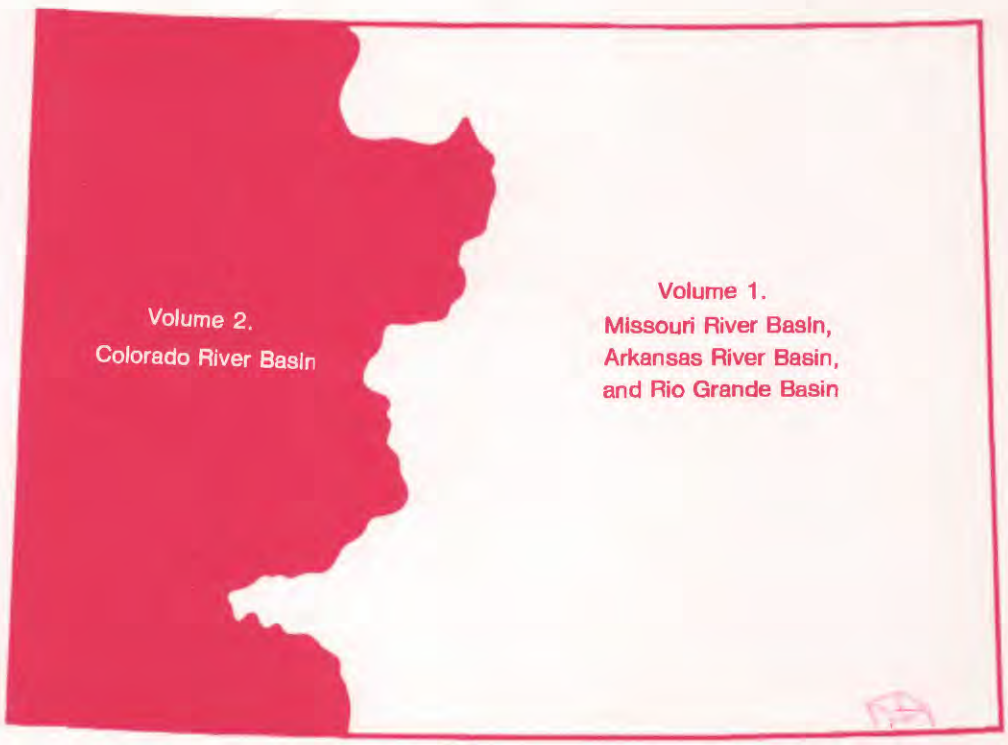
Water Resources Data Colorado Water Year 1992

Volume 2. Colorado River Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-92-2
Prepared in cooperation with the State of Colorado
and with other agencies

CALENDAR FOR WATER YEAR 1992

1991

OCTOBER

S	M	T	W	T	F	S
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1992

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AUGUST

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23	24	25	26	27	28	29
30	31					

SEPTEMBER

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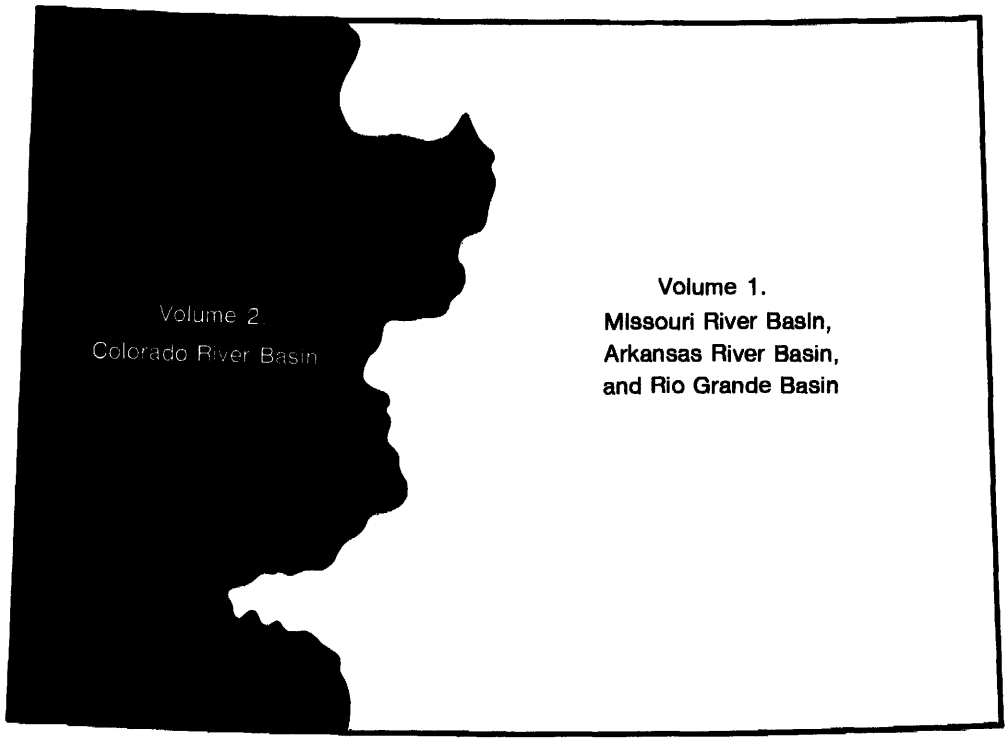
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Water Resources Data Colorado Water Year 1992

Volume 2. Colorado River Basin

by R.C. Ugland, B.J. Cochran, M.M. Hiner, E.A. Wilson, J.D. Bennett, and R.A. Jenkins



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-92-2
Prepared in cooperation with the State of Colorado
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

BRUCE BABBITT, Secretary

U. S. GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Colorado write to:

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U.S. Geological Survey
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Denver Federal Center
Lakewood, CO 80225

1993

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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This report was prepared in cooperation with the State of Colorado and with other agencies under the general supervision of D. J. Lystrom, District Chief, Colorado.

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15. Supplementary Notes
Prepared in cooperation with the State of Colorado and other agencies.

16. Abstract (Limit: 200 words)
Water-resources data for Colorado for the 1992 water year consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report (Volumes 1 and 2) contains discharge records for 304 gaging stations, stage and contents of 26 lakes and reservoirs, 1 partial-record low-flow station, peak flow information for 47 crest-stage partial record stations, and 1 miscellaneous site; water quality for 89 gaging stations, 169 miscellaneous sites; and for 14 observation wells. Nine pertinent stations operated by bordering states also are included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of D.J. Lystrom, District Chief. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies.

17. Document Analysis a. Descriptors
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b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

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SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

NOTE.--Data for partial-record stations and miscellaneous sites for both surface-water discharge and quality are published in separate sections of the data report.

(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)

SURFACE-WATER STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

WATER RESOURCES DATA - COLORADO, 1992

VOLUME 2: COLORADO RIVER BASIN

By R. C. Ugland, B. J. Cochran, M. M. Hiner, E. A. Wilson, J. D. Bennett, and R. A. Jenkins

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 182 surface-water stations, for 5 partial-record surface-water stations and 1 miscellaneous surface-water site; (2) stage and contents for 13 lakes and reservoirs; and (3) surface-water-quality data for 59 surface water stations, miscellaneous surface-water-quality data for 124 gaged sites, and meteorological data for 2 sites. Locations of lake and surface-water-gaging stations and surface-water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2. Five pertinent stations in bordering States also are included in this report. 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 810, 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.

Publications similar to this report are published annually by the Geological Survey for all States. 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-92-2." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. 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. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc.

Additional information, including current prices, for ordering specific reports may be obtained from the District office at the address given on the back of the title page or by telephone (303) 236-4882. A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Building 810, Box 25425, Denver, CO 80225.

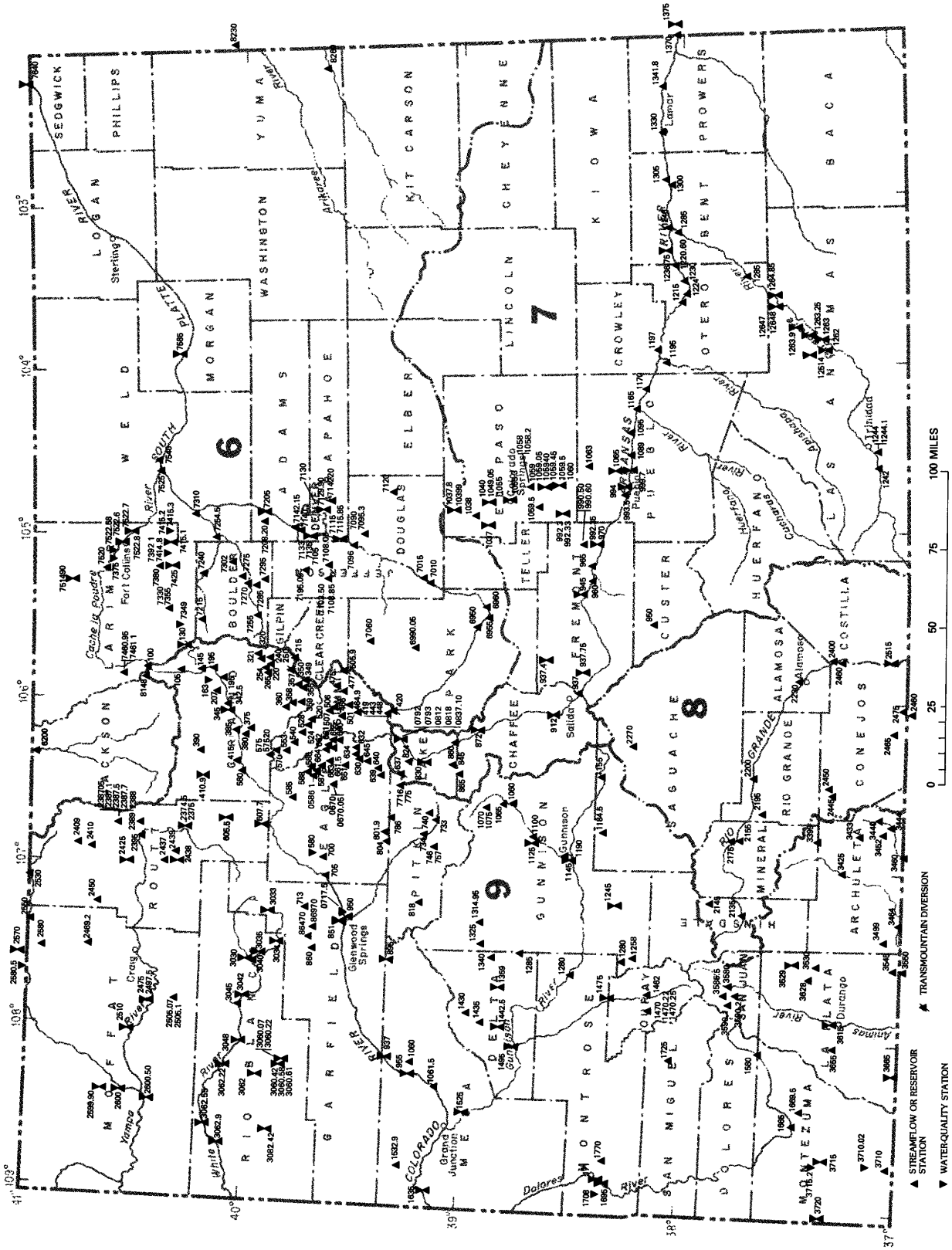


Figure 1.--Map showing locations of lakes and surface-water stations and surface-water-quality stations in Colorado

