	43	97	105	92	62	69	37
12	48	29	28	24	30	42	121	142	84	67	66	36
13	44	29	28	24	32	49	89	172	93	64	64	35
14	43	27	28	24	38	50	77	204	98	64	60	36
15	44	25	30	24	33	46	94	182	137	63	55	36
16	43	26	30	22	31	41	137	220	165	61	51	35
17	41	26	30	22	29	35	197	189	138	74	44	33
18	41	25	30	22	29	37	218	196	129	74	42	33
19	39	65	30	20	26	46	225	196	121	59	42	32
20	42	44	30	22	26	40	191	194	116	51	43	31
21	40	38	30	22	24	33	155	176	101	49	46	30
22	39	50	30	22	24	34	186	147	94	50	46	29
23	37	38	30	24	24	33	231	131	92	56	80	29
24	36	32	28	24	24	32	243	129	98	54	93	27
25	36	34	28	24	24	29	231	112	101	58	103	25
26	37	37	28	24	26	29	234	97	101	72	88	26
27	36	34	26	26	24	31	228	88	104	103	72	26
28	35	32	26	26	24	31	214	89	102	105	62	25
29	35	32	26	26	---	28	208	87	115	95	58	26
30	35	35	26	26	---	28	186	85	102	96	54	31
31	35	---	26	26	---	32	---	68	---	111	49	---
TOTAL	1291	1025	908	754	770	1071	4079	4357	2817	2298	2106	1048
MEAN	41.6	34.2	29.3	24.3	27.5	34.5	136	141	93.9	74.1	67.9	34.9
MAX	50	65	35	26	38	50	243	220	165	111	111	48
MIN	35	25	26	20	24	22	36	68	41	49	42	25
AC-FT	2560	2030	1800	1500	1530	2120	8090	8640	5590	4560	4180	2080
CAL YR 1986	TOTAL 18669	MEAN 51.1	MAX 229	MIN 12	AC-FT 37030							
WTR YR 1987	TOTAL 22524	MEAN 61.7	MAX 243	MIN 20	AC-FT 44680							

LOCATION.--Lat 38°19'53", long 107°46'44", in NW¼NW¼ sec.17, T.47 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft downstream from county highway crossing, 0.2 mi north of Colona, and 1.0 mi upstream from Beaton Creek.

PERIOD OF RECORD.--April 1903 to November 1905, April to June 1906 (gage heights and discharge measurements only), October 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Colona" 1904-6. 1922-34.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Ridgway Reservoir, 1.1 mi upstream since 1986, total capacity, 80,000 acre-ft. Diversions upstream from station for irrigation of about 2,600 acres downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,710 ft³/s at 2300 May 16, gage height, 4.49 ft; minimum daily, 76 ft³/s, Apr. 14.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	114	99	94	97	101	106	1030	366	740	517	405
2	141	113	99	95	97	105	107	1030	471	627	517	398
3	436	107	103	92	100	105	115	912	540	587	517	398
4	441	104	103	94	100	111	128	815	617	568	512	393
5	277	101	103	96	98	121	121	767	598	556	495	398
6	240	102	103	95	96	137	119	755	658	547	495	407
7	237	102	103	92	97	155	122	769	713	539	555	413
8	141	98	102	91	101	151	130	822	639	477	534	411
9	195	93	102	90	102	140	139	854	681	387	512	404
10	348	99	98	87	101	140	142	855	627	352	506	404
11	264	96	93	89	102	133	155	835	581	347	506	404
12	281	99	99	93	103	125	146	897	568	347	501	402
13	248	99	99	94	105	129	118	908	562	355	480	396
14	254	99	100	93	105	132	76	951	770	359	456	400
15	240	99	102	92	101	123	203	1070	935	355	455	404
16	233	98	101	97	101	122	412	1360	917	355	455	402
17	219	96	99	96	100	115	486	1630	871	359	455	396
18	219	97	100	95	100	108	529	1630	811	386	455	395
19	209	109	100	100	99	113	514	1600	719	409	455	395
20	155	104	99	98	99	111	498	1400	682	383	450	393
21	99	102	99	93	98	106	434	1130	624	329	455	387
22	98	105	96	94	100	107	483	996	575	264	455	386
23	98	101	97	97	102	105	548	954	542	263	457	378
24	97	99	97	98	103	103	580	929	481	258	484	375
25	97	103	97	99	105	102	589	868	470	254	516	369
26	97	105	95	96	104	101	595	703	455	254	491	368
27	96	99	94	96	102	103	672	571	441	254	470	368
28	96	103	94	102	102	102	790	542	452	282	470	362
29	96	103	94	99	---	100	881	509	675	408	441	359
30	96	103	93	96	---	95	989	366	818	545	414	355
31	95	---	92	96	---	99	---	263	---	523	413	---
TOTAL	5937	3052	3055	2939	2820	3600	10927	28721	18859	12669	14894	11725
MEAN	192	102	98.5	94.8	101	116	364	926	629	409	480	391
MAX	441	114	103	102	105	155	989	1630	935	740	555	413
MIN	94	93	92	87	96	95	76	263	366	254	413	355
AC-FT	11780	6050	6060	5830	5590	7140	21670	56970	37410	25130	29540	23260
CAL YR 1986	TOTAL	114171	MEAN	313	MAX	1490	MIN	46	AC-FT	226500		
WTR YR 1987	TOTAL	119198	MEAN	327	MAX	1630	MIN	76	AC-FT	236400		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	315	764	153	125	106	108	335	1230	341	700	665	675
2	367	644	135	118	105	111	349	1390	381	640	640	571
3	616	335	148	105	108	110	335	1340	376	500	540	582
4	772	273	154	118	117	104	743	1060	460	520	500	562
5	620	258	151	127	112	109	780	881	483	360	475	611
6	481	242	166	118	102	126	771	846	508	440	450	645
7	476	255	210	108	97	141	774	797	598	380	540	670
8	464	232	190	110	102	168	761	861	665	320	636	709
9	489	210	165	102	106	175	743	869	743	210	565	748
10	677	215	136	95	105	197	658	824	823	220	526	743
11	684	210	117	99	106	174	718	788	680	205	442	746
12	772	184	167	125	109	148	846	786	621	220	397	742
13	636	175	156	134	117	135	774	814	548	218	375	754
14	747	165	144	135	143	150	630	774	588	204	373	818
15	786	162	140	114	139	146	597	856	885	198	347	872
16	701	161	141	117	114	150	988	1040	735	204	338	889
17	624	158	132	116	110	146	1220	1440	634	245	333	869
18	609	179	132	85	103	132	1440	1430	428	328	308	904
19	606	269	144	122	98	128	1440	1440	308	341	288	910
20	618	273	130	119	93	135	1380	1320	307	321	283	903
21	834	220	130	105	94	126	854	1040	340	281	285	913
22	658	208	116	97	91	129	732	901	306	247	305	933
23	427	192	116	127	94	137	844	814	252	228	349	877
24	384	175	129	147	91	110	1010	817	237	220	705	752
25	391	177	112	128	100	100	1080	814	223	221	932	701
26	379	194	108	122	108	80	1030	738	224	216	917	541
27	380	182	114	121	108	204	1100	505	226	231	878	519
28	413	163	115	118	110	243	1170	444	237	217	920	512
29	385	170	110	140	---	207	1180	415	365	239	930	491
30	270	173	111	112	---	203	1220	484	807	488	864	438
31	262	---	113	108	---	228	---	384	---	621	818	---
TOTAL	16843	7218	4285	3617	2988	4560	26502	28142	14329	9983	16924	21600
MEAN	543	241	138	117	107	147	833	908	478	322	546	720
MAX	834	764	210	147	143	243	1440	1440	885	700	932	933
MIN	262	158	108	85	91	80	335	384	223	198	283	438
AC-FT	33410	14320	8500	7170	5930	9040	52570	55820	28420	19800	33570	42840
CAL YR 1986	TOTAL	140285	MEAN	384	MAX	1260	MIN	80	AC-FT	278300		
WTR YR 1987	TOTAL	156991	MEAN									

09151500 ESCALANTE CREEK NEAR DELTA, CO

LOCATION.--Lat 38°45'24", long 108°15'34", in E½ sec.8, T.15 S., R.97 W., Sixth Principal Meridian, Delta County, Hydrologic Unit 14020005, on left bank just upstream from county bridge, 0.2 mi upstream from mouth, and 10.5 mi west of Delta.

DRAINAGE AREA.--209 mi².

PERIOD OF RECORD.--April 1922 to September 1923, May 1976 to current year.

REVISED RECORDS.--WSP 1313: 1923 (monthly runoff). WDR CO-84-2: 1979.

GAGE.--Water-stage recorder. Elevation of gage is 4,810 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 1923, nonrecording gage at different datum operated by State Engineer of Colorado.

REMARKS.--Estimated daily discharges: Nov. 13 to Mar. 20. Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 65.5 ft³/s; 47,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft³/s, July 24, 1977, gage height, 8.54 ft, from floodmarks, from rating curve extended above 320 ft³/s, on basis of slope-area measurement of peak flow; no flow, June 23-25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,410 ft³/s at 2200 July 27, gage height, 7.21 ft; minimum daily, 3.0 ft³/s, July 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	88	30	25	26	30	52	786	96	9.0	18	13
2	85	72	30	25	26	30	59	780	91	8.5	18	11
3	140	66	30	26	26	30	62	539	88	7.6	16	11
4	105	61	30	27	26	31	83	486	77	7.3	15	11
5	97	57	30	28	25	32	80	536	74	7.0	12	10
6	90	57	30	27	25	33	79	530	67	6.4	11	10
7	92	61	30	27	25	35	95	536	55	6.4	11	9.8
8	89	53	29	24	26	39	97	467	53	5.8	11	9.8
9	86	35	28	23	26	40	136	438	58	5.1	11	10
10	83	49	23	23	26	42	177	410	51	5.1	13	10
11	104	37	20	24	26	41	213	372	42	5.1	13	9.8
12	106	44	22	25	26	39	261	360	38	5.4	11	9.4
13	90	35	23	25	27	38	204	355	35	4.8	11	8.9
14	91	35	24	25	27	39	204	312	32	4.5	11	9.4
15	89	35	25	24	27	40	257	324	29	4.3	11	12
16	86	35	26	24	26	43	377	288	24	4.1	10	11
17	84	35	26	23	26	41	489	256	24	4.1	10	11
18	84	36	25	24	26	39	587	238	22	4.8	10	10
19	85	36	26	25	26	38	557	214	18	5.1	9.8	10
20	87	35	26	25	26	37	415	183	17	4.1	9.8	9.4
21	84	35	26	24	26	37	341	204	15	4.1	12	9.4
22	80	34	25	23	27	43	367	266	13	4.1	13	9.4
23	77	32	26	25	27	34	459	178	11	4.1	15	8.7
24	72	32	27	27	27	34	617	136	9.2	3.7	7.4	8.0
25	67	33	26	27	28	39	671	122	7.8	3.2	5.2	8.0
26	65	32	25	27	29	40	641	118	7.3	3.0	25	8.0
27	62	31	26	27	29	47	702	133	6.7	98	18	8.7
28	57	31	26	26	29	43	758	123	6.4	26	16	8.9
29	56	31	26	26	---	43	755	111	6.7	21	15	8.5
30	54	31	25	26	---	38	720	107	11	22	14	5.2
31	52	---	25	26	---	47	---	97	---	18	14	---
TOTAL	2580	1284	816	783	742	1182	10515	10005	1085.1	321.7	510.6	289.3
MEAN	83.2	42.8	26.3	25.3	26.5	38.1	350	323	36.2	10.4	16.5	9.64
MAX	140	88	30	28	29	47	758	786	96	98	74	13
MIN	52	31	20	23	25	30	52	97	6.4	3.0	9.8	5.2
AC-FT	5120	2550	1620	1550	1470	2340	20860	19840	2150	638	1010	574

CAL YR 1986 TOTAL 35906.5 MEAN 98.4 MAX 641 MIN 2.1 AC-FT 71220
WTR YR 1987 TOTAL 30113.7 MEAN 82.5 MAX 786 MIN 3.0 AC-FT 59730

DRAINAGE AREA.--7,928 mi².

WATER-DISCHARGE RECORDS

REVISED RECORDS.--WSP 509: Drainage area at former site. WSP 2124: Drainage area.

REMARKS.--Estimated daily discharges: Oct. 23, 24. Records good. Records show flow that enters Colorado River from Gunnison River basin except for about 60 ft³/s diverted downstream from gage during irrigation season. Natural flow of river affected by diversions for irrigation of about 233,000 acres upstream from station, storage reservoirs, and return flow from irrigated lands.

AVERAGE DISCHARGE.--79 years (water years 1897-99, 1902-06, 1917-87), 2,630 ft³/s; 1,905,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,700 ft³/s, May 23, 1920, gage height, 14.95 ft, site and datum then in use, from rating curve extended above 22,000 ft³/s; minimum daily, 106 ft³/s, July 20, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 9,360 ft³/s at 1300 May 2, gage height, 8.06 ft; minimum daily, 1,480 ft³/s, Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3520	3950	3020	3190	2910	3200	2880	8590	3630	2730	2400	2100
2	3580	4560	2910	3250	2920	3220	2870	9120	3660	2670	2340	1960
3	3830	3550	2990	3200	2970	3240	2930	8580	3780	2600	2280	1950
4	4150	3390	3270	3210	3050	3260	2930	7450	3790	2510	2170	1980
5	3880	3290	3290	3300	3080	3290	3010	6350	3920	2460	2050	2030
6	3670	2990	3380	3290	3010	3330	3000	6120	4030	2420	2030	2080
7	3650	3150	3590	3170	3000	3450	3050	6210	4080	2280	2100	2120
8	3640	3250	3490	3260	3020	3650	3150	6450	4220	2240	2350	2150
9	3600	3100	3420	3180	3040	3750	3530	6220	4660	2220	2290	2160
10	3540	3130	3250	3080	3020	4030	3750	6180	4980	2130	2310	2100
11	4400	3110	3090	3050	3060	4030	3880	6210	4380	2040	2200	2130
12	5060	3090	3200	3090	3080	4020	4110	6280	4020	2070	2100	2110
13	4540	3000	3230	3020	3140	3990	4080	6540	3740	2130	2000	2070
14	4430	2970	3280	2950	3400	4060	3660	6400	3570	2100	2120	2140
15	4400	2970	3290	2920	3430	4020	3740	6660	3710	1980	2120	2200
16	4250	3070	3300	2950	3190	4020	4610	7030	3730	2000	2100	2180
17	4110	3060	3290	2910	3130	3970	5840	7720	3530	2030	2090	2110
18	4110	3040	3260	2890	3200	3890	6940	7890	3310	2280	1790	2070
19	4080	3500	3280	2900	3280	3900	7490	7700	3050	2310	1510	2060
20	4090	4340	3280	2910	3240	3670	7310	7130	2800	2280	1500	2000
21	3350	3660	3250	2820	3230	3520	6210	6630	2630	2230	1490	1970
22	2840	3490	3200	2860	3210	3560	5660	6610	2550	2180	1480	1980
23	2500	3380	3160	2940	3240	3540	6080	5790	2520	2090	1650	1950
24	2300	3200	3230	2950	3210	3470	7410	5400	2420	2030	2220	1940
25	2320	3190	3160	2930	3220	3450	8050	5270	2360	1880	2790	1940
26	2280	3250	3120	2930	3270	3350	8110	4930	2280	1770	2690	1950
27	2230	3160	3130	2900	3250	3230	8120	4700	2260	1820	2480	1940
28	2210	3080	3130	2950	3200	3260	8340	4250	2200	2000	2400	1910
29	2100	3070	3120	3030	---	3240	8430	3990	2310	1810	2360	1900
30	2300	3090	3180	2980	---	3210	8470	3870	2720	2070	2290	1910
31	2890	---	3200	2940	---	3170	---	3660	---	2270	2230	---
TOTAL	107850	99080	99990	93950	88000	110990	157640	195930	100840	67630	65930	61090
MEAN	3479	3303	3225	3031	3143	3580	5255	6320	3361	2182	2127	2036
MAX	5060	4560	3590	3300	3430	4060	8470	9120	4980	2730	2790	2200
MIN	2100	2970	2910	2820	2910	3170	2870	3660	2200	1770	1480	1900
AC-FT	213900	196500	198300	186300	174500	220100	312700	388600	200000	134100	130800	121200
CAL YR 1986	TOTAL 1499910		MEAN 4109	MAX 9830	MIN 1980	AC-FT 2975000						
WTR YR 1987	TOTAL 1248920		MEAN 3422	MAX 9120	MIN 1480	AC-FT 2477000						

GUNNISON RIVER BASIN

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1931 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1935 to September 1974, September 1975 to current year.
WATER TEMPERATURES: April 1949 to September 1974, September 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1975

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens several days during July and September 1974; minimum, 194 microsiemens June 6, 1979.
WATER TEMPERATURE: Maximum, 30.0°C Aug. 13, 1958; minimum, 0.0°C on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,290 microsiemens Aug. 24; minimum recorded, 341 microsiemens Apr. 28 (but may have been lower during period of missing record Apr.9-27).
WATER TEMPERATURES: Maximum, 23.5°C Aug. 4; minimum, 0.0°C several days in January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	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)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV												
20...	1305	4480	780	8.2	7.0	370	7.2	290	1200	300	69	30
FEB												
18...	1300	3290	640	8.2	3.5	6.4	--	K8	K28	250	60	24
APR												
29...	1000	8730	360	8.2	11.0	37	7.0	--	--	130	37	10
JUL												
16...	1430	1990	838	8.5	18.5	6.3	8.6	K71	K61	340	91	28
AUG												
11...	1330	2180	908	8.3	19.0	37	7.8	K140	250	380	100	31
SEP												
22...	1330	1960	1090	8.4	14.0	5.1	9.0	K14	K83	460	120	38

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IN-FLD (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)	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)
NOV												
20...	52	1	3.5	143	0	117	270	8.1	0.30	14	565	519
FEB												
18...	39	1	2.6	123	3	106	210	7.3	0.30	13	436	419
APR												
29...	15	0.6	2.1	102	0	81	78	3.0	0.20	11	209	207
JUL												
16...	47	1	3.4	139	9	129	280	6.8	0.90	14	569	550
AUG												
11...	49	1	3.3	155	8	141	320	7.2	0.40	15	640	614
SEP												
22...	60	1	3.7	174	6	153	410	8.0	0.50	13	767	745

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	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												
20...	0.77	6830	0.77	0.01	0.78	0.04	0.04	0.86	0.90	0.02	0.02	0.02
FEB												
18...	0.59	3870	--	<0.01	0.54	0.04	0.05	0.66	0.70	0.04	<0.01	0.01
APR												
29...	0.28	4930	0.27	0.01	0.28	0.07	0.01	2.0	2.1	0.23	0.02	0.01
JUL												
16...	0.77	3060	0.97	0.01	0.98	0.07	0.08	0.53	0.60	0.12	0.01	<0.01
AUG												
11...	0.87	3770	--	<0.01	1.10	0.03	0.02	0.57	0.60	0.09	0.02	<0.01
SEP												
22...	1.04	4060	--	<0.01	0.94	0.01	<0.01	0.49	0.50	0.03	<0.01	<0.01

K Based on non-ideal colony count

GUNNISON RIVER BASIN

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	ALUM- NUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)
NOV 20...	1305	480	1	68	<0.5	<1	<1	<3	9	580	6
JUL 16...	1430	20	2	53	<0.5	1	<1	<3	7	9	<5
AUG 11...	1330	20	2	51	<0.5	<1	<1	<3	2	6	<5
SEP 22...	1330	<10	1	50	<0.5	<1	<1	<3	6	5	<5

DATE	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 20...	43	30	<0.1	<10	5	5	<1.0	690	<6	12
JUL 16...	49	10	<0.1	<10	3	6	<1.0	920	<6	22
AUG 11...	43	8	<0.1	<10	4	8	<1.0	1000	<6	7
SEP 22...	55	11	0.2	<10	<1	7	<1.0	1300	<6	9

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 20...	1305	4480	929	11200	93
FEB 18...	1300	3290	46	409	74
APR 29...	1000	8730	911	21500	70
JUL 16...	1430	1990	62	333	90
AUG 11...	1330	2180	169	995	90
SEP 22...	1330	1960	53	280	65

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	647	747	664	555	586	474	594	436	667	864	871	1100
2	659	---	661	572	581	465	661	452	672	868	932	1120
3	657	---	661	577	574	466	691	467	674	867	934	1140
4	662	938	649	569	571	470	729	485	679	864	902	1150
5	672	946	614	564	574	484	669	507	685	861	881	1160
6	676	947	620	577	582	495	662	528	687	860	866	1160
7	683	944	699	589	585	496	696	545	688	859	878	1160
8	689	937	780	590	575	471	675	558	687	855	896	1150
9	694	930	723	576	565	461	---	572	682	852	901	1150
10	698	922	673	573	557	470	---	585	689	847	907	1140
11	712	911	630	568	553	499	---	594	722	843	916	1140
12	767	905	635	569	548	548	---	603	747	846	927	1130
13	781	896	631	586	546	575	---	611	767	846	934	1120
14	783	890	619	599	541	595	---	617	790	847	928	1120
15	780	884	611	605	592	609	---	625	803	847	921	1130
16	772	882	614	600	631	617	---	629	812	851	914	1130
17	766	880	616	597	639	624	---	631	815	870	903	1120
18	776	871	608	598	642	632	---	635	812	881	877	1110
19	787	866	616	599	605	637	---	634	812	891	880	1100
20	797	762	611	599	581	634	---	641	817	886	918	1090
21	830	654	606	599	555	632	---	641	825	880	950	1090
22	902	643	602	595	537	629	---	646	836	892	983	1080
23	959	670	588	594	528	614	---	651	844	911	1120	1060
24	940	660	592	594	526	587	---	652	846	892	1220	1060
25	947	654	598	599	512	575	---	653	840	871	1180	1060
26	943	669	577	596	511	561	---	656	840	863	1150	1060
27	943	680	571	587	508	578	---	658	843	848	1160	1050
28	938	667	576	583	494	649	355	657	841	838	1150	1040
29	941	661	571	582	---	609	381	656	838	811	1120	1030
30	956	663	556	581	---	590	413	660	854	822	1110	1030
31	824	---	542	587	---	576	---	665	---	831	1100	---
MEAN	793	---	623	586	564	559	---	598	770	860	978	1106

GUNNISON RIVER BASIN

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.1	11.8	9.1	8.1	5.4	4.4	2.2	1.3	3.2	2.1	4.1	2.7
2	13.4	12.6	8.1	7.1	5.0	4.0	2.7	1.9	3.9	2.4	4.6	3.0
3	12.7	11.6	9.2	7.8	5.2	4.1	2.3	1.6	4.1	2.9	5.4	3.5
4	12.6	11.0	9.1	7.7	5.6	4.5	2.0	1.3	4.5	3.3	5.6	4.2
5	12.7	11.6	8.9	7.6	5.7	5.0	3.3	2.0	4.0	2.7	6.0	4.2
6	12.9	11.6	8.5	7.7	6.0	5.3	3.5	3.0	4.0	2.9	6.6	4.9
7	13.6	12.1	8.8	7.1	6.0	5.7	3.4	2.9	4.1	2.8	6.7	5.2
8	14.0	12.8	6.9	5.7	6.0	5.2	2.9	2.4	4.5	3.1	6.6	5.6
9	13.7	12.6	6.3	4.3	5.6	3.2	2.3	1.4	4.6	3.4	5.8	5.5
10	13.0	11.5	5.7	4.0	3.0	2.0	1.9	1.2	4.0	3.4	6.8	5.2
11	11.5	9.5	5.9	5.0	2.2	1.5	1.7	.9	4.9	3.4	6.1	5.3
12	9.4	6.6	6.3	5.1	2.7	1.8	2.1	1.1	5.3	4.5	6.3	4.6
13	8.3	6.4	6.7	5.2	3.1	2.3	2.2	1.3	5.6	4.3	6.9	5.3
14	9.3	8.1	6.8	5.6	3.2	2.6	2.5	1.3	5.4	4.9	6.7	5.2
15	10.1	8.6	6.8	5.7	3.4	2.5	1.8	1.1	4.8	3.5	6.2	5.4
16	10.9	9.5	6.9	5.7	4.2	3.2	.9	.4	4.4	3.5	5.6	4.3
17	11.0	10.0	7.8	6.4	3.8	2.9	.4	.0	4.3	3.1	5.5	4.3
18	11.3	10.5	7.9	7.4	3.8	2.9	.0	.0	4.4	3.2	6.4	4.6
19	11.3	10.7	8.1	7.4	4.1	3.2	.4	.0	3.7	2.7	7.4	5.8
20	10.7	9.9	8.2	6.2	4.4	3.8	.9	.0	4.0	2.3	6.7	4.6
21	10.6	9.6	6.9	6.2	4.0	3.4	.6	.0	4.1	2.9	5.3	4.3
22	11.4	9.1	7.1	6.3	3.7	3.0	.0	.0	3.9	2.7	5.7	4.6
23	11.1	10.0	6.2	5.1	3.0	2.4	.4	.0	4.0	3.2	5.6	4.0
24	10.9	9.1	5.7	4.8	3.4	2.2	2.0	.3	3.2	2.6	5.8	4.5
25	10.9	8.9	5.4	4.7	3.2	2.5	2.7	1.6	3.5	2.4	5.6	3.8
26	10.9	8.9	6.7	5.1	2.6	2.0	2.9	1.6	3.3	2.4	6.4	4.4
27	10.4	8.8	6.9	5.5	2.4	1.9	3.2	2.1	3.2	2.1	5.6	4.9
28	10.7	8.8	6.5	5.5	2.4	1.7	3.7	2.5	4.0	1.8	5.1	3.7
29	10.1	8.6	5.9	5.2	2.6	1.9	3.2	2.2	---	---	5.3	3.9
30	10.2	8.2	5.8	4.7	2.4	1.7	2.3	1.8	---	---	5.0	3.2
31	9.9	9.1	---	---	2.0	1.5	3.0	2.0	---	---	6.7	4.1
MONTH	14.0	6.4	9.2	4.0	6.0	1.5	3.7	.0	5.6	1.8	7.4	2.7
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.3	5.6	10.9	10.4	17.0	14.9	20.7	17.7	20.2	17.1	20.9	17.3
2	8.9	6.6	---	---	16.7	14.5	20.8	17.8	22.1	18.7	21.0	17.6
3	9.1	7.0	---	---	16.8	14.4	20.1	17.4	23.2	19.7	20.4	18.0
4	8.5	7.3	---	---	17.2	14.7	19.7	17.0	23.3	19.5	20.0	17.8
5	8.5	7.1	12.3	10.4	17.5	15.7	19.5	16.5	22.2	19.1	18.8	17.1
6	10.4	7.6	12.7	11.5	17.7	15.5	19.5	16.2	22.5	19.1	18.6	15.9
7	10.5	8.3	13.0	12.1	17.3	16.2	19.8	16.6	22.0	19.2	18.4	15.8
8	10.5	8.1	13.1	12.1	16.5	15.8	19.9	16.8	22.7	19.5	18.0	15.6
9	10.5	8.8	13.6	12.2	16.1	15.1	20.2	16.7	22.0	19.1	18.8	15.5
10	9.6	8.4	13.9	12.5	16.8	14.7	18.8	16.5	21.4	18.4	19.2	15.7
11	8.5	7.2	13.6	12.1	18.2	15.7	18.5	16.1	21.7	19.0	19.0	15.6
12	7.1	6.4	13.2	12.7	19.1	16.7	19.8	16.5	21.7	18.2	18.4	15.5
13	6.9	5.2	13.7	12.2	19.5	17.4	20.7	17.0	20.0	18.1	17.0	15.4
14	8.9	6.2	14.1	12.9	19.9	17.6	20.8	17.0	19.4	16.6	16.7	13.9
15	10.4	7.9	14.4	12.9	19.1	17.4	21.4	17.2	19.9	16.7	16.5	14.1
16	10.9	9.4	14.0	13.1	18.8	16.8	20.4	17.8	20.0	16.4	17.0	13.9
17	10.5	9.6	13.4	12.7	18.7	16.8	18.8	16.9	20.1	16.4	17.3	15.0
18	9.8	8.7	13.4	12.4	18.6	16.6	18.1	15.4	20.5	16.3	17.5	14.5
19	9.2	8.4	12.5	11.9	18.9	16.5	19.6	16.3	20.3	16.6	17.2	13.9
20	8.4	6.4	12.8	12.0	19.3	16.9	18.2	16.5	19.3	17.6	17.1	13.8
21	7.6	5.9	12.6	11.8	19.9	16.8	19.0	15.8	19.3	17.2	17.2	13.9
22	9.6	7.3	12.7	11.1	20.4	17.1	21.2	17.6	20.4	18.8	17.0	13.9
23	10.4	9.0	14.2	12.8	20.3	17.2	21.6	17.7	19.5	18.5	17.3	13.7
24	10.3	9.5	13.0	11.5	20.3	17.2	21.0	17.5	19.0	17.2	17.1	14.1
25	10.4	9.8	11.7	11.1	21.0	17.5	21.2	17.9	17.5	16.3	17.3	14.7
26	10.4	10.0	11.8	10.5	20.6	17.7	22.9	19.0	18.7	15.7	17.2	14.4
27	10.8	9.9	11.4	11.0	21.5	17.8	22.8	19.7	19.5	16.4	18.3	15.4
28	10.5	10.1	12.6	10.9	20.1	18.0	21.9	19.8	19.3	16.5	17.2	14.6
29	11.6	10.7	12.2	11.6	17.8	16.6	21.3	19.6	19.6	16.2	15.8	12.8
30	11.5	10.3	14.1	11.7	19.4	16.9	21.5	19.2	20.2	16.8	15.2	12.1
31	---	---	16.4	13.5	---	---	20.2	18.5	20.5	17.0	---	---
MONTH	11.6	5.2	---	---	21.5	14.4	22.9	15.4	23.3	15.7	21.0	12.1

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

LOCATION.--Lat 39°12'41", long 108°48'11", in SE¼SW¼ sec.27, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 250 ft upstream from unnamed tributary, 0.4 mi downstream from Peck and Beede Wash, and 3.5 mi east of Mack.

PERIOD OF RECORD.--October 1975 to current year.

REMARKS.--Records good. Flow is mostly return flow and waste water from irrigated lands under Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 390 ft³/s, July 23, 1983, gage height, unknown, maximum recorded gage height, 6.09 ft, July 24, 1979; minimum daily discharge, 2.0 ft³/s, Jan. 31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 137 ft³/s at 1500 Dec. 12, gage height, 4.57 ft; minimum daily, 2.8 ft³/s, April 5-7.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	81	78	7.8	5.4	4.1	3.2	3.0	78	67	57	83	80
2	77	75	7.7	5.4	3.9	3.2	3.0	77	62	53	80	81
3	87	69	7.7	5.3	3.8	3.2	2.9	77	54	57	87	77
4	87	24	7.7	5.3	3.8	3.2	2.9	72	55	56	90	81
5	85	18	7.7	5.3	3.7	3.1	2.8	64	56	57	84	77
6	84	16	7.7	5.0	3.6	3.1	2.8	52	61	48	78	81
7	79	12	7.6	5.0	3.6	3.0	2.8	48	63	43	74	83
8	77	9.8	7.5	5.0	3.6	3.0	23	53	69	44	64	77
9	74	9.8	39	4.9	3.6	3.1	70	52	67	49	61	76
10	77	9.4	74	4.8	3.6	3.1	69	52	71	56	68	74
11	83	9.0	67	4.7	3.6	3.1	73	56	64	66	61	75
12	84	8.9	67	4.7	3.6	3.1	77	49	58	80	62	80
13	72	8.7	7.5	4.5	3.6	3.2	79	50	43	65	70	84
14	75	8.5	6.4	4.6	3.8	3.2	92	51	44	71	70	98
15	81	8.7	6.2	4.7	3.5	3.2	91	55	46	79	75	102
16	81	8.7	6.2	4.7	3.4	3.2	96	50	56	90	81	92
17	83	8.7	6.2	5.2	3.4	3.2	98	44	56	96	78	88
18	84	8.7	6.1	5.6	3.4	3.3	91	44	63	75	62	84
19	84	8.7	6.0	4.7	3.4	3.2	93	58	59	83	62	80
20	82	8.7	6.0	4.5	3.4	3.3	94	73	62	91	74	77
21	75	8.8	6.0	5.2	3.3	3.3	99	83	71	93	83	78
22	66	8.6	5.9	5.2	3.3	3.4	88	73	65	88	84	79
23	66	8.2	5.9	4.5	3.3	3.3	80	67	63	81	83	77
24	68	8.4	5.7	4.5	3.3	3.3	78	71	55	77	91	74
25	70	8.5	5.4	4.4	3.2	3.3	72	74	57	77	82	72
26	72	8.4	5.4	4.4	3.1	3.2	70	78	60	74	83	74
27	71	8.2	5.4	3.7	3.1	3.2	62	70	62	77	80	75
28	65	8.2	5.4	3.9	3.1	3.1	59	65	66	74	84	78
29	67	8.2	5.4	4.1	---	3.1	66	73	67	84	81	85
30	70	8.1	5.4	4.1	---	3.1	73	67	63	85	78	81
31	78	---	5.4	4.1	---	3.0	---	68	---	89	75	---
TOTAL	2385	491.9	420.3	147.4	98.1	98.5	1813.2	1944	1805	2215	2368	2420
MEAN	76.9	16.4	13.6	4.75	3.50	3.18	60.4	62.7	60.2	71.5	76.4	80.7
MAX	87	78	74	5.6	4.1	3.4	99	83	71	96	91	102
MIN	65	8.1	5.4	3.7	3.1	3.0	2.8	44	43	43	61	72
AC-FT	4730	976	834	292	195	195	3600	3860	3580	4390	4700	4800
CAL YR 1986	TOTAL	18161.5	MEAN	49.8	MAX	109	MIN	2.6	AC-FT	36020		
WTR YR 1987	TOTAL	16206.4	MEAN	44.4	MAX	102	MIN	2.8	AC-FT	32150		

LOCATION.--Lat 39°07'45", long 109°01'36", in SE¼NW¼ sec.5, T.11 S., R.104 W., Mesa County, Hydrologic Unit 14010005, on right bank 0.7 mi downstream from McDonald Creek, 12 mi southwest of Mack, Colo., and 1.5 mi upstream from Colorado-Utah State line.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22,500 ft³/s at 0700 May 18, gage height, 7.58 ft; minimum daily, 3,200 ft³/s, Aug. 22.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8000	7250	6210	5410	5180	5460	5310	17500	9500	7170	5040	4090
2	7920	9320	5890	5550	5160	5450	5240	18800	10400	6950	4920	3800
3	8340	7930	5890	5490	5200	5480	5340	18400	11600	6780	4760	3700
4	8870	7520	6020	5330	5320	5520	5390	16000	12000	6380	4610	3700
5	8550	7270	6080	5590	5480	5630	5580	13700	12600	6280	4310	3700
6	8190	6900	6150	5690	5250	5700	5520	12500	13100	6120	3960	3800
7	7980	6930	6470	5570	5190	5980	5230	12300	13400	5830	4150	3880
8	7970	7120	6370	5490	5210	6300	5590	13000	14200	5490	4380	3860
9	7930	6850	6240	5270	5260	6750	6040	13700	16000	5280	4550	3840
10	7750	6750	6320	5230	5290	7200	6540	14200	17700	5050	4560	3840
11	8140	6780	5830	5060	5360	7070	6670	14700	16000	4820	4350	3760
12	9590	6630	5440	5040	5610	6800	6970	15000	14600	4940	4090	3720
13	9240	6600	5840	5150	5640	6690	7180	16100	13600	4970	3960	3680
14	8610	6550	5860	5110	6260	6970	6550	16300	13000	4990	3910	3700
15	8530	6480	5970	4980	6670	6800	6240	17100	12900	4840	3870	3930
16	8380	6590	6040	4790	5830	6920	6820	19100	13000	4610	3900	4040
17	8240	6570	6140	4590	5580	6880	8360	21000	12500	4650	3860	4070
18	8130	6580	5990	4560	5530	6610	10400	22000	11600	4740	3750	4100
19	8110	6560	5890	4460	5650	6430	12200	21500	10500	4770	3340	4110
20	8020	8300	5990	4930	5570	6660	12700	20000	9740	4570	3250	4070
21	7650	7580	5990	5430	5510	6400	11800	18400	8990	4520	3220	4060
22	7210	7120	5940	4470	5460	6300	10100	17400	8460	4480	3200	4020
23	6530	7040	5750	4450	5470	6250	9710	15400	8060	4130	3370	3970
24	6430	6680	5650	4700	5550	5990	11300	14500	7830	3980	4070	3870
25	6330	6320	5700	4910	5530	5830	13300	14000	7470	3970	5240	3900
26	6280	6400	5620	5000	5510	5760	14400	13200	7050	3800	5380	3920
27	6210	6420	5390	5020	5670	5630	15000	12600	6720	3750	5080	3870
28	6110	6290	5390	5240	5540	5600	15900	11700	6510	3960	4780	3880
29	6000	6180	5520	5410	---	5500	16600	10800	6500	4270	4500	3920
30	5960	6230	5610	5430	---	5470	16900	10400	6750	4740	4350	3960
31	6620	---	5530	5260	---	5350	---	9830	---	4890	4250	---
TOTAL	237820	207740	182720	158610	154480	191380	274880	481130	332280	155720	130960	116760
MEAN	7672	6925	5894	5116	5517	6174	9163	15520	11080	5023	4225	3892
MAX	9590	9320	6470									

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued
(National stream-quality accounting network station)

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1979 to current year.

WATER TEMPERATURE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--Water-quality data collection was moved 5.5 miles upstream to this site from previous site 09163530. Water-quality records for this site are considered to be equivalent to data obtained at old site. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,940 microsiemens Aug. 13, 1981; minimum, 277 microsiemens June 11, 1985.

WATER TEMPERATURE: Maximum, 27.0°C Aug. 7-9, 1981; minimum, 0.0°C on many days during winter months

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,500 microsiemens Aug. 25; minimum, 380 microsiemens Apr. 29, May 2-3.

WATER TEMPERATURE: Maximum, 26.5°C Aug. 8; minimum, 0.0°C Dec. 29, 30.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	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)
OCT 29...	1230	6120	1100	8.4	9.0	9.8	9.6	K24	86	350
DEC 16...	1300	6100	955	8.3	2.0	2.1	11.5	K2	36	290
FEB 25...	1300	5650	870	8.1	2.5	30	--	K10	33	270
APR 21...	1300	12000	561	8.0	8.0	280	9.6	K200	500	180
JUN 23...	1300	8370	713	8.2	19.0	8.3	7.1	63	K240	260
AUG 25...	1200	5250	1350	8.1	18.0	410	7.3	590	K1100	530
SEP 29...	1100	3960	1320	8.2	15.0	--	--	--	--	460

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)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IN-FLD (MG/L CACO3)	ALKA- LINITY LAB (MG/L AS CACO3)
OCT 29...	88	32	85	2	3.2	176	2	142	155
DEC 16...	75	26	79	2	2.9	161	7	141	142
FEB 25...	67	25	76	2	3.2	162	0	129	133
APR 21...	48	15	39	1	2.6	142	0	112	116
JUN 23...	72	20	50	1	2.5	152	0	122	121
AUG 25...	140	43	110	2	5.2	207	0	166	175
SEP 29...	120	40	110	2	4.2	--	--	--	143

K Based on non-ideal colony count

COLORADO RIVER MAIN STEM

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)
OCT 29...	280	74	0.30	9.5	680	664	0.92	11200	--
DEC 16...	200	68	0.30	12	590	558	0.80	9720	--
FEB 25...	210	71	0.30	10	546	543	0.74	8330	--
APR 21...	120	31	0.20	11	354	337	0.48	11500	0.35
JUN 23...	200	45	0.30	9.4	477	475	0.65	10800	0.48
AUG 25...	420	88	0.40	14	962	925	1.31	13600	1.18
SEP 29...	400	71	0.40	9.9	--	841	1.14	8990	--

DATE	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...	<0.01	0.53	0.01	0.01	0.49	0.50	0.02	0.02	<0.01
DEC 16...	<0.01	0.58	0.02	0.02	0.28	0.30	0.02	0.01	<0.01
FEB 25...	<0.01	0.43	0.05	0.04	0.85	0.90	0.02	0.01	0.01
APR 21...	0.01	0.36	0.13	0.08	0.57	0.70	0.29	0.04	<0.01
JUN 23...	0.01	0.49	0.03	0.06	0.47	0.50	0.03	0.05	0.01
AUG 25...	0.02	1.20	0.08	0.09	1.1	1.2	0.88	0.36	<0.01
SEP 29...	--	0.76	--	--	--	--	--	--	--

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 29...	1230	20	<1	58	<0.5	<1	<1	<3	3	15	<5
FEB 25...	1300	<10	<1	56	<0.5	1	<1	<3	<1	8	<5
JUN 23...	1300	50	<1	53	0.9	<1	<1	<3	10	24	6
AUG 25...	1200	60	1	83	<0.5	<1	<1	<3	10	200	<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 29...	41	9	<0.1	<10	2	4	<1.0	940	<6	13
FEB 25...	33	17	<0.1	10	<1	4	<1.0	670	<6	26
JUN 23...	32	5	0.1	<10	<1	4	<1.0	660	<6	7
AUG 25...	57	11	0.3	10	4	10	<1.0	1400	<6	15

COLORADO RIVER MAIN STEM

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 29...	1230	6120	50	826	69
DEC 16...	1300	6100	44	725	65
FEB 25...	1300	5650	33	503	64
APR 21...	1300	12000	1020	33000	70
JUN 23...	1300	8370	100	2260	74
AUG 25...	1200	5250	1840	26100	86

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	930	1000	944	899	884	864	893	399	713	885	1050	1220
2	938	1000	948	904	889	861	941	393	684	879	1070	1240
3	945	1170	943	900	887	862	963	398	632	874	1080	1260
4	910	1030	944	904	892	872	952	424	589	875	1090	1270
5	910	1000	926	902	883	878	942	459	569	895	1090	1270
6	910	989	914	900	913	883	962	491	549	904	1100	1270
7	919	1010	919	897	905	887	956	508	539	920	1120	1260
8	920	1010	954	887	888	882	969	503	533	939	1120	1250
9	899	991	1010	861	886	858	963	483	509	942	1100	1270
10	910	989	970	866	890	849	910	474	513	949	1100	1310
11	902	981	945	877	891	837	867	484	509	974	1090	1320
12	883	987	918	876	885	836	845	493	526	1000	1100	1320
13	947	970	949	898	894	833	833	482	545	1000	1130	1320
14	931	989	964	929	891	827	897	478	556	1020	1150	1320
15	936	977	946	921	879	816	903	463	566	1020	1170	1330
16	921	957	937	876	970	811	878	439	569	1010	1170	1330
17	915	950	928	782	933	816	807	416	567	1020	1170	1300
18	915	943	923	724	925	853	736	405	576	1030	1160	1260
19	911	942	918	704	906	849	663	409	599	1040	1190	1260
20	905	957	919	720	875	843	598	436	629	1060	1240	1240
21	909	943	921	767	871	857	551	462	661	1050	1330	1240
22	973	900	915	761	863	874	558	487	691	1090	1350	1240
23	1030	906	911	735	865	864	573	522	718	1070	1380	1290
24	1080	929	913	791	864	876	554	545	735	1080	1370	1310
25	1080	922	921	887	875	861	506	563	736	1070	1320	1320
26	1080	926	936	899	864	852	466	580	762	1070	1260	1320
27	1080	933	914	867	877	857	444	600	784	1100	1210	1320
28	1090	946	915	855	872	879	404	623	810	1150	1200	1320
29	1100	938	928	867	---	918	396	650	840	1110	1190	1320
30	1100	944	930	883	---	895	400	675	874	1090	1200	1300
31	1090	---	903	891	---	896	---	700	---	1070	1210	---
MEAN	967	971	933	853	890	860	744	498	636	1006	1178	1287

COLORADO RIVER MAIN STEM

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.9	11.3	8.8	8.6	4.5	3.7	---	---	2.7	1.8	4.5	2.1
2	12.9	12.3	8.8	8.0	4.2	3.2	1.1	.4	3.0	1.9	4.8	3.4
3	12.6	12.0	8.4	7.1	3.7	2.9	.8	.1	3.5	2.6	5.8	4.1
4	12.6	11.2	8.4	7.3	4.0	3.3	---	---	4.5	3.2	6.5	5.1
5	12.8	11.4	8.6	7.5	4.3	3.8	1.5	.2	4.3	3.2	7.9	5.6
6	13.0	11.8	8.5	7.6	4.7	4.3	1.8	1.4	4.1	3.0	9.3	6.6
7	13.5	12.3	7.6	6.5	5.2	4.6	1.7	1.3	4.3	3.2	9.1	7.2
8	13.9	12.6	6.6	5.2	5.0	4.3	1.9	1.3	4.4	3.3	8.0	7.6
9	14.2	12.9	5.1	4.1	5.0	3.6	1.4	.4	4.7	3.8	8.2	7.3
10	14.0	12.7	4.8	3.8	3.5	1.4	---	---	4.4	3.9	8.0	6.5
11	13.5	10.7	4.9	3.6	1.3	.5	---	---	5.3	4.3	8.1	6.8
12	10.5	8.2	5.6	4.3	.8	.1	---	---	5.1	4.2	8.1	6.5
13	8.1	6.8	6.0	4.8	.9	.2	---	---	5.9	5.2	8.2	6.7
14	8.9	6.9	6.0	5.0	1.2	.7	---	---	6.0	5.4	8.2	6.7
15	9.5	7.8	6.1	5.4	1.4	.9	---	---	5.3	4.3	8.2	6.7
16	10.2	8.5	6.3	5.5	2.0	1.0	---	---	4.8	4.3	6.9	5.5
17	10.4	9.1	7.3	5.7	1.7	1.1	---	---	4.8	3.7	7.0	5.5
18	11.1	10.2	7.9	7.0	1.7	1.0	---	---	4.6	3.5	7.8	5.8
19	11.0	10.4	9.0	7.9	2.5	1.7	---	---	4.1	3.2	7.5	6.7
20	10.7	9.7	8.7	7.6	2.6	2.0	---	---	3.9	3.3	7.7	6.5
21	10.3	9.5	8.2	6.9	2.5	1.9	---	---	3.7	2.3	6.9	5.1
22	10.5	9.2	8.0	7.4	2.3	1.5	---	---	3.8	2.4	7.5	5.3
23	10.9	10.1	7.5	6.2	1.8	1.1	---	---	4.2	2.5	8.1	6.3
24	10.4	9.3	6.4	5.3	1.4	.9	---	---	3.8	2.6	7.9	6.8
25	10.3	9.1	5.8	4.9	1.0	.4	---	---	3.6	2.4	7.6	6.5
26	10.3	9.1	6.2	5.5	.9	.1	---	---	2.8	2.1	7.3	5.7
27	10.0	8.9	5.8	5.0	.7	.1	---	---	3.2	2.2	6.8	5.1
28	9.8	8.6	6.1	5.2	.9	.2	---	---	3.5	2.3	6.3	4.2
29	10.3	8.9	6.0	5.0	.6	.0	2.2	1.7	---	---	5.7	4.5
30	10.2	9.0	5.1	4.6	.5	.0	1.9	1.5	---	---	5.4	3.2
31	10.2	8.9	---	---	---	---	2.6	1.4	---	---	6.6	4.4
MONTH	14.2	6.8	9.0	3.6	---	---	---	---	6.0	1.8	9.3	2.1
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.2	5.9	15.0	13.2	17.8	15.6	20.4	18.5	21.8	19.0	23.3	19.9
2	9.3	7.3	13.9	12.5	17.9	15.8	20.5	18.8	22.8	20.4	22.7	20.7
3	9.6	7.6	12.2	10.7	18.3	15.9	20.2	18.3	23.7	21.2	22.7	20.9
4	10.1	9.4	13.1	10.3	18.3	15.8	19.5	17.8	22.8	21.0	21.9	20.1
5	11.0	9.3	15.0	11.6	18.5	16.3	---	---	22.0	19.8	21.3	19.4
6	12.0	9.6	16.2	13.3	18.8	16.8	---	---	24.0	19.5	20.5	18.9
7	12.7	10.7	17.1	14.4	18.1	16.8	---	---	25.8	22.2	20.2	18.6
8	13.3	11.4	17.3	14.8	17.8	16.6	---	---	26.4	23.4	19.9	17.8
9	13.3	11.8	17.5	14.9	17.4	16.3	---	---	25.3	23.6	19.1	17.8
10	12.4	11.4	17.6	15.2	17.4	15.4	---	---	26.1	23.3	19.8	17.0
11	12.0	10.7	17.4	15.2	18.0	15.8	---	---	25.5	23.8	20.1	17.7
12	10.6	9.5	17.2	15.3	19.1	16.6	---	---	25.7	23.2	19.5	17.6
13	10.1	8.2	17.2	14.9	19.9	17.5	---	---	24.7	23.2	18.6	16.6
14	10.7	8.6	17.4	15.0	22.1	18.0	---	---	23.2	21.6	16.9	15.0
15	12.3	10.2	17.0	15.4	20.6	18.8	---	---	22.2	20.4	17.4	15.0
16	13.8	11.7	16.7	15.8	20.7	18.4	---	---	22.4	20.1	18.1	16.4
17	14.2	12.4	16.1	15.2	20.6	18.3	---	---	22.4	20.2	19.8	16.3
18	14.2	12.2	15.3	14.2	20.5	18.0	---	---	23.1	20.2	19.9	16.2
19	13.1	10.8	15.8	13.9	20.2	18.0	---	---	23.1	20.7	19.6	15.6
20	11.2	9.6	14.9	13.7	20.8	18.3	---	---	22.0	20.7	18.4	15.8
21	11.5	7.5	14.7	13.8	20.9	18.6	---	---	23.3	20.4	18.1	15.8
22	11.9	9.0	15.2	13.0	21.2	19.4	---	---	23.5	21.5	18.6	15.6
23	13.9	11.1	15.6	13.9	21.1	19.5	---	---	22.2	21.1	19.3	15.5
24	14.8	12.3	15.4	13.9	21.3	19.4	---	---	21.0	19.5	19.0	15.7
25	14.9	12.4	14.5	13.2	21.5	19.5	---	---	19.7	18.2	19.9	16.3
26	15.4	12.5	13.7	12.3	21.1	19.6	---	---	19.6	17.2	21.2	16.9
27	15.4	12.9	13.4	11.7	21.0	19.4	---	---	20.2	18.2	20.6	17.6
28	15.3	12.9	13.6	11.7	20.9	19.3	---	---	20.2	18.5	19.9	16.8
29	15.6	12.9	14.6	12.3	19.0	17.8	---	---	21.1	18.4	18.7	15.4
30	15.5	13.9	15.5	12.5	19.6	17.6	---	---	21.4	19.0	17.4	14.4
31	---	---	16.9	14.0	---	---	---	---	23.5	19.3	---	---
MONTH	15.6	5.9	17.6	10.3	22.1	15.4	---	---	26.4	17.2	23.3	14.4

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

LITTLE DOLORES RIVER BASIN

09163570 HAY PRESS CREEK ABOVE FRUITA RESERVOIR NO. 3, NEAR GLADE PARK, CO

LOCATION.--Lat 38°51'03", long 108°46'56", in NE¼SW¼ sec.10, T.14 S., R.102 W., Mesa County, Hydrologic Unit 14030001, on right bank, 10 mi southwest of Glade Park Post Office

DRAINAGE AREA.--0.77 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,885 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1, 1983 to August 23, 1983, water-stage recorder at site 100 ft upstream, at datum 5 ft, higher.

REMARKS.--Estimated daily discharges: Oct. 13 to May 8, and Aug. 28 to Sept. 2. Records fair except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26 ft³/s, May 14, 1984, gage height, 1.20 ft, from rating curve extended above 9.7 ft³/s; minimum daily, 0.02 ft³/s, Sept. 20, 21, 1986, July 20-30, Aug. 4-6, 11, 12, 16-19, Sept. 7-10, and Sept. 22-30, 1987.

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)
May 1	1400	a8.0	unknown	May 31	2000	*12.0	*1.08
May 15	0100	9.6	0.99				

Minimum daily discharge, 0.02 ft³/s, many days.
a observed

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.16	.06	.05	.07	.06	.10	9.5	3.2	.20	.05	.05
2	.15	.11	.06	.05	.07	.06	.11	9.0	3.2	.18	.03	.05
3	.16	.09	.06	.05	.07	.06	.12	8.0	3.0	.17	.03	.05
4	.13	.08	.06	.05	.07	.06	.13	5.5	2.6	.17	.02	.03
5	.13	.08	.06	.05	.07	.06	.14	4.2	2.4	.17	.02	.03
6	.10	.07	.06	.05	.08	.07	.15	4.0	2.2	.15	.02	.03
7	.15	.07	.06	.05	.08	.08	.17	3.8	1.9	.26	.10	.02
8	.17	.07	.06	.05	.08	.08	.19	3.6	1.9	.18	.06	.02
9	.16	.07	.05	.05	.09	.09	.21	4.1	1.9	.08	.04	.02
10	.18	.07	.05	.05	.09	.09	.24	4.5	1.5	.08	.03	.02
11	.29	.07	.05	.05	.09	.09	.30	5.1	1.5	.10	.02	.03
12	.20	.07	.05	.05	.09	.09	.33	7.3	1.1	.10	.02	.05
13	.18	.07	.05	.05	.10	.09	.36	9.3	1.0	.10	.03	.05
14	.16	.07	.05	.05	.10	.09	.48	9.4	.92	.10	.03	.06
15	.16	.07	.05	.05	.10	.09	.60	9.6	.74	.10	.03	.05
16	.15	.07	.05	.05	.09	.09	.70	9.4	.74	.10	.02	.05
17	.15	.07	.05	.05	.09	.09	.84	8.9	.48	.13	.02	.05
18	.14	.07	.05	.06	.08	.09	1.0	8.3	.56	.08	.02	.05
19	.13	.07	.05	.06	.08	.09	2.0	8.6	.56	.03	.02	.05
20	.13	.07	.05	.06	.07	.09	1.6	6.9	.74	.02	.03	.05
21	.13	.07	.05	.06	.07	.09	1.1	7.5	.56	.02	.05	.03
22	.12	.07	.05	.06	.07	.09	1.2	6.9	.38	.02	.03	.02
23	.12	.06	.05	.07	.07	.09	1.5	6.1	.29	.02	.08	.02
24	.12	.06	.05	.07	.06	.08	2.0	5.9	.20	.02	.26	.02
25	.12	.06	.05	.07	.06	.08	2.5	4.7	.20	.02	.46	.02
26	.11	.06	.05	.07	.06	.08	3.4	4.7	.29	.02	.21	.02
27	.11	.06	.05	.07	.06	.08	3.9	4.4	.29	.02	.17	.02
28	.11	.06	.05	.07	.06	.08	4.5	4.4	.20	.02	.06	.02
29	.11	.06	.05	.07	---	.08	6.0	4.2	.20	.02	.06	.02
30	.11	.06	.05	.07	---	.08	8.0	3.9	.20	.02	.06	.02
31	.14	---	.05	.07	---	.09	---	4.2	---	.08	.05	---
TOTAL	4.45	2.19	1.63	1.78	2.17	2.53	43.87	195.9	34.95	2.78	2.13	1.02
MEAN	.14	.07	.05	.06	.08	.08	1.46	6.32	1.16	.09	.07	.03
MAX	.29	.16	.06	.07	.10	.09	8.0	9.6	3.2	.26	.46	.06
MIN	.10	.06	.05	.05	.06	.06	.10	3.6	.20	.02	.02	.02
AC-FT	8.8	4.3	3.2	3.5	4.3	5.0	87	389	69	5.5	4.2	2.0

CAL YR 1986 TOTAL 315.33 MEAN .86 MAX 8.0 MIN .02 AC-FT 625
WTR YR 1987 TOTAL 295.40 MEAN .81 MAX 9.6 MIN .02 AC-FT 586

DOLORES RIVER BASIN

09165000 DOLORES RIVER BELOW RICO, CO

LOCATION.--Lat 37°38'20", long 108°03'35", Dolores County, Hydrologic Unit 14030002, on left bank at upstream side of Montelores bridge northwest of State Highway 145 (relocated), at Dolores-Montezuma County line, 0.5-mi upstream from Ryman Creek, and 4.0 mi southwest of Rico.

DRAINAGE AREA.--105 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 8,422.23 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 26, 28, 29, Dec. 2-5, Dec. 11 to Feb. 8, 10, Feb. 15 to Mar. 7, 11, 17, 18, Mar. 23 to Apr. 3, 6-8, July 14 to Aug. 25, and Sept. 7-25, 29, 30. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--36 years, 140 ft³/s; 101,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,170 ft³/s, May 24, 1984, gage height, 5.95 ft; from rating curve extended above 1,620 ft³/s, maximum gage height, 6.15 ft, June 10, 1952; minimum daily discharge, 7.0 ft³/s, Nov. 16-17, 1956, Feb. 6-7, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1885 occurred Oct. 5, 1911.

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 17	2300	1,020	4.97	June 9	2100	*1,150	*5.18

Minimum daily discharge, 22 ft³/s, Feb. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	75	55	28	26	26	34	452	422	413	140	84
2	100	75	55	30	26	26	40	468	569	375	140	84
3	100	75	55	28	26	28	46	361	731	356	120	78
4	95	80	55	28	26	28	58	327	793	330	110	77
5	95	75	50	30	26	30	51	336	794	303	100	73
6	95	75	55	30	26	32	42	359	953	284	110	67
7	90	75	54	30	26	38	42	434	985	269	150	65
8	90	70	52	30	26	45	42	530	915	245	130	60
9	85	60	51	28	27	41	48	559	1050	228	110	60
10	90	60	41	26	26	40	54	564	1010	223	100	60
11	100	60	36	28	27	36	64	591	934	210	90	55
12	100	65	38	28	28	39	62	604	891	200	85	55
13	95	65	38	30	27	41	56	600	890	188	75	55
14	95	65	38	28	29	45	59	672	979	190	70	55
15	95	65	38	28	28	44	85	768	953	180	70	55
16	95	60	38	26	26	41	136	832	956	180	65	55
17	95	60	36	26	26	40	191	794	821	200	60	50
18	90	65	36	26	24	40	227	843	783	190	55	50
19	90	70	36	26	24	41	233	777	747	170	55	48
20	90	70	34	26	26	40	218	664	675	140	55	48
21	90	65	34	26	24	39	200	609	617	130	55	46
22	90	70	32	26	24	38	244	549	600	150	60	46
23	85	65	32	26	24	36	310	536	604	150	120	44
24	80	60	32	26	26	32	317	485	600	140	220	44
25	75	60	32	26	24	32	315	441	588	150	260	44
26	75	60	30	26	24	32	329	409	564	150	230	44
27	70	60	28	26	24	32	376	366	517	160	169	39
28	70	55	30	26	22	30	415	336	481	180	140	38
29	65	55	28	26	---	30	428	309	539	160	121	36
30	65	61	28	26	---	28	432	287	462	150	103	34
31	65	---	28	26	---	30	---	308	---	150	92	---
TOTAL	2715	1976	1225	846	718	1100	5154	16170	22423	6544	3460	1649
MEAN	87.6	65.9	39.5	27.3	25.6	35.5	172	522	747	211	112	55.0
MAX	100	80	55	30	29	45	432	843	1050	413	260	84
MIN	65	55	28	26	22	26	34	287	422	130	55	34
AC-FT	5390	3920	2430	1680	1420	2180	10220	32070	44480	12980	6860	3270
CAL YR 1986	TOTAL 68841	MEAN 189	MAX 1310	MIN 26	AC-FT 136500							
WTR YR 1987	TOTAL 63980	MEAN 175	MAX 1050	MIN 22	AC-FT 126900							

LOCATION.--Lat 37°28'21", long 108°29'49", in SW¼SW¼ sec.10, T.37 N., R.15 W., Montezuma County, Hydrologic Unit 14030002, on left bank 0.25 mi upstream from bridge on State Highway 184 in Dolores and 0.8 mi upstream from Lost Canyon Creek.

DRAINAGE AREA.--504 mi².

PERIOD OF RECORD.--June 1895 to October 1903, August 1910 to November 1912, October 1921 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 859: 1937. WRD Colo. 1972: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,940 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1713 or 1733 for history of changes prior to Oct. 7, 1952. Oct. 7, 1952 to Nov. 16, 1983, at site 0.4 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 11-19, 21, 26-31, Jan. 1-31, Feb. 1-28, and Mar. 1-7. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station. Flow partly regulated by Ground Hog Reservoir, capacity, 21,710 acre-ft. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--76 years (water years 1896-1903, 1911-12, 1922-87), 442 ft³/s; 320,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s, Oct. 5, 1911, gage height, 10.2 ft, site and datum then in use, from rating curve extended above 2,800 ft³/s; minimum daily, 8.0 ft³/s, Aug. 16, 1896.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, that of Oct. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 3	1700	---	*a6.84	May 18	0200	*3,880	6.12
May 2	0100	2,910	5.51	June 7	0400	3,180	5.68

a Backwater from ice.

Minimum daily discharge, 89 ft³/s, Sept. 23-25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	336	263	150	140	120	211	2440	1320	932	398	188
2	378	318	266	170	140	130	240	2610	1750	828	449	178
3	382	345	266	160	140	140	305	2020	2090	751	416	177
4	366	360	270	160	140	150	384	1960	2480	680	402	168
5	366	342	278	170	140	170	343	2080	2390	608	378	165
6	354	350	282	170	140	190	317	2200	2660	577	354	153
7	358	346	266	170	140	220	314	2320	2860	535	453	148
8	354	311	236	160	140	258	353	2630	2550	491	509	145
9	342	242	241	160	140	241	453	2640	2940	466	408	140
10	338	285	171	150	140	238	538	2600	2800	450	375	135
11	438	266	160	140	140	232	610	2500	2520	426	350	123
12	460	289	170	160	150	244	636	2500	2330	406	334	120
13	380	282	180	160	150	254	505	2570	2360	406	322	113
14	390	282	180	160	160	289	527	2750	2440	454	310	127
15	398	286	180	160	150	278	781	3080	2410	445	298	132
16	402	290	180	120	150	256	1140	3410	2410	430	290	120
17	398	286	180	140	140	212	1520	3420	2030	479	282	113
18	398	306	200	150	140	237	1730	3400	1890	568	274	109
19	398	637	190	140	140	244	1700	2760	1800	457	262	105
20	382	503	178	150	140	235	1550	2380	1680	495	258	101
21	370	451	170	150	140	223	1420	2150	1520	490	254	99
22	346	460	158	140	130	229	1640	1860	1440	490	155	93
23	326	388	143	150	130	210	2010	1790	1450	417	283	89
24	318	366	182	150	140	199	2170	1780	1420	383	585	89
25	298	380	187	150	130	202	2140	1590	1410	378	702	89
26	286	382	180	140	140	199	2010	1470	1320	382	537	139
27	282	327	160	140	130	205	2260	1290	1220	414	373	120
28	270	330	170	140	110	193	2410	1160	1080	387	299	105
29	270	334	160	140	---	190	2540	1040	1210	386	259	95
30	258	334	160	140	---	177	2580	964	1050	419	227	91
31	258	---	150	140	---	193	---	970	---	410	205	---
TOTAL	10934	10414	6157	4680	3910	6558	35337	68334	58830	15440	11001	3769
MEAN	353	347	199	151	140	212	1178	2204	1961	498	355	126
MAX	460	637	282	170	160	289	2580	3420	2940	932	702	188
MIN	258	242	143	120	110	120	211	964	1050	378	155	89
AC-FT	21690	20660	12210	9280	7760	13010	70090	135500	116700	30630	21820	7480

CAL YR 1986 TOTAL 241775 MEAN 662 MAX 4160 MIN 65 AC-FT 479600
WTR YR 1987 TOTAL 235364 MEAN 645 MAX 3420 MIN 89 AC-FT 466800

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 609 ft³/s at 2400 Apr. 17, gage height, 6.65 ft; no flow many days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	28	28	6.0	4.2	4.6	37	320	29	.47	.01	.46
2	18	40	35	5.0	4.7	5.0	61	322	32	.41	.04	.35
3	19	34	36	5.5	4.5	6.0	107	227	8.3	.27	.01	.31
4	18	35	31	6.0	4.7	7.5	136	286	5.0	.22	.00	.20
5	18	34	28	6.0	4.5	16	109	254	3.9	.20	.00	.30
6	17	31	23	5.9	4.4	22	87	248	3.1	.09	.00	.35
7	16	29	22	6.0	4.0	28	85	258	2.5	.05	.15	.27
8	16	21	19	5.5	4.0	34	117	273	2.5	.00	.13	.13
9	15	19	17	5.5	4.0	50	189	230	2.4	.00	.04	.20
10	12	17	12	4.6	4.2	68	245	190	2.0	.00	.01	.23
11	18	17	10	5.5	4.4	74	265	166	1.8	.00	.00	.01
12	25	17	10	5.5	5.0	59	276	166	1.7	.00	.00	.00
13	20	17	10	5.5	5.7	55	191	158	1.5	.00	.00	.00
14	20	16	10	5.5	7.0	50	183	192	1.3	.00	.00	.01
15	21	16	11	5.5	11	50	279	175	1.2	.00	.00	.01
16	24	17	11	5.0	7.5	46	377	160	1.2	.00	.00	.00
17	27	16	12	4.8	7.0	46	448	176	1.1	.00	.00	.00
18	28	21	12	5.0	6.0	44	471	170	.89	.00	.00	.00
19	30	239	12	5.0	5.0	40	375	142	.80	.00	.00	.00
20	27	150	11	5.0	4.8	40	321	124	.86	.00	.00	.00
21	24	95	11	5.1	4.8	40	264	121	.86	.00	.00	.00
22	21	82	10	4.7	4.8	42	327	109	.86	.00	.00	.00
23	17	65	9.5	4.5	4.6	46	403	96	.80	.00	.15	.00
24	15	56	9.5	4.5	4.4	40	420	128	.75	.00	.85	.00
25	13	55	9.5	4.1	4.6	38	405	94	.80	.00	1.2	.00
26	12	43	9.0	4.0	5.0	34	346	71	.36	.01	4.4	.00
27	9.9	36	9.0	4.0	4.4	33	386	66	.35	.48	1.7	.00
28	8.5	39	8.5	4.0	4.0	31	350	53	.40	.21	.72	.00
29	7.7	39	8.0	4.0	---	28	360	36	.43	.04	.47	.00
30	7.5	33	8.0	3.8	---	28	320	31	.47	.01	.31	.00
31	7.2	---	8.0	4.0	---	28	---	23	---	.02	.31	---
TOTAL	548.8	1357	460.0	155.0	143.2	1133.1	7940	5065	109.13	2.48	10.50	2.83
MEAN	17.7	45.2	14.8	5.00	5.11	36.6	265	163	3.64	.08	.34	.09
MAX	30	239	36	6.0	11	74	471	322	32	.48	4.4	.46
MIN	7.2	16	8.0	3.8	4.0	4.6	37	23	.35	.00	.00	.00
AC-FT	1090	2690	912	307	284	2250	15750	10050	216	4.9	21	5.6
CAL YR 1986	TOTAL 16847.96											
WTR YR 1987	TOTAL 16926.92											
	MEAN	46.2	MAX	555	MIN	.00	AC-FT	33420				
	MAX	46.4										

LOCATION.--Lat 38°18'37", long 108°53'05", in NW¼SW¼ sec.20, T.47 N., R.18 W., Montrose County, Hydrologic Unit 14030002, on right bank at upstream side of bridge, 0.4 mi southeast of Bedrock, and 3.1 mi upstream from East Paradox Creek.

WATER-DISCHARGE RECORDS

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,390 ft³/s at 0800 May 21, gage height, 8.58 ft; minimum daily, 50 ft³/s, Sept. 23, 24.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	303	365	120	150	182	213	2200	1250	602	239	185
2	110	486	356	130	150	191	230	2170	1240	432	201	182
3	107	336	353	120	170	202	277	2160	1250	278	189	180
4	109	254	357	120	190	202	460	2120	1250	246	185	180
5	109	430	356	140	200	185	940	2080	1250	228	178	180
6	106	497	379	140	180	227	1190	2000	1240	223	178	185
7	106	502	398	130	160	262	1170	2000	1240	218	180	182
8	103	502	383	130	160	484	1320	2100	1240	215	229	182
9	103	490	365	110	160	743	1550	2100	1250	208	213	182
10	103	486	350	95	160	794	2120	2100	1240	198	187	178
11	317	459	328	95	160	844	3070	2100	1710	196	180	176
12	575	227	227	100	150	791	3360	2100	1920	193	178	172
13	269	146	190	120	160	684	3040	2100	1730	191	174	176
14	178	138	200	130	178	763	2200	2200	1610	191	172	184
15	143	148	200	130	184	727	2150	2100	1610	189	160	180
16	401	177	200	120	187	683	2660	2100	1680	187	160	160
17	422	178	200	120	189	651	3120	2100	1740	200	160	104
18	422	187	210	120	189	662	3550	2300	1730	210	160	74
19	425	307	218	124	193	572	3310	2520	1490	192	160	58
20	437	606	216	130	193	621	2630	2540	1320	180	160	54
21	428	684	190	130	196	591	2110	3260	1220	185	166	53
22	428	490	190	130	198	570	1940	2200	1200	185	176	51
23	410	533	205	130	201	582	1960	2140	1130	178	176	50
24	207	679	205	140	205	547	2120	2100	1090	176	1190	50
25	264	670	196	140	205	546	2300	2090	1020	174	714	54
26	307	580	180	140	207	515	2390	2090	966	174	389	112
27	305	384	190	140	198	365	2290	1610	960	178	260	65
28	303	368	180	150	185	362	2260	1350	950	297	213	56
29	244	365	180	170	---	272	2250	1300	926	261	200	54
30	213	371	170	160	---	228	2240	1280	783	248	191	52
31	208	---	150	160	---	218	---	1260	---	294	189	---
TOTAL	7976	11983	7887	4014	5058	15271	60420	63870	39235	7127	7507	3751
MEAN	257	399	254	129	181	493	2014	2060	1308	230	242	125
MAX	575	684	398	170	207	844	3550	3260	1920	602	1190	185
MIN	103	138	150	95	150	182	213	1260	783	174	160	50
AC-FT	15820	23770	15640	7960	10030	30290	119800	126700	77820	14140	14890	7440
CAL YR 1996	TOTAL 205280											
WTR YR 1987	TOTAL 234099											
MEAN	562	641	562	641	562	641	562	641	562	641	562	641
MAX	4690	3550	4690	3550	4690	3550	4690	3550	4690	3550	4690	3550
MIN	55	50	55	50	55	50	55	50	55	50	55	50
AC-FT	407200	464300	407200	464300	407200	464300	407200	464300	407200	464300	407200	464300

DOLORES RIVER BASIN

09169500 DOLORES RIVER AT BEDROCK, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1979 to current year.

WATER TEMPERATURES: November 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1979.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 6,970 microsiemens Aug. 14, 1987; minimum, 140 microsiemens May 25, 1983.

WATER TEMPERATURES: Maximum, 33.5°C Aug. 7, 1981; minimum, -0.5°C Dec. 3-8, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 6,970 microsiemens Aug. 14; minimum recorded, 277 microsiemens June 16 (but may have been less during periods of missing record in May and June).

WATER TEMPERATURES: Maximum recorded, 25.9°C Aug. 5; minimum recorded, 0.0°C many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
AUG 27...	1030	252	1460	7.8	17.5	580	460	170	38	86	2
DATE		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 AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 27...		5.4	126	630	35	0.30	5.8	1050	1.42	712	0.200

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG.C.) WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1150	602	423	---	---	---	1240	---	---	391	798	710
2	1130	428	440	---	---	---	1120	---	---	434	780	662
3	1120	884	464	---	---	---	1060	---	---	497	859	626
4	1100	1340	487	---	---	771	1060	---	---	542	646	626
5	1090	832	502	---	---	814	757	---	---	593	572	592
6	1070	675	602	---	---	849	551	---	---	613	544	590
7	1060	629	644	---	---	805	525	---	---	608	538	599
8	1050	643	653	---	---	865	544	---	---	580	601	587
9	1040	704	663	---	---	973	528	---	---	559	476	589
10	1020	701	---	---	---	942	527	---	403	546	624	754
11	933	685	---	---	---	874	494	---	393	530	756	798
12	576	696	---	---	---	804	431	---	341	500	618	591
13	757	858	---	---	---	835	415	---	343	475	1490	560
14	1090	962	---	---	---	789	441	---	324	459	2160	558
15	1310	1160	---	---	---	863	449	---	293	451	521	551
16	1070	1160	---	---	---	785	444	---	286	445	589	553
17	469	1170	---	---	---	773	466	---	286	452	638	608
18	419	1150	---	---	---	708	467	---	288	437	687	664
19	414	384	---	---	---	700	450	---	290	411	737	748
20	407	774	---	---	---	735	445	389	299	405	789	863
21	400	762	---	---	---	776	440	367	305	406	843	1260
22	388	673	---	---	---	743	449	---	305	388	969	1150
23	369	694	---	---	---	727	456	---	310	385	963	1030
24	376	519	---	---	---	779	463	---	318	393	1010	983
25	423	491	---	---	---	735	451	---	327	395	1140	932
26	448	473	---	---	---	751	436	---	335	389	1280	1020
27	496	527	---	---	---	788	445	---	339	401	1510	985
28	560	552	---	---	---	888	441	---	346	418	1630	935
29	609	448	---	---	---	946	431	---	350	1150	1130	907
30	643	412	---	---	---	1040	427	---	360	1520	1030	872
31	660	---	---	---	---	1190	---	---	---	1030	853	---
MEAN	763	750	---	---	---	---	562	---	---	542	897	765

09169500 DOLORES RIVER AT BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.9	10.8	9.7	8.4	3.8	3.1	---	---	---	---	3.6	2.0
2	12.9	12.1	9.5	7.9	3.3	2.4	---	---	---	---	4.2	2.5
3	13.3	11.8	9.6	7.5	2.8	2.2	---	---	---	---	5.0	2.7
4	13.8	10.4	8.2	6.5	2.6	2.0	---	---	---	---	5.4	.6
5	14.4	10.5	8.3	5.8	3.4	2.4	---	---	---	---	6.4	1.3
6	15.0	11.7	7.3	5.8	4.0	3.4	---	---	---	---	7.2	2.1
7	15.8	11.8	6.7	4.9	4.5	3.8	---	---	---	---	7.6	2.5
8	16.1	12.1	5.5	3.1	5.2	4.2	---	---	---	---	5.7	4.5
9	16.2	12.3	4.0	1.9	4.4	2.3	---	---	---	---	6.3	4.6
10	13.7	12.1	4.4	1.8	2.1	.8	---	---	---	---	7.2	3.5
11	12.2	9.3	4.1	1.8	.7	.0	---	---	---	---	6.5	3.8
12	9.8	6.9	4.4	1.7	.0	.0	---	---	---	---	7.7	4.0
13	8.5	6.2	4.7	1.7	.0	.0	---	---	---	---	8.1	4.4
14	9.1	5.9	4.9	2.0	.0	.0	---	---	---	---	7.4	4.5
15	9.8	6.7	5.2	2.5	.0	.0	---	---	---	---	5.7	5.1
16	11.3	7.5	5.6	2.8	.2	.0	---	---	---	---	6.0	3.9
17	10.9	8.2	6.7	3.7	.4	.0	---	---	3.0	1.9	6.3	4.0
18	11.3	9.3	7.0	4.5	.4	.0	---	---	3.1	2.1	7.7	3.6
19	10.7	9.5	8.0	6.6	1.5	.0	---	---	3.0	2.3	5.6	4.8
20	10.6	8.7	8.2	6.3	1.7	.3	---	---	3.5	2.5	7.1	3.7
21	10.6	8.3	6.9	5.7	2.2	.7	---	---	3.5	2.3	5.1	2.9
22	10.4	8.2	7.2	5.3	1.3	.0	---	---	3.7	2.4	4.3	2.6
23	11.0	7.9	6.0	4.1	.5	.0	---	---	4.0	3.0	4.5	1.7
24	11.1	7.9	5.0	3.6	1.2	.0	---	---	3.9	3.1	4.3	1.6
25	10.8	7.7	4.5	3.0	.0	.0	---	---	3.3	2.5	5.9	1.3
26	10.6	8.1	5.6	4.3	.0	.0	---	---	3.2	2.6	6.4	1.9
27	10.4	8.5	5.1	3.9	.0	.0	---	---	3.3	2.0	5.2	2.5
28	10.6	8.3	4.5	3.2	.0	.0	---	---	3.3	2.0	5.1	1.5
29	10.6	8.8	3.9	3.6	---	---	---	---	---	---	5.7	1.5
30	10.9	8.8	4.6	3.8	---	---	---	---	---	---	5.9	.0
31	10.5	9.8	---	---	---	---	---	---	---	---	7.9	1.1
MONTH	16.2	5.9	9.7	1.7	---	---	---	---	---	---	8.1	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.7	2.6	---	---	---	---	20.2	15.7	23.3	16.9	22.3	18.4
2	9.7	3.4	---	---	---	---	21.6	16.8	23.8	20.3	22.0	18.9
3	10.2	4.0	---	---	---	---	22.3	17.0	24.6	21.5	21.3	18.7
4	9.0	6.9	---	---	---	---	22.9	17.8	25.4	21.3	21.0	18.2
5	8.5	6.2	---	---	---	---	23.0	18.0	25.9	21.4	19.6	17.4
6	7.7	5.9	---	---	---	---	23.2	18.4	24.7	22.1	19.4	16.6
7	9.4	5.9	---	---	---	---	24.1	19.0	25.0	21.7	19.6	17.3
8	10.3	7.3	---	---	---	---	23.7	19.9	23.9	21.4	19.1	16.3
9	9.7	8.1	---	---	---	---	23.6	19.5	24.2	20.6	19.1	16.2
10	8.7	6.9	---	---	18.1	13.8	22.3	19.1	24.8	20.7	19.1	15.9
11	7.7	5.6	---	---	16.7	15.5	22.2	18.7	23.2	20.9	18.8	15.4
12	6.6	5.3	---	---	15.8	13.4	22.5	18.7	23.6	20.5	18.4	15.3
13	6.6	4.4	---	---	16.3	13.8	24.0	19.0	22.6	20.3	16.8	14.5
14	8.4	5.0	---	---	16.9	15.1	24.4	19.5	22.2	19.5	16.1	12.9
15	9.1	6.8	---	---	16.2	14.7	24.9	20.2	21.0	18.2	16.8	12.5
16	9.8	7.2	---	---	15.8	14.4	24.9	20.5	22.7	17.8	17.4	14.0
17	9.7	7.1	---	---	15.5	13.5	22.2	20.5	22.9	18.5	18.1	14.8
18	8.9	7.0	---	---	15.5	13.3	21.6	18.5	23.4	19.0	18.5	13.9
19	8.8	6.8	12.3	---	15.8	13.4	22.7	18.3	23.5	19.2	17.8	12.9
20	7.8	6.1	11.9	10.3	16.5	14.5	20.4	18.0	22.4	19.8	17.8	13.1
21	8.6	5.4	12.4	9.9	17.4	14.3	22.0	17.8	23.6	20.2	17.2	13.0
22	9.9	7.0	---	---	17.2	14.3	22.5	19.1	22.3	20.6	17.1	12.5
23	10.9	8.2	---	---	17.5	14.4	23.5	18.5	21.1	20.0	17.6	13.1
24	11.1	9.0	---	---	18.6	14.6	24.0	19.0	20.4	17.3	17.0	13.5
25	10.8	9.2	---	---	19.0	15.0	25.3	21.3	18.7	16.4	18.3	14.7
26	10.9	8.2	---	---	19.4	15.3	25.4	22.0	19.7	16.1	17.5	11.8
27	11.2	9.6	---	---	18.3	15.1	25.6	21.7	20.4	16.9	18.8	14.7
28	11.8	9.1	---	---	18.3	15.5	24.5	21.5	20.2	17.1	17.3	13.4
29	12.3	9.7	---	---	17.5	15.5	23.5	21.7	20.9	17.2	16.5	12.1
30	11.8	9.7	---	---	18.5	14.5	23.2	20.5	21.5	17.4	16.2	11.9
31	---	---	---	---	---	---	21.6	20.2	21.9	17.8	---	---
MONTH	12.3	2.6	---	---	---	---	25.6	15.7	25.9	16.1	22.3	11.8

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

DOLORES RIVER BASIN

09170800 WEST PARADOX CREEK ABOVE PARADOX, CO

WATER-QUALITY RECORDS

LOCATION.--Latitude 38°19'54", longitude 108°53'59", in NE¼NW¼ section 18, T.47N, R.18W, Montrose County. Site is 1,000 ft downstream from former surface water station, 1.3 mi northwest of Bedrock, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--53.3 mi².

PERIOD OF RECORD.--Chemical analyses: August to September 1987.

REMARKS.--Natural flow affected by water imported from Roc Creek through Buckeye Reservoir. Diversion for irrigation of about 2,500 acres.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
AUG 27...	1000	1030	7.5	14.5	520	0	110	59

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
AUG 27...	30	0.6	3.5	310	24	0.30	12	0.68

09171070 DOLORES RIVER BELOW WEST PARADOX CREEK NEAR BEDROCK, CO
(Previously published as 09171100, Dolores River near Bedrock, Co)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1979 to November 1987 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1979 to November 1987.

WATER TEMPERATURES: December 1979 to November 1987.

INSTRUMENTATION.--Water-quality monitor since December 1979.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 83,300 microsiemens Aug. 9, 1981; minimum, 103 microsiemens June 4, 1984.

WATER TEMPERATURES: Maximum, 33.5°C July 10, 1981; minimum, -1.5°C several days during November to January 1981 and 1983.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 18,500 microsiemens Sept. 24 (but may have been exceeded during periods of missing record from Sept. 19-23, 25-30); minimum recorded, 358 microsiemens May 22 (but may have been less during periods of missing record June 12 to July 8).

WATER TEMPERATURES: Maximum, 28.6°C July 27; minimum, 0.0°C several days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CAO3)	HARD- NESS NONCARB WH WAT TOT FLD 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 AD- SORP- TION RATIO
AUG 27...	1230	285	2380	7.7	19.0	660	530	190	46	250	4
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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, 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)
AUG 27...	14	14	135	700	320	0.30	6.0	1610	2.19	1240	0.22

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4880	1500	849	2610	2350	2900	3980	494	451	---	1670	2560
2	5000	1240	387	2300	3090	2860	4020	491	437	---	1760	2560
3	5100	1760	925	2310	3170	2840	3930	480	422	---	1850	2560
4	5090	2500	973	2610	3220	2710	3150	472	413	---	1870	2570
5	5060	1710	1020	2270	3280	3180	1470	471	412	---	1810	2560
6	5050	1030	1030	2280	3360	2450	936	467	401	---	1710	2520
7	5040	789	1070	2620	3440	1640	826	464	397	---	1720	2480
8	5050	751	1090	2480	3540	1250	727	463	394	---	1580	2480
9	5040	732	1120	2880	3600	1150	719	460	401	2130	1590	2540
10	4990	742	1130	3360	3560	1120	712	458	441	1920	1640	2570
11	4730	738	1160	3770	3520	1060	702	453	477	1810	1710	2480
12	3860	794	1480	3120	3480	1020	686	450	---	1730	1780	2410
13	3700	983	1690	3010	3450	1020	670	446	---	1740	1660	2290
14	3660	1540	1680	2720	3410	1040	657	440	---	1750	1460	2290
15	3630	2250	1690	2870	3390	1050	642	437	---	1810	1430	2330
16	2150	2040	1690	2740	3370	1080	627	433	---	1830	1400	2480
17	1050	2010	1700	3170	3340	1100	609	431	---	1770	1360	3050
18	855	1980	1680	3910	3310	1090	588	427	---	1660	1350	3920
19	864	1420	1740	5160	3280	1100	572	419	---	1710	1460	---
20	865	1030	1760	3090	3240	1130	549	393	---	1680	1360	---
21	909	968	1820	3120	3210	1110	529	422	---	1680	1420	---
22	943	937	1840	3730	3180	1110	508	458	---	1740	1400	---
23	963	855	1850	3840	3140	1130	505	480	---	1810	1410	---
24	1170	763	1900	3000	3110	1120	506	450	---	1810	1320	17800
25	1440	684	1950	2730	3070	1120	504	440	---	1830	1630	---
26	1180	663	1890	2620	3030	1140	502	428	---	1830	1950	---
27	1160	691	1860	2680	2980	1510	502	422	---	1770	2300	---
28	1160	726	1870	2820	2940	1960	501	492	---	1450	2430	---
29	1250	768	1860	2460	---	2480	501	486	---	1290	2510	---
30	1480	810	1910	2540	---	3080	497	467	---	2040	2540	---
31	1630	---	2010	2780	---	3570	---	462	---	1900	2550	---
MEAN	2869	1179	1520	2955	3270	1679	1061	453	---	---	1730	---

DOLORES RIVER BASIN

09171070 DOLORES RIVER BELOW WEST PARADOX CREEK NEAR BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	9.1	8.9	8.0	4.2	1.3	1.2	.0	2.4	.0	6.5	.6
2	13.9	10.5	10.1	7.7	3.4	.5	1.6	.0	2.6	.0	7.1	1.3
3	14.5	10.5	10.4	7.3	3.3	.3	.2	.0	1.3	.0	7.7	1.9
4	16.1	9.4	9.5	6.4	2.6	.3	.2	.0	1.3	.0	7.7	2.0
5	16.6	8.9	8.6	5.0	3.0	.8	.9	.0	2.4	.0	9.3	2.4
6	16.6	10.5	7.4	5.5	3.7	2.8	1.5	.0	2.6	.0	9.0	3.4
7	18.0	10.1	6.6	5.1	4.4	3.2	1.0	.0	2.4	.0	9.0	4.2
8	18.0	10.5	6.0	3.4	5.9	3.7	1.3	.0	2.2	.0	7.2	5.5
9	18.4	10.5	4.6	1.5	4.5	1.0	.3	.0	2.8	.0	8.0	5.7
10	13.5	11.0	4.5	1.5	1.9	.0	.2	.0	.6	.0	7.3	5.1
11	12.0	9.4	4.4	1.0	.3	.0	.4	.0	3.5	.1	7.0	5.2
12	9.6	8.1	5.5	1.0	.6	.0	1.0	.0	1.6	.1	7.7	5.4
13	9.1	7.1	6.4	1.0	.3	.0	.9	.0	3.6	.1	9.2	5.4
14	10.1	6.4	6.4	1.5	.7	.0	1.4	.0	2.1	.2	8.4	5.3
15	12.1	6.5	7.0	2.0	.9	.0	.6	.0	2.4	.2	6.8	5.8
16	11.6	7.0	6.9	2.5	1.6	.0	.4	.0	2.7	.4	7.6	5.1
17	11.4	7.6	7.9	3.0	1.5	.0	.3	.0	4.5	.3	7.6	4.6
18	12.1	9.0	6.9	4.0	1.0	.0	.1	.0	5.1	.5	8.6	4.4
19	10.4	9.4	9.1	6.0	2.5	.0	.4	.0	3.4	.8	6.7	5.9
20	10.6	8.5	8.1	5.1	2.4	.0	.4	.0	5.6	1.3	8.2	4.9
21	11.1	7.6	7.0	4.9	3.4	.5	.3	.0	5.9	.6	6.9	4.6
22	10.1	8.0	7.1	4.9	2.4	.0	.4	.0	5.9	.6	6.4	4.7
23	9.8	6.5	6.1	3.5	.7	.0	.3	.0	5.9	1.9	7.2	3.2
24	11.4	6.3	5.1	2.5	2.5	.0	1.1	.0	3.7	2.0	6.9	3.2
25	10.6	5.9	4.1	2.0	.9	.0	1.2	.0	4.4	1.4	8.0	3.4
26	11.1	6.6	5.3	3.5	.2	.0	1.5	.0	2.8	1.6	8.6	3.9
27	10.4	6.7	5.5	3.4	.0	.0	1.7	.0	6.2	.8	7.9	4.7
28	11.6	6.8	5.1	2.3	.7	.0	1.6	.0	6.4	.6	8.2	3.9
29	11.2	7.7	3.1	2.4	.5	.0	.5	.0	---	---	9.6	4.2
30	12.4	7.7	4.6	2.4	.7	.0	.8	.0	---	---	9.6	2.5
31	10.5	8.6	---	---	.1	.0	1.5	.0	---	---	11.9	4.4
MONTH	18.4	5.9	10.4	1.0	5.9	.0	1.7	.0	6.4	.0	11.9	.6
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.7	6.0	11.7	10.3	17.2	12.9	---	---	25.4	18.0	24.8	17.3
2	13.6	6.6	10.9	10.0	17.3	13.0	---	---	26.3	20.1	24.7	18.0
3	13.8	6.7	10.2	9.8	17.6	13.0	---	---	27.5	21.6	23.7	18.2
4	12.5	9.9	11.4	8.1	17.7	13.4	---	---	28.5	20.8	22.2	18.2
5	11.5	9.0	12.5	10.0	17.6	13.9	---	---	28.1	20.5	21.7	16.9
6	10.2	9.1	12.1	10.2	18.3	14.7	---	---	26.6	21.2	22.3	16.1
7	10.8	8.5	12.1	9.4	17.8	14.6	---	---	27.3	21.4	22.3	17.5
8	11.4	9.4	12.9	10.0	16.8	14.1	---	---	27.0	20.4	21.6	16.2
9	11.5	9.5	12.9	10.4	16.2	13.0	26.0	18.5	25.8	19.5	20.7	16.1
10	10.3	8.8	12.8	10.4	16.7	12.5	24.7	18.0	27.3	19.6	22.5	15.7
11	9.1	7.9	12.0	9.9	15.9	13.3	24.5	18.2	24.9	20.0	21.9	14.9
12	8.3	6.6	11.5	9.7	---	---	25.5	18.7	25.5	19.7	21.1	14.9
13	7.8	5.6	12.2	9.5	---	---	27.3	18.2	25.0	19.3	21.1	14.2
14	9.5	5.9	12.4	9.9	---	---	27.4	18.5	23.7	18.3	18.8	12.6
15	10.1	7.8	11.7	10.2	---	---	28.5	19.3	22.9	17.5	19.5	12.4
16	10.4	8.2	12.5	9.4	---	---	27.4	19.8	25.0	16.1	19.7	13.7
17	9.6	7.8	12.8	10.9	---	---	23.6	20.7	25.6	16.9	20.4	13.9
18	9.0	8.0	12.1	11.2	---	---	24.4	18.2	26.6	17.4	22.0	12.2
19	8.5	7.8	11.9	9.6	---	---	25.4	17.4	26.3	17.8	21.7	10.9
20	8.3	7.2	12.0	10.3	---	---	20.4	17.3	24.2	18.7	21.5	10.8
21	8.8	5.9	11.3	10.8	---	---	23.5	16.4	26.0	19.5	21.6	11.0
22	9.4	6.5	12.5	10.2	---	---	25.2	17.9	24.4	20.7	22.0	10.6
23	10.4	7.6	12.2	11.0	---	---	25.8	16.6	22.5	19.8	22.5	11.2
24	10.5	8.6	12.0	10.5	---	---	26.8	17.2	20.2	17.8	22.0	11.7
25	10.4	8.6	11.7	10.6	---	---	27.6	20.8	19.3	17.0	23.5	14.3
26	10.5	7.8	11.5	9.8	---	---	28.5	21.4	20.5	15.8	19.6	14.1
27	10.6	8.9	12.0	10.2	---	---	28.6	20.9	21.3	16.6	22.9	15.0
28	11.5	8.8	13.0	10.2	---	---	26.7	21.5	20.0	15.8	22.0	12.2
29	12.1	9.4	13.2	10.5	---	---	25.8	21.7	22.4	15.9	21.7	10.5
30	11.3	9.7	14.7	10.1	---	---	24.6	20.2	23.1	16.1	21.9	10.5
31	---	---	16.5	11.8	---	---	22.6	19.6	24.0	16.6	---	---
MONTH	13.8	5.6	16.5	8.1	---	---	---	---	28.5	15.8	24.8	10.5

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

09171100 DOLORES RIVER NEAR BEDROCK, CO

LOCATION.--Lat 38°21'29", long 108°49'54", in SW¼NW¼ sec.2, T.47 N., R.18 W., Montrose County, Hydrologic Unit 14030002, on right bank 2.5 mi downstream from West Paradox Creek and 4.3 mi northeast of Bedrock.

DRAINAGE AREA.--2,145 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 4,910 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 1, 1972, at site 400 ft upstream at datum 1.02 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 24-26, and Jan. 16-26. Records good except for estimated daily discharges, which are fair. Diversions upstream from station for irrigation of about 80,000 acres, of which about 74,760 acres are in the San Juan River basin. Flow regulated by McPhee Reservoir, capacity 381,000 acre-ft, since Mar. 19, 1984.

AVERAGE DISCHARGE.--12 years (water years 1972-83), 502 ft³/s; 363,700 acre-ft/yr, prior to completion of McPhee Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,500 ft³/s, Apr. 30, 1973, gage height, 12.88 ft, from floodmarks; minimum daily, 0.12 ft³/s, July 17, 18, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 6, 1970, reached a stage of 11.25 ft, site and datum in use prior to Feb. 1, 1972 (discharge, 5,710 ft³/s), by slope-area measurement at site 1,400 ft upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,040 ft³/s at 1500 Apr. 18, gage height, 10.47 ft; minimum daily, 63 ft³/s, Sept. 22, 23, 24, 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	291	369	131	178	195	203	2240	1250	641	272	209
2	117	515	360	154	175	202	215	2240	1240	452	226	205
3	114	375	354	139	192	210	264	2200	1270	301	213	203
4	115	272	357	137	217	210	430	2140	1270	249	208	200
5	115	408	360	168	232	186	920	2090	1270	233	205	200
6	113	522	378	159	201	227	1250	2060	1260	223	203	207
7	114	602	396	145	185	279	1230	2080	1240	220	200	210
8	110	573	387	153	185	457	1290	2100	1240	218	254	208
9	109	513	372	124	185	813	1500	2120	1260	208	240	207
10	109	504	357	108	180	918	2110	2120	1240	200	240	200
11	282	492	322	102	187	900	3380	2130	1650	195	230	194
12	691	270	234	117	165	915	3930	2170	1970	195	232	188
13	320	165	206	132	171	729	3300	2140	1790	195	220	195
14	222	151	212	145	295	798	2110	2280	1640	195	218	205
15	152	153	220	145	275	776	2080	2150	1630	190	203	203
16	361	184	213	140	238	731	2770	2170	1680	190	200	193
17	428	187	217	140	201	681	3460	2140	1770	200	198	132
18	428	192	222	140	210	704	4090	2390	1770	217	190	104
19	424	304	220	150	225	602	3930	2550	1580	205	188	77
20	440	566	220	150	220	647	3140	2540	1380	193	185	71
21	440	820	213	150	210	652	2350	3360	1260	195	192	67
22	444	585	210	150	220	632	2180	2200	1270	195	202	63
23	440	592	208	150	220	655	2170	2140	1190	193	195	63
24	242	720	207	160	220	621	2410	2100	1150	188	1190	63
25	242	730	193	160	232	604	2820	2070	1070	185	792	63
26	313	700	185	160	215	561	2590	2060	997	192	399	109
27	312	399	195	165	183	370	2380	1680	990	192	297	93
28	312	378	193	171	180	351	2360	1350	990	278	244	73
29	261	372	192	190	---	281	2320	1330	956	287	228	67
30	228	372	180	185	---	216	2310	1310	867	268	215	64
31	215	---	161	185	---	208	---	1280	---	349	213	---
TOTAL	8336	12907	8113	4605	5797	16331	65492	64930	40140	7442	8492	4336
MEAN	269	430	262	149	207	527	2183	2095	1338	240	274	145
MAX	691	820	396	190	295	918	4090	3360	1970	641	1190	210
MIN	109	151	161	102	165	186	203	1280	867	185	185	63
AC-FT	16530	25600	16090	9130	11500	32390	129900	128800	79620	14760	16840	8600

CAL YR 1986 TOTAL 215104 MEAN 589 MAX 4550 MIN 60 AC-FT 426700
WTR YR 1987 TOTAL 246921 MEAN 676 MAX 4090 MIN 63 AC-FT 489800

DOLORES RIVER BASIN

09172500 SAN MIGUEL RIVER NEAR PLACERVILLE, CO

LOCATION.--Lat 38°02'33", long 108°07'54", in NW¼NE¼ sec.25, T.44 N., R.12 W., San Miguel County, Hydrologic Unit 14030003, on right bank 1.5 mi downstream from Specie Creek in vicinity of mile marker 88.68 on State Highway 145 and 4.5 mi northwest of Placerville, Co.

DRAINAGE AREA.--310 mi².

PERIOD OF RECORD.--January to December 1909, September 1910 to December 1912, April 1930 to September 1934, April 1942 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Placerville," 1910-12.

GAGE.--Water-stage recorder. Datum of gage is 7,030 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1958.

REMARKS.--Estimated daily discharges: Nov. 28-30, Dec. 1-5, 13-15, 20-31, Jan. 1-31, and Feb. 1-11, 20-23. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,700 acres upstream from station. One diversion from Fall Creek for irrigation of about 2,000 acres in Beaver and Saltado Creek basins. One small ditch diverts water from Leopard Creek to Uncompahgre River basin. Slight regulation by Lake Hope and Trout Lake operated by Colorado Ute Electric Association, combined capacity, 5,040 acre-ft. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--51 years (water years 1911-12, 1931-34, 1943-87), 239 ft³/s; 173,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s, Sept. 5, 1909 (result of failure of Trout and Middle Reservoir Dams); minimum daily, 26 ft³/s, Jan. 5, 1960.

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. 19	2000	971	4.12	May 16	0130	1,380	4.70
Apr. 26	1930	*1,790	*5.19	June 15	0500	1,530	4.90

Minimum daily discharge, 70 ft³/s, Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	201	143	110	90	90	81	107	1360	546	844	362	203
2	195	136	110	95	90	82	110	1260	716	836	385	192
3	182	134	120	95	95	89	116	1010	844	814	339	189
4	176	148	120	100	95	87	132	911	953	778	312	183
5	166	145	110	100	95	91	125	888	895	715	279	182
6	157	145	110	100	90	95	122	869	1000	710	270	172
7	151	138	109	95	90	105	124	877	1140	678	420	172
8	151	134	107	95	95	105	131	920	1050	634	363	174
9	149	110	105	95	100	98	158	953	1280	627	300	166
10	155	127	72	90	95	105	174	954	1220	628	264	139
11	175	124	78	90	100	101	204	961	1170	601	236	128
12	179	124	82	90	107	97	213	1070	1140	580	220	126
13	175	122	100	90	103	109	185	1080	1190	523	208	124
14	174	124	100	85	101	110	195	1130	1280	529	197	129
15	168	124	110	80	102	105	239	1280	1380	524	184	130
16	163	123	117	80	107	100	359	1320	1380	506	180	126
17	163	118	119	75	103	101	549	1310	1230	573	170	119
18	162	126	114	70	96	100	709	1310	1210	521	151	116
19	162	191	105	75	97	109	778	1190	1170	412	146	114
20	160	163	110	80	90	101	731	1030	1110	347	143	110
21	158	146	110	80	90	109	643	966	1020	370	146	108
22	158	147	110	75	85	107	782	882	1010	433	156	107
23	150	121	110	80	90	101	989	837	1040	423	264	105
24	149	127	100	85	94	98	1070	801	1030	387	525	103
25	142	136	100	85	91	96	1120	734	1060	403	635	105
26	136	132	100	85	84	92	1260	701	1040	406	484	105
27	136	133	95	85	80	105	1360	625	996	471	361	103
28	131	130	100	90	82	103	1300	573	914	483	296	102
29	127	120	100	90	---	105	1390	533	955	424	271	100
30	125	120	95	90	---	90	1320	501	868	406	251	98
31	124	---	90	90	---	100	---	465	---	406	231	---
TOTAL	4900	4011	3218	2705	2637	3077	16695	29301	31837	16992	8749	4030
MEAN	158	134	104	87.3	94.2	99.3	556	945	1061	548	282	134
MAX	201	191	120	100	107	110	1390	1360	1380	844	635	203
MIN	124	110	72	70	80	81	107	465	546	347	143	98
AC-FT	9720	7960	6380	5370	5230	6100	33110	58120	63150	33700	17350	7990

CAL YR 1986 TOTAL 114159 MEAN 313 MAX 2060 MIN 72 AC-FT 226400
WTR YR 1987 TOTAL 128152 MEAN 351 MAX 1390 MIN 70 AC-FT 254200

09177000 SAN MIGUEL RIVER AT URAVAN, CO

LOCATION.--Lat 38°21'26", long 108°42'44", in SW¼NE¼ sec.2, T.47 N., R.17 W., Montrose County, Hydrologic Unit 14030003, on right bank 20 ft downstream from bridge on State Highway 141, 400 ft downstream from Tabeguache Creek, and 1.5 mi southeast of Uravan.

DRAINAGE AREA.--1,499 mi².

PERIOD OF RECORD.--August 1954 to September 1962, October 1973 to current year.

REVISED RECORDS.--WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,000 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 3, 1959, at site 0.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 6-10, 12-22, 24, Dec. 26 to Feb. 8, 22-24, and Feb. 28 to Mar. 3. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 28,000 acres upstream from station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--22 years (water years 1955-62, 1974-87), 410 ft³/s; 297,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,050 ft³/s, May 10, 1983, gage height, 10.14 ft, from rating curve extended above 4,100 ft³/s; minimum daily, 9.4 ft³/s, Aug. 10, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 6, 1970, reached a stage of 12.6 ft, from floodmarks, discharge, 8,910 ft³/s, by slope-area measurement at site 5.5 mi downstream.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 18	0200	*5,470	*8.77	May 14	0800	2,760	6.37
Apr. 27	0400	4,500	7.91	July 30	2300	3,850	7.33

Minimum daily discharge, 104 ft³/s, Sept. 28, 29..

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	623	264	140	150	170	269	3220	872	952	481	197
2	364	561	242	140	150	160	323	3380	948	868	429	178
3	352	408	269	140	170	170	367	2830	1070	878	373	163
4	336	384	269	140	170	178	550	2240	1210	819	345	169
5	312	364	269	150	160	209	572	2150	1230	730	301	164
6	296	360	270	140	160	268	554	2090	1260	716	267	154
7	292	376	270	140	160	327	613	2090	1450	687	358	150
8	277	341	260	140	170	457	767	2170	1410	633	515	150
9	270	285	200	130	182	465	1060	2070	1620	620	383	150
10	276	277	160	130	178	441	1410	1970	1630	614	294	136
11	519	284	135	130	190	366	1690	1960	1510	596	253	120
12	577	288	160	130	216	344	1730	2020	1420	578	235	118
13	400	296	160	130	290	313	1220	2100	1400	525	221	118
14	369	284	160	130	386	390	1140	2300	1450	506	205	120
15	380	260	160	130	231	376	1560	2270	1640	500	191	123
16	368	252	170	120	199	352	2360	2290	1690	485	174	124
17	348	245	170	120	182	285	3180	2200	1550	506	162	118
18	340	242	170	110	171	280	3940	2190	1430	635	150	116
19	332	1040	170	120	165	300	3510	2060	1370	478	142	115
20	355	787	170	120	169	351	3000	1940	1300	398	136	115
21	344	501	170	120	160	293	2220	1830	1220	365	134	113
22	332	436	170	120	160	319	2420	1760	1140	391	132	111
23	316	354	165	130	170	293	3110	1540	1140	429	156	109
24	304	293	160	130	170	273	3490	1540	1180	385	691	107
25	296	339	163	140	173	259	3390	1410	1210	376	786	107
26	284	375	160	140	173	249	3330	1300	1170	414	623	107
27	277	317	150	140	165	262	3620	1220	1160	435	444	106
28	266	312	150	150	170	252	3340	1080	1060	494	342	104
29	263	328	150	150	---	255	3380	976	1140	512	281	104
30	256	332	140	150	---	225	3360	945	1070	791	259	129
31	276	---	140	150	---	231	---	879	---	804	225	---
TOTAL	10333	11544	5816	4150	5190	9113	61475	60020	38950	18120	9688	3895
MEAN	333	385	188	134	185	294	2049	1936	1298	585	313	130
MAX	577	1040	270	150	386	465	3940	3380	1690	952	786	197
MIN	256	242	135	110	150	160	269	879	872	365	132	104
AC-FT	20500	22900	11540	8230	10290	18080	121900	119000	77260	35940	19220	7730

CAL YR 1986 TOTAL 200418 MEAN 549 MAX 2060 MIN 90 AC-FT 397500
WTR YR 1987 TOTAL 238294 MEAN 653 MAX 3940 MIN 104 AC-FT 472700

09237500 YAMPA RIVER NEAR OAK CREEK, CO.

LOCATION.--Lat 40°17'15", long 106°49'33", in SE¼NE¼ sec. 29, T. 4 N., R. 84 W., Routt County, Hydrologic Unit 1405001, on left bank, 1.0 mi upstream from Morrison Creek and 6.5 mi east of Oak Creek, Co.

DRAINAGE AREA.--227 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1939 to September 1944 (monthly discharge only for some periods, published in WSP 1313), October 1956 to September 1972, October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. Sept. 1939 to Nov. 15, 1939, nonrecording gage, Nov. 16 1939, to Sept 1944 and Oct. 1956 to Sept 1972, water-stage recorder at site 0.3 mi upstream, at different datum.

REMARKS.--Estimated daily discharges: Dec. 11 to Mar. 25. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 12,000 acres upstream from station. Natural flow of stream affected by 2 diversions for irrigation to Egeria Creek into Colorado River basin and by storage in Stillwater, Yampa and Yamcolo Reservoirs (total capacity, 15,820 acre-ft).

AVERAGE DISCHARGE.--24 years, 89.9 ft³/s; 65,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 1,400 ft³/s, Apr. 16, 1962, gage height, 7.56 ft, from rating curve extended above 570 ft³/s, site and datum then in use; maximum gage height, 8.08 ft, Mar. 8, 1987, (backwater from ice); minimum daily discharge, 8.9 ft³/s, May 22, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 323 ft³/s at 0330 Apr. 17, gage height, 3.11 ft, maximum gage height, 8.08 ft, Mar. 8, (backwater from ice); minimum daily discharge, 31 ft³/s, Sept. 11-12

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	93	85	54	45	45	85	130	86	136	104	69
2	130	90	89	56	45	46	105	128	74	107	86	52
3	145	86	100	56	47	48	98	120	67	97	79	42
4	149	87	107	56	50	49	155	101	69	93	70	41
5	134	91	104	56	47	48	186	95	73	90	66	41
6	126	92	87	54	44	48	216	93	68	83	62	37
7	89	93	82	52	45	47	205	99	78	81	88	39
8	89	93	79	50	47	47	203	97	125	84	86	38
9	83	95	74	48	50	47	195	92	149	90	73	40
10	78	119	62	47	48	45	165	87	130	82	68	32
11	109	112	58	48	46	45	173	97	110	88	70	31
12	105	132	56	50	48	45	131	99	96	126	74	31
13	98	141	54	52	45	45	94	101	84	137	68	36
14	99	121	54	50	46	44	111	93	82	117	72	37
15	101	102	54	46	44	43	169	84	103	107	61	40
16	103	94	52	45	43	43	238	81	97	100	58	50
17	100	93	52	47	44	43	246	85	79	102	52	56
18	99	98	52	44	42	43	220	87	72	115	47	38
19	97	107	52	46	40	43	221	88	70	99	46	37
20	98	98	52	49	40	43	186	89	68	92	43	38
21	102	98	54	48	40	45	129	93	70	92	50	37
22	114	97	52	46	41	48	127	97	69	88	60	36
23	118	84	52	45	43	50	137	92	72	81	57	34
24	115	100	56	46	43	54	161	90	75	81	75	34
25	95	90	58	48	43	53	168	89	68	85	77	36
26	85	87	60	50	43	62	153	89	66	109	66	39
27	82	79	58	52	43	69	146	88	67	114	60	42
28	81	88	60	52	43	55	137	84	74	105	62	34
29	80	88	60	50	---	61	134	80	87	102	70	51
30	80	82	60	48	---	53	133	90	149	129	55	44
31	82	---	60	46	---	69	---	94	---	128	61	---
TOTAL	3195	2930	2035	1537	1245	1531	4827	2932	2577	3140	2066	1212
MEAN	103	97.7	65.6	49.6	44.5	49.4	161	94.6	85.9	101	66.6	40.4
MAX	149	141	107	56	50	69	246	130	149	137	104	69
MIN	78	79	52	44	40	43	85	80	66	81	43	31
AC-FT	6340	5810	4040	3050	2470	3040	9570	5820	5110	6230	4100	2400
CAL YR 1986	TOTAL 49630											
WTR YR 1987	TOTAL 29227											
			MEAN 136	MAX 419	MIN 38	AC-FT 98	440					
			MEAN 80.1	MAX 246	MIN 31	AC-FT 57	970					

09237500 YAMPA RIVER NEAR OAK CREEK, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT DISCHARGE: May 1985 to current year, (seasonal record May to September).

INSTRUMENTATION.--Automatic pumping sediment sampler since May 1985.

REMARKS.--This station is part of a hydrologic investigation for a proposed reservoir, data for related stations, Martin Creek, Little Morrison Creek, Middle Creek, and Yampa River, (all located above the dam site) are published elsewhere in this report. Daily sediment discharge not determined after Aug. 23, sampler intake was buried.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 30...	1130	79	367	8.4	6.5	9.5	190	47	17
FEB 02...	1115	46	308	8.1	0.5	--	160	42	14
MAR 18...	1130	44	434	8.3	1.5	--	200	52	18
APR 22...	1245	117	503	8.2	9.5	11.1	230	58	20
MAY 20...	1300	94	333	8.3	12.0	9.8	230	57	20
JUN 22...	1215	73	--	8.9	17.5	--	290	75	24
JUL 14...	1300	113	495	7.8	15.5	7.9	270	71	23
AUG 19...	1130	46	452	8.5	14.5	8.5	210	52	19
31...	1200	61	--	--	13.0	8.6	220	55	21

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	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)
OCT 30...	10	0.3	1.8	150	47	2.1	0.10	18	234
FEB 02...	8.5	0.3	2.1	140	33	2.3	0.10	20	206
MAR 18...	12	0.4	4.4	167	67	4.8	0.10	19	278
APR 22...	14	0.4	3.2	175	100	3.2	0.20	17	321
MAY 20...	12	0.4	2.8	174	73	3.0	<0.10	18	291
JUN 22...	14	0.4	2.2	244	74	2.1	0.20	20	358
JUL 14...	13	0.4	2.2	227	61	1.5	0.20	19	327
AUG 19...	11	0.3	1.9	186	47	1.9	0.20	19	264
31...	13	0.4	2.2	159	63	1.9	0.20	19	271

DATE	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 DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 30...	0.32	49.8	<0.010	<0.100	<0.010	--	0.30	0.030	0.020
FEB 02...	0.28	25.6	<0.010	0.170	0.060	0.44	0.50	0.030	0.030
MAR 18...	0.38	33.0	<0.010	<0.100	0.040	0.56	0.60	0.040	0.020
APR 22...	0.44	101	<0.010	0.180	0.040	0.56	0.60	0.030	0.010
MAY 20...	0.39	73.6	<0.010	<0.100	0.050	0.85	0.90	0.040	0.040
JUN 22...	0.49	70.7	<0.010	<0.100	0.020	0.68	0.70	0.030	0.020
JUL 14...	0.44	99.8	<0.010	<0.100	0.040	0.56	0.60	0.040	0.020
AUG 19...	0.36	32.7	<0.010	<0.100	0.010	--	<0.20	0.020	<0.010
31...	0.37	44.6	<0.010	<0.100	<0.010	--	0.40	0.020	<0.010

GREEN RIVER BASIN

09237500 YAMPA RIVER NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	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)
OCT 30...	50	1	1	37	<0.5	20	1	<1	<1	3	250
MAY 20...	80	3	1	50	<0.5	--	<1	<1	<1	13	110
JUN 22...	<10	<1	1	62	<0.5	30	<1	1	<1	2	36

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	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)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 30...	<5	15	20	<0.1	2	1	1	<1.0	260	7
MAY 20...	<5	--	21	<0.1	<1	2	<1	<1.0	310	5
JUN 22...	<5	--	17	<0.1	<1	9	<1	<1.0	400	11

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
NOV 18...	1030	94	405	2.5	MAY 15...	1155	82	430	14.0
MAR 18...	1130	44	434	1.5	JUN 03...	1335	71	491	15.0
31...	1530	36	436	1.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	1130	79	43	9.2	--
MAR 18...	1130	44	142	17	--
31...	1530	36	73	7.1	--
APR 22...	1245	117	175	55	--
MAY 15...	1155	82	43	9.5	--
20...	1300	94	89	23	--
JUN 03...	1335	71	23	4.4	--
22...	1215	73	26	5.1	--
JUL 14...	1300	113	66	20	60
23...	1100	81	49	11	--
AUG 04...	0830	70	44	8.3	--
14...	1330	75	42	8.5	--
19...	1130	46	23	2.9	--
31...	1200	61	47	7.7	62
SEP 17...	1230	56	473	72	--

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR MAY 1987 TO SEPTEMBER 1987

DAY	MEAN			MEAN			MEAN		
	MEAN DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1				130	---	---	86	29	6.7
2				128	---	---	74	---	5.6
3				120	---	---	67	24	4.3
4				101	---	---	69	28	5.2
5				95	---	---	73	33	6.5
6				93	---	---	68	28	5.1
7				99	---	---	78	31	6.5
8				97	---	---	125	67	23
9				92	---	---	149	65	26
10				87	---	---	130	72	25
11				97	---	---	110	35	10
12				99	---	---	96	56	14
13				101	---	---	84	22	5.0
14				93	---	---	82	34	7.5
15				84	43	9.8	103	58	16
16				81	35	7.6	97	50	13
17				85	45	10	79	41	8.7
18				87	---	15	72	30	5.8
19				88	---	19	70	16	3.0
20				89	90	22	68	15	2.8
21				93	76	19	70	36	6.8
22	127	---	---	97	52	14	69	28	5.2
23	137	---	---	92	54	13	72	142	28
24	161	---	---	90	58	14	75	150	30
25	168	---	---	89	54	13	68	141	26
26	153	---	---	89	38	9.1	66	90	16
27	146	---	---	88	32	7.6	67	25	4.5
28	137	---	---	84	48	11	74	47	9.4
29	134	---	---	80	56	12	87	39	9.2
30	133	---	---	90	46	11	149	127	51
31	---	---	---	94	32	8.1	---	---	---
TOTAL	4827	---	---	2932	---	---	2577	---	385.8
	JULY			AUGUST			SEPTEMBER		
1	136	---	42	104	145	41	69	---	---
2	107	84	24	86	88	20	52	---	---
3	97	84	22	79	85	18	42	---	---
4	93	---	23	70	48	9.1	41	---	---
5	90	123	30	66	40	7.1	41	---	---
6	83	116	26	62	38	6.4	37	---	---
7	81	90	20	88	35	8.3	39	---	---
8	84	67	15	86	40	9.3	38	---	---
9	90	96	23	73	35	6.9	40	---	---
10	82	175	39	68	24	4.4	32	---	---
11	88	243	58	70	30	5.7	31	---	---
12	126	305	104	74	80	16	31	---	---
13	137	244	90	68	47	8.6	36	---	---
14	117	95	30	72	42	8.2	37	---	---
15	107	80	23	61	24	4.0	40	---	---
16	100	42	11	58	24	3.8	50	---	---
17	102	136	37	52	31	4.4	56	---	---
18	115	214	66	47	22	2.8	38	---	---
19	99	127	34	46	49	6.1	37	---	---
20	92	105	26	43	18	2.1	38	---	---
21	92	75	19	50	20	2.7	37	---	---
22	88	78	18	60	29	4.7	36	---	---
23	81	63	14	57	32	4.9	34	---	---
24	81	77	17	75	---	---	34	---	---
25	85	88	20	77	---	---	36	---	---
26	109	125	37	66	---	---	39	---	---
27	114	151	46	60	---	---	42	---	---
28	105	97	27	62	---	---	34	---	---
29	102	102	28	70	---	---	51	---	---
30	129	286	100	55	---	---	44	---	---
31	128	248	86	61	---	---	---	---	---
TOTAL	3140	---	1155	2066	---	---	1212	---	---

GREEN RIVER BASIN

09238500 WALTON CREEK NEAR STEAMBOAT SPRINGS, CO

LOCATION.--Lat 40°24'29", long 106°47'11", in SW¼NW¼ sec.11, T.5 N., R.84 W., Routt County, Hydrologic Unit 14050001, on left bank, 0.4 mi upstream from Beaver Creek, 0.6 mi downstream from Storm King Creek, 4.5 mi upstream from mouth, and 6.0 mi southeast of Steamboat Springs.

DRAINAGE AREA.--42.4 mi².

PERIOD OF RECORD.--October 1920 to September 1922, monthly discharge only, published in WSP 1313. October 1965 to September 1973, flow of Highline Canal included. Annual maximum discharge, water years 1978-81. May 1982 to September 1987 (discontinued).

REVISED RECORDS.--WDR-CO-82-3: 1978-81 (M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,050 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1965, water-stage recorder at site 0.2 mi downstream at different datum. Supplementary water-stage recorder on Highline Canal, May 18, 1966 to Sept. 30, 1973. Operated as a crest-stage partial-record site, June 1978 to May 1982, at present site and datum. October 1983 to current year.

REMARKS.--Estimated daily discharges: Dec. 8-23, Dec. 26 to Jan. 7, Jan. 18 to Feb. 1, and Feb. 8-16. Records good except for estimated daily discharges, which are poor. Diversion upstream from station by Highline Canal from Beaver and Storm King Creeks for irrigation downstream from station. No other diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--15 years (water years 1921-22, 1966-73, 1984-87), 86.1 ft³/s; 62,380 acre-ft/yr, unadjusted for diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,800 ft³/s, June 15, 1921; minimum daily, 4.5 ft³/s Oct. 29, Nov. 7, 8, 1921, Aug. 28, 29, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 5	2130	*666	*2.22	No other peak greater than base discharge.			
Minimum daily, 5.6 ft ³ /s, Sept. 27-30.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	29	22	8.0	9.6	10	11	375	191	61	18	7.3
2	33	26	21	8.0	10	10	11	348	178	33	13	7.4
3	41	23	18	8.0	10	9.9	12	263	161	26	11	7.4
4	36	25	16	8.0	10	10	12	222	147	22	9.7	9.7
5	30	25	15	8.2	10	10	15	230	141	21	8.9	9.9
6	36	24	15	8.5	10	10	17	294	138	19	8.7	8.4
7	43	22	14	9.0	10	10	22	358	132	18	14	7.4
8	46	21	13	10	11	11	26	391	148	17	18	6.7
9	46	20	13	9.3	10	11	27	442	180	17	14	6.6
10	43	21	12	8.6	9.4	11	31	434	165	16	11	6.6
11	39	20	12	8.1	8.8	11	31	424	131	16	9.4	6.3
12	28	20	12	7.5	11	11	29	445	120	35	9.2	6.0
13	24	18	12	7.3	10	11	29	493	98	33	8.8	5.9
14	23	18	11	7.3	10	11	27	486	87	19	16	6.5
15	22	18	11	7.5	10	11	33	484	78	16	14	7.0
16	21	17	11	7.8	11	11	52	488	87	14	13	7.0
17	21	17	11	8.4	11	11	71	432	68	14	12	7.1
18	21	17	10	7.5	11	11	96	383	59	19	9.1	7.1
19	21	21	10	7.2	11	11	124	355	54	14	7.9	6.4
20	23	26	10	7.0	11	11	127	309	48	12	8.1	6.3
21	24	29	10	7.8	11	11	103	289	45	12	9.0	6.3
22	24	26	9.6	9.0	11	11	105	280	40	12	9.4	6.3
23	27	25	9.6	9.0	11	11	135	271	38	11	8.9	6.3
24	28	24	10	8.0	11	11	187	253	34	10	11	6.3
25	28	23	10	7.6	11	11	225	241	32	9.9	22	6.3
26	26	22	9.2	7.8	11	11	240	231	29	15	19	5.8
27	27	23	8.5	8.4	10	12	265	217	27	18	13	5.6
28	28	22	7.0	9.2	10	12	303	192	25	15	10	5.6
29	28	22	7.5	9.2	---	12	342	188	33	14	9.2	5.6
30	29	21	8.0	9.2	---	12	343	192	71	15	8.6	5.6
31	32	---	8.0	9.4	---	11	---	193	---	20	7.7	---
TOTAL	931	665	366.4	255.8	290.8	337.9	3051	10203	2785	593.9	361.6	202.7
MEAN	30.0	22.2	11.8	8.25	10.4	10.9	102	329	92.8	19.2	11.7	6.76
MAX	46	29	22	10	11	12	343	493	191	61	22	9.9
MIN	21	17	7.0	7.0	8.8	9.9	11	188	25	9.9	7.7	5.6
AC-FT	1850	1320	727	507	577	670	6050	20240	5520	1180	717	402

CAL YR 1986 TOTAL 29874.6 MEAN 81.8 MAX 741 MIN 7.0 AC-FT 59250
WTR YR 1987 TOTAL 20044.0 MEAN 54.9 MAX 493 MIN 5.6 AC-FT 39760

09238705 LONG LAKE INLET NEAR BUFFALO PASS, CO

LOCATION.--Lat 40°28'25", Long 106°40'46", in SE¼NW¼ sec. 23, T.6N., R.83W., Routt County, Hydrologic Unit 14050001, on left bank 0.1 mi above Long Lake, and 7.5 mi east of Steamboat Springs.

DRAINAGE AREA.--0.71 mi².

PERIOD OF RECORD.--October 1986 to September 1987.

GAGE.--Water-stage recorder. Elevation of gage is 9,875 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 10 to Apr. 10, and June 7-19. Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16 ft³/s, May 11, 1987, gage height, 2.67 ft; minimum daily, 0.05 ft³/s, Sept. 30, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 16 ft³/s at 0130 May 11, gage height, 2.67 ft; minimum daily, 0.05 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.33	.16	.33	.12	.13	.08	.07	5.9	7.8	1.1	.26	.11
2	.35	.17	.33	.12	.12	.08	.07	5.4	7.2	.56	.17	.12
3	.40	.18	.31	.12	.12	.08	.07	3.6	6.8	.42	.13	.14
4	.36	.18	.31	.12	.12	.08	.07	2.3	6.6	.35	.12	.25
5	.36	.17	.29	.12	.12	.08	.07	2.2	6.1	.32	.11	.15
6	.51	.16	.27	.12	.12	.08	.07	4.4	5.4	.26	.13	.10
7	.95	.15	.27	.12	.12	.08	.08	6.5	6.2	.26	.46	.1
8	1.0	.15	.27	.12	.12	.08	.08	7.2	7.4	.26	.23	.12
9	.84	.15	.27	.12	.12	.08	.08	8.4	8.0	.26	.11	.13
10	.70	.15	.25	.12	.11	.08	.08	9.4	4.1	.23	.1	.12
11	.55	.15	.23	.13	.10	.08	.09	10	3.5	.56	.09	.13
12	.42	.15	.23	.14	.09	.07	.09	9.9	3.0	1.5	.09	.11
13	.31	.15	.22	.14	.09	.07	.09	10	2.5	.55	.14	.08
14	.26	.15	.22	.14	.09	.06	.09	12	2.3	.34	.30	.17
15	.25	.15	.22	.14	.09	.06	.11	13	2.1	.28	.29	.16
16	.26	.15	.22	.14	.09	.06	.24	12	2.0	.26	.37	.19
17	.28	.15	.22	.14	.09	.06	.93	11	1.5	.57	.12	.28
18	.32	.13	.22	.14	.09	.06	2.0	11	1.3	.30	.09	.19
19	.34	.10	.21	.14	.09	.06	2.0	9.7	1.2	.14	.08	.16
20	.21	.10	.16	.14	.09	.06	1.4	9.1	1.0	.10	.09	.14
21	.19	.10	.15	.13	.09	.06	.73	8.1	.90	.19	.12	.14
22	.24	.10	.13	.13	.09	.06	.74	8.3	.80	.20	.1	.07
23	.20	.10	.13	.13	.09	.06	1.8	8.1	.70	.24	.19	.06
24	.18	.10	.12	.13	.09	.06	3.5	7.1	.60	.21	.64	.06
25	.16	.10	.12	.13	.08	.06	3.5	6.7	.55	.26	.48	.06
26	.17	.10	.12	.13	.08	.06	3.7	5.2	.43	.67	.24	.08
27	.19	.10	.12	.13	.08	.06	3.8	4.9	.36	.81	.13	.06
28	.18	.11	.12	.13	.08	.06	4.9	6.4	.32	.24	.12	.05
29	.17	.28	.12	.13	---	.06	5.6	7.5	1.4	.22	.12	.06
30	.17	.33	.12	.13	---	.07	5.1	8.9	1.8	.29	.12	.05
31	.17	---	.12	.13	---	.07	---	8.3	---	.91	.11	---
TOTAL	11.02	4.42	6.42	4.02	2.79	2.12	41.15	242.5	93.86	12.86	5.85	3.64
MEAN	.36	.15	.21	.13	.100	.068	1.37	7.82	3.13	.41	.19	.12
MAX	1.0	.33	.33	.14	.13	.08	5.6	13	8.0	1.5	.64	.28
MIN	.16	.10	.12	.12	.08	.06	.07	2.2	.32	.10	.08	.05
AC-FT	22	8.8	13	8.0	5.5	4.2	82	481	186	26	12	7.2

WTR YR 1987 TOTAL 430.65 MEAN 1.18 MAX 13 MIN .05 AC-FT 854

GREEN RIVER BASIN

09238710 FISH CREEK TRIBUTARY BELOW LONG LAKE, NEAR BUFFALO PASS, CO.

LOCATION.--Lat 40°28'36", Long 106°41'13", in NE¼SE¼ sec. 22, T.6N., R.83W., Routt county, Hydrologic Unit 14050001, on right bank, 0.1 mi below Long Lake Spillway, and 7.5 mi east of Steamboat Springs.

DRAINAGE AREA.--1.03 mi².

PERIOD OF RECORD.--August 29, 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,860 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 28 to May 5. Records fair except for estimated daily discharges, which are poor. Flow regulated by Long Lake Reservoir, capacity 397 acre-ft, 0.1 mi upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 59 ft³/s, June 17, 1986, from rating curve extended above 16 ft³/s; maximum gage height, 3.13 ft, May 16, 1987 (backwater from ice); no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 30 ft³/s at 0800 May 17, from rating curve extended above 16 ft³/s, gage height, 2.07 ft; maximum gage height, 3.13 ft at 1900 May 16 (backwater from ice); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.02	.09	.05	.03	.02	.00	.16	13	.72	.00	.00
2	.03	.02	.09	.04	.03	.02	.00	.15	11	.59	.00	.00
3	.03	.02	.09	.04	.03	.02	.00	.14	8.9	.39	.00	.00
4	.03	.02	.08	.04	.03	.02	.00	.10	8.0	.24	.00	.00
5	.03	.02	.08	.03	.03	.02	.00	.03	7.5	.12	.00	.00
6	.02	.01	.08	.03	.03	.02	.00	.02	6.8	.05	.00	.00
7	.02	.01	.08	.03	.03	.02	.00	.03	7.0	.02	.00	.00
8	.03	.01	.08	.03	.03	.02	.00	.03	8.0	.00	.00	.00
9	.04	.02	.08	.03	.03	.02	.00	.05	9.7	.00	.00	.00
10	.04	.04	.08	.03	.03	.02	.00	15	9.8	.00	.00	.00
11	.04	.03	.07	.03	.03	.01	.00	2.5	6.3	.00	.00	.00
12	.04	.03	.07	.03	.03	.01	.00	1.2	5.3	.01	.00	.00
13	.03	.03	.07	.03	.03	.01	.01	.69	4.4	.01	.00	.00
14	.02	.02	.07	.03	.03	.01	.01	.45	3.7	.00	.00	.00
15	.01	.02	.07	.03	.03	.01	.01	.50	3.3	.00	.00	.00
16	.01	.02	.06	.03	.03	.01	.01	13	3.6	.00	.00	.00
17	.01	.02	.06	.03	.02	.01	.01	28	2.8	.00	.00	.00
18	.01	.03	.06	.03	.02	.00	.01	18	2.1	.00	.00	.00
19	.01	.04	.06	.03	.02	.01	.01	15	1.6	.00	.00	.00
20	.02	.04	.06	.03	.02	.00	.01	11	1.3	.00	.00	.00
21	.03	.04	.06	.03	.02	.00	.01	9.3	1.1	.00	.00	.00
22	.08	.05	.06	.03	.02	.00	.01	7.0	.84	.00	.00	.00
23	.06	.05	.06	.03	.02	.00	.01	7.2	.67	.00	.00	.00
24	.04	.04	.06	.03	.02	.00	.01	7.2	.54	.00	.00	.00
25	.03	.03	.05	.03	.02	.00	.01	5.8	.43	.00	.00	.00
26	.02	.03	.05	.03	.02	.00	.02	5.1	.35	.00	.00	.00
27	.02	.03	.05	.03	.02	.00	.04	3.9	.26	.00	.00	.00
28	.02	.04	.05	.03	.02	.00	.11	2.9	.18	.00	.00	.00
29	.02	.08	.05	.03	---	.00	.15	3.4	.16	.00	.00	.00
30	.01	.09	.05	.03	---	.00	.14	4.6	.37	.00	.00	.00
31	.02	---	.05	.03	---	.00	---	9.1	---	.00	.00	---
TOTAL	.86	.95	2.07	.98	.72	.28	.59	171.55	129.00	2.15	.00	.00
MEAN	.028	.032	.067	.032	.026	.009	.020	5.53	4.30	.069	.000	.000
MAX	.08	.09	.09	.05	.03	.02	.15	28	13	.72	.00	.00
MIN	.01	.01	.05	.03	.02	.00	.00	.02	.16	.00	.00	.00
AC-FT	1.7	1.9	4.1	1.9	1.4	.6	1.2	340	256	4.3	.00	.00

CAL YR 1986 TOTAL 1334.04 MEAN 3.65 MAX 47 MIN .00 AC-FT 2640
WTR YR 1987 TOTAL 309.15 MEAN .85 MAX 28 MIN .00 AC-FT 613

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.99	1.4	.50	.40	.50	.40	.40	15	19	2.3	.39	.23
2	1.2	1.4	.50	.40	.50	.40	.40	16	16	1.2	.31	.22
3	1.3	1.1	.50	.40	.48	.40	.40	12	14	.95	.28	.24
4	1.2	.98	.50	.40	.50	.40	.40	5.4	13	.83	.26	.36
5	1.2	.90	.50	.40	.50	.40	.40	4.7	12	.77	.25	.26
6	1.4	.82	.50	.40	.50	.40	.40	7.4	11	.67	.26	.23
7	2.0	.80	.50	.40	.50	.40	.40	12	12	.63	.57	.20
8	2.6	.75	.50	.40	.50	.40	.40	15	13	.59	.39	.20
9	3.1	.70	.50	.40	.50	.40	.40	19	15	.56	.27	.20
10	3.0	.70	.50	.40	.50	.40	.40	21	11	.50	.26	.19
11	2.7	.70	.45	.40	.50	.35	.50	18	7.2	.73	.25	.19
12	1.5	.70	.45	.40	.50	.35	.50	17	6.0	2.1	.25	.18
13	.68	.70	.45	.40	.50	.35	.50	22	5.0	.89	.29	.18
14	.71	.70	.45	.40	.50	.35	.50	22	4.3	.58	.54	.19
15	.88	.70	.45	.40	.50	.35	.50	23	4.1	.50	.42	.19
16	1.0	.60	.45	.45	.40	.35	.50	27	3.9	.45	.71	.22
17	1.2	.60	.45	.45	.40	.35	.89	26	2.9	2.9	.29	.42
18	1.3	.60	.45	.45	.40	.35	2.4	25	2.5	1.1	.26	.23
19	1.5	.60	.45	.45	.40	.35	12	20	2.1	.51	.25	.20
20	1.4	.60	.45	.45	.40	.35	27	17	1.9	.41	.25	.19
21	1.2	.60	.40	.45	.40	.35	18	13	1.7	.39	.28	.17
22	1.4	.60	.40	.45	.40	.35	7.9	12	1.5	.38	.25	.17
23	1.2	.60	.41	.45	.40	.35	5.5	13	1.4	.33	.35	.17
24	.97	.60	.40	.45	.40	.35	5.0	12	1.3	.30	.72	.16
25	.92	.60	.40	.45	.40	.35	30	10	1.1	.30	.59	.16
26	1.1	.55	.40	.45	.40	.35	66	8.5	1.0	.65	.33	.17
27	1.0	.55	.40	.45	.40	.35	33	6.8	.94	1.1	.28	.16
28	1.1	.57	.40	.45	.40	.35	13	8.8	.86	.45	.27	.15
29	1.1	.55	.40	.45	---	.35	14	10	3.1	.36	.28	.15
30	1.0	.55	.40	.45	---	.35	15	14	3.8	.36	.25	.15
31	1.0	---	.40	.45	---	.35	---	19	---	.96	.24	---
TOTAL	42.85	21.82	13.91	13.20	12.68	11.35	256.69	471.6	192.60	24.75	10.59	6.13
MEAN	1.38	.73	.45	.43	.45	.37	8.56	15.2	6.42	.80	.34	.20
MAX	3.1	1.4	.50	.45	.50	.40	66	27	19	2.9	.72	.42
MIN	.68	.55	.40	.40	.40	.35	.40	4.7	.86	.30	.24	.15
AC-FT	85	43	28	26	25	23	509	935	382	49	21	12
CAL YR 1986	TOTAL 1820.26		MEAN 4.99	MAX 62	MIN .02	AC-FT 3610						
WTR YR 1987	TOTAL 1078.16		MEAN 2.95	MAX 66	MIN .15	AC-FT 2140						

LOCATION.--Lat 40°29'35", Long 106°41'31", NE¼NE¼ sec. 15, T.6N., R.83W., Routt County, Hydrologic Unit 140500001, on left bank 0.1 mi upstream from Fish Creek Reservoir, and 7.5 mi east of Steamboat Springs.

PERIOD OF RECORD.--August 31, 1984 to current year.

REMARKS.--Estimated daily discharges: Oct. 26 to May 12. Records good except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90 ft³/s, June 14, 1985, gage height, 3.90 ft, from highwater marks, from rating curve extended above 29 ft³/s, minimum daily, 0.18 ft³/s, Jan. 21, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 49 ft³/s, May 18; minimum daily, 0.36 ft³/s, Mar. 16-31.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.7	1.0	.65	.55	.40	.40	28	42	6.8	1.3	.50
2	2.2	2.5	.96	.65	.55	.40	.40	26	38	3.4	.96	.50
3	2.6	2.3	.94	.65	.55	.40	.40	24	36	2.7	.83	.57
4	2.3	2.0	.92	.65	.55	.40	.40	22	34	2.4	.75	.91
5	2.3	1.8	.90	.65	.55	.40	.40	20	31	2.3	.69	.66
6	2.6	1.7	.90	.65	.50	.40	.40	25	30	1.9	.85	.55
7	3.2	1.6	.90	.65	.50	.40	.40	32	31	1.8	2.2	.54
8	4.5	1.5	.90	.65	.50	.40	.40	35	33	1.7	1.4	.54
9	5.1	1.4	.90	.65	.50	.40	.40	40	37	1.6	.80	.53
10	4.9	1.4	.90	.65	.50	.40	.40	42	29	1.3	.69	.50
11	4.5	1.4	.85	.65	.50	.40	.40	40	22	2.4	.65	.50
12	3.1	1.4	.80	.65	.50	.40	.40	39	18	6.4	.64	.51
13	2.1	1.4	.80	.65	.50	.40	.40	41	16	2.5	.83	.50
14	1.6	1.4	.80	.65	.50	.40	.40	43	14	1.6	1.7	.60
15	1.6	1.4	.80	.65	.50	.40	.40	45	13	1.3	.92	.56
16	1.6	1.3	.80	.60	.50	.36	.50	48	12	1.3	1.4	.65
17	1.7	1.3	.80	.60	.50	.36	.60	48	9.2	3.4	.71	1.1
18	2.1	1.3	.80	.60	.50	.36	12	49	7.8	2.1	.62	.62
19	2.3	1.3	.80	.60	.50	.36	27	45	6.8	1.3	.59	.52
20	2.4	1.3	.75	.60	.50	.36	20	41	6.1	1.2	.59	.50
21	2.2	1.2	.70	.60	.45	.36	10	34	5.2	1.1	.66	.50
22	2.3	1.2	.70	.60	.45	.36	7.0	31	4.7	1.1	.62	.46
23	2.1	1.2	.70	.60	.45	.36	25	34	4.2	1.0	.86	.46
24	1.8	1.2	.70	.60	.45	.36	35	30	3.8	.98	2.1	.46
25	1.7	1.2	.70	.60	.45	.36	40	25	3.5	.97	1.5	.46
26	2.2	1.2	.70	.60	.45	.36	40	22	3.4	2.0	.77	.46
27	2.0	1.2	.70	.60	.45	.36	35	17	3.1	2.9	.61	.46
28	2.2	1.1	.70	.60	.45	.36	15	21	2.8	1.8	.59	.45
29	2.1	1.1	.70	.60	---	.36	16	27	8.8	1.2	.59	.45
30	2.0	1.1	.70	.60	---	.36	17	32	10	1.1	.55	.45
31	2.2	---	.70	.60	---	.36	---	41	---	3.8	.51	---
TOTAL	77.6	44.1	24.92	19.35	13.85	11.76	306.10	1047	515.4	67.35	28.48	16.47
MEAN	2.50	1.47	.80	.62	.49	.38	10.2	33.8	17.2	2.17	.92	.55
MAX	5.1	2.7	1.0	.65	.55	.40	40	49	42	6.8	2.2	1.1
MIN	1.6	1.1	.70	.60	.45	.36	.40	17	2.8	.97	.51	.45
AC-FT	154	87	49	38	27	23	607	2080	1020	134	56	33
CAL YR 1986	TOTAL	3008.95	MEAN	8.24	MAX	80	MIN	.00	AC-FT	5970		
WTR YR 1987	TOTAL	2172.36	MEAN	5.95	MAX	49	MIN	.36	AC-FT	4310		

09238800 MIDDLE FORK FISH CREEK TRIBUTARY, BELOW FISH CREEK RESERVOIR, CO

LOCATION.--Lat 40°29'50", Long 106°41'54", in NW¼SE¼ sec. 10, T.6N., R.83W., Routt County, Hydrologic Unit 14050001, on right bank, at Fish Creek Reservoir Spillway, and 7.5 mi east of Steamboat Springs.

DRAINAGE AREA.--4.78 mi².

PERIOD OF RECORD.--August 31, 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,855 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 9-11. Records excellent except for periods of flow, which are fair. Flow regulated by Fish Creek Reservoir, capacity, 1,840 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 130 ft³/s, June 7, 1985, gage height, 1.75 ft, from floodmarks, from rating curve extended above 26 ft³/s; maximum gage height, 3.67 ft, May 10, 1987 (ice jam); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 77 ft³/s, May 17, no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	64	12	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	60	7.7	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	59	4.5	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	56	2.8	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	52	2.0	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.09	48	1.4	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.14	48	.95	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	3.8	53	.67	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	45	60	.47	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	60	57	.31	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	57	41	.23	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	53	34	.53	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	60	29	.95	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	65	25	.74	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	66	21	.48	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	75	21	.28	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	77	17	.36	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	76	13	.80	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	70	11	.56	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	61	8.9	.33	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	55	7.7	.17	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	46	6.6	.11	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	47	5.6	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	49	4.8	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	42	3.9	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	39	3.3	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	32	2.6	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	28	2.1	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	38	2.9	.00	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	44	7.1	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	60	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	1249.03	824.5	38.34	.00	.00
MEAN	.00	.00	.00	.00	.00	.00	.00	40.3	27.5	1.24	.00	.00
MAX	.00	.00	.00	.00	.00	.00	.00	77	64	12	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	2480	1640	76	.00	.00

CAL YR 1986 TOTAL 3628.74 MEAN 9.94 MAX 120 MIN .00 AC-FT 7200
WTR YR 1987 TOTAL 2111.87 MEAN 5.79 MAX 77 MIN .00 AC-FT 4190

GREEN RIVER BASIN

09238900 FISH CREEK AT UPPER STATION, NEAR STEAMBOAT SPRINGS, CO

LOCATION.--Lat 40°28'30", long 106°47'11", in SE¼SE¼ sec.15, T.6 N., R.84 W., Routt County, Hydrologic Unit 14050001, on right bank 2.6 mi upstream from mouth and 2.5 mi east of Steamboat Springs.

DRAINAGE AREA.--24.8 mi².

PERIOD OF RECORD.--October 1966 to September 1972, May 1982 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,150 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station by Mount Werner Recreation district and City of Steamboat Springs for domestic use began in 1972 (see table below for figures of diversion). Natural flow of stream affected by storage in Fish Creek and Long Lake Reservoir, combined capacity 2,237 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft³/s, June 20, 1968, gage height, 3.14 ft; minimum daily, 0.01 ft³/s, Aug. 7, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 641 ft³/s, at 2045 May 16, gage height, 2.53 ft; minimum daily, 1.3 ft³/s, July 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	18	9.9	4.6	4.0	4.9	7.2	226	302	46	7.0	3.3
2	14	16	9.6	5.0	4.3	5.0	7.3	195	266	24	4.5	3.3
3	17	17	10	4.8	4.6	5.0	8.3	134	245	16	3.4	3.3
4	15	17	10	5.3	5.0	4.8	9.6	112	237	10	1.8	6.1
5	14	16	9.5	5.2	4.9	5.4	11	116	226	8.1	1.4	5.4
6	15	15	9.3	5.3	4.8	6.1	10	161	217	6.4	2.2	4.1
7	20	12	9.0	5.6	4.6	7.3	14	202	223	5.5	11	4.1
8	22	13	8.7	5.2	4.6	7.4	17	232	231	3.7	7.4	3.4
9	24	15	7.8	4.8	4.9	7.5	18	268	258	3.1	4.6	3.2
10	25	14	7.3	4.5	5.4	8.1	17	304	231	2.4	3.2	3.7
11	23	15	7.6	4.7	5.0	7.7	17	408	178	4.4	2.2	3.0
12	18	14	7.2	5.0	5.4	7.1	15	352	152	23	2.6	2.6
13	15	14	7.1	5.3	5.6	7.8	15	388	130	10	3.5	3.3
14	14	14	6.9	5.2	5.5	8.5	15	401	114	5.9	11	3.7
15	13	13	6.7	5.1	5.4	8.9	20	430	107	3.6	6.0	4.1
16	13	13	6.4	5.0	5.5	8.5	30	478	100	2.8	10	4.3
17	13	13	6.2	4.3	5.1	8.0	47	471	79	34	5.6	6.9
18	13	13	6.5	4.1	4.6	8.3	66	462	66	23	3.9	5.5
19	13	17	6.1	4.6	5.0	8.4	74	400	56	6.4	2.9	4.7
20	15	20	5.6	4.5	5.0	8.1	69	353	46	4.7	3.1	4.2
21	16	16	6.3	3.7	5.2	8.2	56	315	37	3.8	4.6	3.3
22	16	16	6.3	4.1	5.4	8.0	58	263	30	2.9	4.4	3.6
23	17	17	6.0	4.6	4.6	7.4	82	260	25	2.2	4.4	3.8
24	18	14	5.5	4.7	4.4	7.1	109	252	21	1.6	8.7	3.2
25	17	13	5.8	4.3	5.1	7.5	127	222	19	1.3	14	2.5
26	17	13	5.8	4.2	4.9	7.6	139	202	16	8.6	7.4	2.8
27	18	12	5.6	4.8	4.4	7.6	157	171	10	13	5.8	3.0
28	19	11	5.0	4.8	5.0	7.3	175	159	9.6	6.5	5.0	2.9
29	18	11	4.2	4.6	---	6.7	190	177	32	5.5	4.8	2.9
30	18	11	4.7	4.7	---	7.2	190	208	47	5.0	4.4	3.8
31	19	---	4.9	4.2	---	6.9	---	274	---	11	3.8	---
TOTAL	520	433	217.5	146.8	138.2	224.3	1770.4	8596	3710.6	304.4	164.6	114.0
MEAN	16.8	14.4	7.02	4.74	4.94	7.24	59.0	277	124	9.82	5.31	3.80
MAX	25	20	10	5.6	5.6	8.9	190	478	302	46	14	6.9
MIN	11	11	4.2	3.7	4.0	4.8	7.2	112	9.6	1.3	1.4	2.5
AC-FT	1030	859	431	291	274	445	3510	17050	7360	604	326	226
a	157	157	185	222	203	214	167	179	293	312	232	204

CAL YR 1986 TOTAL 25621.1 MEAN 70.2 MAX 570 MIN 1.9 AC-FT 50820
WTR YR 1987 TOTAL 16339.7 MEAN 44.8 MAX 478 MIN 1.3 AC-FT 32410

a - Diversions, in acre-feet, by Mount Werner Water & Sanitation District and City of Steamboat Springs.

09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO

LOCATION.--Lat 40°29'01", long 106°49'54", in NW¼NE¼ sec.17, T.6 N., R.84W., Routt County, Hydrologic Unit 14050001, on right bank 30 ft downstream from Fifth Street Bridge in Steamboat Springs and 0.6 mi upstream from Soda Creek.

DRAINAGE AREA.--604 mi².

PERIOD OF RECORD.--May 1904 to October 1906, October 1909 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 764: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,695.47 ft above National Geodetic Vertical Datum of 1929. Prior to May 8, 1905, nonrecording gage at bridge 0.2 mi upstream at datum 4.16 ft, higher. May 8, 1905, to Oct. 31, 1906, nonrecording gage on bridge 30 ft upstream at datum 0.44 ft, higher. Mar. 8, 1910, to Sept. 11, 1934, water-stage recorder at present site at datum 0.44 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 3 to Mar. 6, May 1-8, and July 21-22. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by two diversions for irrigation to Egeria Creek in Colorado River basin, one diversion for irrigation from Trout Creek drainage to Oak Creek drainage, irrigation of about 19,700 acres upstream from station, and by storage reservoirs. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--80 years, 472 ft³/s; 342,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,820 ft³/s, June 14, 1921, gage height, 7.08 ft, present datum, from rating curve extended above 4,800 ft³/s; maximum gage height, 7.12 ft, June 25, 1984; minimum daily discharge, 4.0 ft³/s, Sept. 8, 1934, Sept. 10-13, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 16	2100	*2,230	*4.92				

Minimum daily, 42 ft³/s, Jan. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	174	239	83	60	46	57	137	1320	832	377	257	83
2	184	187	84	56	48	57	188	1300	772	301	197	80
3	231	179	79	62	53	57	217	1280	714	226	157	75
4	218	164	75	62	56	56	338	1220	665	186	131	82
5	203	152	84	52	55	60	532	1240	640	169	118	84
6	214	148	83	56	54	70	660	1260	621	158	109	83
7	235	142	79	62	52	83	800	1310	612	145	137	79
8	243	144	74	64	54	86	868	1390	704	130	194	76
9	275	153	78	60	57	169	848	1500	878	131	182	72
10	279	119	77	58	60	261	693	1640	840	131	142	73
11	293	104	73	66	58	224	702	1790	706	133	123	73
12	263	180	68	68	60	208	603	1750	623	194	120	73
13	252	309	56	64	63	195	459	1790	525	261	117	71
14	247	303	64	68	62	256	452	1830	463	228	133	68
15	245	262	67	58	62	261	569	1870	434	192	134	68
16	244	243	62	56	60	192	746	1910	452	165	124	67
17	242	263	67	50	59	154	870	1830	388	183	109	74
18	241	221	64	48	54	140	962	1750	333	194	97	75
19	239	202	70	52	58	152	1080	1660	297	166	88	74
20	245	166	70	50	58	178	1120	1490	268	147	84	72
21	255	163	72	42	60	168	905	1410	253	140	80	71
22	272	179	76	47	62	145	858	1280	237	130	88	70
23	260	139	70	50	56	145	965	1160	220	123	97	69
24	255	115	65	50	54	132	1060	1110	202	119	105	68
25	247	91	61	47	58	127	1130	1020	179	115	164	67
26	234	90	65	50	56	124	1180	934	167	174	159	68
27	239	86	70	55	50	132	1200	869	152	189	127	70
28	236	87	72	53	58	121	1250	784	144	180	105	70
29	240	86	72	53	---	111	1380	760	201	174	100	67
30	237	86	69	54	---	104	1300	772	307	203	93	64
31	229	---	66	47	---	108	---	815	---	247	88	---
TOTAL	7471	5002	2215	1720	1583	4333	24072	42044	13829	5611	3959	2186
MEAN	241	167	71.5	55.5	56.5	140	802	1356	461	181	128	72.9
MAX	293	309	84	68	63	261	1380	1910	978	377	257	84
MIN	174	86	56	42	46	56	137	760	144	115	80	64
AC-FT	14820	9920	4390	3410	3140	8590	47750	83390	27430	11130	7850	4340
CAL YR 1986	TOTAL 207392	MEAN 568	MAX 3220	MIN 56	AC-FT 411400							
WTR YR 1987	TOTAL 114025	MEAN 312	MAX 1910	MIN 42	AC-FT 226200							

09241000 ELK RIVER AT CLARK, CO

LOCATION.--Lat 40°43'03", long 106°54'55", in NW¼NW¼ sec.27, T.9 N., R.85 W., Routt County, Hydrologic Unit 14050001, on left bank 30 ft downstream from bridge on State Highway 129, 0.8 mi north of Clark, and 2.0 mi upstream from Cottonwood Gulch.

DRAINAGE AREA.--216 mi² (revised).

PERIOD OF RECORD.--May 1910 to September 1922 (published as "near Clark"), April 1930 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1733: 1956.

GAGE.--Water-stage recorder. Datum of gage is 7,267.75 ft, (State Highway Department bench mark). May 1910 to September 1922, nonrecording gage at site 30 ft upstream at datum 0.15 ft, lower. Apr. 23, 1930, to Sept. 27, 1934, water-stage recorder at present site at datum 0.15 ft, lower.

REMARKS.--Estimated daily discharges: Dec. 10 to Apr. 17. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 230 acres upstream from and about 460 acres downstream from station. Natural flow of stream affected by storage in Lester Creek Reservoir (known also as Pearl Lake), capacity, 5,660 acre-ft, since 1963, and Steamboat Lake, capacity, 23,060 acre-ft, since 1968. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--69 years, 339 ft³/s; 245,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,910 ft³/s, May 23, 1984, gage height, 6.12 ft; minimum daily determined, 22 ft³/s, Dec. 12, 1963, but a lesser discharge may have occurred during periods of no gage-height record prior to 1939.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 16	2300	*1,210	*3.52				

Minimum daily, 39 ft³/s, Mar. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	177	153	99	90	55	56	60	711	511	247	124	151
2	203	149	107	86	55	55	80	664	538	207	106	150
3	225	145	120	92	55	54	100	519	553	191	96	150
4	204	141	128	90	55	54	130	453	591	180	90	156
5	183	143	134	86	56	54	220	466	636	168	83	161
6	180	137	139	90	55	54	280	541	654	156	82	155
7	197	131	138	94	55	58	330	621	720	145	86	153
8	200	119	128	94	57	60	320	669	793	139	88	153
9	194	126	116	96	59	56	370	674	789	134	80	159
10	200	127	116	98	60	56	300	683	766	127	77	213
11	199	125	130	94	61	60	280	707	724	146	75	207
12	171	131	120	100	62	60	230	760	685	218	74	217
13	166	125	115	86	68	68	200	812	642	181	71	217
14	157	121	115	84	68	60	190	855	612	142	81	207
15	155	129	115	82	63	56	190	930	572	128	78	212
16	152	124	110	88	60	54	194	1010	573	120	100	218
17	151	123	110	88	54	55	180	1050	529	118	78	139
18	154	122	105	90	54	56	264	1030	470	127	70	186
19	153	174	105	76	60	56	379	938	438	111	71	219
20	162	138	105	58	56	56	321	867	411	105	109	217
21	167	137	105	54	58	56	255	847	380	102	103	142
22	180	137	105	52	58	56	295	756	345	113	63	68
23	170	103	115	54	68	55	452	703	308	104	68	72
24	174	128	110	52	62	56	520	718	288	94	90	75
25	169	117	115	52	58	48	680	724	275	91	98	76
26	160	120	110	50	55	50	730	689	263	134	92	76
27	162	98	105	50	54	52	722	614	246	151	78	76
28	161	106	100	50	55	45	702	583	230	167	72	76
29	150	110	105	52	---	43	658	512	228	133	129	76
30	151	111	95	52	---	39	612	502	239	118	124	75
31	159	---	92	54	---	42	---	451	---	135	129	---
TOTAL	5386	3850	3512	2334	1636	1680	10244	22059	15009	4432	2765	4452
MEAN	174	128	113	75.3	58.4	54.2	341	712	500	143	89.2	148
MAX	225	174	139	100	68	68	730	1050	793	247	129	219
MIN	150	98	92	50	54	39	60	451	228	91	63	68
AC-FT	10680	7640	6970	4630	3250	3330	20320	43750	29770	8790	5480	8830
CAL YR 1986	TOTAL 179146	MEAN 491	MAX 3760	MIN 53	AC-FT 355300							
WTR YR 1987	TOTAL 77359	MEAN 212	MAX 1050	MIN 39	AC-FT 153400							

09243700 MIDDLE CREEK NEAR OAK CREEK, CO

LOCATION.--Lat 40°23'08", long 106°59'33", in SW¼SW¼ sec.13, T.5 N., R.86 W., Routt County, Hydrologic Unit 1450001, on left bank 1.1 mi above mouth of Foidel Creek and 13.5 mi northwest of Oak Creek.