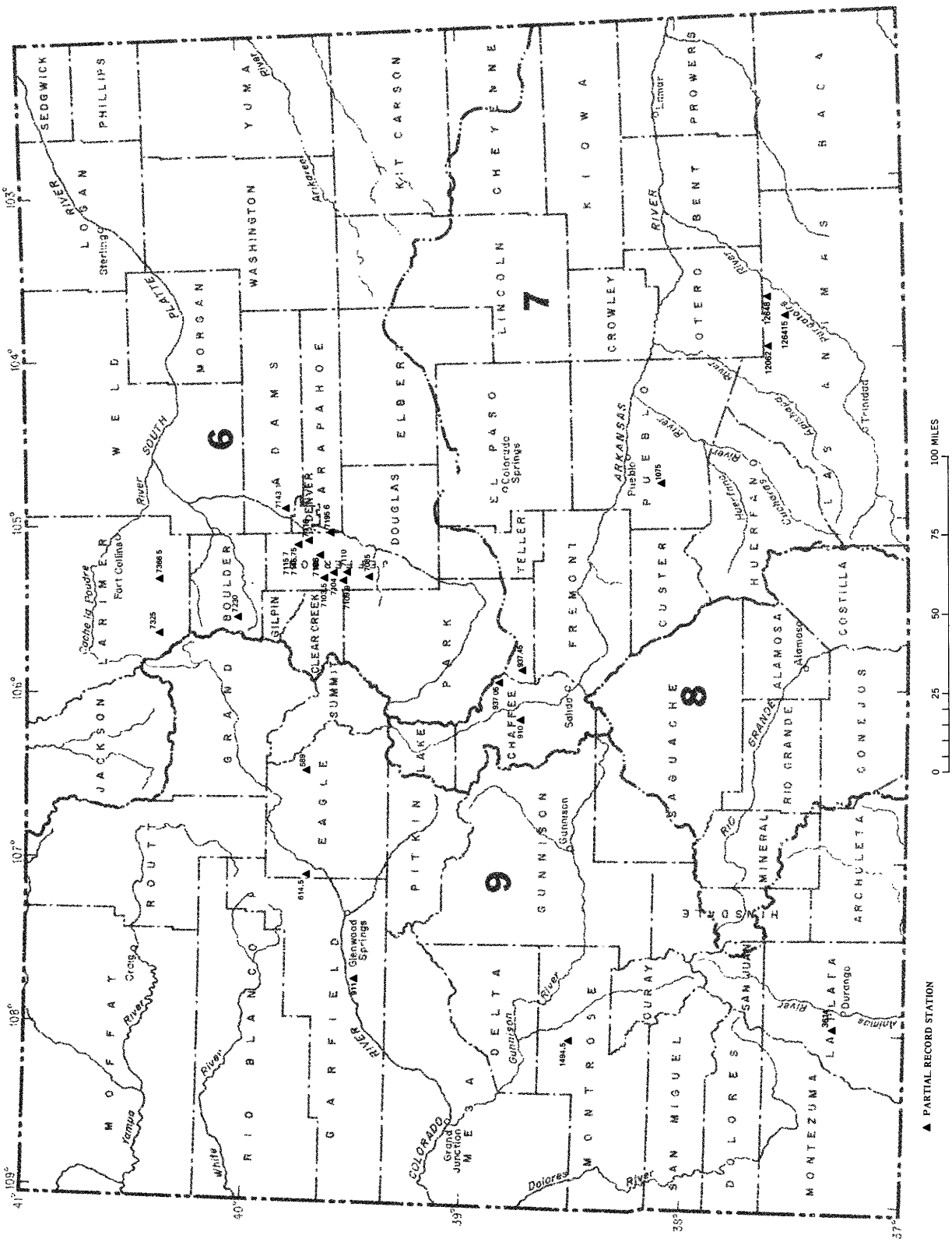


Figure 2.--Map showing locations of crest-stage partial record stations in Colorado.

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:

Arapahoe County, Water and Wastewater Authority.
Arkansas River Compact Administration.
Bent County Commissioners.
Boulder County.
Centennial Water and Sanitation District.
Central Colorado Water Conservancy District.
Cherokee Metropolitan District.
City and County of Denver, Board of Water Commissioners.
City of Arvada.
City of Aspen.
City of Aurora.
City of Boulder.
City of Colorado Springs, Department of Public Utilities.
City of Colorado Springs, Department of Public Works.
City of Englewood.
City of Fort Collins.
City of Glendale.
City of Glenwood Springs.
City of Golden.
City of Lakewood.
City of Lamar.
City of Las Animas.
City of Longmont.
City of Loveland.
City of Northglenn.
City of Pueblo.
City of Rocky Ford.
City of Steamboat Springs, Public Works Department.
City of Thornton.
City of Westminster.
Colorado Department of Health.
Colorado Department of Transportation.
Colorado Division of Water Resources.
Colorado Division of Wildlife.
Colorado River Water Conservation District.
Colorado Oil and Gas Conservation Commission.
Colorado Water Conservation Board.
Delta County Board of County Commissioners.
Eagle County Board of Commissioners.
East Grand County Water-Quality Board.
Evergreen Metropolitan District.
Fountain Valley Authority.
Fremont Sanitation District.
Garfield County.
Jefferson County Board of County Commissioners.
La Plata County.
Lower Fountain Water-Quality Management Association.
Metro Wastewater Reclamation District.
Moffat County.
Northern Colorado Water Conservancy District.
Pueblo Board of Water Works.
Pueblo County Commissioners.
Pueblo West Metro Water District.
Rio Blanco County Board of County Commissioners.
Rio Grande Water Conservancy District.
Rio Grande Water Conservation District.
Southeastern Colorado Water Conservancy District.
Southern Ute Indian Tribe.
Southwestern Colorado Water Conservation District.
St. Charles Mesa Water District.
Town of Breckenridge.
Trans Mountain Hydro Corporation, (Federal Energy Regulatory Commission Licensee).
Trinchera Water Conservancy District.
Uncompahgre Valley Water Users Association.
Upper Arkansas Council of Governments.
Upper Arkansas River Water Conservancy District.
Upper Eagle Regional Water Authority.
Upper Yampa Water Conservancy District.
Urban Drainage and Flood Control District.
Ute Mountain Ute Indian Tribe.
Vail Valley Consolidated Water District.
Yellowjacket Water Conservancy District.

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 Reclamation, National Park Service, and U.S. Environmental Protection Agency. Organizations that supplied data are acknowledged in station descriptions.

OVERVIEW OF HYDROLOGIC CONDITIONS
[West of the Continental Divide]

Prepared by K.R. Wilke

Precipitation

Precipitation data for water year 1992 were obtained from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Center, 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 (1951-80) are listed for the first 6 months of the water year when precipitation is predominately snow and 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.

Precipitation was 4 percent less than normal for October-March and 20 percent greater than normal for April-September in the Colorado Drainage Basin. For water year 1992, precipitation in the Colorado Drainage Basin was 8 percent greater than normal.

Graphs of monthly precipitation for the water year and for normal monthly precipitation at selected weather stations are shown in figure 3. Monthly precipitation data for water year 1992 were supplemented by data obtained from the Colorado State University, Department of Atmospheric Science, Colorado Climate Center, in Fort Collins.

Table 1.--Precipitation during water year 1992 and departures-from-normal precipitation (1951-80), in inches

National Weather Service division	October-March		April-September		Water year 1992	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Colorado Drainage Basin	7.33	-0.28	9.30	1.55	16.63	1.27

Streamflow

Monthly mean discharges during water year 1991 at selected streamflow-gaging stations are compared to long-term mean monthly discharges in figure 4. Individual graphs show the varied streamflow west of the Continental Divide during the water year. The graphs for the gaging stations indicate that, with the exception of late spring and early summer months (April through June), monthly discharges during the water year had the same general trend as long-term mean monthly discharges, but were generally less than the long-term means. At the selected gaging stations, annual mean discharges for water year 1992 were from 6 to 46 percent less than the long-term averages.

The graph for the gaging station 09361500, Animas River at Durango, indicates that monthly discharges for water year 1992 were less than long-term means for all the months except April, May, and August; for the gaging stations 09070000, Eagle River below Gypsum (fig. 4, site A), and 09172500, San Miguel River near Placerville (fig. 4, site D), monthly discharges for water year 1992 were less than long-term means for all the months except April and May, and for the gaging station 09304500, White River near Meeker (fig. 4, site F), monthly discharges for water year 1992 were less than long-term means for all the months except April. The mean discharges for March, June, and July for water year 1992 were less than the long-term mean discharges for those months at each of the selected gaging stations. The June through August mean discharge for water year 1992 was from 11 to 20 percent less than the long-term mean at gaging stations 09172500, San Miguel River near Placerville (fig. 4, site D), and 09361500, Animas River at Durango (fig. 4, site G), and from 39 to 67 percent less at gaging stations 09070000, Eagle River below Gypsum (fig. 4, site A), 09114500, Gunnison River near Gunnison (fig. 4, site B), 09163500, Colorado River near Colorado-Utah State line (fig. 4, site C), 09251000, Yampa River near Maybell (fig. 4, site E), and 09304500, White River near Meeker (fig. 4, site F).

Peak discharges during water year 1992 and for the period of record for selected gaging stations are listed in table 2. The peak discharge at gaging station 09346400, San Juan River near Carracas, was greater than the 75th-percentile value. The peak discharges at the rest of the selected gaging stations were less than the long-term median values. At 15 of the selected gaging stations, peak discharges were less than the 25th-percentile values; but for eight of these stations, the peak discharges were substantially greater than the previous low peak discharges. For the remaining seven sites, the peak discharges ranged from the fifth lowest of record to the second lowest of record.

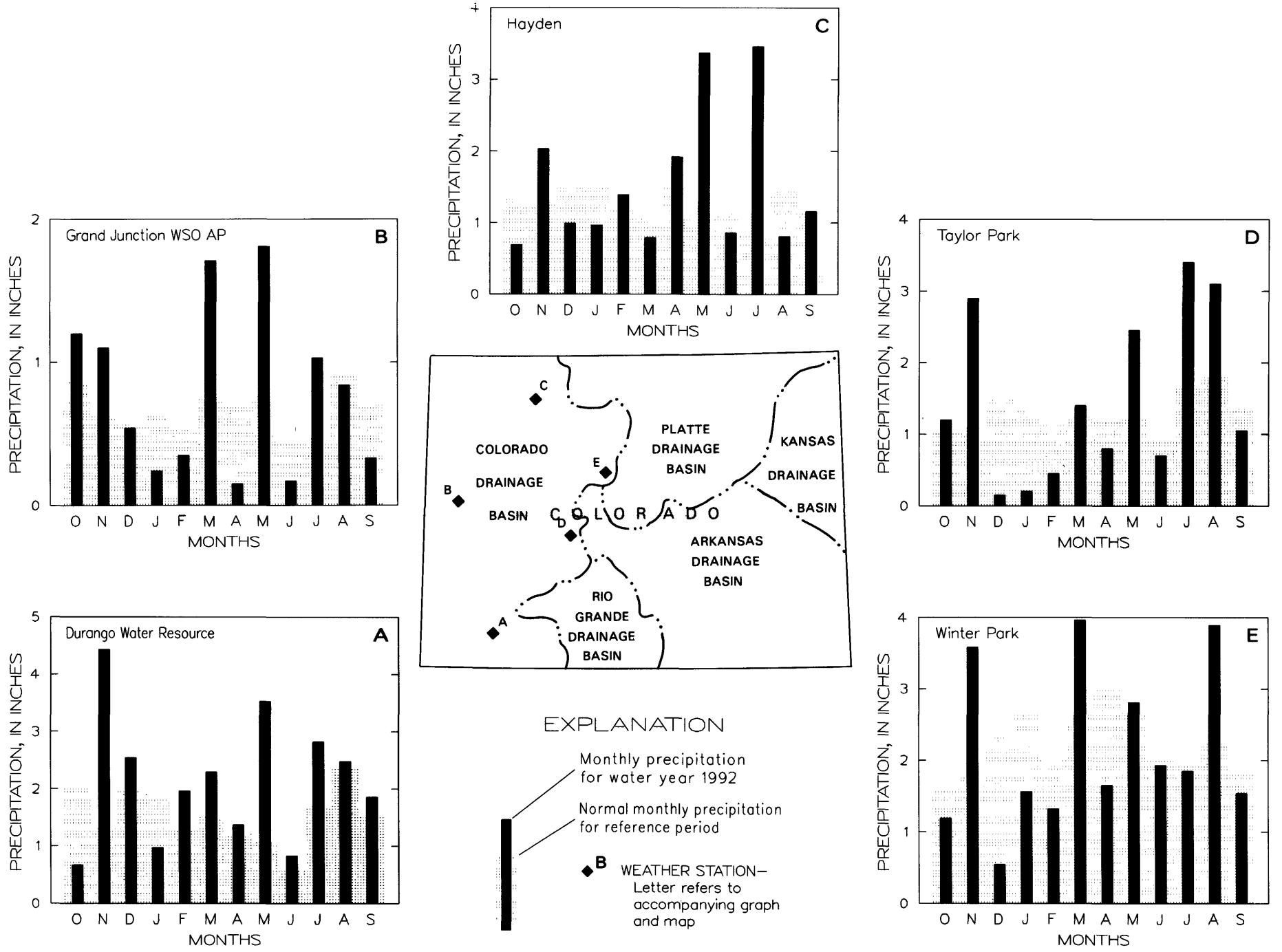
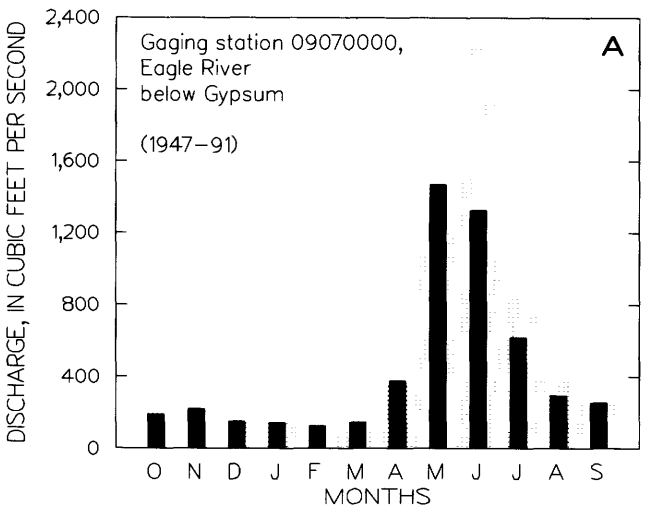


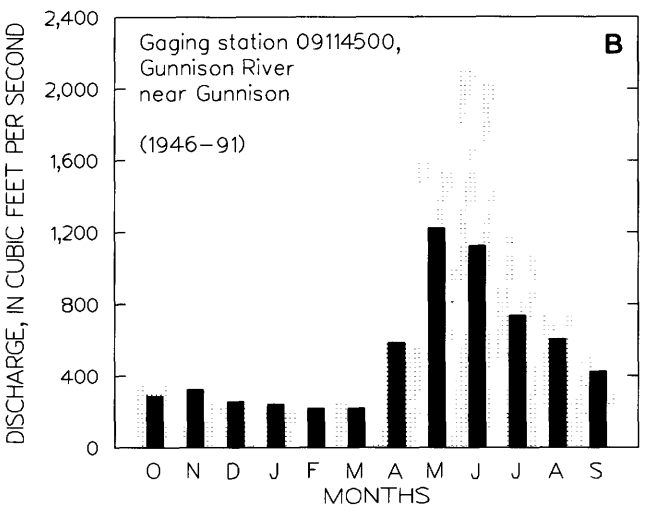
Figure 3.--Comparison of monthly precipitation for water year 1992 to normal monthly precipitation for the reference period 1951-80.

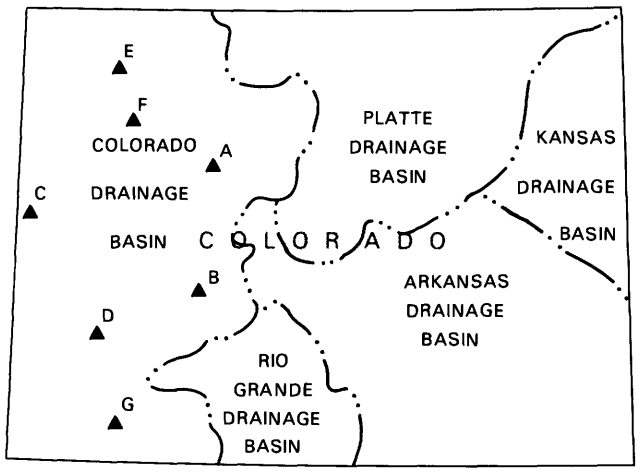
Table 2.--Peak discharges for water year 1992 and for the period of record st selected gaging stations

[mi^2, square miles; ft^3/s, cubic feet per second]

Gaging station identification		Drainage area (mi^2)	Period of record (water years)	Water year 1992		Period of record		Remarks on 1991 peak discharge
				Date	Peak discharge (ft^3/s)	Date	Peak discharge (ft^3/s)	
09034500	Colorado River at Hot Sulphur Springs	825	1905-91	6/15	439	6/15/21	10,300	Less than 25th percentile
09070000	Eagle River below Gypsum	945	1947-91	5/27	2,170	5/25/84	7,020	Less than 25th percentile
09070500	Colorado River near Dotsero	4,394	1941-91	5/27	3,700	5/25/84	22,200	Less than 25th percentile (4th lowest)
09085000	Roaring Fork River at Glenwood Springs	1,451	1906-9, 1911-91	5/27	3,130	7/1/57	19,000	Less than 25th percentile (2d lowest
09085100	Colorado River below Glenwood Springs	6,013	1967-91	5/27	6,550	5/25/84	31,500	Less than 25th percentile (2d lowest)
09095500	Colorado River near Cameo	8,050	1934-91	5/27	8,240	5/26/84	39,300	Less than 25th percentile (3d lowest)
09114500	Gunnison River near Gunnison	1,012	1911-27, 1945-91	5/27	1,930	6/13/18	11,400	Less than 25th percentile (5th lowest)
09132500	North Fork Gunnison River near Somerset	526	1934-91	5/27	2,290	5/24/84	9,220	Greater than 25th percentile
09149500	Uncompahgre River at Delta	1,115	1903-31, 1939-91	5/28	1,040	5/15/84	5,800	Less than 25th percentile
09152500	Gunnison River near Grand Junction	7,928	1897-99, 1902-6, 1917-91	5/28	6,640	5/23/20	35,700	Less than 25th percentile
09163500	Colorado River near Colorado-Utah Statel ine	17,843	1951-91	5/28	16,500	5/27/84	69,800	Less than 25th percentile
09166500	Dolores River at Dolores	504	1896-1903 1911-12, 1922-91	5/27	2,710	10/5/11	10,000	Less than median
09171100	Dolores River near Bedrock	2,145	1970-91	5/27	3,290	4/30/73	9,500	Less than median
09239500	Yampa River at Steamboat Springs	604	1904-6, 1910-91	5/27	2,340	6/14/21	6,820	Less than 25th percentile
09251000	Yampa River near Maybell	3,410	1904-5, 1916-91	5/28	5,900	5/17/84	25,100	Less than 25th percentile (5th lowest)
09304500	White River near Meeker	755	1901-5, 1910-91	5/9	1,690	5/25/84	6,950	Less than 25th percentile (4th lowest)
09346400	San Juan River near Carracas	1,230	1962-91	8/25	6,380	9/6/70	9,730	Less than 75th percentile
09361500	Animas River at Durango	692	1912-91	5/27	3,690	10/5/11	25,000	Less than 25th percentile







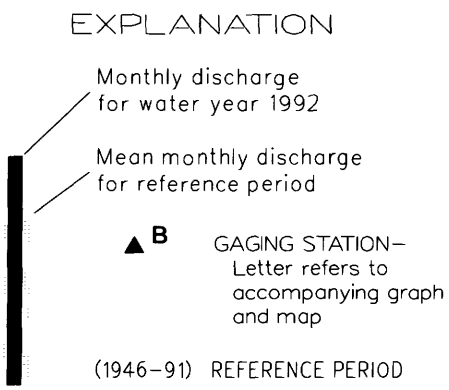


Figure 4.–Comparison of monthly discharges for water year 1992 to mean monthly discharges for the reference periods indicated on the individual graphs.

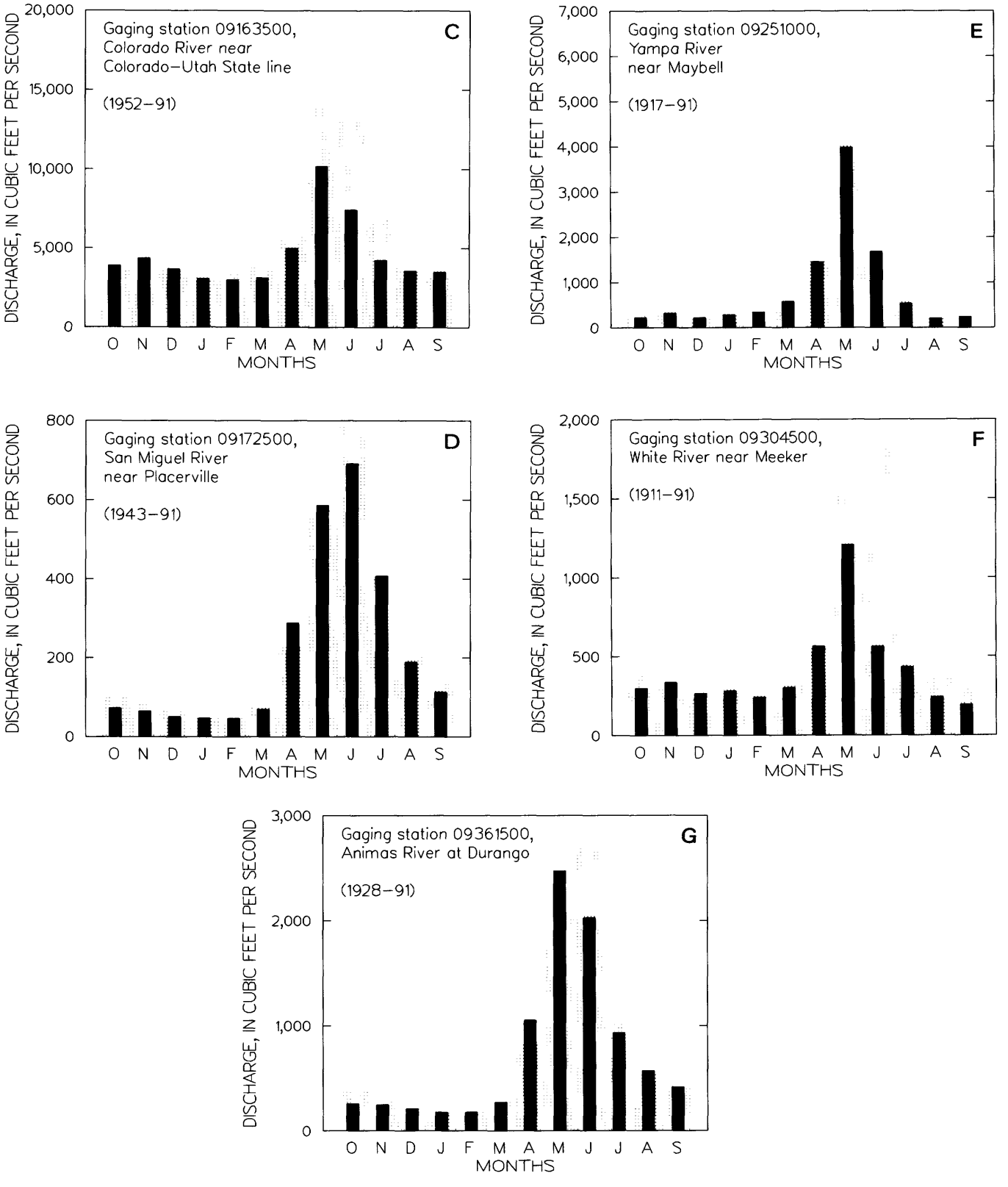


Figure 4.--(continued)

Chemical Quality of Streamflow

To determine if substantial changes occurred during water year 1992 in the chemical quality of streamflow, an analysis was made of specific conductance, which was measured 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 substantial part of the drainage area of that stream. A comparison of the range and the distribution of the specific conductance for water year 1992 to long-term values for each selected gaging station is shown in figure 5.

Specific conductance can be used to estimate the dissolved-solids concentration in water because specific conductance is directly proportional to the concentrations of ions in water. To determine if there were significant differences between values of specific conductance for water year 1992 and values for the period of record used for comparison, a statistical technique called the Wilcoxon-Mann-Whitney rank sum test was used. This test is a non-parametric counterpart to the common t-test and does not require the data to have normal distribution.

The Wilcoxon-Mann-Whitney rank sum test was applied to the hypothesis that the mean specific conductance for water year 1992 was equal to the mean for the period of record. The procedure for testing the hypothesis involves computing a test statistic from the ranks of the data by using a pooled standard deviation and comparing the test statistic to a value obtained from a table of "Student's" t values (Box and others, 1978). The table value is (1 - alpha/2), where alpha (the level of significance) equals 0.05, at the appropriate degrees of freedom for the number of samples. If the absolute value of the computed test statistic (t_R) is greater than the tabular t value (t_{tab}), the hypothesis is rejected. A rejection of the hypothesis is statistical evidence that the two means are different.

Results of the Wilcoxon-Mann-Whitney rank sum tests for the five gaging stations are listed in table 3. For each gaging station, the tests indicate that the mean specific conductance for water year 1992 and the mean specific conductance for the period of record are not statistically different.