DRAINAGE AREA.--23.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to September 1981, April 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,720 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 9 to Mar. 6. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--11 years (water years 1976-81, 83-87), 4.93 ft³/s; 3,570 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 329 ft³/s, May 14, 1984, gage height, 4.08 ft, from rating curve extended above 77 ft³/s; no flow many days each year.

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. 30	2000	*11	*1.78				

No flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.9	1.9	1.5	1.0	1.3	1.8	11	3.5	2.5	.89	.04
2	1.2	1.9	2.1	1.4	1.0	1.3	2.7	11	3.2	.94	.46	.00
3	1.6	1.7	1.7	1.3	1.0	1.4	2.6	11	3.0	.60	.17	.03
4	1.7	1.5	1.5	1.2	1.0	1.6	3.1	9.9	3.0	.46	.11	.00
5	1.3	1.4	1.2	1.1	1.0	2.5	6.0	8.7	2.6	.43	.05	.00
6	1.1	1.3	1.0	1.3	1.1	4.7	7.1	8.4	2.6	.32	.0	.03
7	1.1	1.5	1.1	1.2	1.1	3.0	7.0	8.0	2.6	.24	.53	.01
8	1.0	1.4	1.5	1.1	1.1	4.1	7.4	7.4	3.1	.20	.73	.00
9	1.1	1.6	1.4	1.1	1.2	5.4	7.3	6.9	3.2	.20	.40	.00
10	.99	1.6	1.3	1.0	1.3	4.5	6.2	6.6	3.0	.15	.24	.00
11	1.2	1.6	1.3	1.1	1.4	4.4	6.3	6.5	2.5	.24	.12	.00
12	1.2	1.3	1.3	1.2	1.6	2.7	7.4	6.4	2.2	1.0	.11	.00
13	1.1	1.6	1.3	1.1	1.9	5.3	6.2	6.0	1.9	1.1	.07	.00
14	1.0	2.0	1.3	1.0	1.6	5.4	6.2	5.5	1.7	.59	.21	.00
15	1.0	2.2	1.3	.80	1.4	4.0	6.3	5.3	1.5	.39	.29	.00
16	.91	1.5	1.4	.90	1.3	2.4	6.9	5.5	1.6	.29	.29	.01
17	.91	1.5	1.6	1.0	1.1	2.3	6.9	5.3	1.2	.64	.21	.03
18	.91	1.5	1.5	.90	1.0	2.5	6.9	5.0	1.1	1.5	.04	.06
19	.93	1.9	1.4	.80	1.1	3.2	7.4	5.3	1.0	.58	.00	.09
20	1.3	2.4	1.4	.70	1.1	2.3	8.3	5.0	.87	.32	.00	.05
21	1.1	2.1	1.4	.64	1.1	2.4	8.3	5.3	.87	.24	.00	.04
22	2.3	1.7	1.4	.66	1.2	1.2	8.1	5.6	.77	.22	.04	.00
23	2.5	1.9	1.4	.63	1.1	1.2	8.6	4.7	.63	.14	.13	.00
24	1.9	1.7	1.4	.68	1.1	.72	8.2	4.7	.51	.05	.39	.00
25	1.7	2.1	1.4	.70	1.1	1.0	8.4	4.6	.45	.01	.52	.00
26	1.5	1.7	1.4	.73	1.2	.97	8.2	4.4	.35	.02	.39	.00
27	1.4	1.9	1.4	.78	1.2	1.1	8.3	4.4	.31	.15	.26	.00
28	1.3	2.6	1.5	.82	1.2	1.5	9.3	4.2	.22	.09	.22	.05
29	1.4	2.5	1.4	.90	---	1.9	10	3.9	.45	.17	.16	.00
30	1.4	1.7	1.4	.88	---	2.3	11	4.2	1.6	.79	.17	.01
31	1.4	---	1.6	.90	---	1.9	---	3.9	---	.91	.08	---
TOTAL	40.95	53.2	44.2	30.02	33.5	80.49	208.4	194.6	51.53	15.48	7.28	.45
MEAN	1.32	1.77	1.43	.97	1.20	2.60	6.95	6.28	1.72	.50	.23	.01
MAX	2.5	2.6	2.1	1.5	1.9	5.4	11	11	3.5	2.5	.89	.09
MIN	.91	1.3	1.0	.63	1.0	.72	1.8	3.9	.22	.01	.00	.00
AC-FT	81	106	88	60	66	160	413	386	102	31	14	.9

CAL YR 1986 TOTAL 2418.21 MEAN 6.63 MAX 45 MIN .35 AC-FT 4800
WTR YR 1987 TOTAL 760.10 MEAN 2.08 MAX 11 MIN .00 AC-FT 1510

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- September 1975 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1976 to September 1981.

WATER TEMPERATURES: April 1976 to September 1981.

INSTRUMENTATION.--Water-quality monitor April 1976 to September 1981.

REMARKS.--Unpublished maximum and minimum specific-conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,880 microsiemens May 29, 1981; minimum, 117 microsiemens Aug. 10, 1978.

WATER TEMPERATURES: Maximum, 31.5°C July 31, 1976; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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...	1400	1.0	838	8.6	9.0	9.6	400	93	41	38	0.9	3.1
APR 23...	1430	8.2	--	8.3	14.5	9.4	290	69	29	20	0.5	2.4
JUL 01...	1400	2.2	796	8.3	24.0	7.2	350	79	36	34	0.8	4.4
SEP 01...	1045	0.42	790	8.6	16.0	9.8	400	89	43	47	1	3.8

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, 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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 30...	247	220	6.0	0.20	6.8	550	556	0.75	1.49	<1	<0.01	<0.10
APR 23...	178	150	4.2	0.20	9.4	403	391	0.55	8.89	244	<0.01	0.16
JUL 01...	207	220	5.0	<0.10	7.8	517	511	0.70	3.02	181	<0.01	<0.10
SEP 01...	283	190	5.7	0.20	7.6	494	556	0.67	0.56	5	<0.01	<0.10

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 30...	0.01	--	--	<1	340	110	<0.10	3	<1	<1	--
APR 23...	0.08	0.10	30	<1	6200	350	0.20	<1	1	<1	50
JUL 01...	0.06	0.03	50	<1	3700	300	0.30	<1	<1	<1	20
SEP 01...	0.04	0.01	70	<1	180	260	<0.10	<2	<1	<1	<10

09243700 MIDDLE CREEK NEAR OAK CREEK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
NOV 20...	1045	2.6	786	--	1.0
JAN 28...	1045	0.78	880	8.3	0.5
MAR 06...	1045	2.3	1370	8.2	1.0
31...	1035	3.1	800	8.4	0.5
MAY 08...	1230	7.1	550	--	15.0
JUN 04...	1110	2.9	683	8.8	18.0
AUG 25...	1330	0.51	870	8.6	18.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)
OCT 30...	1400	1.0	17	0.05	APR 23...	1430	8.2	305	6.7

GREEN RIVER BASIN

09243800 FOIDEL CREEK NEAR OAK CREEK, CO

LOCATION.--Lat 40°20'45", long 107°05'04", in NW¼SW¼ sec.31, T.5 N., R.86 W., Routt County, Hydrologic Unit 14050001, on right bank 2.3 mi downstream from Reservoir No. 1, 6.9 mi upstream from mouth, and 8.7 mi northwest of Oak Creek.

DRAINAGE AREA.--8.61 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to October 1981, April 1982 to September 1983, October 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,880 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 2 to Nov. 5, Dec. 28 to Mar. 6, 10-30, and June 29-30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--10 years (water years 1976-81, 1983, 1987), 1.41 ft³/s; 1,020 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55 ft³/s, Apr. 21, 1980, gage height, 3.38 ft; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 6.5 ft³/s, March 12; minimum daily, 0.18 ft³/s, Dec. 6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.84	.74	.30	.48	.60	2.5	3.3	1.7	1.3	.82	.42
2	1.0	.84	.57	.31	.50	1.0	3.6	3.5	1.6	1.2	.65	.35
3	1.1	.84	.49	.30	.52	1.6	3.7	3.4	1.5	1.1	.53	.32
4	1.0	.84	.37	.27	.52	2.4	5.1	3.1	1.5	.97	.43	.32
5	.85	.88	.30	.26	.52	4.0	5.1	3.0	1.6	.86	.41	.32
6	.76	.83	.18	.26	.54	5.6	4.9	3.0	1.6	.74	.41	.30
7	.70	.89	.21	.26	.54	5.0	5.3	2.8	1.6	.66	.51	.29
8	.65	.99	.22	.26	.56	4.7	5.2	2.3	1.7	.47	.62	.28
9	.62	1.0	.30	.26	.58	3.6	5.4	2.1	1.8	.46	.57	.25
10	.60	.89	.27	.26	.60	4.0	4.0	2.1	1.8	.41	.50	.24
11	.64	.84	.27	.27	.70	5.0	4.2	2.2	1.7	.44	.44	.24
12	.70	.75	.27	.28	.80	6.5	4.7	2.0	1.6	.84	.38	.25
13	.87	.84	.27	.29	1.0	3.8	3.6	2.0	1.5	1.1	.31	.47
14	1.0	.87	.27	.26	.90	2.5	3.1	2.0	1.5	.87	.41	.60
15	.80	1.1	.27	.26	.80	1.9	2.9	1.9	1.4	.57	.45	.70
16	.87	.89	.27	.26	.70	1.4	3.7	1.8	1.3	.44	.45	.68
17	.94	.92	.27	.26	.60	1.3	4.1	1.8	1.2	.48	.41	.68
18	.88	1.0	.29	.29	.54	1.6	4.1	1.7	1.1	.90	.35	.62
19	.90	1.2	.29	.32	.54	2.0	3.7	1.7	1.0	.63	.29	.59
20	1.0	1.4	.29	.36	.54	1.7	3.2	1.6	.94	.50	.24	.54
21	1.1	1.2	.29	.31	.54	1.6	2.9	1.7	.98	.40	.23	.51
22	1.0	.89	.29	.30	.56	1.5	3.5	1.7	.91	.35	.28	.53
23	1.4	1.1	.29	.36	.58	1.6	3.7	1.7	.82	.29	.34	.53
24	1.3	.63	.29	.36	.58	1.4	3.7	1.7	.74	.25	.55	.48
25	1.1	.75	.29	.38	.58	1.2	3.3	1.7	.67	.23	.71	.49
26	1.0	.65	.29	.42	.60	1.2	3.1	1.7	.59	.31	.69	.48
27	.90	.83	.29	.40	.60	1.3	3.2	1.7	.59	.34	.60	.48
28	.80	.69	.29	.43	.60	1.3	3.3	1.5	.49	.33	.58	.45
29	.70	.64	.31	.44	---	1.1	3.3	1.5	.85	.33	.56	.41
30	.80	.60	.31	.44	---	1.0	3.3	1.7	1.8	.53	.53	.37
31	.80	---	.30	.45	---	1.3	---	1.6	---	.83	.49	---
TOTAL	27.88	26.63	9.65	9.88	17.12	74.70	115.4	65.5	38.08	19.13	14.74	13.19
MEAN	.90	.89	.31	.32	.61	2.41	3.85	2.11	1.27	.62	.48	.44
MAX	1.4	1.4	.74	.45	1.0	6.5	5.4	3.5	1.8	1.3	.82	.70
MIN	.60	.60	.18	.26	.48	.60	2.5	1.5	.49	.23	.23	.24
AC-FT	55	53	19	20	34	148	229	130	76	38	29	26

CAL YR 1986 TOTAL 1203.75 MEAN 3.30 MAX 24 MIN .18 AC-FT 2390
WTR YR 1987 TOTAL 431.90 MEAN 1.18 MAX 6.5 MIN .18 AC-FT 857

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1975 to September 1983, October 1984 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1976 to September 1981, April 1982 to September 1983. March 1986 to current year.

WATER TEMPERATURES: May 1976 to September 1981, April 1982 to September 1983. March 1986 to current year.

INSTRUMENTATION.--Water-quality monitor May 1976 to September 1981, April 1982 to September 1983. March 1986 to current year.

REMARKS.--Unpublished maximum and minimum specific conductance data for periods of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,880 microsiemens Jan. 23, 1983; minimum, 200 microsiemens Apr. 21, 22, 1980.

WATER TEMPERATURES: Maximum, 31.5°C July 30, 1983; minimum, 0.0°C during winter period when flowing each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Not determined.

WATER TEMPERATURES: Not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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 05...	1105	0.85	2370	8.2	3.5	12.7	1500	270	190	62	0.7	6.0
APR 23...	1100	3.2	1500	8.2	10.5	9.8	860	180	99	40	0.6	4.2
JUL 01...	1130	1.4	2400	8.1	18.0	10.0	1400	270	170	51	0.6	4.9
SEP 01...	1245	0.05	2670	8.3	22.0	8.2	1200	230	160	160	2	6.0

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 SI02)	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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 05...	270	1200	29	0.10	8.8	1980	1930	2.69	4.54	8	0.010	0.420
APR 23...	262	640	12	0.20	7.5	1210	1140	1.65	10.5	52	0.010	0.500
JUL 01...	248	1400	5.0	<0.10	9.4	2240	2060	3.05	8.71	69	<0.010	<0.100
SEP 01...	234	1600	17	0.20	3.6	2380	2320	3.24	0.32	8	<0.010	<0.100

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV 05...	0.100	--	--	<1	360	370	<0.10	3	1	1	--
APR 23...	0.183	<0.010	70	<1	740	400	0.20	<1	1	<1	20
JUL 01...	0.235	0.010	140	<1	630	150	<0.10	<1	<1	<1	10
SEP 01...	0.114	0.010	160	<1	300	270	<0.10	<2	<1	<1	<10

GREEN RIVER BASIN

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
NOV 05...	1105	0.85	17	0.04	APR 23...	1100	3.2	147	1.3

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	2470	---	---	---	1190	1620	2250	2350	2150	2320
2	---	---	2520	---	---	---	1050	1600	2290	2360	2160	2430
3	---	---	2510	---	---	---	1090	1600	2300	2360	2170	2410
4	---	---	2510	---	---	---	855	1590	2280	2350	2170	2410
5	---	---	2500	---	---	---	774	1720	2240	2340	2160	2420
6	---	2390	2490	---	---	---	775	1920	2240	2340	2160	2430
7	---	2370	2480	---	---	---	759	1950	2240	2350	2110	2420
8	---	2380	2480	---	---	---	778	1960	2210	2350	2100	2420
9	---	2410	2560	---	---	---	814	1970	2180	2350	2100	2410
10	---	2380	2620	---	---	---	871	1970	2190	2360	2110	2410
11	---	2440	2600	---	---	---	902	1990	2230	2350	2120	2410
12	---	2390	2560	---	---	---	946	2000	2250	2320	2140	2400
13	---	---	2560	---	---	---	1060	2000	2260	2330	2140	2410
14	---	2470	2590	---	---	---	1110	2010	2260	2330	2110	2400
15	---	2450	2550	---	---	---	1060	2010	2280	2330	2110	2410
16	---	2430	2570	---	---	---	1070	1990	2290	2320	2120	2400
17	---	2290	2650	---	---	---	1040	2130	2310	2290	2140	2400
18	---	2390	2600	---	---	---	1040	2180	2300	2280	2150	2420
19	---	2370	2580	---	---	---	1130	2180	2300	2250	---	2430
20	---	2330	2580	---	---	---	1220	2180	2300	2230	---	2450
21	---	2350	2600	---	---	---	1270	2170	2290	2230	---	2440
22	---	2340	---	---	---	---	1330	2160	2290	2250	2070	2450
23	---	2400	---	---	---	---	---	2150	2320	2260	2170	2460
24	---	2400	---	---	---	---	1520	2150	2330	2260	2120	2460
25	---	2400	---	---	---	---	1570	2150	2340	2270	2300	2460
26	---	2410	---	---	---	---	1590	2160	2360	2230	2250	2460
27	---	2460	---	---	---	---	1620	2170	2370	2250	2370	2460
28	---	2460	---	---	---	---	1640	2190	2370	2250	2330	2480
29	---	2440	---	---	---	---	1650	2200	2370	2250	2300	2490
30	---	2450	---	---	---	---	1650	2180	2360	2210	2290	2490
31	---	---	---	---	---	---	---	2220	---	2150	2280	---

09243800 FOIDEL CREEK NEAR OAK CREEK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	---	---	3.2	1.6	---	---	---	---	---	---
2	---	---	---	---	2.6	1.8	---	---	---	---	---	---
3	---	---	---	---	4.1	2.0	---	---	---	---	---	---
4	---	---	---	---	3.8	1.7	---	---	---	---	---	---
5	---	---	---	---	3.9	2.3	---	---	---	---	---	---
6	---	---	6.6	3.7	3.9	2.2	---	---	---	---	---	---
7	---	---	6.3	3.3	3.9	1.7	---	---	---	---	---	---
8	---	---	4.6	3.1	4.4	1.6	---	---	---	---	---	---
9	---	---	3.7	3.1	2.2	1.3	---	---	---	---	---	---
10	---	---	4.8	2.9	1.4	1.1	---	---	---	---	---	---
11	---	---	3.8	2.9	1.3	1.1	---	---	---	---	---	---
12	---	---	5.5	3.2	1.2	1.0	---	---	---	---	---	---
13	---	---	3.8	.3	1.2	1.0	---	---	---	---	---	---
14	---	---	4.8	2.4	1.2	.8	---	---	---	---	---	---
15	---	---	6.1	2.5	1.1	.8	---	---	---	---	---	---
16	---	---	6.3	3.7	.9	.4	---	---	---	---	---	---
17	---	---	6.3	.5	.8	.3	---	---	---	---	---	---
18	---	---	6.8	3.4	.9	.4	---	---	---	---	---	---
19	---	---	6.0	3.9	1.2	.5	---	---	---	---	---	---
20	---	---	8.1	1.7	.7	.5	---	---	---	---	---	---
21	---	---	6.9	.7	1.5	.4	---	---	---	---	---	---
22	---	---	6.3	1.6	2.2	.7	---	---	---	---	---	---
23	---	---	4.3	1.5	---	---	---	---	---	---	---	---
24	---	---	6.3	1.7	---	---	---	---	---	---	---	---
25	---	---	4.3	1.6	---	---	---	---	---	---	---	---
26	---	---	6.1	1.6	---	---	---	---	---	---	---	---
27	---	---	4.0	1.6	---	---	---	---	---	---	---	---
28	---	---	4.7	1.3	---	---	---	---	---	---	---	---
29	---	---	5.0	1.3	---	---	---	---	---	---	---	---
30	---	---	3.9	1.6	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	21.5	13.9	21.4	13.2	24.4	15.6	24.2	14.5	19.5	8.6
2	---	---	15.4	12.3	21.5	12.3	25.3	14.4	24.7	15.5	19.2	10.3
3	---	---	17.5	11.7	22.2	13.0	25.2	13.8	24.9	15.9	17.0	9.3
4	---	---	19.4	11.5	22.3	13.2	23.4	13.2	24.4	13.6	15.4	10.2
5	---	---	16.2	9.8	18.1	11.2	23.6	12.9	23.8	13.2	16.9	7.8
6	---	---	18.9	8.1	20.1	12.2	22.7	12.3	24.2	14.5	15.7	6.4
7	7.6	.1	19.7	8.5	19.2	12.9	22.9	12.5	21.9	16.8	15.5	7.8
8	8.0	1.0	19.8	9.5	16.7	13.8	22.4	12.4	22.6	14.9	15.7	6.4
9	6.1	1.6	20.2	10.6	17.9	14.0	22.5	12.5	23.0	13.8	16.8	8.2
10	8.1	.5	21.0	10.6	19.6	12.4	20.1	12.5	21.8	13.7	15.5	7.0
11	6.6	1.2	19.4	12.1	21.2	12.6	16.6	13.4	22.1	14.1	15.9	6.2
12	5.8	2.2	18.9	12.5	21.6	14.0	19.1	12.5	24.2	13.5	15.8	6.1
13	7.6	2.2	20.5	12.2	22.7	13.9	21.8	11.4	21.1	13.2	13.7	7.5
14	11.4	2.6	23.3	12.0	23.9	15.3	23.7	11.5	20.2	14.7	14.1	8.1
15	13.5	4.4	22.5	13.1	23.1	15.3	25.0	12.2	19.7	13.6	15.6	8.3
16	13.8	5.9	20.7	15.4	22.1	15.5	24.7	13.6	21.0	12.4	14.0	8.9
17	15.3	6.7	20.1	14.5	21.2	13.7	19.0	15.4	21.8	12.1	14.1	8.4
18	15.2	8.2	18.6	13.2	22.3	13.7	22.4	12.8	22.8	10.0	13.4	4.6
19	13.6	9.1	19.7	12.1	22.7	14.1	22.1	13.0	24.5	9.0	13.6	4.7
20	10.8	7.2	17.5	12.5	20.5	14.6	21.2	11.0	17.1	8.7	14.0	5.4
21	14.7	6.6	15.4	12.1	22.2	14.2	23.6	13.6	20.0	11.0	14.2	5.7
22	15.8	7.4	18.9	10.5	23.5	14.6	24.7	14.6	21.8	12.9	14.0	4.7
23	21.9	9.5	19.1	12.0	22.6	14.2	25.5	13.2	17.6	13.4	14.2	4.4
24	23.3	11.6	15.7	12.7	23.5	14.5	27.2	12.1	16.1	13.9	14.7	5.2
25	22.9	12.2	18.0	11.0	24.2	13.9	27.5	16.6	17.6	12.9	14.8	7.3
26	23.4	12.9	14.6	11.4	24.7	14.3	24.1	17.5	17.5	11.3	14.6	7.7
27	22.5	13.4	15.5	9.6	24.9	14.9	22.0	16.5	17.7	10.1	14.4	8.5
28	24.1	13.9	16.7	9.6	24.7	15.3	22.9	15.4	15.0	9.5	12.4	3.9
29	23.3	14.1	13.9	10.2	21.0	17.2	23.4	15.5	18.1	8.9	12.2	3.2
30	20.0	13.5	19.2	10.5	19.9	15.4	22.2	16.9	18.2	9.2	12.5	3.5
31	---	---	21.4	11.1	---	---	19.7	17.3	18.8	8.7	---	---
MONTH	---	---	23.3	8.1	24.9	11.2	27.5	11.0	24.9	8.7	19.5	3.2

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.3	1.2	.74	1.2	1.5	10	6.2	2.3	11	.99	.17
2	2.4	2.5	1.1	.76	1.2	1.6	16	6.2	2.1	4.0	1.0	.10
3	2.6	2.4	.90	.70	1.2	1.6	16	6.0	1.9	3.1	.98	.03
4	2.7	2.3	.72	.64	1.2	2.0	28	4.5	1.8	2.5	.95	.13
5	2.4	2.2	.42	.62	1.2	3.0	34	4.1	1.8	2.1	.77	.27
6	1.9	2.1	.50	.64	1.3	5.8	35	4.2	1.7	1.9	.64	.19
7	1.8	2.1	.52	.66	1.3	10	31	4.1	1.7	1.6	.67	.13
8	1.7	1.9	.62	.64	1.3	12	33	3.6	1.7	1.4	.86	.08
9	1.6	1.7	.70	.64	1.4	14	23	3.5	1.7	1.3	.92	.11
10	1.5	1.7	.64	.62	1.5	15	22	3.3	1.8	1.1	.86	.06
11	1.6	1.6	.64	.64	1.8	13	19	3.4	1.7	1.0	.70	.06
12	1.6	1.6	.64	.66	2.0	9.3	18	3.3	1.6	1.0	.68	.25
13	2.2	1.4	.64	.70	2.3	21	14	3.3	1.6	1.1	.68	.25
14	2.5	1.3	.64	.64	1.9	18	15	3.6	1.5	1.3	.70	.35
15	2.0	1.3	.64	.64	1.8	12	15	3.2	1.5	1.3	.78	.40
16	2.1	1.4	.64	.64	1.6	5.5	12	3.4	1.4	1.1	.86	.40
17	2.3	1.3	.70	.64	1.3	4.0	12	3.2	1.3	2.0	.80	.76
18	2.3	1.4	.70	.68	1.2	5.2	11	3.3	1.3	3.6	.71	.65
19	2.2	1.5	.70	.78	1.3	6.6	10	3.4	1.2	2.2	.61	.54
20	2.5	1.9	.70	.86	1.3	5.3	10	3.3	1.1	1.7	.53	.51
21	2.7	2.0	.68	.76	1.3	5.1	10	3.3	1.1	1.3	.49	.45
22	2.6	1.9	.68	.72	1.4	4.7	12	3.8	1.1	1.1	.44	.40
23	3.6	1.6	.68	.76	1.3	5.3	11	3.5	1.0	.94	.40	.38
24	3.6	1.4	.68	.80	1.3	4.2	8.1	3.3	.98	.80	.49	.28
25	3.4	1.4	.68	.84	1.3	4.0	7.0	3.2	.90	.66	.72	.27
26	2.9	1.5	.68	.90	1.4	3.9	6.9	3.1	.83	.57	.86	.22
27	2.5	1.4	.68	.94	1.4	4.1	6.8	3.0	.76	.60	.83	.31
28	2.2	1.3	.70	1.0	1.4	4.1	6.8	2.8	.73	.69	.67	.32
29	2.0	1.3	.72	1.1	---	3.9	6.7	2.7	.71	.69	.53	.31
30	2.1	1.3	.70	1.1	---	3.8	6.4	2.6	1.9	.68	.40	.37
31	2.1	---	.70	1.1	---	4.5	---	2.5	---	.79	.27	---
TOTAL	71.6	51.0	21.54	23.56	40.1	214.0	465.7	112.9	42.71	55.12	21.79	8.75
MEAN	2.31	1.70	.69	.76	1.43	6.90	15.5	3.64	1.42	1.78	.70	.29
MAX	3.6	2.5	1.2	1.1	2.3	21	35	6.2	2.3	11	1.0	.76
MIN	1.5	1.3	.42	.62	1.2	1.5	6.4	2.5	.71	.57	.27	.03
AC-FT	142	101	43	47	80	424	924	224	85	109	43	17
CAL YR 1986	TOTAL 2467.13		MEAN 6.76	MAX 43	MIN .38	AC-FT 4890						
WTR YR 1987	TOTAL 1128.77		MEAN 3.09	MAX 35	MIN .03	AC-FT 2240						

09243900 FOIDEL CREEK AT MOUTH NEAR OAK CREEK, CO--CONTINUED

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1976 to September 1981, June 1982 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1976 to September 1981.

WATER TEMPERATURE: April 1976 to September 1981.

SUSPENDED SEDIMENT DISCHARGE: April 1976 to September 1981.

INSTRUMENTATION.--Water-quality monitor April 1976 to September 1981. Automatic pumping sampler April 1976 to September 1981.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,520 microsiemens Aug. 10, 11, 1980; minimum, 255 microsiemens July 1, 1980.

WATER TEMPERATURES: Maximum, 28.5°C July 22, 1980; minimum, 0.0°C several days during winter period each year.

SEDIMENT CONCENTRATIONS: Maximum daily, 3,650 mg/L Apr. 2, 1981; no flow many days most years.

SEDIMENT LOADS: Maximum daily, 702 tons Apr. 23, 1980; no flow many days most years.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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												
05...	1330	2.1	2270	8.2	2.5	13.4	1200	210	160	110	1	4.9
APR												
23...	1415	9.8	2230	8.1	16.5	8.5	1100	210	130	79	1	4.8
JUL												
01...	1330	5.3	2030	7.9	21.0	6.4	930	190	110	88	1	7.2
SEP												
01...	0930	0.28	2740	--	12.0	8.6	1500	300	190	57	0.7	7.3

DATE	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, 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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV												
05...	87	1200	27	0.20	4.7	1780	1770	2.42	10.1	20	0.01	0.71
APR												
23...	258	1000	28	0.20	7.0	1790	1610	2.43	47.4	138	0.03	1.80
JUL												
01...	183	990	29	<0.10	6.4	1700	1530	2.31	24.5	163	0.14	3.40
SEP												
01...	154	1500	12	<0.10	1.0	2350	2160	3.20	1.78	3	<0.01	<0.10

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV											
05...	0.06	--	--	<1	340	220	<0.10	3	<1	2	--
APR											
23...	0.46	0.01	120	<1	2700	500	0.20	1	<1	<1	20
JUL											
01...	1.20	0.05	140	<1	8700	760	0.10	<1	<1	<1	50
SEP											
01...	0.11	<0.01	140	<1	220	230	<0.10	<2	<1	<1	<10

09243900 FOIDEL CREEK AT MOUTH NEAR OAK CREEK, CO--CONTINUED
WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)
NOV 20...	1000	1.7	2260	--	1.0
JAN 28...	1010	1.1	2570	7.8	0.5
MAR 06...	1300	4.7	--	8.2	1.0
31...	1120	3.2	2160	8.1	1.0
JUN 04...	1015	1.9	2320	8.5	13.0
AUG 25...	1405	0.74	2460	8.2	17.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 05...	1330	2.1	31	0.18	APR 23...	1415	9.8	229	6.1

RAINFALL RECORDS

PERIOD OF RECORD.--July 19, 1978 to current year.

INSTRUMENTATION.--Belfort weighing bucket rain gage.

REMARKS.--Unpublished rainfall data for water years 1978-86 are available in district office.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

[illegible]

09245000 ELKHEAD CREEK NEAR ELKHEAD, CO

LOCATION.--Lat 40°40'11", long 107°17'04", in NW¼ sec.8, T.8 N., R.88 W., Routt County, Hydrologic Unit 14050001, on right bank 0.2 mi upstream from North Fork Elkhead Creek, 4.5 mi northwest of Elkhead, and 12 mi north of Hayden.

DRAINAGE AREA.--64.2 mi².

PERIOD OF RECORD.--January to November 1910 and May to November 1920 (monthly discharge only, published in WSP 1313; published as "at Hayes Ranch"), April 1953 to current year.

REVISED RECORDS.--WSP 1733: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,845 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 30, 1920, nonrecording gage or water-stage recorder 675 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 19 to Feb. 5, 16, 18-19, 21-22, and Mar. 1-17. Records good except for estimated daily discharges, which are fair. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--34 years (water years 1954-87), 57.9 ft³/s; 41,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,850 ft³/s, May 20, 1984, gage height, 7.58 ft, from rating curve extended above 1,500 ft³/s, on basis of slope area determination of peak flow; no flow Sept. 1, 1954, Sept. 12-19, 24, 1955, Aug. 27-29, 1961, Aug. 14-19, 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)
April 18	2100	*680	*5.33				

Minimum daily, 1.6 ft³/s, Sept. 3.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	31	16	14	13	10	12	307	69	15	8.0	2.0
2	28	28	16	14	13	10	14	311	61	12	5.4	1.7
3	49	25	16	14	13	11	17	246	53	9.4	4.5	1.6
4	41	24	16	14	13	11	19	198	50	8.0	3.6	2.2
5	29	24	16	14	13	11	21	176	44	7.1	2.9	3.0
6	28	25	15	14	13	11	25	167	42	6.4	2.5	2.8
7	30	25	15	14	13	11	34	163	39	5.8	2.7	2.3
8	28	23	15	14	13	11	43	155	40	5.8	3.1	2.2
9	26	32	15	14	13	11	83	146	55	5.5	3.3	2.1
10	24	26	15	14	13	11	83	140	56	5.5	2.9	2.1
11	25	35	15	13	13	12	87	133	43	5.6	2.5	2.1
12	21	21	15	13	16	12	81	138	35	18	2.3	1.9
13	18	31	15	13	14	12	61	151	32	15	2.1	1.9
14	17	27	15	13	14	12	71	150	28	9.2	2.5	1.9
15	16	27	15	13	13	12	141	145	25	7.6	3.2	2.0
16	14	19	15	13	13	12	293	135	23	6.2	3.5	2.2
17	14	19	15	13	12	12	400	129	21	5.8	3.7	3.0
18	14	20	15	13	12	12	472	122	20	6.4	3.1	3.7
19	14	17	15	13	13	12	466	124	18	5.8	2.5	3.1
20	17	17	15	13	13	12	323	107	17	4.9	2.0	2.9
21	20	16	14	13	13	17	237	129	16	4.5	1.7	2.7
22	28	16	14	13	12	13	283	119	15	5.0	1.9	2.6
23	28	16	14	13	11	15	383	110	14	5.3	3.2	2.5
24	32	16	14	13	11	16	443	95	13	4.3	3.6	2.5
25	33	16	14	13	10	15	444	90	12	3.6	4.6	2.5
26	32	16	14	13	9.8	15	391	98	11	3.2	4.1	2.5
27	32	16	14	13	10	12	380	106	10	2.9	3.7	2.7
28	31	16	14	13	9.7	16	424	104	9.5	3.0	3.4	2.6
29	27	16	14	13	---	15	370	90	11	3.6	3.0	2.6
30	26	16	14	13	---	20	321	111	15	4.9	2.7	2.7
31	29	---	14	13	---	15	---	82	---	8.4	2.4	---
TOTAL	793	656	459	413	349.5	397	6422	4477	897.5	213.7	100.6	72.6
MEAN	25.6	21.9	14.8	13.3	12.5	12.8	214	144	29.9	6.89	3.25	2.42
MAX	49	35	16	14	16	20	472	311	69	18	8.0	3.7
MIN	14	16	14	13	9.7	10	12	82	9.5	2.9	1.7	1.6
AC-FT	1570	1300	910	819	693	787	12740	8880	1780	424	200	144

CAL YR 1986 TOTAL 34599.8 MEAN 94.8 MAX 1060 MIN 3.9 AC-FT 68630
WTR YR 1987 TOTAL 15250.9 MEAN 41.8 MAX 472 MIN 1.6 AC-FT 30250

GREEN RIVER BASIN

09246920 FORTIFICATION CREEK NEAR FORTIFICATION, CO

LOCATION.--Lat 40°41'38", long 107°32'25", in NW¼NW¼ sec. 18, T.9 N., R.90 W., Moffat County, Hydrologic Unit 14050001, on right bank, 4.5 mi south of Fortification.

DRAINAGE AREA.--40.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 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: Oct. 31 to Nov. 15, 18 to Mar. 7, Apr. 27, 29 to May 8, and May 28 to June 4. Records fair except for estimated daily discharges, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 465 ft³/s, March 25, 1985, gage height, 4.64 ft; minimum daily, 0.01 ft³/s, Aug. 5, 19-22, and Sept. 1-4, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 224 ft³/s at 1900 Apr. 1, gage height 3.47 ft; minimum daily, 0.01 ft³/s, Aug. 5, 19-22, and Sept. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	6.5	1.5	2.0	1.5	3.0	98	75	10	3.1	.96	.01
2	4.8	6.5	2.0	2.0	1.5	7.0	43	70	10	1.9	.71	.01
3	6.0	5.5	2.5	2.0	1.5	10	52	60	9.0	1.3	.24	.01
4	4.4	5.0	2.5	2.0	1.5	25	62	60	9.0	1.1	.02	.01
5	3.8	5.0	2.5	2.0	1.5	35	52	55	8.6	1.1	.01	.20
6	3.8	6.0	3.0	2.0	1.5	45	47	55	8.8	.88	.02	.28
7	3.9	5.0	3.0	2.0	1.5	75	46	50	14	.73	.03	.1
8	4.0	4.0	2.5	1.5	1.5	111	49	50	12	.68	.35	.01
9	4.8	3.5	2.0	1.5	1.5	78	45	40	20	.57	.78	.08
10	4.7	2.5	1.5	1.5	1.5	57	32	42	24	.29	.29	.06
11	5.5	2.5	1.5	1.5	1.5	47	32	41	15	.56	.05	.07
12	4.8	2.5	2.0	1.5	1.5	38	19	39	10	2.4	.03	.02
13	4.3	2.5	2.0	1.5	1.5	66	12	47	8.6	2.2	.04	.01
14	4.4	3.0	2.0	1.5	1.5	35	14	41	7.0	1.0	.04	.01
15	4.2	4.0	2.0	1.5	1.5	17	41	39	5.8	.74	.04	.1
16	4.4	5.5	2.0	1.5	1.5	9.3	85	43	5.1	.48	.66	.43
17	4.7	5.0	2.0	1.5	1.5	9.1	113	39	4.1	.12	.48	.97
18	5.0	4.0	2.0	1.5	1.5	23	101	35	3.6	.46	.08	1.0
19	5.1	6.0	2.0	1.5	1.5	30	104	38	3.1	.16	.01	.80
20	5.6	5.0	2.0	1.5	1.5	13	44	30	2.7	.09	.01	.73
21	7.5	4.0	2.0	1.5	1.5	13	22	27	2.7	.36	.01	.72
22	16	4.0	2.0	1.5	1.5	11	25	25	2.4	.49	.01	.74
23	9.7	2.5	2.0	1.5	1.5	12	57	23	2.2	.39	.23	.73
24	7.1	2.5	2.0	1.5	1.5	9.7	79	21	2.0	.17	1.2	.76
25	6.9	2.5	2.0	1.5	1.5	8.7	90	19	1.9	.15	1.3	.78
26	5.8	2.5	2.0	1.5	1.5	9.1	83	20	1.7	.21	1.1	.74
27	5.9	2.0	2.0	1.5	1.5	9.9	80	19	1.6	.14	.84	.69
28	6.1	2.5	2.0	1.5	1.5	9.6	80	16	1.2	.16	.68	.69
29	6.1	2.5	2.0	1.5	---	9.0	70	12	1.3	.90	.53	.71
30	6.0	2.0	2.0	1.5	---	9.1	60	12	1.7	.68	.24	.83
31	7.0	---	2.0	1.5	---	28	---	10	---	.93	.09	---
TOTAL	176.4	116.5	64.5	50.0	42.0	862.5	1737	1153	209.1	24.44	11.08	12.30
MEAN	5.69	3.88	2.08	1.61	1.50	27.8	57.9	37.2	6.97	.79	.36	.41
MAX	16	6.5	3.0	2.0	1.5	111	113	75	24	3.1	1.3	1.0
MIN	3.8	2.0	1.5	1.5	1.5	3.0	12	10	1.2	.09	.01	.01
AC-FT	350	231	128	99	83	1710	3450	2290	415	48	22	24

CAL YR 1986 TOTAL 7965.57 MEAN 21.8 MAX 143 MIN .00 AC-FT 15800
WTR YR 1987 TOTAL 4458.77 MEAN 12.2 MAX 113 MIN .01 AC-FT 8840

09246920 FORTIFICATION CREEK NEAR FORTIFICATION, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 10...	1245	2.6	598	7.6	1.5	12.6	200	52	16	50
MAR 06...	0010	78	134	7.2	0.0	11.6	41	11	3.3	16
JUL 28...	1355	0.30	950	8.5	31.0	14.3	350	88	31	74
SEP 09...	0945	0.02	925	8.4	10.0	8.9	330	81	30	84

DATE	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 AC-FT)
NOV 10...	2	1.8	186	110	18	0.20	16	380	0.51
MAR 06...	1	3.6	50	27	3.9	0.20	5.9	100	0.14
JUL 28...	2	2.9	392	72	31	0.50	16	550	0.75
SEP 09...	2	2.2	403	66	14	0.50	13	530	0.72

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- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV 10...	2.6	0.10	0.13	0.03	0.47	0.50	0.09	0.04	5.5
MAR 06...	21	0.20	<0.10	0.17	1.6	1.8	0.43	0.30	20
JUL 28...	0.45	<0.10	<0.10	0.02	0.78	0.80	0.09	0.03	9.3
SEP 09...	0.03	<0.10	<0.10	0.04	--	<0.20	0.09	0.03	--

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 10...	1500	<1	1	100	<10	<1	<1	2	8	1500
MAR 06...	26000	<1	1	100	<10	<1	<1	8	27	20000

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV 10...	12	10	330	<0.10	3	19	4	<1	460	20
MAR 06...	13	20	260	0.10	<1	21	2	<1	210	80

GREEN RIVER BASIN

09246920 FORTIFICATION CREEK NEAR FORTIFICATION, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 03...	1105	6.6	410	6.5	MAY 18...	1435	33	113	14.0
DEC 09...	1615	2.2	616	0.0	JUL 15...	1940	0.66	562	25.0
FEB 10...	1100	1.8	482	0.5	AUG 19...	1105	0.01	898	14.5
MAR 17...	1210	11	547	0.5	SEP 17...	1540	1.2	705	20.0
APR 08...	1715	38	--	9.5					
24...	1555	52	158	10.0					
27...	1040	72	127	5.0					
28...	1550	57	519	14.0					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
NOV 10...	1245	2.6	59	0.41	JUL 15...	1940	0.66	39	0.07
MAR 05...	2350	78	843	176	28...	1355	0.30	65	0.05
APR 08...	1655	38	1230	126	AUG 19...	1105	0.01	52	0.00
					SEP 09...	0945	0.02	13	0.00
					17...	1610	1.2	54	0.17

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	SED. SUSP. FALL DIAM. % FINER THAN .008 MM
MAR 05...	2355	78	799	167	78	90	91
17...	1205	11	526	16	42	53	66
APR 24...	1600	52	1420	199	28	36	44
27...	1045	72	1670	325	16	21	--
MAY 18...	1515	33	331	29	--	--	--
21...	1550	26	260	18	--	--	--
JUN 04...	1525	10	144	3.9	--	--	--
10...	1350	21	709	40	41	50	59
DATE		SED. SUSP. FALL DIAM. % FINER THAN .016 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM	SED. SUSP. FALL DIAM. % FINER THAN .125 MM	SED. SUSP. FALL DIAM. % FINER THAN .250 MM	SED. SUSP. FALL DIAM. % FINER THAN .500 MM	SED. SUSP. FALL DIAM. % FINER THAN .062 MM
MAR 05...		92	95	96	98	100	--
17...		81	--	--	--	--	99
APR 24...		52	76	88	96	100	--
27...		32	43	62	85	100	--
MAY 18...		--	67	80	95	100	--
21...		--	--	--	--	--	60
JUN 04...		--	--	--	--	--	79
10...		71	93	98	100	--	--

LOCATION.--Lat 40°28'51", long 107°36'49", in SW¼NW¼ sec. 16, T.6 N., R.91 W., Moffat County, Hydrologic Unit 14050001, on left bank 0.5 mi downstream from state highway 13-789 bridge, and 3.3 mi southwest of Craig.

GAGE.--Water-stage recorder. Elevation of gage is 6,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 1 to Mar. 26, July 7-12, and 17-24. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation, transbasin diversion, storage reservoirs, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,300 ft³/s, May 6, 1985, gage height, 9.68 ft; minimum daily, 90 ft³/s, Aug. 21, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,780 ft³/s at 1500 June 17, gage height, 7.20 ft; minimum daily, 90 ft³/s, Aug. 21.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	577	620	325	225	200	225	477	4000	1930	798	453	160
2	591	602	300	225	200	250	886	4170	1980	850	429	155
3	624	585	310	200	200	275	929	3670	1850	674	351	162
4	698	531	325	200	200	375	1120	2860	1810	542	288	169
5	676	508	325	225	175	600	1490	2500	1810	465	240	181
6	616	491	340	250	175	1200	1670	2450	1790	431	215	178
7	591	498	300	225	175	1500	1830	2750	1820	350	209	173
8	632	495	275	225	175	1900	1830	3100	1950	300	200	183
9	618	431	275	175	200	2000	1940	3260	2220	280	268	182
10	632	437	250	175	200	1800	1570	3450	2520	270	273	175
11	675	400	180	175	250	1500	1530	3580	2280	260	233	194
12	690	431	275	200	300	1400	1490	3680	2000	250	184	192
13	628	427	275	225	325	1600	1320	3830	1760	498	172	204
14	603	413	300	200	425	2000	1070	4010	1580	532	183	218
15	562	425	325	200	300	1600	1100	4170	1470	435	176	247
16	548	425	350	175	275	1200	1560	4300	1380	376	195	240
17	538	425	350	150	275	800	2100	4410	1320	300	186	249
18	533	425	325	150	275	600	2550	4370	1130	300	205	272
19	549	425	300	150	275	650	3030	4200	1010	350	170	230
20	536	375	300	150	275	600	2980	3680	915	300	122	232
21	544	400	300	150	250	450	2410	3470	863	275	90	268
22	609	425	275	175	250	450	2090	3270	815	250	114	264
23	710	450	275	175	250	450	2350	2830	746	225	139	202
24	684	468	275	200	275	450	3040	2720	710	225	147	137
25	665	493	225	200	300	450	3560	2620	655	234	178	128
26	635	458	225	200	275	479	3740	2440	617	235	290	128
27	583	433	225	225	225	474	3600	2360	581	308	246	115
28	571	342	275	225	225	465	3830	2150	531	365	187	118
29	575	349	275	225	---	421	4030	2020	506	400	166	122
30	560	357	275	200	---	379	3990	1940	554	372	165	120
31	578	---	250	175	---	374	---	1920	---	408	180	---
TOTAL	18831	13544	8880	6050	6925	26917	65112	100180	41103	11858	6654	5598
MEAN	607	451	286	195	247	868	2170	3232	1370	383	215	187
MAX	710	620	350	250	425	2000	4030	4410	2520	850	453	272
MIN	533	342	180	150	175	225	477	1920	506	225	90	115
AC-FT	37350	26860	17610	12000	13740	53390	129100	198700	81530	23520	13200	11100
CAL YR 1986	TOTAL 698129	MEAN 1913	MAX 9340									

GREEN RIVER BASIN

09249750 WILLIAMS FORK RIVER AT MOUTH NEAR HAMILTON, CO.

LOCATION.--Lat 40°26'14", Long 107°38'50", in SE¼NW¼ sec.31, T.6 N., R.91 W., Moffat County, Hydrologic Unit 14050001, on left bank at coal mine service road crossing, 2,300 ft upstream from confluence with Yampa River, and 6.1 mi north-northeast of Hamilton, Co.

DRAINAGE AREA.--419 mi².

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

GAGE.--Water stage recorder. Elevation of gage is 6,170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12, 14, 15, 19-27, Dec. 12, 16-18, 22-25, 29-31, Jan. 4, 9, Feb. 5-14, 17-28, and Mar. 1-7. Records good except for estimated daily discharges, which are fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 4,750 ft³/s, May 16, 1984, gage height, 9.96 ft; minimum daily, 42 ft³/s, Aug. 20-21, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 29	0700	*1,200	*5.94	No other peak greater than base discharge.			
Minimum daily, 42 ft ³ /s, Aug. 20-21.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	119	127	71	55	66	65	113	1110	414	143	116	47
2	125	119	80	55	68	70	135	1130	430	130	84	45
3	158	110	93	55	71	75	114	897	399	106	70	44
4	152	93	95	60	71	75	141	723	377	98	62	47
5	125	99	93	72	65	80	159	653	376	93	57	51
6	118	112	105	75	65	120	167	662	372	90	55	49
7	122	120	102	72	60	160	177	785	404	88	60	48
8	121	101	91	71	65	228	192	865	567	84	99	48
9	121	101	85	70	70	224	213	853	543	75	92	49
10	119	104	54	67	76	175	182	870	531	73	66	47
11	124	90	49	65	80	152	209	871	452	69	59	45
12	123	105	50	66	85	121	228	838	385	96	54	43
13	106	95	75	66	90	166	171	855	346	136	53	45
14	99	90	78	67	95	223	154	822	320	104	56	44
15	99	105	73	66	82	132	193	875	294	83	60	46
16	94	114	70	65	76	104	287	862	281	73	62	49
17	94	108	70	65	75	90	385	907	253	68	55	52
18	94	110	70	65	75	91	473	828	225	72	48	53
19	94	110	72	62	65	117	589	783	204	73	44	49
20	94	110	81	59	60	106	573	738	188	66	42	48
21	99	105	79	60	60	78	442	704	176	64	42	46
22	118	115	75	62	55	94	426	640	165	62	43	45
23	123	90	70	62	65	79	491	578	154	59	48	44
24	105	85	70	61	70	79	659	552	147	54	61	44
25	99	85	70	62	70	76	783	533	136	52	84	43
26	97	85	71	64	70	75	819	478	122	54	105	43
27	93	75	61	65	70	89	896	439	113	76	76	43
28	93	86	67	67	70	71	956	389	106	83	58	44
29	92	106	70	71	---	77	1100	369	110	82	55	43
30	92	108	65	70	---	73	1050	376	135	87	53	43
31	108	---	65	64	---	83	---	370	---	102	49	---
TOTAL	3420	3063	2320	2006	1990	3448	12477	22355	8725	2595	1968	1387
MEAN	110	102	74.8	64.7	71.1	111	416	721	291	83.7	63.5	46.2
MAX	158	127	105	75	95	228	1100	1130	567	143	116	53
MIN	92	75	49	55	55	65	113	369	106	52	42	43
AC-FT	6780	6080	4600	3980	3950	6840	24750	44340	17310	5150	3900	2750

CAL YR 1986 TOTAL 108541 MEAN 297 MAX 1720 MIN 49 AC-FT 215300
WTR YR 1987 TOTAL 65754 MEAN 180 MAX 1130 MIN 42 AC-FT 130400

GREEN RIVER BASIN

09249750 WILLIAMS FORK AT MOUTH NEAR HAMILTON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1975 to September 1980, December 1985 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		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)	HARD- NESS (MG/L AS CaCO3)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 10...	1600	108	759	8.5	2.0	11.6	360	73	42
JUL 28...	1130	75	586	8.6	23.0	7.0	270	55	33
SEP 09...	1310	49	632	8.8	16.5	8.7	310	62	38
DATE	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)
NOV 10...	36	0.9	2.2	215	200	8.4	0.20	14	500
JUL 28...	23	0.6	2.5	173	120	5.2	0.20	12	350
SEP 09...	27	0.7	2.0	194	180	6.5	0.20	11	440
DATE	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 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	
NOV 10...	0.69	147	<0.01	0.19	<0.01	0.50	<0.01	<0.01	
JUL 28...	0.50	74	<0.01	<0.10	0.01	0.80	0.01	<0.01	
SEP 09...	0.60	59	<0.01	<0.10	0.02	<0.20	0.01	<0.01	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 03...	1540	170	623	8.0	MAY 19...	1145	874	250	9.0
10...	1430	118	610	11.5	JUL 22...	1645	61	630	24.0
28...	1515	106	688	8.5	AUG 05...	1320	57	666	24.5
DEC 12...	1020	43	1040	0.0	21...	1550	43	735	22.5
FEB 11...	1130	82	757	0.5	SEP 10...	1310	47	684	16.5
MAR 26...	1500	66	854	7.0	18...	1435	53	686	15.0
APR 24...	1025	709	392	9.0	30...	1515	43	684	14.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 24...	1245	709	3000	5740	--
MAY 19...	1340	874	461	1090	--
JUL 28...	1130	75	10	2.0	--
SEP 09...	1310	49	29	3.8	9

GREEN RIVER BASIN

09250507 WILSON CREEK ABOVE TAYLOR CREEK, NEAR AXIAL, CO

LOCATION.--Lat 40°18'53", long 107°47'58", in NW¼SW¼ sec.14, T.4 N., R.93 W., Moffatt County, Hydrologic Unit 14050002, on left bank about 200 ft upstream from Moffat County Road 17, about 50 ft upstream from confluence of Taylor Creek, and 2.4 mi north of Axial.

DRAINAGE AREA.--20.0 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 6,315 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4-14, 19-21, 23, Nov. 28 to Dec. 5, Dec. 8-14, 17, 18, Dec. 20 to Jan. 1, Jan. 9-23, Jan. 28 to Feb. 1, Feb. 5-8, 12, 16, Feb. 18 to Mar. 4, Mar. 20-31, Apr. 12, 21, 22, June 22-28, and July 20. Records fair.

AVERAGE DISCHARGE.--7 years, 6.71 ft³/s; 4,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 352 ft³/s, May 14, 1984, gage height, 8.71 ft, on basis of indirect measurement of peak flow; minimum daily, 0.15 ft³/s, Mar. 20, 21, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft³/s at 0430 May 1, gage height, 2.67 ft; minimum daily discharge, 0.40 ft³/s, Jan. 17, 18.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	4.5	1.2	.90	1.5	1.0	4.3	37	9.5	4.1	1.8	1.1
2	2.1	4.4	1.3	1.0	1.6	1.3	4.1	38	8.4	3.9	1.7	1.1
3	2.4	4.3	1.3	1.1	2.1	1.5	4.4	34	8.2	3.6	1.7	1.1
4	2.3	4.6	1.4	1.1	1.5	3.0	4.3	29	6.1	3.9	1.7	1.1
5	2.0	4.5	1.5	1.1	2.0	4.5	4.5	26	4.1	3.6	1.5	1.1
6	2.2	4.5	1.4	1.0	2.0	9.4	4.2	25	4.1	3.4	1.5	1.1
7	2.2	4.0	1.5	1.0	2.0	9.3	4.1	28	3.2	3.2	2.0	1.1
8	2.1	3.7	1.4	.98	2.0	5.6	3.7	23	2.6	3.0	1.6	1.0
9	2.0	3.0	1.2	.60	1.9	2.6	3.7	18	2.3	3.4	1.6	1.0
10	2.1	2.0	1.0	.50	2.5	2.5	3.4	15	2.0	2.8	1.6	1.0
11	2.6	2.0	1.5	.50	2.6	2.4	3.2	13	1.9	3.2	1.7	1.0
12	2.5	1.5	1.7	.60	2.6	2.3	3.5	12	1.9	4.0	1.7	1.0
13	2.5	1.8	2.0	.70	3.0	2.4	3.8	12	1.8	3.0	1.7	.96
14	2.5	1.5	2.0	.90	2.8	1.9	8.5	12	1.7	2.8	1.6	1.0
15	2.3	1.6	1.8	.80	2.5	1.6	4.2	11	1.5	2.7	1.5	1.2
16	2.6	1.7	1.5	.60	2.2	1.6	5.1	13	1.4	2.2	1.5	1.4
17	2.5	1.7	1.4	.40	1.9	1.6	7.7	12	1.4	4.5	1.4	1.5
18	2.6	1.9	1.3	.40	2.0	1.5	12	12	1.3	2.5	1.3	1.3
19	2.8	2.5	1.3	.50	1.9	1.6	13	13	1.3	2.2	1.4	1.4
20	2.9	2.6	1.1	.50	2.0	1.4	11	12	1.2	1.9	1.5	1.3
21	3.2	2.5	1.2	.60	1.8	1.2	12	13	1.0	2.0	1.4	1.3
22	3.6	2.8	1.0	.80	1.9	1.5	18	13	.90	2.0	1.7	1.2
23	3.4	2.0	1.0	1.4	2.1	1.7	24	13	.70	1.9	1.6	1.2
24	3.3	2.0	1.0	1.6	2.2	1.7	27	13	.60	1.9	1.5	1.2
25	3.3	3.0	1.0	1.8	2.0	1.7	29	13	.60	1.9	1.4	1.1
26	3.3	2.5	1.0	2.3	1.7	1.7	33	13	.50	1.8	1.4	1.1
27	3.4	2.0	1.0	1.7	1.3	1.8	35	12	.60	1.8	1.2	1.1
28	3.5	1.7	1.0	2.4	1.0	1.4	37	12	2.4	1.8	1.2	1.1
29	3.6	1.4	1.2	2.0	---	1.2	35	11	5.0	1.9	1.1	1.1
30	3.8	1.5	1.3	1.5	---	1.5	32	11	4.6	1.8	1.1	1.1
31	4.7	---	1.2	1.3	---	2.5	---	9.8	---	1.8	1.1	---
TOTAL	86.3	79.7	40.7	32.58	56.6	76.9	394.7	528.8	82.80	84.5	46.7	34.26
MEAN	2.78	2.66	1.31	1.05	2.02	2.48	13.2	17.1	2.76	2.73	1.51	1.14
MAX	4.7	4.6	2.0	2.4	3.0	9.4	37	38	9.5	4.5	2.0	1.5
MIN	2.0	1.4	1.0	.40	1.0	1.0	3.2	9.8	.50	1.8	1.1	.96
AC-FT	171	158	81	65	112	153	783	1050	164	168	93	68

CAL YR 1986 TOTAL 2754.60 MEAN 7.55 MAX 48 MIN 1.0 AC-FT 5460
WTR YR 1987 TOTAL 1544.54 MEAN 4.23 MAX 38 MIN .40 AC-FT 3060

09250510 TAYLOR CREEK AT MOUTH, NEAR AXIAL, CO

LOCATION.--Lat 40°18'48", long 107°47'57", in NW¼SW¼ sec.14, T.4 N., R.93 W., Moffatt County, Hydrologic Unit 14050002, on right bank 475 ft upstream from confluence with Wilson Creek, about 1,000 ft southwest of Gossard ranch house, and 2 mi north of Axial.

DRAINAGE AREA.--7.22 mi².

PERIOD OF RECORD.--Streamflow records, July 1975 to current year. Water-quality data available, July 1975 to September 1981.

GAGE.--Water-stage recorder. Elevation of gage is 6,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 28, 1980, gage 25 ft upstream at datum 1.00 ft, higher, Mar. 28, 1980 to Apr. 1, 1985 at same site at datum 1.08 ft, higher, Apr. 1, 1985 to Sept. 17, 1986 at same site at datum 1.00 ft, higher.

REMARKS.--Estimated daily discharges: Oct. 12, Nov. 8-11, 14-16, 26 to Apr. 7, May 24 to June 4, and July 17-20. Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Low dam to prevent erosion, 75 ft upstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 0.68 ft³/s; 493 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft³/s, May 15, 1984, gage height, 3.33 ft, present datum; no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft³/s at 1800 July 17, gage height, 2.89 ft; no flow many days.

REVISIONS.--The maximum discharge for the 1986 water year has been revised to 38 ft³/s at 1945 August 20, gage height, 3.27 ft, superseding figure published in report, WDR CO-86-2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.28	.52	.15	.10	.15	.25	.30	2.5	1.7	.90	.20	.00
2	.44	.34	.15	.10	.15	.30	.40	2.9	1.6	.80	.00	.00
3	.93	.28	.15	.10	.20	.40	.40	2.7	1.5	.76	.00	.00
4	.40	.24	.15	.10	.25	.50	.70	2.9	1.5	.81	.00	.00
5	.27	.29	.20	.10	.10	.75	1.0	3.0	1.4	.75	.00	.00
6	.22	.32	.20	.15	.10	1.0	.75	3.1	.43	.71	.00	.00
7	.12	.35	.15	.15	.15	1.0	.90	3.0	1.1	.69	.15	.00
8	.02	.30	.15	.15	.25	1.2	.95	3.0	1.1	.67	.02	.00
9	.01	.15	.15	.10	.50	1.0	.85	3.2	1.2	.73	.00	.00
10	.01	.15	.10	.05	.75	.75	.72	3.2	1.0	.63	.00	.00
11	.03	.15	.10	.05	.75	.75	.93	3.2	.91	.72	.00	.00
12	.05	.16	.10	.05	.60	1.0	1.3	3.1	.84	.98	.00	.00
13	.05	.14	.10	.05	.75	1.0	1.1	3.1	.77	.71	.00	.00
14	.01	.15	.15	.05	1.0	1.4	.87	3.1	.86	.49	.00	.00
15	.00	.15	.15	.05	.75	1.0	.89	3.1	.84	.51	.00	.00
16	.00	.15	.15	.01	.75	1.0	.81	2.9	.79	.34	.00	.00
17	.44	.14	.15	.01	.75	1.0	.88	2.8	.77	2.0	.00	.00
18	.53	.17	.10	.01	.75	.80	.80	2.5	.75	.30	.00	.00
19	.58	.33	.10	.01	.75	1.0	1.4	2.4	.74	.05	.00	.00
20	.46	.27	.15	.01	.75	.80	1.7	2.5	.70	.00	.00	.00
21	.20	.27	.15	.01	.50	.70	1.5	2.7	.68	.00	.00	.00
22	.39	.31	.15	.01	.50	.60	1.9	2.7	.65	.00	.03	.00
23	.30	.26	.15	.01	.50	.50	1.9	2.7	.59	.00	.11	.00
24	.25	.19	.15	.05	.75	.50	1.8	2.5	.59	.00	.15	.00
25	.23	.14	.10	.05	.75	.50	1.9	2.4	.52	.00	.29	.00
26	.12	.15	.10	.10	.50	.40	2.1	2.3	.50	.00	.22	.00
27	.13	.15	.10	.15	.25	.50	2.4	2.2	.51	.00	.10	.00
28	.04	.15	.15	.10	.25	.20	2.9	2.1	.39	.00	.00	.00
29	.01	.20	.15	.10	---	.20	2.8	2.0	1.1	.00	.00	.00
30	.01	.20	.15	.10	---	.10	2.5	1.9	.92	.00	.00	.00
31	.27	---	.15	.15	---	.20	---	1.8	---	.00	.00	---
TOTAL	6.80	6.77	4.30	2.23	14.20	21.30	39.35	83.5	26.95	13.55	1.27	.00
MEAN	.22	.23	.14	.07	.51	.69	1.31	2.69	.90	.44	.04	.00
MAX	.93	.52	.20	.15	1.0	1.4	2.9	3.2	1.7	2.0	.29	.00
MIN	.00	.14	.10	.01	.10	.10	.30	1.8	.39	.00	.00	.00
AC-FT	13	13	8.5	4.4	28	42	78	166	53	27	2.5	.0
CAL YR 1986	TOTAL 404.42	MEAN 1.11	MAX 6.1	MIN .00	AC-FT 802							
WTR YR 1987	TOTAL 220.22	MEAN .60	MAX 3.2	MIN .00	AC-FT 437							

GREEN RIVER BASIN

09251000 YAMPA RIVER NEAR MAYBELL, CO

LOCATION.--Lat 40°30'10", long 108°01'45", in NW¼ sec.2, T.6 N., R.95 W., Moffat County, Hydrologic Unit 14050002, on left bank 100 ft downstream from bridge on U.S. Highway 40, 2.0 mi downstream from Lay Creek, and 3.0 mi east of Maybell.

DRAINAGE AREA.--3,410 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1904 to October 1905, June 1910 to November 1912, April 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. No winter records prior to 1917.

GAGE.--Water-stage recorder. Datum of gage is 5,900.23 ft above National Geodetic Vertical Datum of 1929. See WSP 1733 for history of changes prior to Mar. 9, 1937.

REMARKS.--Estimated daily discharges: Oct. 7, 8, 18-29, Dec. 8-9, 13, Feb. 10, and Feb. 15 to Mar. 5. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, numerous storage reservoirs, and diversions upstream from station for irrigation of about 65,000 acres upstream from, and about 800 acres downstream from station.

AVERAGE DISCHARGE.--71 years (water years 1917-87), 1,588 ft³/s; 1,151,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,100 ft³/s, May 17, 1984, gage height, 12.42 ft; minimum daily, 2.0 ft³/s, July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 2	1330		*6.49				
May 6	0000	*6,140	6.45				

No peak greater than base discharge.

Minimum daily, 124 ft³/s, Aug. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	933	859	539	275	300	300	569	5500	2400	640	440	196
2	951	900	399	275	300	325	941	5970	2520	950	502	181
3	853	850	423	250	300	350	1320	5560	2450	891	475	162
4	754	774	514	300	300	400	1350	4420	2250	693	385	175
5	745	700	529	300	275	750	1720	3770	2200	566	334	173
6	779	708	544	325	275	1330	2120	3580	2260	456	287	188
7	775	718	620	300	275	1620	2250	3810	2210	410	273	193
8	775	707	500	275	275	1990	2390	4270	2510	376	285	185
9	779	647	400	250	300	2210	2360	4460	2770	336	279	191
10	797	583	305	250	400	1920	2350	4690	3210	300	349	195
11	827	642	234	275	672	1620	1790	4890	3180	250	325	190
12	895	561	304	275	715	1710	1960	4680	2720	294	293	189
13	824	656	398	300	1280	1800	1820	5220	2370	366	227	202
14	734	583	450	275	1380	2300	1440	5410	2020	684	227	215
15	689	611	475	250	1100	2030	1230	5520	1850	646	212	219
16	643	767	500	250	800	1540	1470	5670	1690	506	200	251
17	623	826	450	250	700	1170	2270	5890	1650	418	212	251
18	625	796	450	250	500	921	3050	5790	1470	347	192	249
19	625	854	425	250	400	921	3540	5610	1270	328	199	262
20	650	911	400	250	350	1130	3890	5110	1140	368	182	247
21	650	1110	400	250	325	1020	3470	4590	1020	312	155	219
22	700	918	400	275	300	772	2700	4380	946	250	124	253
23	800	874	375	275	325	807	2740	3980	864	220	127	253
24	850	767	350	300	300	775	3450	3630	764	206	161	225
25	800	638	325	300	300	697	4250	3500	700	189	193	170
26	750	693	300	300	325	625	4750	3290	625	181	238	147
27	700	650	325	300	275	630	4860	3100	569	178	355	151
28	700	564	300	300	275	642	4980	2860	526	252	297	143
29	700	477	325	275	---	554	5630	2610	501	377	216	143
30	713	525	325	275	---	508	5690	2510	515	399	187	148
31	752	---	300	275	---	487	---	2420	---	374	188	---
TOTAL	23391	21869	12584	8550	13322	33854	82350	136690	51170	12763	8124	5966
MEAN	755	729	406	276	476	1092	2745	4409	1706	412	262	199
MAX	951	1110	620	325	1380	2300	5690	5970	3210	950	502	262
MIN	623	477	234	250	275	300	569	2420	501	178	124	143
AC-FT	46400	43380	24960	16960	26420	67150	163300	271100	101500	25320	16110	11830
CAL YR 1986	TOTAL 863211	MEAN 2365	MAX 10400	MIN 234	AC-FT 1712000							
WTR YR 1987	TOTAL 410633	MEAN 1125	MAX 5970	MIN 124	AC-FT 814500							

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued
(National Stream-Quality Accounting Network Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1950 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1950 to August 1973, July 1975 to current year.

WATER TEMPERATURES: November 1950 to August 1973, July 1975 to current year.

SUSPENDED-SEDIMENT DISCHARGE: December 1950 to May 1958, October 1975 to September 1976, October 1977 to September 1978, October 1981 to September 1982.

INSTRUMENTATION:--Water-quality monitor since July 1975.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1260 microsiemens Nov. 17, 1985; minimum, 89 microsiemens June 27, 1983.

WATER TEMPERATURES: Maximum, 33.0°C Aug. 29, 1976; minimum, freezing point on many days during winter months each year.

SEDIMENT CONCENTRATIONS: Maximum daily, 6,180 mg/l, Aug. 16, 1981; minimum daily, 1 mg/l, several days during December 1975 to February 1976, Jan. 6, 1980.

SEDIMENT LOADS: Maximum daily, 47,100 tons May 9, 1958; minimum daily, 0.04 ton Oct. 2, 3, 1982

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Not determined.

WATER TEMPERATURES: Not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 15...	1245	687	595	8.8	7.5	7.0	10.4	K2	170	230	43	29
MAR 23...	1000	822	1120	8.4	2.0	150	11.2	K4	240	420	76	56
JUN 03...	1145	2480	275	8.2	16.5	18	8.2	--	--	110	23	12
AUG 06...	1200	284	552	8.5	22.5	6.1	7.5	K9	K7	200	42	24

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER DISSOLV FIELD AS HCO3 (MG/L)	CAR- BONATE WATER DISSOLV FIELD AS CO3 (MG/L)	ALKA- LINITY WATER DISSOLV FLD. AS CACO3 (MG/L)	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 15...	42	1	2.0	110	25	130	170	11	0.20	3.4	445
MAR 23...	94	2	4.1	191	13	180	420	29	0.30	11	808
JUN 03...	15	0.6	1.4	95	--	78	63	4.7	0.10	8.9	175
AUG 06...	35	1	2.8	140	17	140	120	13	0.20	3.6	343

DATE	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	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- PHORUS, TOTAL (MG/L AS P)
OCT 15...	380	0.61	825	--	<0.01	0.44	0.03	<0.01	--	<0.20	<0.20
MAR 23...	800	1.1	1790	1.98	0.02	2.00	0.11	0.08	1.2	1.3	0.20
JUN 03...	170	0.24	1170	--	<0.01	<0.10	0.03	0.03	1.1	1.1	0.09
AUG 06...	330	0.47	263	--	<0.01	<0.10	<0.01	<0.01	--	0.90	0.03

K BASED ON NON-IDEAL COLONY COUNT.

GREEN RIVER BASIN

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	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)
OCT 15...	<0.20	0.01	20	<1	43	<0.5	<1	<1	<3	2	21
MAR 23...	0.06	0.05	<10	<1	58	<0.5	<1	<1	<3	9	34
JUN 03...	0.03	<0.01	70	<1	26	<0.5	<1	1	<3	2	100
AUG 06...	0.06	<0.01	10	1	58	<0.5	<1	<1	<3	7	22

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	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 15...	<5	28	5	0.2	<10	2	<1	<1	380	<6	5
MAR 23...	9	54	70	0.9	<10	3	10	<1	740	<6	<3
JUN 03...	<5	14	4	<0.1	<10	1	<1	<1	180	<6	<3
AUG 06...	<5	28	14	<0.1	<10	<1	<1	<1	360	<6	6

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 15...	1245	687	9	17	--
MAR 23...	1000	822	130	289	96
APR 14...	1645	1330	194	697	--
MAY 14...	1615	5220	378	5330	60
JUN 03...	1145	2480	81	542	71
JUL 16...	1935	458	9	11	--
AUG 06...	1200	284	14	11	--

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	671	997	---	---	---	1160	---	335	---	531	629
2	---	734	987	---	---	---	1140	---	299	---	524	630
3	---	768	956	---	---	---	1040	---	265	---	519	630
4	---	853	968	---	---	---	965	---	265	---	546	620
5	---	883	1020	---	---	---	872	---	266	---	539	638
6	---	898	996	---	---	---	765	---	256	---	539	630
7	---	902	977	---	---	---	704	---	253	---	546	619
8	---	886	964	---	---	---	619	---	248	---	570	614
9	---	901	961	---	---	752	613	---	253	---	587	611
10	---	904	991	---	---	776	586	---	246	---	600	604
11	---	890	1040	---	---	795	592	---	238	---	609	595
12	---	928	1050	---	---	815	627	192	236	---	570	599
13	---	907	1030	---	---	782	632	195	244	---	553	595
14	---	890	1100	---	---	776	662	189	255	---	560	595
15	---	899	1110	---	---	747	723	182	267	---	604	585
16	---	922	1030	---	---	774	731	175	275	510	605	570
17	---	886	949	---	---	825	610	172	277	503	616	566
18	---	877	909	---	---	946	490	169	281	528	644	559
19	---	877	902	---	---	1030	421	175	298	552	639	560
20	---	917	892	---	---	1060	395	189	314	561	640	557
21	---	934	902	---	---	1030	398	211	330	559	625	564
22	---	902	917	---	---	1070	434	220	---	561	626	554
23	---	897	881	---	---	1090	490	234	---	575	637	560
24	---	931	864	---	---	1090	457	254	---	584	652	551
25	---	896	871	---	---	1120	347	263	---	607	695	573
26	---	946	888	---	---	1140	299	266	---	625	725	576
27	---	975	890	---	---	1150	285	274	---	638	690	596
28	---	931	875	---	---	1130	260	281	---	651	646	624
29	---	940	884	---	---	1120	---	302	---	632	611	661
30	655	976	---	---	---	1140	---	325	---	594	613	685
31	643	---	---	---	---	1190	---	350	---	546	619	---

GREEN RIVER BASIN

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

TEMPERATURE, WATER, (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	5.5	4.5	.5	.0	.0	.0	.5	.0	.0	.0
2	---	---	5.0	3.5	.5	.0	.0	.0	.5	.0	.0	.0
3	---	---	4.5	3.5	.5	.0	.0	.0	.5	.0	.0	.0
4	---	---	4.0	2.5	1.0	.0	.0	.0	.0	.0	.0	.0
5	---	---	4.5	2.0	1.0	.0	.0	.0	.0	.0	.0	.0
6	---	---	4.5	2.5	1.0	.0	.0	.0	.0	.0	.5	.0
7	---	---	3.5	2.0	1.5	.5	.0	.0	.0	.0	1.0	.0
8	---	---	2.5	1.5	.5	.0	.0	.0	.0	.0	1.0	.0
9	---	---	1.5	.5	.0	.0	.0	.0	.0	.0	1.0	.0
10	---	---	1.5	.0	.5	.0	.0	.0	.0	.0	1.0	.0
11	---	---	1.0	.0	.0	.0	.0	.0	.5	.0	1.0	.0
12	---	---	2.5	1.0	.0	.0	.0	.0	.5	.0	1.5	.0
13	---	---	2.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0
14	---	---	2.5	.5	.0	.0	.0	.0	.0	.0	2.5	.0
15	---	---	3.0	1.5	.0	.0	.0	.0	.0	.0	3.0	2.0
16	---	---	3.5	2.5	.5	.0	.0	.0	.0	.0	3.0	1.5
17	---	---	3.5	3.0	.5	.0	.0	.0	.0	.0	3.0	1.0
18	---	---	3.5	2.0	.0	.0	.0	.0	.0	.0	5.0	1.5
19	---	---	4.0	3.0	.0	.0	.0	.0	.0	.0	4.5	3.0
20	---	---	3.5	2.0	.5	.0	.0	.0	.0	.0	4.0	2.5
21	---	---	3.5	2.0	.0	.0	.0	.0	.0	.0	4.0	1.0
22	---	---	3.5	2.5	.0	.0	.0	.0	.0	.0	4.0	2.0
23	---	---	2.5	1.5	.0	.0	.0	.0	.0	.0	5.5	1.0
24	---	---	2.0	1.0	.0	.0	.0	.0	.0	.0	4.5	2.5
25	---	---	1.5	1.0	.0	.0	.0	.0	.0	.0	5.0	2.0
26	---	---	2.0	1.0	.0	.0	.0	.0	.0	.0	6.0	2.0
27	---	---	1.5	.5	.0	.0	.0	.0	.0	.0	5.0	2.5
28	---	---	2.0	.5	.0	.0	.0	.0	.0	.0	4.0	.5
29	---	---	2.5	1.0	.0	.0	.0	.0	---	---	2.5	.0
30	8.0	7.0	2.0	.5	.0	.0	.0	.0	---	---	4.0	.0
31	7.0	5.5	---	---	.0	.0	.0	.0	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.0	4.5	---	---	17.0	14.0	---	---	23.5	18.5	---	---
2	8.0	4.5	---	---	17.0	14.0	---	---	24.5	20.0	---	---
3	9.5	5.5	---	---	17.5	14.5	---	---	24.5	20.5	---	---
4	8.5	6.0	---	---	18.5	14.5	---	---	24.0	20.0	---	---
5	7.5	6.0	---	---	18.5	15.5	---	---	23.0	19.5	---	---
6	8.0	5.5	---	---	18.5	16.0	---	---	24.0	19.5	---	---
7	9.5	6.5	---	---	18.5	16.0	---	---	22.5	20.0	---	---
8	9.5	7.5	---	---	18.5	16.5	---	---	23.5	18.5	---	---
9	9.5	7.5	---	---	16.5	15.5	---	---	24.0	19.0	---	---
10	9.0	6.5	---	---	18.0	14.5	---	---	24.0	19.5	---	---
11	8.0	7.0	---	---	18.0	15.0	---	---	22.5	19.5	---	---
12	7.5	6.0	14.5	13.5	19.0	16.0	---	---	23.0	18.0	---	---
13	7.5	5.5	14.5	12.5	20.5	16.5	---	---	21.5	18.0	---	---
14	9.5	5.0	15.0	13.0	21.5	17.5	---	---	21.0	17.5	---	---
15	11.5	7.0	15.0	13.5	21.0	18.5	---	---	20.0	16.5	---	---
16	13.0	9.0	14.5	14.0	21.0	18.5	---	---	21.0	15.5	---	---
17	13.0	10.0	14.0	13.0	20.5	17.5	21.5	19.0	21.5	15.5	17.5	13.0
18	12.0	10.0	13.0	12.0	20.5	17.0	20.5	17.0	22.0	15.0	17.0	12.0
19	10.5	8.5	12.0	10.5	21.0	17.0	20.0	16.5	22.0	16.0	16.5	11.5
20	8.5	6.0	12.5	11.5	21.0	17.5	19.0	16.5	20.5	17.0	17.0	12.0
21	8.0	5.0	11.5	11.0	21.5	17.0	21.0	16.0	21.5	17.5	17.5	12.0
22	10.5	6.0	12.0	9.5	---	---	22.5	18.5	---	---	17.0	12.0
23	12.5	8.5	13.0	10.5	---	---	23.0	17.0	---	---	16.5	11.5
24	13.0	10.5	13.5	12.0	---	---	24.5	17.5	---	---	17.5	12.0
25	12.5	10.0	13.5	11.5	---	---	25.5	20.5	---	---	18.5	13.5
26	12.0	9.5	12.0	10.5	---	---	26.0	20.5	---	---	18.5	13.5
27	12.0	10.0	11.5	9.5	---	---	26.5	21.5	---	---	18.0	13.0
28	12.5	10.5	12.0	10.0	---	---	26.0	21.5	---	---	17.0	11.0
29	---	---	12.0	10.0	---	---	24.0	21.5	---	---	16.5	10.5
30	---	---	14.0	10.0	---	---	23.5	20.0	---	---	16.5	10.5
31	---	---	15.5	12.0	---	---	22.0	20.0	---	---	---	---

09253000 LITTLE SNAKE RIVER NEAR SLATER, CO

LOCATION.--Lat 40°59'58", long 107°08'34", in SW¼NW¼ 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: Oct. 24-28, 31 to Mar. 14, 23, 26, 28, 30. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station.