Table 3.--Results of Wilcoxon-Mann-Whitney rank sum tests comparing mean specific conductance of discharge for water year 1992 with mean for the period of record at selected gaging stations

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

Gaging station identification	Specific conductance						Wilcoxon-Mann-Whitney rank Sum test			
	Water year 1992			Period of record						
	Number of values	Mean	Standard deviation	Number of values	Mean	Standard deviation	Period used (water years)	t_R	t_{tab}	Hypothesis
09095500 Colorado River near Cameo	11	912	224	109	858	276	1982-91	0.66	1.98	A
09152500 Gunnison River near Grand Junction	12	860	187	85	857	311	1982-91	.21	1.99	A
09177000 San Miguel River at Uravan	10	602	254	114	673	347	1982-91	-.43	1.98	A
09306290 White River below Boise Creek, near Rangely	9	671	168	128	669	170	1983-91	-.09	1.98	A
09361500 Animas River at Durango	10	405	138	126	412	208	1982-91	-.04	1.98	A

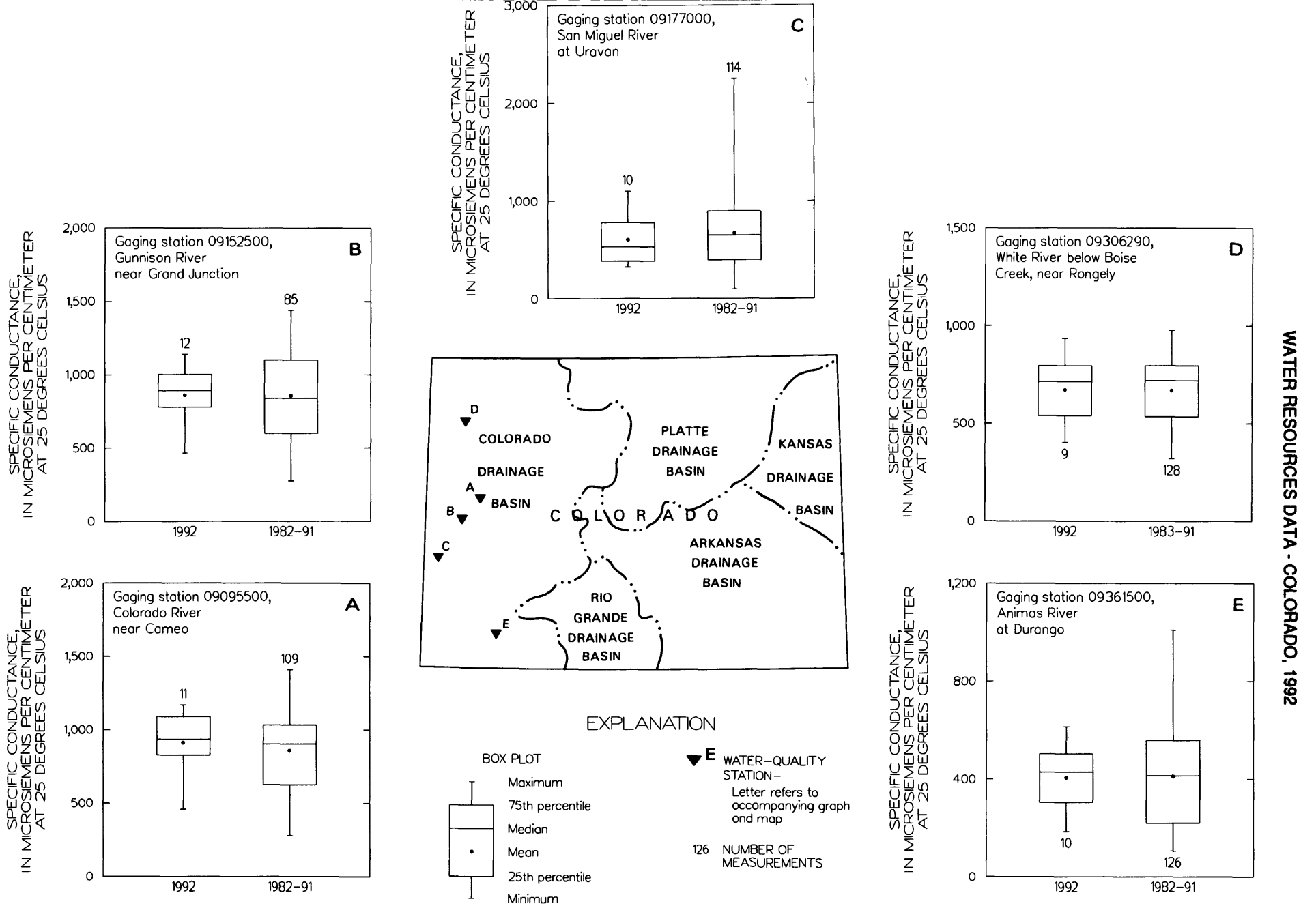


Figure 5.--Comparison of range and distribution of specific conductance measured during water year 1992 to long-term values.

SPECIAL NETWORKS AND PROGRAMS

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

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

EXPLANATION OF THE RECORDS

The surface-water and ground-water records published in this report are for the 1992 water year that began on October 1, 1991, and ended September 30, 1992. 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, and water-quality data for surface and ground water. The locations of the stations where the surface-water 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, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and, in Colorado, for surface-water stations where only infrequent measurements are made.

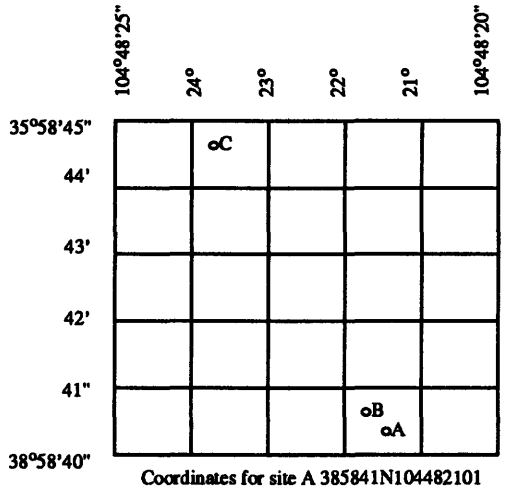
Downstream Order System

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 indention in the "List of Stations" in the front of this report. Each indention represents one rank. This downstream order and system of indention 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 wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and may have 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.

The local well number locates a well within a 10-acre tract using the U. S. Bureau of Land Management system of land subdivision. The components of the local well number proceed from the largest to the smallest land subdivisions. This is in contrast to the legal description, which proceeds from the smallest to the largest land subdivision. The largest subdivision is the survey. Colorado is governed by three surveys: The Sixth Principal Meridian Survey (S), the New Mexico Survey (N), and the Ute Survey (U). Costilla County was not included in any of the above official surveys. This report follows the convention of the Costilla County Assessor in which the northern part of the county is governed by the Sixth Principal Meridian Survey and the southern part of the county is governed by a local system called the Costilla Survey (C). The first letter of the well location designates the survey.

A survey is subdivided into four quadrants formed by the intersection of the baseline and the principal meridian. The second letter of the well location designates the quadrant: A indicates the northeast quadrant, B the northwest, C the southwest, and D the southeast. A quadrant is subdivided in the north-south direction every 6 mi by townships and is divided in the east-west direction every 6 mi by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi^2 area described by the township and range designation is subdivided into 1-mi^2 areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres, is subdivided into quarter sections. The 160-acre area is designated by the first letter following the section: A indicates the northeast quarter, B the northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre area is designated in the same manner by the second letter following the section. The 10-acre area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

Records of Stage and Water Discharge

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

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

Data Collection and Computation

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

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals, with electronic recorders that store stage values on computer chips at selected time intervals, or with satellite data collection platforms that transmit near real-time data at selected time intervals to office computers. 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 stroam 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

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1992 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or station manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preferences.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description and the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily, and instantaneous flow as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location· period of record; historical extremes outside the period of record; 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 gaging station 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 flow at it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Because of new information, published records 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 paragraph 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. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; 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.

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.

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 (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station 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.

Headings for AVERAGE DISCHARGE, EXTREMES FOR PERIOD OF RECORD, AND EXTREMES FOR CURRENT YEAR have been deleted and the information contained in these paragraphs, except for the listing of secondary instantaneous peak discharges in the EXTREMES FOR CURRENT YEAR paragraph, is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second during the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each 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 or in acre-feet may be 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.

Statistics of monthly mean data

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEARS_____-_____, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

Summary statistics

A table titled "SUMMARY STATISTICS" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS_____-_____," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript. All of the calculations for the statistical characteristics designated ANNUAL (see line headings below.), except for the "ANNUAL 7-DAY MINIMUM" statistic, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistic reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.

The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

ANNUAL TOTAL.--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes. At least 5 complete years of record must be available before this statistic is published for the designated period.

HIGHEST ANNUAL MEAN.--The maximum annual mean discharge occurring for the designated period.

LOWEST ANNUAL MEAN.--The minimum annual mean discharge occurring for the designated period.

HIGHEST DAILY MEAN.--The maximum daily mean discharge for the year or for the designated period.

LOWEST DAILY MEAN.--The minimum daily mean discharge for the year or for the designated period.

ANNUAL 7-DAY MINIMUM.--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

INSTANTANEOUS PEAK FLOW.--The maximum instantaneous discharge occurring for the water year or for the designated period. Note that secondary instantaneous peak discharges above a selected base discharge are stored in District computer files for stations meeting certain criteria. Those discharge values may be obtained by writing to the District Office. (See address on back of title page of this report.)

INSTANTANEOUS PEAK STAGE.--The maximum instantaneous stage occurring for the water year or for the designated period. If the dates of occurrence for the instantaneous peak flow and instantaneous peak stage differ. the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

INSTANTANEOUS LOW FLOW.--The minimum instantaneous discharge occurring for the water year or for the designated period.

ANNUAL RUNOFF.--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-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.

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

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

10 PERCENT EXCEEDS.--The discharge that is exceeded by 10 percent of the flow for the designated period.

50 PERCENT EXCEEDS.--The discharge that is exceeded by 50 percent of the flow for the designated period.

90 PERCENT EXCEEDS.--The discharge that is exceeded by 90 percent of the flow for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. 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 ft^3/s; to the nearest tenth between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures for more than 1,000 ft^3/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.

"In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias."

Accuracy of the Records

Accuracy of water-quality monitor records are based on: (1) The completeness of the record, (2) frequency of calibration checks, (3) the length of time and frequency that data exceed allowable error limits, (4) the magnitude of errors, and (5) confidence in the resultant shifts applied. Listed below are the limits of allowable error.

*	Temperature:	+/- 0.3 degree C.
*	Specific Conductance:	+/- 5 uS/cm or + 5% whichever is greater
*	pH:	+/- 0.2 pH units
*	Dissolved Oxygen:	+/- 0.3 mg/L or + 5% whichever is greater.

A record is rated excellent if the allowable error limits are never exceeded, good if limits are occasionally exceeded and shifts are no greater than two times the limit, fair if limits are regularly exceeded and shifts are no greater than three times the limit, and poor for all others.

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 or recorded at short intervals on a paper tape, magnetic tape, computer chip, or some other medium. 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.

Onsite 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 recorded to the nearest 0.1 degree Celsius. Water temperatures measured at the time of water-discharge measurements are published in this report as supplemental water-quality for gaging stations.

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, CO, 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.

Historical and current (1992) dissolved trace-element concentrations are reported herein for water that was collected, processed, and analyzed by using either ultraclean or other than ultraclean techniques. If ultraclean techniques were used, then those concentrations are reported in nanograms per liter. If other than ultraclean techniques were used, then those concentrations are reported in micrograms per liter and could reflect contamination introduced during some phase of the procedure.

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

Records of Ground-Water Quality

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

Data Collection and Computation

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

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

Data Presentation

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

ACCESS TO WATSTORE DATA

The U.S. Geological Survey is the principal Federal water-data agency and, as such, collects and disseminates about 70 percent of the water data currently being used by numerous State, local, private, and other Federal agencies to develop and manage our water resources. As part of the Geological Survey's program of releasing water data to the public, a large-scale computerized system has been developed for the storage and retrieval of water data collected through its activities. The National Water Data Storage and Retrieval System (WATSTORE) was established in 1972 to provide an effective and efficient means for the processing and maintenance of water-data collected through the activities of the U.S. Geological Survey and to facilitate release of the data to the public. A variety of useful products ranging from data tables to complex statistical analyses such as Log Pearson Type III, can be produced using WATSTORE. The system resides on the central computer facilities of the U.S. Geological Survey at its National Center in Reston, Virginia, and consists of related files and data bases.

* Station Header File - Contains descriptive information on more than 440,000 sites throughout the United States and its territories where the U.S. Geological Survey collects or has collected data.

* Daily Values File - Contains more than 220 million daily values of stream flows, stages, reservoir contents, water temperatures, specific conductances, sediment concentrations, sediment discharges, and ground-water levels.

* Peak Flow File - Contains approximately 500,000 maximum (peak) streamflow and gage- height values at surface-water sites.

* Water Quality File - Contains approximately 2 million analyses of water samples that describe the chemical, physical, biological, and radio-chemical characteristics of both surface and ground water.

* Ground-Water Site Inventory Data Base - Contains inventory data for more than 900,000 wells, springs, and other sources of ground water. The data includes site location, geohydrologic characteristics, well-construction history, and one-time field measurements such as water temperature.

In 1976, the U.S. Geological Survey opened WATSTORE to the public for direct access. The signing of a Memorandum of Agreement with the Survey is required to obtain direct access to WATSTORE. The system can be accessed either synchronously or asynchronously. The requester will be expected to pay all computer costs he/she incurs. Direct access may be obtained by contacting:

U.S. Geological Survey
National Water Data Exchange
421 USGS National Center
Reston, VA 22092

In addition to providing direct access to WATSTORE, data can be provided in various machine-readable formats on magnetic tape or 5-1/4 inch floppy disk; and, as noted in the introduction, on CD-ROM discs. Beginning with the 1990 water year, all water-data reports will also be available on Compact Disc - Read Only Memory (CD-ROM). All data reports published for the current water year for the entire Nation, including Puerto Rico and the Trust Territories, will be reproduced on a single CD-ROM disc. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division's District offices. (see address on the back of the title page.) A limited number of CD-ROM discs will be available for sale by the Books and Open-File Reports Section, U.S. Geological Survey, Federal Center, Box 25425, Denver, CO 80225.

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/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

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

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

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

Bottom material: See Bed material.

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

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

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

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

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

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

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

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

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

Cubic feet per second per square mile $(ft^3/s)/mi^2$ is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

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

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.

Annual 7-day minimum is the lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1 - March 31). The date shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic.)

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

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

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

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

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

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

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

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

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

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

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

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

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

Micrograms per gram (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 incudes 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:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Milligrams of oxygen per area or volume per unit time mgO/(m^2,time) for periphyton and macrophytes and mgO/(m^3,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 they physical surface upon which an organism lives.

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

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

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

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

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 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 hierarchial 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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DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water discharge or stage-only stations (gaging stations) in Colorado have been discontinued or converted to partial-record stations. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station.

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
Lady Creek near Grand Lake, CO	09010100	0.08	1969-75
Jimmy Creek near Grand Lake, CO	09010400	0.08	1969-75
Onahu Creek near Grand Lake, CO	09010600	8.84	1969
Colorado River near Grand Lake, CO	09011000	102	1904-18, 1933-86
Little Columbine Creek above Shadow Mountain Lake at Grand Lake, CO	09011500	1.65	1950-55
Tonahutu Creek near Grand Lake, CO	09012400	16.0	1969
Harbison Ditch near Grand Lake, CO	09012410	--	1969
Tonahutu Creek below Harbison Ditch near Grand Lake, CO	09012420	--	1969
North Inlet at Grand Lake, CO	09012500	45.9	1905-09, 1910-12, 1947-55
East Inlet near Grand Lake, CO	09013500	27.2	1947-55
Grand Lake Outlet at Grand Lake, CO	09014000	76.3	1904-09, 1910-13
Colorado River below Shadow Mountain Reservoir, CO	09015000	190	1947-59
Columbine Creek above Lake Granby near Grand Lake, CO	09015500	7.38	1950-55
Roaring Fork above Lake Granby, CO	09016000	5.95	1951-55
Arapahoe Creek at Monarch Lake Outlet, CO	09016500	46.9	1944-71
Arapahoe Creek below Monarch Lake, CO	09017000	56.9	1934-44
Stillwater Creek above Lake Granby, CO	09018000	17.5	1950-55
Colorado River below Lake Granby, CO	09019000	312	1950-82
Willow Creek near Granby, CO	09020000	109	1934-53
Willow Creek above Willow Creek Reservoir, CO	09020500	127	1953-60
Willow Creek below Willow Creek Reservoir, CO	09021000	134	1953-82
Moffat Water Tunnel at East Portal, CO	09022500	--	1935-82
Fraser River above Winter Park, CO	09023500	22.4	1907-09, 1934-37
Ranch Creek Ditch near Fraser, CO	09031900	--	1948-67
Ranch Creek near Tabernash, CO	09032500	51.3	1934-60
Meadow Creek near Tabernash, CO	09033000	8.03	1935-56
Strawberry Creek near Granby, CO	09033500	11.6	1935-45
Fraser River at Granby, CO	09034000	297	1904-09, 1937-55
Little Muddy Creek near Parshall, CO	09034800	6.52	1953-65
South Fork Williams Fork at Upper Station near Ptarmigan Pass, CO	09035820	2.78	1984-87
South Fork Williams Fork below Old Baldy Mountain near Leal, CO	09035880	21.8	1985-88
South Fork Williams Fork near Ptarmigan Pass, CO	09035830	4.01	1984-88
South Fork Williams Fork above Tributary near Ptarmigan Pass, CO	09035840	5.53	1984-87
South Fork Williams Fork Tributary near Ptarmigan Pass, CO	09035845	0.60	1984-88
South Fork Williams Fork above Short Creek near Ptarmigan Pass, CO	09035850	6.53	1984-87
South Fork Williams Fork below Short Creek near Ptarmigan Pass, CO	09035870	20.0	1984-87
Keyser Creek near Leal, CO	09036500	13.8	1942-52
Williams Fork near Scholl, CO	09037000	141	1910-17
Skylark Creek near Parshall, CO	09037200	2.42	1958-65
Troublesome Creek near Pearmont, CO	09039000	44.6	1953-83
Troublesome Creek at Atmore Ranch near Troublesome, CO	09039500	48.8	1937-43
East Fork Troublesome Creek near Troublesome, CO	09040000	76.0	1937-43, 1953-83
Troublesome Creek near Troublesome, CO	09040500	168	1904-05, 1921-22, 1937-56
Muddy Creek near Kremmling, CO	09041000	87.4	1937-43, 1955-71
Antelope Creek near Kremmling, CO	09041100	11.5	1955-68
Red Dirt Creek near Kremmling, CO	09041200	19.0	1955-74
Pass Creek near Kremmling, CO	09041300	17.8	1957-70
Monte Cristo Creek near Hoosier Pass, CO	09043000	5.66	1953-58
Hoosier Creek near Hoosier Pass, CO	09044000	1.15	1953-58
Bemrose Creek near Hoosier Pass, CO	09044500	1.95	1953-58
McCullough Gulch near Breckenridge, CO	09045000	4.79	1953-58
Spruce Creek near Breckenridge, CO	09045500	5.23	1953-58
Blue River at Dillon, CO	09047000	128	1910-61
Snake River at Dillon, CO	09048000	90.9	1910-19, 1929-64
West Tenmile Creek at Copper Mountain, CO	09049200	21.0	1973-79
Tenmile Creek at Frisco, CO	09050000	81.0	1942-50

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
Tenmile Creek at Dillon, CO	09050500	111	1910-19, 1929-61
Straight Creek near Dillon, CO	09051000	12.9	1943-52
Willow Creek near Dillon, CO	09051500	13.4	1942-51
Boulder Creek near Dillon, CO	09052500	9.89	1942-51
Slate Creek near Dillon, CO	09053000	16.6	1942-54
Blue River above Green Mountain Reservoir, CO	09053500	511	1943-71, 1985-88
Black Creek above Green Mountain Reservoir, CO	09054500	18.5	1944-53
Otter Creek above Green Mountain Reservoir, CO	09055000	8.40	1944-53
Cataract Creek above Green Mountain Reservoir, CO	09055500	13.6	1944-53
Blue River near Kremmling, CO	09056000	571	1904-08
Colorado River near Radium, CO	09058030	2,412	1981-90
Dickson Creek near Minturn, CO	09058600	3.41	1964-71
Rock Creek near Toponas, CO	09060500	47.6	1952-81
Egeria Creek near Toponas, CO	09060700	28.2	1965-73
Big Alkali Creek near Burns, CO	09060800	14.2	1958-65
Catamount Creek near Burns, CO	09060900	5.31	1955-61
Big Alkali Creek below Castle Creek near Burns, CO	09060950	34.2	1981-86
Sunnyside Creek near Burns, CO	09061000	9.04	1952-58
Columbine Ditch near Fremont Pass, CO	09061500	--	1930-82
Ewing Ditch at Tennessee Pass, CO	09062000	--	1908-82
Wurtz Ditch near Tennessee Pass, CO	09062500	--	1931-82
Turkey Creek at Red Cliff, CO	09063500	29.4	1913-21, 1944-56
Black Gore Creek near Vail, CO	09066050	19.6	1974-79
Gore Creek at Vail, CO	09066250	57.3	1974-79
Gore Creek near Minturn, CO	09066500	101	1911-14, 1944-56
Beaver Creek at Avon, CO	09067000	14.8	1911, 1912-14, 1974-87, 1988
Alkali Creek near Wolcott, CO	09067300	27.3	1958-65
Eagle River at Eagle, CO	09067500	629	1910-24
East Brush Creek at Yeoman Park near Eagle, CO	09067700	9.74	1965-72
Brush Creek near Eagle, CO	09068000	71.4	1950-72
Gypsum Creek near Gypsum, CO	09069500	62.7	1950-55, 1965-72
Colorado River near Glenwood Springs, CO	09071100	--	1941-85
Colorado River at Glenwood Springs, CO	09072500	4,558	1899-1966
Roaring Fork above Lost Man Creek near Aspen, CO	09072550	9.10	1980-86
Lincoln Creek below Grizzly Reservoir near Aspen, CO	09073005	15.2	1980-86
Roaring Fork River at Aspen, CO	09073500	109	1910-21, 1931-64
Hunter Creek above Midway Creek near Aspen, CO	09073700	6.18	1964-80
Hunter Creek Feeder Conduit near Aspen, CO	09073720	--	1981-83
Midway Creek Feeder Conduit near Aspen, CO	09073790	--	1981-83
Midway Creek near Aspen, CO	09073800	8.62	1971-80
No Name Creek Feeder Conduit near Aspen, CO	09073890	--	1981-83
No Name Creek near Aspen, CO	09073900	6.54	1971-80
Castle Creek near Aspen, CO	09075000	67.0	1911-20
Roaring Fork below Aspen, CO	09075500	228	1913-18
Maroon Creek near Aspen, CO	09076000	41.7	1910-17
Owl Creek near Aspen, CO	09076520	6.60	1974-89
Fryingpan River Feeder Canal near Norrie, CO	09077150	--	1971-83
Fryingpan River near Ivanhoe Lake, CO	09077200	18.7	1963-82
Lily Pad Feeder Canal near Norrie, CO	09077250	--	1972-83
Granite Creek Feeder Conduit near Norrie, CO	09077300	--	1981-83
Fryingpan River near Norrie, CO	09077400	32.2	1963-67
Ivanhoe Creek near Norrie, CO	09077600	9.12	1963-76
Ivanhoe Creek Feeder Canal near Nast, CO	09077605	--	1976-83
Ivanhoe Creek near Nast, CO	09077610	9.43	1976-82
South Fork Fryingpan River Feeder Canal near Norrie, CO	09077750	--	1971-83
South Fork Fryingpan River at Upper Station near Norrie, CO	09077800	11.5	1963-82
South Fork Fryingpan River near Norrie, CO	09077900	17.3	1963-67
Chapman Gulch Feeder Canal near Norrie, CO	09077940	--	1971-83
Chapman Gulch near Nast, CO	09077945	6.00	1973-82
Chapman Gulch near Norrie, CO	09077950	6.38	1966-72
Sawyer Creek Feeder Canal near Norrie, CO	09077960	--	1972-83
Fryingpan River at Norrie, CO	09078000	90.6	1910-17, 1947-83
North Fork Fryingpan River Feeder Canal near Norrie, CO	09078040	--	1980-83
Morman Creek Feeder Canal near Norrie, CO	09078050	--	1979-83

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
Carter Creek Feeder Canal near Norrie, CO	09078060	--	1980-83
North Fork Fryingpan River above Cunningham Creek near Norrie, CO	09078100	12.0	1963-80
Cunningham Creek Feeder Canal near Norrie, CO	09078140	--	1979-83
Middle Cunningham Creek Feeder Canal near Norrie, CO	09078150	--	1980-83
Cunningham Creek near Norrie, CO	09078200	7.12	1963-80
North Fork Fryingpan River below Cunningham Creek near Norrie, CO	09078300	24.2	1963-68
North Fork Fryingpan River near Norrie, CO	09078500	42.0	1910-17, 1947-82
Lime Creek near Troutville, CO	09078900	4.56	1963-68
Lime Creek at Troutville, CO	09079000	7.76	1950-56
Lime Creek at Thomasville, CO	09079500	35.0	1950-56
Fryingpan River at Thomasville, CO	09080000	173	1915-20
Fryingpan River at Meredith, CO	09080100	191	1910-15, 1966-80
Fryingpan River at Ruedi, CO	09080200	226	1959-64
Rocky Fork Creek near Meredith, CO	09080300	12.3	1968-82
West Sopris Creek near Basalt, CO	09080800	14.4	1963-68
Crystal River at Marble, CO	09081500	74.3	1910-15, 1916-17
Crystal River at Placita, CO	09081550	107	1959-73, 1975-77
Crystal River near Redstone, CO	09082500	229	1935-63
North Thompson Creek near Carbondale, CO	09082800	26.8	1963-79
Thompson Creek near Carbondale, CO	09083000	75.7	1950-60, 1964-68
Prince Creek near Carbondale, CO	09083700	3.04	1963-68
Cattle Creek near Carbondale, CO	09084000	31.1	1950-55, 1962-72
Fourmile Creek near Carbondale, CO	09084500	8.10	1941-47
Fourmile Creek near Glenwood Springs, CO	09084600	16.7	1957-65
Canyon Creek above New Castle, CO	09085200	23.8	1969-86
East Canyon Creek near New Castle, CO	09085300	15.1	1969-83
Possum Creek near New Castle, CO	09085400	6.41	1969-82
Canyon Creek near New Castle, CO	09085500	55.0	1954-60
Elk Creek at New Castle, CO	09087500	180	1922-24, 1954-60
Colorado River at New Castle, CO	09087600	6,308	1966-72
Baldy Creek near New Castle, CO	09088000	15.3	1955-61
West Divide Creek below Willow Creek near Raven, CO	09089000	34.9	1938-47, 1963-70
East Divide Creek near Silt, CO	09090700	40.8	1959-65
East Rifle Creek near Rifle, CO	09091500	34.3	1936-43, 1956-64
Rifle Creek near Rifle, CO	09092000	137	1939-46, 1952-64
Beaver Creek near Rifle, CO	09092500	7.90	1952-82
Battlement Creek near Parachute, CO	09092600	10.5	1956-65
West Parachute Creek near Parachute, CO	09092800	48.1	1957-62
Northwater Creek near Anvil Points, CO	09092830	12.6	1976-83
East Middle Fork Parachute Creek near Rio Blanco, CO	09092850	22.1	1976-83
East Fork Parachute Creek near Anvil Points, CO	09092960	14.5	1976-83
East Fork Parachute Creek near Rulison, CO	09092970	20.4	1976-83
Ben Good Creek near Rulison, CO	09092980	4.04	1976-83
Parachute Creek near Parachute, CO	09093000	141	1948-54, 1964-70, 1975-86
Parachute Creek at Parachute, CO	09093500	198	1921-27, 1948-54, 1975-82
Roan Creek above Clear Creek near De Beque, CO	09094200	151	1962-68
Clear Creek near De Beque, CO	09094400	110	1966-68
Roan Creek near De Beque, CO	09095000	321	1921-26, 1962-72, 1975-81
Dry Fork near De Beque, CO	09095400	109	1974-82
Government Highline Canal at 16 Road near Loma, CO	09095526	--	1975-85
Lateral No 48 near Mack, CO	09095528	--	1973-81
Government Highline Canal above Camp 7 Spillway near Mack, CO	090955285	--	1983-85
Camp No 7 Spillway near Mack, CO	09095529	--	1975-82
Government Highline Canal near Mack, CO	09095530	--	1973-82
Plateau Creek near Heiberger, CO	09095800	18.6	1958-64
Plateau Creek at Upper Station near Collbran, CO	09096000	24.1	1937-43, 1951-58
Plateau Creek near Collbran, CO	09096500	80.4	1921-80