AVERAGE DISCHARGE.--42 years, 237 ft³/s; 171,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft³/s, May 23, 1984, gage height, 8.78 ft; maximum gage height, 8.95 ft, Apr. 25, 1974; minimum daily discharge, 8.6 ft³/s, Sept. 10, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 1	2200	*1,050	*5.83				

Minimum daily, 13 ft³/s, Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	65	45	40	30	35	53	855	335	105	50	18
2	85	60	45	40	35	40	59	831	317	67	32	16
3	120	50	45	40	35	45	67	637	302	54	25	16
4	103	50	45	40	35	50	85	561	293	52	20	20
5	80	55	50	40	30	55	108	596	282	54	18	26
6	78	50	55	40	30	55	144	633	270	45	18	23
7	86	45	50	35	35	60	149	655	259	41	21	19
8	91	40	45	35	35	65	164	659	269	39	31	18
9	84	45	40	30	35	65	148	666	316	40	26	19
10	84	50	30	35	35	60	131	693	302	38	19	18
11	83	50	35	35	35	60	130	702	243	47	18	17
12	62	55	35	40	35	65	120	754	210	92	20	17
13	68	60	35	40	40	65	93	737	186	74	19	17
14	63	60	35	35	35	70	107	722	167	48	19	16
15	62	65	35	35	35	72	179	724	152	39	23	18
16	60	60	35	30	35	64	272	759	140	35	42	18
17	60	60	35	30	35	59	360	744	127	33	31	19
18	61	55	40	30	35	56	487	719	126	38	21	19
19	61	50	40	25	30	58	492	671	121	32	16	18
20	67	50	40	25	30	56	378	594	112	29	13	17
21	77	55	40	25	30	61	299	589	107	28	17	16
22	91	55	40	30	30	60	374	517	97	29	40	16
23	80	50	40	30	35	50	522	516	90	28	33	16
24	75	55	40	35	35	53	632	470	85	23	48	15
25	70	50	40	35	35	53	666	485	77	22	47	15
26	70	50	40	35	35	65	664	443	71	29	45	16
27	70	45	40	30	35	47	694	421	66	30	32	17
28	70	45	35	30	35	45	771	413	63	27	30	16
29	70	45	35	30	---	45	794	408	64	38	30	16
30	70	40	45	30	---	45	766	432	80	34	26	18
31	60	---	40	30	---	47	---	347	---	54	21	---
TOTAL	2329	1565	1250	1040	950	1726	9908	18953	5329	1344	851	530
MEAN	75.1	52.2	40.3	33.5	33.9	55.7	330	611	178	43.4	27.5	17.7
MAX	120	65	55	40	40	72	794	855	335	105	50	26
MIN	60	40	30	25	30	35	53	347	63	22	13	15
AC-FT	4620	3100	2480	2060	1880	3420	19650	37590	10570	2670	1690	1050
CAL YR 1986	TOTAL	108330	MEAN	297	MAX	2030	MIN	26	AC-FT	214900		
WTR YR 1987	TOTAL	45775	MEAN	125	MAX	855	MIN	13	AC-FT	90790		

GREEN RIVER BASIN

09255000 SLATER FORK NEAR SLATER, CO

LOCATION.--Lat 40°58'57", long 107°22'56", in SW¼NE¼ 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. 19-22, 24-26, 28, Dec. 2-5, 9-18, 22-26, 28 to Jan. 1, 3, 8-10, 16 to Feb. 24, Feb. 28 to Mar. 5, Mar. 10-13, and 15. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 500 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--56 years (water years 1932-87), 78.8 ft³/s; 57,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s May 16, 1984, gage height, 11.78 ft (from floodmark), from rating curve extended above 1,000 ft³/s.; no flow Aug. 2-10, 1934, Aug. 18, 25-27, 1936, Aug. 29 to Sept. 3, 1954, Aug. 3, 4, 15, 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 430 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 18	2200	528	6.38	May 13	0230	492	6.19
Apr. 29	0030	*599	*6.73				

Minimum daily discharge, 4.1 ft³/s, Aug. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	64	39	18	30	13	51	426	128	36	12	8.4
2	43	57	43	17	31	17	61	399	118	27	12	8.0
3	55	52	40	18	30	17	62	292	107	19	8.3	6.6
4	43	50	40	19	30	20	77	242	99	15	6.7	9.3
5	33	42	43	23	27	25	81	231	97	16	5.5	12
6	37	47	43	24	26	40	87	265	99	16	4.9	12
7	47	40	42	24	28	62	93	290	100	14	5.3	10
8	55	38	43	23	30	62	100	296	96	13	6.8	8.6
9	54	44	25	22	30	47	99	303	119	12	8.6	7.8
10	55	41	15	21	30	37	91	321	142	13	6.9	7.3
11	62	49	20	23	30	40	94	306	105	14	7.3	6.9
12	43	41	25	23	29	35	93	318	90	35	5.6	7.1
13	43	49	24	24	31	40	81	416	78	43	4.3	7.1
14	50	48	23	24	31	48	81	361	75	26	5.0	7.1
15	44	41	23	24	28	37	119	350	66	18	7.4	9.7
16	41	41	25	23	24	37	183	374	63	14	14	11
17	40	41	23	21	23	33	255	335	55	13	14	12
18	44	41	25	22	20	34	344	303	49	12	8.4	14
19	46	38	29	23	15	37	379	324	45	11	5.6	12
20	65	38	29	19	14	35	258	257	45	9.6	4.1	12
21	94	40	29	20	12	35	183	247	44	9.0	4.1	11
22	111	42	25	21	16	37	206	218	43	9.1	4.9	10
23	94	44	25	23	20	31	308	201	37	8.8	8.2	9.6
24	88	42	23	25	25	34	408	184	28	7.0	12	9.6
25	88	40	22	27	27	31	415	177	21	5.8	14	9.7
26	83	42	21	28	23	30	392	178	19	6.1	13	11
27	86	43	20	28	24	30	399	169	16	7.0	11	11
28	89	45	21	30	23	29	464	155	16	7.4	11	11
29	85	43	20	31	---	30	456	139	16	9.3	11	13
30	67	43	23	30	---	30	380	164	21	11	10	14
31	67	---	20	30	---	33	---	137	---	10	9.0	---
TOTAL	1893	1326	868	728	707	1066	6300	8378	2037	467.1	260.9	298.8
MEAN	61.1	44.2	28.0	23.5	25.2	34.4	210	270	67.9	15.1	8.42	9.96
MAX	111	64	43	31	31	62	464	426	142	43	14	14
MIN	33	38	15	17	12	13	51	137	16	5.8	4.1	6.6
AC-FT	3750	2630	1720	1440	1400	2110	12500	16620	4040	926	517	593

CAL YR 1986 TOTAL 48853.5 MEAN 134 MAX 871 MIN 2.0 AC-FT 96900
WTR YR 1987 TOTAL 24329.7 MEAN 66.7 MAX 464 MIN 4.1 AC-FT 48260

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY

LOCATION.--Lat 41°01'42", long 107°32'55", in SE¼ NW¼ 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 CO-85-3: 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.--No estimated daily discharges. Records good except those for August and September, which are fair. Diversions for irrigation of about 9,500 acres upstream from station. One diversion upstream from station for irrigation of about 3,000 acres downstream. Transbasin diversions upstream from station.

AVERAGE DISCHARGE.--46 years (water years 1911-23, 1939-71), 514 ft³/s, 372,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s, May 16, 1984, gage height, 13.56 ft, from floodmark, from rating curve extended above 10,000 ft³/s, some increase in peak due to dam failure; no flow Sept. 19, 20, 22, 1977, Aug. 7, 17, 18, 27-29, 1981.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 29	0530	*2,520	*7.17				

Minimum daily discharge during current period, 0.05 ft³/s, Aug. 13, Sept. 24, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	193					---	336	2120	508	2.4	.46	.19
2	219					---	467	2130	440	8.1	.23	.14
3	317					---	482	1760	400	2.2	.15	.07
4	259					---	879	1430	376	1.2	.11	.15
5	198					---	1110	1310	340	1.1	.10	.25
6	188					---	1170	1450	331	1.2	.09	.39
7	200					---	1220	1480	327	1.2	.09	.28
8	212					---	1070	1480	322	1.2	.09	.15
9	209					---	1130	1440	367	.89	.08	.21
10	206					---	656	1500	515	.78	.07	26
11	206					---	700	1500	355	2.0	.06	20
12	136					---	682	1630	274	.68	.06	20
13	162					---	456	1760	229	49	.05	25
14	168					---	405	1650	177	26	.10	19
15	162					---	762	1570	137	13	.19	1.9
16	152					---	1490	1670	111	3.6	.19	.84
17	142					---	1710	1630	70	2.6	1.3	.39
18	151					---	1810	1560	30	2.6	.64	.28
19	149					---	2000	1540	28	2.6	.21	.25
20	170					---	1480	1310	23	1.7	.12	.23
21	221					---	919	1260	18	1.3	.10	.15
22	309					---	1110	1170	17	1.3	.10	.10
23	289					---	1490	989	10	1.4	.15	.07
24	269					---	1900	921	5.6	1.3	.46	.05
25	243					---	2040	905	2.5	.95	3.3	.08
26	219					137	2030	884	1.5	.83	4.3	.12
27	203					176	1880	821	1.2	.89	3.2	.08
28	200					125	2100	747	1.2	1.3	1.2	.05
29	200					137	2200	689	1.2	1.2	.59	.11
30	191					117	2010	752	1.2	.29	.46	.15
31	233					165	---	616	---	.25	.33	---
TOTAL	6376					---	37694	41674	5419.4	135.06	18.58	116.68
MEAN	206					---	1256	1344	181	4.36	.60	3.89
MAX	317					---	2200	2130	515	49	4.3	26
MIN	136					---	336	616	1.2	.25	.05	.05
AC-FT	12650					---	74770	82660	10750	268	37	231

GREEN RIVER BASIN

09258000 WILLOW CREEK NEAR DIXON, WY

LOCATION.--Lat 40°54'56", long 107°31'16", on line between secs. 8 and 17, T.11 N., R.90 W., Moffat County, Co., Hydrologic Unit 14050003, on right bank 6.2 mi south of Colorado-Wyoming State line, 8.0 mi upstream from mouth, and 8.3 mi south of Dixon.

DRAINAGE AREA.--24 mi², approximately.

PERIOD OF RECORD.--October 1953 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,700 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-17, and Nov. 8 to Apr. 7. Records fair 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.--34 years, 10.8 ft³/s; 7,820 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)
Apr. 15	1900	*230	*4.88	No other peak greater than base discharge.			
Minimum daily, 0.10 ft ³ /s, July 10.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	8.4	3.0	2.5	3.5	3.5	10	35	18	4.5	.53	1.3
2	7.5	6.7	3.0	2.5	3.5	3.5	15	36	18	2.5	.53	1.2
3	8.0	6.1	2.5	2.5	4.0	3.5	10	25	17	2.3	.53	1.1
4	7.5	6.5	2.5	2.5	4.0	3.5	15	18	17	2.2	.53	1.7
5	7.0	6.6	3.0	2.5	3.5	3.5	20	16	19	1.8	.53	2.3
6	6.5	6.6	3.0	2.5	3.5	3.5	15	17	21	.82	.50	1.7
7	6.0	6.2	2.5	2.5	4.0	3.5	30	18	24	.69	.50	1.5
8	6.0	4.0	2.5	2.5	4.0	3.5	51	15	24	.43	.50	1.4
9	5.5	4.0	2.5	2.5	4.0	3.5	35	17	44	.11	1.1	1.5
10	5.5	4.5	2.5	2.5	4.0	3.5	35	20	52	.10	.84	1.6
11	5.0	4.5	2.5	2.5	4.0	3.5	26	26	31	1.9	1.0	1.5
12	4.0	4.5	2.5	2.5	4.0	3.5	19	30	18	12	1.2	1.5
13	3.5	5.0	2.5	2.5	4.0	3.5	11	40	14	6.0	1.3	1.4
14	3.5	6.0	2.5	2.5	4.0	3.5	29	34	12	2.5	1.7	1.6
15	3.5	7.5	2.5	2.5	3.5	3.5	77	35	8.5	1.2	2.4	1.7
16	3.5	7.0	2.5	2.5	3.5	3.5	83	46	7.2	.80	3.5	1.7
17	4.0	6.6	2.5	2.5	3.5	3.5	69	41	5.8	2.1	2.0	2.0
18	4.7	6.0	2.5	2.5	3.5	3.5	67	37	4.8	4.4	1.5	1.9
19	5.0	5.0	2.5	2.5	3.5	3.5	43	38	4.2	.66	1.5	1.6
20	5.9	5.0	2.5	2.5	3.5	3.5	22	29	4.2	.58	1.4	1.7
21	7.7	5.0	2.5	2.5	3.5	3.5	19	25	5.1	.55	1.9	1.8
22	17	4.5	2.5	2.5	3.5	3.5	23	21	4.4	.54	2.9	1.9
23	12	4.0	2.5	2.5	3.5	3.5	33	26	4.8	.54	2.4	1.9
24	9.2	4.0	2.5	2.5	3.5	3.5	37	25	2.8	.54	5.0	2.1
25	7.9	4.0	2.5	2.5	3.5	3.5	35	23	2.2	.54	5.0	2.3
26	7.2	4.5	2.5	3.0	3.5	3.5	34	26	2.3	.53	3.9	2.1
27	6.5	5.0	2.5	3.0	3.5	3.5	33	19	2.2	.53	2.5	2.1
28	6.3	5.0	2.5	3.0	3.5	3.5	33	14	2.2	.53	2.0	2.1
29	6.1	4.5	2.5	3.0	---	3.5	33	13	2.6	.53	1.8	2.1
30	6.1	3.5	2.5	3.0	---	3.5	28	16	2.8	.53	1.5	2.1
31	8.2	---	2.5	3.0	---	5.0	---	15	---	.53	1.3	---
TOTAL	203.3	160.7	79.5	80.5	103.0	110.0	990	796	395.1	53.48	53.79	52.4
MEAN	6.56	5.36	2.56	2.60	3.68	3.55	33.0	25.7	13.2	1.73	1.74	1.75
MAX	17	8.4	3.0	3.0	4.0	5.0	83	46	52	12	5.0	2.3
MIN	3.5	3.5	2.5	2.5	3.5	3.5	10	13	2.2	.10	.50	1.1
AC-FT	403	319	158	160	204	218	1960	1580	784	106	107	104

CAL YR 1986 TOTAL 5238.5 MEAN 14.4 MAX 116 MIN 1.8 AC-FT 10390
WTR YR 1987 TOTAL 3077.75 MEAN 8.43 MAX 83 MIN .10 AC-FT 6100

GREEN RIVER BASIN

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY

WATER QUALITY RECORDS

LOCATION.--Lat 41°01'43", long 107°41'14", in SE¼NW¼NW¼ sec.7, T.12 N., R.92 W., Carbon County, Hydrologic Unit 14050003, 0.8 mi downstream from Ledford Slough, 1.5 mi southwest of Baggs, and 3.5 mi downstream from bridge on State Highway 789 in Baggs.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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 28...	1800	241	435	8.3	10.0	610	9.7
JAN 15...	0930	160	415	7.7	0.0	598	11.3
APR 21...	1245	1220	300	8.6	5.5	610	10.1
JUL 06...	1200	2.3	390	8.3	22.0	605	9.2

DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
OCT 28...	108	<1	<0.1	0.02	--	<0.2	0.04
JAN 15...	99	29	<0.1	0.03	0.47	0.5	0.03
APR 21...	100	K31	<0.1	0.02	0.98	1.0	0.07
JUL 06...	134	100	<0.1	0.09	1.0	1.1	0.09

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

PESTICIDE ANALYSIS, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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 06...	1200	2.3	22.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01
AUG 17...	1000	1.2	16.0	<0.01	0.02	<0.01	<0.01	<0.01	<0.01

09260000 LITTLE SNAKE RIVER NEAR LILY, CO

LOCATION.--Lat 40°32'50", long 108°25'25", in NW¼NE¼ sec.20, T.7 N., R.98 W., Moffat County, Hydrologic Unit 14050003, on left bank 170 ft downstream from highway bridge, 6.0 mi north of Lily, and 10 mi upstream from mouth.

DRAINAGE AREA.--3,730 mi², approximately.

PERIOD OF RECORD.--June to August 1904 (published as "near Maybell"), October 1921 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1713: 1959.

GAGE.--Water-stage recorder. Elevation of gage is 5,685 ft, from river-profile map. June 9 to Aug. 14, 1904, nonrecording gage, and May 5, 1922, to Nov. 30, 1935, water-stage recorder, at site 300 ft upstream at different datums.

REMARKS.--Estimated daily discharges: Nov. 13, 21-25, 27, Dec. 2, 6 to Feb. 22, 28, Mar. 1, 21, 23, 26, 28-30, Apr. 3, and Aug. 9, 11-15. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 21,000 acres upstream from station.

AVERAGE DISCHARGE.--66 years, 593 ft³/s; 429,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,700 ft³/s, May 18, 1984, gage height, 9.85 ft; maximum gage height, 11.1 ft, Feb. 13, 1962, from floodmark (backwater from ice); no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 20	1230	*2,540	*4.53				

Minimum daily, 2.0 ft³/s, Aug. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	313	280	199	135	140	275	307	1950	804	27	16	21
2	322	290	180	135	140	309	380	1950	680	24	12	17
3	592	315	177	135	150	291	1300	2040	587	17	9.1	12
4	681	290	142	135	160	253	1390	1880	527	15	8.1	15
5	406	264	196	140	160	267	1710	1570	503	14	6.9	19
6	374	262	200	150	160	373	2090	1310	478	20	8.0	20
7	328	265	190	150	170	974	1870	1260	440	16	9.0	22
8	288	263	180	140	180	1560	1830	1290	429	9.4	6.0	31
9	269	283	150	130	190	1740	1490	1270	453	9.3	3.5	22
10	264	230	120	120	200	1530	1420	1260	478	12	8.7	17
11	268	213	100	110	210	1260	1140	1230	750	18	3.0	21
12	252	194	110	115	220	910	895	1260	694	25	2.0	22
13	250	250	120	120	250	690	867	1300	526	22	2.0	16
14	256	244	130	120	300	540	798	1480	441	17	2.5	16
15	224	241	140	110	275	559	615	1460	378	15	3.5	14
16	225	272	140	100	300	801	562	1360	330	16	7.3	12
17	230	274	140	80	300	604	1080	1370	286	31	9.2	12
18	225	269	141	80	300	494	1540	1430	253	42	12	12
19	223	275	140	85	290	481	1780	1380	232	33	14	9.8
20	217	262	140	85	285	458	2170	1350	197	27	12	9.2
21	220	260	140	80	257	375	1850	1300	165	25	9.0	9.1
22	242	260	140	85	275	357	1450	1170	133	28	6.0	8.8
23	273	240	140	90	261	330	1110	1120	104	35	6.3	9.1
24	594	240	140	100	270	318	1200	996	93	22	10	9.3
25	478	240	140	110	278	304	1630	936	94	18	20	8.0
26	359	236	140	120	219	300	1870	906	74	16	16	7.5
27	330	240	140	130	154	297	1930	911	54	18	16	6.7
28	304	245	140	130	200	275	1830	877	38	20	20	6.1
29	279	233	140	130	---	280	1920	835	34	23	29	6.4
30	269	219	140	130	---	280	2030	814	27	18	25	7.6
31	279	---	140	130	---	280	---	799	---	16	21	---
TOTAL	9834	7649	4575	3610	6294	17765	42054	40064	10282	648.7	333.1	418.6
MEAN	317	255	148	116	225	573	1402	1292	343	20.9	10.7	14.0
MAX	681	315	200	150	300	1740	2170	2040	804	42	29	31
MIN	217	194	100	80	140	253	307	799	27	9.3	2.0	6.1
AC-FT	19510	15170	9070	7160	12480	35240	83410	79470	20390	1290	661	830

CAL YR 1986 TOTAL 302485.0 MEAN 829 MAX 4800 MIN 46 AC-FT 600000
WTR YR 1987 TOTAL 143527.1 MEAN 393 MAX 2170 MIN 2.0 AC-FT 284700

09260050 YAMPA RIVER AT DEERLODGE PARK, CO

LOCATION.--Lat 40°27'02", long 108°31'20" (corrected), in SE¼SW¼ sec.21, T.6 N., R.99 W., Moffat County, Hydrologic Unit 1405002, in Dinosaur National Monument, on left bank at Deerlodge Park, 1,250 ft upstream from Disappointment Draw, and 5.5 mi downstream from Little Snake River.

DRAINAGE AREA.--7,660 mi², approximately.

PERIOD OF RECORD.--August 1975 and January 1978 (discharge measurements only), April 1982 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--5 years, 3,145 ft³/s; 2,279,000 acre-ft/yr.

REMARKS.--Estimated daily discharges: Dec. 13-22, Jan. 11 to Mar. 24, July 26-28, Aug. 15-26, and Sept. 1-6, 26-30. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions, numerous storage reservoirs, and diversions for irrigation of about 86,800 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,200 ft³/s, May 18, 1984, gage height, 19.13 ft; minimum daily, 140 ft³/s, Aug. 23-24, 1987.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 10,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 2	2300	*7,990	*8.01				

Minimum daily, 140 ft³/s, Aug. 23-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	986	860	456	450	425	839	7450	3330	934	458	230
2	984	1060	804	458	450	425	1020	7590	3320	1120	506	240
3	1080	1130	668	385	450	450	2180	7800	3340	1450	571	210
4	1720	1110	647	405	450	500	2670	6810	3100	1350	518	190
5	1320	993	744	448	400	800	2960	5510	2940	1090	407	205
6	1270	918	816	525	400	1500	4050	4770	2920	927	342	220
7	1140	916	883	527	400	2000	3980	4600	2870	800	306	231
8	1040	892	881	544	400	2200	4110	5060	2880	729	298	249
9	1040	896	779	467	450	2500	3750	5430	3200	642	297	243
10	1070	832	437	434	600	3000	3670	5600	3560	601	296	240
11	1110	788	298	450	850	2500	3220	5720	4070	589	434	244
12	1100	798	402	450	950	2200	2650	5890	4530	557	647	220
13	1150	829	475	450	1500	2300	2670	6000	3970	512	635	210
14	1090	913	550	425	1600	2500	2420	6350	3420	625	410	230
15	996	854	650	400	1700	2800	1900	6450	3040	745	300	240
16	939	935	650	400	1400	2300	1740	6480	2660	602	250	262
17	913	1100	650	400	1100	1900	2510	6590	2500	479	205	291
18	890	1150	600	400	900	1600	3970	6800	2300	443	200	305
19	880	1100	625	400	800	1300	4680	6690	2150	381	200	304
20	889	1120	600	400	600	1400	5580	6420	1900	325	200	325
21	899	1230	575	400	500	1600	5300	5950	1760	384	180	313
22	930	1430	600	425	475	1300	4260	5640	1640	375	160	256
23	1020	1220	628	425	450	1100	3490	5360	1500	311	140	308
24	1390	1170	600	450	500	1100	3830	4840	1210	257	140	321
25	1490	1060	527	450	450	1030	5010	4490	1120	240	180	282
26	1220	899	503	450	450	939	6060	4350	1060	230	230	220
27	1120	952	501	450	500	226	6460	4090	1000	210	275	160
28	1030	911	514	450	425	911	6470	3930	916	200	393	170
29	953	851	484	400	---	866	7030	3630	847	300	373	165
30	919	779	495	400	---	756	7620	3440	903	491	292	170
31	959	---	479	400	---	761	---	3350	---	497	244	---
TOTAL	33591	29822	18925	13524	19600	45889	116099	173080	73956	18396	10087	7254
MEAN	1084	994	610	436	700	1480	3870	5583	2465	593	325	242
MAX	1720	1430	883	544	1700	3000	7620	7800	4530	1450	647	325
MIN	880	779	298	385	400	425	839	3350	847	200	140	160
AC-FT	66630	59150	37540	26820	38880	91020	230300	343300	146700	36490	20010	14390
CAL YR 1986	TOTAL 1223181	MEAN 3351	MAX 15000	MIN 298	AC-FT 2426000							
WTR YR 1987	TOTAL 560223	MEAN 1535	MAX 7800	MIN 140	AC-FT 1111000							

09302450 LOST CREEK NEAR BUFORD, CO

LOCATION.--Lat 40°03'01", long 107°28'06", in SE¼SE¼ sec.15, T.1 N., R.90 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank 15 ft downstream from highway bridge, 540 ft upstream from mouth, 0.5 mi downstream from Long Park Creek, and 9 mi northeast of Buford.

DRAINAGE AREA.--21.5 mi².

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

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1973, to Sept. 30, 1975, at site 150 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Oct. 20 to Nov. 30, and Dec. 10 to Feb. 4. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 23.8 ft³/s; 17,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 944 ft³/s, May 9, 1974, gage height, 7.53 ft, from rating curve extended above 260 ft³/s; minimum daily, 0.30 ft³/s, Jan. 9, 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. 28	1730	*465	*3.81	No other peak greater than base discharge.			
Minimum daily, 2.1 ft ³ /s, Sept. 2.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	5.0	4.7	4.1	3.8	4.5	6.4	190	21	8.8	4.9	2.5
2	8.9	4.8	5.2	4.2	3.8	4.4	6.7	146	20	5.4	3.5	2.1
3	12	5.2	5.2	4.0	3.8	4.3	8.1	105	19	4.6	3.2	2.2
4	10	4.4	4.8	3.9	3.8	4.3	7.7	89	18	4.3	2.6	2.7
5	7.1	4.5	4.7	3.7	3.8	4.8	7.7	92	17	4.1	2.5	2.5
6	7.7	4.4	4.6	3.3	3.9	5.3	8.5	101	17	3.9	2.7	2.4
7	8.6	4.2	4.6	3.2	3.9	5.7	9.9	103	18	3.7	5.2	2.5
8	8.4	4.1	4.6	3.1	3.9	5.9	11	95	18	3.6	5.6	2.6
9	8.3	4.3	4.0	3.0	3.9	5.8	12	87	24	3.5	3.3	2.3
10	8.0	4.1	4.1	3.1	4.0	5.7	13	82	22	3.4	2.8	2.3
11	8.6	3.8	4.0	3.3	4.0	5.7	17	76	17	4.7	2.7	2.4
12	6.6	3.6	4.1	3.5	4.0	5.6	17	72	14	7.6	3.1	2.2
13	5.6	3.4	4.2	3.8	4.0	6.1	16	70	12	5.7	2.9	2.2
14	5.9	3.7	4.1	3.9	4.1	6.2	17	68	11	4.1	4.4	2.5
15	5.5	3.6	4.2	4.0	3.8	6.0	20	65	10	3.5	3.3	2.4
16	5.2	3.6	4.5	4.0	3.9	6.0	37	61	9.5	3.3	3.2	2.5
17	5.3	3.6	4.4	4.0	3.8	5.2	66	58	8.3	3.7	2.8	2.9
18	5.2	3.8	4.2	4.0	3.9	5.8	110	53	7.5	4.3	2.5	2.7
19	5.0	4.0	4.1	4.0	4.1	6.0	114	49	7.2	3.3	2.5	2.5
20	4.7	5.4	4.2	4.0	4.1	5.9	81	49	6.7	3.2	2.3	2.4
21	4.4	5.0	4.3	4.0	4.3	6.4	67	50	6.3	3.1	2.8	2.4
22	4.2	5.0	4.2	3.9	4.3	5.8	81	42	5.9	3.2	3.1	2.5
23	4.2	5.0	4.0	4.0	4.5	6.0	131	37	5.7	3.0	3.3	2.4
24	4.3	4.8	3.2	3.9	4.6	5.9	167	34	5.5	2.9	4.1	2.6
25	4.2	4.5	3.3	3.8	4.4	5.8	179	32	5.0	2.9	8.3	2.7
26	4.3	4.5	3.9	3.7	4.4	6.1	190	31	4.8	4.7	5.1	2.8
27	4.4	4.6	3.9	3.6	4.5	5.6	216	29	4.5	3.7	3.6	2.7
28	4.5	4.6	3.7	3.7	4.5	6.3	274	27	4.4	3.6	2.9	2.7
29	4.3	4.5	4.0	3.6	---	5.5	215	26	5.9	4.0	2.7	2.7
30	4.2	4.6	4.6	3.9	---	6.0	189	25	7.6	4.2	2.6	2.7
31	4.8	---	4.1	3.8	---	5.9	---	23	---	4.4	2.5	---
TOTAL	191.0	130.6	131.7	116.0	113.8	174.5	2295.0	2067	352.8	128.4	107.0	75.0
MEAN	6.16	4.35	4.25	3.74	4.06	5.63	76.5	66.7	11.8	4.14	3.45	2.50
MAX	12	5.4	5.2	4.2	4.6	6.4	274	190	24	8.8	8.3	2.9
MIN	4.2	3.4	3.2	3.0	3.8	4.3	6.4	23	4.4	2.9	2.3	2.1
AC-FT	379	259	261	230	226	346	4550	4100	700	255	212	149

CAL YR 1986 TOTAL 12159.6 MEAN 33.3 MAX 548 MIN 3.1 AC-FT 24100
WTR YR 1987 TOTAL 5882.7 MEAN 16.1 MAX 274 MIN 2.1 AC-FT 11670

GREEN RIVER BASIN

09303000 NORTH FORK WHITE RIVER AT BUFORD, CO

LOCATION.--Lat 39°59'15", long 107°36'50", in NW¼NW¼ sec.9, T.1 S., R.91 W., Rio Blanco County, Hydrologic Unit 14050005, on right bank 600 ft east of Buford and 1.2 mi upstream from South Fork White River.

DRAINAGE AREA.--260 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1910 to December 1915, July 1919 to December 1920, October 1951 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as North Fork White River near Buford prior to 1951 and as White River at Buford 1951-67. Records for July 1903 to December 1906 at site 6.5 mi upstream not equivalent because of inflow between sites.

REVISED RECORDS.--WSP 1343: 1912. WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,010 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 24, 1910, to May 27, 1914, nonrecording gage at site 1.5 mi upstream at different datum. May 28, 1914, to Dec. 7, 1915, and July 1, 1919, to Oct. 9, 1920, nonrecording gage at present site at different datum.

REMARKS.--Estimated daily discharges: Dec. 26 to Mar. 10, and Mar. 30 to Apr. 9. Records good except those for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 900 acres upstream from, and 300 acres downstream from station.

AVERAGE DISCHARGE.--42 years (water years 1911-15, 1920, 1952-87), 322 ft³/s; 233,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,550 ft³/s, May 24, 1984, gage height, 6.76 ft; maximum gage height, 7.22 ft, Jan. 9, 1961 (backwater from ice); minimum daily discharge, 90 ft³/s, Feb. 21, 1955.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Apr. 28	2030	*1,330	*5.38	May 16	2200	1,000	5.05

Minimum daily discharge, 170 ft³/s, Feb. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	300	274	230	195	180	190	195	940	591	259	245	192
2	306	260	231	200	180	190	185	856	591	232	229	191
3	328	254	232	205	175	190	185	686	572	253	215	193
4	301	265	230	210	180	195	195	608	566	290	207	196
5	291	255	231	210	190	190	205	613	566	284	207	189
6	291	260	231	205	190	190	205	681	554	275	206	185
7	299	260	232	195	190	190	215	762	602	274	248	187
8	296	255	229	190	195	190	225	780	723	272	250	190
9	294	253	222	190	190	190	240	776	801	259	214	187
10	291	255	189	185	185	195	250	793	823	244	207	188
11	304	250	213	190	180	200	257	792	718	250	206	186
12	285	250	220	200	190	205	258	769	645	290	211	183
13	271	247	230	210	180	203	240	774	631	270	213	185
14	272	247	221	205	180	210	245	813	596	267	220	186
15	269	246	232	200	180	205	282	861	562	262	209	188
16	266	246	228	195	180	205	339	882	553	258	214	185
17	267	247	215	190	175	201	407	894	500	263	205	192
18	273	251	214	190	170	202	504	882	458	257	197	185
19	269	288	224	195	170	203	525	870	418	244	196	182
20	270	263	218	190	180	206	444	909	382	234	195	180
21	265	257	214	185	190	205	387	880	361	228	198	180
22	281	255	210	190	195	204	429	789	340	227	199	179
23	272	235	213	195	190	200	562	756	308	222	207	178
24	265	249	216	195	185	200	687	741	284	219	222	177
25	265	245	210	190	180	199	735	708	265	219	274	177
26	257	244	205	185	175	201	767	676	256	238	230	180
27	260	235	200	190	180	202	828	608	246	227	207	180
28	260	239	205	200	185	205	990	562	237	234	207	178
29	258	238	200	200	---	195	966	554	244	234	198	178
30	256	240	200	190	---	200	910	547	251	231	196	177
31	268	---	200	185	---	210	---	553	---	246	195	---
TOTAL	8650	7563	6745	6055	5120	6171	12862	23315	14644	7762	6627	5534
MEAN	279	252	218	195	183	199	429	752	488	250	214	184
MAX	328	288	232	210	195	210	990	940	823	290	274	196
MIN	256	235	189	185	170	190	185	547	237	219	195	177
AC-FT	17160	15000	13380	12010	10160	12240	25510	46250	29050	15400	13140	10980
CAL YR 1986	TOTAL 152184	MEAN 417	MAX 1340	MIN 180	AC-FT 301900							
WTR YR 1987	TOTAL 111048	MEAN 304	MAX 990	MIN 170	AC-FT 220300							

09303000 NORTH FORK WHITE RIVER AT BUFORD, CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 04...	1530	268	230	8.6	4.0	10.3	150	44	8.7
MAY 16...	1000	843	182	8.1	6.0	9.8	84	25	5.2
JUN 30...	1030	231	277	8.4	9.5	9.1	130	41	7.9
SEP 01...	1320	195	310	8.5	14.0	10.6	160	50	9.5

DATE	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)
NOV 04...	2.8	0.1	1.0	88	64	0.40	0.10	18	192
MAY 16...	2.2	0.1	1.1	62	28	0.40	<0.10	17	116
JUN 30...	2.7	0.1	0.90	85	55	0.30	0.20	17	176
SEP 01...	3.0	0.1	1.0	92	87	0.20	0.10	18	224

DATE	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 DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHOPHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHOPHOS- PHOROUS DIS- SOLVED (MG/L AS P)
NOV 04...	0.26	139	<0.010	<0.100	<0.010	--	1.0	0.030	<0.010
MAY 16...	0.16	265	0.010	<0.100	0.060	0.54	0.60	0.020	0.020
JUN 30...	0.24	110	<0.010	<0.100	0.010	0.39	0.40	0.010	0.010
SEP 01...	0.30	118	<0.010	<0.100	0.020	0.28	0.30	0.020	<0.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 04...	80	<1	<1	<100	<10	<1	<1	<1	3	220
MAY 16...	850	<1	<1	<100	<10	<1	<1	1	13	860
SEP 01...	100	<1	<1	<100	<10	<1	<1	<1	<1	130

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV 04...	5	<10	20	<0.10	1	<1	<1	<1	400	10
MAY 16...	<5	<10	20	<0.10	2	3	<1	4	260	<10
SEP 01...	<5	<10	10	<0.10	1	<1	1	<1	500	<10

GREEN RIVER BASIN

09303000 NORTH FORK WHITE RIVER AT BUFORD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT					JUN				
01...	1615	275	275	8.5	02...	1100	569	205	7.0
DEC					JUL				
08...	1150	231	312	1.5	06...	1400	285	240	17.0
MAR					AUG				
12...	1415	209	327	--	13...	1055	216	315	15.0
MAY					SEP				
01...	1230	860	193	5.5	11...	1320	188	330	10.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
22...	1505	406	41	45	66
MAY					
01...	0945	860	71	165	69
08...	1015	752	51	104	69
16...	1000	843	52	118	57
20...	1515	908	40	98	58
27...	1000	604	13	21	68
JUN					
12...	1030	629	19	32	52
30...	1030	231	13	8.1	49
JUL					
28...	1020	231	12	7.5	56
SEP					
01...	1320	195	8	4.2	52

09303300 SOUTH FORK WHITE RIVER AT BUDGE'S RESORT, CO

LOCATION.--Lat 39°50'36", long 107°20'03", in NW¼ sec.36, T.2 S., R.89 W., Garfield County, Hydrologic Unit 14050005, on right bank 20 ft upstream from Forest Service trail bridge, 0.2 mi upstream from Wagonwheel Creek, and 0.3 mi northeast of Budge's Resort.

DRAINAGE AREA.--52.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to current year.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,980 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1, 1975, to July 7, 1976, at site on left bank 50 ft upstream at datum 1.3 ft, lower.

REMARKS.--Estimated daily discharge: Dec. 1-5, 9 to Jan. 3, 11 to Feb. 7, 18-26, Mar. 28-31. Records good except for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--12 years, 112 ft³/s; 81,140 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,750 ft³/s, June 25, 1983, gage height, 6.57 ft, from rating curve extended above 850 ft³/s; minimum daily, 21 ft³/s, Sept. 29, 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 531 ft³/s at 2100 May 17, gage height, 4.85 ft; minimum daily, 53 ft³/s, Sept. 18-26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	78	72	68	58	64	59	152	145	120	72	56
2	88	78	74	70	56	63	58	146	160	100	67	57
3	89	81	76	72	60	61	59	131	180	92	64	56
4	85	81	74	73	57	60	58	119	210	84	62	58
5	85	78	72	73	59	60	57	118	220	82	61	57
6	87	79	69	70	62	62	58	128	220	80	62	55
7	91	78	69	67	60	61	60	147	230	80	70	56
8	92	78	69	66	62	60	60	163	240	76	67	56
9	93	78	72	66	59	60	60	183	270	74	62	55
10	91	78	72	68	59	58	60	199	230	74	62	54
11	91	81	72	70	58	60	60	214	230	83	60	54
12	87	81	72	72	59	59	59	237	220	102	60	54
13	90	80	68	75	58	59	59	248	190	86	60	54
14	87	77	68	62	59	59	61	276	180	78	60	54
15	83	74	72	58	58	58	64	327	165	74	59	54
16	82	73	74	62	60	58	71	399	155	72	60	55
17	81	73	70	60	58	58	80	476	145	73	58	56
18	81	73	68	58	56	58	80	470	140	73	56	53
19	81	75	70	63	56	58	77	412	130	69	55	53
20	80	75	72	61	58	58	73	343	125	68	55	53
21	80	76	72	60	60	62	70	234	120	67	55	53
22	81	73	74	60	58	59	73	220	115	65	58	53
23	80	78	76	60	60	58	88	190	110	64	60	53
24	80	83	78	60	60	57	101	170	105	63	64	53
25	78	76	72	60	58	59	104	160	105	63	70	53
26	78	71	68	60	56	60	107	150	100	72	64	53
27	76	76	72	58	61	58	120	150	96	69	60	54
28	76	79	72	56	61	60	132	140	110	73	60	54
29	76	74	70	58	---	56	134	135	130	73	59	54
30	76	71	72	62	---	58	140	140	120	70	56	54
31	78	---	72	58	---	58	---	140	---	82	55	---
TOTAL	2588	2306	2223	1986	1646	1839	2342	6717	4896	2401	1893	1634
MEAN	83.5	76.9	71.7	64.1	58.8	59.3	78.1	217	163	77.5	61.1	54.5
MAX	93	83	78	75	62	64	140	476	270	120	72	58
MIN	76	71	68	56	56	56	57	118	96	63	55	53
AC-FT	5130	4570	4410	3940	3260	3650	4650	13320	9710	4760	3750	3240

CAL YR 1986 TOTAL 52916 MEAN 145 MAX 859 MIN 48 AC-FT 105000
WTR YR 1987 TOTAL 32471 MEAN 89.0 MAX 476 MIN 53 AC-FT 64410

GREEN RIVER BASIN

09303300 SOUTH FORK WHITE RIVER AT BUDGE'S RESORT, CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		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)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)		
OCT	20...		1440	76	125	8.4	6.0	9.0	71	19	5.6		
MAY	13...		1030	228	154	7.8	4.5	9.8	83	22	6.9		
JUL	09...		1230	71	147	8.4	13.0	--	72	19	5.9		
		DATE	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)		
OCT	20...		1.8	0.1	2.4	72	4.8	0.50	<0.10	17	94		
MAY	13...		1.3	0.1	0.70	85	4.0	0.20	<0.10	11	97		
JUL	09...		1.8	0.1	0.90	76	4.3	<0.10	0.10	17	--		
		DATE	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 DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)		
OCT	20...		0.13	19.3	--	<0.100	--	--	--	--	--		
MAY	13...		0.13	59.8	<0.010	0.120	<0.010	--	0.50	0.020	0.010		
JUL	09...		--	--	<0.010	<0.100	0.040	0.46	0.50	0.020	<0.010		
		DATE	ALUM- INIUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT	20...		<10	<1	<1	<100	<10	<10	<1	10	<1	2	60
MAY	13...		60	<1	<1	<100	<10	--	<1	10	<1	6	70
		DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT	20...		20	<5	<10	10	<0.10	<1	2	<1	<1	120	270
MAY	13...		--	<5	<10	<10	<0.10	<1	1	<1	<1	60	<10

GREEN RIVER BASIN

09303300 SOUTH FORK WHITE RIVER AT BUDGE'S RESORT, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
DEC 04...	1140	74	145	0.5	AUG 14...	1350	60	154	14.0
JAN 22...	1245	54	144	0.0	SEP 18...	0830	52	160	0.5
MAR 25...	0920	56	147	0.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 13...	1030	228	1	0.62	36
JUL 09...	1230	71	5	0.96	--

GREEN RIVER BASIN

09303320 WAGONWHEEL CREEK AT BUDGE'S RESORT, CO

LOCATION.--Lat 39°50'40", long 107°20'10", in SW¼SW¼ sec.25, T.2 S., R.89 W., Garfield County, Hydrologic Unit 14050005, on right bank 60 ft upstream from mouth and confluence of South Fork White River, about 800 ft downstream from private road bridge, and 0.2 mi north-northeast of Budge's Resort.

DRAINAGE AREA.--7.36 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to current year.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 4 to May 12, and July 3 to Sept 30. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--12 years, 11.3 ft³/s; 8,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 336 ft³/s, June 8, 1985, gage height 4.64 ft; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 55 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 18	1900	*128	*3.47				

Minimum daily discharge, 0.03 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	2.0	.90	.60	.38	.18	.06	28	55	5.8	1.0	.17
2	1.9	2.0	.85	.90	.38	.16	.08	30	66	5.3	.95	.16
3	2.0	2.1	.85	.60	.36	.16	.08	24	66	5.2	.88	.15
4	1.9	2.1	.80	.60	.42	.14	.08	28	65	5.0	.80	.19
5	1.8	2.0	.80	.65	.36	.14	.08	32	66	4.9	.76	.14
6	1.8	2.0	.90	.70	.34	.12	.10	36	64	4.8	.70	.14
7	1.9	1.9	1.0	.60	.34	.12	.10	40	67	4.6	.91	.13
8	1.9	1.9	.90	.75	.32	.10	.10	44	65	4.6	.66	.13
9	2.0	1.8	.80	.60	.32	.13	.12	46	60	4.4	.60	.12
10	2.0	1.8	.86	.55	.30	.10	.22	50	54	4.2	.56	.12
11	2.1	1.9	.80	.55	.40	.15	.14	55	46	4.8	.54	.12
12	2.0	1.9	.80	.55	.32	.10	.28	60	41	6.2	.52	.11
13	2.0	1.8	.80	.55	.36	.08	.14	62	37	4.6	.55	.10
14	1.9	1.6	.80	.55	.40	.08	.16	69	34	4.4	.53	.22
15	1.9	1.5	.80	.57	.28	.08	.16	80	31	4.2	.50	.14
16	2.0	1.4	.75	.50	.26	.06	.20	101	28	4.2	.46	.13
17	2.2	1.4	.75	.50	.26	.06	.20	114	24	4.0	.44	.11
18	2.3	1.4	.75	.50	.24	.06	.80	115	21	3.8	.38	.12
19	2.3	1.5	.90	.55	.24	.06	1.5	104	18	3.3	.36	.10
20	2.4	1.5	.75	.45	.22	.08	2.0	96	15	2.8	.34	.09
21	2.4	1.6	.75	.45	.22	.06	3.0	80	14	2.5	.49	.08
22	3.1	1.2	.75	.41	.22	.10	6.0	67	14	2.2	.34	.07
23	2.8	1.2	.70	.40	.26	.08	10	61	13	2.0	.44	.07
24	2.4	1.4	.70	.50	.20	.06	12	61	12	1.8	.54	.06
25	2.4	1.0	.70	.40	.20	.04	12	62	11	1.6	.69	.06
26	2.3	.85	.70	.40	.28	.04	14	53	11	1.5	.37	.05
27	2.3	1.0	.65	.40	.22	.04	15	47	11	1.4	.30	.07
28	2.2	1.2	.65	.48	.18	.04	16	41	7.2	1.2	.24	.06
29	2.2	.90	.65	.40	---	.04	20	37	8.0	1.1	.22	.04
30	2.4	.85	.65	.40	---	.06	22	35	7.0	1.5	.20	.03
31	2.1	---	.60	.40	---	.06	---	38	---	1.2	.18	---
TOTAL	66.7	46.70	24.06	16.46	8.28	2.78	136.60	1796	1031.2	109.1	16.45	3.28
MEAN	2.15	1.56	.78	.53	.30	.09	4.55	57.9	34.4	3.52	.53	.11
MAX	3.1	2.1	1.0	.90	.42	.18	22	115	67	6.2	1.0	.22
MIN	1.8	.85	.60	.40	.18	.04	.06	24	7.0	1.1	.18	.03
AC-FT	132	93	48	33	16	5.5	271	3560	2050	216	33	6.5

CAL YR 1986 TOTAL 6726.54 MEAN 18.4 MAX 179 MIN .20 AC-FT 13340
WTR YR 1987 TOTAL 3257.58 MEAN 8.92 MAX 115 MIN .03 AC-FT 6460

09303320 WAGONWHEEL CREEK AT BUDGES RESORT, CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 20...	1500	2.4	280	8.5	2.0	10.0	150	40	13
MAY 13...	1120	63	240	8.2	3.0	10.0	140	38	11
JUL 09...	1345	4.4	282	8.6	12.0	--	160	42	13

DATE	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)
OCT 20...	0.40	0.0	1.0	158	2.5	0.50	<0.10	2.8	155
MAY 13...	0.50	0.0	0.40	143	2.5	0.40	<0.10	2.7	141
JUL 09...	0.50	0.0	0.40	161	2.4	<0.10	<0.10	2.9	--

DATE	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 DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
OCT 20...	0.21	1.00	--	0.120	--	--	--	--	--
MAY 13...	0.19	23.8	<0.010	0.150	0.070	1.0	1.1	0.010	<0.010
JUL 09...	--	--	<0.010	<0.100	0.050	0.45	0.50	<0.010	<0.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
OCT 20...	<10	<1	<1	<100	<10	<10	<1	6	3	5	40
MAY 13...	40	<1	<1	<100	<10	--	<1	4	<1	6	80

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
OCT 20...	<3	<5	<10	<10	<0.10	13	4	<1	<1	70	180
MAY 13...	--	<5	<10	20	<0.10	<1	<1	<1	<1	30	<10

GREEN RIVER BASIN

09303320 WAGONWHEEL CREEK AT BUDGES RESORT, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
DEC 04...	1158	0.80	300	0.0	AUG 14...	1515	0.51	312	16.0
JAN 22...	1310	0.41	291	0.0	SEP 18...	0930	0.11	295	3.5
MAR 25...	1000	0.04	283	0.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 13...	1120	63	7	1.2	69
JUL 09...	1345	4.4	11	0.13	--

09303400 SOUTH FORK WHITE RIVER NEAR BUDGE'S RESORT, CO

LOCATION.--Lat 39°51'51", long 107°32'00", in NW¼SE¼ sec.19, T.2 S., R.90 W., Rio Blanco County, Hydrologic Unit 14050005, on right bank on downstream side of Forest Service bridge, 300 ft upstream from South Fork Campground, 10 mi above mouth, and about 10.5 mi southeast of Buford.

DRAINAGE AREA.--128 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CO-79-3: 1976 (M), 1977, 78 (P), 1978.

GAGE.--Water-stage recorder. Elevation of gage is 7,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4 to Dec. 21, Dec. 28 to Jan. 29, Feb. 5-8, 16-27, Mar. 2-7, 20, 27-30, May 7-14, May 27 to July 7. Records fair except for estimated daily discharges, which are poor. No regulation or diversions upstream from station.

AVERAGE DISCHARGE.--11 years, 219 ft³/s; 158,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,770 ft³/s, June 22, 1983, gage height, 6.18 ft; minimum daily, 40 ft³/s, Feb. 1 to Mar. 10, 1980, Dec. 30, 1980, Jan. 10, 15, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s (revised), and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 18	unknown	*1,210	*4.82				

Minimum daily discharge, 73 ft³/s, Feb. 4.

CORRECTIONS.--The maximum daily discharge figure of 1,900 ft³/s, June 7, should have been listed as the peak for water year 1986, this figure supersedes that published in WDR CO-86-2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	141	120	95	75	80	85	461	480	230	129	105
2	152	131	120	100	75	82	87	512	550	200	119	112
3	164	128	120	100	77	80	87	450	555	195	114	109
4	148	130	120	105	73	82	85	404	560	185	107	110
5	144	130	115	105	75	80	87	361	600	180	106	107
6	149	130	115	110	80	84	85	368	600	180	106	100
7	159	135	115	105	75	88	89	420	630	175	126	101
8	163	130	115	100	80	91	92	480	660	174	116	102
9	164	135	110	95	84	87	96	520	777	167	107	97
10	163	130	110	90	84	87	97	540	650	162	103	95
11	172	140	110	95	78	89	96	580	600	177	101	94
12	158	135	110	98	86	88	98	590	610	218	99	92
13	150	135	105	102	84	88	96	600	600	186	98	92
14	151	135	105	88	78	87	92	610	550	165	100	93
15	147	125	110	83	81	85	98	621	440	157	98	93
16	143	120	115	86	78	84	113	711	400	152	101	92
17	143	125	105	83	75	82	137	832	350	147	96	93
18	146	130	100	83	75	86	166	945	300	142	96	90
19	145	125	105	90	78	90	186	891	270	136	92	89
20	145	130	110	86	80	95	171	886	250	134	93	88
21	141	130	110	83	78	85	153	661	240	131	95	88
22	150	130	115	83	80	90	160	594	225	129	104	88
23	142	125	116	83	80	90	179	569	210	125	109	87
24	138	130	119	83	80	97	179	492	200	122	119	85
25	139	130	99	83	80	95	234	398	195	121	137	85
26	136	125	96	78	75	91	278	370	190	132	120	86
27	132	125	103	74	78	85	277	360	180	130	114	87
28	131	125	100	77	82	87	323	355	200	130	115	85
29	128	125	98	80	---	80	378	350	235	137	113	85
30	131	120	100	76	---	82	402	340	245	128	107	85
31	138	---	100	76	---	83	---	355	---	140	104	---
TOTAL	4560	3885	3391	2775	2204	2680	4706	16626	12552	4887	3344	2815
MEAN	147	129	109	89.5	78.7	86.5	157	536	418	158	108	93.8
MAX	172	141	120	110	86	97	402	945	777	230	137	112
MIN	128	120	96	74	73	80	85	340	180	121	92	85
AC-FT	9040	7710	6730	5500	4370	5320	9330	32980	24900	9690	6630	5580
CAL YR 1986	TOTAL 102003	MEAN 279	MAX 1900	MIN 90	AC-FT 202300							
WTR YR 1987	TOTAL 64425	MEAN 177	MAX 945	MIN 73	AC-FT 127800							

GREEN RIVER BASIN

09303400 SOUTH FORK WHITE RIVER NEAR BUDGES RESORT, CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 04...	1045	118	188	8.4	1.0	10.1	100	29	7.7
MAY 12...	1530	590	183	8.2	7.0	11.7	110	32	7.4
SEP 03...	1100	111	198	8.5	9.5	8.2	100	28	7.6

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB 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)
NOV 04...	1.9	0.1	0.90	101	5.0	0.60	<0.10	15	121
MAY 12...	1.0	0.0	0.60	115	6.6	0.50	<0.10	8.3	125
SEP 03...	2.0	0.1	1.0	103	5.2	0.50	0.10	15	121

DATE	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 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 04...	0.16	38.4	<0.010	<0.100	<0.010	0.50	0.020	<0.010
MAY 12...	0.17	200	<0.010	0.140	<0.010	0.60	0.040	0.030
SEP 03...	0.16	36.2	<0.010	<0.100	<0.010	0.30	0.020	<0.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL RECOV- ERABLE (UG/L AS SB)	ARSENIC TOTAL RECOV- ERABLE (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 04...	40	<1	<1	<100	<10	<1	<1	<1	3	150
MAY 12...	--	1	<1	--	--	--	--	--	--	--

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV 04...	<5	<10	20	<0.10	<1	<1	<1	1	120	30
MAY 12...	--	--	--	<0.10	--	--	<1	--	--	--

09303400 SOUTH FORK WHITE RIVER NEAR BUDGES RESORT, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT					MAY				
01...	0955	147	188	3.5	22...	1105	603	190	5.0
DEC					JUN				
08...	1300	105	205	1.5	01...	1130	531	185	7.0
JAN					JUL				
15...	1220	91	194	0.5	07...	1230	182	158	14.0
FEB					AUG				
27...	1000	81	210	0.5	13...	1210	99	306	12.0
APR									
06...	0955	86	300	1.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
12...	1530	590	66	105	22
SEP					
03...	1100	111	15	4.5	28

GREEN RIVER BASIN

09303500 SOUTH FORK WHITE RIVER NEAR BUFORD, CO

LOCATION.--Lat 39°55'18", long 107°33'04", in NW¼SE¼ sec.36, T.1 S., R.91 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank at upstream side of county bridge, 10 ft downstream from Peltier Creek, and 5.6 mi southeast of Buford.

DRAINAGE AREA.--157 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1903 to October 1906, June 1910 to December 1915, October 1942 to September 1947, April 1967 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1057: 1944-45, WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 7,480 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 26, 1903, to Oct. 31, 1906, nonrecording gage, and Oct. 1, 1942, to Sept. 30, 1947, water-stage recorder, at site 60 ft upstream at different datums. Records for 1919-20 at site 6.0 mi downstream not equivalent.

REMARKS.--Estimated daily discharges: Nov. 14-25, 27-29, Dec. 1-7, 10-11, 22-23, Feb. 1-2, 5-10, 18-23, Mar. 2-4. Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 600 acres of hay meadows upstream from station.

AVERAGE DISCHARGE.--33 years (water years 1904-06, 1911-15, 1943-47, 1968-87), 271 ft³/s; 196,300 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,620 ft³/s, June 24, 1983, gage height, 7.73 ft; maximum gage height 8.2 ft, June 17, 1906, site and datum then in use; minimum discharge recorded, 56 ft³/s, Dec. 18, 1946, gage height, 1.01 ft, site and datum then in use, but may have been less during periods of no gage-height record.

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)
May 18	0500	*1,450	*5.49	No other peak greater than base discharge.			
Minimum daily, 116 ft ³ /s, Mar. 29, Apr. 2-3.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	190	179	150	131	135	138	121	523	676	297	178	126
2	193	173	150	138	135	135	116	534	812	260	167	127
3	204	167	150	140	129	135	116	465	817	237	159	129
4	196	169	150	142	130	130	122	411	827	228	154	129
5	191	168	145	150	135	130	120	391	871	222	150	131
6	192	171	145	151	140	126	122	398	877	215	150	127
7	195	172	145	148	135	129	128	472	893	209	170	125
8	196	164	143	138	140	128	133	569	1030	204	168	127
9	199	176	142	129	140	128	137	657	1060	197	158	127
10	200	163	140	127	135	124	136	725	993	191	152	125
11	204	186	140	133	130	122	138	754	830	199	151	123
12	198	171	139	144	146	123	139	823	747	241	149	123
13	187	178	132	144	129	122	130	856	770	222	146	123
14	189	179	130	141	131	128	129	956	725	193	146	124
15	186	162	132	130	130	123	147	1100	661	190	143	123
16	183	158	141	136	128	123	164	1260	618	185	143	126
17	182	157	131	122	124	120	187	1370	533	184	139	128
18	183	158	132	123	125	120	209	1390	464	185	136	123
19	180	166	148	136	130	121	222	1290	417	181	134	122
20	180	157	151	132	135	123	212	1210	384	175	131	121
21	181	157	144	126	130	118	191	1050	359	173	132	120
22	186	162	140	127	135	125	199	864	334	169	135	119
23	181	163	140	134	135	117	225	784	313	165	140	119
24	178	160	140	138	136	121	273	788	294	162	146	118
25	179	155	142	138	131	125	315	745	278	160	166	119
26	173	157	141	135	121	125	316	706	265	172	153	121
27	172	155	136	129	126	117	341	623	254	173	141	122
28	172	155	140	134	134	125	391	553	246	169	136	119
29	169	155	135	150	---	116	421	525	286	182	137	118
30	169	152	135	143	---	122	451	492	303	175	132	117
31	175	---	134	134	---	133	---	502	---	181	128	---
TOTAL	5763	4945	4363	4223	3710	3872	6051	23786	17937	6101	4570	3701
MEAN	186	165	141	136	132	125	202	767	598	197	147	123
MAX	204	186	151	151	146	138	451	1390	1060	297	178	131
MIN	169	152	130	122	121	116	116	391	246	160	128	117
AC-FT	11430	9810	8650	8380	7360	7680	12000	47180	35580	12100	9060	7340

CAL YR 1986 TOTAL 131657 MEAN 361 MAX 2360 MIN 118 AC-FT 261100
WTR YR 1987 TOTAL 89022 MEAN 244 MAX 1390 MIN 116 AC-FT 176600

09303500 SOUTH FORK WHITE RIVER NEAR BUFORD, CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 04...	1245	144	--	8.0	2.0	12.2	130	36	8.8
MAY 12...	1730	816	204	8.2	6.5	11.3	100	30	7.3
SEP 03...	1230	130	229	8.2	9.5	8.9	110	32	8.1

DATE	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)
NOV 04...	1.9	0.1	0.90	110	16	0.60	<0.10	14	144
MAY 12...	1.1	0.0	0.60	105	3.8	0.40	<0.10	8.9	115
SEP 03...	2.1	0.1	1.0	112	11	0.60	0.10	14	136

DATE	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 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 04...	0.20	56.0	<0.010	<0.100	<0.010	0.70	0.010	<0.010
MAY 12...	0.16	254	<0.010	0.100	<0.010	0.60	0.010	0.020
SEP 03...	0.19	47.8	<0.010	<0.100	<0.010	0.40	0.020	<0.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 04...	40	<1	<1	<100	<10	<1	<1	<1	4	180
MAY 12...	860	<1	<1	<100	<10	<1	--	<1	<1	950

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV 04...	<5	<10	20	<0.10	1	<1	<1	<1	180	10
MAY 12...	<5	<10	30	<0.10	--	<1	<1	<1	80	<10

GREEN RIVER BASIN

09303500 SOUTH FORK WHITE RIVER NEAR BUFORD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT					APR				
01...	1125	186	224	3.5	06...	1150	118	290	0.0
DEC					JUN				
08...	1400	132	240	1.5	01...	1335	666	202	8.5
JAN					JUL				
15...	1055	124	280	--	17...	1235	192	230	13.0
FEB					AUG				
27...	1305	149	220	0.5	13...	1550	148	240	13.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
14...	1510	956	45	116	75
SEP					
03...	1230	130	3	1.1	40

GREEN RIVER BASIN

09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO

LOCATION.--Lat 39°58'28", long 107°37'30", in NW¼NE¼ sec.17, T.1 S., R.91 W., Rio Blanco County, Hydrologic Unit 14050005, on right bank 30 ft downstream from highway bridge, 0.8 mi upstream from mouth, and 1.0 mi south of Buford.

DRAINAGE AREA.--177 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1919 to December 1920 (monthly discharge only, published in WSP 1313), October 1951 to current year.

REVISED RECORDS.--WDR CO-79-3: 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 Nov. 30, 1920, nonrecording gage at site 200 ft downstream, at different datum. Oct. 1951 to Apr. 1981, at site 500 ft downstream, at different datum.

REMARKS.--Estimated daily discharges: Nov. 23, 27, Dec. 1-2, 5-7, 13-20, Dec. 23 to Jan. 5, 11-24, Feb. 13 to Mar. 11, Apr. 8-10, 26-30, and July 18 to Aug 25. Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 1,100 acres upstream from station, and a small area downstream from station.

AVERAGE DISCHARGE.--37 years, 264 ft³/s; 191,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,150 ft³/s, June 26, 1983; gage height, 6.27 ft; maximum gage height, 7.07 ft, June 30, 1957, site and datum then in use, minimum daily discharge, 47 ft³/s, Jan. 15, 1981.

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	1030	*1,320	*4.48	No other peak greater than base discharge.			

Minimum daily, 120 ft³/s, Mar. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	204	192	170	145	155	140	126	560	668	327	180	123
2	211	181	170	150	146	140	132	576	795	280	180	121
3	230	174	167	150	134	135	131	549	802	253	175	129
4	212	175	157	155	143	135	138	482	817	238	170	129
5	202	179	150	160	138	130	150	446	857	235	160	130
6	204	184	150	167	144	130	157	432	866	237	155	125
7	211	187	150	156	149	130	165	509	882	236	160	121
8	211	173	152	149	149	130	165	600	1000	232	180	125
9	216	167	138	149	149	130	170	731	1020	227	175	124
10	221	174	140	149	145	125	165	720	992	219	165	121
11	227	176	136	150	141	125	164	758	847	230	155	120
12	212	190	146	150	140	125	157	801	758	294	150	121
13	197	168	150	150	135	129	148	827	778	267	150	120
14	203	174	150	145	135	137	168	899	742	234	150	125
15	197	174	150	145	130	129	198	1010	681	227	145	140
16	191	171	155	140	130	128	214	1130	636	225	145	140
17	195	169	150	140	130	123	229	1240	561	222	145	148
18	192	172	150	135	125	132	257	1270	488	220	140	139
19	192	188	155	130	130	133	249	1220	437	210	135	135
20	192	175	155	135	135	132	219	1150	393	200	135	134
21	192	176	143	140	135	139	218	1020	373	190	135	132
22	196	178	147	145	135	129	259	882	342	185	140	130
23	194	170	150	150	135	120	314	783	319	180	150	129
24	186	170	150	155	135	135	367	775	300	175	160	127
25	190	175	150	159	130	138	370	754	287	170	170	126
26	181	172	150	156	125	125	370	700	273	180	160	129
27	183	170	150	163	130	132	380	626	258	175	149	132
28	182	169	145	148	135	129	420	571	250	180	136	125
29	178	173	150	163	---	130	450	549	297	190	134	124
30	179	173	145	159	---	143	530	514	351	185	134	124
31	183	---	145	150	---	132	---	526	---	185	125	---
TOTAL	6164	5269	4666	4638	3843	4070	7180	23610	18070	6808	4743	3848
MEAN	199	176	151	150	137	131	239	762	602	220	153	128
MAX	230	192	170	167	155	143	530	1270	1020	327	180	148
MIN	178	167	136	130	125	120	126	432	250	170	125	120
AC-FT	12230	10450	9260	9200	7620	8070	14240	46830	35840	13500	9410	7630
CAL YR 1986	TOTAL	132927	MEAN	364	MAX	2100	MIN	117	AC-FT	263700		
WTR YR 1987	TOTAL	92909	MEAN	255	MAX	1270	MIN	120	AC-FT	184300		

GREEN RIVER BASIN
09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO
WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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 16...	1045	1170	215	8.2	6.0	9.6	110	32	7.2	1.0
JUN 30...	1110	314	250	8.6	10.0	9.3	130	38	8.4	1.7
SEP 01...	1415	123	273	8.7	16.0	9.1	140	42	9.7	2.4

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	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)
MAY 16...	0.0	1.0	108	7.4	0.40	<0.10	9.2	123	0.17
JUN 30...	0.1	0.80	113	22	0.50	0.10	13	152	0.21
SEP 01...	0.1	1.0	116	31	0.50	0.10	16	172	0.23

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
MAY 16...	389	0.120	0.030	0.150	0.050	0.45	0.50	0.010	0.030
JUN 30...	129	--	<0.010	<0.100	0.020	0.18	0.20	0.010	0.020
SEP 01...	57.2	--	<0.010	<0.100	0.020	0.28	0.30	0.010	<0.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)
MAY 16...	1800	<1	<1	100	<10	<1	9	<1	10	1700	<5
SEP 01...	60	<1	<1	<100	<10	<1	1	<1	<1	90	<5

DATE	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAY 16...	<10	60	--	<0.10	4	6	<1	<1	70	20
SEP 01...	<10	20	20	<0.10	1	<1	2	<1	270	<10

09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT					MAR				
01...	1200	209	255	5.0	12...	1130	132	264	--
NOV					JUN				
04...	1430	152	266	3.0	01...	1520	668	210	11.0
DEC					JUL				
08...	1050	167	270	2.0	07...	1530	226	240	17.5
JAN					AUG				
15...	0950	110	285	0.0	25...	1510	174	200	16.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
22...	1600	225	20	12	65
MAY					
01...	1020	549	90	133	58
08...	1045	602	54	88	59
16...	1045	1170	79	250	63
20...	1540	1140	57	175	56
27...	1030	622	13	22	44
JUN					
12...	1100	737	19	38	53
30...	1110	314	11	9.3	48
JUL					
28...	1045	222	10	6.0	52
SEP					
01...	1415	123	4	1.3	36

GREEN RIVER BASIN

09304200 WHITE RIVER ABOVE COAL CREEK, NEAR MEEKER, CO

LOCATION.--Lat 40°00'18", long 107°49'29", in NW¼NW¼ sec.3, T.1 S., R.93 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank 40 ft downstream from county road bridge, 2.3 mi upstream from Coal Creek, and 5.0 mi southeast of Meeker.

DRAINAGE AREA.--648 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1961, to Sept. 30, 1976, at site 76 ft upstream at datum 2.00 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 11-14, 27-30, Jan. 21-27, Feb. 15-23, Mar. 19 to May 11, May 23 to June 5. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 8,000 acres and about 4,000 acres downstream from station.

AVERAGE DISCHARGE.--26 years, 591 ft³/s; 428,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,740 ft³/s, June 26, 1983, gage height, 7.07 ft; minimum daily, 6.5 ft³/s, July 19-21, 1977.

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 17	0930	*2,280	*4.64	No other peak greater than base discharge.			

Minimum daily, 176 ft³/s, Sept. 25, 26, and 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	482	532	436	361	368	305	400	1600	1000	410	334	281
2	484	532	463	390	377	359	410	1650	1150	367	314	277
3	549	517	478	378	381	367	410	1420	1120	336	326	282
4	545	503	473	410	364	351	445	1270	1100	315	367	272
5	495	506	469	389	357	349	445	1140	1130	332	363	242
6	491	518	451	390	379	359	460	1180	1110	329	372	233
7	520	527	450	390	369	359	490	1230	1140	323	395	230
8	554	523	434	390	371	356	500	1460	1240	324	359	240
9	550	486	418	380	381	337	510	1550	1400	379	312	247
10	558	490	365	357	384	352	485	1600	1560	391	296	256
11	580	484	360	380	384	340	500	1690	1260	324	293	261
12	588	506	360	415	365	366	515	1670	1140	409	368	245
13	532	474	380	396	389	359	465	1710	1150	368	359	234
14	525	479	390	385	369	357	450	1780	1090	349	411	242
15	509	488	424	367	380	367	500	1940	987	330	440	252
16	505	481	444	380	370	375	580	2030	889	326	396	248
17	511	474	405	322	360	372	660	2190	770	320	411	243
18	520	473	411	320	350	393	780	2160	675	342	347	229
19	522	510	432	374	340	420	890	2060	600	328	317	234
20	522	498	409	362	340	420	830	2000	559	297	268	228
21	522	480	411	330	340	380	700	1930	519	293	274	219
22	540	496	393	300	340	410	720	1730	459	309	253	196
23	553	444	392	330	350	390	840	1420	422	314	248	189
24	521	461	431	350	357	390	1030	1390	384	305	344	181
25	513	474	361	350	378	380	1150	1360	358	310	495	176
26	513	472	361	350	371	380	1200	1220	346	331	423	176
27	513	438	370	350	353	400	1260	1140	334	337	314	178
28	508	469	380	371	377	360	1440	980	344	300	300	178
29	502	457	370	366	---	380	1520	960	408	312	291	176
30	493	461	370	366	---	350	1460	990	472	310	277	181
31	512	---	374	375	---	380	---	900	---	321	277	---
TOTAL	16232	14653	12665	11374	10244	11463	22045	47350	25116	10341	10544	6826
MEAN	524	488	409	367	366	370	735	1527	837	334	340	228
MAX	588	532	478	415	389	420	1520	2190	1560	410	495	282
MIN	482	438	360	300	340	305	400	900	334	293	248	176
AC-FT	32200	29060	25120	22560	20320	22740	43730	93920	49820	20510	20910	13540
CAL YR 1986	TOTAL 318413	MEAN 872	MAX 4030	MIN 305	AC-FT 631600							
WTR YR 1987	TOTAL 198853	MEAN 545	MAX 2190	MIN 176	AC-FT 394400							

09304200 WHITE RIVER ABOVE COAL CREEK NEAR MEEKER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1978 to September 1984, October 1986 to September 1987.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1978 to September 1984.

WATER TEMPERATURES: July 1978 to September 1984.

INSTRUMENTATION.--Water-quality monitor July 1978 to September 1984.

REMARKS.--Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 511 micromhos Dec. 24, 1981; minimum 152 micromhos June 14, 1980.

WATER TEMPERATURES: Maximum, 22.0°C July 8, 1981; minimum, 0.0°C on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		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)	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 16...	1215	2070	230	8.2	8.0	9.1	120	35	6.8	1.9	
JUN 30...	1200	380	350	8.4	12.0	9.3	170	53	10	4.4	
SEP 01...	1500	282	410	8.7	17.0	9.4	220	67	12	5.1	
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)	
MAY 16...	0.1	1.1	95	25	0.70	<0.10	12	140	0.19		
JUN 30...	0.2	1.0	121	65	2.1	0.20	15	223	0.30		
SEP 01...	0.2	1.0	119	100	1.8	0.20	16	274	0.37		
DATE		SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS ORTHOS, DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHOS, DIS- SOLVED (MG/L AS P)	
MAY 16...	781	0.100	0.030	0.130	0.060	0.74	0.80	0.020	0.020		
JUN 30...	229	--	<0.010	<0.100	0.020	0.38	0.40	0.010	0.020		
SEP 01...	209	--	<0.010	<0.100	0.020	0.68	0.70	0.010	<0.010		
DATE		ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
MAY 16...	1900	<1	<1	100	<10	<1	<1	<1	2	3	1800
SEP 01...	50	<1	<1	<100	<10	<1	<1	<1	<1	1	40
DATE		LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAY 16...	<5	<10	60	<0.10	4	5	<1	50	240	10	
SEP 01...	<5	<10	<10	<0.10	2	<1	1	<1	600	<10	

GREEN RIVER BASIN

09304200 WHITE RIVER ABOVE COAL CREEK NEAR MEEKER, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT					APR				
01...	1710	464	344	9.5	01...	1305	331	399	7.0
NOV					JUN				
03...	1130	535	360	3.0	02...	1415	1130	248	11.0
DEC					JUL				
05...	1415	427	388	3.0	27...	1445	373	490	23.0
JAN					SEP				
21...	1350	330	422	--	08...	1530	243	430	13.5
FEB									
23...	1230	326	440	2.0					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
23...	0900	843	88	200	82
MAY					
01...	1130	1600	94	406	76
08...	1140	1460	87	343	76
16...	1215	2070	112	626	67
20...	1610	1960	75	397	46
27...	1115	1160	35	110	51
JUN					
12...	1150	1120	26	79	54
30...	1200	380	12	12	58
JUL					
28...	1130	292	8	6.3	52
SEP					
01...	1500	282	6	4.6	49

09304500 WHITE RIVER NEAR MEEKER, CO

LOCATION.--Lat 40°02'01", long 107°51'42", in NE¼ sec.30, T.1 N., R.93 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank 1.0 mi upstream from Curtis Creek and 2.5 mi east of Meeker.

DRAINAGE AREA.--755 mi².

PERIOD OF RECORD.--June 1901 to December 1906, October 1909 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Meeker" 1901-13.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 31, 1906, and May 7 to Aug. 13, 1910, nonrecording gage, and Aug. 14, 1910, to Oct. 19, 1913, water-stage recorder, at site 2.5 mi downstream, at different datum. Oct. 20, 1913, to Sept. 30, 1971, water-stage recorder at present site, at datum 3.00 ft, higher, prior to Oct. 1, 1933, and at datum 2.00 ft, higher, thereafter.

REMARKS.--Estimated daily discharges: Oct. 10-29, Dec. 11-16, 26 to Feb. 9, 19-20, 22-23. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 12,000 acres upstream from station, and about 3,000 acres downstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--83 years, 633 ft³/s; 458,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,950 ft³/s, May 25, 1984, gage height, 6.12 ft, maximum gage height, 7.60 ft, June 16, 1921; minimum daily discharge, 78 ft³/s, July 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,100 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 17	0430	*2,160	*4.41	No other peak greater than base discharge.			