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
Buzzard Creek below Owens Creek near Heiberger, CO	09096800	49.7	1955-70
Buzzard Creek near Collbran, CO	09097500	143	1921-80
Brush Creek near Collbran, CO	09097600	9.57	1955-67
Atkinson Creek near Collbran, CO	09098500	0.85	1952-55
East Fork Big Creek near Collbran, CO	09099000	4.92	1940-41, 1950-55
Big Creek at Upper Station near Collbran, CO	09099500	20.2	1945-56
Big Creek near Collbran, CO	09100000	27.1	1937-44
Cottonwood Creek at Upper Station near Molina, CO	09100500	14.0	1945-57
Cottonwood Creek near Molina, CO	09101000	17.8	1937-43
Bull Creek at Upper Station near Molina, CO	09101500	9.85	1945-53
Coon Creek near Mesa, CO	09104000	9.35	1937-43
Mesa Creek near Mesa, CO	09104500	6.79	1937-60
Plateau Creek near Cameo, CO	09105000	592	1935-83, 1986
Colorado River near Palisade, CO	09106000	8,738	1901-33
Kiefer Extension to Grand Valley Canal near Fruita, CO	09106104	--	1975-85
Kiefer Extension to Grand Valley Canal near Loma, CO	09106108	--	1975-85
Lewis Wash near Grand Junction, CO	09106200	4.72	1973-79
Willow Creek at Taylor Park, CO	09108000	--	1913-14, 1929-34
East River near Crested Butte, CO	09110500	90.3	1939-51
Coal Creek near Crested Butte, CO	09111000	8.65	1941-46
Slate River near Crested Butte, CO	09111500	70.1	1940-51
Cement Creek near Crested Butte, CO	09112000	26.1	1910-13, 1940-51
East River below Cement Creek near Crested Butte, CO	09112200	235	1963-72, 1979-81
Castle Creek near Baldwin, CO	09113000	20.3	1944-50
Ohio Creek at Baldwin, CO	09113300	47.2	1958-70
Ohio Creek near Baldwin, CO	09113500	121	1940-50, 1958-71, 1979-81
Ohio Creek near Gunnison, CO	09114000	167	1944-50
Tomichi Creek at Sargents, CO	09115500	149	1916-22, 1937-72
Tomichi Creek near Doyleville, CO	09116000	209	1944-50
Tomichi Creek at Parlin, CO	09117000	427	1944-51, 1963-70
Quartz Creek near Ohio City, CO	09118000	106	1937-50, 1959-70
Cochetopa Creel near Parlin, CO	09118500	361	1940-48
Gunnison River at Iola, CO	09120500	2,352	1899, 1903, 1937-51
Cebolla Creek near Lake City, CO	09121500	25.2	1946-54
Cebolla Creek near Powderhorn, CO	09121800	248	1960-63
Cebolla Creek at Powderhorn, CO	09122000	340	1937-55
Soap Creek near Sapinero, CO	09122500	57.4	1955-66
Soap Creek at Sapinero, CO	09123000	86.0	1910-14, 1945-52
Lake Fork below mill Gulch near Lake City, CO	09123400	57.5	1981-86
Lake Fork at Lake City, CO	09123500	115	1917-24, 1928-30, 1931-37
Henson Creek at Lake City, CO	09124000	83.1	1917-19, 1928-30, 1931-37
Gunnison River below Blue Mesa Dam, CO	09124700	3,453	1963-68
Curecanti Creek near Sapinero, CO	09125000	35.0	1945-72
Cimarron River at Cimarron, CO	09126500	209	1902-05, 1962-67
Cimarron River below Squaw Creek at Cimarron, CO	09127000	229	1942-52
Crystal Creek near Maher, CO	09127500	42.2	1916-19, 1945-54, 1960-69
Gunnison River above Gunnison Tunnel, CO	09127998	3,965	1905-65
Gunnison Tunnel near Montrose, CO	09127999	3,965	1910-65
Smith Fork at Crawford, CO	09129000	63.1	1954-60
Iron Creek near Crawford, CO	09129500	71.5	1947-52
Smith Fork near Lazear, CO	09129600	166	1976-87
Clear Fork near Ragged Mountain, CO	09129800	38.5	1965-73
East Muddy Creek near Bardine, CO	09130500	133	1934-53
West Muddy Creek near Ragged Mountain, CO	09130600	7.42	1955-65

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
West Muddy Creek near Bowie, CO	09130800	27.7	1968-74
Cow Creek near Paonia, CO	09131100	12.0	1968-82
West Muddy Creek near Somerset, CO	09131200	49.9	1961-73
Ruby Anthracite Creek near Floresta, CO	09132000	20.7	1938-43, 1954-58
Anthracite Creek near Somerset, CO	09132050	94.6	1977-81
Main Hubbard Creek near Paonia, CO	09132700	1.33	1960-68
Middle Hubbard Creek near Paonia, CO	09132800	1.36	1960-68
West Hubbard Creek near Paonia, CO	09132900	2.34	1960-73
Hubbard Creek near Bowie, CO	09132920	20.7	1968-74
North Fork Gunnison River near Paonia, CO	09133000	653	1921-32
Minnesota Creek at Paonia, CO	09134050	53.5	1976-79
Cottonwood Creek near Hotchkiss, CO	09134200	41.0	1976-79
Leroux Creek near Cedaredge, CO	09134500	34.5	1936-56, 1960-69
Cow Creek near Cedaredge, CO	09134700	7.24	1960-69
Leroux Creek near Lazear, CO	09135000	51.8	1917-26
Gunnison River near Lazear, CO	09136200	5,241	1962-85
Currant Creek near Cedaredge, CO	09136500	42.2	1948-54
Currant Creek near Read, CO	09137050	56.9	1976-87
Dirty George Creek near Grand Mesa, CO	09137800	10.6	1957-69
Ward Creek near Grand Mesa, CO	09139200	12.2	1957-69
Ward Creek near Cedaredge, CO	09139500	20.4	1939-46
Kiser Creek near Grand Mesa, CO	09140200	5.35	1957-69
Kiser Creek near Cedaredge, CO	09140500	10.8	1939-46
Cottonwood Creek near Grand Mesa, CO	09140700	2.15	1957-68
Cottonwood Creek near Cedaredge, CO	09141000	4.39	1939-46
Youngs Creek near Grand Mesa, CO	09141200	10.3	1957-69
Youngs Creek near Cedaredge, CO	09141500	11.3	1939-46
Ward Creek below Kiser Creek near Cedaredge, CO	09142000	52.2	1944-52
Surface Creek at Eckert, CO	09144000	43.6	1939-51
Tongue Creek at Cory, CO	09144200	197	1957-68, 1976-87
Red Mountain Creek near Ironton, CO	09144500	18.1	1947-55
Uncompahgre River At Ouray, CO	09145000	42.0	1908, 1910-24
Canyon Creek at Ouray, CO	09145500	25.8	1910-15
Uncompahgre River below Ouray, CO	09146000	75.2	1913-29
West Fork Dallas Creek near Ridgway, CO	09146400	14.1	1955-70
East Fork Dallas Creek near Ridgway, CO	09146500	16.8	1947-53, 1960-70
Beaver Creek near Ridgway, CO	09146550	12.2	1960-68
Pleasant Valley Creek near Noel, CO	09146600	8.17	1955-67
Cow Creek near Ridgway, CO	09147100	45.4	1955-73
Spring Creek near Beaver Hill, CO	09149400	41.6	1977-81
Spring Creek near Montrose, CO	09149420	76.6	1977-81
Potter Creek near Columbine Pass, CO	09149900	7.10	1980-81
Potter Creek near Olathe, CO	09149910	26.0	1980-81
Roubideau Creek at Mouth near Delta, CO	09150500	242	1938-54, 1976-83
Escalante Creek near Delta, CO	09151500	209	1922-23, 1970-89
Kannah Creek near Whitewater, CO	09152000	61.9	1917-82
Orchard Mesa Drain at Grand Junction, CO	09152600	3.70	1973-83
Leach Creek at Durham, CO	09152650	24.8	1973-83
Adobe Creek near Fruita, CO	09152900	15.4	1973-83
Colorado River near Fruita, CO	09153000	17,100	1907-23
Big Salt Wash at Fruita, CO	09153270	142	1973-77
Reed Wash near Loma, CO	09153300	29.3	1973-83
West Salt Creek near Carbonera, CO	09153330	95.6	1979-82
West Salt Creek near Mack, CO	09153400	168	1973-83
Badger Wash near Mack, CO	09163050	6.51	1973-82
East Salt Creek near Mack, CO	09163310	197	1973-82
Mack Wash near Mack, CO	09163340	15.9	1973-82
Salt Creek near Mack, CO	09163490	436	1973-83
Hay Press Creek above Fruita Reservoir 3 near Glade Park, CO	09163570	0.77	1983-88
West Fork Dolores River near Stoner, CO	09166000	162	1941-44
Lost Canyon Creek at Dolores, CO	09167000	73.5	1922-27, 1941-48
Plateau Creek near Mouth near Dolores, CO	09167450	83.0	1982-83
Dolores River near McPhee, CO	09167500	817	1938-52
Disappointment Creek near Dove Creek, CO	09168100	147	1957-86
Big Gypsum Creek near Slick Rock, CO	09168800	43.9	1979-81
West Paradox Creek near Paradox, CO	09170500	23.6	1944-52

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
West Paradox Creek above Bedrock, CO	09170800	53.3	1971-73
West Paradox Creek near Bedrock, CO	09171000	55.3	1944-52
San Miguel River near Telluride, CO	09171200	42.8	1959-65
San Miguel River at Fall Creek, CO	09171500	167	1895-99, 1910
Fall Creek near Fall Creek, CO	09172000	33.4	1941-59
Leopard Creek at Noel, CO	09172100	9.03	1955-63
Saltado Creek near Norwood, CO	09172600	--	1976-80
Gurley Ditch near Norwood, CO	09172700	--	1976-80
West Beaver Creek near Norwood, CO	09172800	--	1976-80
Beaver Creek near Norwood, CO	09173000	40.6	1941-61, 1962-67, 1975-81
Horsefly Creek near Sams, CO	09173500	28.8	1942-51
San Miguel River near Nucla, CO	09174000	649	1953-62
Cottonwood Creek near Nucla, CO	09174500	38.8	1942-51
West Naturita Creek at Upper Station near Norwood, CO	09174700	7.31	1976-80
West Naturita Creek near Norwood, CO	09175000	53.0	1940-52, 1975-80
Lilylands Canal near Norwood, CO	09175200	--	1976-80
Maverick Draw near Norwood, CO	09175400	41.3	1976-80
San Miguel River at Naturita, CO	09175500	1,069	1917-29, 1940-81
Tabeguache Creek near Nucla, CO	09176500	16.9	1946-53
Taylor Creek near Gatewat, CO	09177500	15.4	1944-67
Deep Creek near Paradox, CO	09178000	4.31	1944-53
Geyser Creek near Paradox, CO	09178500	--	1944-51
Roc Creek near Urantium CO	09179000	75.8	1944-52
Salt Creek near Gateway, CO	09179200	31.2	1979-85
Dolores River at Gateway, CO	09179500	4,347	1936-54
Vermillion Creek at Ink Springs Ranch, CO	09235450	816	1977-81
Bear River near Toponas, CO	09236000	23.0	1952-65, 1966-86
Bear River near Yampa, CO	09236500	41.6	1939-44
Service Creek near Oak Creek, CO	09237800	38.2	1965-73
Oak Creek near Oak Creek, CO	09238000	14.0	1952-57
North Fork Walton Creek near Rabbit Ears Pass, CO	09238300	0.71	1972-75
Fishhook Creek near Rabbit Ears Pass, CO	09238350	6.45	1972-75
Walton Creek near Steamboat Springs, CO	09238500	42.4	1920-22, 1965-73, 1978-87
Fish Creek Tributary above Long Lake near Buffalo Pass, CO	09238700	0.43	1984-86
Spring Creek near Steamboat Springs, CO	09239400	6.96	1965-72
ELK River at Hinman Park, CO	09240500	61.0	1911-18
South Fork Elk River near Clark, CO	09240800	33.7	1966-73
Elk River at Clark	09241000	216	1910-22, 1930-91
Fish Creek near Milner, CO	09244100	216	1955-73
Grassy Creek near Mount Harris, CO	09244300	25.8	1958-66
Yampa River near Hayden, CO	09244400	1,430	1965-72
Gibralter Canal near Hayden, CO	09244405	--	1965-72
Yampa River below Diversion near Hayden, CO	09244410	1,430	1965-86
Sage Creek above Sage Creek Reservoir near Hayden, CO	09244415	4.17	1980-83
Watering Trough Gulch near Hayden, CO	09244460	2.65	1977-81
Hubberson Gulch near Hayden, CO	09244464	8.08	1977-81
Stokes Gulch near Hayden, CO	09244470	13.6	1976-81
Elkhead Creek near Clark, CO	09244500	45.4	1942-44, 1958-73
North Fork Elkhead Creek near Elkhead, CO	09245500	21.0	1910, 1920, 1958-73
Elkhead Creek near Craig, CO	09246500	249	1906, 1909-18
Fortification Creek near Craig, CO	09246900	34.3	1955-60
Fortification Creek near Fortification, CO	09246920	40.0	1984-90
Fortification Creek at Craig, CO	09247000	258	1903-06, 1909-18, 1943-47
Yampa River at Craig, CO	09247500	1,730	1909-16 1901-06,
East Fork of Williams Fork near Willow Creek, CO	09248500	96.0	1943-47
East Fork of Williams Fork above Willow Creek, CO	09248600	108	1956-72
East Fork of Williams Fork near Pagoda, CO	09249000	150	1953-71
South Fork of Williams Fork near Pagoda, CO	09249200	46.7	1965-79
Waddle Creek near Pagoda, CO	09249450	5.24	1985-86

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
Deep Rock Gulch near Hamilton, CO	09249455	3.53	1985-86
Williams Fork at Hamilton, CO	09249500	341	1904-06, 1909-27
Morapos Creek near Hamilton, CO	09249700	13.7	1965-67
Milk Creek near Thornburgh, CO	09250000	65.0	1952-86
Good Spring Creek at Axial, CO	09250400	40.0	1975-78
Jubb Creek near Axial, CO	09250610	7.53	1975-81
Morgan Gulch near Axial, CO	09250700	25.6	1980-81
Middle Fork Little Snake River near Battle Creek, CO	09251500	120	1912-22
South Fork Little Snake River near Battle Creek, CO	09252500	46.0	1912-20
Battle Creek near Slater, CO	09253500	285	1942-51
Slater Fork at Baxter Ranch near Slater, CO	09254500	80.0	1911-20, 1922
Little Snake River above Lily, CO	09259950	--	1950-69
Sand Wash near Sunbeam, CO	09254990	239	1987-91
North Fork White River below Trappers Lake, CO	09302400	19.5	1956-65
North Fork White River above Ripple Creek near Trappers Lake, CO	09302420	62.5	1965-73
Lost Creek near Buford, CO	09302450	21.5	1964-89
Marvine Creek near Buford, CO	09302500	59.7	1903-06, 1973-84
North Fork White River near Buford, CO	09302800	220	1903-06, 1956-72
Patterson Creek near Budges Resort, CO	09303340	11.2	1976-77
Wagonwheel Creek at Budges Resort, CO	09303320	7.36	1975-89
Big Beaver Creek near Buford, CO	09304100	34.1	1955-64
Miller Creek near Meeker, CO	09304150	57.6	1970-79
Coal Creek near Meeker, CO	09304300	25.1	1957-68
White River at Meeker, CO	09304600	808	1978-85
Piceance Creek at Rio Blanco, CO	09305500	8.97	1952-57
Middle Fork Stewart Gulch near Rio Blanco, CO	09306015	24.0	1974-76, 1977-82
Stewart Gulch above West Fork near Rio Blanco, CO	09306022	44.0	1976-85
West Fork Stewart Gulch near Rio Blanco, CO	09306025	14.2	1974-76, 1977-82
West Fork Stewart Gulch at Mouth near Rio Blanco, CO	09306028	15.7	1974-82
Sorghum Gulch near Rio Blanco, CO	09306033	1.22	1974-76, 1977-82
Sorghum Gulch at Mouth near Rio Blanco, CO	09306036	3.62	1974-86
Cottonwood Gulch near Rio Blanco, CO	09306039	1.20	1974-85
Piceance Creek below Gardenhire Gulch near Rio Blanco, CO	09306045	255	1980-82, 1985
Scandard Gulch near Rio Blanco, CO	09306050	6.61	1974-76, 1978-82
Scandard Gulch at Mouth near Rio Blanco, CO	09306052	7.97	1974-85
Willow Creek near Rio Blanco, CO	09306058	48.4	1974-85
Piceance Creek above Hunter Creek near Rio Blanco, CO	09306061	309	1974-87
Black Sulphur Creek near Rio Blanco, CO	09306175	103	1975-83
Horse Draw near Rangely, CO	09306202	1.47	1977-81
Horse Draw at Mouth near Rangely, CO	09306203	2.87	1977-81
White River above Crooked Wash near White River City, CO	09306224	1,821	1982-89
Stake Springs Draw near Rangely, CO	09306230	26.1	1974-77
Corral Gulch below Water Gulch near Rangely, CO	09306235	8.61	1974-89
Dry Fork near Rangely, CO	09306237	2.74	1974-82
Box Elder Gulch near Rangely, CO	09306240	9.21	1974-85
Box Elder Gulch Tributary near Rangely, CO	09306241	2.39	1975-82
Corral Gulch at 84 Ranch, CO	09306244	37.8	1975-77
Yellow Creek Tributary near 84 Ranch, CO	09306246	5.53	1975-77
Duck Creek at Upper Station near 84 Ranch, CO	09306248	39.1	1975-77
Duck Creek near 84 Ranch, CO	09306250	50.0	1975-77
White River above Rangely, CO	09306300	2,773	1972-82
Douglas Creek at Rangely, CO	09306380	425	1976-78
East Fork San Juan River near Pagosa Springs, CO	09340000	86.9	1935-80
West Fork San Juan River above Borns Lake near Pagosa Springs, CO	09340500	41.2	1937-53
Wolf Creek near Pagosa Springs, CO	09341200	14.0	1968-75
Wolf Creek at Wolf Creek Camp Ground near Pagosa Springs, CO	09341300	18.0	1984-87
Windy Pass Creek near Pagosa Springs, CO	09341350	1.41	1984-87
West Fork San Juan River near Pagosa Springs, CO	09341500	87.9	1935-60, 1984-87
Turkey Creek near Pagosa Springs, CO	09342000	23.0	1937-49
Rio Blanco near Pagosa Springs, CO	09343000	58.0	1935-71
Rito Blanco near Pagosa Springs, CO	09343500	23.3	1935-52
Navajo River above Chromo, CO	09344300	96.4	1956-70
Little Navajo River at Chromo, CO	09345500	21.9	1935-52
Middle Fork Piedra River near Pagosa Springs, CO	09347200	32.2	1969-75

DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
Middle Fork Piedra River near Dyke, CO	09347205	34.1	1978-84
Piedra River at Bridge Ranger Station near Pagosa Springs, CO	09347500	82.3	1936-41, 1946-54
Williams Creek near Bridge Ranger Station near Pagosa Springs, CO	09348500	43.7	1936-41, 1946-49
Weminuche Creek near Bridge Ranger Station near Pagosa Springs, CO	09349000	53.4	1936-41, 1946-49
Piedra River near Piedra, CO	09349500	371	1911-12, 1938-73
Los Pinos River near Bayfield, CO	09353500	270	1927-86
Animas River at Howardsville, CO	09357500	55.9	1935-82
Cement Creek near Silverton, CO	09358500	13.5	1935-37 1946-49
Mineral Creek above Silverton, CO	09358900	11.0	1968-75
Mineral Creek near Silverton, CO	09359000	43.9	1935-49
Lime Creek near Silverton, CO	09359100	33.9	1956-61
Animas River above Tacoma, CO	09359500	348	1945-56
Hermosa Creek near Hermosa, CO	09361000	172	1911, 1912-14, 1919-28, 1939-80
Falls Creek near Durango, CO	09361200	7.18	1959-65
Junction Creek near Durango, CO	09361400	26.3	1959-65
Lightner Creek near Durango, CO	09362000	66.0	1927-49
Florida River near Hermosa, CO	09362900	68.8	1955-63
Florida River near Durango, CO	09363000	97.4	1899, 1901-03, 1910-12, 1917-1924, 1926-60
Florida River below Florida Farmers Ditch near Durango, CO	09363050	107	1967-82
Salt Creek near Oxford, CO	09363100	17.7	1956-63, 1967-83
Florida River at Bondad, CO	09363200	221	1956-63, 1967-83
Cherry Creek near Red Mesa, CO	09366000	66.0	1928-50
West Mancos River near Mancos, CO	09368500	39.4	1910-11, 1938-53
East Mancos River near Mancos, CO	09369000	11.9	1937-51
Middle Mancos River near Mancos, CO	09369500	12.1	1937-51
Mancos River near Mancos, CO	09370000	71.5	1921, 1931-38
Mancos River near Cortez, CO	09370800	302	1976-79
Mancos River below Johnson Canyon near Cortez, CO	09370820	320	1979-82
Hartman Draw at Cortez, CO	09371400	34.0	1978-86
McElmo Creek above Alkali Canyon near Cortez, CO	09371420	147	1972-86
Mud Creek at State Highway 32 near Cortez, CO	09371492	33.6	1981-86
Mud Creek near Cortez, CO	09371495	33.6	1978-81
McElmo Creek below Cortez, CO	09371700	283	1972-83

DISCONTINUED CONTINUOUS SURFACE- WATER-QUALITY STATIONS

The following stations were discontinued as continuous surface-water-quality stations prior to the 1989 water year. Daily records of temperature, specific conductance, pH, dissolved oxygen or sediment were collected and published for the period of record shown for each station.