Minimum daily, 252 ft³/s, Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	572	578	488	370	370	373	418	1620	1130	590	427	282
2	566	560	487	390	370	388	429	1670	1240	527	407	280
3	639	547	503	390	370	392	425	1440	1160	492	413	283
4	596	542	501	390	370	401	457	1240	1160	476	454	296
5	558	543	491	390	360	416	457	1150	1200	478	450	290
6	552	560	516	390	350	443	472	1230	1190	488	449	277
7	565	568	519	390	370	462	506	1390	1230	475	479	275
8	586	551	500	380	380	477	513	1490	1470	459	439	284
9	588	522	486	360	380	519	530	1560	1580	484	386	284
10	590	530	408	330	399	473	504	1630	1600	528	366	298
11	630	518	410	350	412	447	519	1650	1420	444	360	298
12	610	543	410	360	402	435	537	1630	1240	531	424	284
13	580	519	420	380	419	452	488	1650	1250	502	411	278
14	570	529	440	370	437	515	471	1730	1200	478	459	286
15	560	533	450	360	417	452	520	1880	1110	459	478	295
16	540	530	450	350	401	435	600	1980	1050	453	429	289
17	550	529	457	340	397	415	687	2080	954	455	438	291
18	550	532	443	330	373	418	795	2020	850	468	372	281
19	545	579	468	350	360	441	904	1940	769	437	346	278
20	540	553	462	360	360	444	841	1970	712	401	299	278
21	550	538	452	310	364	395	723	1820	678	409	307	271
22	580	554	434	310	360	428	748	1580	645	441	292	255
23	570	495	445	340	370	402	862	1420	591	419	297	266
24	550	514	459	360	392	404	1050	1390	553	403	397	258
25	540	526	428	360	399	395	1180	1330	520	416	531	252
26	535	530	400	360	392	390	1210	1290	486	423	467	256
27	530	489	400	360	390	420	1280	1160	473	417	398	267
28	530	509	420	380	391	382	1460	1020	469	380	386	270
29	530	519	390	370	---	401	1540	1040	503	397	376	275
30	525	526	390	370	---	368	1480	1030	571	405	330	275
31	564	---	380	380	---	402	---	969	---	420	284	---
TOTAL	17491	16066	13907	11230	10755	13185	22606	46999	29004	14155	12351	8352
MEAN	564	536	449	362	384	425	754	1516	967	457	398	278
MAX	639	579	519	390	437	519	1540	2080	1600	590	531	298
MIN	525	489	380	310	350	368	418	969	469	380	284	252
AC-FT	34690	31870	27580	22270	21330	26150	44840	93220	57530	28080	24500	16570
CAL YR 1986	TOTAL 335903	MEAN 920	MAX 4240	MIN 260	AC-FT 666300							
WTR YR 1987	TOTAL 216101	MEAN 592	MAX 2080	MIN 252	AC-FT 428600							

DRAINAGE AREA.--1,024 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CO-79-3: Drainage area. WDR CO-86-2: 1985.

GAGE---Water-stage recorder. Elevation of gage is 5,928 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 24-31. Records good except for estimated daily discharges, which are poor. Diversion upstream from station for irrigation of about 22,000 acres upstream from station, and a few small hay meadows downstream from station.

AVERAGE DISCHARGE.--26 years, 681 ft³/s; 493,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,590 ft³/s, June 26, 1983, gage height, 4.97 ft; minimum daily, 85 ft³/s, June 28, 1977.

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 17	1000	*2.370	*3.07	June 10	1145	2,250	2.87

Minimum daily discharge, 323 ft³/s, Sept. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	697	678	520	407	412	405	457	1820	1210	799	558	397
2	680	651	534	446	411	405	486	1920	1360	688	523	403
3	806	628	568	448	422	418	463	1630	1300	638	510	403
4	769	611	570	449	424	451	502	1360	1300	604	552	405
5	694	609	549	464	407	487	525	1250	1350	609	527	394
6	675	619	571	457	394	566	537	1300	1360	619	506	376
7	682	640	586	446	397	623	583	1440	1420	595	549	370
8	710	621	558	435	411	641	563	1540	1720	575	529	372
9	692	584	525	423	416	721	577	1610	1950	572	458	374
10	690	593	426	385	419	636	553	1680	2100	581	419	361
11	738	571	422	406	446	540	554	1710	1900	519	412	364
12	719	616	456	440	445	501	574	1690	1690	641	475	356
13	674	580	491	451	475	517	538	1700	1650	632	462	337
14	658	594	512	445	514	616	499	1800	1590	585	589	358
15	650	608	510	419	476	550	522	1990	1450	559	565	371
16	627	602	524	410	442	496	587	2120	1340	554	492	367
17	636	590	506	389	429	469	657	2240	1220	540	528	399
18	637	586	480	373	401	457	763	2180	1080	556	428	371
19	635	618	496	418	396	494	915	2090	960	506	420	372
20	633	629	501	430	398	496	933	2090	845	447	349	368
21	636	595	517	391	394	445	792	2050	820	444	365	370
22	665	604	457	377	383	464	808	1800	789	493	352	345
23	661	555	452	427	417	444	892	1550	727	454	361	347
24	632	548	476	430	418	440	1100	1510	665	434	474	329
25	623	574	437	420	424	429	1260	1500	610	441	642	323
26	613	579	412	400	419	419	1310	1470	602	459	607	325
27	610	529	430	410	396	453	1390	1380	580	472	507	340
28	605	554	465	420	410	410	1590	1190	580	442	475	340
29	600	574	447	400	---	421	1760	1190	608	494	459	347
30	596	578	438	390	---	392	1670	1230	702	509	431	350
31	633	---	440	400	---	420	---	1100	---	518	377	---
TOTAL	20576	17918	15276	13006	11796	15226	24360	51130	35478	16979	14901	10934
MEAN	664	597	493	420	421	491	812	1649	1183	548	481	364
MAX	806	678	586	464	514	721	1760	2240	2100	799	642	405
MIN	596	529	412	373	383	392	457	1100	580	434	349	323
AC-FT	40810	35540	30300	25800	23400	30200	48320	101400	70370	33680	29560	21690
CAL YR 1986	TOTAL 380305	MEAN 1042	MAX 4220	MIN 355	AC-FT 754300							
WTR YR 1987	TOTAL 247580	MEAN 678	MAX 2240	MIN 323	AC-FT 491100							

GREEN RIVER BASIN

09304800 WHITE RIVER BELOW MEEKER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to September 1984, October 1985 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1978 to September 1983.

WATER TEMPERATURES: July 1978 to September 1983.

INSTRUMENTATION.--Water-quality monitor July 1978 to September 1983.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 908 micromhos Aug. 30, 1981; minimum, 221 micromhos June 13, 1980.

WATER TEMPERATURES: Maximum, 25.0°C Aug. 7, 1978, Aug. 7, 1980; minimum, 0.0°C many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		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)	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 16...	1340	2220	300	8.1	11.0	8.6	140	39	9.8	6.6	
JUN 30...	1320	710	590	8.5	16.0	9.4	280	73	23	20	
SEP 01...	1620	412	600	8.7	19.0	9.5	290	74	25	22	
DATE		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)	
MAY 16...		0.3	1.0	103	49	2.7	<0.10	12	182	0.25	
JUN 30...		0.5	1.7	183	130	8.0	0.30	16	382	0.52	
SEP 01...		0.6	1.4	146	160	9.1	0.20	15	394	0.54	
DATE		SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	
MAY 16...	1090		0.140	0.030	0.170	0.070	1.0	1.1	0.020	0.030	
JUN 30...	732		--	<0.010	<0.100	0.020	0.78	0.80	0.020	0.020	
SEP 01...	439		--	<0.010	<0.100	0.020	0.28	0.30	0.010	<0.010	
DATE		ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
MAY 16...	3000		1	<1	100	<10	<1	5	3	12	3100
SEP 01...	330		<1	<1	<100	<10	<1	7	<1	1	370
DATE		LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
MAY 16...	<5	<10	100	<0.10	4	8	<1	<1	320	20	
SEP 01...	<5	10	30	<0.10	1	<1	3	<1	730	<10	

GREEN RIVER BASIN

09304800 WHITE RIVER BELOW MEEKER, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT					APR				
02...	0750	648	553	8.5	01...	1420	467	620	10.0
DEC					JUL				
01...	1450	528	496	0.5	27...	1605	459	519	24.0
JAN					SEP				
21...	1530	400	558	0.0	08...	1300	373	630	14.0
FEB									
23...	1345	426	550	2.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR					
23...	1110	920	217	539	72
MAY					
08...	1350	1600	197	851	68
16...	1340	2220	258	1550	63
20...	1700	2080	122	685	53
27...	1245	1380	89	332	70
JUN					
12...	1340	1760	54	257	47
30...	1320	710	30	58	44
JUL					
28...	1340	455	42	52	53
SEP					
01...	1620	412	34	38	48

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	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											
01...	1330	1880	246	1250	24	32	50	74	85	95	100

09306007 PICEANCE CREEK BELOW RIO BLANCO, CO

LOCATION.--Lat 39°49'34", long 108°10'57", in SE¼SE¼ sec.32, T.2 S., R.96 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 20 ft downstream from private bridge, 1,100 ft upstream from Stewart Gulch, and 14.3 mi west of Rio Blanco.

DRAINAGE AREA.--177 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,366 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 9 to Jan. 25 and Feb. 15-17. Records good except for estimated daily discharges, which are poor. Several diversions upstream from station for irrigation of hay meadows.

AVERAGE DISCHARGE.--13 years, 24.0 ft³/s; 17,390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 520 ft³/s July 19, 1977, gage height, 7.01 ft, from rating curve based on indirect measurement of peak flow, maximum gage height, 7.47 ft, May 16, 1984; minimum daily discharge, 0.47 ft³/s, Apr. 25, 1981.

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 14	1300	*77	*3.12				

Minimum daily, 4.6 ft³/s, Jan. 26.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	19	20	11	7.0	11	17	59	17	18	27	15
2	11	19	18	10	7.0	9.6	22	61	16	18	22	13
3	14	18	15	11	7.2	9.7	26	64	18	15	19	12
4	13	19	15	10	7.0	10	35	57	23	13	20	11
5	13	19	16	10	7.8	18	31	52	22	13	20	11
6	14	24	17	9.8	8.8	28	29	50	22	13	19	11
7	12	23	17	9.6	8.4	33	41	49	21	14	22	11
8	9.1	22	17	11	7.9	35	43	49	20	12	20	12
9	11	21	16	10	8.1	29	45	48	25	13	17	11
10	11	18	14	11	7.8	28	35	47	26	12	18	12
11	12	17	19	12	8.0	26	38	46	21	12	18	12
12	12	16	15	11	8.8	22	30	44	17	12	18	12
13	11	11	14	10	11	29	27	44	16	11	18	12
14	10	13	14	9.5	11	53	25	64	15	11	18	11
15	11	15	14	9.0	11	30	30	45	15	9.8	18	8.7
16	11	16	15	8.6	12	23	36	37	16	9.2	18	7.3
17	11	17	14	8.4	11	18	36	35	15	9.1	18	7.5
18	11	19	14	8.0	11	16	37	34	14	9.4	18	7.5
19	14	21	13	7.8	11	22	39	30	14	9.4	18	9.1
20	14	19	12	7.6	10	16	39	27	16	9.7	17	9.6
21	17	19	12	7.8	12	14	38	26	16	10	17	10
22	18	20	11	7.4	12	14	37	28	18	9.1	17	9.9
23	17	15	11	6.6	9.7	12	38	28	19	8.3	18	9.3
24	14	18	11	6.0	9.8	12	40	31	17	12	21	9.9
25	15	18	11	5.5	10	13	43	34	18	14	26	9.7
26	14	20	12	4.6	10	12	49	35	17	14	22	9.5
27	14	16	11	5.4	9.7	12	50	26	17	16	19	7.2
28	13	16	11	6.4	10	13	50	21	18	23	18	6.4
29	13	18	11	7.7	---	13	57	21	19	30	16	7.8
30	14	17	11	7.3	---	14	60	21	18	27	16	7.9
31	18	---	10	6.6	---	13	---	20	---	28	16	---
TOTAL	402.1	543	431	266.6	265.0	608.3	1123	1233	546	435.0	589	303.3
MEAN	13.0	18.1	13.9	8.60	9.46	19.6	37.4	39.8	18.2	14.0	19.0	10.1
MAX	18	24	20	12	12	53	60	64	26	30	27	15
MIN	9.1	11	10	4.6	7.0	9.6	17	20	14	8.3	16	6.4
AC-FT	798	1080	855	529	526	1210	2230	2450	1080	863	1170	602
CAL YR 1986	TOTAL	15554.0	MEAN	42.6	MAX	188	MIN	9.1	AC-FT	30850		
WTR YR 1987	TOTAL	6745.3	MEAN	18.5	MAX	64	MIN	4.6	AC-FT	13380		

GREEN RIVER BASIN

09306007 PICEANCE CREEK BELOW RIO BLANCO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1974 to September 1985.

pH: December 1974 to September 1984.

WATER TEMPERATURE: December 1974 to September 1985.

DISSOLVED OXYGEN: December 1974 to September 1984.

SUSPENDED SEDIMENT DISCHARGE: April 1974 to September 1985.

INSTRUMENTATION.--Automatic pumping sediment sampler April 1974 to September 1985. Water-quality monitor December 1974 to September 1985.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,690 microsiemens June 21, 1976; minimum, 344 microsiemens Apr. 13, 1976.

pH: Maximum, 9.0 units June 21, 1976; minimum, 7.0 units May 24, 1976.

WATER TEMPERATURES: Maximum, 29.5°C July 25, 1977; minimum, freezing point on many days during winter months each year.

DISSOLVED OXYGEN: Maximum, 15.7 mg/L Oct. 8, 1975; minimum, 5.1 mg/L July 17, 1979.

SEDIMENT CONCENTRATIONS: Maximum daily, 20,300 mg/L July 20, 1974; minimum daily, 6 mg/L several days during September 1976.

SEDIMENT LOADS: Maximum daily, 18,600 tons May 16, 1984; minimum daily, 0.02-ton Apr. 20, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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)
FEB 18...	1000	11	1200	8.2	1.5	11.2	430	84	52	110
MAY 04...	0930	56	936	8.6	6.0	10.5	390	84	44	77
JUL 08...	1145	12	1380	8.3	16.0	6.8	480	91	60	130
SEP 02...	1045	13	1250	8.5	12.0	9.9	450	84	58	120

DATE	TIME	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)	SOLIDS, DIS- SOLVED (TONS PER DAY)
FEB 18...	2	2.4	353	290	21	0.90	13	787	1.07	23.4	
MAY 04...	2	2.0	303	220	14	0.50	15	640	0.87	96.7	
JUL 08...	3	3.3	394	320	21	0.80	16	880	1.19	28.5	
SEP 02...	3	2.5	314	310	21	0.70	13	800	1.08	28.1	

DATE	TIME	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
FEB 18...	2.08	0.02	2.10	0.04	1.4	1.4	0.02	0.02	160	1600	
MAY 04...	--	<0.01	1.90	0.02	1.1	1.1	0.030	0.02	100	1000	
JUL 08...	--	<0.01	0.62	0.09	0.71	0.80	0.02	<0.01	210	1800	
SEP 02...	1.38	0.02	1.40	<0.01	--	0.70	0.01	<0.01	170	1800	

09306007 PICEANCE CREEK BELOW RIO BLANCO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		ARSENIC DIS- SOLVED (UG/L AS AS)		BARIUM, DIS- SOLVED (UG/L AS BA)		COBALT, DIS- SOLVED (UG/L AS CO)		IRON, DIS- SOLVED (UG/L AS FE)		LITHIUM DIS- SOLVED (UG/L AS LI)		MANGA- NESE, DIS- SOLVED (UG/L AS MN)		MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)		NICKEL, DIS- SOLVED (UG/L AS NI)		ZINC, DIS- SOLVED (UG/L AS ZN)	
	FEB 18...		2		120		<1		10		22		35		3		1		9
	MAY 04...		3		100		<1		20		10		<10		5		<1		10
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)		SPE- CIFIC CON- DUCT- ANCE (US/CM)		TEMPER- ATURE WATER (DEG C)		DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)		SPE- CIFIC CON- DUCT- ANCE (US/CM)		TEMPER- ATURE WATER (DEG C)					
OCT 07...	1550	15		1150		12.0		APR 22...	1010	37		1040		3.5					
NOV 17...	1125	17		1220		6.5		JUN 03...	1150	18		1300		12.0					
DEC 18...	1055	14		1240		0.5		AUG 07...	1055	22		1250		15.5					
MAR 19...	1530	19		1070		7.0													

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)		SEDI- MENT, SUS- PENDE (MG/L)		SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)		SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	
FEB 18...	1000	11		96		2.9		40	
MAR 19...	1600	19		501		25		79	
MAY 04...	0930	56		870		132		63	
JUL 08...	1145	12		62		2.0		31	
SEP 02...	1045	13		42		1.5		41	

GREEN RIVER BASIN

09306022 STEWART GULCH ABOVE WEST FORK NEAR RIO BLANCO, CO

LOCATION.--Lat 39°49'09", long 108°11'08", in SE¼NE¼ sec.5, T.3 S., R.96 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 0.6 mi upstream from mouth, about 300 ft above confluence with West Fork Stewart Gulch, and 14.2 mi west of Rio Blanco.

DRAINAGE AREA.--44.0 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1982.

pH: October 1974 to March 1982.

WATER TEMPERATURE: October 1974 to September 1982.

DISSOLVED OXYGEN: October 1974 to March 1982.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1982.

INSTRUMENTATION.--Water-quality monitor October 1974 to September 1982. Pumping sediment sampler October 1974 to September 1982.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,200 microsiemens Nov. 10, 1975; minimum, 583 microsiemens Feb. 22, 1982.

pH: Maximum, 8.9 units Dec. 9, 11, 1979; minimum, 7.6 units Oct. 7, 1975.

WATER TEMPERATURES: Maximum, 20.5°C July 3, 1976, June 3, 1977; minimum, 0.0°C Jan. 9, Dec. 17, 1977,

Mar. 3, Dec. 2, 3, 1978, Jan. 29, 1979.

DISSOLVED OXYGEN: Maximum, 16.6 mg/L Jan. 13, 1976; minimum, 3.6 mg/L Aug. 19, 20, 1977.

SEDIMENT CONCENTRATIONS: Maximum daily, 1,350 mg/L June 8, 1975; minimum daily, no flow Aug. 7-9, 1975.

SEDIMENT LOADS: Maximum daily, 10 tons estimated June 8, 1975; minimum daily, no flow Aug. 7-9, 1975.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)
APR 01...	1030	3.6	1350	8.3	7.0	11.1	540	93	74	120
MAY 11...	1115	3.4	1390	8.4	14.5	8.9	520	85	74	120

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CaCO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
APR 01...	2	1.4	346	400	11	0.20	14	924	1.25	8.98
MAY 11...	2	1.1	347	400	13	0.30	13	917	1.24	8.42

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
APR 01...	2.78	0.02	2.80	0.04	0.36	0.40	0.02	<0.01	80	2500
MAY 11...	3.69	0.01	3.70	0.03	1.1	1.1	0.02	<0.01	80	2600

GREEN RIVER BASIN

09306022 STEWART GULCH ABOVE WEST FORK NEAR RIO BLANCO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)
AUG 12...	1045	0.70	1360	8.3	12.5	8.4
SEP 30...	1515	5.2	1350	8.4	12.0	10.4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)
APR 01...	1030	3.6	391	3.8

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.12	.12	.18	.44	.06	.10	.35	.18	.24	.12	.16
2	.35	.16	.18	.07	.69	.16	.00	.41	.24	.24	.22	.13
3	.15	.11	.16	.15	.58	.22	.00	.31	.20	.25	.19	.14
4	.14	.10	.18	.36	.49	.16	.00	.00	.20	.41	.36	.21
5	.15	.10	.20	.28	.30	.15	.00	.00	.20	.44	.90	.18
6	.11	.17	.18	.16	.32	.22	.00	.00	.20	.49	1.2	.11
7	.00	.12	.20	.22	.42	.12	.00	.00	.17	.49	1.2	.14
8	.00	.10	.16	.20	.51	.16	.00	.00	.18	.49	.91	.21
9	.16	.10	.18	.12	.44	.10	.00	.00	.24	.49	.42	.15
10	.16	.13	.20	.06	.41	.06	.00	.00	.13	.49	.20	.32
11	.41	.10	.16	.16	.49	.00	.00	.00	.21	.50	.11	.20
12	.46	.12	.26	.12	.31	.10	.00	.00	.21	.45	.10	.16
13	.21	.11	.20	.06	.22	.16	.00	.00	.30	.46	.23	.19
14	.10	.17	.22	.22	.31	.00	.00	.13	.51	.41	.23	.13
15	.10	.13	.15	.06	.25	.00	.00	.10	.66	.31	.25	.20
16	.10	.14	.06	.22	.34	.00	.00	.10	.58	.29	.22	.27
17	.10	.12	.21	.20	.39	.00	.00	.00	.57	.27	.18	.24
18	.10	.22	.20	.16	.34	.00	.00	.10	.73	.27	.14	.14
19	.10	.16	.63	.12	.20	.00	.00	.10	.73	.27	.21	.14
20	.10	.22	.57	.18	.16	.00	.00	.11	.38	.27	.22	.21
21	.10	.20	.50	.30	.12	.00	.00	.18	.42	.29	.13	.18
22	.10	.16	.01	.46	.22	.00	.00	.27	.25	.30	.14	.18
23	.10	.15	.13	.83	.18	.10	.24	.25	.21	.32	.17	.20
24	.10	.11	.15	.81	.16	.00	.18	.13	.38	.33	.22	.17
25	.10	.14	.06	.84	.18	.00	.36	.24	.20	.31	.11	.17
26	.10	.13	.18	.84	.22	.00	.41	.21	.20	.29	.10	.18
27	.10	.10	.03	.88	.20	.00	.39	.24	.20	1.9	.10	.20
28	.10	.17	.12	.55	.16	.00	.30	.16	.18	8.3	.17	.18
29	.13	.18	.14	.49	---	.00	.32	.15	.25	1.1	.16	.18
30	.12	.12	.20	.41	---	.00	.29	.24	.29	.29	.13	.16
31	.20	---	.22	.41	---	.00	---	.16	---	.21	.16	---
TOTAL	4.64	4.16	6.16	10.12	9.05	1.77	2.59	3.94	9.40	21.17	9.20	5.43
MEAN	.15	.14	.20	.33	.32	.06	.09	.13	.31	.68	.30	.18
MAX	.46	.22	.63	.88	.69	.22	.41	.41	.73	8.3	1.2	.32
MIN	.00	.10	.01	.06	.12	.00	.00	.00	.13	.21	.10	.11
AC-FT	9.2	8.3	12	20	18	3.5	5.1	7.8	19	42	18	11
CAL YR 1986	TOTAL	82.88	MEAN	.23	MAX	4.3	MIN	.00	AC-FT	164		
WTR YR 1987	TOTAL	87.63	MEAN	.24	MAX	8.3	MIN	.00	AC-FT	174		

GREEN RIVER BASIN

09306042 PICEANCE CREEK TRIBUTARY NEAR RIO BLANCO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1974 to August 1984, April 1985 to February 1986.

pH: February to September 1981.

WATER TEMPERATURE: April 1974 to August 1984, April 1985 to February 1986.

SUSPENDED-SEDIMENT DISCHARGE: April 1974 to September 1982.

INSTRUMENTATION.--Water-quality monitor April 1974 to February 1986. Pumping sediment sampler April 1974 to September 1982.

REMARKS.--Unpublished maximum and minimum values of specific conductance for periods of daily record are available in the district office. Water-quality monitor was moved February 21, 1986 to the discharge pipe of a settling pond on Occidental Petroleum's tract C-b oil shale lease. Daily monitor data subsequent to February 20 are site specific and not published in this report.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,570 microsiemens Sept. 16, 1980; minimum observed, 220 microsiemens Jan. 26, 1982.

WATER TEMPERATURES: Maximum, 35.0°C Aug. 6, 1985; minimum, 0.0°C many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily, 28,000 mg/L estimated Sept. 3, 1978; no flow many days dry years.

SEDIMENT LOADS: Maximum daily, 900 tons, estimated, Sept. 3, 1978; no flow many days dry years.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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
FEB 18...	0850	0.32	2160	--	0.5	13.0	64	10	9.0	570	32
MAY 18...	1100	0.08	2340	9.0	23.5	6.4	61	9.6	8.6	590	34
JUL 02...	1230	0.20	2470	9.0	29.0	5.8	55	8.9	7.6	610	37
AUG 27...	1430	0.02	2440	9.0	27.5	6.9	50	7.9	7.2	610	39

DATE	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)	BROMIDE DIS- SOLVED (MG/L AS BR)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)
FEB 18...	1.6	1240	35	12	20	0.13	16	1420	1.93	1.23	0.83
MAY 18...	1.6	1240	51	16	20	0.015	48	1490	2.02	0.32	0.49
JUL 02...	1.7	1300	65	10	20	--	17	1520	2.07	0.82	0.45
AUG 27...	1.8	1290	66	8.4	20	--	9.4	1510	2.05	0.08	--

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	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)	OIL AND GREASE, TOTAL RECOV- GRAVI- METRIC (MG/L)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
FEB 18...	0.03	0.86	0.01	0.99	1.0	0.05	0/02	3.3	1	770	1200
MAY 18...	0.03	0.52	0.03	0.87	0.90	0.01	0/02	4.9	<1	730	1100
JUL 02...	0/02	0.47	0.03	0.87	0.90	0.01	<0.01	--	--	780	1100
AUG 27...	<0.01	0.35	<0.01	--	1.1	0.01	0.01	--	--	770	920

09306042 PICEANCE CREEK TRIBUTARY NEAR RIO BLANCO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)
FEB 18...	10	1	600	--	<1	<10	<1	4	30
MAY 18...	20	1	700	<10	<1	<10	<1	<1	20

DATE	LEAD, DIS- SOLVED (UG/L AS PB)	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)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB 18...	<5	50	<10	<0.1	1	1	<1	--	<10
MAY 18...	<5	40	<10	--	2	<1	<1	5	<10

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 06...	1530	0.04	2240	21.5	NOV 17...	1200	0.13	2280	8.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 18...	1100	0.08	106	0.02	16
JUL 02...	1230	0.20	68	0.04	31
AUG 27...	1430	0.02	566	0.03	29

GREEN RIVER BASIN

09306058 WILLOW CREEK NEAR RIO BLANCO, CO

LOCATION.--Lat 39°50'14", long 108°14'37", in NW¼NE¼ sec.35, T.2 S., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on right bank 1,500 ft upstream from mouth and 17.4 mi west of Rio Blanco.

DRAINAGE AREA.--48.4 mi².

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to September 1985, October 1986 to September 1987.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1974 to September 1982.

pH: March 1976 to February 1982.

WATER TEMPERATURE: November 1974 to September 1982.

DISSOLVED OXYGEN: March 1976 to February 1982.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1982.

INSTRUMENTATION.--Water-quality monitor November 1974 to September 1982. Pumping sediment sampler October 1974 to September 1982.

REMARKS.--Unpublished daily maximum and minimum specific conductance data for period of daily record are available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,920 microsiemens July 14, 1976; minimum, 528 microsiemens Mar. 18, 1976.

pH: Maximum, 8.8 units Mar. 11, 1980; minimum, 7.4 units June 4, 6, 1980.

WATER TEMPERATURES: Maximum, 30.5°C July 4, 1982; minimum, 0.0°C on many days during winter months each year.

DISSOLVED OXYGEN: Maximum, 12.9 mg/L Mar. 29, 1979; minimum, 3.6 mg/L Sept. 29, 1978.

SEDIMENT CONCENTRATIONS: Maximum daily, 7,030 mg/L July 29, 1979; no flow many days during 1978.

SEDIMENT LOADS: Maximum daily, 61 tons July 29, 30, 1979; no flow many days during 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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)
APR 01...	1300	4.2	1240	8.4	11.5	9.9	500	95	64	110
MAY 11...	1315	8.8	1140	8.4	16.0	7.4	450	85	58	97
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)
APR 01...	2	1.7	333	330	13	0.40	17	833	1.13	9.45
MAY 11...	2	1.1	325	300	14	0.40	17	770	1.04	18.3
DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	
APR 01...	<0.01	1.20	0.04	0.36	0.40	0.02	<0.01	130	2400	
MAY 11...	<0.01	1.50	0.04	1.2	1.2	0.04	<0.01	110	2100	

09306058 WILLOW CREEK NEAR RIO BLANCO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)
AUG 12...	1400	5.2	1360	8.1	14.0	7.6
SEP 30...	1230	4.4	1320	8.4	10.5	8.2

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
APR 01...	1300	4.2	1540	17

GREEN RIVER BASIN

09306061 PICEANCE CREEK ABOVE HUNTER CREEK, NEAR RIO BLANCO, CO

LOCATION.--Lat 39°51'02", long 108°15'31", in SE¼NE¼ sec.27, T.2 S., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 120 ft downstream from private bridge, 0.4 mi upstream from Hunter Creek, and 18.7 mi west of Rio Blanco.

DRAINAGE AREA.--309 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 6,214 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 26, 1982, at site 75 ft upstream at datum 0.98 ft, lower.

REMARKS.--Estimated daily discharges: Jan. 15-24. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--13 years, 32.8 ft³/s; 23,760 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 612 ft³/s, May 7, 1985, gage height, 5.65 ft, maximum gage height, 5.85 ft, May 16, 1984; no flow Oct. 4, 5, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 98 ft³/s at 2030 Mar. 6, gage height, 3.52 ft; minimum daily, 7.4 ft³/s, May 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	36	29	20	23	23	35	75	10	9.2	33	29
2	46	37	28	19	23	23	43	76	11	11	31	27
3	46	36	30	19	23	21	42	75	11	11	30	28
4	45	35	30	20	22	24	57	69	14	9.0	29	27
5	44	35	31	19	21	34	53	65	14	9.0	30	27
6	45	37	31	19	20	47	48	65	13	8.8	29	26
7	48	36	32	18	19	55	57	62	12	8.7	30	26
8	45	34	33	17	22	55	59	59	17	9.3	28	26
9	46	31	31	20	22	51	58	58	21	15	26	25
10	47	32	26	18	22	47	49	56	28	16	30	23
11	44	31	35	21	19	43	52	54	24	15	32	21
12	41	31	30	22	20	36	42	45	19	18	40	22
13	40	32	27	19	27	49	38	41	17	18	40	22
14	40	31	27	17	28	59	36	34	14	19	41	20
15	39	32	27	16	23	50	44	26	12	17	42	19
16	38	34	28	15	23	42	50	17	19	15	42	19
17	38	34	26	15	23	35	52	13	14	13	40	19
18	37	38	25	14	21	31	53	12	10	12	39	17
19	38	40	23	14	20	39	57	8.5	9.6	11	38	17
20	38	37	22	13	24	32	58	7.9	8.9	10	36	18
21	38	37	22	14	21	27	54	8.0	8.0	13	34	17
22	38	37	20	13	22	30	58	7.8	8.2	14	34	19
23	39	33	20	13	22	27	58	7.4	9.7	15	38	18
24	37	35	20	14	22	27	60	8.4	10	17	39	19
25	37	35	20	15	23	27	64	9.3	10	18	43	20
26	36	35	21	15	23	26	68	9.6	10	18	40	19
27	36	28	20	14	23	29	69	13	9.1	19	36	18
28	35	28	20	25	23	25	71	9.1	8.1	30	34	17
29	34	31	19	24	---	27	75	9.7	9.7	34	32	18
30	33	33	20	23	---	23	74	11	11	32	31	17
31	36	---	18	23	---	29	---	11	---	33	30	---
TOTAL	1250	1021	791	548	624	1093	1634	1022.7	392.3	498.0	1077	640
MEAN	40.3	34.0	25.5	17.7	22.3	35.3	54.5	33.0	13.1	16.1	34.7	21.3
MAX	48	40	35	25	28	59	75	76	28	34	43	29
MIN	33	28	18	13	19	21	35	7.4	8.0	8.7	26	17
AC-FT	2480	2030	1570	1090	1240	2170	3240	2030	778	988	2140	1270

CAL YR 1986 TOTAL 22513.0 MEAN 61.7 MAX 227 MIN 18 AC-FT 44650
WTR YR 1987 TOTAL 10591.0 MEAN 29.0 MAX 76 MIN 7.4 AC-FT 21010

09306061 PICEANCE CREEK ABOVE HUNTER CREEK NEAR RIO BLANCO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1985.

pH: October 1974 to September 1984.

WATER TEMPERATURE: October 1974 to September 1985.

DISSOLVED OXYGEN: October 1974 to September 1984.

SUSPENDED-SEDIMENT DISCHARGE: April 1974 to September 1985.

INSTRUMENTATION.--Automatic pumping sediment sampler April 1974 to September 1985. Water-quality monitor October 1974 to September 1985.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum 1,980 microsiemens Jan. 15, 1976; minimum, 440 microsiemens Apr. 19, 1985.

pH: Maximum, 8.9 units Dec. 7, 1977; minimum, 7.4 units Apr. 18, 1979.

WATER TEMPERATURES: Maximum, 26.5°C June 26, 1977; minimum, freezing point on many days during winter months.

DISSOLVED OXYGEN: Maximum, 16.5 mg/L Mar. 21, 22, 1976; minimum, 3.1 mg/L Sept. 10, 1978.

SEDIMENT CONCENTRATIONS: Maximum daily, 15,000 mg/L May 2, 1986; minimum daily, no flow Oct. 4, 5, 1977.

SEDIMENT LOADS: Maximum daily, 27,000 tons estimated Sept. 3, 1977; minimum daily, no flow Oct. 4, 5, 1977.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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)
FEB 18...	1340	22	1310	8.5	5.5	10.7	470	84	62	130
MAY 04...	1130	70	1070	8.5	9.5	8.5	410	84	49	90
JUL 08...	1400	9.0	1670	8.2	18.5	11.6	570	88	85	190
SEP 02...	1430	26	1380	8.4	17.5	8.6	480	80	67	140

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER DAY)
FEB 18...	3	2.1	369	350	15	1.0	14	882	1.20	52.4
MAY 04...	2	2.0	326	260	14	0.4	15	712	0.97	134
JUL 08...	4	3.8	518	410	18	0.7	16	1130	1.53	27.3
SEP 02...	3	2.3	278	350	17	0.8	15	841	1.14	59.1

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
FEB 18...	2.19	0.01	2.20	0.02	1.8	1.8	0.03	0.02	150	2000
MAY 04...	--	<0.01	1.90	0.02	0.58	0.60	0.03	0.02	110	1400
JUL 08...	--	<0.01	<0.10	0.05	0.65	0.70	<0.01	<0.01	250	2600
SEP 02...	1.59	0.01	1.60	0.01	0.29	0.30	0.01	<0.01	160	2300

GREEN RIVER BASIN

09306061 PICEANCE CREEK ABOVE HUNTER CREEK NEAR RIO BLANCO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	COBALT, DIS- SOLVED (UG/L AS CO)	IRON, DIS- SOLVED (UG/L AS FE)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB 18...	2	85	<1	9	20	16	4	1	10
MAY 04...	3	100	<1	20	10	10	4	<1	<10

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT 06...	1405	47	1280	11.5	APR 22...	1140	58	1170	6.0
DEC 18...	1455	25	1340	3.0	JUN 03...	1350	11	1570	17.0
MAR 30...	1100	23	1390	4.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB 18...	1340	22	149	8.9	58
MAR 30...	1100	23	454	28	58
MAY 04...	1130	70	1120	212	59
JUL 08...	1400	9.0	71	1.7	29
SEP 02...	1430	26	122	8.6	36

GREEN RIVER BASIN

09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO

LOCATION.--Lat 39°55'16", long 108°17'49", in sec.32, T.1 S., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank at downstream side of bridge, 40 ft downstream from Ryan Gulch, and 23 mi northwest of Rio Blanco.

DRAINAGE AREA.--506 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CO-79-3: 1977(M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,070 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 11, 12, Jan. 11, 12, 17-27, and Feb. 22 to Mar. 24. Records good except for estimated daily discharges, which are fair. Diversions for irrigation upstream from station.

AVERAGE DISCHARGE.--23 years, 32.7 ft³/s; 23,690 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 550 ft³/s, May 5, 1985, gage height, 7.70 ft; maximum gage height, 7.81 ft, May 28, 1983; minimum daily discharge, 0.15 ft³/s, June 7, 1981.

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 2	2300	*134	*5.52	No other peak greater than base discharge.			

Minimum daily discharge, 18 ft³/s, June 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	57	36	31	25	36	53	116	25	23	67	37
2	63	55	39	28	25	40	69	125	24	25	61	36
3	73	55	40	27	27	37	61	131	25	26	58	33
4	71	54	41	34	27	38	77	121	25	25	56	32
5	64	55	40	28	25	48	78	113	26	24	56	33
6	62	58	42	28	24	66	67	111	23	24	55	32
7	60	59	47	28	25	80	80	107	20	24	57	32
8	59	54	44	28	27	78	84	104	23	22	53	33
9	58	47	43	27	28	70	86	101	27	21	49	30
10	58	50	30	26	27	65	78	98	41	21	50	31
11	60	46	32	28	29	58	83	96	38	22	52	30
12	60	50	34	30	31	52	77	85	32	23	51	29
13	59	48	36	28	42	76	68	78	27	25	49	30
14	58	49	33	28	56	85	63	67	23	27	50	30
15	56	51	32	25	45	75	70	58	21	28	49	28
16	55	53	33	24	43	68	81	49	24	28	49	27
17	54	53	33	25	42	60	82	44	24	28	47	28
18	53	53	33	26	41	50	83	42	21	29	47	27
19	53	55	35	25	38	60	87	28	19	28	45	25
20	54	53	32	24	40	50	93	24	20	30	43	24
21	55	50	33	25	36	43	87	23	20	28	42	25
22	57	52	31	26	38	48	87	23	20	37	40	25
23	57	46	31	25	41	45	84	24	20	36	38	27
24	54	46	32	26	39	45	89	24	20	35	42	28
25	53	47	29	26	34	50	92	25	21	39	50	28
26	52	48	32	25	35	48	99	24	20	43	48	27
27	51	42	30	26	34	51	102	26	19	45	44	27
28	51	43	29	26	35	43	104	22	18	60	43	27
29	50	45	28	26	---	45	110	24	19	67	40	28
30	49	46	30	24	---	41	112	25	23	62	38	29
31	54	---	28	24	---	47	---	27	---	64	38	---
TOTAL	1779	1520	1068	827	959	1698	2486	1965	708	1019	1507	878
MEAN	57.4	50.7	34.5	26.7	34.2	54.8	82.9	63.4	23.6	32.9	48.6	29.3
MAX	73	59	47	34	56	85	112	131	41	67	67	37
MIN	49	42	28	24	24	36	53	22	18	21	38	24
AC-FT	3530	3010	2120	1640	1900	3370	4930	3900	1400	2020	2990	1740
CAL YR 1986	TOTAL 30945	MEAN 84.8	MAX 278	MIN 28	AC-FT 61380							
WTR YR 1987	TOTAL 16414	MEAN 45.0	MAX 131	MIN 18	AC-FT 32560							

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1970 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1979 to September 1982, November 1985 to current year.

WATER TEMPERATURE: December 1979 to September 1982, November 1985 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1972 to September 1983.

INSTRUMENTATION.--Automatic pumping sediment sampler October 1972 to September 1983. Water-quality monitor December 1979 to September 1982, November 1985 to current year.

REMARKS.--Unpublished maximum and minimum specific conductance data for the periods of daily record are available in the district office. Interruptions in the daily record are due to instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum 2,920 microsiemens July 18, 1981; minimum, 520 microsiemens July 18, 1981.

WATER TEMPERATURES: Maximum 26.5°C June 22, 1981; minimum, 0.0°C on many days during the winter period.

SEDIMENT CONCENTRATIONS: Maximum daily, 21,700 mg/L July 20, 1977; minimum daily, 8 mg/L Oct. 14, 1979, several days in Sept. 1981.

SEDIMENT LOADS: Maximum daily, 5,390 tons July 23, 1983; minimum daily, 0.05 ton Sept. 27, 30, 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Not determined.

WATER TEMPERATURES: Not determined.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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)
FEB 17...	1500	44	1400	8.5	6.0	9.7	530	92	72	140
MAY 04...	1500	123	1110	8.5	11.5	8.5	450	88	56	88
JUL 10...	1230	21	1910	8.4	15.0	8.1	630	86	100	230
SEP 02...	1545	36	1510	8.4	18.0	7.9	520	79	78	160

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER DAY)
FEB 17...	3	2.3	409	400	12	0.70	16	983	1.33	117
MAY 04...	2	1.9	335	280	13	0.40	16	746	1.01	248
JUL 10...	4	3.5	570	500	19	0.70	17	1300	1.77	73.8
SEP 02...	3	2.6	312	420	16	0.70	16	962	1.30	93.6

DATE	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
FEB 17...	<0.010	1.90	0.020	2.5	2.5	0.030	0.030	140	2800
MAY 04...	<0.010	1.90	0.010	0.59	0.60	0.030	0.020	100	1800
JUL 10...	<0.010	<0.100	0.050	0.65	0.70	0.030	0.020	280	3500
SEP 02...	<0.010	1.00	0.010	0.39	0.40	0.030	0.010	180	2900

GREEN RIVER BASIN

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ARSENIC	BARIUM,	COBALT,	IRON,	LITHIUM	MANGA-	MOLYB-	NICKEL,	ZINC,	
	DIS-	DIS-	DIS-	DIS-	DIS-	NESE,	DENUM,	DIS-	DIS-	
	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	SOLVED	
	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	(UG/L	
	AS AS)	AS BA)	AS CO)	AS FE)	AS LI)	AS MN)	AS MO)	AS NI)	AS ZN)	
MAY										
04...		3	100	<1	20	10	10	7	<1	10
JUL										
10...		3	89	<1	24	22	45	<1	<1	8

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
FEB					
17...	1500	44	274	33	58
MAR					
24...	1515	45	2460	299	10
MAY					
04...	1500	123	1910	634	60
JUL					
10...	1230	21	68	3.9	38
SEP					
02...	1545	36	155	15	46

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

[illegible]

GREEN RIVER BASIN

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.1	6.2	5.0	2.9	1.6	.0	---	---	---	---	---	---
2	10.9	8.4	6.3	3.9	2.8	.0	---	---	---	---	---	---
3	8.3	5.2	5.3	3.2	4.0	.0	---	---	---	---	---	---
4	11.7	5.7	7.6	2.9	4.5	1.0	---	---	---	---	---	---
5	11.2	5.5	7.1	2.3	5.1	2.4	---	---	---	---	---	---
6	12.0	5.3	5.2	2.5	5.4	4.1	---	---	---	---	---	---
7	12.6	6.6	4.9	1.8	4.5	2.9	---	---	---	---	---	---
8	11.8	6.2	3.9	.3	5.1	2.4	---	---	---	---	---	---
9	11.2	5.9	2.8	.0	3.2	.0	---	---	---	---	---	---
10	10.0	5.4	5.1	1.9	.0	.0	---	---	---	---	---	---
11	8.3	4.4	4.5	.0	.0	.0	---	---	---	---	---	---
12	6.9	2.7	5.6	2.6	.0	.0	---	---	---	---	---	---
13	8.4	1.6	5.4	.9	2.0	.0	---	---	---	---	---	---
14	9.6	3.2	6.1	1.5	3.1	.0	---	---	---	---	---	---
15	10.1	3.7	6.4	2.5	2.4	.0	---	---	---	---	---	---
16	10.0	3.9	5.7	2.8	---	---	---	---	---	---	---	---
17	9.8	4.1	6.2	4.2	---	---	---	---	---	---	---	---
18	10.0	5.8	6.6	3.2	---	---	---	---	---	---	---	---
19	9.8	6.4	7.8	5.0	---	---	---	---	---	---	---	---
20	9.8	5.4	6.1	2.1	---	---	---	---	---	---	---	---
21	8.1	6.5	6.4	2.1	---	---	---	---	---	---	---	---
22	8.6	6.3	6.3	3.2	---	---	---	---	---	---	---	---
23	10.9	7.1	3.8	.0	---	---	---	---	---	---	---	---
24	9.4	4.9	4.9	1.1	---	---	---	---	---	---	---	---
25	9.7	4.5	3.8	1.4	---	---	---	---	---	---	---	---
26	9.3	3.9	4.6	1.4	---	---	---	---	---	---	---	---
27	9.8	4.3	3.6	.0	---	---	---	---	---	---	---	---
28	9.8	4.7	4.7	.4	---	---	---	---	---	---	---	---
29	9.3	4.8	4.1	1.9	---	---	---	---	---	---	---	---
30	9.2	5.1	3.7	.7	---	---	---	---	---	---	---	---
31	7.1	2.9	---	---	---	---	---	---	---	---	---	---
MONTH	12.6	1.6	7.8	.0	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	20.6	8.0	20.5	10.8	21.6	11.5	20.1	10.5
2	---	---	---	---	21.1	6.6	21.9	10.6	21.6	12.2	17.8	11.7
3	---	---	---	---	21.3	7.2	21.3	9.9	22.0	13.4	19.9	11.9
4	---	---	---	---	21.7	7.2	19.9	9.8	21.2	11.6	17.7	11.8
5	---	---	15.4	7.1	20.3	9.3	20.0	9.7	18.4	11.4	18.2	8.9
6	---	---	16.4	8.0	21.1	10.1	19.6	9.5	20.1	13.3	17.2	8.7
7	---	---	17.2	8.1	19.5	10.7	20.6	10.5	20.4	13.6	17.6	10.7
8	---	---	14.4	8.0	17.5	10.1	18.9	10.9	22.0	13.1	15.2	9.0
9	---	---	15.4	7.4	15.7	11.5	19.2	10.8	21.4	11.9	17.7	8.6
10	---	---	16.4	8.4	19.3	9.9	17.0	10.4	19.8	12.5	17.3	8.8
11	---	---	16.4	9.1	18.9	9.7	14.6	11.1	19.4	12.3	17.7	7.9
12	---	---	---	---	21.3	10.3	19.8	10.7	20.6	11.5	15.8	8.2
13	---	---	---	---	22.4	9.9	20.8	9.8	17.3	12.6	13.2	8.2
14	---	---	---	---	23.4	10.1	21.5	9.9	19.2	12.5	15.2	7.7
15	---	---	---	---	20.0	10.3	21.7	9.9	18.3	12.3	17.2	7.6
16	---	---	---	---	20.1	10.4	21.3	10.8	18.8	10.7	15.0	9.6
17	---	---	---	---	21.3	8.9	17.1	12.8	20.0	10.1	17.2	8.7
18	---	---	---	---	21.3	8.5	18.4	10.0	19.4	9.6	16.1	6.3
19	---	---	---	---	21.4	8.1	19.9	9.0	19.6	10.2	16.7	6.0
20	---	---	---	---	20.7	8.7	14.2	8.8	15.5	11.1	16.6	6.6
21	---	---	---	---	21.0	9.0	20.0	10.3	19.3	12.0	16.4	6.6
22	---	---	---	---	21.6	8.3	21.9	11.6	19.2	13.3	16.5	6.0
23	---	---	---	---	21.3	8.4	21.1	10.1	15.6	12.3	16.6	6.3
24	---	---	---	---	21.0	9.2	21.9	9.5	15.4	11.9	16.6	6.7
25	---	---	---	---	22.2	8.8	20.5	13.6	15.4	10.7	14.8	9.2
26	---	---	13.1	7.1	22.0	9.2	21.1	12.4	17.6	9.2	14.9	8.3
27	---	---	12.9	5.8	22.6	9.2	20.9	13.6	18.2	9.8	16.4	8.7
28	---	---	15.5	6.0	19.0	10.3	20.8	13.1	17.0	9.8	14.6	5.4
29	---	---	12.2	5.8	15.3	11.8	18.1	13.7	19.4	9.8	14.5	4.8
30	---	---	17.4	6.3	20.3	11.2	19.7	12.5	19.4	10.1	14.8	5.2
31	---	---	20.2	7.3	---	---	16.1	13.4	19.7	10.0	---	---
MONTH	---	---	---	---	23.4	6.6	21.9	8.8	22.0	9.2	20.1	4.8

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

GREEN RIVER BASIN

09306222 PICEANCE CREEK AT WHITE RIVER, CO

LOCATION.--Lat 40°05'16", long 108°14'35", in SW¼NE¼ sec.2, T.1 N., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 900 ft upstream from mouth, 1.0 mi west of White River City, and 17 mi west of Meeker.

DRAINAGE AREA.--652 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to September 1966, October 1970 to current year.

REVISED RECORDS.--WDR-CO-82-3: drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,705 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1964, to Sept. 30, 1966, and Oct. 1, 1970, to July 12, 1974, at several sites 1.1 mi upstream at different datums.

REMARKS.--Estimated daily discharges: Oct. 7-8, 24, and Dec. 3 to Mar. 19. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 5,500 acres upstream from station.

AVERAGE DISCHARGE.--19 years, 42.1 ft³/s; 30,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 628 ft³/s, Sept. 7, 1978, gage height, 7.04 ft, on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s, July 21, 22, 1966.

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)
Oct. 03	1300	141	*3.87	May 02	1300	*148	3.71
Apr. 09	1300	109	3.35				

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	58	44	27	31	35	73	140	19	28	81	33
2	98	54	48	26	31	43	84	146	19	27	75	35
3	123	53	52	27	31	50	80	147	23	26	67	34
4	106	52	50	27	30	59	90	138	25	26	62	34
5	87	51	51	26	28	65	92	132	24	26	62	34
6	73	52	49	26	27	70	86	127	20	24	72	35
7	68	56	46	24	26	86	86	123	19	24	65	37
8	65	51	43	24	27	94	94	117	18	23	60	41
9	63	47	43	27	28	96	100	118	21	21	54	41
10	65	49	38	26	29	88	99	117	33	20	53	41
11	64	47	50	29	26	76	94	115	37	22	57	42
12	63	47	45	30	30	70	92	108	35	24	57	39
13	62	48	40	26	36	80	89	100	30	25	54	38
14	59	47	37	23	37	94	80	91	23	32	51	40
15	59	48	38	24	31	100	78	81	21	34	50	36
16	58	48	39	24	31	92	85	73	23	32	49	34
17	56	49	37	23	30	84	94	64	27	30	47	34
18	56	50	35	23	27	75	95	61	24	32	46	32
19	57	50	32	23	29	86	98	54	24	30	46	31
20	58	53	30	23	31	78	104	46	22	33	44	29
21	58	52	30	22	29	65	103	38	22	32	44	27
22	58	52	28	22	29	70	102	34	21	35	42	28
23	57	50	27	23	29	66	104	31	21	36	39	30
24	55	49	27	24	29	64	112	27	21	35	43	29
25	53	51	28	25	30	63	124	26	22	35	48	30
26	52	52	29	26	30	63	129	24	22	37	47	29
27	52	48	28	27	30	69	129	24	23	40	42	27
28	51	48	27	28	30	57	131	27	24	59	40	25
29	51	47	26	29	---	62	135	26	24	65	38	26
30	51	48	27	30	---	60	136	23	24	74	34	27
31	58	---	26	31	---	65	---	21	---	81	33	---
TOTAL	2032	1507	1150	795	832	2225	2998	2399	711	1068	1602	998
MEAN	65.5	50.2	37.1	25.6	29.7	71.8	99.9	77.4	23.7	34.5	51.7	33.3
MAX	123	58	52	31	37	100	136	147	37	81	81	42
MIN	51	47	26	22	26	35	73	21	18	20	33	25
AC-FT	4030	2990	2280	1580	1650	4410	5950	4760	1410	2120	3180	1980
CAL YR 1986	TOTAL 35581	MEAN 97.5	MAX 343	MIN 26	AC-FT 70570							
WTR YR 1987	TOTAL 18317	MEAN 50.2	MAX 147	MIN 18	AC-FT 36330							

GREEN RIVER BASIN

09306222 PICEANCE CREEK AT WHITE RIVER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1970 to July 1986, March 1987, discontinued.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1971 to June 1974, May 1975 to September 1983.

WATER TEMPERATURES: January 1971 to September 1974, May 1975 to September 1983.

SUSPENDED-SEDIMENT DISCHARGE: March 1974 to September 1983.

INSTRUMENTATION.--Water-quality monitor May 1975 to September 1983. Pumping sediment sampler March 1974 to September 1983.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office. The maximum extreme specific conductance value of 10,000 microsiemens represents a value of 10,000 microsiemens or higher due to instrument limitations.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 10,000 microsiemens June 18, 1981; minimum, 460 microsiemens Feb. 28 and Mar. 2, 1983.

WATER TEMPERATURES: Maximum, 32.0°C July 14, 1978; minimum, 0.0°C many days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily, 25,000 mg/L estimated Sept. 7, 1978; 4 mg/L Oct. 2, 1977.

SEDIMENT LOADS: Maximum daily, 6,095 tons estimated May 28, 1983; minimum daily, 0.10 ton June 22, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	HARD- NESS TOTAL (MG/L AS CA CO3)	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	
MAR 19...	1205	83	1720	8.5	5.5	10.2	490	76	73	220	4	
DATE		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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
MAR 19...	3.1	541	420	32	0.80	15	1170	1.58	262	<0.01	1.50	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	
MAR 19...		0.06	0.74	0.80	0.06	0.07	190	2300	1460	327	66	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)			DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	
OCT 06...	1000	72	1580	6.5			JUL 01...	1115	27	2030	15.5	
APR 22...	1630	100	1350	12.5			AUG 06...	1225	66	1690	20.5	
MAY 28...	1450	26	2120	15.0			SEP 10...	1040	37	1880	11.5	

GREEN RIVER BASIN

09306224 WHITE RIVER ABOVE CROOKED WASH, NEAR WHITE RIVER CITY, CO

LOCATION.--Lat 40°09'44", long 108°20'33", in NW¼NW¼ sec.12, T.2 N., R.98 W., Rio Blanco county, Hydrologic Unit 14050005, on right bank 15 ft upstream from County Road 77 bridge, 2.8 mi upstream from Crooked Wash, 9.8 mi downstream from Piceance Creek and 8.0 mi northwest of White River City.

DRAINAGE AREA.--1,821 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 5,590 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1982 to Aug. 15, 1983, at site 0.25 mi upstream, at datum 3.12 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 23 to Feb. 14. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 31,900 acres.

AVERAGE DISCHARGE.--5 years, 1,092 ft³/s; 791,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,370 ft³/s, June 7, 1984, gage height, 8.05 ft; minimum daily, 300 ft³/s, Jan. 1-7, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,730 ft³/s at 1400 May 17, gage height, 5.47 ft; maximum gage height, 7.88 ft, Jan. 25 (backwater from ice); minimum daily discharge, 352 ft³/s, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	741	761	560	470	440	484	588	2060	1150	689	599	465
2	728	713	540	480	460	478	638	2240	1310	636	561	469
3	971	681	580	500	470	485	605	2020	1230	577	549	467
4	841	667	600	510	460	518	672	1700	1210	558	572	466
5	741	661	580	520	450	576	716	1540	1230	553	552	456
6	725	680	600	510	450	640	717	1550	1240	567	545	440
7	723	720	580	490	440	660	765	1660	1280	556	575	421
8	751	688	560	460	440	700	779	1800	1460	534	576	422
9	737	653	560	470	450	740	794	1890	1670	535	510	424
10	734	642	500	490	470	720	756	1970	1930	529	488	413
11	768	627	470	520	500	649	752	2020	1690	505	475	413
12	767	664	500	530	530	615	796	1930	1510	573	508	402
13	721	653	540	500	570	661	715	1980	1420	617	511	386
14	706	656	570	500	600	819	649	2050	1370	562	616	397
15	700	687	570	480	552	700	691	2220	1280	559	597	403
16	685	686	580	450	505	632	798	2380	1180	547	548	401
17	666	672	560	430	490	600	913	2520	1070	527	575	418
18	679	677	540	460	476	593	1060	2520	958	548	496	401
19	684	706	560	480	468	642	1280	2420	857	526	488	395
20	676	735	560	470	475	651	1300	2290	749	485	439	393
21	676	694	570	460	477	579	1080	2280	714	476	442	387
22	712	697	560	480	474	589	988	2020	688	501	438	373
23	716	665	540	470	487	564	1100	1700	638	495	431	370
24	679	600	510	450	493	557	1320	1640	582	477	524	363
25	665	600	480	460	486	545	1510	1590	526	479	677	360
26	660	590	500	430	498	528	1590	1520	512	499	746	359
27	651	580	520	470	506	574	1630	1450	497	511	578	362
28	652	560	510	440	530	529	1780	1240	485	519	540	353
29	644	580	500	450	---	535	1930	1170	514	530	528	352
30	644	580	500	440	---	503	1900	1260	591	581	510	359
31	687	---	490	450	---	532	---	1090	---	558	453	---
TOTAL	22130	19775	16790	14770	13647	18598	30812	57720	31541	16809	16647	12090
MEAN	714	659	542	476	487	600	1027	1862	1051	542	537	403
MAX	971	761	600	530	600	819	1930	2520	1930	689	746	469
MIN	644	560	470	430	440	478	588	1090	485	476	431	352
AC-FT	43890	39220	33300	29300	27070	36890	61120	114500	62560	33340	33020	23980
CAL YR 1986	TOTAL 422261	MEAN 1157	MAX 4450	MIN 410	AC-FT 837600							
WTR YR 1987	TOTAL 271329	MEAN 743	MAX 2520	MIN 352	AC-FT 538200							

09306224 WHITE RIVER ABOVE CROOKED WASH NEAR WHITE RIVER CITY,CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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)
NOV 17...	1610	672	743	8.6	5.5	12.0	330	76	33	43
MAY 16...	1430	2630	370	8.2	13.0	8.2	160	42	13	14
JUN 30...	1415	627	680	8.5	19.0	8.2	290	74	26	35
SEP 01...	1710	422	715	8.7	20.5	10.5	290	64	32	48

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINEITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	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)
NOV 17...	1	1.6	187	200	12	0.20	12	490	0.67
MAY 16...	0.5	1.6	120	75	4.3	0.10	13	235	0.32
JUN 30...	0.9	1.7	208	150	10	0.30	16	438	0.60
SEP 01...	1	1.6	165	230	11	0.30	13	499	0.68

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)
NOV 17...	0.0	--	<0.010	0.230	<0.010	--	0.70	<0.010	<0.010
MAY 16...	1670	0.180	0.030	0.210	0.070	0.93	1.0	0.020	0.030
JUN 30...	741	--	<0.010	<0.100	0.020	0.28	0.30	0.010	0.020
SEP 01...	568	--	<0.010	<0.100	0.020	0.18	0.20	0.010	<0.010

DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ANTI- MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)
NOV 17...	460	<1	<1	<100	<10	<1	<1	<1	8	500
MAY 16...	6800	<1	2	100	<10	<1	<1	6	5	7400
SEP 01...	190	<1	1	<100	<10	<1	2	<1	1	190

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)	STRON- TIUM, TOTAL RECOV- ERABLE (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)
NOV 17...	<5	10	30	<0.10	8	5	3	<1	760	<10
MAY 16...	6	10	220	<0.10	5	13	<1	<1	470	40
SEP 01...	<5	20	<10	<0.10	3	<1	2	<1	910	<10

GREEN RIVER BASIN

09306224 WHITE RIVER ABOVE CROOKED WASH NEAR WHITE RIVER CITY, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
OCT					JUN				
02...	0950	716	680	8.5	11...	1130	1770	408	11.5
MAR					AUG				
11...	1145	673	800	5.0	06...	1410	546	689	21.5
APR					SEP				
21...	1415	1070	605	7.5	08...	1225	415	760	14.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
08...	1430	1880	652	3310	49
16...	1430	2630	651	4620	64
20...	1745	2520	361	2460	47
27...	1320	1560	89	375	76
JUN					
12...	1430	1560	145	611	54
30...	1415	627	54	91	49
JUL					
28...	1420	474	1880	2410	98
SEP					
01...	1710	422	25	28	60

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	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 .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
MAY												
01...	1415	2210	1030	6150	16	23	37	61	81	92	98	100

09306235 CORRAL GULCH BELOW WATER GULCH, NEAR RANGELY, CO

LOCATION.--Lat 39°54'22", long 108°31'56", in SE¼NW¼ sec.5, T.2 S., R.99 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 0.1 mi downstream from Water Gulch and 19 mi southeast of Rangely.

DRAINAGE AREA.--8.61 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1974 to current year.

GAGE.--Water-stage recorder. Concrete control since Aug. 1, 1974. Prior to Aug. 1, 1974, water-stage recorder at different datum. Elevation of gage is 6,975 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30, Dec. 1, 9-10, 18, 25-26, 29, 31, Feb. 15, Apr. 12-23, and May 10-27. Records good except those above 28 ft³/s, which are fair, and estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--13 years, 1.07 ft³/s; 775 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 272 ft³/s, July 23, 1977, gage height, 3.20 ft, maximum gage height, 13.50 ft, May 31, 1983 (from mud flow); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14 ft³/s at 1600 Apr. 11, gage height, 2.02 ft; minimum daily, 0.16 ft³/s, Feb. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.71	.50	.41	.26	.27	.56	3.9	3.2	1.6	1.0	.85
2	1.1	.71	.52	.41	.25	.30	.52	4.2	3.2	1.6	1.0	.85
3	1.2	.64	.52	.37	.25	.29	.63	4.4	3.2	1.5	1.0	.85
4	1.1	.64	.52	.37	.25	.34	.72	4.3	3.2	1.5	1.1	.85
5	1.1	.64	.55	.37	.26	.40	.78	4.1	2.7	1.5	1.2	.85
6	1.1	.70	.58	.37	.21	.44	1.7	4.4	2.7	1.4	1.2	.85
7	1.1	.71	.58	.37	.22	.52	1.8	4.5	2.6	1.4	1.6	.85
8	1.0	.71	.58	.37	.22	.46	2.8	5.1	2.6	1.5	1.2	.85
9	1.0	.71	.50	.53	.21	.46	3.2	4.9	2.6	1.4	1.1	.85
10	1.0	.71	.46	.35	.23	.41	2.4	4.6	2.7	1.4	1.0	.85
11	1.0	.60	.41	.33	.23	.38	4.9	4.5	2.4	1.5	1.0	.80
12	.94	.64	.46	.33	.23	.39	4.0	4.2	2.1	1.4	.98	.79
13	.93	.64	.46	.33	.19	.63	2.7	3.6	1.8	1.4	1.1	.85
14	.87	.64	.42	.38	.18	.59	2.2	3.3	1.9	1.3	.99	.83
15	.85	.64	.41	.41	.23	.60	1.8	4.0	1.9	1.4	.96	.78
16	.85	.64	.41	.44	.29	.58	1.3	4.2	1.9	1.3	.93	.84
17	.82	.64	.41	.46	.38	.58	2.0	3.5	1.9	1.3	.93	.85
18	.78	.64	.38	.44	.69	.62	1.8	3.3	1.9	1.3	.93	.85
19	.78	.67	.46	.32	.51	.52	2.0	3.5	1.9	1.3	.93	.87
20	.78	.71	.42	.29	.32	.46	2.1	3.3	1.8	1.3	.93	.93
21	.78	.71	.41	.28	.42	.55	2.2	3.3	1.8	1.2	.93	.93
22	.78	.71	.41	.23	.22	.63	2.3	3.3	1.9	1.1	.93	.93
23	.78	.71	.41	.22	.22	.28	2.4	3.4	1.9	1.0	.93	.93
24	.78	.71	.26	.22	.18	.58	2.5	3.2	2.0	.94	.99	.93
25	.78	.71	.30	.24	.17	.54	2.6	3.3	2.0	.89	1.0	.93
26	.71	.64	.36	.25	.17	.54	2.7	3.2	1.9	.92	.93	.94
27	.69	.60	.41	.26	.16	.53	3.0	3.3	1.9	.87	.93	.93
28	.64	.64	.41	.27	.25	1.0	3.3	3.3	1.8	.89	.93	.93
29	.64	.58	.41	.27	---	1.3	3.5	3.2	1.9	.86	.93	.93
30	.70	.56	.41	.29	---	1.2	3.6	3.0	1.7	.96	.90	.96
31	.78	---	.41	.29	---	.48	---	3.2	---	1.1	.85	---
TOTAL	27.46	19.91	13.75	10.47	7.40	16.87	68.01	117.5	67.0	39.03	31.33	26.23
MEAN	.89	.66	.44	.34	.26	.54	2.27	3.79	2.23	1.26	1.01	.87
MAX	1.2	.71	.58	.53	.69	1.3	4.9	5.1	3.2	1.6	1.6	.96
MIN	.64	.56	.26	.22	.16	.27	.52	3.0	1.7	.86	.85	.78
AC-FT	54	39	27	21	15	33	135	233	133	77	62	52

CAL YR 1986 TOTAL 574.80 MEAN 1.57 MAX 7.1 MIN .25 AC-FT 1140
WTR YR 1987 TOTAL 444.96 MEAN 1.22 MAX 5.1 MIN .16 AC-FT 883

GREEN RIVER BASIN

09306235 CORRAL GULCH BELOW WATER GULCH, NEAR RANGELY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1974 to September 1985.

WATER TEMPERATURE: April 1974 to September 1985.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1982.

INSTRUMENTATION.--Water-quality monitor April 1974 to September 1985. Pumping sediment sampler October 1974 to September 1982.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 6,490 microsiemens Dec. 19, 1981; minimum, 230 microsiemens Mar. 20, 1978.

WATER TEMPERATURES: Maximum, 33.5°C June 11, 1981; minimum, freezing point many days during winter months each year.

SEDIMENT CONCENTRATIONS: Maximum daily, 17,800 mg/L July 26, 1981; no flow many days during 1974-78, 1981.

SEDIMENT LOADS: Maximum daily, 162 tons May 20, 1979; no flow many days during 1974-78, Dec. 15, 1979, 1981.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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	
NOV 03...	0945	0.69	1450	8.2	1.5	12.2	660	130	80	110	2	
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)	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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 03...	1.2	322	510	27	0.2	20	1070	1.46	2.00	<0.01	5.8	
DATE		NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS HYDRO. + ORTHO DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	BORON, DIS- SOLVED (UG/L AS B)	LITHIUM DIS- SOLVED (UG/L AS LI)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
NOV 03...	0.02	0.58	0.60	<0.01	<0.01	0.03	11	90	28	21	2500	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)			DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	
OCT 10...	1210	1.3	1590	13.0			APR 10...	1100	1.4	1370	8.0	
DEC 05...	1200	0.63	1580	5.5			23...	1230	2.3	1470	14.0	
JAN 05...	1405	0.38	1530	4.5			MAY 08...	1015	4.8	1410	9.0	
FEB 17...	0940	0.47	1550	0.0			28...	1040	3.2	1460	8.0	
MAR 24...	0935	0.58	1530	4.0			JUL 01...	1325	1.8	1330	20.0	
							SEP 09...	1400	82	1570	20.0	

09306242 CORRAL GULCH NEAR RANGELY, CO

LOCATION.--Lat 39°55'13", long 108°28'20", in SE¼NW¼ sec.35, T.1 S., R.99 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 5 ft downstream from Boxelder Creek, and 3.5 mi upstream from confluence with Stake Springs Draw, and 21 mi southeast of Rangely.

DRAINAGE AREA.--31.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1974 to current year.

GAGE.--Water-stage recorder. Concrete control since July 20, 1974. Elevation of gage is 6,570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No diversions upstream from station.

AVERAGE DISCHARGE.--13 years, 3.31 ft³/s; 2,060 acre-ft/yr. The figure published in the 1986 report was in error; the correct figure is, 12 years, 2.81 ft³/s; 2,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft³/s, Aug. 18, 1984, gage height, 6.12 ft, from rating curve extended above 70 ft³/s, on basis of slope-area measurements at gage heights 3.89 ft, 4.08 ft, and 6.12 ft; minimum daily, 0.06 ft³/s, Apr. 10-14, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft³/s at 0600 May 3, gage height, 2.94 ft; minimum daily, 0.77 ft³/s, Dec. 10-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.0	1.3	.94	1.3	.91	2.2	15	6.7	4.0	3.3	2.7
2	1.4	2.0	1.4	.94	1.2	.95	1.2	17	6.5	3.9	3.2	2.7
3	1.8	1.8	1.4	.94	1.3	1.2	2.5	18	6.2	4.1	3.1	2.5
4	1.6	1.8	1.4	1.0	1.3	1.6	2.2	15	5.9	3.9	3.2	2.7
5	1.6	1.8	1.4	1.1	1.2	4.5	2.5	13	6.3	3.9	3.3	2.5
6	1.6	1.8	1.3	1.2	1.2	4.4	2.6	15	6.1	3.9	3.1	2.7
7	1.6	1.7	1.2	1.2	1.3	4.3	5.8	15	6.0	3.9	4.2	2.5
8	1.6	1.5	1.1	1.2	1.3	3.5	4.9	14	5.8	3.9	4.1	2.4
9	1.5	1.3	1.0	1.1	1.3	1.1	4.4	13	5.9	3.7	3.7	2.5
10	1.5	1.5	.77	1.1	1.6	1.4	5.3	13	5.8	3.7	3.5	2.4
11	1.3	1.3	.77	1.2	1.6	1.5	6.4	13	5.6	3.9	3.5	2.2
12	1.2	1.6	.77	1.2	1.7	1.7	5.3	12	5.3	3.5	3.5	2.4
13	1.1	1.5	.86	1.3	1.8	4.1	3.7	11	5.4	3.5	3.5	2.4
14	1.3	1.5	.94	1.3	1.6	1.2	4.0	10	5.1	3.5	3.5	2.8
15	1.4	1.5	1.0	1.3	1.6	1.1	4.4	11	5.0	3.5	3.5	2.7
16	1.3	1.5	1.0	1.2	1.6	1.0	5.3	10	5.0	3.3	3.3	2.7
17	1.4	1.5	1.0	1.2	1.5	.93	5.7	8.4	5.1	3.3	3.3	2.7
18	1.5	1.5	.94	1.2	1.3	1.1	5.3	7.9	5.0	3.1	3.3	2.7
19	1.5	1.5	1.0	1.1	1.2	1.2	6.0	8.2	5.2	3.0	3.2	2.5
20	1.6	1.4	1.1	1.1	1.2	1.0	6.9	7.8	5.1	3.1	3.3	2.5
21	1.5	1.4	1.2	1.2	1.1	1.0	7.9	7.8	5.0	3.0	3.1	2.4
22	1.8	1.4	1.1	1.2	1.0	1.1	8.1	7.8	4.9	2.8	3.0	2.4
23	1.8	1.3	1.1	1.2	1.0	1.1	8.3	7.8	4.9	3.0	3.3	2.2
24	1.8	1.4	1.2	1.3	1.0	1.2	8.4	7.5	4.9	2.6	3.3	2.2
25	1.8	1.5	1.2	1.3	1.0	1.2	9.7	7.6	4.5	2.7	3.5	2.2
26	1.8	1.4	1.1	1.2	.93	1.1	11	7.5	4.3	2.7	3.3	2.2
27	1.8	1.4	1.2	1.3	.87	1.0	11	7.5	4.1	2.7	3.1	2.2
28	1.7	1.5	1.2	1.4	.82	1.0	12	7.4	4.2	2.8	3.0	2.4
29	1.7	1.6	1.0	1.5	---	1.1	13	7.3	4.2	3.0	2.8	2.4
30	1.9	1.5	1.0	1.3	---	1.1	11	7.1	4.2	3.2	2.8	2.2
31	2.0	---	.94	1.3	---	1.3	---	6.9	---	3.4	2.7	---
TOTAL	48.9	46.4	33.89	37.02	35.82	50.89	187.0	329.5	158.2	104.5	102.5	74.0
MEAN	1.58	1.55	1.09	1.19	1.28	1.64	6.23	10.6	5.27	3.37	3.31	2.47
MAX	2.0	2.0	1.4	1.5	1.8	4.5	13	18	6.7	4.1	4.2	2.8
MIN	1.1	1.3	.77	.94	.82	.91	1.2	6.9	4.1	2.6	2.7	2.2
AC-FT	97	92	67	73	71	101	371	654	314	207	203	147

CAL YR 1986 TOTAL 1167.15 MEAN 3.20 MAX 15 MIN .41 AC-FT 2320
WTR YR 1987 TOTAL 1208.62 MEAN 3.31 MAX 18 MIN .77 AC-FT 2400

GREEN RIVER BASIN

09306242 CORRAL GULCH NEAR RANGELY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1975 to current year.

WATER TEMPERATURE: January 1975 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1985.

INSTRUMENTATION.--Water-quality monitor since October 1974. Pumping sediment sampler October 1974 to September 1985.

REMARKS.--Unpublished maximum and minimum specific conductance data for period of daily record available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 microsiemens July 17, 1976; minimum, 271 microsiemens Feb. 18, 1980.

WATER TEMPERATURES: Maximum, 29.0°C Aug. 5, 1979; minimum, 0.0°C on several days during winter months some years.

SEDIMENT CONCENTRATIONS: Maximum daily, 35,800 mg/L Aug. 2, 1982; minimum daily, 2 mg/L May 24, 1981.

SEDIMENT LOADS: Maximum daily, 43,600 tons August 18, 1984; minimum daily, 0.00 ton on many days during 1981.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Not determined.

WATER TEMPERATURES: Maximum, 21.5°C Aug. 1; minimum, 0.0°C April 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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
NOV 03...	1145	1.7	1540	8.1	7.0	10.8	640	110	88	140	2
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)	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, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 03...	1.3	420	520	20	0.3	19	1150	1.56	5.29	<0.01	2.40
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS HYDRO. + ORTHO DIS. (MG/L AS P)	PHOS- PHOROUS ORGANIC DIS- SOLVED (MG/L AS P)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)	BORON, DIS- SOLVED (UG/L AS B)	LITHIUM DIS- SOLVED (UG/L AS LI)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)
NOV 03...	<0.01	0.30	0.01	<0.01	0.02	0.0	8.8	150	24	27	2600

09306242 CORRAL GULCH NEAR RANGELY, CO--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1690	1530	1680	1640	1590	1590	---	---	1500	1560	1590	1600
2	1690	1540	1660	1640	1590	1580	---	---	1520	1560	1530	1600
3	1600	1540	1650	1650	1590	1470	---	---	1540	1570	1590	1600
4	1700	1550	1640	1630	1580	1360	---	---	1570	1560	1590	1580
5	1730	1550	1620	1610	1590	1100	---	---	1540	1560	1580	1580
6	1720	1540	1590	1610	1590	998	---	---	1530	1550	1590	1570
7	1710	1550	1610	1620	1580	985	---	---	1530	1550	1550	1520
8	1710	1590	1630	1620	1570	961	---	---	1510	1550	---	1520
9	1710	1590	1670	1630	1560	1240	---	---	1510	1560	---	1560
10	1690	1560	1700	1640	1520	1340	---	---	1490	1570	---	1630
11	1580	1580	1690	1640	1530	1630	---	---	1520	1570	---	1630
12	1570	1550	1680	1620	1510	1630	---	---	1530	1580	---	1640
13	1600	1580	1670	1620	1410	1230	---	---	1530	1570	---	1660
14	1570	1580	1650	1620	1510	1500	---	---	1540	1570	---	1650
15	1570	1610	1640	1630	1540	1630	---	---	1540	1570	---	1640
16	1580	1630	1660	1610	1540	1640	---	---	1540	1560	---	1640
17	1540	1620	1650	1620	1560	1630	---	---	1540	1580	---	1640
18	1510	1610	1650	1600	1590	1620	---	---	1540	1590	---	1640
19	1490	1600	1640	1590	1600	1610	---	---	1540	---	---	1640
20	1500	1630	1650	1600	1590	1610	---	---	1550	---	---	1640
21	1550	1630	1640	1600	1600	1610	---	---	1540	---	---	1640
22	1550	1620	1650	1610	1600	1610	---	---	1530	---	---	1640
23	1550	1660	1650	1610	1590	1610	---	---	1550	---	---	1640
24	1550	1640	1640	1600	1580	1610	---	---	1550	---	---	1630
25	1550	1620	1660	1600	1570	1600	---	---	1560	---	---	1620
26	1560	1630	1660	1600	1560	1590	---	---	1560	---	---	1620
27	1550	1660	1640	1610	1590	1600	---	---	1560	---	---	1640
28	1550	1650	1640	1600	1590	1600	---	---	1560	---	1630	1630
29	1540	1630	1660	1600	---	---	---	1470	1560	---	1630	1610
30	1540	1640	1650	1600	---	---	---	1420	1570	1580	1590	1600
31	1490	---	1660	1600	---	---	---	1470	---	1600	1590	---

GREEN RIVER BASIN

09306242 CORRAL GULCH NEAR RANGELY, CO--Continued

TEMPERATURE WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.7	5.3	7.6	5.2	7.5	4.3	6.9	4.0	9.3	5.6	9.8	4.3
2	11.9	7.2	10.1	4.8	7.6	4.3	7.1	3.7	9.3	5.7	9.9	4.7
3	8.6	4.0	8.7	5.0	7.5	4.4	7.1	3.6	8.7	6.3	10.4	4.5
4	12.0	5.4	9.1	4.9	7.7	4.3	7.0	4.4	8.9	5.9	9.5	3.4
5	13.3	5.7	9.4	4.9	8.2	5.1	7.7	5.5	9.3	5.5	8.3	2.2
6	14.3	5.6	8.0	5.0	7.4	5.4	7.3	5.3	9.4	5.5	8.1	.9
7	15.3	6.3	7.6	4.8	6.9	4.1	7.2	4.5	9.7	5.6	8.2	1.8
8	13.6	6.1	6.6	4.7	7.9	4.0	6.6	4.4	9.6	5.8	8.2	2.3
9	14.0	6.1	8.1	5.0	6.3	3.5	7.6	4.3	9.5	5.8	7.2	3.6
10	13.4	5.9	7.8	4.8	7.1	3.4	7.6	4.3	9.9	6.0	8.3	4.1
11	8.4	3.8	7.4	5.3	6.9	3.7	8.1	4.4	9.1	6.3	5.3	3.6
12	10.1	4.9	8.6	4.9	7.4	3.7	7.9	4.5	9.3	6.0	5.1	3.0
13	10.8	4.9	8.1	5.0	7.6	4.0	8.2	4.4	9.0	4.9	---	---
14	11.9	5.1	8.7	4.8	7.5	4.1	7.3	4.2	8.5	4.5	---	---
15	12.3	5.2	8.8	5.0	7.3	4.3	6.6	3.9	9.3	5.0	---	---
16	12.4	5.4	8.4	4.8	7.4	4.1	5.9	4.5	8.6	5.8	---	---
17	11.9	5.4	10.2	5.6	7.0	3.6	6.9	4.1	8.6	5.0	---	---
18	11.7	6.8	8.4	5.1	6.7	3.7	7.8	4.3	9.1	4.8	---	---
19	11.2	6.8	8.7	5.7	7.3	4.7	6.6	4.9	7.6	5.1	---	---
20	11.7	6.0	8.1	5.3	7.3	3.9	7.1	4.2	8.9	4.7	---	---
21	10.1	6.9	8.4	5.1	7.5	3.9	7.8	4.4	9.5	4.6	---	---
22	9.9	7.2	7.9	4.7	6.7	3.7	8.0	4.3	9.1	4.6	---	---
23	11.7	6.6	8.0	4.9	6.5	3.6	8.3	5.4	9.3	4.9	---	---
24	11.5	5.8	7.8	4.6	6.6	3.6	8.5	5.6	7.9	4.8	---	---
25	11.4	5.9	7.3	3.9	7.2	3.7	8.3	5.7	8.7	5.1	10.0	4.6
26	11.5	5.4	7.4	4.5	6.9	3.5	9.0	5.8	6.7	4.7	11.2	3.7
27	11.6	6.0	7.9	4.6	7.1	4.3	8.9	5.5	8.1	4.3	7.8	4.3
28	11.4	6.0	7.6	4.6	7.4	4.0	8.4	5.4	9.8	4.2	9.1	3.7
29	11.4	6.3	7.8	4.9	7.1	3.7	8.4	5.4	---	---	8.4	3.7
30	11.0	5.4	7.6	4.2	6.6	3.7	8.3	5.7	---	---	8.4	3.6
31	6.5	4.1	---	---	6.9	3.5	9.0	5.7	---	---	8.3	3.4
MONTH	15.3	3.8	10.2	3.9	8.2	3.4	9.0	3.6	9.9	4.2	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.1	3.4	13.0	6.1	18.6	5.8	20.8	6.8	21.5	8.1	19.4	6.8
2	13.5	4.6	9.6	5.3	19.6	4.4	20.9	7.3	19.5	8.1	18.3	8.1
3	12.4	3.6	13.8	4.1	20.2	5.0	20.4	6.3	19.5	9.0	18.7	8.3
4	11.2	4.5	14.7	4.2	20.5	4.4	20.0	6.9	19.9	7.4	16.7	7.6
5	10.8	4.5	16.1	5.4	20.9	6.9	20.3	6.5	19.0	7.1	17.6	5.9
6	15.2	2.4	18.3	5.6	17.5	6.9	20.8	6.0	20.0	9.8	15.8	5.6
7	13.9	2.2	17.6	5.0	16.3	6.5	19.8	7.1	20.9	9.9	16.2	7.7
8	14.7	2.5	15.5	5.2	17.0	5.8	18.9	7.2	---	---	13.3	5.9
9	13.2	3.0	15.4	3.8	14.7	7.3	18.4	7.2	---	---	16.4	5.9
10	12.4	2.5	16.4	4.6	18.5	5.5	16.3	6.9	---	---	16.3	5.8
11	11.8	3.1	12.6	5.5	17.3	4.8	16.2	8.4	---	---	16.3	5.5
12	9.6	1.2	13.2	5.6	19.3	5.4	19.3	8.6	---	---	16.2	5.9
13	12.0	1.2	13.7	5.2	18.8	4.8	19.7	6.5	---	---	13.4	6.1
14	15.6	1.4	19.1	4.9	18.7	4.6	19.8	6.8	---	---	15.4	5.6
15	16.0	3.1	12.2	6.2	17.4	5.2	19.5	7.1	---	---	17.3	5.1
16	15.6	3.1	14.2	6.4	16.7	5.1	18.8	8.4	---	---	15.0	7.0
17	15.9	3.0	12.9	6.1	---	---	16.4	9.1	---	---	16.6	5.4
18	15.9	3.0	---	---	---	---	16.9	7.1	---	---	16.2	3.8
19	11.4	3.1	---	---	---	---	---	---	---	---	16.2	4.2
20	7.2	.0	---	---	---	---	---	---	---	---	15.4	4.5
21	15.7	.5	---	---	---	---	---	---	---	---	15.7	4.5
22	18.0	1.4	---	---	---	---	---	---	---	---	16.0	3.9
23	18.8	3.0	---	---	---	---	---	---	---	---	16.1	4.3
24	16.0	3.7	---	---	---	---	---	---	---	---	15.8	4.9
25	12.7	4.1	---	---	---	---	---	---	---	---	15.4	7.1
26	17.8	4.3	---	---	20.3	6.9	---	---	---	---	15.3	6.1
27	17.5	5.5	---	---	20.4	6.4	---	---	17.9	7.7	15.0	6.2
28	12.1	5.0	---	---	18.3	7.7	---	---	18.1	5.7	13.8	4.5
29	13.2	5.3	12.6	5.8	15.8	8.9	---	---	18.4	5.7	14.2	4.5
30	16.0	5.5	17.9	4.5	19.0	7.5	---	---	18.4	6.4	14.3	4.5
31	---	---	18.5	5.5	---	---	15.8	10.1	18.7	6.7	---	---
MONTH	18.8	.0	---	---	---	---	---	---	---	---	19.4	3.8

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

09306290 WHITE RIVER BELOW BOISE CREEK, NEAR RANGELY, CO

LOCATION.--Lat 40°10'47", long 108°33'53", in SW¼SE¼ sec.36, T.3 N., R.100 W., Rio Blanco County, Hydrologic Unit 14050007, on left bank 60 ft downstream from bridge on County Road 73, 0.5 mi below Boise Creek, and 16.4 mi east of Rangely.

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--2,530 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 5,395 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 24 to Mar. 10. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 31,500 acres.

AVERAGE DISCHARGE.--5 years, 1,099 ft³/s; 796,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,440 ft³/s, June 7, 1984, gage height, 8.45 ft; minimum daily, 305 ft³/s, Sept. 26-29, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft³/s at 1700 May 18, gage height, 5.54 ft; minimum daily, 305 ft³/s, Sept. 26-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	749	827	603	520	480	460	562	1840	1200	727	613	417
2	741	765	583	540	490	470	686	2010	1290	709	576	425
3	980	720	633	540	500	500	667	1940	1270	632	557	423
4	908	681	652	550	510	600	744	1710	1240	600	569	423
5	780	683	629	560	480	670	786	1560	1260	591	565	422
6	748	691	647	550	480	690	804	1560	1230	602	555	416
7	760	730	674	540	470	720	849	1640	1130	601	567	392
8	788	717	627	520	480	770	861	1740	1360	584	615	392
9	760	683	611	500	490	860	882	1800	1530	567	519	392
10	763	653	580	490	500	820	832	1890	1660	560	464	382
11	798	649	473	520	540	777	807	1950	1550	544	438	371
12	805	673	529	560	560	701	828	1970	1400	582	464	367
13	756	690	555	570	600	738	781	1980	1300	669	498	346
14	726	666	617	550	640	958	682	1980	1270	592	603	341
15	719	680	670	530	580	828	699	2090	1200	582	601	361
16	701	683	630	510	540	718	821	2220	1130	567	563	367
17	680	670	645	470	510	670	918	2240	1060	543	554	380
18	704	666	631	500	480	629	1010	2260	961	559	494	373
19	708	695	604	520	460	729	1200	2150	874	542	444	354
20	703	723	623	525	460	725	1560	2070	785	474	405	354
21	704	679	629	500	450	658	1210	2090	745	448	389	354
22	736	674	626	520	460	657	1040	1940	731	481	430	344
23	766	665	600	530	470	613	1100	1690	701	488	408	327
24	723	610	600	520	470	568	1240	1610	653	453	482	323
25	702	641	540	480	480	564	1360	1570	593	435	652	312
26	697	646	520	490	460	541	1450	1490	567	473	745	305
27	693	628	550	510	450	551	1510	1470	544	489	573	305
28	689	594	570	520	460	520	1610	1320	520	519	518	305
29	690	617	540	500	---	526	1740	1230	542	584	501	305
30	701	634	540	480	---	496	1730	1310	621	623	477	321
31	735	---	540	490	---	494	---	1200	---	582	416	---
TOTAL	23113	20333	18471	16105	13950	20221	30969	55520	30937	17402	16255	10899
MEAN	746	678	596	520	498	652	1032	1791	1031	561	524	363
MAX	980	827	674	570	640	958	1740	2260	1660	727	745	425
MIN	680	594	473	470	450	460	562	1200	520	435	389	305
AC-FT	45840	40330	36640	31940	27670	40110	61430	110100	61360	34520	32240	21620

CAL YR 1986 TOTAL 420419 MEAN 1152 MAX 3980 MIN 430 AC-FT 833900
WTR YR 1987 TOTAL 274175 MEAN 751 MAX 2260 MIN 305 AC-FT 543800

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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)	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)
OCT										
02...	1400	729	760	8.6	10.0	9.9	310	69	33	49
NOV										
03...	1500	716	780	8.6	5.0	12.2	320	70	35	51
DEC										
04...	1515	654	788	8.7	0.5	12.5	320	73	34	56
MAR										
11...	0930	774	752	8.0	7.0	8.4	300	65	33	64
APR										
01...	1515	650	963	8.3	9.0	10.6	290	62	32	72
16...	1445	786	866	8.3	13.0	8.1	330	73	35	58
MAY										
12...	1000	1910	440	8.3	13.5	9.6	180	44	17	22
JUN										
23...	1340	691	630	8.8	20.0	10.4	280	66	27	43
AUG										
06...	1500	548	--	8.5	21.5	8.0	270	48	36	54
SEP										
03...	1445	430	815	8.4	18.0	8.4	310	69	34	57

DATE	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)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT										
02...	1	1.9	173	200	11	0.30	14	482	0.66	949
NOV										
03...	1	1.7	192	210	14	0.20	14	512	0.69	990
DEC										
04...	1	1.4	195	210	13	0.30	15	520	0.71	918
MAR										
11...	2	3.6	196	230	18	0.30	13	545	0.74	1140
APR										
01...	2	1.5	228	280	16	0.30	12	613	0.83	1080
16...	1	2.3	206	240	15	0.30	13	560	0.76	1190
MAY										
12...	0.7	1.0	135	92	5.1	0.20	12	274	0.37	1410
JUN										
23...	1	1.5	166	170	10	0.20	14	431	0.59	805
AUG										
06...	1	1.6	179	190	11	0.30	13	461	0.63	683
SEP										
03...	1	1.8	180	210	13	0.30	12	505	0.69	586

DATE	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	BORON, DIS- SOLVED (UG/L AS B)	IRON, DIS- SOLVED (UG/L AS FE)
OCT										
02...	--	<0.010	0.270	0.030	0.47	0.50	0.050	<0.010	60	15
NOV										
03...	--	<0.010	0.260	<0.010	--	0.20	<0.010	<0.010	50	22
DEC										
04...	--	<0.010	0.430	<0.010	--	0.30	<0.010	<0.010	60	10
MAR										
11...	0.460	0.020	0.480	0.110	0.79	0.90	0.070	0.050	50	31
APR										
01...	--	<0.010	0.390	0.050	0.25	0.30	0.020	<0.010	80	8
16...	--	<0.010	0.530	0.030	0.67	0.70	<0.010	0.030	70	15
MAY										
12...	--	<0.010	0.260	0.010	1.1	1.1	0.020	<0.010	30	11
JUN										
23...	--	<0.010	<0.100	0.020	1.5	1.5	0.620	<0.010	50	13
AUG										
06...	--	<0.010	0.130	<0.010	--	0.50	0.020	<0.010	70	<10
SEP										
03...	--	<0.010	<0.100	0.010	0.29	0.30	0.030	<0.010	60	10

09306290 WHITE RIVER BELOW BOISE CREEK NEAR RANGELY, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

		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)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C)				
DATE		NOV 03...	0.300	<0.010	--	<0.20	--	<0.010	3.9	3.5			
APR 01...		0.500	0.050	1.7	1.8	2.3	0.400	11	4.5				
MAY 12...		0.300	0.070	1.2	1.3	1.6	0.300	9.7	3.6				
SEP 03...		<0.100	0.020	--	<0.20	--	0.020	3.1	5.5				
DATE	ALUM- INUM, TOTAL RECOV- ERABLE (UG/L AS AL)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ANTI- MONY, DIS- SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	
	NOV 03...	650	10	<1	1	1	<100	100	<10	<10	<1	<1	<10
DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)		
	NOV 03...	<1	<1	<1	4	2	<5	<5	10	50	<10	<0.10	
DATE	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)		
	NOV 03...	0.1	5	5	6	<1	3	3	<1.0	920	60	30	
DATE				STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	OXYGEN DEMAND, BIOCHEM 20 DAY, 20 DEG (MG/L)			
	OCT 02...		1415	729		760	--	10.0	--	--	--		
APR 21...		1130	1070		650	--	6.0	--	--	--			
JUN 11...		1345	1540		456	--	15.0	--	--	--			
JUN 19...		1045	843		560	8.70	16.0	13	1.0	2.5			
JUL 15...		1615	554		780	8.50	22.5	18	2.1	4.9			
AUG 13...		1630	487		733	8.50	20.0	17	1.5	3.8			
SEP 03...		1345	426		795	8.40	18.0	15	1.0	2.5			

GREEN RIVER BASIN

09306290 WHITE RIVER BELOW BOISE CREEK NEAR RANGELY, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
02...	1400	729	140	276	--
05...	1820	754	270	550	--
11...	1200	767	197	408	--
17...	1000	714	65	125	--
25...	1800	727	22	43	--
NOV					
03...	1500	716	83	160	74
05...	1700	700	113	214	--
15...	1536	687	75	139	--
24...	1519	642	109	189	--
DEC					
04...	1515	654	193	341	73
07...	1710	668	260	469	--
15...	1355	636	146	251	--
22...	1345	573	177	274	--
JAN					
07...	1600	540	139	203	--
FEB					
27...	1606	450	338	411	--
MAR					
11...	0930	774	996	2080	86
12...	1515	687	664	1230	--
21...	1650	604	442	721	--
30...	1750	542	233	341	--
APR					
01...	1515	650	914	1600	93
04...	1815	815	2880	6340	--
13...	1758	740	671	1340	--
16...	1445	786	1590	3370	87
20...	1605	1280	876	3030	--
23...	1230	973	703	1850	72
28...	1550	1730	4270	19900	--
MAY					
04...	1600	1700	865	3970	--
08...	1515	1830	903	4460	48
11...	1615	2010	1230	6680	--
12...	1000	1910	586	3010	52
18...	1720	2390	1560	10100	--
20...	1820	2130	669	3850	45
25...	1645	1570	299	1270	--
27...	1400	1480	262	1050	48
JUN					
01...	1800	1230	238	790	--
06...	1010	1180	106	338	--
12...	1515	1380	251	935	52
13...	2000	1390	141	529	--
20...	2030	754	70	143	--
23...	1340	691	53	99	49
27...	2030	512	24	33	--
30...	1500	629	88	149	57
JUL					
04...	2030	585	94	148	--
10...	0900	530	91	130	--
20...	1925	420	59	67	--
26...	2000	477	96	124	--
28...	1500	477	151	194	89
AUG					
04...	0630	530	204	292	--
06...	1500	548	117	173	--
11...	1605	431	136	158	--
15...	1617	623	299	503	--
24...	1622	500	2	2.7	--
31...	1840	398	38	41	--
SEP					
01...	1745	426	42	48	78
03...	1445	430	40	46	62
08...	1957	409	36	40	--
15...	1315	381	55	57	--
21...	1818	360	30	29	--
30...	1900	354	19	18	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM	SED. SUSP. FALL DIAM. % FINER THAN .004 MM	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
MAY												
01...	1500	2000	1460	7880	16	20	32	62	81	96	100	--
16...	1510	2140	852	4920	14	19	32	59	78	93	99	100

09339900 EAST FORK SAN JUAN RIVER ABOVE SAND CREEK, NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°23'23", long 106°50'26", Archuleta County, Hydrologic Unit 14080101, on right bank 0.3 mi upstream from Sand Creek, 4.0 mi upstream from West Fork San Juan River, and 13 mi northeast of Pagosa Springs.

DRAINAGE AREA.--64.1 mi².

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1959, published as San Juan River above Sand Creek, near Pagosa Springs.

REVISED RECORDS.--WSP 1713: 1957.

GAGE.--Water-stage recorder. Elevation of gage is 8,900 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 9 to Mar. 24. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 500 acres of hay meadows upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--31 years, 91.3 ft³/s; 66,150 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,260 ft³/s, Sept. 14, 1970, gage height, 6.75 ft, from rating curve extended above 460 ft³/s, on basis of slope-area measurement at gage height, 6.13 ft; minimum daily determined, 3.4 ft³/s, Dec. 26, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1885 occurred Oct. 5, 1911.

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 16	2300	*848	*5.02	June 9	2000	744	4.82

Minimum daily discharge, 13 ft³/s, Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	106	50	18	16	14	26	389	267	195	44	31
2	87	108	50	20	16	16	30	361	346	188	43	31
3	117	112	50	18	16	16	35	289	409	175	61	32
4	108	102	50	19	16	18	41	237	474	160	46	30
5	112	100	47	20	16	20	36	221	470	148	43	28
6	112	98	45	20	16	30	35	215	492	140	39	27
7	114	87	37	20	16	40	32	236	551	130	60	27
8	116	81	36	20	16	42	35	271	587	123	51	26
9	116	74	34	19	16	40	39	280	675	118	42	25
10	116	76	28	18	16	40	48	284	620	110	41	23
11	122	74	24	17	17	42	58	327	500	104	38	22
12	114	74	24	19	18	38	63	398	446	96	38	21
13	108	72	26	20	19	42	53	417	440	89	38	20
14	106	70	28	20	19	44	57	593	455	84	33	22
15	116	70	28	19	17	42	80	653	497	80	29	21
16	118	68	28	15	17	36	125	718	551	79	28	20
17	114	64	28	17	16	32	179	666	499	104	25	18
18	114	63	30	18	16	32	214	575	431	84	23	18
19	116	73	28	17	16	32	221	538	386	72	22	17
20	134	70	26	18	16	32	206	432	357	66	21	16
21	130	70	26	18	16	28	188	375	340	66	21	16
22	114	72	24	17	15	30	203	319	316	70	22	15
23	112	66	22	18	15	26	232	293	308	66	29	15
24	108	60	24	18	16	26	259	266	298	66	92	15
25	102	60	24	18	16	26	285	243	292	64	90	15
26	94	60	24	17	16	25	308	235	284	67	80	15
27	89	53	20	16	16	24	296	215	268	67	56	16
28	84	56	20	16	13	24	323	208	237	61	49	15
29	79	55	20	16	---	22	328	194	217	57	43	15
30	79	54	19	16	---	21	355	190	206	52	38	14
31	84	---	18	16	---	23	---	207	---	47	34	---
TOTAL	3312	2248	938	558	454	923	4390	10845	12219	3028	1319	626
MEAN	107	74.9	30.3	18.0	16.2	29.8	146	350	407	97.7	42.5	20.9
MAX	134	112	50	20	19	44	355	718	675	195	92	32
MIN	77	53	18	15	13	14	26	190	206	47	21	14
AC-FT	6570	4460	1860	1110	901	1830	8710	21510	24240	6010	2620	1240
CAL YR 1986	TOTAL 55755	MEAN 153	MAX 963	MIN 14	AC-FT 110600							
WTR YR 1987	TOTAL 40860	MEAN 112	MAX 718	MIN 13	AC-FT 81050							

LOCATION.--Lat 37°27'01", long 106°54'40", Mineral County, Hydrologic Unit 14080101, on right bank 1.8 mi upstream from Wolf Creek, 30 ft upstream from West Fork bridge and 15 mi northeast of Pagosa Springs, Co.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 7,935 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9-11, 24-30, Dec. 1-4, 9-18, 22-24, 26-31, Jan. 1-4, 9-11, 16-28, Feb. 7, 8, 21-23, 25-28, Mar. 1, 2, 4-7, 21-23, 28-31. Records good except for estimated daily discharges, which are poor. No regulation or diversions.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s, May 8, 1985, gage height 5.25 ft; minimum daily, 11 ft³/s, Feb. 2, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on October 5, 1911, has not yet been exceeded.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 936 ft³/s at 2100 June 7, gage height, 5.05 ft; minimum daily, 16 ft³/s, Feb. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	80	42	22	21	19	21	230	310	395	72	61
2	85	88	42	24	21	19	24	232	425	385	76	60
3	100	90	40	24	21	21	29	182	506	368	100	57
4	90	97	40	24	21	22	30	146	561	341	78	54
5	90	83	42	23	20	24	25	139	608	311	67	55
6	88	80	41	23	20	26	24	151	650	286	73	55
7	87	73	40	23	19	32	24	182	733	264	108	55
8	87	70	38	23	20	40	24	223	803	244	102	55
9	87	55	34	20	21	31	24	217	807	234	84	50
10	88	55	30	20	21	29	31	230	725	217	80	46
11	94	55	28	20	21	29	41	283	670	205	72	43
12	87	63	30	23	22	25	40	378	704	186	71	41
13	85	58	30	23	21	29	34	353	714	172	83	40
14	88	59	30	23	22	29	36	497	717	160	67	44
15	96	61	30	22	20	30	56	529	737	151	57	39
16	98	57	30	20	20	28	81	540	820	142	54	35
17	94	55	28	19	19	25	104	525	710	216	50	33
18	94	55	28	19	19	24	129	518	608	155	48	31
19	94	65	29	20	19	24	127	481	585	133	44	30
20	106	62	29	20	19	24	116	411	570	120	43	30
21	101	64	29	19	18	22	98	364	553	126	44	29
22	90	65	26	19	18	22	116	306	535	141	45	29
23	87	58	26	20	18	22	156	284	545	115	61	29
24	87	50	26	20	19	23	172	262	552	106	182	29
25	83	48	28	20	19	21	178	233	550	106	139	29
26	80	48	24	19	18	20	213	219	535	102	118	29
27	78	46	22	19	17	20	217	205	508	108	112	29
28	78	44	24	18	16	18	232	199	451	93	92	28
29	76	44	22	18	---	18	232	186	421	98	83	26
30	75	42	22	18	---	18	220	187	393	84	73	25
31	78	---	22	19	---	18	---	213	---	78	66	---
TOTAL	2731	1860	952	644	550	752	2854	9105	18006	5842	2444	1196
MEAN	88.1	62.0	30.7	20.8	19.6	24.3	95.1	294	600	188	78.8	39.9
MAX	106	90	42	24	22	40	232	540	820	395	182	61
MIN	75	42	22	18	16	18	21	139	310	78	43	25
AC-FT	5420	3690	1890	1280	1090	1490	5660	18060	35710	11590	4850	2370
CAL YR 1986	TOTAL 54589											
WTR YR 1987	TOTAL 46936											
MEAN 150	MAX 802											
MIN 16	AC-FT 93100											

09340800 WEST FORK SAN JUAN RIVER AT WEST FORK CAMPGROUND NEAR PAGOSA SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: November 1984 to September 30, 1987 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	OXYGEN DEMAND, BIOCHEM 20 DAY, 20 DEG (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI KF AGAR (COLS. PER 100 ML)
JUN 02...	1300	364	33	7.4	6.5	3.1	9.6	0.4	0.9	K0	K19
SEP 01...	1230	62	53	7.5	11.0	0.60	8.5	0.4	0.7	K0	25

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	ACIDITY (MG/L AS H)	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 AD- WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JUN 02...	13	0	<0.1	4.4	0.60	1.9	0.2	0.70	19	7.1	0.20
SEP 01...	20	2	<0.1	6.3	0.95	3.3	0.3	1.0	18	5.1	0.30

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE DIS- SOLVED TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED TOTAL (MG/L AS N)
JUN 02...	<0.10	15	41	41	0.06	40.3	<0.01	<0.01	<0.10	<0.10
SEP 01...	0.10	18	56	46	0.08	9.36	<0.01	<0.01	<0.10	<0.10

DATE	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, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHODIS- SOLVED TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHODIS- SOLVED TOTAL (MG/L AS P)
JUN 02...	0.02	0.02	0.58	0.38	0.60	0.40	0.03	0.02	0.01	<0.01
SEP 01...	0.03	0.02	0.37	0.28	0.40	0.30	0.02	0.01	0.01	<0.01

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 02...	40	<1	<1	7	180	30	<5	2	<1	10
SEP 01...	20	1	<1	1	50	23	<5	3	<1	<3

K Based on non-ideal colony count

SAN JUAN RIVER BASIN

09340800 WEST FORK SAN JUAN RIVER AT WEST FORK CAMPGROUND NEAR PAGOSA SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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
MAY					
06...	1515	138	16	6.0	39
19...	1150	500	15	20	61
JUN					
02...	1300	364	10	9.8	51
23...	1345	506	10	14	47
JUL					
16...	1130	140	8	3.0	38
SEP					
23...	0915	30	1	0.08	--

09341300 WOLF CREEK AT WOLF CREEK CAMPGROUND NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°26'31", long 106°53'11", Mineral County, Hydrologic Unit 14080101, on left bank 10 ft downstream from bridge at Wolf Creek Campground, 0.8 mi upstream from mouth, and 14 mi northeast of Pagosa Springs, Co.

DRAINAGE AREA.--18.0 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1968 to September 1975, October 1984 to September 1987 (discontinued). Streamflow and water quality records for October 1968 to September 1975 at site 0.3 mi upstream not equivalent because of inflow between sites.

GAGE.--Water-stage recorder. Elevation of gage is 7,830 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 11, 23, 26-31, Jan. 1-6, 9, 10, 16-20, Mar. 28. Records good except for estimated daily discharges, which are fair. No regulation. Small transmountain diversion upstream from station by Treasure Pass diversion ditch to South Fork Rio Grande drainage and small diversion by U.S. Forest Service for fish pond 0.3 mi upstream from gage.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 ft³/s, June 7, 1985, gage height, 3.79 ft; minimum daily, 3.1 ft³/s, Jan. 25, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 331 ft³/s at 2000 June 6, gage height, 3.15 ft; minimum daily, 3.1 ft³/s, Jan. 25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	31	12	5.0	3.5	6.0	7.7	108	164	96	11	16
2	32	34	12	5.5	3.7	6.3	9.5	106	214	88	12	15
3	40	36	11	5.0	3.7	5.7	11	79	247	79	27	14
4	36	32	11	5.0	3.7	6.0	10	64	262	70	17	13
5	40	30	11	5.5	3.5	7.7	9.6	61	274	65	14	13
6	42	29	11	5.0	3.5	10	8.1	63	287	59	13	13
7	45	25	11	4.2	3.9	13	8.1	84	262	52	24	13
8	49	24	9.9	3.5	4.4	14	8.5	106	244	48	18	14
9	48	22	9.2	3.2	4.4	12	9.9	100	259	45	15	12
10	47	21	8.1	3.2	4.4	11	13	108	262	40	17	11
11	46	20	7.5	3.3	4.4	9.6	13	147	247	38	15	10
12	42	19	7.8	3.3	4.6	8.1	12	184	238	35	13	10
13	38	18	7.8	3.3	4.6	8.8	12	187	238	31	18	9.6
14	38	19	7.4	3.5	4.6	8.8	12	237	253	28	17	9.6
15	40	18	7.1	3.5	4.4	9.4	16	226	259	26	14	9.6
16	42	18	7.1	3.4	4.4	8.5	27	238	265	25	12	9.2
17	42	17	6.8	3.4	4.2	7.4	47	226	241	37	11	8.5
18	42	15	6.8	3.4	4.2	7.8	63	223	211	27	10	7.8
19	42	19	6.8	3.4	4.0	7.8	66	200	188	22	9.9	7.4
20	46	18	6.3	3.4	4.4	6.9	58	176	173	20	9.2	7.3
21	43	18	6.3	3.4	4.4	6.6	49	155	165	21	9.2	7.1
22	38	18	6.0	3.3	4.4	6.8	59	135	160	33	8.5	6.8
23	34	18	6.0	3.3	4.6	6.6	77	133	156	21	10	6.3
24	34	15	6.0	3.3	5.1	6.3	86	125	153	18	62	6.3
25	32	16	6.0	3.1	4.9	5.5	87	110	148	18	53	6.3
26	31	15	5.5	3.5	4.9	5.2	96	104	143	18	46	6.3
27	31	14	5.0	3.5	5.7	4.9	94	96	138	18	34	6.4
28	30	15	5.5	3.5	5.7	4.8	102	96	118	16	29	6.3
29	30	13	5.0	3.7	---	4.6	108	84	112	16	25	6.3
30	30	13	5.0	3.5	---	5.7	104	92	104	14	21	5.7
31	31	---	5.0	3.3	---	6.8	---	117	---	12	18	---
TOTAL	1189	620	238.9	116.4	122.2	238.6	1283.4	4170	6185	1136	612.8	286.8
MEAN	38.4	20.7	7.71	3.75	4.36	7.70	42.8	135	206	36.6	19.8	9.56
MAX	49	36	12	5.5	5.7	14	108	238	287	96	62	16
MIN	28	13	5.0	3.1	3.5	4.6	7.7	61	104	12	8.5	5.7
AC-FT	2360	1230	474	231	242	473	2550	8270	12270	2250	1220	569
CAL YR 1986	TOTAL	21857.6	MEAN	59.9	MAX	320	MIN	3.9	AC-FT	43350		
WTR YR 1987	TOTAL	16199.1	MEAN	44.4	MAX	287	MIN	3.1	AC-FT	32130		

SAN JUAN RIVER BASIN

09341300 WOLF CREEK AT WOLF CREEK CAMPGROUND NEAR PAGOSA SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: November 1984 to September 30, 1987 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	OXYGEN DEMAND, BIOCHEM 20 DAY, 20 DEG (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUN 02...	1430	190	49	7.4	8.5	2.8	8.9	0.4	0.9	K1	K0
SEP 01...	1030	17	41	7.9	8.0	0.90	9.2	0.5	1.0	K0	49

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	ACIDITY (MG/L AS H)	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 WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JUN 02...	12	0	<0.1	4.0	0.50	1.9	0.2	0.70	21	5.8	0.20
SEP 01...	16	0	<0.1	5.2	0.70	2.8	0.3	0.90	18	4.4	0.10

DATE	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 CONSTITU- ENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
JUN 02...	<0.10	14	35	40	0.05	18.0	<0.01	<0.01	<0.10	<0.10
SEP 01...	0.10	16	40	41	0.05	1.84	<0.01	<0.01	<0.10	<0.10

DATE	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, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS ORTHOR- THO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHOR- THO, DIS- SOLVED (MG/L AS P)
JUN 02...	<0.01	0.01	--	0.39	1.7	0.40	0.03	0.02	0.02	<0.01
SEP 01...	0.01	0.02	0.29	0.58	0.30	0.60	0.02	0.02	0.02	<0.01

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 02...	50	<1	<1	3	250	35	10	2	<1	7
SEP 01...	10	1	<1	1	60	17	<5	1	<1	<3

K Based on non-ideal colony count

09341300 WOLF CREEK AT WOLF CREEK CAMPGROUND NEAR PAGOSA SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY					
06...	1640	65	13	2.3	73
19...	1250	180	19	9.2	62
JUN					
02...	1430	190	22	11	52
23...	1600	148	14	5.6	61
JUL					
16...	1300	25	5	0.34	46
SEP					
23...	0945	5.7	4	0.06	--

SAN JUAN RIVER BASIN

09341350 WINDY PASS CREEK NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°26'21", long 106°52'46", Mineral County, Hydrologic Unit 14080101, on left bank 0.6 mi upstream from mouth, 40 ft upstream from U.S. Highway 160, and 14 mi northeast of Pagosa Springs, Co.

DRAINAGE AREA.--1.41 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1, 1984 to September 30, 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 8,030 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 9 to Apr. 13. Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Small diversion for domestic use of guest ranch downstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 16 ft³/s, May 8, 1985, gage height, unknown, maximum gage-height recorded, 4.90 ft, May 4, 1985, backwater from plugged culvert; no flow many days each year

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft³/s at 2200, May 15, gage height, 1.92 ft; no flow, July 14-15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	1.3	.55	.24	.17	.30	.42	8.0	2.3	.13	.01	.02
2	.36	1.5	.55	.26	.18	.28	.50	7.5	2.6	.09	.01	.02
3	.52	1.5	.50	.24	.18	.28	.55	6.2	3.0	.09	.01	.02
4	.63	1.4	.50	.24	.17	.32	.48	5.5	3.2	.07	.01	.02
5	.63	1.3	.50	.26	.17	.40	.44	4.6	3.2	.05	.01	.02
6	.63	1.2	.50	.24	.18	.55	.42	4.0	3.0	.04	.01	.02
7	.63	1.1	.50	.19	.19	.65	.42	4.1	2.9	.01	.01	.02
8	.63	.98	.46	.17	.20	.70	.48	4.1	3.0	.01	.02	.02
9	.63	.95	.42	.15	.22	.55	.60	4.0	2.9	.01	.02	.02
10	.63	.90	.38	.15	.22	.50	.65	4.2	2.7	.01	.01	.02
11	.74	.90	.36	.16	.22	.46	.60	5.4	2.3	.01	.01	.02
12	.69	.85	.36	.16	.22	.42	.60	6.2	1.9	.01	.01	.02
13	.64	.85	.36	.16	.22	.44	.70	7.6	1.7	.01	.01	.02
14	.63	.85	.34	.16	.22	.44	.98	9.4	1.3	.0	.01	.02
15	.69	.85	.34	.16	.22	.46	1.3	9.6	1.1	.0	.01	.02
16	.74	.80	.34	.16	.20	.40	1.9	9.2	.89	.01	.01	.01
17	.74	.75	.32	.16	.20	.36	2.8	9.0	.75	.02	.01	.01
18	.89	.75	.32	.16	.20	.38	4.3	6.9	.58	.01	.01	.01
19	1.1	.85	.30	.16	.20	.38	5.4	5.9	.53	.01	.01	.01
20	1.4	.85	.30	.16	.22	.34	5.0	5.3	.42	.01	.01	.01
21	1.5	.85	.30	.16	.22	.34	4.6	4.9	.36	.01	.01	.01
22	1.3	.85	.28	.16	.22	.34	5.0	4.6	.31	.01	.01	.01
23	1.2	.80	.28	.16	.24	.32	5.5	4.3	.23	.01	.01	.01
24	1.1	.70	.28	.15	.24	.28	5.6	4.1	.20	.01	.05	.01
25	.98	.75	.28	.15	.24	.28	6.3	3.5	.18	.01	.09	.01
26	.89	.70	.26	.17	.26	.26	8.1	3.3	.18	.01	.07	.01
27	.89	.65	.24	.17	.28	.24	7.5	2.9	.15	.01	.07	.01
28	.80	.70	.24	.17	.28	.24	7.8	2.7	.13	.01	.07	.01
29	.75	.60	.24	.18	---	.24	7.8	2.5	.16	.02	.07	.01
30	.69	.60	.24	.17	---	.28	7.7	2.3	.14	.01	.04	.01
31	.80	---	.24	.16	---	.34	---	2.2	---	.01	.02	---
TOTAL	24.71	27.63	11.08	5.54	5.98	11.77	94.44	164.0	42.31	.72	.73	.45
MEAN	.80	.92	.36	.18	.21	.38	3.15	5.29	1.41	.02	.02	.01
MAX	1.5	1.5	.55	.26	.28	.70	8.1	9.6	3.2	.13	.09	.02
MIN	.26	.60	.24	.15	.17	.24	.42	2.2	.13	.00	.01	.01
AC-FT	49	55	22	11	12	23	187	325	84	1.4	1.4	.9
CAL YR 1986	TOTAL 470.98	MEAN 1.29	MAX 10	MIN .00	AC-FT 934							
WTR YR 1987	TOTAL 389.36	MEAN 1.07	MAX 9.6	MIN .00	AC-FT 772							

09341350 WINDY PASS CREEK NEAR PAGOSA SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: November 1984 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: April 9, 1986 to September 30, 1986.

INSTRUMENTATION.--Pumping-sediment sampler since April 1986.

REMARKS.--Daily-sediment discharge was not published this year because of insufficient data.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 62 mg/L May 6, 1986 (but may have been exceeded during periods when daily samples not collected during May); minimum daily mean, 0 mg/L several days during August and September, 1986.

SEDIMENT LOADS: Maximum daily, 1.5 tons May 6; minimum daily, .00 tons many days during June through September.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	OXYGEN DEMAND, BIOCHEM 20 DAY, 20 DEG (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
JUN 02...	1600	2.6	91	7.8	7.5	5.2	8.6	0.3	0.7	K1	100
SEP 01...	1000	0.03	117	8.0	5.0	0.70	9.9	0.6	1.2	K0	K350

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH FLD TOT FLD MG/L AS CACO3	ACIDITY (MG/L AS H)	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 WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
JUN 02...	26	0	<0.1	7.5	1.7	3.7	0.3	1.0	30	9.9	0.40
SEP 01...	48	0	<0.1	14	3.2	6.3	0.4	1.5	54	6.3	0.30

DATE	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 TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	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)
JUN 02...	<0.10	22	65	65	0.09	0.46	<0.010	<0.010	<0.100	<0.100	0.020
SEP 01...	0.10	25	97	89	0.13	0.01	<0.010	<0.010	<0.100	<0.100	<0.010

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)
JUN 02...	0.020	0.98	0.48	1.0	0.50	0.040	0.030	0.020	0.010	0.03
SEP 01...	0.020	--	0.28	3.1	0.30	0.040	0.040	0.030	0.020	0.06

K Based on non-ideal colony count

SAN JUAN RIVER BASIN

09341350 WINDY PASS CREEK NEAR PAGOSA SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 02...	170	<1	<1	2	420	89	<5	2	<1	9
SEP 01...	<10	1	<1	2	30	26	<5	1	<1	4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
MAY 07...	1215	3.8	12	0.12	66
18...	1230	6.7	30	0.54	59
JUN 02...	1600	2.6	12	0.08	41

09341500 WEST FORK SAN JUAN RIVER NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°23'31", long 106°54'24" T.36 N., R.1 W., Archuleta County, Hydrologic Unit 14080101, on right bank 1.9 mi upstream from mouth, 400 ft. downstream from Archuleta-Mineral County line and 11 mi northeast of Pagosa Springs, CO.

DRAINAGE AREA.--85.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1984 to September 1987 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 7,645 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 1733 for history of changes prior to Sept. 28, 1984.

REMARKS.--Estimated daily discharges: Nov. 9-14, 24, 25, Nov. 27 to Dec. 7, 10-17, Dec. 20 to Mar. 7, 16, 20-23, 25, 27-31, and July 17 to Aug. 13. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 550 acres upstream and 220 acres downstream from station. Treasure Pass ditch upstream from station exports water to Rio Grande basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,040 ft³/s, June 8, 1985, gage height, 4.85 ft; minimum daily, 20 ft³/s, Feb. 1, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft³/s at 2400 June 15, gage height, 4.56 ft; minimum daily, 30 ft³/s, Feb. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	176	75	40	36	34	50	473	533	520	95	83
2	135	177	75	42	36	36	54	468	693	504	95	80
3	164	177	75	40	38	38	62	368	798	463	140	78
4	150	165	75	40	38	40	66	316	916	427	110	70
5	150	153	70	42	36	44	58	308	982	391	95	74
6	153	150	75	42	36	50	54	310	1090	356	100	75
7	150	135	70	42	38	65	54	365	1190	326	140	75
8	153	126	70	42	38	77	58	431	1270	305	130	77
9	153	100	68	38	38	64	70	423	1270	285	110	68
10	156	95	60	38	38	58	82	432	1200	265	110	64
11	174	95	50	40	38	58	97	526	1120	248	100	58
12	159	95	55	42	38	56	102	645	1130	228	95	57
13	150	95	55	42	40	58	88	624	1140	208	110	54
14	150	95	55	40	40	62	97	816	1150	196	97	62
15	165	103	55	40	38	62	125	884	1240	177	85	58
16	168	100	55	38	38	55	174	923	1320	171	78	52
17	168	95	55	36	36	58	250	900	1160	260	73	50
18	168	107	56	36	36	56	299	861	1020	190	66	48
19	168	131	53	38	36	56	305	801	938	160	62	46
20	207	118	50	38	36	55	276	710	881	150	60	43
21	192	115	50	36	34	50	239	641	831	160	58	44
22	166	117	48	36	34	50	264	554	801	180	62	42
23	153	105	46	38	34	50	324	513	800	150	82	42
24	150	90	46	38	36	50	349	475	800	130	249	42
25	147	90	42	38	36	46	363	424	784	130	199	42
26	141	95	42	36	34	44	431	408	737	130	169	42
27	138	85	40	36	32	40	432	379	697	140	153	41
28	135	80	42	36	30	40	450	372	618	120	132	40
29	132	80	40	36	---	38	456	346	600	120	115	38
30	132	80	40	36	---	38	447	347	529	110	100	36
31	135	---	40	36	---	40	---	389	---	100	90	---
TOTAL	4788	3425	1728	1198	1018	1568	6176	16432	28238	7300	3360	1681
MEAN	154	114	55.7	38.6	36.4	50.6	206	530	941	235	108	56.0
MAX	207	177	75	42	40	77	456	923	1320	520	249	83
MIN	126	80	40	36	30	34	50	308	529	100	58	36
AC-FT	9500	6790	3430	2380	2020	3110	12250	32590	56010	14480	6660	3330
CAL YR 1986	TOTAL 90076	MEAN 247	MAX 1370	MIN 26	AC-FT 178700							
WTR YR 1987	TOTAL 76912	MEAN 211	MAX 1320	MIN 30	AC-FT 152600							

SAN JUAN RIVER BASIN

09341500 WEST FORK SAN JUAN RIVER NEAR PAGOSA SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1984 to September 1987 (discontinued).

PERIOD OF DAILY RECORD.--

SUSPENDED-SEDIMENT DISCHARGE: April 19, 1985 to September 30, 1987 (discontinued).

INSTRUMENTATION.--Pumping sediment sampler since April 1985.

REMARKS.--Daily-sediment discharge based on once daily samples collected April 14 through September 30.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION: Maximum daily mean, 2,630 mg/L May 16, 1985; minimum daily mean, 1 mg/L several days during 1985 and 1986.

SEDIMENT LOADS: Maximum daily, 3,550 tons May 16, 1985; minimum daily, .12 tons Sept. 1, 1985.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION: Maximum daily mean, 33 mg/L June 20; minimum daily mean, 2 mg/L Aug. 20-23, 31, and Sept 1.

SEDIMENT LOADS: Maximum daily, 114 tons June 16; minimum daily, .31 tons Aug. 21.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L)	OXYGEN DEMAND, BIOCHEM 20 DAY, 20 DEG (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
DEC 08...	1250	77	84	7.5	1.5	2.1	11.0	--	--	--	--
MAR 05...	1030	79	73	7.7	1.0	3.2	11.5	--	--	--	--
JUN 02...	0945	634	53	7.0	7.0	1.6	9.5	0.6	1.1	K14	K9
SEP 01...	1345	82	54	8.4	15.0	0.70	7.9	0.4	0.9	K0	K19

DATE	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	ACIDITY (MG/L AS H)	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 WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
DEC 08...	28	5	<0.1	8.8	1.4	4.9	0.4	1.0	23	7.5	1.8
MAR 05...	28	0	<0.1	8.9	1.5	5.3	0.5	1.1	30	7.7	0.80
JUN 02...	15	0	<0.1	4.8	0.70	2.1	0.2	0.70	22	6.6	0.20
SEP 01...	16	0	<0.1	5.2	0.82	3.0	0.3	1.0	24	4.9	0.20

DATE	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 TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	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)
DEC 08...	<0.10	20	59	59	0.08	12.3	--	--	--	--	--
MAR 05...	0.10	20	63	63	0.09	13.5	--	--	--	--	--
JUN 02...	<0.10	15	38	43	0.05	65.0	<0.010	<0.010	<0.100	<0.100	<0.010
SEP 01...	0.10	18	34	48	0.05	7.55	<0.010	<0.010	<0.100	<0.100	0.010

K Based on non-ideal colony count

09341500 WEST FORK SAN JUAN RIVER NEAR PAGOSA SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	PHOS- PHOROUS TOTAL (MG/L AS P)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P)	PHOS- PHOROUS, ORTHO, TOTAL (MG/L AS P)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)
DEC 08...	--	--	--	--	--	--	--	--	--	--
MAR 05...	--	--	--	--	--	--	--	--	--	--
JUN 02...	0.020	--	0.48	0.50	0.50	0.040	0.020	0.010	<0.010	--
SEP 01...	0.020	0.29	0.28	0.30	0.30	0.020	0.020	0.020	0.020	0.06

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
JUN 02...	0945	60	1	<1	4	380	33	<5	3	<1	7
SEP 01...	1345	20	1	<1	3	20	24	<5	<1	<1	7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
APR 14...	1000	91	13	3.2	86
MAY 19...	1000	830	25	56	46
JUN 02...	0945	634	22	38	47
JUN 23...	0940	743	17	34	46
SEP 23...	1115	38	6	0.62	--

SAN JUAN RIVER BASIN

09341500 WEST FORK SAN JUAN RIVER NEAR PAGOSA SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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	50	---	.85	473	27	34	533	19	27
2	54	---	.96	468	31	39	693	19	36
3	62	---	1.2	368	27	27	798	17	37
4	66	---	1.3	316	24	20	916	29	72
5	58	---	1.1	308	22	18	982	22	58
6	54	---	.96	310	21	18	1090	17	50
7	54	---	.96	365	21	21	1190	22	71
8	58	---	1.1	431	23	27	1270	29	99
9	70	---	1.4	423	27	31	1270	27	93
10	82	---	1.8	432	28	33	1200	23	75
11	97	---	2.3	526	29	41	1120	23	70
12	102	---	2.5	645	32	56	1130	24	73
13	88	---	2.0	624	29	49	1140	25	77
14	97	12	3.1	816	27	59	1150	27	84
15	125	12	4.0	884	28	67	1240	31	104
16	174	14	6.6	923	27	67	1320	32	114
17	250	17	11	900	26	63	1160	32	100
18	299	18	15	861	25	58	1020	29	80
19	305	19	16	801	22	48	938	30	76
20	276	20	15	710	19	36	881	33	78
21	239	19	12	641	22	38	831	29	65
22	264	18	13	554	22	33	801	26	56
23	324	20	17	513	20	28	800	14	30
24	349	22	21	475	20	26	800	11	24
25	363	23	23	424	20	23	784	12	25
26	431	26	30	408	18	20	737	11	22
27	432	27	31	379	17	17	697	12	23
28	450	26	32	372	18	18	618	11	18
29	456	26	32	346	17	16	600	11	18
30	447	24	29	347	16	15	529	10	14
31	---	---	---	389	16	17	---	---	---
TOTAL	6176	---	329.13	16432	---	1063	28238	---	1769
JULY			AUGUST			SEPTEMBER			
1	520	13	18	95	6	1.5	83	2	.45
2	504	13	18	95	6	1.5	80	4	.86
3	463	12	15	140	7	2.6	78	5	1.1
4	427	12	14	110	6	1.8	70	5	.94
5	391	15	16	95	3	.77	74	5	1.0
6	356	17	16	100	3	.81	75	6	1.2
7	326	18	16	140	6	2.3	75	6	1.2
8	305	20	16	130	7	2.5	77	6	1.2
9	285	17	13	110	---	2.8	68	---	1.4
10	265	15	11	110	---	2.8	64	---	1.2
11	248	12	8.0	100	---	2.4	58	---	1.1
12	228	12	7.4	95	---	2.2	57	---	1.0
13	208	9	5.1	110	---	2.8	54	---	.96
14	196	7	3.7	97	5	1.3	62	---	1.2
15	177	6	2.9	85	3	.69	58	---	1.1
16	171	5	2.3	78	3	.63	52	---	.91
17	260	5	3.5	73	3	.59	50	---	.86
18	190	6	3.1	66	3	.53	48	---	.80
19	160	4	1.7	62	3	.50	46	---	.76
20	150	3	1.2	60	2	.32	43	---	.68
21	160	3	1.3	58	2	.31	44	---	.71
22	180	7	3.4	62	2	.33	42	---	.66
23	150	4	1.6	82	2	.44	42	6	.68
24	130	4	1.4	249	14	10	42	5	.57
25	130	4	1.4	199	11	5.9	42	4	.45
26	130	4	1.4	169	8	3.7	42	---	.66
27	140	5	1.9	153	6	2.5	41	---	.64
28	120	4	1.3	132	4	1.4	40	---	.61
29	120	4	1.3	115	3	.93	38	---	.57
30	110	4	1.2	100	3	.81	36	---	.52
31	100	5	1.4	90	2	.49	---	---	---
TOTAL	7300	---	209.5	3360	---	58.15	1681	---	25.99

09342500 SAN JUAN RIVER AT PAGOSA SPRINGS, CO

LOCATION.--Lat 37°15'58", long 107°00'37", in NE¼SW¼ sec.13, T.35 N., R.2 W., Archuleta County, Hydrologic Unit 14080101, on right bank at former bridge site in Pagosa Springs, 0.2 mi upstream from McCabe Creek, 0.6 mi downstream from bridge on U.S. Highway 160, and 2.0 mi upstream from Mill Creek.

DRAINAGE AREA.--298 mi².

PERIOD OF RECORD.--October 1910 to December 1914, May 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1914(M).

GAGE.--Water-stage recorder. Datum of gage is 7,052.04 ft above National Geodetic Vertical Datum of 1929. Jan 29 to Mar. 6, 1911, nonrecording gage at site 0.5 mi upstream, at different datum. Mar. 7 to Oct. 4, 1911, nonrecording gage at present site, at different datum. Nov. 23, 1911, to Nov. 14, 1914, nonrecording gage at site 300 ft downstream, at different datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of large areas upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--56 years, 384 ft³/s; 278,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s, Oct. 5, 1911, gage height, 17.8 ft, from floodmarks, from velocity-area study; minimum daily, 9.7 ft³/s, Oct. 5, 6, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1885, that of Oct. 5, 1911. Flood of June 29, 1927, reached a stage of 13.5 ft, discharge about 16,000 ft³/s, from information by local residents.

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)
May 1	2400	1,790	4.67	June 7	2300	*3,190	*5.93
May 16	2400	2,710	5.53				

Minimum daily discharge, 51 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	729	233	101	94	83	160	1670	1090	880	145	123
2	415	780	216	116	95	93	182	1610	1450	845	139	113
3	493	657	219	105	95	94	220	1250	1730	775	190	115
4	466	591	221	110	94	106	268	1040	2010	690	168	103
5	480	521	221	116	95	131	219	971	2140	617	142	105
6	480	500	219	116	95	187	206	956	2280	556	119	107
7	465	466	216	116	95	237	203	1090	2490	506	178	105
8	480	425	188	112	94	256	233	1250	2760	456	188	109
9	480	350	195	107	94	225	278	1260	2770	435	146	105
10	475	348	150	101	94	238	335	1240	2580	399	133	101
11	553	340	132	99	99	242	393	1440	2320	372	131	87
12	540	328	142	108	103	221	478	1750	2240	333	125	82
13	491	320	156	114	105	244	383	1760	2190	305	143	78
14	490	316	151	114	110	261	372	2290	2250	286	129	82
15	534	300	156	109	99	243	488	2420	2350	269	117	81
16	550	297	156	82	101	210	707	2540	2570	255	105	76
17	530	283	158	99	94	183	992	2450	2250	413	97	72
18	525	279	167	106	94	182	1160	2290	1960	346	87	70
19	530	500	161	99	94	191	1210	2100	1770	260	82	67
20	693	418	147	104	95	182	1130	1810	1650	231	79	63
21	690	385	143	106	95	165	946	1610	1550	218	78	58
22	582	380	132	99	89	174	997	1360	1470	267	80	57
23	531	360	122	101	88	160	1170	1240	1440	222	106	55
24	501	321	138	106	95	150	1250	1160	1410	200	390	55
25	480	320	140	106	90	162	1320	1020	1400	203	332	55
26	456	320	130	100	95	158	1570	985	1320	188	280	55
27	440	280	111	95	92	153	1550	867	1240	214	202	56
28	428	293	116	94	76	139	1570	851	1080	206	171	55
29	416	286	110	95	---	139	1580	750	1010	194	160	53
30	408	279	107	95	---	123	1550	724	916	173	148	51
31	408	---	106	95	---	137	---	807	---	160	114	---
TOTAL	15390	11972	4959	3226	2659	5469	23120	44561	55686	11474	4704	2394
MEAN	496	399	160	104	95.0	176	771	1437	1856	370	152	79.8
MAX	693	780	233	116	110	261	1580	2540	2770	880	390	123
MIN	380	279	106	82	76	83	160	724	916	160	78	51
AC-FT	30530	23750	9840	6400	5270	10850	45860	88390	110500	22760	9330	4750
CAL YR 1986	TOTAL 245333	MEAN 672	MAX 3260	MIN 73	AC-FT 486600							
WTR YR 1987	TOTAL 185614	MEAN 509	MAX 2770	MIN 51	AC-FT 368200							

LOCATION.--Lat 37°12'11", long 106°48'45", in NW¼ sec.11, T.34 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on left bank 250 ft downstream from Blanco Diversion Dam, 1.1 mi downstream from Leche Creek, and 12 mi southeast of Pagosa Springs.

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

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 19, Dec. 21 to Jan. 6, Jan. 9 to Feb. 2, Feb. 5-10, 21-23, Feb. 28 to Mar. 2, 30, and Aug. 25-27. Records good except for estimated daily discharges, which are fair. Flows controlled by diversion dam upstream.

AVERAGE DISCHARGE.--16 years, 51.6 ft³/s; 37,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,810 ft³/s June 8, 1985, gage height, 4.75 ft; minimum daily, 6.9 ft³/s, Dec. 29, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s at 2000 May 15, gage height, 4.42 ft; minimum daily, 16 ft³/s, Aug. 20.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	135	65	20	22	21	39	320	90	194	38	31
2	140	135	65	20	22	23	42	280	74	181	38	32
3	180	135	65	22	25	25	53	200	68	160	67	29
4	170	135	60	22	24	34	57	160	75	145	50	28
5	170	135	52	22	22	43	46	155	61	129	42	28
6	165	125	50	22	22	66	43	160	61	117	38	28
7	165	115	50	24	22	81	43	200	109	107	85	26
8	165	95	50	24	24	66	46	226	124	104	52	25
9	160	80	46	20	24	48	52	218	176	99	42	26
10	165	80	44	20	24	44	73	197	97	93	43	26
11	165	80	36	20	25	40	97	254	60	88	39	23
12	160	80	28	20	25	39	93	315	53	84	35	21
13	150	80	28	22	25	44	56	336	54	80	36	20
14	155	80	30	22	27	46	37	477	58	68	32	25
15	160	75	30	20	24	45	38	546	63	60	28	23
16	165	75	30	20	24	42	48	595	64	60	23	21
17	160	70	30	20	24	38	57	502	45	170	21	21
18	155	80	32	20	23	38	50	432	42	90	21	21
19	150	130	30	18	24	40	53	291	42	70	18	19
20	160	110	30	18	21	37	43	174	41	64	16	19
21	150	110	26	18	18	35	40	160	41	58	19	18
22	140	110	24	18	18	35	55	155	42	60	21	18
23	130	100	24	20	18	34	143	152	41	50	43	18
24	125	90	24	20	23	33	233	152	41	46	230	18
25	120	95	26	20	24	32	246	152	72	44	160	21
26	115	95	24	20	24	31	285	129	139	43	80	20
27	110	85	20	22	22	30	315	107	178	51	60	20
28	105	85	22	24	20	28	285	101	174	53	51	18
29	105	80	22	22	---	28	267	99	190	43	43	18
30	100	70	20	20	---	26	267	99	194	41	37	17
31	105	---	20	22	---	30	---	99	---	39	32	---
TOTAL	4495	2950	1103	642	640	1202	3202	7443	2569	2691	1540	678
MEAN	145	98.3	35.6	20.7	22.9	38.8	107	240	85.6	86.8	49.7	22.6
MAX	180	135	65	24	27	81	315	595	194	194	230	32
MIN	100	70	20	18	18	21	37	99	41	39	16	17
AC-FT	8920	5850	2190	1270	1270	2380	6350	14760	5100	5340	3050	1340
CAL YR 1986	TOTAL	38623	MEAN	106	MAX	624	MIN	13	AC-FT	76610		
WTR YR 1987	TOTAL	29155	MEAN	79.9	MAX	595	MIN	16	AC-FT	57830		

09344000 NAVAJO RIVER AT BANDED PEAK RANCH, NEAR CHROMO, CO

LOCATION.--Lat 37°05'07", long 106°41'20", in NW¼ sec.24, T.33 N., R.2 E., Archuleta County, Hydrologic Unit 14080101, on left bank at downstream side of private bridge on Banded Peak Ranch, 0.5 mi downstream from Aspen Creek, 4.0 mi downstream from East Fork, and 9 mi northeast of Chromo.

DRAINAGE AREA.--69.8 mi².

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 7,940.6 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Oct. 1, 1949, at datum 3.00 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 15, Dec. 22-24, Dec. 27 to Jan. 1, Jan. 4, 11-14, 16, 17, 19, 20, 22-27, and Feb. 20. Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 430 acres upstream from station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years, 110 ft³/s; 79,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,480 ft³/s, June 9, 1980, gage height, 4.55 ft, from rating curve extended above 840 ft³/s, on basis of float-area measurement at gage height 4.44 ft; maximum gage height, 7.02 ft, May 13, 1941, present datum; minimum daily discharge, 8.4 ft³/s, Sept. 29, 1960, result of temporary blockage by channel alteration upstream.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Oct. 5, 1911.

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 14	2000	796	2.97	June 7	2200	*1,090	*3.42

Minimum daily discharge, 36 ft³/s, Sept. 23, 24, 29, 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	126	80	42	41	46	58	406	290	261	62	52
2	133	135	78	43	41	48	60	374	374	235	61	50
3	124	137	76	48	41	49	64	302	446	216	67	49
4	142	133	74	46	42	49	70	254	500	200	64	48
5	140	120	72	46	42	55	64	244	530	181	60	48
6	140	120	72	47	42	64	60	248	550	168	55	47
7	137	112	72	47	46	71	57	283	620	158	87	44
8	142	102	62	47	47	71	57	314	740	146	74	43
9	137	93	62	46	44	62	61	310	873	137	62	43
10	140	97	56	46	46	60	68	310	824	129	62	43
11	158	93	54	44	44	55	84	358	680	120	60	41
12	146	93	50	42	44	54	88	379	620	114	62	40
13	135	93	52	43	46	55	76	402	584	112	60	40
14	142	95	52	44	48	58	78	505	584	112	58	43
15	149	95	54	44	47	60	102	632	644	108	54	42
16	149	95	54	43	46	58	151	644	644	104	49	40
17	149	93	55	42	46	54	202	614	566	155	48	38
18	151	97	55	42	44	57	228	590	505	122	43	38
19	149	133	55	42	44	57	238	555	475	104	43	38
20	163	118	55	42	42	55	232	470	451	95	44	38
21	151	114	55	42	42	54	205	406	420	89	46	37
22	135	116	54	40	42	58	228	346	406	89	46	37
23	129	110	53	40	43	53	265	330	402	84	52	36
24	122	102	52	41	44	53	272	310	406	81	108	36
25	120	102	52	41	44	53	276	272	402	76	113	37
26	118	100	50	40	43	53	314	254	370	76	79	40
27	116	90	48	41	49	53	342	232	358	78	65	41
28	114	94	46	42	43	53	354	225	330	74	61	38
29	108	92	44	42	---	54	342	205	306	74	57	36
30	97	90	44	41	---	52	342	205	283	68	54	36
31	98	---	42	42	---	54	---	232	---	65	54	---
TOTAL	4156	3190	1780	1338	1233	1728	5038	11211	15183	3831	1910	1239
MEAN	134	106	57.4	43.2	44.0	55.7	168	362	506	124	61.6	41.3
MAX	163	137	80	48	49	71	354	644	873	261	113	52
MIN	97	90	42	40	41	46	57	205	283	65	43	36
AC-FT	8240	6330	3530	2650	2450	3430	9990	22240	30120	7600	3790	2460
CAL YR 1986	TOTAL 62317	MEAN 171	MAX 866	MIN 38	AC-FT 123600							
WTR YR 1987	TOTAL 51837	MEAN 142	MAX 873	MIN 36	AC-FT 102800							

LOCATION.--Lat 37°01'48", long 106°44'16", in NE¼ sec.9, T.32 N., R.2 E., Archuleta County, Hydrologic Unit 14080101, on left bank 600 ft downstream from Oso Diversion Dam, 5.5 mi east of Chromo, and 6 mi upstream from Little Navajo River.

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

GAGE.--Water-stage recorder. Datum of gage is 7,647.71 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Dec. 11, 12, Dec. 30 to Jan. 3, 10-14, 16-27, 30, Feb. 28, and Mar. 1.
Flows controlled by diversion dam upstream.

AVERAGE DISCHARGE.--16 years, 70.5 ft³/s; 51,080 acre-ft/yr.

COOPERATION.--Records collected by U.S. Bureau of Reclamation, computed by Colorado Division of Water Resources, and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,330 ft³/s, May 24, 1984, gage height, 4.92 ft; minimum daily, 10 ft³/s, Oct. 10, 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 588 ft³/s at 2100 June 7, gage height, 3.96 ft; minimum daily, 28 ft³/s, Sept. 29.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	137	192	91	56	47	44	76	240	114	146	61	49
2	149	217	89	56	46	46	86	240	67	145	60	48
3	169	209	88	58	47	49	98	240	70	145	67	47
4	160	186	87	55	46	54	103	240	70	144	65	45
5	154	164	86	55	46	64	88	240	69	144	63	45
6	153	157	88	56	45	80	83	240	70	125	58	45
7	153	147	88	58	46	96	82	238	140	94	82	44
8	154	129	82	57	48	97	61	235	289	94	76	42
9	148	109	82	54	48	86	48	235	405	93	65	40
10	150	110	68	54	48	82	48	238	288	94	63	42
11	185	109	64	52	49	76	48	238	133	94	61	45
12	177	111	62	50	51	73	48	238	84	95	63	46
13	160	110	66	52	52	79	48	238	85	88	65	46
14	163	110	67	52	55	83	48	240	85	82	61	47
15	182	110	67	52	48	80	49	238	96	84	58	48
16	190	107	70	45	51	74	49	238	148	73	54	46
17	185	105	71	46	49	66	49	238	70	102	52	45
18	186	108	72	48	49	70	49	238	70	116	51	45
19	183	177	72	48	47	75	49	238	70	95	49	43
20	235	147	71	48	44	70	49	235	70	86	48	42
21	198	137	70	50	43	64	49	219	69	91	50	41
22	171	135	68	48	41	67	65	191	70	89	49	41
23	159	125	66	48	41	65	119	191	70	84	45	41
24	151	114	67	50	46	65	167	191	70	79	88	41
25	145	114	68	50	46	65	203	191	68	75	123	42
26	141	114	66	48	48	65	203	175	95	72	88	44
27	136	104	59	48	44	63	209	143	143	77	71	44
28	133	106	61	49	42	60	228	145	144	72	58	34
29	132	105	60	48	---	60	250	149	146	70	55	28
30	129	102	58	46	---	54	245	150	146	66	52	32
31	132	---	56	48	---	61	---	150	---	64	51	---
TOTAL	5000	3970	2230	1585	1313	2133	2997	6660	3514	2978	1952	1288
MEAN	161	132	71.9	51.1	46.9	68.8	99.9	215	117	96.1	63.0	42.9
MAX	235	217	91	58	55	97	250	240	405	146	123	49
MIN	129	102	56	45	41	44	48	143	67	64	45	28
AC-FT	9920	7870	4420	3140	2600	4230	5940	13210	6970	5910	3870	2550
CAL YR 1986	TOTAL	46656	MEAN	128	MAX	576	MIN	40	AC-FT	92540		
WTR YR 1987	TOTAL	35620	MEAN	97.6	MAX	405	MIN	28	AC-FT	70650		

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; minimum daily, 2.1 ft³/s, Sept.21.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	54	11	3.2	5.1	5.1	18	23	29	12	4.1	3.1
2	43	59	19	6.8	5.1	5.1	22	21	31	11	3.9	3.1
3	52	59	18	6.5	5.3	5.8	27	21	31	11	4.1	3.1
4	52	56	15	6.3	5.1	7.4	27	21	30	10	4.3	2.6
5	53	55	15	6.7	5.1	11	20	29	30	10	4.1	2.6
6	45	55	19	6.9	5.1	17	18	29	31	9.0	3.6	2.6
7	44	55	18	6.7	5.3	22	19	29	31	8.6	6.1	2.4
8	43	55	13	6.7	5.6	21	23	28	28	8.2	4.4	2.2
9	40	55	11	6.5	5.6	19	26	28	30	7.6	3.8	2.2
10	42	55	5.8	6.3	5.6	20	29	28	29	7.4	3.6	2.2
11	54	56	7.2	4.4	6.0	17	29	29	30	7.1	3.6	2.2
12	53	56	9.2	6.3	6.3	17	29	29	30	6.9	3.6	2.2
13	50	56	9.0	6.5	6.9	21	29	29	30	6.7	3.6	2.2
14	51	56	8.2	6.3	6.9	22	29	29	31	6.1	3.6	2.2
15	54	56	8.2	6.1	6.9	19	30	29	29	6.1	3.5	2.2
16	55	56	8.2	6.1	6.3	15	30	29	30	6.1	3.2	2.5
17	55	56	7.8	6.1	6.1	16	36	29	28	6.3	3.2	2.4
18	55	56	7.4	6.0	6.0	15	36	29	26	6.3	3.2	2.2
19	56	56	6.9	5.8	5.6	16	30	29	24	6.3	2.9	2.2
20	59	51	6.3	5.6	5.8	15	26	29	24	6.1	3.1	2.2
21	56	47	6.0	5.6	5.4	13	29	29	22	5.6	3.2	2.2
22	52	46	5.4	5.4	5.4	13	30	29	20	4.9	2.9	2.1
23	51	36	5.1	5.4	5.3	12	27	29	21	4.9	2.9	2.2
24	98	31	5.1	5.4	5.1	11	22	29	18	4.9	7.1	2.2
25	47	27	4.9	5.3	5.1	11	22	29	17	4.9	9.7	2.2
26	45	24	4.6	5.3	5.1	11	22	29	16	4.9	5.3	2.2
27	44	21	4.1	5.3	5.1	10	22	29	15	4.9	4.1	2.2
28	42	18	3.9	5.4	4.9	9.7	22	30	15	4.9	3.6	2.4
29	40	15	3.8	5.3	---	9.4	22	29	16	4.9	3.6	2.4
30	39	13	3.8	5.1	---	9.0	22	27	13	4.6	3.3	2.2
31	40	---	3.5	5.1	---	11	---	29	---	4.3	3.3	---
TOTAL	1547	1391	273.4	180.4	157.1	426.5	773	865	755	212.5	124.5	70.9
MEAN	49.9	46.4	8.82	5.82	5.61	13.8	25.8	27.9	25.2	6.85	4.02	2.36
MAX	98	59	19	6.9	6.9	22	36	30	31	12	9.7	3.1
MIN	37	13	3.5	3.2	4.9	5.1	18	21	13	4.3	2.9	2.1
AC-FT	3070	2760	542	358	312	846	1530	1720	1500	421	247	141
CAL YR 1986	TOTAL	7711.7	MEAN	21.1	MAX	165	MIN	2.8	AC-FT	15300		
WTR YR 1987	TOTAL	6776.2	MEAN	18.6	MAX	98	MIN	2.1	AC-FT	13440		

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	267	115	55	55	58	152	324	165	156	62	57
2	183	339	113	55	55	63	174	312	101	156	60	58
3	201	289	115	55	55	68	193	304	102	156	66	55
4	192	253	113	55	55	79	201	296	93	159	62	51
5	189	214	112	60	55	107	160	300	89	156	65	46
6	183	201	115	60	55	140	165	296	95	141	58	45
7	180	195	115	60	60	182	162	292	137	101	81	47
8	183	171	108	60	60	195	162	288	308	105	81	47
9	174	145	107	55	66	177	165	288	369	98	68	47
10	177	150	85	55	66	180	174	288	304	97	68	47
11	247	144	74	55	73	152	177	280	175	97	72	47
12	255	144	81	55	75	147	216	270	116	97	70	47
13	218	141	81	55	93	165	172	269	113	91	75	47
14	217	141	79	55	100	177	156	269	115	79	67	49
15	244	141	79	55	77	159	174	273	115	79	60	50
16	245	135	75	50	75	135	189	273	170	77	57	49
17	235	132	75	50	72	126	201	270	106	101	49	48
18	234	135	75	50	67	132	198	273	110	133	49	47
19	234	281	70	55	66	144	186	273	112	101	48	46
20	287	203	70	58	60	132	168	270	108	87	42	46
21	260	183	70	62	55	118	144	256	103	87	44	45
22	221	177	65	51	55	120	156	225	102	87	46	44
23	204	171	65	50	50	115	197	231	91	85	49	44
24	195	150	65	50	55	115	247	234	85	79	81	42
25	186	150	65	50	55	117	283	234	81	75	136	44
26	180	153	60	50	50	117	284	221	95	77	96	46
27	174	135	60	50	50	110	284	175	152	85	77	46
28	171	141	60	50	57	105	296	180	156	79	63	43
29	171	141	55	50	---	103	323	186	156	77	61	37
30	165	135	55	50	---	102	308	183	156	68	60	42
31	168	---	55	50	---	115	---	183	---	68	58	---
TOTAL	6338	5357	2532	1671	1767	3955	6067	8016	4180	3134	2031	1409
MEAN	204	179	81.7	53.9	63.1	128	202	259	139	101	65.5	47.0
MAX	287	339	115	62	100	195	323	324	369	159	136	58
MIN	165	132	55	50	50	58	144	175	81	68	42	37
AC-FT	12570	10630	5020	3310	3500	7840	12030	15900	8290	6220	4030	2790
CAL YR 1986	TOTAL 61347	MEAN 168	MAX 644	MIN 42	AC-FT 121700							
WTR YR 1987	TOTAL 46457	MEAN 127	MAX 369	MIN 37	AC-FT 92150							

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE¼SW¼ sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank just upstream from flow line of Navajo Reservoir, 3 mi northwest of Carracas, 7.2 mi upstream from Piedra River, and at mile 332.8.

DRAINAGE AREA.--1,230 mi², approximately.

PERIOD OF RECORD.--Streamflow records, October 1961 to current year. Water-quality data available, July 1969 to August 1973. Sediment data available, August 1973.

GAGE.--Water-stage recorder and crest stage gage. Elevation of gage is 6,090 ft above National Geodetic Vertical Datum of 1929, from river-profile map.

REMARKS.--Estimated daily discharges: Dec. 3-8, and Dec. 12 to Feb. 14. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 11,000 acres upstream from station. Highwater diversions upstream from station into Rio Grande basin through Azotea tunnel (station 08284160) began in March 1971. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 632 ft³/s; 457,900 acre-ft/yr, prior to completion of Azotea tunnel; 17 years (water years 1971-87), 670 ft³/s; 485,400 acre-ft/yr, since completion of Azotea tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft³/s, Sept. 6, 1970, gage height, 8.34 ft, from rating curve extended above 6,000 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, about 5 ft³/s, Dec. 10, 1961, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

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)
Nov. 2	0400	*5,650	6.49	May 2	0500	3,060	5.31
Nov. 19	1500	2,640	4.88	May 17	1100	4,370	6.12
Jan. 15	2400	ice jam	*9.29	June 8	0700	4,490	6.07

Minimum daily discharge, 130 ft³/s, Sept. 30.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	722	1300	554	300	300	260	718	2920	1260	1250	279	257
2	780	3390	524	320	300	287	800	2890	1430	1200	264	246
3	815	1930	520	320	300	324	942	2440	1750	1120	307	238
4	874	1610	520	310	300	455	1160	1790	2150	1030	324	221
5	853	1290	510	320	300	545	862	1660	2400	962	292	211
6	875	1140	520	320	290	670	920	1540	2540	918	254	211
7	860	1160	500	320	300	806	968	1540	2670	791	271	207
8	889	1010	500	310	300	926	973	1610	3580	729	430	211
9	853	772	501	290	310	902	1170	1750	3520	699	323	211
10	864	754	424	290	310	983	1290	1700	3290	657	284	211
11	1130	731	384	290	310	969	1370	1840	2700	629	283	203
12	1490	727	400	300	310	881	1540	2280	2400	565	264	189
13	1120	715	400	320	320	959	1560	2520	2330	527	271	185
14	996	695	390	300	420	1070	1240	2900	2400	491	279	187
15	1040	676	400	300	651	948	1310	3360	2570	441	257	198
16	1050	663	400	290	482	729	1600	3520	2930	423	235	189
17	986	641	390	280	428	621	1760	3710	2660	494	215	178
18	985	607	390	280	375	656	2040	3360	2240	806	211	170
19	985	1620	380	290	347	723	1990	2880	2010	518	201	165
20	1240	1070	370	290	313	721	2110	2300	1820	437	189	158
21	1280	842	360	280	304	597	1700	1990	1740	398	179	151
22	1080	789	350	280	284	690	1630	1790	1680	454	191	148
23	960	778	340	290	279	608	1890	1590	1670	413	230	146
24	877	678	350	290	289	619	2340	1540	1570	366	438	143
25	831	663	350	290	295	668	2550	1420	1590	356	760	139
26	796	701	320	280	283	641	2730	1330	1560	338	604	150
27	774	645	310	280	279	638	2800	1220	1580	385	431	151
28	748	607	320	280	250	571	2830	1190	1480	370	366	147
29	731	643	310	280	---	556	2810	1130	1390	365	330	140
30	708	641	300	290	---	524	2750	1090	1320	326	302	130
31	702	---	300	290	---	599	---	1090	---	296	276	---
TOTAL	28894	29488	12587	9170	9229	21146	50353	63890	64230	18754	9540	5491
MEAN	932	983	406	296	330	682	1678	2061	2141	605	308	183
MAX	1490	3390	554	320	651	1070	2830	3710	3580	1250	760	257
MIN	702	607	300	280	250	260	718	1090	1260	296	179	130
AC-FT	57310	58490	24970	18190	18310	41940	99880	126700	127400	37200	18920	10890

CAL YR 1986 TOTAL 416305 MEAN 1141 MAX 5010 MIN 210 AC-FT 825700
WTR YR 1987 TOTAL 322772 MEAN 884 MAX 3710 MIN 130 AC-FT 640200

SAN JUAN RIVER BASIN

09349800 PIEDRA RIVER NEAR ARBOLES, CO

LOCATION.--Lat 37°05'18", long 107°23'50", in NE¼SW¼ sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, on left bank 3 mi downstream from Ignacio Creek, 4.6 mi northeast of Arboles Post Office, and 2.5 mi upstream from Navajo Reservoir.

DRAINAGE AREA.--629 mi².

PERIOD OF RECORD.--Streamflow records, August 1962 to current year. Gage operated 1895-99 and 1910-27 at site 7.5 mi downstream at altitude 6,000 ft. Low-flow records probably not equivalent. Water-quality data available, November to August 1973.

GAGE.--Water-stage recorder. Elevation of gage is 6,147.52 ft above National Geodetic Vertical Datum of 1929, Colorado State Highway Department benchmark.

REMARKS.--Estimated daily discharges: Oct. 17 to Dec. 8, Dec. 11, 12, Jan. 11, 12, 16, 17, 19-27, Feb. 28, July 21-27. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,800 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 419 ft³/s; 303,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft³/s, Sept. 6, 1970, gage height, 6.38 ft, recorded, 7.55 ft, from floodmarks, from rating curve extended above 4,400 ft³/s, on basis of slope-area measurement of peak flow; minimum discharge, 11 ft³/s, Dec. 9, 1963, Oct. 1, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909, and Oct. 5, 1911.

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)
Apr 18	0300	*3,140	*4.41	June 9	0600	2,460	3.87
May 15	0600	2,780	4.10				

Minimum daily discharge, 93 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	368	790	360	160	148	202	529	2830	1120	925	192	202
2	365	900	340	174	151	226	565	2670	1410	916	219	188
3	438	800	340	171	160	253	642	2200	1630	877	202	181
4	437	740	340	167	163	319	753	1850	1810	819	223	174
5	432	650	340	174	174	393	659	1860	1890	749	185	171
6	415	600	340	174	171	468	688	1840	2030	707	167	170
7	405	560	340	164	167	582	754	1860	2160	665	181	160
8	385	500	330	167	184	697	837	2060	2270	609	252	160
9	380	460	345	157	198	675	1030	2070	2390	579	207	163
10	365	460	268	131	198	699	1230	1930	2300	549	182	151
11	562	440	220	130	222	706	1480	1890	2110	519	164	136
12	867	420	230	140	269	672	1690	2460	2020	483	154	128
13	637	420	262	160	319	726	1500	2380	2020	443	163	123
14	585	400	250	157	479	816	1340	2360	2080	411	160	120
15	643	400	246	160	372	797	1630	2660	2090	381	145	125
16	657	380	250	120	360	704	2090	2520	2130	356	136	123
17	630	360	246	140	294	610	2460	2490	1990	389	123	118
18	610	460	266	160	267	608	2720	2340	1760	486	113	113
19	640	640	262	140	252	614	2720	2100	1660	363	105	108
20	800	600	246	150	242	602	2630	1860	1550	326	99	103
21	850	550	223	150	227	537	2130	1720	1480	270	95	101
22	750	530	209	140	216	559	2130	1570	1410	310	99	99
23	650	490	197	150	223	510	2380	1470	1380	280	150	97
24	600	450	216	150	238	488	2530	1420	1360	250	474	97
25	560	450	226	150	234	482	2530	1260	1330	250	711	97
26	550	440	209	150	223	470	2680	1200	1310	240	540	99
27	530	390	178	150	226	443	2790	1090	1240	260	388	99
28	520	420	181	157	170	421	2710	1030	1120	262	321	99
29	500	420	174	157	---	415	2760	965	1090	235	289	95
30	500	400	166	151	---	393	2550	933	998	227	251	93
31	500	---	160	148	---	458	---	940	---	209	220	---
TOTAL	17131	15520	7960	4749	6547	16545	53137	57828	51138	14345	6910	3893
MEAN	553	517	257	153	234	534	1771	1865	1705	463	223	130
MAX	867	900	360	174	479	816	2790	2830	2390	925	711	202
MIN	365	360	160	120	148	202	529	933	998	209	95	93
AC-FT	33980	30780	15790	9420	12990	32820	105400	114700	101400	28450	13710	7720

CAL YR 1986 TOTAL 252667 MEAN 692 MAX 3240 MIN 125 AC-FT 501200
WTR YR 1987 TOTAL 255703 MEAN 701 MAX 2830 MIN 93 AC-FT 507200

SAN JUAN RIVER BASIN

09352900 VALLECITO CREEK NEAR BAYFIELD, CO
(Hydrologic bench-mark station)

LOCATION.--Lat 37°28'39", long 107°32'35", in NE¼NW¼ sec.16, T.37 N., R.6 W., La Plata County, Hydrologic Unit 14080101, on right bank 60 ft upstream from Fall Creek, 0.8 mi downstream from Bear Creek, 6.7 mi north of Vallecito Dam, and 18 mi north of Bayfield.

DRAINAGE AREA.--72.1 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 7,906.80 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 3, 4, 8, 11-17, Dec. 27 to Jan. 6, Jan. 8-21, 25, 28, Feb. 6-8, 11, 13-26, Feb. 28 to Mar. 7, Mar. 17-19, 21, 23, 24, and Mar. 29-31. Records good except for estimated daily discharges, which are poor. No diversion upstream from station.

AVERAGE DISCHARGE.--25 years, 150 ft³/s; 108,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,050 ft³/s, Sept. 6, 1970, gage height, 5.51 ft, from water-stage recorder, 6.76 ft, from floodmarks, from rating curve extended above 1,400 ft³/s, on basis of slope-area measurement of peak flow; minimum daily, 6.7 ft³/s, Dec. 28, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred in October 1911 and June 1927.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 16	0500	*1,160	*3.01	No other peak greater than base discharge.			
Minimum daily, 13 ft ³ /s, Feb. 27.							

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	120	76	26	24	20	43	438	371	536	224	96
2	160	133	76	30	23	22	44	411	587	520	228	96
3	168	130	60	28	22	22	51	310	700	520	208	94
4	160	130	60	30	23	26	57	266	750	474	196	88
5	164	127	69	32	23	32	54	296	800	432	184	82
6	172	125	71	32	22	40	53	337	864	417	180	79
7	168	120	68	33	22	50	53	391	864	393	235	74
8	176	112	55	30	22	63	54	471	825	351	226	74
9	176	110	61	28	24	58	63	488	914	368	193	69
10	176	109	51	28	24	54	74	446	898	386	168	66
11	180	109	38	26	24	53	86	459	841	368	157	61
12	176	102	40	30	25	52	84	589	863	339	160	58
13	160	100	42	30	24	52	79	576	944	314	154	56
14	168	98	42	28	24	53	79	693	943	314	140	56
15	176	98	42	24	22	53	100	782	952	296	127	54
16	180	98	44	22	22	52	133	682	1030	266	117	50
17	180	96	44	26	22	44	179	696	836	354	112	48
18	180	94	49	26	20	44	211	657	816	315	107	45
19	180	100	48	24	20	44	212	570	761	271	102	43
20	176	98	45	26	20	49	196	458	791	255	98	40
21	160	100	44	26	20	42	180	418	706	265	100	38
22	154	100	44	26	20	50	196	369	727	295	107	36
23	150	94	39	24	20	42	249	339	728	290	183	35
24	144	90	43	24	18	38	313	314	755	268	627	36
25	137	90	42	24	14	44	337	286	736	265	377	36
26	137	90	38	24	14	43	344	275	712	270	262	37
27	130	86	30	24	13	43	397	251	626	290	186	41
28	127	88	30	22	16	42	380	232	553	266	151	37
29	125	84	30	24	---	36	403	224	591	237	127	35
30	122	80	28	24	---	32	451	216	537	220	117	33
31	122	---	28	24	---	36	---	236	---	220	105	---
TOTAL	4948	3111	1477	825	587	1331	5155	13176	23021	10375	5658	1693
MEAN	160	104	47.6	26.6	21.0	42.9	172	425	767	335	183	56.4
MAX	180	133	76	33	25	63	451	782	1030	536	627	96
MIN	122	80	28	22	13	20	43	216	371	220	98	33
AC-FT	9810	6170	2930	1640	1160	2640	10220	26130	45660	20580	11220	3360
CAL YR 1986	TOTAL 74910	MEAN 205	MAX 999	MIN 28	AC-FT 148600							
WTR YR 1987	TOTAL 71357	MEAN 195	MAX 1030	MIN 13	AC-FT 141500							

SAN JUAN RIVER BASIN

09352900 VALLECITO CREEK NEAR BAYFIELD, CO--Continued
(Hydrologic Bench-Mark Station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: October 1963 to September 1968; October 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1962 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: (Water years 1963-82) Maximum, 20.0°C July 10, 1974; minimum, 0.0°C on many days during winter months each year

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (FTU)	OXYGEN, DIS- SOLVED (MG/L)	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)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
OCT 21...	1045	158	66	6.9	3.0	0.80	10.6	K1	K13	33	10	2.0
FEB 02...	1100	24	146	7.6	0.0	0.10	11.0	K0	K0	43	13	2.5
JUN 03...	1200	654	79	7.2	3.5	1.8	10.2	K0	K12	26	7.8	1.6
AUG 31...	1000	108	54	6.5	6.5	0.30	9.1	K0	K6	24	7.1	1.5

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE WATER WHOLE IT-FLD (MG/L)	CAR- BONATE WATER WHOLE IT-FLD (MG/L)	ALKA- LINITY, CARBON- ATE IN-FLD (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)	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)
OCT 21...	0.90	0.1	0.70	34	0	28	6.8	0.50	0.20	4.0	54	42
FEB 02...	1.3	0.1	0.70	52	0	43	8.8	0.40	0.20	4.4	52	58
JUN 03...	0.50	0.0	0.40	26	0	21	7.9	0.10	0.30	2.9	33	35
AUG 31...	0.80	0.1	0.60	12	0	10	6.6	0.10	0.20	3.2	25	26

DATE	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, 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 21...	0.07	23.0	<0.01	<0.10	<0.01	<0.01	--	0.40	0.02	0.01	<0.01
FEB 02...	0.07	3.34	<0.01	0.15	0.03	0.02	0.97	1.0	0.01	0.03	<0.01
JUN 03...	0.05	58.3	<0.01	0.15	0.01	<0.01	0.39	0.40	0.01	0.03	<0.01
AUG 31...	0.03	7.29	<0.01	<0.10	0.02	0.03	0.48	0.50	<0.01	<0.01	<0.01

K Based on non-ideal colony count

09352900 VALLECITO CREEK NEAR BAYFIELD, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

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 21...	1045	50	<1	17	<0.5	<1	<1	<3	2	22	<5
FEB 02...	1100	20	<1	20	0.9	<1	<1	<3	2	4	<5
JUN 03...	1200	80	<1	16	<0.5	1	1	<3	1	<3	<5
AUG 31...	1000	40	1	15	<0.5	<1	10	<3	10	24	<5

DATE	TIME	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 21...		4	4	<0.1	<10	3	<1	<1.0	24	<6	13
FEB 02...		5	<1	<0.1	<10	<1	<1	2.0	34	<6	5
JUN 03...		<4	13	<0.1	<10	1	<1	<1.0	20	<6	14
AUG 31...		<4	3	--	<10	1	<1	<1.0	21	<6	7

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L)
FEB 02...	1100	0.7	<0.4	0.9	<0.4	0.8	<0.4	0.05	0.42
JUN 03...	1200	<0.4	<0.4	0.7	<0.4	0.6	<0.4	0.02	0.26

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDEDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	1045	158	8	3.4	44
FEB 02...	1100	24	2	0.13	68
JUN 03...	1200	654	356	629	1
AUG 31...	1000	108	5	1.5	43

SAN JUAN RIVER BASIN

09353000 VALLECITO RESERVOIR NEAR BAYFIELD, CO

LOCATION.--Lat 37°23'00", long 107°34'30", in SW¼SW¼ sec.18, T.36 N., R.6 W., La Plata County, Hydrologic Unit 14080101, in gatehouse above outlet gates at Vallecito Dam on Los Pinos (Pine) River, 300 ft left of spillway, 0.4 mi upstream from Jack Creek, and 11 mi northeast of Bayfield.

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

REVISED RECORDS.--WSP 959: 1941. WSP 1513: 1956.

GAGE.--Water-stage recorder. Elevation of gage is 7,580 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above National Geodetic Vertical Datum.

REMARKS.--Reservoir is formed by earth and rockfill dam; dam completed in March 1941. Capacity of reservoir, 126,300 acre-ft between elevations 7,580 ft, sill of outlet gate, and 7,665 ft, top of spillway gates. Dead storage, 3,395 acre-ft. Figures given are usable contents. Reservoir is used to store water for irrigation in Los Pinos (Pine) River basin.

COOPERATION.--Records provided by Pine River Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 128,200 acre-ft, July 27, 1957, elevation, 7,665.72 ft; minimum, 1,520 acre-ft, Oct. 24, 25, 1944, elevation, 7,584.10 ft. No usable storage prior to April 1941.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 122,330 acre-ft, June 17, elevation, 7,663.78 ft; minimum, 52,270 acre-ft, Dec. 23, elevation, 7,633.98 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0900, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

	Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept.	30.	7,644.97	75,390	-17,270
Oct.	31.	7,640.00	64,460	-10,930
Nov.	30.	7,634.78	53,820	-10,640
Dec.	31.	7,634.19	52,680	-1,140
CAL YR 1986	-	-	-1,370
Jan.	31.	7,635.18	54,600	+1,920
Feb.	29.	7,636.75	57,720	+3,120
Mar.	31.	7,638.51	61,330	+3,610
Apr.	30.	7,643.51	72,110	+10,780
May	31.	7,650.75	88,960	+16,850
June	30.	7,663.08	120,440	+31,480
July	31.	7,660.81	114,410	-6,030
Aug.	31.	7,653.10	94,710	-19,700
Sept.	30.	7,644.05	73,320	-21,390
WTR YR 1987	-	-	-19,340

09354500 LOS PINOS RIVER AT LA BOCA, CO

LOCATION.--Lat 37°00'34", long 107°35'56", in NE¼NW¼ sec.22, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on downstream end of right abutment of the Denver & Rio Grande Western Railroad Co. bridge, at southeast edge of La Boca, 0.1 mi upstream from Spring Creek, and 2 mi upstream from maximum elevation of Navajo Reservoir.

DRAINAGE AREA.--510 mi², approximately.

PERIOD OF RECORD.--Streamflow records, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, July 1969 to August 1973.

GAGE.--Water-stage recorder. Datum of gage is 6,143.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-6, Nov. 3, Dec. 1-3, Dec. 18 to Jan. 4, Jan. 10, 16, 17, and Jan. 19 to Feb. 1. Records good except for estimated daily discharges, which are poor. Flow regulated by Vallecito Reservoir (station 09353000) 24 mi upstream since April 1941. Diversions for irrigation of about 33,000 acres upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years, 242 ft³/s; 175,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft³/s, July 27, 1957, gage height, 8.95 ft, from rating curve extended above 5,100 ft³/s; minimum daily, 6.1 ft³/s, May 1, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on Oct. 5, 1911 has not yet been exceeded.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,520 ft³/s at 0400 Nov. 2, gage height, 6.90 ft; minimum daily, 89 ft³/s, Jan. 14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	640	1240	420	140	120	103	267	1620	231	925	268	336
2	640	1730	370	150	122	110	308	1580	207	904	255	309
3	640	1200	320	140	121	112	379	1480	180	867	259	287
4	600	904	331	150	122	144	455	1380	164	866	248	283
5	590	846	329	150	118	225	386	1310	182	880	231	271
6	570	783	357	150	122	368	395	1310	185	818	213	255
7	550	845	399	150	140	558	376	1260	199	567	274	241
8	550	787	395	152	169	644	434	1220	289	380	275	207
9	544	734	376	145	212	570	518	1180	591	350	252	171
10	573	719	319	130	223	544	626	1120	911	277	241	158
11	730	712	317	137	329	470	690	1070	1570	197	220	176
12	1170	712	317	140	433	378	787	1050	1630	176	206	173
13	825	698	313	98	207	419	714	1010	1730	192	233	161
14	728	691	306	89	649	456	665	898	1790	185	220	164
15	692	684	264	93	301	406	718	757	1800	179	217	161
16	665	684	241	90	215	363	815	816	1810	192	203	153
17	664	680	241	110	196	349	1020	762	1840	302	196	148
18	670	483	240	147	165	331	1230	727	1830	291	199	150
19	664	607	230	140	150	335	1180	705	1830	264	192	150
20	690	610	210	120	138	313	1180	719	1810	245	233	152
21	684	534	200	120	120	309	1030	712	1800	244	244	150
22	670	508	190	130	115	357	1020	726	1740	307	244	150
23	677	508	180	140	122	332	1040	747	1500	256	356	152
24	691	480	190	140	125	375	1060	795	1310	245	575	161
25	684	468	200	140	123	332	1060	762	1300	248	609	170
26	684	487	180	130	126	280	1050	754	1300	248	471	185
27	677	496	160	120	120	271	1020	684	1280	329	401	185
28	664	479	160	120	99	252	953	351	1270	257	390	182
29	664	479	160	120	---	248	1120	288	1280	252	381	173
30	664	479	150	120	---	231	1560	249	1150	263	376	179
31	670	---	150	120	---	244	---	248	---	316	367	---
TOTAL	20824	21267	8215	4021	5202	10429	24056	28290	34709	12022	9049	5793
MEAN	672	709	265	130	186	336	802	913	1157	388	292	193
MAX	1170	1730	420	152	649	644	1560	1620	1840	925	609	336
MIN	544	468	150	89	99	103	267	248	164	176	192	148
AC-FT	41300	42180	16290	7980	10320	20690	47720	56110	68850	23850	17950	11490

CAL YR 1986 TOTAL 183826 MEAN 504 MAX 1730 MIN 48 AC-FT 364600
WTR YR 1987 TOTAL 183877 MEAN 504 MAX 1840 MIN 89 AC-FT 364700

09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.15, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on right bank in an excavated channel, 0.2 mi upstream from mouth, and 0.2 mi east of La Boca.

DRAINAGE AREA.--58 mi², approximately.

PERIOD OF RECORD.--Streamflow records, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733. Water-quality data available, May 1974.

GAGE.--Water-stage recorder. Elevation of gage is 6,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 30, Dec. 1-5, Dec. 10 to Jan. 14, and Jan. 16 to Mar. 4. Records good except those for flows above 200 ft³/s, which are fair, and those for estimated daily discharges, which are poor. Part of flow is return waste from irrigation. Nearly all irrigation in this basin is water diverted from Los Pinos River which causes a considerable change in the annual pattern and natural flow. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years, 32.0 ft³/s; 23,180 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft³/s, Sept. 6, 1970, gage height, 4.62 ft, from rating curve extended above 160 ft³/s, on basis of field estimate of peak flow; maximum gage height, 5.98 ft, Mar. 9, 1960 (backwater from ice); minimum daily discharge, 0.6 ft³/s, Nov. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 730 ft³/s at 0300 Nov. 2, gage height, 2.81 ft; minimum daily, 4.0 ft³/s, Jan. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	119	6.0	5.0	4.8	6.5	22	37	78	79	102	84
2	36	284	6.0	5.5	5.0	9.0	22	20	64	84	100	76
3	36	33	6.0	5.5	5.0	14	25	18	59	79	100	78
4	34	30	6.0	5.5	5.5	28	31	35	54	76	100	82
5	32	24	5.5	5.5	5.5	111	27	38	60	75	112	80
6	33	14	24	5.5	5.5	172	24	36	69	84	104	78
7	32	46	61	5.5	5.5	154	24	39	77	83	133	76
8	32	20	35	5.0	6.0	138	26	30	88	82	112	67
9	32	13	14	4.8	6.5	143	37	36	108	81	108	66
10	34	11	9.0	4.2	6.5	101	40	48	84	84	110	61
11	70	10	7.5	4.4	7.5	73	43	60	74	82	108	64
12	326	9.3	7.5	4.6	8.5	51	61	60	69	72	100	72
13	85	9.2	8.0	4.8	12	44	36	60	71	74	110	71
14	37	8.5	8.0	5.0	15	48	23	47	73	71	100	72
15	25	8.5	8.0	5.3	12	38	29	50	80	76	96	69
16	21	7.6	8.0	4.0	11	40	43	65	76	79	90	66
17	18	7.4	8.0	4.6	9.5	42	53	65	72	120	88	62
18	13	7.8	8.5	5.0	8.5	40	55	65	72	85	90	60
19	9.3	74	8.5	4.6	8.0	33	45	64	72	71	88	62
20	16	18	8.0	5.0	7.5	33	42	74	74	76	86	64
21	13	11	7.0	5.0	7.0	30	21	67	81	96	86	64
22	11	16	6.5	4.6	7.0	29	16	67	80	152	88	62
23	14	13	6.5	5.0	7.5	38	15	72	72	90	140	62
24	13	8.6	7.0	5.0	7.5	50	15	95	74	80	182	69
25	9.3	7.8	7.0	5.0	7.0	29	14	86	74	92	161	72
26	9.2	16	6.5	5.0	7.0	26	13	78	83	90	111	78
27	9.2	18	6.0	5.0	7.0	26	11	72	86	131	96	78
28	7.8	13	5.5	5.0	5.5	26	46	66	91	112	96	78
29	7.8	16	5.5	5.0	---	26	13	65	98	106	94	67
30	7.4	7.0	5.0	4.8	---	24	13	69	88	112	90	66
31	7.4	---	5.0	4.6	---	22	---	79	---	118	88	---
TOTAL	1069.4	880.7	320.0	153.3	210.8	1644.5	885	1763	2301	2792	3269	2106
MEAN	34.5	29.4	10.3	4.95	7.53	53.0	29.5	56.9	76.7	90.1	105	70.2
MAX	326	284	61	5.5	15	172	61	95	108	152	182	84
MIN	7.4	7.0	5.0	4.0	4.8	6.5	11	18	54	71	86	60
AC-FT	2120	1750	635	304	418	3260	1760	3500	4560	5540	6480	4180
CAL YR 1986	TOTAL 14749.5											
WTR YR 1987	TOTAL 17394.7											
	MEAN 40.4	MAX 326	MIN 4.0	AC-FT 29260								
	MEAN 47.7	MAX 326	MIN 4.0	AC-FT								

SAN JUAN RIVER BASIN

09361500 ANIMAS RIVER AT DURANGO, CO

LOCATION.--Lat 37°16'45", long 107°52'47", in SW¼SW¼ sec.20, T.35 N., R.9 W., La Plata County, Hydrologic Unit 14080104, on left bank at abandoned power plant at Durango, 0.8 mi upstream from Lightner Creek.

DRAINAGE AREA.--692 mi².

PERIOD OF RECORD.--June to December 1895, April 1896 to December 1898, April 1899 to December 1900, March to May 1901, April to November 1902, March to April 1903 (gage heights only, erroneously stated as discredited in WSP 1563), May to October 1903, July 1904 to December 1905, January to December 1910 (gage heights only), January to September 1911, January 1912 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 764: Drainage area. WSP 929: 1927(M). WSP 1243: 1911, 1918(M). WSP 1563: 1911-25 (monthly figures only).

GAGE.--Water-stage recorder. Datum of gage is 6,501.57 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 2, 1921.

REMARKS.--Estimated daily discharges: Dec. 11, Jan. 9-11, 16, 17, 22. Records good. Diversions for irrigation of about 4,000 acres upstream from station. Natural regulation by many lakes and regulation for power upstream from station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--82 years (water years 1897-1900, 1905, 1911-87), 852 ft³/s; 617,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft³/s, Oct. 5, 1911, gage height, 11 ft, present site and datum, from rating curve extended above 13,000 ft³/s; minimum daily, 94 ft³/s, Mar. 2, 1913.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, that of Oct. 5, 1911.

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)
May 17	0900	5,140	6.08	June 7	1100	*5,530	*6.27

Minimum daily discharge, 244 ft³/s, Feb. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1020	748	539	290	270	279	415	3460	1790	2490	940	555
2	1020	745	522	310	270	275	442	3570	2510	2430	979	530
3	1010	750	514	305	275	280	489	2810	3240	2350	882	514
4	941	770	522	295	275	295	584	2230	3890	2280	797	498
5	930	741	498	315	275	315	594	2170	3920	2070	780	490
6	930	740	514	310	266	364	563	2260	4510	2000	731	474
7	915	740	506	305	266	456	546	2480	5220	1910	799	458
8	900	692	482	310	275	528	554	2960	4860	1730	1050	458
9	871	612	474	280	280	506	577	3200	5020	1610	835	450
10	880	610	409	280	280	475	618	3270	5060	1650	737	429
11	988	602	380	280	278	462	698	3290	4670	1600	683	415
12	1050	636	401	295	275	458	778	3760	4480	1510	664	408
13	942	646	401	310	275	458	741	3770	4730	1390	646	394
14	911	637	394	290	295	497	711	3980	4970	1360	603	394
15	959	619	394	290	290	506	798	4490	5150	1360	578	394
16	965	619	408	270	285	506	1110	4850	5120	1290	504	380
17	940	610	387	260	280	471	1530	4980	4440	1320	467	368
18	920	610	387	263	270	474	1860	4800	4100	1500	423	356
19	900	672	380	266	266	490	1820	4150	3960	1220	388	350
20	900	673	368	275	275	498	1740	3540	3740	1140	380	332
21	920	655	362	266	266	467	1530	3200	3470	1090	390	315
22	881	673	350	260	254	482	1590	2860	3340	1150	402	286
23	831	655	332	275	262	470	1930	2620	3450	1260	521	275
24	796	595	338	275	266	450	2230	2570	3420	1200	1080	275
25	751	602	344	275	270	443	2430	2350	3530	1110	1500	275
26	740	619	320	270	262	443	2480	2150	3420	1140	1310	309
27	701	571	296	262	246	443	2930	1920	3210	1250	977	295
28	682	570	310	266	244	436	3250	1740	2800	1110	823	275
29	656	570	305	266	---	429	3300	1600	2780	1020	722	275
30	664	570	295	262	---	402	3510	1490	2660	937	656	275
31	638	---	285	270	---	408	---	1460	---	930	587	---
TOTAL	27152	19552	12417	8746	7591	13466	42348	93980	117460	46407	22834	11502
MEAN	876	652	401	282	271	434	1412	3032	3915	1497	737	383
MAX	1050	770	539	315	295	528	3510	4980	5220	2490	1500	555
MIN	638	570	285	260	244	275	415	1460	1790	930	380	275
AC-FT	53860	38780	24630	17350	15060	26710	84000	186400	233000	92050	45290	22810

CAL YR 1986 TOTAL 427480 MEAN 1171 MAX 5750 MIN 235 AC-FT 847900
WTR YR 1987 TOTAL 423455 MEAN 1160 MAX 5220 MIN 244 AC-FT 839900

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02,17", long 107°52,25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi downstream from Florida River, 2.5 mi upstream from Colorado-New Mexico State line, 8.5 mi north of Cedar Hill, and at mile 32.9.

DRAINAGE AREA.--1,090 mi², approximately.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

GAGE.--Water-stage recorder. Elevation of gage is 5,960 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 14, 1937, at datum between 1.52 ft and 1.36 ft, higher. Sept. 15, 1937, to Sept. 30, 1946, at datum 1.36 ft, higher.

REMARKS.--Estimated daily discharges: Jan. 11, 17-26. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 20,000 acres upstream from station. During water years 1944-49, Twin Rocks Canal diverted upstream from station for irrigation downstream. Slight regulation by Lemon Dam about 30 mi upstream on Florida River since November 1963 (capacity, 40,100 acre-ft).

AVERAGE DISCHARGE.--54 years, 929 ft³/s, 673,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft³/s, June 19, 1949, gage height, 11.45 ft; minimum, 63 ft³/s, Jan. 21, 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

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)
May 2	1145	4,160	7.41	June 15	1630	*5,580	*8.25
May 17	1045	5,150	7.99				

Minimum daily discharge, 320 ft³/s, Jan. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1370	1490	768	377	374	396	612	3910	2060	2620	1040	670
2	1350	1700	721	396	375	421	691	3990	2640	2480	1030	642
3	1340	1140	684	387	384	440	869	3400	3250	2390	984	622
4	1290	1180	669	382	399	489	1030	2850	3740	2280	890	603
5	1230	1080	659	390	412	589	1040	2750	3890	2100	870	580
6	1220	1030	696	393	411	729	1030	2800	4220	2000	849	572
7	1100	1060	726	378	426	907	987	2920	4780	1930	864	574
8	1070	962	686	387	459	1000	1050	3120	4620	1780	1160	560
9	1030	878	659	359	496	948	1280	3310	4740	1660	933	558
10	1070	830	598	350	490	931	1430	3370	5170	1670	856	541
11	1460	836	555	370	545	871	1530	3330	4900	1640	797	517
12	1640	846	560	390	612	771	1680	3750	4680	1530	754	513
13	1280	861	568	390	648	752	1580	3790	4900	1440	733	502
14	1140	850	553	367	866	783	1510	3890	5270	1370	691	497
15	1140	844	548	358	620	756	1630	4280	5270	1380	651	503
16	1160	837	569	367	514	737	1920	4700	4850	1340	586	496
17	1120	839	557	350	505	677	2240	4900	4440	1350	512	477
18	1100	827	550	350	461	678	2570	4760	4210	1500	471	460
19	1090	1100	539	360	443	708	2590	4250	4210	1250	428	437
20	1100	977	525	380	438	711	2470	3680	4010	1160	411	421
21	1130	922	510	350	418	665	2250	3310	3690	1240	422	409
22	1120	928	508	330	397	704	2200	3060	3400	1250	448	389
23	1070	916	481	320	397	686	2480	2820	3470	1350	563	344
24	1030	850	457	340	406	708	2860	2760	3560	1340	1130	348
25	990	828	456	370	426	669	3100	2610	3700	1240	1560	357
26	963	860	435	350	407	627	3160	2440	3610	1240	1390	386
27	933	837	389	340	392	627	3390	2240	3390	1300	1100	398
28	915	790	402	337	365	614	3650	2080	2910	1240	932	366
29	881	794	403	346	---	600	3730	1940	2800	1180	846	354
30	881	794	380	329	---	562	3860	1850	2760	1050	786	366
31	869	---	381	341	---	581	---	1810	---	1030	726	---
TOTAL	35082	28686	17192	11234	13086	21337	60419	100670	119140	48330	25413	14462
MEAN	1132	956	555	362	467	688	2014	3247	3971	1559	820	482
MAX	1640	1700	768	396	866	1000	3860	4900	5270	2620	1560	670
MIN	869	790	380	320	365	396	612	1810	2060	1030	411	344
AC-FT	69590	56900	34100	22280	25960	42320	119800	199700	236300	95860	50410	28690
CAL YR 1986	TOTAL	494290	MEAN	1354	MAX	5290	MIN	271	AC-FT	980400		
WTR YR 1987	TOTAL	495051	MEAN	1356	MAX	5270	MIN	320	AC-FT	981900		

09365500 LA PLATA RIVER AT HESPERUS, CO

LOCATION.--Lat 37°17'23", long 108°02'24", in NE¼SW¼ sec.14, T.35 N., R.11 W., La Plata County, Hydrologic Unit 14080105, on right bank at Hesperus 700 ft downstream from U.S. Highway 160.

DRAINAGE AREA.--37 mi², approximately.

PERIOD OF RECORD.--June to August 1904, May 1905 to September 1906, August to November 1910, June 1917 to current year. Monthly discharge only for some periods, published in WSP 1313. Records for Nov. 11 to Dec. 31, 1910, published in WSP 289, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1243: 1906(M). WSP 1563: 1923 (monthly figures only). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 8,104.71 ft above National Geodetic Vertical Datum of 1929. Prior to May 1, 1920, nonrecording gage, and May 1, 1920, to May 24, 1927, water-stage recorder, at several sites about 600 ft downstream at different datums. May 25, 1927, to Sept. 30, 1938, water-stage recorder at site 60 ft downstream and Oct. 1, 1938, to Sept. 30, 1941, at present site at datum 1.00 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 9, Dec. 1-3, 10-15, Dec. 19 to Jan. 4, Jan. 6-27, Feb. 2, 5-8, 14, 15, Feb. 18 to Mar. 7, Mar. 16-18, 20-21, 23-26, and Mar. 30-31. Records good except for estimated daily discharges, which are fair. Cherry Creek ditch exports water upstream from station for irrigation of about 2,000 acres in Cherry Creek drainage.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--71 years (water years 1906, 1918-87), 45.5 ft³/s; 32,960 acre-ft/yr.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood observed occurred Oct. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 230 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 17	0530	438	3.38	June 7	0200	*506	*3.58

Minimum daily discharge, 5.5 ft³/s, Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	48	31	13	10	12	23	254	117	90	16	20
2	46	44	31	13	10	13	24	258	205	68	17	18
3	46	44	29	12	10	14	24	180	268	58	15	19
4	43	44	28	13	10	14	28	148	305	54	16	18
5	44	40	29	13	10	14	27	145	340	47	14	18
6	51	40	31	12	10	15	26	145	360	43	14	17
7	51	36	30	10	10	16	27	158	408	38	27	16
8	48	30	28	9.0	10	17	30	209	340	31	30	14
9	47	24	26	8.0	10	20	35	209	330	28	25	14
10	50	23	16	9.0	11	21	46	188	325	26	21	13
11	60	23	17	10	11	22	56	184	290	24	19	12
12	56	24	18	11	12	22	63	225	310	22	16	12
13	48	31	18	11	12	24	56	229	263	22	14	12
14	50	33	19	10	12	24	65	233	225	25	14	11
15	56	35	19	10	12	26	84	295	250	23	14	8.6
16	61	36	19	9.0	13	26	139	335	250	23	14	6.2
17	64	35	19	8.0	13	26	225	385	188	35	14	6.9
18	66	38	19	7.0	12	27	250	350	174	28	12	7.8
19	68	50	18	7.0	12	27	225	286	167	21	12	7.3
20	63	44	18	8.0	13	26	225	209	154	23	13	7.3
21	58	44	18	7.0	11	26	177	177	136	21	15	6.9
22	53	44	17	6.0	11	26	205	142	131	27	14	6.9
23	47	43	16	7.0	12	25	263	136	126	24	18	7.3
24	44	38	16	8.0	13	25	276	134	128	21	55	6.6
25	42	38	15	8.0	13	25	272	120	128	25	60	5.5
26	39	39	15	9.0	13	24	245	102	117	22	47	6.2
27	38	33	15	9.0	12	24	258	88	112	23	36	8.2
28	36	33	15	10	10	24	290	80	100	20	32	10
29	36	33	14	10	---	23	290	70	128	21	26	12
30	36	34	14	10	---	22	254	66	102	19	24	11
31	39	---	13	10	---	22	---	74	---	18	22	---
TOTAL	1523	1101	631	297.0	318	672	4208	5814	6477	970	686	338.7
MEAN	49.1	36.7	20.4	9.58	11.4	21.7	140	188	216	31.3	22.1	11.3
MAX	68	50	31	13	13	27	290	385	408	90	60	20
MIN	36	23	13	6.0	10	12	23	66	100	18	12	5.5
AC-FT	3020	2180	1250	589	631	1330	8350	11530	12850	1920	1360	672

CAL YR 1986 TOTAL 23579.0 MEAN 64.6 MAX 464 MIN 10 AC-FT 46770
WTR YR 1987 TOTAL 23035.7 MEAN 63.1 MAX 408 MIN 5.5 AC-FT 45690

SAN JUAN RIVER BASIN

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 36°59'51", long 108°11'17", in NW¼SE¼ sec.10, T.32 N., R.13 W., La Plata County, CO, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State line, 0.2 mi downstream from Ponds Arroyo, and 4.8 mi north of La Plata, NM.

DRAINAGE AREA.--331 mi².

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1934(M), 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 5,975.15 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934.

REMARKS.--Estimated daily discharges: Jan. 10-14, 16-30, and Feb. 28 to Mar. 3. Records good except for estimated daily discharges, which are fair. Diversions upstream from station for irrigation of about 15,000 acres, mostly upstream from station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--67 years, 36.6 ft³/s; 26,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft³/s, Aug. 24, 1927, gage height, 11.36 ft, present datum, from rating curve extended above 750 ft³/s, on basis of slope-area measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 669 ft³/s at 0900 Apr. 18, gage height, 5.06 ft; minimum daily, 8.6 ft³/s, Sept. 15, 20, 21, 23-25.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	91	68	46	35	40	86	341	33	51	14	11
2	44	118	67	40	34	45	108	308	42	52	12	11
3	47	120	65	32	35	50	157	226	60	56	12	11
4	46	112	58	35	40	58	185	200	105	56	12	10
5	45	104	57	35	43	63	140	183	127	54	12	10
6	46	91	74	32	45	72	141	179	169	47	12	10
7	50	92	74	31	50	92	141	167	191	40	16	10
8	51	70	68	32	56	125	177	175	145	33	23	9.5
9	51	62	64	28	58	136	243	193	143	30	18	9.0
10	59	57	49	26	57	140	310	169	143	26	14	9.0
11	94	53	53	28	68	151	356	147	131	24	12	9.0
12	183	54	64	30	77	151	380	155	124	24	13	9.0
13	113	54	58	30	72	159	333	171	115	24	12	9.0
14	97	59	58	30	99	175	303	153	94	24	13	9.0
15	88	60	57	30	62	155	346	167	81	22	13	8.6
16	84	67	57	28	56	140	420	196	88	21	12	9.0
17	86	68	54	26	37	117	526	204	72	28	11	9.0
18	88	68	53	26	30	115	571	215	80	43	11	9.0
19	86	145	52	26	31	131	534	185	91	28	10	9.0
20	84	118	50	26	34	120	478	143	71	22	10	8.6
21	77	89	51	24	30	108	406	110	68	20	11	8.6
22	74	84	47	20	43	115	414	97	89	20	10	9.5
23	77	80	45	24	52	99	453	78	79	19	11	8.6
24	74	74	49	26	52	104	473	100	77	18	15	8.6
25	71	72	45	28	47	102	490	78	75	13	23	8.6
26	64	80	40	30	45	100	456	64	62	13	19	10
27	64	74	40	30	45	94	476	59	70	17	17	12
28	64	71	40	34	42	88	470	54	65	27	15	12
29	57	72	39	32	---	80	425	46	72	28	14	10
30	40	74	40	34	---	72	372	42	60	19	13	11
31	40	---	36	36	---	80	---	35	---	15	12	---
TOTAL	2184	2433	1672	935	1375	3277	10370	4640	2822	914	422	288.6
MEAN	70.5	81.1	53.9	30.2	49.1	106	346	150	94.1	29.5	13.6	9.62
MAX	183	145	74	46	99	175	571	341	191	56	23	12
MIN	40	53	36	20	30	40	86	35	33	13	10	8.6
AC-FT	4330	4830	3320	1850	2730	6500	20570	9200	5600	1810	837	572

CAL YR 1986 TOTAL 22184.4 MEAN 60.8 MAX 450 MIN 5.2 AC-FT 44000
WTR YR 1987 TOTAL 31332.6 MEAN 85.8 MAX 571 MIN 8.6 AC-FT 62150

SAN JUAN RIVER BASIN

09371000 MANCOS RIVER NEAR TOWAOC, CO

LOCATION.--Lat 37°01'39", long 108°44'27", Ute Indian Reservation, Montezuma County, Hydrologic Unit 14080107, on left bank 700 ft upstream from bridge on U.S. Highway 666, 2.0 mi north of Colorado-New Mexico State line, 6.0 mi upstream from Aztec Creek, and 12 mi south of Towaoc.

DRAINAGE AREA.--526 mi².

PERIOD OF RECORD.--Streamflow records, October 1920 to September 1943, February 1951 to current year. Monthly discharge only for some periods, published in WSP 1313. Water-quality data available, August 1969 to June 1972, October 1983 to current year. Sediment data available, April to December 1961.

REVISED RECORDS.--WSP 1733: 1924 (monthly figures only). WDR-CO-83-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,055.98 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 11, 1954.

REMARKS.--Estimated daily discharges: Dec. 12 to Feb. 1, and Aug. 14-25. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 10,000 acres upstream from station. One diversion upstream from station for irrigation of about 100 acres downstream from station. Flow regulated by Jackson Gulch Reservoir, capacity, 10,000 acre-ft since March 1949.

AVERAGE DISCHARGE.--59 years, 54.6 ft³/s; 39,560 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,300 ft³/s, Oct. 14, 1941, gage height, 7.30 ft, present site and datum, from rating curve extended above 200 ft³/s, on basis of slope-area measurement of peak flow; maximum gage height, 8.50 ft, Sept. 6, 1970; no flow at times in most years.

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)
Nov. 1	2000	740	4.27	Aug. 8	0800	*1900	*5.69

Minimum daily discharge, 8.9 ft³/s, Sept. 23, 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	248	75	22	44	41	80	442	71	69	44	35
2	49	421	64	20	59	44	100	472	85	61	35	32
3	47	129	64	20	64	46	136	405	123	53	31	35
4	49	101	64	20	67	50	190	343	199	51	28	40
5	47	137	62	22	73	64	201	354	237	41	22	39
6	44	83	70	24	68	95	164	373	247	35	19	37
7	48	100	85	24	58	150	150	369	270	30	141	37
8	54	91	79	24	59	212	165	390	265	28	499	36
9	52	72	67	18	63	204	218	408	243	24	170	33
10	54	60	53	15	57	233	244	370	235	19	151	31
11	108	56	27	16	59	198	293	328	222	14	178	30
12	197	55	28	17	72	183	278	301	205	11	155	24
13	136	53	28	17	91	181	265	326	199	9.0	144	22
14	94	51	28	17	109	222	228	309	203	11	130	20
15	82	52	30	17	126	190	268	283	193	12	120	21
16	76	49	32	16	80	156	370	332	185	10	110	21
17	75	46	32	15	71	133	378	351	167	11	100	20
18	74	44	32	15	58	117	522	342	137	19	85	19
19	74	293	32	16	53	127	479	320	129	34	80	17
20	75	253	32	16	46	126	409	261	121	21	75	16
21	71	138	30	16	47	114	346	236	114	15	75	12
22	66	118	30	16	44	111	363	223	103	17	90	9.0
23	60	112	28	18	43	103	426	192	99	42	140	8.9
24	56	94	26	22	44	113	475	249	96	32	460	8.9
25	54	85	26	24	44	122	490	212	94	24	250	9.3
26	51	94	26	24	43	103	459	187	94	19	124	9.3
27	50	90	26	26	38	94	486	179	86	16	81	9.0
28	49	83	28	28	43	87	521	150	75	78	60	10
29	48	87	26	32	---	81	525	122	69	132	51	14
30	45	82	24	34	---	74	497	102	84	58	45	13
31	35	---	22	36	---	65	---	80	---	43	39	---
TOTAL	2074	3377	1276	647	1723	3839	9726	9011	4650	1039.0	3732	668.4
MEAN	66.9	113	41.2	20.9	61.5	124	324	291	155	33.5	120	22.3
MAX	197	421	85	36	126	233	525	472	270	132	499	40
MIN	35	44	22	15	38	41	80	80	69	9.0	19	8.9
AC-FT	4110	6700	2530	1280	3420	7610	19290	17870	9220	2060	7400	1330

CAL YR 1986	TOTAL 34707.5	MEAN 95.1	MAX 1300	MIN 1.3	AC-FT 68840
WTR YR 1987	TOTAL 41762.4	MEAN 114	MAX 525	MIN 8.9	AC-FT 82840

09371002 NAVAJO WASH NEAR TOWAOC, CO

LOCATION.--Lat 37°12'03", long 108°41'50", Ute Mountain Ute Indian Reservation, Montezuma County, Hydrologic Unit 14080107, on left bank 150 ft upstream from Towaoc Road crossing, 0.2 mi downstream from Ismay Draw and 1.6 mi east of Towaoc, Co.

DRAINAGE AREA.--26.3 mi².

PERIOD OF RECORD.--October 1986 to September 1987.

GAGE.--Water-stage recorder. Elevation of gage is 5,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 30, 1986, (fragmentary) USBR operated staff gage or water-stage recorder at same site and datum.

REMARKS.--Estimated daily discharges: Oct. 11, 12, Nov. 10, 11, Dec. 3, 4, 22 to Jan. 1, 10-12, 17, 18, 22, 28, 29, 31 to Feb. 10 and Aug. 26 to Sept. 23. Records good except for estimated daily discharges, which are poor, and flows above 30 ft³/s, which are fair. Flow regulated by Montezuma Valley Irrigation District through series of canals and ditches from Dolores Project. Most of water is return flow. Diversions from Dolores River basin to San Juan River basin for irrigation of about 2450 acres upstream from station. No diversions upstream for irrigation downstream from station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62 ft³/s, Nov. 18, 1987, gage height, 1.99 ft, from rating curve extended above 25 ft³/s; minimum daily, 1.0 ft³/s, Dec. 29, Jan. 1, 2, 1987.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62 ft³/s at 2300 Nov. 18, gage height, 1.99 ft; minimum daily, 1.0 ft³/s, Dec. 29, Jan. 1, 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	31	14	1.0	2.8	2.8	1.9	17	17	8.9	15	10
2	9.5	38	13	1.0	2.2	3.7	1.6	17	17	6.2	17	12
3	11	15	12	1.1	2.2	3.9	1.5	19	17	8.8	16	12
4	12	11	11	1.2	2.0	4.2	1.5	14	15	12	19	14
5	11	8.6	11	1.5	1.8	4.6	5.8	12	14	13	15	20
6	8.9	9.0	18	1.5	1.6	3.4	5.9	14	15	12	15	28
7	11	15	25	1.5	1.5	2.9	4.9	12	17	8.6	19	24
8	10	13	17	1.6	1.5	5.3	9.9	14	20	5.7	25	22
9	8.3	8.4	5.4	1.6	1.5	19	8.3	13	16	8.2	24	20
10	5.9	7.5	2.4	1.3	1.6	9.0	6.4	14	21	12	24	20
11	14	7.0	1.8	1.5	1.8	4.5	6.1	15	24	17	20	20
12	22	6.8	1.7	1.5	1.8	2.9	11	15	21	18	16	24
13	15	5.9	1.5	1.5	1.9	2.2	13	13	20	14	13	26
14	12	2.4	1.5	1.5	8.0	2.0	9.0	13	21	12	13	30
15	11	3.0	1.6	1.5	5.2	2.2	8.9	20	24	12	14	32
16	14	3.9	1.7	1.4	4.0	2.7	11	16	21	11	13	30
17	14	4.6	1.7	1.3	4.4	3.0	12	14	24	9.6	12	26
18	13	15	2.0	1.3	2.9	2.2	11	14	25	16	6.5	24
19	9.0	32	2.2	1.5	2.2	1.8	10	19	24	17	7.0	24
20	8.6	22	2.0	1.4	2.0	1.9	9.6	22	24	17	18	24
21	8.6	13	2.0	1.5	2.8	2.0	10	23	24	21	19	26
22	11	15	1.8	1.5	2.7	2.2	12	21	21	20	16	26
23	10	17	1.8	1.6	2.6	2.8	11	21	19	16	23	26
24	9.2	15	1.8	1.4	2.5	3.9	13	24	15	13	27	27
25	8.3	15	1.6	1.4	2.5	5.3	15	22	15	13	13	34
26	8.0	16	1.5	1.4	2.7	6.4	14	26	12	13	10	24
27	9.5	19	1.3	1.5	2.7	3.4	13	20	12	12	9.5	18
28	8.9	15	1.1	1.7	2.3	2.4	21	22	12	16	9.5	17
29	8.6	15	1.0	1.9	---	2.3	22	17	9.3	23	9.5	21
30	8.6	15	1.1	2.0	---	2.0	14	12	10	20	10	21
31	8.0	---	1.1	2.4	---	1.9	---	13	---	13	10	---
TOTAL	324.5	414.1	162.6	46.0	73.7	118.8	294.3	528	546.3	419.0	478.0	682
MEAN	10.5	13.8	5.25	1.48	2.63	3.83	9.81	17.0	18.2	13.5	15.4	22.7
MAX	22	38	25	2.4	8.0	19	22	26	25	23	27	34
MIN	5.6	2.4	1.0	1.0	1.5	1.8	1.5	12	9.3	5.7	6.5	10
AC-FT	644	821	323	91	146	236	584	1050	1080	831	948	1350

WTR YR 1987 TOTAL 4087.3 MEAN 11.2 MAX 38 MIN 1.0 AC-FT 8110

LOCATION.--Lat 37°19'23", long 108°40'22", in NE¼ sec.1, T.35N., R.71 W., Montezuma County, Hydrologic Unit 14080202, on left bank 150 ft downstream from mouth of Mud Creek, and 4 mi southwest of Cortez.

WATER-DISCHARGE RECORDS

GAGE.--Water-stage recorder. Elevation of gage is 5,700 ft above National Geodetic Vertical Datum of 1929, by barometer. Prior to Sept. 30, 1929, at site 3 mi downstream at different datum. Mar. 29, 1940 to Nov. 2, 1941, at site 150 ft upstream at datum 4.20 ft, higher. Nov. 3, 1941 to Sept. 30, 1945, at present site at datum 4.00 ft, higher. Oct. 1, 1950 to Sept. 30, 1954, at present site at datum 2.50 ft, higher, Jan. 1, 1982, to present, at former site at same datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,560 ft³/s, Sept. 9, 1927, gage height, 6.45 ft, from rating curve extended above 240 ft³/s, on basis of slope-area measurement at gage height, 5.72 ft; minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	293	52	36	70	44	42	51	62	63	113	102
2	50	191	50	32	60	50	43	58	52	61	110	95
3	50	89	50	32	55	60	42	59	58	56	107	101
4	61	77	50	32	50	74	45	63	65	56	112	92
5	52	70	52	38	50	81	51	53	65	59	113	98
6	50	61	75	38	44	83	48	67	66	58	108	89
7	52	105	92	40	38	95	51	73	66	64	167	87
8	55	82	70	41	40	154	42	69	83	65	234	84
9	59	66	63	30	40	209	42	65	113	68	134	85
10	74	65	45	22	40	142	42	59	94	74	128	76
11	227	60	44	26	42	92	41	59	87	60	115	71
12	267	60	44	26	44	77	51	48	85	50	108	79
13	152	60	44	26	47	71	53	51	79	55	104	83
14	100	60	44	26	101	72	47	55	79	53	100	97
15	85	62	48	26	85	60	46	75	72	54	103	91
16	80	62	49	24	62	65	41	70	80	58	96	89
17	74	58	46	24	59	62	38	66	77	75	79	79
18	70	65	48	24	47	53	41	64	76	87	79	80
19	73	211	48	24	42	52	47	78	78	73	78	83
20	78	100	47	24	43	57	46	81	76	67	67	84
21	72	73	45	24	44	55	45	87	70	63	81	82
22	66	71	44	24	43	55	47	99	66	66	83	78
23	67	66	45	28	44	55	54	96	57	65	201	79
24	68	58	45	34	42	68	53	113	59	67	420	77
25	69	57	42	38	44	57	48	109	63	65	285	66
26	66	69	41	38	45	59	52	108	68	69	180	64
27	64	72	38	40	45	58	56	100	80	81	129	59
28	55	60	38	44	42	48	59	97	77	108	119	57
29	52	59	36	55	---	45	61	94	82	169	119	52
30	55	57	36	50	---	42	59	87	71	101	116	52
31	55	---	38	55	---	44	---	67	---	107	108	---
TOTAL	2452	2539	1509	1021	1408	2239	1433	2321	2206	2217	4096	2415
MEAN	79.1	84.6	48.7	32.9	50.3	72.2	47.8	74.9	73.5	71.5	132	80.5
MAX	267	293	92	55	101	209	61	113	113	169	420	102
MIN	50	57	36	22	38	42	38	48	52	50	67	52
AC-FT	4860	5040	2990	2030	2790	4440	2840	4600	4380	4400	8120	4790
CAL YR 1986	TOTAL	25998	MEAN	71.2	MAX	456	MIN	22	AC-FT	51570		
WTR YR 1987	TOTAL	25856	MEAN	70.8	MAX	420	MIN	22	AC-FT	51290		

09371500 McELMO CREEK NEAR CORTEZ, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Jan. 1, 1982 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Feb. 6, 1982 to current year.

WATER TEMPERATURES: Feb. 6, 1982 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1982.

REMARKS.--Daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum 4,180 microsiemens Jan. 31, 1985; minimum, 847 microsiemens Aug. 24, 1982.

WATER TEMPERATURES: Maximum 26.5°C July 18, 19 1985; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum 4,010 microsiemens Jan. 10 and 29; minimum recorded, 1,040 microsiemens May 21.

WATER TEMPERATURES: Maximum 14.1°C Oct. 7 (but may have been exceeded during period of missing record Apr. 14 to Sept. 30); minimum 0.0°C, many days during December and January.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CAO3)	HARD- NESS NONCARB WH WAT TOT FLD 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 AD- SORP- TION RATIO
AUG 27...	0930	133	1820	8.0	15.5	920	700	210	97	85	1
SEP 24...	1530	85	1630	8.4	15.0	840	630	200	83	72	1

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (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, 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)
AUG 27...	4.7	226	830	16	0.30	11	1390	1.89	499	1.00
SEP 24...	3.4	210	780	12	0.30	9.3	1290	1.75	295	0.72

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2110	2490	2850	3150	2980	3160	3450	1730	1520	1790	1740	1690
2	2140	2460	2790	3330	3150	3280	3480	1620	1650	1830	1720	1700
3	2150	2550	2760	3310	3160	3320	3460	1570	1610	1820	1690	1690
4	2110	2600	2740	3390	3240	3180	3510	1380	1600	1840	1610	1630
5	2120	2650	2720	3350	3050	3060	3470	1460	1560	1830	1660	1690
6	2150	2630	2810	3340	3180	2970	3470	1500	1560	1820	1630	1610
7	2150	2650	2970	3380	3270	2920	3440	1610	1560	1800	1700	1590
8	2120	2670	2890	3350	3320	2920	3440	1690	1550	1820	1700	1570
9	2090	2620	2970	3490	3340	2870	3490	1580	1640	1800	1390	1570
10	2060	2660	2810	3620	3370	2790	3470	1170	1570	1770	1380	1630
11	2160	2680	2840	3550	3390	2840	3420	1170	1560	1790	1380	1650
12	2230	2680	2800	3490	3360	2920	3470	1310	1570	1780	1410	1600
13	2250	2700	2900	3260	3330	2990	3320	2230	1560	1760	1400	1620
14	2200	2760	3020	3280	3390	3040	3180	2230	1610	1770	1380	1620
15	2190	2710	3070	3340	3320	3140	2420	1670	1770	1830	1370	1610
16	2220	2650	3210	3400	3320	3250	2930	1320	1790	1840	1350	1590
17	2220	2700	3260	3410	3400	3330	3220	1170	1790	1780	1330	1540
18	2270	2710	3300	2620	3350	3330	2390	1160	1800	1810	1320	1580
19	2190	2700	3310	2900	3310	3370	2300	1830	1810	1790	1320	1600
20	2180	2630	3330	3410	3290	3290	2100	1120	1860	1760	1300	1580
21	2180	2750	3340	3410	3390	3230	2190	1310	1870	1780	1350	1570
22	2230	2760	3250	3500	3340	3430	1520	1580	1920	1770	1370	1580
23	2210	2840	3210	3460	3390	3490	1870	1600	1900	1780	1420	1570
24	2180	2760	3310	3370	3360	3570	2370	1510	1810	1750	1350	1580
25	2150	2760	3320	3280	3340	3570	2470	1470	1830	1750	1420	1480
26	2170	2750	3070	3190	3310	3270	2420	1570	1790	1740	1780	1490
27	2170	2830	2990	3220	3230	3100	2140	1540	1740	1720	1740	1590
28	2410	2800	3150	3270	3180	3320	2100	1510	1710	1860	1700	1600
29	2550	2820	3100	3560	---	3400	1270	1520	1720	1850	1700	1650
30	2510	2850	3190	2610	---	3420	1640	1570	1770	1810	1660	1670
31	2520	---	2970	3110	---	3440	---	1580	---	1760	1670	---
MEAN	2213	2694	3040	3302	3288	3200	2781	1525	1700	1794	1514	1605

SAN JUAN RIVER BASIN

09371500 McELMO CREEK NEAR CORTEZ, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.6	8.4	8.3	7.1	3.0	.2	.1	.0	.3	.0	4.2	.5
2	12.0	9.5	7.8	6.4	2.5	.0	.1	.0	.8	.0	5.7	.5
3	11.3	9.6	9.1	6.8	2.5	.0	.1	.0	1.7	.3	6.6	.8
4	12.3	7.1	9.5	7.7	2.6	.0	.1	.0	2.2	.8	7.2	1.7
5	13.3	7.9	8.8	5.6	4.5	1.5	.1	.0	2.6	.0	7.5	2.5
6	13.4	10.7	7.9	5.3	4.4	3.8	.2	.0	3.8	.0	8.2	2.6
7	14.1	9.3	6.4	3.8	4.8	3.5	.2	.0	3.6	.0	8.3	3.4
8	14.0	9.0	4.8	2.6	4.0	2.6	.3	.0	4.3	.0	7.2	5.6
9	14.1	9.1	3.9	.9	3.2	.0	.3	.0	4.9	.9	6.4	4.3
10	12.4	11.1	4.5	.9	.1	.0	.2	.0	5.4	1.3	7.8	3.7
11	11.5	9.7	4.8	1.1	.0	.0	.1	.0	7.1	3.6	8.6	4.3
12	9.6	7.9	5.7	2.0	.1	.0	.1	.0	6.0	3.5	9.7	5.0
13	9.1	5.9	6.2	2.6	.1	.0	.1	.0	6.1	3.6	9.3	5.1
14	10.1	5.9	5.2	3.0	.1	.0	.1	.0	5.6	2.9	8.5	4.2
15	11.4	6.7	5.5	2.2	.2	.0	.1	.0	3.7	1.0	6.4	4.5
16	11.6	8.1	5.4	3.2	.9	.0	.0	.0	4.2	2.3	6.4	2.7
17	11.3	7.1	6.1	2.8	1.8	.1	.0	.0	4.6	1.3	5.7	1.5
18	12.2	8.7	6.8	3.7	3.2	1.8	.0	.0	3.6	.6	8.3	2.0
19	11.0	9.4	6.8	5.8	3.6	1.3	.0	.0	1.9	.5	6.6	4.7
20	10.1	7.6	6.2	3.9	2.3	.3	.0	.0	4.0	.3	5.7	2.5
21	10.3	7.0	6.3	3.3	2.4	.3	.0	.0	4.2	.2	7.5	2.4
22	9.8	5.9	6.6	4.2	.9	.0	.2	.0	4.3	.3	5.7	2.9
23	9.7	5.4	4.3	2.0	.2	.0	.1	.0	3.2	.7	7.5	.9
24	9.9	5.7	3.8	1.2	.4	.0	.1	.0	3.0	1.4	6.8	2.3
25	9.8	5.8	3.8	1.0	.4	.0	.1	.0	3.5	.9	6.3	1.4
26	9.6	5.6	4.8	3.1	.0	.0	.1	.0	2.2	.8	8.0	1.4
27	9.2	5.7	3.6	1.4	.1	.0	.1	.0	4.5	.4	6.7	2.7
28	9.6	5.0	3.9	.9	.1	.0	.1	.0	3.5	.4	4.2	1.4
29	10.2	6.4	3.5	1.6	.1	.0	.2	.0	---	---	2.9	.1
30	10.2	5.9	4.1	2.1	.1	.0	.3	.0	---	---	6.6	.0
31	8.8	7.1	---	---	.0	.0	.2	.0	---	---	9.4	.9
MONTH	14.1	5.0	9.5	.9	4.8	.0	.3	.0	7.1	.0	9.7	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.2	2.9	---	---	---	---	---	---	---	---	---	---
2	11.3	3.8	---	---	---	---	---	---	---	---	---	---
3	11.6	3.2	---	---	---	---	---	---	---	---	---	---
4	8.2	6.1	---	---	---	---	---	---	---	---	---	---
5	7.8	4.6	---	---	---	---	---	---	---	---	---	---
6	8.7	4.2	---	---	---	---	---	---	---	---	---	---
7	11.0	4.2	---	---	---	---	---	---	---	---	---	---
8	13.1	4.6	---	---	---	---	---	---	---	---	---	---
9	11.3	6.4	---	---	---	---	---	---	---	---	---	---
10	13.1	5.5	---	---	---	---	---	---	---	---	---	---
11	10.0	6.2	---	---	---	---	---	---	---	---	---	---
12	9.9	6.3	---	---	---	---	---	---	---	---	---	---
13	11.5	4.0	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

NOTE: Daily water temperatures are reported to the nearest 0.1°C but are accurate only to the nearest 0.5°C.

09372000 McELMO CREEK NEAR COLORADO-UTAH STATE LINE

LOCATION.--Lat 37°19'27", long 109°00'54", in NE¼ sec.2, T.35 N., R.20 W., Montezuma County, Hydrologic Unit 14080202, on right bank 1.5 mi upstream from Colorado-Utah State line, 2.0 mi upstream from Yellowjacket Creek, and 2.0 mi west of former town of McElmo.

DRAINAGE AREA.--346 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1925: 1951-52 (M), 1957 (M). WRD CO-1972: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,890 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-21, Nov. 20 to Dec. 4, Dec. 12-15, 23-25, 28, 29, Jan. 1, 2, 5, 11-16, and Jan. 20-23. Records good except for those above 600 ft³/s, which are fair, and estimated daily discharges, which are poor. Diversions for irrigation of about 1,780 acres upstream from station. One diversion upstream from station for irrigation of about 60 acres downstream from station. Part of flow is return water from irrigated lands of Montezuma Irrigation District (water imported from Dolores River basin). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--36 years, 48.9 ft³/s; 35,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft³/s, Aug. 7, 1967, gage height, 7.58 ft, from floodmark in gage well, from rating curve extended above 2,100 ft³/s; maximum gage height, 8.13 ft, Sept. 6, 1970; minimum daily discharge, 0.08 ft³/s, Sept. 9, 10, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 620 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 8	0100	*770	*5.67	Aug. 24	0600	678	5.50

Minimum daily discharge, 22 ft³/s, May 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	101	65	36	76	46	42	23	51	64	129	91
2	70	345	60	34	61	53	40	22	36	59	124	81
3	65	159	60	35	60	62	42	34	31	52	114	83
4	75	110	60	34	53	79	42	31	36	48	117	76
5	70	99	62	38	52	87	47	33	37	50	115	76
6	65	91	77	42	43	89	47	41	48	40	104	89
7	65	114	118	39	40	94	49	57	65	36	174	72
8	70	124	90	40	42	110	42	50	65	34	350	65
9	75	101	78	33	42	212	35	53	100	34	165	64
10	85	86	54	23	42	88	34	49	94	35	133	62
11	240	81	46	28	44	108	34	49	80	35	119	59
12	330	78	46	28	51	88	36	40	76	33	104	66
13	250	78	46	28	56	76	50	32	64	29	96	79
14	150	76	46	28	84	75	39	40	73	29	92	93
15	120	76	50	28	120	73	37	54	68	27	84	97
16	100	78	53	26	79	67	34	49	71	31	86	94
17	95	78	53	25	76	67	33	57	73	44	74	80
18	90	75	54	25	61	62	29	47	70	69	58	73
19	90	166	54	27	52	56	37	53	62	73	57	71
20	95	250	54	26	50	56	40	57	62	55	52	76
21	90	100	52	26	50	60	42	63	63	52	51	78
22	83	90	49	26	50	65	40	79	52	57	56	78
23	84	85	46	30	50	67	40	78	43	49	109	79
24	84	75	46	40	46	74	44	89	38	49	420	81
25	86	70	44	39	49	59	38	94	44	53	354	79
26	83	80	44	40	56	60	31	95	44	57	231	75
27	81	85	42	40	50	63	35	88	58	66	165	79
28	72	85	40	46	43	52	35	86	73	103	130	70
29	65	75	38	57	---	47	39	83	70	163	121	64
30	65	70	40	53	---	42	31	82	67	180	118	58
31	68	---	39	54	---	43	---	76	---	127	107	---
TOTAL	3141	3181	1706	1074	1578	2280	1164	1784	1814	1833	4209	2288
MEAN	101	106	55.0	34.6	56.4	73.5	38.8	57.5	60.5	59.1	136	76.3
MAX	330	345	118	57	120	212	50	95	100	180	420	97
MIN	65	70	38	23	40	42	29	22	31	27	51	58
AC-FT	6230	6310	3380	2130	3130	4520	2310	3540	3600	3640	8350	4540
CAL YR 1986	TOTAL 29981	MEAN 82.1	MAX 900	MIN 12	AC-FT 59470							
WTR YR 1987	TOTAL 26052	MEAN 71.4	MAX 420	MIN 22	AC-FT 51670							

SAN JUAN RIVER BASIN

09372000 MCELMO CREEK NEAR COLORADO-UTAH STATE LINE CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Chemical analyses: November 1977 to September 1981, August 1987 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CAO3)	HARD- NESS NONCARB WH WAT TOT FLD 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 AD- SORP- TION RATIO
AUG 27...	1200	155	1830	7.8	18.0	920	660	210	96	89	1
SEP 24...	1330	75	2000	7.6	16.0	980	750	210	110	98	1

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (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, 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)
AUG 27...	5.0	259	870	18	0.40	12	1460	1.98	609	0.60
SEP 24...	3.9	224	950	18	0.40	10	1530	2.09	309	0.57

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records provided by Colorado Division of Water Resources. The locations and diversions of 8 selected diversions are given in the following list.

REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

REVISIONS (WATER YEARS).--WDR CO-86-1, WDR CO-86-2: 1984, 1985.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W.. and intercept intermediate tributaries.

09077500 Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec. 20, T.9 S., R.81 W., in Arkansas River basin.

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
TO PLATTE RIVER BASIN												
09010000	Diversions during water year 1987 for this tunnel will be published in a subsequent report.											
09013000	10,930	17,060	24,490	24,060	22,110	26,260	32,580	32,870	19,750	32,920	18,570	12,650
Water year	1986, 274,200											
09013000	14,890	17,080	30,480	25,630	18,410	13,580	31,380	24,350	12,920	23,970	27,520	5,990
Water year	1987, 246,200											
09021500	0	0	0	0	0	0	0	0	182	83	6	0
Water year	1987, 271											
09050590	0	518	3,630	4,480	4,420	726	842	26	0	0	0	0
Water year	1987, 14,640											

09042000 Diversions during water year 1987 for this tunnel will be published in a subsequent report.

09063700 Diversions during water year 1986-87 for this tunnel will be published in a subsequent report.

09077160 Diversions during water year 1987 for this tunnel will be published in a subsequent report.

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

TO ARKANSAS RIVER BASIN--Continued

09077500	0	0	0	0	0	0	0	547	4,170	3,520	993	373
Water year 1984, 9,760												
09077500	248	0	0	0	0	0	0	819	4,020	739	305	134
Water year 1985, 62,270												
09077500	212	0	0	0	0	0	68	1,090	2,510	934	518	175
Water year 1986, 5,490												
09077500 Diversions during water year 1987 for this tunnel will be published in a subsequent report.												

TRANSMOUNTAIN DIVERSIONS NO LONGER PUBLISHED

Following is a list of Transmountain Diversions no longer being published in this report. Diversions, in acre-feet, for these sites are available from the State of Colorado, Division of Water Resources.

TO PLATTE RIVER BASIN	TO ARKANSAS RIVER BASIN	TO RIO GRANDE BASIN
09012000 Eureka ditch	09061500 Columbine ditch	09118200 Tarbell ditch
09022500 Moffat Water tunnel	09062000 Ewing ditch	09121000 Tabor ditch
		09341000 Treasure Pass ditch
09046000 Boreas Pass ditch	09062500 Wurtz ditch	09347000 Don LaFont ditches 1&2
09047300 Vidler tunnel	09073000 Twin Lakes tunnel	09348000 Williams Cr-Squaw Pass ditch
	09115000 Larkspur ditch	09351000 Pine River-Weminuche Pass ditch
		09351500 Weminuche Pass ditch

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are 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.

Records collected at partial-record stations are presented in three tables. The first is a table of discharge measurements at low-flow partial-record stations; the second is a table of annual maximum stage and discharge at crest-stage stations; and the third is a table containing discharge measurements made at miscellaneous sites for both low flow and high flow are given in a fourth table.

LOW-FLOW PARTIAL-RECORD STATIONS

Measurements of streamflow in the area covered by this report made at low-flow, partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of the stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

DISCHARGE MEASUREMENTS MADE AT LOW-FLOW PARTIAL-RECORD STATIONS DURING WATER YEAR 1987

Station no.	Station name	Location	Drainage area (mi ²)	Period of record	Date	Discharge (ft ³ /s)
*09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi upstream from mouth, 7.5 mi north of Minturn.	0.76	1965-87	6-11-87 8-21-87 9-02-87	1.20 .09 .04

*Also a crest-stage partial-record station.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1987

Station no.	Station name	Location	Drainage area (mi ²)	Non-contributing	Period of record	Date	Gage height (feet)	Discharge (ft ³ /s)
PINEY RIVER BASIN								
09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi upstream from mouth, 7.5 mi north of Minturn.	0.76	-	1965-87 1987	6-11-87 unknown	1.30 a2.14	1.20
COLORADO RIVER BASIN								
09061450	Sweetwater Creek at mouth near Dotsero, CO	Lat 39°43'20", long 107°02'22", in NW¼NE¼ sec.9, T.4 S., R.86 W., Eagle County, 5.3 mi north of Dotsero.	105	-	1979-87	6-9-87	8.70	245
09091100	Mamm Creek near Silt, CO	Lat 39°43'54", long 107°42'48", in NW¼NW¼ sec.18, T.6 S., R.92 W., Garfield County, 3.3 mi southeast of Silt.	63.3	-	1979-87	unknown	10.43	unknown
GUNNISON RIVER BASIN								
09149450	Dry Creek near Olathe, CO	Lat 39°33'19", long 108°02'43", SW¼NE¼ sec. 36, T.50 N., R.11 W., Montrose County, 4.9 mi southwest of Olathe.	102	-	1979-87	unknown	2.74	3.6
SAN JUAN RIVER BASIN								
09361400	Junction Creek near Durango, CO	Lat 37°20'04", long 107°54'35", sec.36, T.36N., R.10 W., La Plata County, on left bank 4.5 mi upstream from mouth and 4.5 mi northwest of Durango.	26.3	-	1959-65, 1972, 1979-87	6-7-87	3.23	255

*Also a low-flow partial-record station.
a Maximum gage height, discharge not determined.

DISCHARGE AND SELECTED WATER-QUALITY DATA AT SITES ON UPPER WILLIAMS FORK

WILLIAMS FORK BASIN

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

09035870 - SOUTH FORK WILLIAMS FORK BELOW SHORT CREEK NEAR PTARMIGAN PASS, CO

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 24...	1145	9.9	80	7.0	0.0	10.2	10	2.3	1.8

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINE- ITY 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)	NITRO- GEN, DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 24...	0.80	33	6.6	<0.10	0.40	6.3	0.03	0.14

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, NITRITE 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)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 24...	<0.20	<0.01	<0.01	<0.01	<10	12	2	10

394517106020101 - SOUTH FORK WILLIAMS FORK ABOVE OLD BALDY MOUNTAIN NEAR LEAL, CO

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINE- ITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)
NOV 24...	1045	82	6.9	0.0	10.8	9.9	2.3	1.8	0.80	34	6.6	<0.10

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, NITRITE 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)	ZINC, DIS- SOLVED (UG/L AS ZN)	
NOV 24...	0.40	6.1	0.03	0.14	<0.20	<0.01	<0.01	<0.01	<0.01	10	15	3	10

WILLIAMS FORK BASIN

WATER QUALITY DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

09035880 - SOUTH FORK WILLIAMS FORK BELOW OLD BALDY MOUNTAIN NEAR LEAL, CO

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)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
NOV 24...	1050	7.6	83	7.0	0.0	10.6	11	2.4	1.9

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)	SILICA, DIS- SOLVED (MG/L AS SiO2)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
NOV 24...	1.2	35	6.8	<0.10	0.40	6.6	0.03	0.11

DATE	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, NITRITE 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)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 24...	0.40	<0.01	0.01	<0.01	<10	38	6	11

METEOROLOGICAL DATA AT MISCELLANEOUS SITES

GREEN RIVER BASIN

401751107062000 UPPER FOIDEL CREEK PRECIPITATION GAGE, NEAR OAK CREEK, CO

LOCATION.--Lat 40°17'51", long 107°06'20", in SE¼SE¼ sec. 24, T.4 N., R.87 W., Routt County, Hydrologic Unit 14050001, and 8.7 mi northwest of Oak Creek.

METEOROLOGICAL DATA

GAGE.--Rain-gage recorder and snow-course. Altitude of gage is 8,050 ft above National Geodetic Vertical Datum of 1929, from topographic map.

SNOW-COURSE DATA, WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987

Date	Depth (inches)	Water content (inches)	Density (percent)
Feb 12...	24.3	5.4	22.2
Mar 10...	23.4	7.3	31.2
Apr 02...	34.4	9.6	27.9

RAINFALL RECORDS

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

INSTRUMENTATION.--Belfort weighing bucket rain-gage.

REMARKS.--Unpublished rainfall data for water years 1976-86 are available in district office.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1986 TO SEPTEMBER 1987
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	.00	.00	.12	.00	.00	---	.00
2	.39	.00	---	---	---	.00	.03	.13	.00	.00	---	.00
3	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.04
4	.00	.00	---	---	---	.00	.00	.00	.00	.00	---	.00
5	.27	.00	---	---	---	.00	.16	.00	.00	.00	---	.00
6	.46	.00	---	---	---	.00	.00	.00	---	.00	---	.00
7	.02	.00	---	---	---	.00	.00	.00	---	.00	---	.00
8	.00	.00	---	---	---	.17	.05	.00	---	.00	---	.00
9	.00	.00	---	---	---	.04	.00	.00	---	.00	---	.00
10	.00	.00	---	---	---	.00	.00	.13	---	.00	---	.00
11	.00	.00	---	---	---	.24	.15	.00	---	.60	---	.00
12	.01	.00	---	---	.02	.00	.33	.00	---	.23	---	.00
13	.00	.00	---	---	.05	.23	.03	.00	---	.00	---	.00
14	.10	.00	---	---	.47	.20	.00	.00	---	.00	---	.02
15	.47	.00	---	---	.00	.00	.00	.01	---	.00	---	.00
16	.11	.00	---	---	.00	.12	.00	.02	---	.00	---	.16
17	.00	.00	---	---	.00	.03	.00	.00	---	.30	---	.00
18	.00	.00	---	---	.00	.01	.00	.22	---	.00	---	.00
19	.00	.41	---	---	.00	.16	.00	.10	---	.00	---	.00
20	.00	.00	---	---	.00	.35	.76	.02	---	.00	---	.00
21	.25	.20	---	---	.00	.04	.00	.41	---	.00	---	.00
22	.30	.21	---	---	.00	.03	.00	.00	---	.00	---	.00
23	.25	---	---	---	.00	.00	.00	.18	---	.00	---	.00
24	.00	---	---	---	.00	.00	.00	.13	---	.00	---	.00
25	.07	---	---	---	.24	.00	.00	.00	---	.23	.02	.00
26	.02	---	---	---	.54	.10	.00	.09	---	.06	.00	.00
27	.03	---	---	---	.08	.15	.00	.00	---	.00	.00	.00
28	.00	---	---	---	.01	.00	.00	.00	---	.00	.00	.00
29	.00	---	---	---	---	.01	.00	.19	---	.64	.00	.00
30	.00	---	---	---	---	.00	.10	.00	---	.37	.00	.00
31	.00	---	---	---	---	.00	---	.00	---	.00	.00	---
TOTAL	2.75	---	---	---	---	1.88	1.61	1.75	---	2.43	---	.22
MEAN	.09	---	---	---	---	.06	.05	.06	---	.08	---	.01
MAX	.47	---	---	---	---	.35	.76	.41	---	.64	---	.16
MIN	.00	---	---	---	---	.00	.00	.00	---	.00	---	.00

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)	SEDI- MENT, SUS- PENDED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY)
401540106502801 L. MORRISON C AB DAM SITE NR OAK CREEK, CO (LAT 40 15 40N LONG 106 50 28W)								
APR 1987								
22...	1030	6.0	123	7.6	2.5	12.7	479	7.7
MAY								
20...	1045	2.0	134	8.0	9.5	8.7	35	0.19
JUN								
22...	1100	0.79	286	8.7	15.0	--	22	0.05
JUL								
13...	1030	0.27	285	8.2	14.5	8.2	13	0.01
AUG								
19...	1040	0.25	266	8.3	12.5	8.0	24	0.02
401608106513001 MIDDLE C AB DAM SITE NR OAK CREEK, CO (LAT 40 16 08N LONG 106 51 30W)								
APR 1987								
22...	0945	0.48	384	7.8	1.0	12.4	24	0.03
MAY								
20...	1010	0.26	315	8.1	7.0	9.9	41	0.03
JUN								
22...	1040	0.16	463	8.8	10.0	8.7	40	0.02
JUL								
14...	1000	0.04	439	8.1	8.0	9.2	183	0.02
401609106525201 YAMPA R AB DAM SITE NR OAK CREEK, CO (LAT 40 16 09N LONG 106 52 52W)								
APR 1987								
22...	1445	107	512	8.2	11.0	10.4	114	33
MAY								
20...	1345	86	339	8.4	11.5	8.7	64	15
JUN								
22...	1400	51	506	8.8	17.5	--	25	3.5
JUL								
14...	1345	100	484	7.8	17.0	6.8	103	28
AUG								
19...	1015	50	455	8.1	28.0	7.6	25	3.4
401729106514601 MARTIN C AB DAM SITE NR OAK CREEK, CO (LAT 40 17 29N LONG 106 51 46W)								
APR 1987								
22...	1120	0.09	307	7.4	7.5	10.3	9	0.00
MAY								
20...	1110	0.03	271	7.9	10.0	9.2	5	0.00
JUN								
22...	1345	0.01	450	8.1	16.5	--	58	0.00
JUL								
14...	1330	0.04	364	8.0	20.0	5.6	8	0.00
AUG								
19...	1145	0.05	414	7.7	14.5	6.0	49	0.01

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09010500 COLORADO R BELOW BAKER GULCH, NR GRAND LAKE, CO. (LAT 40 19 33N LONG 105 51 22)									
OCT 1986					MAY 1987				
10...	1000	37	80	2.0	27...	1020	138	52	3.0
NOV					JUL				
25...	0920	17	68	0.0	10...	1015	36	66	11.0
JAN 1987					AUG				
15...	1115	11	--	0.0	04...	1800	18	70	19.5
MAR					SEP				
05...	1100	8.9	95	0.0	03...	0945	14	85	9.5
APR									
28...	1100	96	56	3.0					
09019500 COLORADO RIVER NEAR GRANBY, CO. (LAT 40 07 15N LONG 105 54 00W)									
OCT 1986					JUL 1987				
09...	1230	29	72	9.0	10...	1220	61	65	12.0
APR 1987					AUG				
29...	1700	30	88	7.0	04...	1510	37	72	17.0
MAY					SEP				
27...	1330	69	72	10.0	03...	1230	15	85	12.0
09022000 FRASER RIVER AT UPPER STA, NEAR WINTER PARK, CO. (LAT 39 50 45N LONG 105 45 05)									
OCT 1986					JUL 1987				
07...	1145	7.8	70	4.5	08...	1205	17	65	7.0
NOV					AUG				
24...	1100	4.1	75	0.5	03...	1330	17	62	9.0
APR 1987					SEP				
27...	1115	12	90	--	01...	1315	7.6	72	9.5
MAY									
26...	1200	32	56	4.0					
09024000 FRASER RIVER NEAR WINTER PARK, CO. (LAT 39 54 00N LONG 105 46 34W)									
OCT 1986					MAY 1987				
07...	1420	7.9	87	7.0	28...	1110	50	61	5.5
NOV					JUL				
26...	1230	5.9	92	0.5	08...	1455	5.7	85	13.0
JAN 1987					AUG				
13...	1400	5.3	94	0.0	05...	1630	35	68	12.5
MAR					SEP				
04...	1515	7.4	220	0.0	04...	1145	21	75	8.0
APR									
27...	1520	21	95	3.0					
09025000 VASQUEZ CREEK NEAR WINTER PARK, CO. (LAT 39 55 13N LONG 105 47 05W)									
OCT 1986					MAY 1987				
07...	1635	5.2	54	6.0	28...	0930	36	42	2.0
NOV					JUL				
26...	1010	2.0	49	0.5	09...	1410	7.3	46	11.0
JAN 1987					AUG				
13...	1610	0.36	50	0.0	05...	1310	6.9	48	13.0
APR					SEP				
29...	1440	6.6	60	5.0	02...	1515	7.6	50	10.5
09025400 ELK CREEK NEAR FRASER, CO. (LAT 39 55 09N LONG 105 49 31W)									
OCT 1986					JUL 1987				
08...	1250	0.72	54	7.0	09...	1215	1.1	42	13.0
NOV					AUG				
25...	1500	0.58	58	0.5	04...	1135	1.1	50	12.5
APR 1987					SEP				
29...	1230	4.4	49	4.0	04...	0945	1.2	52	9.0
MAY									
28...	1500	5.6	38	7.0					
09026500 ST. LOUIS CREEK NEAR FRASER, CO. (LAT 39 54 36N LONG 105 52 40W)									
OCT 1986					MAY 1987				
08...	1000	10	94	4.0	28...	1750	62	74	5.5
JAN 1987					JUL				
14...	1000	5.9	65	0.0	09...	1000	21	76	7.0
MAR					AUG				
05...	1650	5.2	1650	0.0	04...	0940	19	75	8.5
APR					SEP				
29...	1020	11	95	4.0	01...	1440	11	85	13.0

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09032000 RANCH CREEK NEAR FRASER, CO. (LAT 39 57 00N LONG 105 45 54W)									
OCT 1986					MAY 1987				
08...	1520	3.6	54	5.5	26...	1645	14	42	6.5
NOV					JUL				
24...	1330	3.5	56	0.5	10...	1730	4.1	44	11.0
JAN 1987					AUG				
14...	1325	2.0	54	0.0	03...	1830	5.8	46	12.0
MAR					SEP				
06...	0845	1.9	54	0.0	02...	1005	4.4	50	8.0
APR									
30...	1100	6.6	55	4.0					
09032100 CABIN CREEK NEAR FRASER, CO. (LAT 39 59 09N LONG 105 44 40W)									
OCT 1986					JUL 1987				
08...	1655	3.5	44	7.0	09...	1715	7.4	44	13.5
FEB 1987					AUG				
09...	1120	1.0	56	0.0	03...	1605	5.1	45	15.0
MAY					SEP				
13...	1630	2.3	30	7.0	02...	1300	3.4	50	12.0
14...	1230	1.8	30	8.0					
26...	1500	19	34	8.0					
09034250 COLORADO RIVER AT WINDY GAP, NEAR GRANBY, CO. (LAT 40 06 30N LONG 106 00 13W)									
OCT 1986					MAY 1987				
09...	1020	113	145	7.0	27...	1830	233	108	10.0
NOV					JUL				
25...	1240	92	145	2.0	10...	1430	176	145	15.5
JAN 1987					AUG				
14...	1615	73	125	0.0	05...	1005	160	150	16.0
MAR					SEP				
05...	1350	83	170	1.0	03...	1450	84	125	17.0
APR									
28...	1520	291	140	5.0					
09034900 BOBTAIL CREEK NEAR JONES PASS, CO. (LAT 39 45 37N LONG 105 54 21W)									
OCT 1986					JUN 1987				
09...	0925	2.9	--	0.0	08...	0925	41	45	5.0
NOV					JUL				
25...	1110	1.5	--	0.0	30...	1020	8.7	51	8.0
FEB 1987					AUG				
11...	1115	0.77	--	0.0	28...	1330	4.7	60	9.0
MAY									
05...	1630	5.2	55	0.0					
09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO. (LAT 39 46 44N LONG 105 55 40W)									
OCT 1986					JUL 1987				
09...	1030	0.96	--	1.5	30...	1210	22	52	10.5
MAY 1987					AUG				
05...	1315	19	80	0.5	28...	1140	12	65	5.5
09035700 WILLIAMS FORK ABOVE DARLING CREEK, NR LEAL, CO. (LAT 39 47 22N LONG 106 01 18)									
DEC 1986					JUN 1987				
19...	1030	7.8	67	0.0	24...	1430	102	43	10.0
FEB 1987					JUL				
03...	1100	7.1	100	0.0	27...	1640	33	58	14.0
MAR					AUG				
12...	1030	6.1	69	0.0	25...	1055	28	65	10.0
MAY					SEP				
19...	1750	58	44	6.0	24...	1335	8.3	65	10.5
09035800 DARLING CREEK NEAR LEAL, CO. (LAT 39 48 17N LONG 106 01 11W)									
OCT 1986					JUN 1987				
07...	1200	4.3	--	2.5	25...	1150	21	52	6.0
DEC					JUL				
19...	1200	2.7	75	0.0	28...	1045	7.7	66	8.5
FEB 1987					AUG				
03...	1420	2.3	110	0.0	26...	1020	7.3	65	7.0
MAR					SEP				
12...	1545	2.4	80	0.0	25...	1210	5.3	74	5.0
MAY									
20...	1330	26	50	3.0					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09035820 SO FK WILLIAMS FK AT UP STA NR PTARMIGAN PASS, C (LAT 39 42 30N LONG 105 56 49)									
OCT 1986					JUN 1987				
09...	1200	2.0	67	5.5	11...	0915	28	43	3.0
NOV					JUL				
24...	1015	1.0	58	0.0	01...	0930	11	52	5.0
JAN 1987					30...	0905	3.4	62	8.5
13...	1105	0.67	--	0.0	SEP				
MAR					02...	0925	1.6	73	8.5
10...	1000	0.41	--	0.0	30...	0900	0.93	--	1.0
MAY									
05...	1030	2.9	55	1.5					
26...	0900	10	48	1.5					
09035900 SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO. (LAT 39 47 44N LONG 106 01 49W)									
OCT 1986					APR 1987				
07...	1530	17	83	5.5	16...	1600	17	69	0.0
NOV					MAY				
24...	1515	17	83	0.0	19...	1434	95	51	5.5
DEC					JUN				
23...	1600	9.3	44	0.0	24...	1215	68	55	7.5
JAN 1987					JUL				
16...	1050	8.5	--	0.0	27...	1455	21	75	15.0
FEB					AUG				
03...	1250	8.8	120	0.0	25...	0925	19	80	8.5
MAR					SEP				
12...	1150	9.0	92	0.0	24...	1000	12	84	6.5
09036000 WILLIAMS FORK NEAR LEAL, CO. (LAT 39 49 53N LONG 106 03 15W)									
OCT 1986					MAY 1987				
07...	1715	43	72	7.0	20...	1720	225	50	7.0
DEC					JUN				
23...	1745	22	52	0.0	25...	1530	213	53	12.5
JAN 1987					JUL				
22...	1030	18	--	0.0	28...	1345	78	65	14.0
FEB					AUG				
03...	1630	20	90	1.0	26...	1250	56	65	11.5
MAR					SEP				
13...	1235	18	120	3.0	25...	1525	28	80	9.5
09039000 TROUBLESOME CREEK NEAR PEARMONT, CO. (LAT 40 13 03N LONG 106 18 45W)									
OCT 1986					MAY 1987				
09...	1320	20	92	7.0	14...	1805	118	82	10.0
NOV					JUN				
13...	1415	24	92	0.0	04...	1620	53	85	--
DEC					JUL				
11...	1120	10	105	0.0	17...	1125	17	88	11.5
FEB 1987					AUG				
26...	0920	13	104	0.0	13...	1040	13	111	11.0
MAR					SEP				
25...	1600	16	--	0.5	18...	1025	7.7	97	5.0
APR									
22...	1335	27	87	7.0					
09046490 BLUE RIVER AT BLUE RIVER, CO. (LAT 39 27 21N LONG 106 01 52W)									
OCT 1986					MAY 1987				
06...	1330	19	134	8.0	19...	1000	91	133	6.0
NOV					JUN				
05...	1425	14	144	2.5	23...	1545	106	97	10.0
DEC					JUL				
16...	1155	9.5	166	0.5	17...	0855	52	126	11.0
FEB 1987					AUG				
06...	1130	5.2	220	0.5	11...	1050	27	116	12.5
MAR					SEP				
10...	0940	6.4	182	0.5	15...	0840	22	126	7.5
APR									
27...	1330	24	162	2.5					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09046600 BLUE RIVER NEAR DILLON, CO. (LAT 39 32 55N LONG 106 02 19W)									
OCT 1986					MAY 1987				
06...	1520	64	137	9.0	19...	1120	260	127	5.0
NOV					JUN				
11...	1700	41	152	4.0	23...	1725	286	110	6.5
DEC					JUL				
16...	1000	32	151	3.0	17...	1030	109	125	9.5
FEB 1987					AUG				
06...	1330	23	155	1.5	11...	1420	79	125	10.0
MAR					SEP				
10...	1115	27	166	3.5	15...	1020	56	142	7.5
APR									
27...	1510	86	154	3.5					
09047500 SNAKE RIVER NEAR MONTEZUMA, CO. (LAT 39 36 20N LONG 105 56 33W)									
OCT 1986					MAY 1987				
06...	1040	33	96	3.0	18...	1240	217	56	5.0
NOV					JUN				
11...	1200	28	82	0.0	10...	1210	300	58	5.0
DEC					JUL				
15...	1405	18	87	0.0	14...	1235	79	75	7.0
FEB 1987					AUG				
02...	1405	17	90	0.0	10...	1315	56	83	10.0
MAR					SEP				
09...	1415	15	105	0.5	14...	1115	30	99	5.0
APR									
29...	1035	61	92	2.0					
09047700 KEYSTONE GULCH NEAR DILLON, CO. (LAT 39 35 40N LONG 105 58 19W)									
OCT 1986					MAY 1987				
08...	1640	4.6	77	5.5	18...	1500	17	63	5.0
NOV					JUN				
11...	1500	4.0	79	0.0	10...	1510	18	61	7.0
DEC					JUL				
15...	1655	2.8	80	0.0	14...	1410	6.0	70	10.0
FEB 1987					AUG				
02...	1500	2.3	83	0.0	10...	1440	3.9	73	11.5
MAR					SEP				
09...	1630	2.3	87	0.0	14...	1240	2.9	80	6.0
APR									
29...	1310	6.3	81	3.5					
09050100 TENMILE CREEK BL NORTH TENMILE C, AT FRISCO, CO. (LAT 39 34 37N LONG 106 06 33)									
OCT 1986					MAY 1987				
07...	1330	53	690	7.0	12...	1530	317	388	7.0
NOV					JUN				
17...	1005	31	510	1.0	02...	1405	337	450	9.0
DEC					JUL				
10...	1045	24	525	0.0	14...	1330	79	520	10.5
FEB 1987					AUG				
25...	1315	18	--	1.0	11...	1245	60	715	12.0
MAR					SEP				
24...	1745	32	1240	1.0	14...	1040	40	830	6.0
APR									
21...	1340	55	950	5.5					
09050700 BLUE RIVER BELOW DILLON, CO. (LAT 39 37 32N LONG 106 03 57W)									
OCT 1986					MAY 1987				
07...	1150	199	220	5.5	12...	1325	51	397	3.5
DEC					JUN				
10...	1210	51	240	4.5	02...	1230	710	211	8.0
FEB 1987					JUL				
25...	1000	53	260	3.0	14...	1125	314	206	14.5
MAR					AUG				
24...	1520	47	282	3.0	11...	1355	189	265	5.0
APR					SEP				
21...	1225	51	280	4.0	15...	1235	67	255	4.0

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09051050 STRAIGHT CR BLW LASKEY GULCH NR DILLON, CO (LAT 39 38 23N LONG 106 02 23W)									
OCT 1986					MAY 1987				
02...	1245	9.5	94	5.0	12...	1120	24	123	4.0
07...	1050	9.6	93	2.5	JUN				
NOV					02...	1005	31	79	2.5
17...	1250	6.6	99	1.0	JUL				
DEC					14...	1000	15	87	5.5
10...	1345	6.5	105	--	AUG				
FEB 1987					11...	1050	9.5	106	9.0
25...	1200	4.1	120	0.0	SEP				
MAR					15...	1355	8.7	105	5.0
24...	1230	3.7	165	0.0					
APR									
21...	1105	5.4	174	0.0					
09052000 ROCK CREEK NEAR DILLON, CO. (LAT 39 43 23N LONG 106 07 41W)									
OCT 1986					MAY 1987				
09...	0925	10	50	3.0	19...	1320	62	28	4.0
NOV					JUN				
13...	1645	7.1	58	0.0	12...	1205	64	24	6.5
DEC					JUL				
18...	1530	5.2	71	0.0	15...	1655	19	34	10.5
FEB 1987					AUG				
05...	0900	4.1	75	0.0	19...	1105	12	45	8.0
MAR					SEP				
13...	1410	5.1	70	1.0	14...	1530	8.6	51	7.0
APR									
17...	1230	7.6	60	3.0					
09052400 BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 43 41N LONG 106 10 22)									
OCT 1986					MAY 1987				
08...	1400	7.1	43	3.0	21...	1420	31	32	4.0
NOV					JUN				
12...	1655	6.7	60	0.0	24...	0935	43	28	6.0
DEC					JUL				
18...	1420	3.4	68	0.0	16...	1630	17	33	14.0
FEB 1987					AUG				
06...	1200	1.7	72	0.0	19...	0920	7.4	42	6.0
MAR					SEP				
13...	1135	3.0	74	0.0	15...	1430	7.0	46	4.0
APR									
28...	1150	17	42	1.0					
09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 45 47N LONG 106 11 31W)									
OCT 1986					MAY 1987				
09...	1240	14	38	4.0	27...	1240	26	32	5.5
NOV					JUN				
14...	1155	5.5	53	0.0	25...	1220	56	21	10.0
DEC					JUL				
18...	1130	4.5	63	0.0	16...	1100	29	27	10.0
FEB 1987					AUG				
05...	1240	3.0	67	0.0	12...	1020	17	34	11.0
APR					SEP				
15...	1345	6.3	72	0.0	17...	1035	17	41	6.5
09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO. (LAT 39 47 59N LONG 106 16 04W)									
OCT 1986					MAY 1987				
08...	1030	21	21	7.5	27...	1015	35	27	5.0
NOV					JUN				
19...	1630	5.0	26	3.0	25...	0950	81	21	9.0
DEC					JUL				
17...	1435	3.8	29	1.0	15...	1450	41	19	12.0
FEB 1987					AUG				
04...	1300	2.3	<50	1.0	12...	1450	33	21	15.0
MAR					SEP				
11...	1435	2.7	37	1.0	16...	1505	10	23	12.0
APR									
15...	1650	3.0	41	2.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09055300 CATARACT CREEK NEAR KREMMLING, CO. (LAT 39 50 07N LONG 106 18 57W)									
OCT 1986					MAY 1987				
07...	1035	8.6	38	7.0	20...	1235	83	35	6.0
NOV					JUN				
12...	1420	4.1	44	2.0	12...	1010	116	26	8.0
DEC					JUL				
17...	1210	2.2	49	1.0	15...	0955	17	29	13.5
FEB 1987					AUG				
04...	1045	1.0	80	1.0	13...	1130	8.1	34	16.0
MAR					SEP				
10...	1705	1.1	60	1.0	16...	0950	3.0	41	10.0
APR									
13...	1610	1.8	73	1.0					
09058000 COLORADO RIVER NEAR KREMMLING, CO. (LAT 40 02 12N LONG 106 26 22W)									
OCT 1986					MAY 1987				
08...	1620	930	220	10.5	13...	1735	1250	277	14.0
NOV					JUN				
14...	1110	792	240	1.0	03...	1610	1250	273	15.0
FEB 1987					JUL				
26...	1230	674	210	2.0	15...	1730	775	360	20.0
MAR					AUG				
26...	1555	672	240	5.5	14...	1305	784	--	14.5
APR					SEP				
23...	1705	983	270	11.0	16...	1625	732	222	14.0
09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO. (LAT 39 42 29N LONG 106 25 38)									
OCT 1986					MAY 1987				
15...	1355	8.2	28	1.5	14...	1500	106	92	5.0
NOV					JUN				
18...	1130	7.1	--	0.5	10...	1418	79	22	9.5
JAN 1987					JUL				
27...	1200	1.6	67	0.0	15...	1402	14	44	18.0
MAR					AUG				
03...	1200	2.8	74	0.5	31...	1439	6.0	59	18.5
APR									
22...	1400	18	54	4.0					
09058610 DICKSON CREEK NEAR VAIL, CO. (LAT 39 42 14N LONG 106 27 25W)									
OCT 1986					JUN 1987				
15...	1045	--	--	--	10...	1226	2.7	291	11.5
NOV					JUL				
18...	0950	1.0	--	0.5	15...	1514	1.3	366	17.5
APR 1987					AUG				
21...	1420	1.6	328	1.0	21...	1333	1.3	367	15.0
MAY									
21...	1320	4.6	252	7.5					
09058700 FREEMAN CREEK NEAR MINTURN, CO. (LAT 39 41 55N LONG 106 26 41W)									
OCT 1986					JUN 1987				
15...	1150	0.28	280	0.5	10...	1530	1.1	205	10.0
NOV					JUL				
18...	1045	0.23	--	0.0	15...	1621	0.26	195	19.5
APR 1987					AUG				
21...	1630	0.89	195	0.5	31...	1200	0.14	196	16.0
MAY									
21...	1725	5.8	209	6.5					
09058800 EAST MEADOW CREEK NEAR MINTURN CO. (LAT 39 43 54N LONG 106 25 36W)									
OCT 1986					JUN 1987				
15...	1500	3.2	90	--	11...	1138	15	85	11.5
NOV					JUL				
18...	1330	1.5	93	0.5	15...	1158	2.0	205	10.5
APR 1987					SEP				
22...	1150	1.1	85	1.5	02...	1320	1.0	185	10.5
MAY									
21...	1440	18	266	5.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09059500 PINEY RIVER NEAR STATE BRIDGE, CO. (LAT 39 48 00N LONG 106 35 00W)									
OCT 1986					JUN 1987				
15...	0935	28	272	0.5	02...	1635	220	130	12.5
29...	1250	30	279	3.5	JUL				
NOV					09...	0955	41	210	11.5
19...	1330	28	296	2.0	AUG				
MAR 1987					05...	1705	22	265	18.5
10...	0900	22	362	0.5	SEP				
APR					01...	1645	16	315	17.5
23...	1100	96	217	3.0					
MAY									
20...	1615	379	125	7.5					
09063000 EAGLE RIVER AT RED CLIFF, CO. (LAT 39 30 34N LONG 106 22 00W)									
OCT 1986					MAY 1987				
14...	1540	17	218	6.0	01...	1407	99	156	4.5
NOV					13...	1549	145	195	8.0
17...	1630	16	189	2.5	JUN				
DEC					02...	1715	103	154	13.0
15...	1430	19	213	0.5	AUG				
JAN 1987					16...	1635	26	228	14.0
23...	1345	16	214	0.0	19...	1710	12	236	16.0
MAR									
04...	1110	14	223	0.5					
09063200 WEARYMAN CREEK NEAR RED CLIFF, CO. (LAT 39 31 14N LONG 106 19 06W)									
OCT 1986					MAY 1987				
14...	1330	4.0	289	0.0	12...	1245	12	236	5.0
NOV					JUN				
17...	1540	2.5	265	2.5	02...	1632	24	220	6.5
JAN 1987					JUL				
23...	1020	1.3	258	0.0	16...	1550	9.3	119	12.0
MAR					AUG				
04...	0900	1.0	286	0.5	19...	1500	4.7	278	9.0
APR									
23...	1240	3.2	264	2.0					
09063400 TURKEY CREEK NEAR RED CLIFF, CO. (LAT 39 31 22N LONG 106 20 15W)									
OCT 1986					MAY 1987				
14...	1250	6.7	280	1.0	12...	1430	45	220	6.0
NOV					JUN				
17...	1445	5.5	280	2.0	02...	1430	63	200	8.0
JAN 1987					JUL				
23...	1115	1.9	245	0.0	16...	1617	17	256	12.5
MAR					AUG				
04...	0955	3.3	283	0.5	19...	1600	8.0	207	9.0
APR									
23...	1015	13	268	0.5					
09063900 MISSOURI CREEK NEAR GOLD PARK, CO. (LAT 39 23 25N LONG 106 28 10W)									
OCT 1986					MAY 1987				
07...	1140	7.1	31	4.0	20...	1255	20	31	3.5
NOV					JUN				
17...	1100	2.5	36	1.0	02...	1035	13	25	4.0
JAN 1987					JUL				
27...	1210	0.91	52	0.0	16...	1140	10	27	12.0
MAR					AUG				
04...	1515	0.62	40	0.5	19...	1150	2.4	36	11.5
APR									
09...	1205	0.75	35	0.5					
09064000 HOMESTAKE CREEK AT GOLD PARK, CO. (LAT 39 24 20N LONG 106 25 58W)									
OCT 1986					MAY 1987				
07...	1315	25	36	8.0	20...	1440	55	29	5.0
NOV					JUN				
17...	1200	13	0	0.5	02...	1235	33	27	9.0
JAN 1987					JUL				
27...	1110	10	34	0.0	16...	1200	30	30	13.5
MAR					AUG				
03...	1600	4.5	30	0.0	19...	1310	16	37	13.0
APR									
09...	1300	8.8	38	0.5					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO. (LAT 39 28 24N LONG 106 22 02W)									
OCT 1986					MAY 1987				
07...	1550	37	36	10.0	01...	1320	108	24	4.5
NOV					20...	1600	110	40	4.5
17...	1330	20	34	3.0	JUN				
DEC					02...	1200	64	32	12.0
15...	1340	13	57	0.5	JUL				
JAN 1987					16...	1440	36	31	14.0
27...	1240	3.1	37	0.0	AUG				
MAR					19...	1410	20	45	13.5
03...	1620	8.0	31	0.0					
APR									
09...	1510	14	49	1.0					
09065100 CROSS CREEK NEAR MINTURN, CO. (LAT 39 34 05N LONG 106 24 45W)									
OCT 1986					MAY 1987				
14...	1650	30	31	4.0	20...	1650	157	27	6.0
NOV					JUN				
26...	1225	10	44	0.5	10...	1824	202	22	9.0
DEC					JUL				
15...	1630	5.3	55	0.5	30...	1135	93	34	13.0
JAN 1987					AUG				
23...	1430	1.5	24	0.0	31...	1630	27	49	16.5
MAR									
04...	1200	2.0	78	0.5					
09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40N LONG 106 16 24W)									
OCT 1986					APR 1987				
08...	1030	12	60	6.0	08...	0930	5.2	30	0.0
NOV					JUN				
19...	1015	6.8	<50	0.0	03...	1220	97	65	6.0
DEC					JUL				
18...	0815	5.5	<50	0.0	15...	0925	18	45	7.0
FEB 1987					AUG				
25...	0915	4.0	<50	0.0	19...	1020	8.7	60	5.0
09066000 BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47N LONG 106 15 52W)									
OCT 1986					APR 1987				
08...	1350	5.8	120	8.0	29...	1000	5.6	85	0.0
NOV					30...	1000	26	68	1.0
20...	1350	5.9	<50	0.0	JUN				
DEC					03...	0850	40	120	7.0
17...	1650	4.4	<50	0.0	JUL				
FEB 1987					15...	1450	8.6	75	7.0
25...	1425	3.0	<50	0.0	AUG				
					18...	0850	4.3	70	5.0
09066100 BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24N LONG 106 17 34W)									
OCT 1986					APR 1987				
09...	1250	3.8	<50	7.0	08...	1205	2.0	35	0.0
NOV					30...	1130	17	45	1.0
20...	1105	2.5	<50	0.0	JUN				
DEC					03...	1500	27	45	6.0
17...	1355	1.7	<50	0.0	JUL				
FEB 1987					16...	1310	8.8	40	7.0
26...	1515	1.7	<50	0.0	AUG				
					18...	1605	3.7	70	5.0
09066150 PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37N LONG 106 18 07W)									
OCT 1986					APR 1987				
09...	1010	7.8	<50	6.0	08...	1515	1.5	45	0.0
NOV					JUN				
19...	1410	2.6	<50	0.0	04...	1010	35	60	6.0
DEC					JUL				
17...	1110	1.0	<50	0.0	16...	0850	7.5	60	7.0
FEB 1987					AUG				
25...	1710	1.7	<50	0.0	19...	1150	3.4	40	5.0

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09066200 BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02N LONG 106 19 16W)									
OCT 1986					APR 1987				
09...	1500	5.8	65	7.0	09...	1430	1.8	35	0.0
NOV					JUN				
20...	1630	6.3	<50	0.0	03...	1805	42	45	6.0
DEC					JUL				
18...	1315	1.9	<50	0.0	16...	1655	6.9	60	7.0
FEB 1987					AUG				
26...	0930	0.80	<50	0.0	18...	1240	1.7	40	5.0
09066300 MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50N LONG 106 22 48W)									
OCT 1986					APR 1987				
08...	1725	2.0	<50	7.0	09...	1225	0.61	40	0.0
NOV					JUN				
20...	1740	1.7	<50	0.0	03...	1240	22	40	5.0
DEC					JUL				
18...	1705	0.74	<50	0.0	16...	1415	4.1	30	7.0
FEB 1987					AUG				
26...	1205	0.40	<50	0.0	19...	1450	1.0	30	5.0
09066400 RED SANDSTONE CREEK NEAR MINTURN, CO. (LAT 39 40 58N LONG 106 24 03W)									
OCT 1986					APR 1987				
15...	1200	3.0	81	0.5	22...	1650	5.2	--	1.5
NOV					MAY				
18...	1530	1.1	--	0.5	14...	1215	33	54	4.5
DEC					JUN				
16...	1030	2.5	60	0.5	10...	1640	29	57	9.0
JAN 1987					JUL				
28...	1630	0.63	84	0.0	15...	1802	3.3	96	12.5
MAR					AUG				
03...	1300	0.46	87	0.5	21...	1444	1.1	105	11.5
09070000 EAGLE RIVER BELOW GYPSUM, CO. (LAT 39 38 58N LONG 106 57 11W)									
OCT 1986					MAY 1987				
14...	1520	408	834	7.5	19...	1625	2030	198	9.0
NOV					JUN				
17...	1515	292	849	6.5	01...	1605	1150	268	13.5
DEC					JUL				
15...	1425	231	996	0.0	06...	1605	596	--	18.5
JAN 1987					AUG				
20...	1345	195	1110	0.0	04...	1550	353	585	21.0
MAR					31...	1535	284	874	18.0
09...	1525	222	950	0.0					
APR									
13...	1525	205	946	7.5					
09070500 COLORADO RIVER NEAR DOTSERO, CO. (LAT 39 38 40N LONG 107 04 40W)									
OCT 1986					JUN 1987				
14...	1200	1720	489	5.5	01...	1420	3220	336	12.5
NOV					JUL				
17...	1310	1530	475	4.5	06...	1345	1730	469	17.0
MAR 1987					AUG				
09...	1330	1290	483	3.0	04...	1400	1410	500	19.5
APR					31...	1400	1220	504	15.5
13...	1400	1300	527	5.5					
MAY									
19...	1425	5040	214	9.5					
09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO. (LAT 39 43 04N LONG 107 18 51W)									
OCT 1986					JUL 1987				
16...	1230	5.9	--	4.5	08...	1020	3.6	219	9.0
DEC					22...	1450	2.1	220	16.0
04...	0950	3.2	291	0.0	AUG				
JAN 1987					06...	1030	1.3	255	9.5
22...	1105	1.5	--	0.0	SEP				
MAY					02...	1050	1.4	212	10.0
27...	1005	50	206	0.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09073300 ROARING FORK RIVER AB DIFFICULT C NR ASPEN, CO. (LAT 39 08 28N LONG 106 46 25)									
DEC 1986					JUN 1987				
09...	1012	27	55	2.0	03...	0730	579	92	7.0
JAN 1987					30...	0932	366	120	7.0
13...	1010	21	60	1.0	JUL				
MAR					28...	0950	45	50	13.0
03...	1310	15	73	3.0	AUG				
APR					25...	1039	46	45	13.0
15...	0850	17	68	3.0					
MAY									
05...	1217	74	57	6.0					
09073400 ROARING FORK RIVER NEAR ASPEN, CO. (LAT 39 10 48N LONG 106 48 05W)									
NOV 1986					MAY 1987				
04...	1220	47	75	3.0	05...	1412	107	65	6.0
DEC					JUN				
09...	0809	45	65	2.0	03...	1102	606	98	7.0
JAN 1987					23...	1036	551	87	9.0
13...	1131	42	60	2.0	JUL				
MAR					28...	1115	75	56	13.0
03...	1455	34	72	3.0	AUG				
APR					25...	1153	70	65	14.0
16...	0720	44	87	4.0					
09074000 HUNTER CREEK NEAR ASPEN, CO. (LAT 39 12 21N LONG 106 47 49W)									
OCT 1986					MAY 1987				
15...	1005	17	--	1.0	06...	0725	58	63	4.0
NOV					JUN				
04...	1400	11	65	3.0	02...	1440	189	35	9.0
DEC					30...	0835	50	80	7.0
09...	1409	13	68	2.0	JUL				
JAN 1987					28...	0805	36	50	12.5
14...	0945	11	50	0.5	AUG				
MAR					25...	0757	30	38	12.0
03...	1025	5.7	72	0.5					
APR									
14...	0920	5.3	67	1.0					
09074800 CASTLE CREEK ABOVE ASPEN, CO. (LAT 39 05 15N LONG 106 48 42W)									
OCT 1986					MAY 1987				
16...	0835	28	350	1.0	05...	0840	53	320	5.0
NOV					JUN				
05...	1343	26	300	2.0	03...	1350	121	320	6.0
DEC					30...	1232	115	345	9.0
10...	1108	16	270	1.0	JUL				
JAN 1987					28...	1345	74	250	10.0
13...	1508	15	230	1.0	AUG				
MAR					25...	1530	57	280	14.0
04...	0903	11	330	4.0					
APR									
14...	1134	15	280	3.0					
09075700 MAROON CREEK ABOVE ASPEN, CO. (LAT 39 07 25N LONG 106 54 17W)									
NOV 1986					JUN 1987				
05...	1155	47	400	3.0	02...	0755	116	393	5.0
JAN 1987					30...	1355	160	370	7.0
13...	1329	24	320	2.0	JUL				
APR					28...	1520	109	340	10.0
15...	1130	15	375	4.0	AUG				
MAY					25...	1705	70	387	13.0
05...	1025	52	270	6.0					
09076520 OWL CREEK NEAR ASPEN, CO. (LAT 39 13 25N LONG 106 52 45W)									
DEC 1986					JUN 1987				
10...	1319	0.66	480	1.0	04...	0733	0.97	470	--
JAN 1987					30...	1520	1.9	530	12.0
14...	1540	0.26	530	0.5	JUL				
APR					27...	1642	0.56	580	12.0
14...	1316	1.9	470	7.0	AUG				
MAY					26...	1400	0.41	560	16.0
06...	0935	16	270	9.0					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09080400 FRYINGPAN RIVER NEAR RUEDI, CO. (LAT 39 21 56N LONG 106 49 30W)									
OCT 1986					MAY 1987				
16...	1232	154	120	7.0	04...	1614	M324	134	6.0
NOV					JUN				
05...	0920	<151	210	4.0	04...	0927	379	87	4.0
DEC					JUL				
11...	0802	>274	80	4.0	01...	1232	213	120	7.0
JAN 1987					27...	1420	149	120	8.5
14...	1250	<187	200	4.0	AUG				
MAR					26...	0859	121	137	7.0
04...	1310	<192	270	4.0					
APR									
15...	1510	<175	120	8.0					
09081600 CRYSTAL RIVER AB AVALANCHE C, NEAR REDSTONE, CO. (LAT 39 13 56N LONG 107 13 36)									
OCT 1986					MAY 1987				
16...	1532	194	450	10.0	04...	1415	519	320	--
NOV					JUN				
03...	1214	191	480	9.0	01...	1420	621	290	9.0
DEC					JUL				
08...	1249	101	--	10.0	01...	1045	608	330	9.0
JAN 1987					27...	1207	265	330	18.5
12...	1454	80	510	7.0	AUG				
MAR					26...	1143	204	380	17.0
02...	1440	85	560	8.0					
APR									
14...	1630	121	420	7.0					
09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO. (LAT 39 32 37N LONG 107 19 44W)									
OCT 1986					MAY 1987				
17...	1105	1160	490	12.0	07...	1120	1790	430	12.0
NOV					JUN				
06...	0730	896	470	8.0	04...	1210	3660	370	12.0
DEC					JUL				
11...	1043	685	520	1.0	01...	1238	2610	390	13.0
JAN 1987					29...	0840	1130	430	11.0
15...	1118	643	490	1.0	AUG				
MAR					27...	0845	909	520	14.0
02...	1135	547	610	7.0					
APR									
16...	1345	791	580	9.0					
09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO. (LAT 39 33 18N LONG 107 20 13W)									
OCT 1986					MAY 1987				
17...	0820	3010	730	12.0	07...	1100	5050	420	11.0
NOV					JUN				
06...	1000	2700	700	6.0	05...	0950	7960	370	12.0
DEC					JUL				
11...	1250	1890	750	3.0	02...	0940	4330	540	11.0
JAN 1987					29...	1206	3210	520	17.0
15...	0855	1790	690	3.0	AUG				
MAR					27...	1045	2370	630	16.0
05...	1039	1760	780	6.0					
APR									
16...	1200	2210	620	9.0					
09089500 WEST DIVIDE CREEK NEAR RAVEN, CO. (LAT 39 19 52N LONG 107 34 46W)									
OCT 1986					JUN 1987				
07...	1125	14	360	6.0	08...	1155	138	180	9.0
07...	1130	14	360	6.0	08...	1300	138	180	9.0
NOV					JUL				
20...	1155	14	398	0.5	10...	1055	14	340	13.0
DEC					10...	1100	14	340	13.0
17...	1105	6.6	455	0.0	24...	1110	5.0	389	14.5
JAN 1987					AUG				
23...	1155	4.5	501	0.0	14...	1215	4.2	445	14.5
APR					14...	1245	4.6	495	14.5
08...	1155	30	440	1.5	SEP				
08...	1205	30	440	1.5	03...	1110	2.1	500	13.5
MAY					03...	1110	2.1	500	13.5
04...	1230	186	267	6.5					
04...	1330	186	267	6.5					
13...	1135	223	221	7.5					
13...	1245	223	221	7.5					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09093700 COLORADO RIVER NEAR DE BEQUE, CO. (LAT 39 21 45N LONG 108 09 07W)									
OCT 1986					APR 1987				
07...	1200	3640	780	11.5	16...	1200	2460	967	12.0
NOV					MAY				
13...	1200	2940	912	4.0	21...	1200	9540	391	11.5
DEC					JUN				
11...	1100	1860	982	0.0	25...	1100	5260	596	16.5
FEB 1987					JUL				
12...	1200	2160	1050	4.0	16...	1100	2740	881	20.0
MAR					AUG				
23...	1100	2190	1100	7.0	13...	1100	2250	929	20.0
09095500 COLORADO RIVER NEAR CAMEO, CO. (LAT 39 14 20N LONG 108 16 00W)									
OCT 1986					APR 1987				
03...	1100	3650	958	10.0	15...	1300	2440	987	9.0
08...	0900	3700	853	12.0	22...	1200	3960	678	10.0
08...	1200	3610	853	12.0	28...	1000	6610	495	11.5
08...	1205	--	--	--	MAY				
15...	1300	3450	904	8.0	07...	0900	6130	578	12.5
30...	1200	3120	900	8.0	07...	1300	5920	578	12.5
NOV					13...	1200	8640	436	12.5
05...	1200	3170	860	6.0	20...	0900	9860	372	12.0
12...	1000	2840	916	3.0	20...	1400	10400	372	12.0
12...	1300	2900	916	4.0	26...	1300	7390	480	10.5
12...	1305	2840	916	4.0	JUN				
20...	1200	3170	945	6.0	03...	1100	7530	485	14.0
26...	1100	2880	938	4.5	03...	1300	7160	485	14.0
DEC					10...	1100	12000	410	12.5
03...	1200	2710	945	1.5	10...	1200	11900	410	12.5
10...	0900	2520	936	0.0	17...	0955	8420	430	14.5
10...	1300	2680	936	0.0	24...	1000	5570	562	16.0
17...	1200	2550	927	1.0	24...	1300	5410	562	16.0
30...	1300	2210	1030	1.0	JUL				
JAN 1987					01...	1200	4310	670	16.0
07...	1200	2400	937	2.0	08...	1200	3390	760	18.0
14...	1200	2340	1090	0.0	15...	0900	3170	860	18.5
31...	1200	2210	1010	0.5	15...	1300	2990	860	18.5
FEB					23...	1000	2550	963	19.0
04...	1200	2170	1050	3.0	29...	1200	3260	902	22.0
11...	1100	2170	1140	4.0	AUG				
11...	1400	2250	1140	4.0	06...	1000	2440	946	19.5
18...	1200	2400	1070	3.0	06...	1100	2550	920	19.5
26...	1100	2190	1170	3.5	12...	1000	2440	946	19.5
MAR					12...	1400	2380	946	19.5
04...	1100	2170	1090	4.0	19...	0930	2150	1130	16.0
11...	0900	2480	963	6.5	26...	1100	2750	978	16.0
11...	1400	2600	963	6.5	SEP				
18...	1000	2380	1030	5.5	02...	1300	2320	1050	19.0
24...	1100	2320	1060	6.0	09...	1100	2330	1070	15.5
APR					09...	1100	1900	1120	12.0
01...	0935	2130	1240	5.5	16...	1045	2210	1130	14.0
08...	1300	2440	1010	11.0	23...	1230	2010	1240	14.0
15...	1000	2330	987	9.0	30...	1000	1900	1120	12.0
					30...	1200	2030	1120	12.0
09105000 PLATEAU CREEK NEAR CAMEO, CO. (LAT 39 11 00N LONG 108 16 10W)									
OCT 1986					APR 1987				
03...	1300	356	658	11.5	08...	1400	220	588	9.5
NOV					27...	1000	889	328	9.0
05...	1300	198	694	5.0	MAY				
DEC					19...	0900	1970	208	9.0
12...	1100	138	793	0.0	JUN				
JAN 1987					25...	0800	219	484	15.5
14...	1500	165	--	0.0	JUL				
FEB					16...	0800	120	662	17.5
04...	1300	123	708	4.0	SEP				
MAR					02...	1100	132	718	16.5
04...	1200	89	746	3.5					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO. (LAT 38 49 06N LONG 106 36 31W)									
OCT 1986					MAY 1987				
06...	1245	196	140	10.0	19...	0920	353	120	6.0
DEC					JUN				
16...	1105	69	120	1.0	09...	0826	267	90	8.0
JAN 1987					JUL				
27...	1150	122	80	3.0	14...	1013	316	110	7.0
MAR					AUG				
09...	1200	314	100	4.0	11...	0837	285	80	8.0
APR					SEP				
21...	1350	205	100	3.0	09...	1126	306	90	9.0
09110000 TAYLOR RIVER AT ALMONT, CO. (LAT 38 39 52N LONG 106 50 41W)									
OCT 1986					MAY 1987				
06...	1510	285	150	11.0	19...	1208	1000	130	8.0
NOV					JUN				
04...	1305	230	180	5.0	09...	1033	1060	120	8.0
DEC					JUL				
16...	1230	113	80	1.0	14...	1211	461	145	11.0
JAN 1987					AUG				
27...	1320	179	120	2.0	11...	1011	370	180	10.0
MAR					SEP				
09...	1255	344	120	4.0	09...	1258	374	190	12.0
APR									
21...	1015	317	140	4.5					
09112500 EAST RIVER AT ALMONT CO. (LAT 38 39 52N LONG 106 50 50W)									
OCT 1986					MAY 1987				
06...	1545	253	240	9.0	19...	1434	1390	205	8.0
NOV					JUN				
04...	1407	176	290	6.0	09...	1250	1720	250	8.0
DEC					JUL				
16...	1325	118	290	1.0	14...	1315	273	235	10.0
JAN 1987					AUG				
27...	1355	75	290	1.0	11...	1131	246	430	12.0
MAR					SEP				
09...	1350	102	180	5.0	09...	1407	147	370	13.0
APR									
21...	0807	381	240	9.0					
09114500 GUNNISON RIVER NEAR GUNNISON, CO. (LAT 38 32 31N LONG 106 56 57W)									
OCT 1986					MAY 1987				
07...	1205	662	260	10.0	20...	0938	2530	170	8.0
NOV					JUN				
04...	1500	467	380	5.0	09...	1515	3250	170	6.0
DEC					JUL				
16...	1425	277	190	1.0	14...	1536	801	280	10.0
JAN 1987					AUG				
27...	1450	350	190	0.0	12...	0926	684	200	11.0
MAR					SEP				
09...	1540	684	140	3.5	10...	0740	581	230	10.0
APR									
22...	0820	1050	198	2.5					
09118450 COCHETOPA CREEK BELOW ROCK CREEK NR PARLIN, CO. (LAT 38 20 08N LONG 106 46 18)									
OCT 1986					JUN 1987				
07...	0915	41	220	6.0	09...	1755	227	155	8.0
NOV					JUL				
05...	1000	41	130	7.0	14...	0725	46	240	--
APR 1987					AUG				
20...	1350	198	150	4.0	10...	1452	69	190	13.0
MAY					SEP				
18...	1545	241	137	7.0	09...	0852	48	210	14.0
09119000 TOMICHI CREEK AT GUNNISON, CO. (LAT 38 31 18N LONG 106 56 25W)									
OCT 1986					MAY 1987				
09...	1030	141	340	10.0	20...	0725	1270	132	6.0
NOV					JUN				
04...	1630	185	240	5.0	10...	0730	1300	220	--
DEC					JUL				
16...	1550	105	250	1.0	15...	0735	179	310	--
JAN 1987					AUG				
27...	1635	95	250	0.0	11...	1318	176	300	14.0
MAR					SEP				
10...	1125	223	160	5.0	09...	1556	104	330	16.0

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09124500 LAKE FORK AT GATEVIEW, CO. (LAT 38 17 56N LONG 107 13 46W)									
OCT 1986					MAY 1987				
07...	1800	157	185	10.0	20...	1245	889	150	7.0
NOV					JUN				
05...	1300	126	260	4.0	10...	1035	1600	100	10.0
DEC					JUL				
17...	1215	72	120	1.0	15...	1027	441	165	12.0
JAN 1987					AUG				
28...	1035	63	240	1.0	12...	1028	242	150	13.0
MAR					SEP				
10...	1305	93	150	5.0	10...	1010	125	270	11.0
APR									
22...	1115	185	178	10.0					
09126000 CIMARRON RIVER NEAR CIMARRON, CO. (LAT 38 15 45N LONG 107 32 39W)									
OCT 1986					MAY 1987				
08...	0920	30	210	5.0	19...	1145	521	117	5.5
NOV					JUN				
05...	1500	26	240	5.0	04...	0925	516	85	8.0
DEC					JUL				
17...	1430	29	130	1.0	09...	0910	150	155	7.0
MAR 1987					AUG				
11...	1100	25	140	3.5	06...	0905	111	125	10.0
APR					SEP				
23...	1050	51	120	3.5	03...	0905	92	160	13.0
09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO. (LAT 38 31 45N LONG 107 38 54W)									
OCT 1986					MAY 1987				
08...	1405	1730	240	10.0	13...	1415	1480	210	8.0
NOV					JUN				
06...	1110	1010	200	6.0	04...	1330	907	195	9.0
DEC					JUL				
18...	1110	2090	180	2.0	09...	1710	1460	200	10.0
JAN 1987					15...	1140	1450	215	10.0
28...	1550	2040	190	2.0	AUG				
MAR					06...	1310	1280	190	10.0
12...	0900	2440	180	4.0	SEP				
APR					03...	1320	566	205	11.0
23...	1245	1120	240	6.0					
09128500 SMITH FORK NEAR CRAWFORD, CO. (LAT 38 43 40N LONG 107 30 22W)									
OCT 1986					MAY 1987				
07...	1540	32	150	23.5	07...	1040	249	135	6.0
NOV					JUN				
04...	1140	27	180	15.0	02...	0845	107	130	5.5
DEC					JUL				
09...	1145	22	190	10.5	07...	1140	24	160	14.0
JAN 1987					AUG				
13...	1050	13	220	12.5	04...	1110	8.2	220	17.0
MAR					SEP				
03...	1130	19	245	14.0	01...	1055	6.4	205	14.0
APR									
14...	1210	57	215	4.0					
09129600 SMITH FORK NEAR LAZEAR, CO. (LAT 38 42 27N LONG 107 42 35W)									
OCT 1986					MAY 1987				
08...	0855	7.3	2970	16.5	07...	1320	194	845	15.0
NOV					JUN				
04...	1405	9.8	3250	16.5	02...	1105	61	1710	14.0
DEC					JUL				
09...	1405	42	1640	12.0	10...	0920	2.1	2880	14.0
JAN 1987					AUG				
13...	1345	33	1650	16.0	04...	1330	9.8	2940	24.0
MAR					SEP				
03...	1405	31	1640	19.5	01...	1320	2.5	3110	22.0
APR									
14...	1445	105	910	10.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO. (LAT 38 55 45N LONG 107 26 53W)									
OCT 1986					MAY 1987				
07...	0900	342	195	14.5	06...	1155	1560	170	7.5
NOV					JUN				
03...	1335	355	225	17.0	01...	1410	1160	180	12.0
DEC					JUL				
08...	1340	206	250	12.0	06...	1355	327	135	17.0
JAN 1987					AUG				
12...	1330	166	210	13.0	03...	1325	262	190	17.0
MAR					31...	1330	223	210	18.0
02...	1345	100	295	19.0					
APR									
13...	1435	626	285	6.0					
09134000 MINNESOTA CREEK NEAR PAONIA, CO. (LAT 38 52 13N LONG 107 30 06W)									
OCT 1986					MAY 1987				
07...	1220	9.5	725	19.0	06...	1420	116	345	10.0
NOV					JUN				
04...	0915	11	865	15.5	01...	1640	80	305	13.0
DEC					JUL				
09...	0900	9.0	860	13.5	07...	0845	38	415	17.0
JAN 1987					AUG				
13...	0835	5.5	880	--	04...	0845	21	525	13.0
MAR					SEP				
03...	0900	3.4	1250	12.5	01...	0825	16	415	11.0
APR									
14...	0905	14	1180	1.0					
09135900 LEROUX CREEK AT HOTCHKISS, CO. (LAT 38 47 53N LONG 107 43 53W)									
OCT 1986					MAY 1987				
08...	1035	83	630	16.5	08...	0935	117	330	7.0
NOV					JUN				
06...	0825	50	710	13.5	02...	1320	39	695	14.0
DEC					JUL				
10...	1400	20	1160	9.5	10...	1125	3.9	1530	14.0
JAN 1987					AUG				
15...	0820	14	1390	--	05...	1430	7.6	1440	20.0
MAR					SEP				
05...	0835	17	1250	16.5	01...	1510	6.0	1540	18.0
APR									
16...	0845	113	330	2.5					
09143000 SURFACE CREEK NEAR CEDAREdge, CO. (LAT 38 59 05N LONG 107 51 13W)									
OCT 1986					MAY 1987				
08...	1310	24	150	17.0	08...	1225	173	97	5.0
NOV					JUN				
05...	0850	18	165	12.5	03...	0845	202	145	4.5
JAN 1987					JUL				
14...	1045	15	145	12.0	08...	0840	85	90	8.0
MAR					AUG				
04...	0910	13	180	16.5	05...	0840	66	115	12.0
APR					SEP				
15...	0900	27	175	1.0	02...	0825	42	97	9.0
09143500 SURFACE CREEK AT CEDAREdge, CO. (LAT 38 54 06N LONG 107 55 14W)									
OCT 1986					MAY 1987				
08...	1440	27	160	20.5	08...	1425	99	155	10.0
NOV					JUN				
05...	1040	17	200	12.5	03...	1045	86	135	7.5
DEC					JUL				
10...	0945	2.8	265	8.0	08...	1045	29	80	11.5
JAN 1987					AUG				
14...	0845	17	235	11.0	05...	1020	34	105	13.0
APR					SEP				
15...	1110	40	355	3.0	02...	1020	11	125	13.0

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09144200 TONGUE CREEK AT CORY, CO. (LAT 38 47 16N LONG 107 59 41W)									
OCT 1986					MAY 1987				
09...	0950	116	1130	17.5	04...	1120	178	785	9.0
NOV					JUN				
05...	1335	116	1270	12.5	03...	1255	141	980	14.5
DEC					JUL				
10...	1135	47	1540	8.0	08...	1455	14	2110	24.0
JAN 1987					13...	1200	24	2180	18.0
14...	1325	57	1670	16.0	AUG				
MAR					05...	1230	18	2240	22.0
04...	1355	57	1470	20.0	SEP				
APR					02...	1300	38	1440	19.0
07...	1300	92	930	7.0					
15...	1320	153	790	8.0					
09144250 GUNNISON RIVER AT DELTA, CO. (LAT 38 45 01N LONG 108 04 06W)									
OCT 1986					MAY 1987				
10...	0820	2830	720	15.0	12...	1035	4800	465	12.0
NOV					JUN				
06...	1135	3190	765	13.5	05...	0710	3200	670	13.0
DEC					JUL				
11...	0900	2970	590	8.0	13...	1245	1880	875	17.0
JAN 1987					AUG				
15...	0920	2770	540	11.0	07...	0710	1720	885	16.0
MAR					SEP				
05...	1135	3330	620	16.5	04...	0705	1050	1230	17.0
APR									
16...	1340	3220	515	9.0					
09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO. (LAT 38 11 02N LONG 107 44 43W)									
OCT 1986					MAY 1987				
14...	1335	115	580	8.0	20...	1205	495	286	9.0
NOV					JUN				
25...	1040	81	720	3.0	09...	1800	812	288	12.0
JAN 1987					JUL				
13...	0840	48	858	0.0	09...	0915	345	452	8.5
MAR					AUG				
04...	0900	44	937	0.5	27...	0800	194	493	8.0
APR									
09...	0830	80	708	4.0					
09147000 DALLAS CREEK NEAR RIDGWAY, CO. (LAT 38 10 40N LONG 107 45 28W)									
OCT 1986					MAY 1987				
14...	1430	42	580	7.0	20...	1320	195	363	10.0
NOV					JUN				
25...	1130	39	671	0.5	09...	1605	75	484	12.0
JAN 1987					JUL				
13...	0815	19	751	0.0	09...	1050	69	581	9.0
MAR					AUG				
04...	1020	22	776	0.0	26...	1930	79	516	14.0
APR									
09...	0720	65	503	2.0					
17...	0700	166	--	2.0					
27...	1800	277	323	11.0					
09147500 UNCOMPAHGRE RIVER AT COLONA, CO. (LAT 38 19 53N LONG 107 46 44W)									
OCT 1986					MAY 1987				
08...	1530	85	725	11.0	14...	1040	919	350	7.0
NOV					JUN				
06...	--	104	750	5.0	04...	1740	566	370	12.0
DEC					JUL				
18...	0850	95	750	0.0	09...	1305	367	455	15.5
JAN 1987					AUG				
29...	1410	97	800	2.0	06...	1555	495	485	16.0
MAR					SEP				
12...	1305	117	900	5.0	10...	1040	411	680	15.0
APR									
14...	1140	56	880	6.0					
22...	1705	445	680	11.0					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09149500 UNCOMPAHGRE RIVER AT DELTA, CO. (LAT 38 44 31N LONG 108 04 49W)									
OCT 1986					MAY 1987				
09...	1315	529	1360	24.5	04...	1425	1060	840	13.0
NOV					JUN				
05...	1505	262	235	19.5	05...	1045	525	875	9.0
DEC					JUL				
11...	0810	67	3080	11.0	10...	1410	223	1170	21.0
JAN 1987					AUG				
14...	1540	194	2500	14.0	07...	1110	514	1460	19.0
MAR					SEP				
04...	1540	106	2860	20.0	04...	1050	575	1390	17.0
APR									
16...	1135	1140	905	9.5					
09151500 ESCALANTE CREEK NEAR DELTA, CO. (LAT 38 45 24N LONG 108 15 34W)									
OCT 1986					MAY 1987				
10...	1205	87	295	17.0	14...	1435	309	245	15.0
NOV					JUN				
07...	0945	61	375	13.5	05...	1200	78	349	17.0
DEC					26...	0900	7.6	576	18.5
11...	1330	20	570	1.0	JUL				
JAN 1987					02...	1000	8.6	595	18.5
15...	1400	25	565	12.5	28...	0900	26	333	15.0
MAR					AUG				
06...	0935	33	550	--	27...	1100	16	514	18.0
APR									
28...	1410	601	175	8.5					
09153290 REED WASH NEAR MACK, CO. (LAT 39 12 41N LONG 108 48 11W)									
OCT 1986					MAY 1987				
10...	1000	73	1570	12.5	06...	0800	58	1170	11.0
NOV					JUN				
06...	1300	17	3530	8.0	22...	1500	59	1600	21.5
14...	1100	8.4	4470	7.0	JUL				
JAN 1987					24...	0800	80	1750	17.0
14...	0800	4.6	5030	2.5	AUG				
FEB					27...	0900	78	--	16.0
18...	0900	3.6	4720	3.5	SEP				
MAR					25...	0900	75	2630	14.5
24...	0800	3.3	4980	5.0					
APR									
09...	1100	66	1380	11.5					
09163570 HAY PRESS C AB FRUITA RES #3, NR GLADE PARK, CO. (LAT 38 51 03N LONG 108 46 56)									
OCT 1986					MAY 1987				
06...	1300	0.10	116	5.0	01...	1400	8.0	60	0.5
NOV					08...	1300	4.1	--	4.0
06...	1000	0.07	135	1.0	11...	1300	4.7	62	3.0
DEC					JUN				
15...	1200	0.05	142	0.5	22...	1200	0.44	90	14.0
JAN 1987					JUL				
27...	1200	0.07	152	0.5	24...	1200	0.02	153	18.5
MAR					AUG				
03...	1200	0.06	167	0.0	04...	1400	0.02	--	21.5
APR					SEP				
17...	1000	0.76	116	0.0	03...	0900	0.04	--	11.5
					25...	1200	0.02	202	11.0
09165000 DOLORES RIVER BELOW RICO, CO. (LAT 37 38 20N LONG 108 03 35W)									
OCT 1986					MAY 1987				
14...	1100	95	260	1.0	21...	1750	596	101	5.0
NOV					JUN				
26...	1545	70	373	0.5	09...	1130	1030	154	5.5
JAN 1987					JUL				
13...	1400	34	420	0.0	07...	1440	257	202	12.0
MAR					AUG				
04...	1425	43	519	0.0	26...	1045	236	205	7.5
APR									
09...	1650	49	377	2.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09166500 DOLORES RIVER AT DOLORES, CO. (LAT 37 28 16N LONG 108 30 15W)									
OCT 1986					MAY 1987				
03...	1315	398	250	9.0	27...	1445	1250	223	7.0
DEC 05...	1400	252	367	2.0	JUN 09...	0835	3250	147	6.0
JAN 1987					JUL 07...	1200	570	219	13.0
27...	1320	132	438	0.0	SEP 04...	1130	163	304	10.0
MAR 13...	1135	231	347	2.0					
APR 17...	1030	1310	235	4.0					
09166950 LOST CANYON CREEK NEAR DOLORES, CO. (LAT 37 26 45N LONG 108 28 03W)									
OCT 1986					MAY 1987				
22...	0940	20	105	4.0	07...	1030	244	62	5.0
DEC 05...	1500	26	133	2.0	19...	0955	148	63	7.0
JAN 1987					JUN 10...	1835	1.9	394	22.0
27...	1445	4.1	173	0.0	JUL 07...	0940	0.14	976	17.0
MAR 13...	1005	60	156	0.0	SEP 04...	1010	0.18	582	12.0
APR 16...	2030	406	91	8.0					
09172500 SAN MIGUEL RIVER NEAR PLACERVILLE, CO. (LAT 38 02 05N LONG 108 07 15W)									
OCT 1986					MAY 1987				
14...	1620	164	360	7.0	20...	0905	1060	270	5.5
NOV 25...	1305	123	436	0.5	JUN 09...	1410	1240	220	9.0
JAN 1987					JUL 09...	1245	637	242	11.0
13...	1145	98	437	0.0	AUG 26...	1755	437	234	14.0
MAR 04...	1210	73	449	2.0					
APR 09...	1020	154	391	4.0					
27...	1555	1210	286	8.5					
09177000 SAN MIGUEL RIVER AT URAVAN, CO. (LAT 38 21 26N LONG 108 42 44W)									
OCT 1986					MAY 1987				
14...	1835	369	750	9.0	01...	1025	3280	265	10.0
NOV 25...	1535	334	803	3.0	21...	0930	1800	495	10.0
JAN 1987					JUN 10...	0950	1710	412	12.0
12...	1545	162	733	0.0	JUL 08...	1745	670	432	21.0
MAR 03...	1720	176	1110	7.0	AUG 26...	1435	664	503	18.0
APR 09...	1320	1120	420	7.0					
09238705 LONG LAKE INLET NEAR BUFFALO PASS, CO. (LAT 40 28 25N LONG 106 40 46W)									
NOV 1986					JUN 1987				
28...	1050	0.15	40	0.5	25...	1415	0.55	27	--
FEB 1987					AUG 13...	1030	0.11	--	15.0
03...	0945	0.01	3	0.5					
MAR 24...	1100	0.06	54	0.5					
09238710 FISH C TRIB BL LONG LK, NR BUFFLAO PASS, CO. (LAT 40 28 36N LONG 106 41 13W)									
OCT 1986					APR 1987				
03...	1045	0.03	20	1.0	28...	0905	0.11	10	0.5
NOV 28...	0915	0.05	25	0.5	JUN 25...	1500	0.40	18	12.5
FEB 1987									
03...	1000	0.03	3	0.5					
09238750 MD FK FISH C NR BUFFALO PASS, CO. (LAT 40 29 54N LONG 106 41 30W)									
OCT 1986					MAR 1987				
03...	1300	1.3	25	7.0	24...	1400	0.35	48	0.5
NOV 28...	1140	0.57	31	6.5	JUN 25...	1130	1.2	26	12.0
DEC 23...	1200	0.41	5	0.5	JUL 22...	0940	0.42	32	13.0
FEB 1987					AUG 13...	0945	0.25	37	11.0
03...	1130	0.48	2	0.5					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09238770 GRANITE C NR BUFFALO PASS, CO. (LAT 40 29 35N LONG 106 41 31W)									
OCT 1986					MAY 1987				
03...	1110	2.4	38	7.0	13...	1520	41	10	3.0
NOV					JUN				
28...	1130	1.1	42	0.5	25...	1200	4.6	24	12.5
DEC					JUL				
23...	0930	0.70	5	0.5	22...	1150	1.2	33	16.0
FEB 1987					AUG				
03...	1020	0.56	2	0.5	13...	1235	0.64	36	14.5
MAR									
24...	1300	0.36	45	0.5					
09238800 MID FK FISH CR TRIB BL FISH CR RESERVOIR, CO (LAT 40 29 50N LONG 106 41 54W)									
JUN 1987					JUL 1987				
25...	1300	3.8	16	10.0	22...	1040	0.11	18	18.0
09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO. (LAT 40 29 01N LONG 106 49 54W)									
OCT 1986					APR 1987				
24...	1240	236	231	5.0	27...	1655	1270	140	10.0
NOV					MAY				
25...	0930	80	289	2.5	26...	1050	919	75	8.5
JAN 1987					JUN				
23...	1040	53	248	0.5	24...	1030	201	172	14.0
FEB					JUL				
24...	1015	56	26	2.0	23...	1225	126	310	23.0
MAR					AUG				
23...	1040	139	260	1.5	24...	1120	100	270	>0.0
09241000 ELK RIVER AT CLARK, CO. (LAT 40 43 03N LONG 106 54 55W)									
NOV 1986					MAY 1987				
18...	1415	113	90	2.5	19...	1545	873	39	9.0
FEB 1987					JUL				
02...	1540	55	94	1.0	23...	1405	108	64	18.0
MAR					AUG				
23...	1115	54	112	1.0	18...	1410	71	76	14.0
APR									
27...	1410	613	73	7.5					
09245000 ELKHEAD CREEK NEAR ELKHEAD, CO. (LAT 40 40 11N LONG 107 17 05W)									
OCT 1986					MAY 1987				
01...	1530	20	--	9.0	14...	1215	137	160	8.5
NOV					JUN				
18...	1600	17	--	1.0	05...	1335	45	209	17.0
JAN 1987					JUL				
14...	1340	13	396	0.5	15...	1335	7.4	252	23.0
MAR					AUG				
05...	1105	11	383	1.0	11...	1320	2.6	286	19.5
APR					SEP				
07...	1130	35	366	0.5	04...	1005	1.8	250	15.0
09247600 YAMPA RIVER BELOW CRAIG, CO. (LAT 40 28 51N LONG 107 36 49W)									
OCT 1986					JUN 1987				
03...	1435	601	462	9.0	05...	0955	1790	--	13.5
10...	0945	640	402	9.0	JUL				
28...	1115	579	507	6.5	22...	1105	238	378	20.0
DEC					AUG				
12...	1250	292	844	0.5	05...	0905	257	405	20.0
FEB 1987					21...	0955	93	443	17.0
10...	1430	211	771	0.0	SEP				
MAR					10...	0915	181	388	14.5
26...	1150	464	930	3.0	18...	1120	274	325	13.0
APR					30...	1215	129	442	11.0
21...	1315	2300	346	6.0					

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09250507 WILSON CREEK ABOVE TAYLOR CREEK NEAR AXIAL, CO. (LAT 40 18 53N LONG 107 47 58)									
OCT 1986					MAY 1987				
06...	1350	2.1	1560	12.0	18...	0955	12	--	10.5
NOV					JUL				
21...	1345	2.8	1630	7.0	20...	1030	1.9	1510	13.5
DEC					AUG				
11...	1425	2.2	1970	0.5	19...	1430	1.2	1620	22.5
FEB 1987					SEP				
11...	1355	3.9	1360	4.0	15...	1215	1.2	1610	14.5
APR									
07...	0910	3.8	1500	3.0					
21...	0930	5.6	1380	0.0					
28...	1745	35	845	14.0					
09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO. (LAT 40 18 48N LONG 107 47 57W)									
OCT 1986					APR 1987				
06...	1520	0.22	1670	12.5	07...	1115	0.90	--	5.5
NOV					21...	1105	1.5	1630	1.0
21...	1450	0.16	1810	5.5	28...	1835	2.8	1390	13.5
DEC					JUN				
11...	1525	0.11	2170	0.5	04...	1025	1.5	1420	9.5
FEB 1987									
11...	1530	1.5	476	0.0					
09253000 LITTLE SNAKE RIVER NEAR SLATER, CO. (LAT 40 59 58N LONG 107 08 34W)									
OCT 1986					APR 1987				
08...	1050	95	114	4.5	28...	1205	645	71	5.0
NOV					MAY				
13...	1455	100	133	0.0	21...	0910	507	58	6.0
DEC					JUL				
09...	1220	39	172	0.0	16...	1255	35	122	20.5
FEB 1987					AUG				
03...	1520	34	172	0.0	18...	1315	19	167	17.5
MAR					SEP				
25...	1300	58	183	0.5	21...	1020	17	193	8.0
09255000 SLATER FORK NEAR SLATER, CO. (LAT 40 58 54N LONG 107 22 58W)									
OCT 1986					APR 1987				
08...	1230	62	204	7.5	28...	0820	439	108	4.0
NOV					MAY				
13...	1220	39	261	0.5	21...	1245	232	96	8.5
DEC					JUL				
09...	1450	27	270	0.0	16...	1000	15	321	17.5
FEB 1987					AUG				
03...	1130	31	260	0.5	18...	1545	6.4	312	20.5
MAR					SEP				
25...	1430	44	303	3.5	21...	1350	11	250	13.5
09258000 WILLOW CREEK NEAR DIXON, WY. (LAT 40 54 56N LONG 107 31 16W)									
OCT 1986					JUN 1987				
08...	1415	6.2	185	10.0	04...	1415	14	113	15.5
NOV					JUL				
13...	1035	5.5	296	0.0	16...	0815	0.47	292	14.0
DEC					AUG				
09...	1020	2.6	303	0.0	19...	0855	1.5	181	11.5
FEB 1987					SEP				
03...	0935	4.0	283	0.0	21...	1535	1.8	210	15.0
APR									
08...	1435	25	363	6.0					
27...	1915	32	189	14.5					
09260050 YAMPA RIVER AT DEERLODGE PARK, CO. (LAT 40 27 02N LONG 108 31 20W)									
OCT 1986					APR 1987				
09...	1100	1040	680	12.0	16...	1340	1780	725	13.5
NOV					MAY				
19...	1115	1060	822	4.0	22...	1405	5730	220	13.0
DEC					JUL				
10...	1345	353	1000	0.5	15...	1225	701	700	24.0
FEB 1987					AUG				
18...	1140	918	995	0.5	17...	1640	204	672	23.0
MAR					SEP				
24...	1130	1120	1070	4.5	15...	1450	252	695	19.5

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09302450 LOST CREEK NEAR BUFORD, CO. (LAT 40 03 01N LONG 107 28 06W)									
OCT 1986					MAY 1987				
01...	1450	5.5	346	8.5	01...	1425	175	159	7.0
NOV					JUN				
03...	0940	2.7	344	0.0	02...	0945	20	185	7.0
DEC					JUL				
04...	1345	6.8	324	0.5	06...	1200	4.0	308	17.0
JAN 1987					AUG				
22...	1115	3.7	344	0.0	13...	1035	2.6	398	13.0
MAR					SEP				
12...	1000	6.6	351	0.5	11...	1150	2.4	415	8.5
09303320 WAGONWHEEL CREEK AT BUDGES RESORT, CO. (LAT 39 50 34N LONG 107 20 10W)									
OCT 1986					MAY 1987				
20...	1500	2.4	280	2.0	13...	1120	63	240	3.0
DEC					JUL				
04...	1158	0.80	--	0.0	09...	1345	4.4	282	12.0
JAN 1987					AUG				
22...	1310	0.41	291	0.0	14...	1515	0.51	312	16.0
MAR					SEP				
25...	1000	0.04	283	0.5	18...	0930	0.11	295	3.5
09304200 WHITE RIVER ABOVE COAL CREEK, NEAR MEEKER, CO. (LAT 40 00 18N LONG 107 49 29W)									
OCT 1986					MAY 1987				
01...	1710	464	344	9.5	08...	1140	1460	260	7.5
NOV					16...	1215	2070	230	8.0
03...	1130	535	360	3.0	20...	1610	1960	242	8.0
DEC					27...	1115	1160	282	5.0
05...	1415	427	388	3.0	JUN				
JAN 1987					02...	1415	1130	248	11.0
21...	1350	330	422	--	12...	1150	1120	255	11.0
FEB					30...	1200	380	350	12.0
23...	1230	326	440	2.0	JUL				
APR					27...	1445	373	490	23.0
01...	1305	331	399	7.0	28...	1130	292	415	16.0
23...	0900	843	320	5.0	SEP				
MAY					01...	1500	282	410	17.0
01...	1130	1600	255	7.5	08...	1530	243	430	13.5
09304500 WHITE RIVER NEAR MEEKER, CO. (LAT 40 02 01N LONG 107 51 42W)									
OCT 1986					MAY 1987				
29...	1550	559	468	8.0	22...	1445	1530	265	10.5
DEC					JUN				
05...	1300	455	502	3.0	30...	1210	533	386	16.5
JAN 1987					JUL				
21...	1245	309	520	0.0	27...	1200	428	490	20.0
FEB					SEP				
23...	1100	350	560	2.0	01...	1500	282	520	19.0
APR									
01...	1130	388	555	8.0					
09342500 SAN JUAN RIVER AT PAGOSA SPRINGS, CO. (LAT 37 15 58N LONG 107 00 37W)									
OCT 1986					MAY 1987				
06...	1635	470	113	10.0	06...	1030	914	107	11.0
DEC					20...	0915	1830	69	9.5
09...	0835	203	97	0.5	JUN				
JAN 1987					05...	1325	1930	78	10.0
26...	1210	93	175	0.5	11...	1045	2300	64	7.0
MAR					24...	0915	1460	53	7.0
06...	--	148	175	0.5	JUL				
26...	0800	152	--	1.0	24...	1345	247	100	17.0
APR					SEP				
09...	1205	255	215	5.5	09...	1330	108	170	13.0
24...	1215	1200	129	6.0					
09346000 NAVAJO RIVER AT EDITH, CO. (LAT 37 00 10N LONG 106 54 25W)									
OCT 1986					MAY 1987				
06...	1135	190	184	9.0	06...	1255	293	222	9.0
DEC					19...	1545	272	148	11.0
08...	1040	95	300	0.0	JUN				
JAN 1987					08...	1300	258	150	10.0
26...	1025	52	186	0.0	24...	1055	95	255	13.0
MAR					JUL				
05...	1615	110	320	8.5	22...	1545	89	275	23.0
APR					SEP				
09...	1025	129	418	4.0	09...	0945	48	326	9.5

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	TEMPER- ATURE WATER (DEG C)
09346400 SAN JUAN RIVER NEAR CARRACAS, CO. (LAT 37 00 49N LONG 107 18 42W)									
OCT 1986					JUN 1987				
07...	1135	875	196	11.0	11...	1235	2750	111	12.0
DEC					24...	1410	1620	119	13.0
09...	1315	505	428	2.5	JUL				
MAR 1987					28...	1020	376	286	21.5
04...	1455	372	240	7.0	SEP				
10...	1050	1490	556	7.0	10...	0935	205	326	13.0
MAY									
13...	1105	2590	180	10.0					
09349800 PIEDRA RIVER NEAR ARBOLES, CO. (LAT 37 05 18N LONG 107 23 50W)									
OCT 1986					MAY 1987				
07...	0925	411	196	9.0	20...	1205	1840	150	13.0
DEC					JUN				
09...	1135	352	323	2.0	11...	1050	2160	126	9.0
JAN 1987					25...	1515	1370	108	15.0
26...	1355	203	449	0.5	JUL				
MAR					28...	1140	261	258	21.0
06...	1145	415	439	4.5	SEP				
APR					09...	1520	165	316	15.0
09...	1450	960	354	8.5					
24...	1600	2260	224	10.0					
09354500 LOS PINOS RIVER AT LA BOCA, CO. (LAT 37 00 34N LONG 107 35 56W)									
OCT 1986					MAY 1987				
07...	1400	557	122	14.5	20...	1425	729	170	16.0
NOV					JUN				
04...	1055	888	198	8.0	25...	1105	1310	108	14.5
JAN 1987					JUL				
05...	1255	149	294	0.0	28...	1355	253	222	24.5
MAR					SEP				
04...	1025	124	343	2.5	10...	1130	162	242	15.0
APR									
10...	1325	601	238	9.5					
09361500 ANIMAS RIVER AT DURANGO, CO. (LAT 37 16 45N LONG 107 52 47W)									
OCT 1986					MAY 1987				
28...	1105	700	380	7.0	14...	1140	4090	230	6.0
DEC					27...	1005	1910	--	6.0
18...	1135	406	780	3.0	JUN				
JAN 1987					04...	1430	4080	130	8.0
28...	0900	263	790	2.0	11...	1610	4790	170	8.5
FEB					25...	1450	3610	157	10.0
25...	1355	267	750	2.0	JUL				
MAR					27...	1140	1370	333	13.0
26...	1030	454	--	6.0	AUG				
APR					24...	1505	1220	350	14.5
24...	1515	2320	280	4.0	SEP				
					25...	1325	280	700	15.0
09371002 NAVAJO WASH NEAR TOWAOC, CO (LAT 37 12 03N LONG 108 41 50W)									
OCT 1986					MAY 1987				
08...	1230	9.2	1820	12.0	08...	1220	17	1850	16.0
30...	0940	8.5	2070	7.0	JUN				
NOV					23...	1200	23	1270	18.0
14...	1005	2.2	3840	3.0	JUL				
DEC					23...	1205	19	766	20.0
23...	1215	2.2	6900	0.0	AUG				
FEB 1987					26...	1320	10	2120	19.5
13...	1430	1.7	2270	8.0					
MAR									
24...	1435	2.8	6680	--					

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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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