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Williams Fork near Parshall, CO	09037500	184	Temp., S.C.	1986-87
Williams Fork below Williams Fork Reservoir, CO	09038500	230	Temp., S.C.	1985-87
West Tenmile Creek at Copper Mountain, CO	09049200	21.0	Sed.	1973-79
Boulder Creek near Dillon, CO	09052500	9.89	Temp., S.C.	1982
Blue River above Green Mountain Reservoir, CO	09053500	511	Temp.	1986
			S.C.	1986-87
Blue River below Green Mountain Reservoir, CO	09057500	599	Temp., S.C.	1986-87
Rock Creek at Crater, CO	09060550	72.6	Temp., S.C.	1986-87
Black Gore Creek near Vail, CO	09066050	19.6	Sed.	1973-79
Gore Creek at Vail, CO	09066250	57.3	Sed.	1973-79
Colorado River near Dotsero, CO	09070500	4,394	Temp., S.C.	1980-84
			Sed.	1959-61
Colorado River near Glenwood Springs, CO	09071100	4,560	Temp	1969-70, 1980-85
			S.C.	1980-85
Colorado River at Glenwood Springs, CO	09072500	4,558	Temp.	1954-58
			Sed.	1959-61
Hunter Creek above Midway Creek near Aspen, CO	09073700	6.18	Temp., S.C.	1976-77
Roaring Fork River at Glenwood Springs, CO	09085000	1,451	Temp., S.C.	1980-84
			Sed.	1959-61
Colorado River below Glenwood Springs, CO	09085100	6,013	Temp., S.C.	1980-84
East Middle Fork Parachute Cr nr Rio Blanco, CO	09092850	22.1	Temp., S.C.	1976-82
			Sed.	1977-82
East Fork Parachute Creek near Rulison, CO	09092970	20.4	Temp.	1977-78, 1980-83
			S.C.	1977-83
			Sed.	1978, 1980-83
Parachute Creek near Parachute, CO	09093000	141	Temp., S.C.	1975-80
			Sed.	1974-75
Parachute Creek at Parachute, CO	09093500	198	Temp., S.C.	1975-80
			Sed.	1974-82
Colorado River near De Beque, CO	09093700	7,370	Temp., S.C.	1973-82
			Sed.	1974-76
Roan Creek near De Beque, CO	09095000	321	Temp., S.C.	1975-80
			Sed.	1975-81
Government Highline Canal near Mack, CO	09095530	--	Temp.	1973-80
			S.C.	1974-80
Plateau Creek near Cameo, CO	09105000	592	Temp., S.C.	1971-75
Lewis Wash near Grand Junction, CO	09106200	4.72	Temp., S.C.	1973-77
Uncompahgre River at Delta, CO	09149500	1,115	Sed.	1959
Potter Creek near Columbine Pass, CO	09149900	7.10	Temp., S.C.	1981
Potter Creek near Olathe, CO	09149910	26.0	Temp., S.C.	1981
Orchard Mesa Drain at Grand Junction, CO	09152600	3.70	Temp., S.C.	1973-77
Leach Creek at Durham, CO	09152650	24.8	Temp., S.C.	1973-77
Adobe Creek near Fruita, CO	09152900	15.4	Temp., S.C.	1973-80
Big Salt Wash at Fruita, CO	09153270	142	Temp., S.C.	1973-77
Reed Wash near Loma, CO	09153300	29.3	Temp., S.C.	1973-83
West Salt Creek near Carbonera, CO	09153330	95.6	Temp., S.C.	1981-82
West Salt Creek near Mack, CO	09153400	168	Temp., S.C.	1973-84
Badger Wash Observation Res 4-A near Mack, CO	09160000	.02	Temp., S.C.	1981
Badger Wash Observation Res 12 near Mack, CO	09160500	.09	Temp., S.C.	1981-82
Badger Wash Observation Res 2-A near Mack, CO	09161000	.15	Temp., S.C.	1981
Badger Wash near Mack, CO	09163050	6.51	Temp., S.C.	1973-80
East Salt Creek near Mack, CO	09163310	197	Temp., S.C.	1973-82
Mack Wash near Mack, CO	09163340	15.9	Temp.	1973-82
			S.C.	1974-82
Salt Creek near Mack, CO	09163490	436	Temp., S.C.	1973-83
Disappointment Creek near Dove Creek, CO	09168100	147	Temp., S.C.	1984
Big Gypsum Creek near Slick Rock, CO	09168800	43.9	Temp., S.C.	1981
Dolores River below W. Paradox Cr nr Bedrock, CO	09171070	2,144	Temp., S.C.	1986-87
Salt Creek near Gateway, CO	09179200	31.2	Temp., S.C.	1981-85
Dolores River at Gateway, CO	09179500	4,347	Temp.	1949-52
Yampa River near Oak Creek, CO	09237500	227	Sed.	1985-88
Middle Creek near Oak Creek, CO	09243700	23.5	Temp., S.C.	1976-81
Foidel Creek at Mouth near Oak Creek, CO	09243900	17.5	Temp., S.C.	1976-81
			Sed.	1978-81
Sage Creek above Sage Creek Res. near Hayden, CO	09244415	4.17	Temp., S.C.	1981-83
Watering Trough Gulch near Hayden, CO	09244460	2.65	Temp., S.C.	1979-81
Hubberson Gulch near Hayden, CO	09244464	8.08	Temp., C.C.	1979-81
Stokes Gulch near Hayden, CO	09244470	13.6	Temp., S.C., Sed.	1978-81

DISCONTINUED CONTINUOUS SURFACE- WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Good Spring Creek at Axial, CO	09250400	40.0	Temp.	1975-78
			S.C.	1974-78
Wilson Creek above Taylor Creek near Axial, CO	09250507	20.0	Temp., S.C., Sed.	1980-81
Taylor Creek at Mouth near Axial, CO	09250510	7.22	Temp., S.C.	1976-81
Wilson Creek near Axial, CO	09250600	27.4	Temp.	1975-80
			S.C.	1974-80
			Sed.	1976-80
Jubb Creek near Axial, CO	09250610	7.53	Temp., S.C.	1976-81
Morgan Gulch near Axial, CO	09250700	25.6	Temp., S.C.	1980-81
Little Snake River above Lily, CO	09259950	3,730	Temp., S.C.	1950-69
			Sed.	1958-64
Little Snake River near Lily, CO	09260000	3,730	Temp., S.C.	1975-85
			Sed.	1958-64
Yampa River at Deerlodge Park, CO	09260050	7,660	Temp., S.C.	1977-82
White River above Coal Creek, near Meeker, CO	09304200	648	Temp., S.C.	1978-84
White River near Meeker, CO	09304500	755	Temp., S.C.	1973-74
White River at Meeker, CO	09304600	808	Temp., S.C.	1978-85
White River below Meeker, CO	09304800	1,024	Temp., S.C.	1978-85
Piceance Creek below Rio Blanco, CO	09306007	177	Temp., S.C., Sed	1974-85
Middle Fork Stewart Gulch near Rio Blanco, CO	09306015	24.0	Temp., S.C.	1976, 1981
			Sed.	1976
Stewart Gulch above West Fork near Rio Blanco, CO	09306022	44.0	Temp., S.C., Sed.	1974-82
West Fork Stewart Gulch near Rio Blanco, CO	09306025	14.2	Temp.	1974-76, 1980-81
			S.C.	1975-76, 1980-81
			Sed.	1974-76
W.F. Stewart Gulch at Mouth near Rio Blanco, CO	09306028	15.7	Temp.	1980-81
			S.C.	1977, 1980-81
			Sed.	1975-76, 1980-81
Sorghum Gulch near Rio Blanco, CO	09306033	1.22	Temp., S.C.	1975-76, 1980
			Sed.	1975-76
Sorghum Gulch at mouth near Rio Blanco, CO	09306036	3.62	Temp., S.C.	1976, 1978, 1980
			Sed.	1975-77, 1982
Cottonwood Gulch near Rio Blanco, CO	09306039	1.20	Temp., S.C.	1976-78, 1980
			Sed.	1974-77, 1980
Piceance Creek Tributary near Rio Blanco, CO	09306042	1.06	Temp., S.C.	1974-86
			Sed.	1974-82
Piceance Cr bl Gardenhire Gulch nr Rio Blanco, CO	09306045	255	Temp., S.C.	1980-81
Scandard Gulch near Rio Blanco, CO	09306050	6.61	Temp., S.C.	1980
			Sed.	1975-76
Scandard Gulch at Mouth near Rio Blanco, CO	09306052	7.97	Temp., S.C.	1976, 1978, 1980
			Sed.	1974-76, 1980
Willow Creek near Rio Blanco, CO	09306058	48.4	Temp., S.C.	1974-82
			pH, D.O.	1976-82
			Sed.	1974-82
Piceance Creek above Hunter Cr nr Rio Blanco, CO	09306061	309	Temp., S.C., Sed.	1974-85
			pH, D.O.	1974-84
Black Sulphur Creek near Rio Blanco, CO	09306175	103	Temp., S.C., Sed.	1975-81
Piceance Creek below Ryan Gulch nr Rio Blanco, CO	09306200	506	Sed.	1972-83
Horse Draw near Rangely, CO	09306202	1.47	Sed.	1980
Horse Draw at Mouth near Rangely, CO	09306203	2.87	Temp., S.C.	1980
			Sed.	1980-81
Piceance Creek at White River, CO	09306222	652	Temp., S.C., Sed.	1974-83
Stake Springs Draw near Rangely, CO	09306230	26.1	Temp., S.C., Sed.	1977
Corral Gulch below Water Gulch near Rangely, CO	09306235	8.61	Temp., S.C.	1975-85
			Sed.	1974-82

DISCONTINUED CONTINUOUS SURFACE- WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Dry Fork near Rangely, CO	09306237	2.74	Temp., S.C.	1977, 1979, 1982
			Sed.	1975, 1977, 1979, 1981-82
Box Elder Gulch near Rangely, CO	09306240	9.21	Temp., S.C.	1975-85
			Sed.	1975-82
Box Elder Gulch Tributary near Rangely, CO	09306241	2.39	Temp.	1976, 1980-81
			S.C.	1976-77, 1981
			Sed.	1975, 1980, 1982
Corral Gulch near Rangely, CO	09306242	31.6	Temp., S.C.	1975-87
			Sed.	1974-85
Corral Gulch at 84 Ranch, CO	09306244	37.8	Temp., S.C. Sed.	1975-77
Yellow Creek Tributary near 84 Ranch, CO	09306246	5.53	Sed.	1976
Duck Creek at Upper Station near 84 Ranch, CO	09306248	39.1	Sed.	1976
Duck Creek near 84 Ranch, CO	09306250	50.0	Temp., S.C.	1977
Yellow Creek near White River, CO	09306255	262	Temp., S.C. Sed.	1974-82
Windy Pass Creek near Pagosa Springs, CO	09341350	1.41	Sed.	1986
West Fork San Juan River near Pagosa Springs, CO	09341500	87.9	Sed.	1985-87
Rio Blanco near Pagosa Springs, CO	09343000	58.0	Sed.	1961-62
Navajo River above Chromo, CO	09344300	96.4	Sed.	1961-62
Vallecito Creek near Bayfield, CO	09352900	72.1	Temp.	1962-82
Mancos River near Cortez, CO	09370800	302	Temp., S.C.	1976-79
Mancos River below Johnson Canyon nr Cortez, CO	09370820	320	Temp., S.C.	1979-82
Mancos River near Towaoc, CO	09371000	526	Sed.	1961
Hartman Craw at Cortez, CO	09371400	34.0	Temp., S.C.	1978-81

Type of record: Temp. (temperature), S.C. (specific conductance), pH (pH), D.O. (dissolved oxygen), Sed. (sediment).

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

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1-*D*1 *Water temperature--influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.

1-D2 *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.

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3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.

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8-A2. *Installation and service manual for U.S. Geological Survey manometers,* by J. D. Craig: USGS–TWRI Book 8, Chapter A2. 1983. 57 pages.

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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: Oct. 28 to Apr. 29, and Aug. 17 to Sept. 30. Records fair except for estimated daily discharges, which are poor. Transmountain diversion upstream from station by Grand River ditch (see elsewhere in this report). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	15	12	8.6	7.3	6.8	5.3	163	159	102	26	23
2	19	16	11	8.6	7.3	6.7	5.6	163	152	102	27	28
3	18	16	11	8.4	7.3	6.7	6.0	153	162	90	26	22
4	17	15	11	8.5	7.2	6.6	6.4	149	171	77	27	22
5	17	16	11	8.5	7.2	6.6	6.9	150	175	70	26	21
6	17	17	11	8.2	7.2	6.5	8.0	153	170	67	27	19
7	18	17	11	8.2	7.2	6.6	9.6	166	170	69	28	18
8	16	17	11	8.1	7.2	6.5	11	152	175	78	25	17
9	15	17	11	8.1	7.0	6.4	14	155	170	71	27	16
10	15	17	11	8.2	6.7	6.4	15	148	179	64	28	16
11	15	16	11	8.0	6.8	6.3	18	118	183	60	27	16
12	14	14	11	7.6	6.8	6.2	20	118	178	64	25	15
13	14	14	10	7.7	6.8	6.2	25	117	185	59	23	15
14	14	14	10	7.7	6.8	6.2	25	125	185	52	23	15
15	14	14	10	7.8	6.8	6.1	24	142	178	51	24	16
16	14	14	9.8	7.7	7.0	6.0	24	153	156	50	25	16
17	13	14	9.8	7.7	7.2	6.0	24	160	139	60	27	28
18	13	14	9.8	7.6	7.2	6.0	24	159	128	45	24	30
19	13	15	9.8	7.6	7.2	5.9	22	172	128	45	24	21
20	13	14	10	7.6	7.2	5.6	19	197	135	52	22	20
21	13	13	9.8	7.6	7.1	5.8	19	244	136	51	22	21
22	12	13	9.8	7.6	7.0	5.7	21	257	131	41	24	19
23	13	12	9.8	7.6	7.0	5.6	19	219	131	42	25	18
24	15	12	9.6	7.6	7.0	5.5	21	229	134	47	30	17
25	15	12	9.6	7.6	6.9	5.4	27	244	149	42	29	21
26	16	12	9.2	7.6	6.8	5.1	35	240	147	45	40	21
27	16	12	8.8	7.6	6.8	5.3	78	280	120	37	26	18
28	16	12	8.8	7.4	6.8	5.4	105	254	131	32	22	17
29	16	12	8.6	7.4	6.8	5.4	134	207	130	32	21	18
30	14	12	8.5	7.4	---	5.4	147	185	111	30	20	18
31	15	---	8.6	7.2	---	5.6	---	170	---	28	21	---
TOTAL	472	428	313.3	243.0	203.6	186.5	918.8	5542	4598	1755	791	582
MEAN	15.2	14.3	10.1	7.84	7.02	6.02	30.6	179	153	56.6	25.5	19.4
MAX	22	17	12	8.6	7.3	6.8	147	280	185	102	40	30
MIN	12	12	8.5	7.2	6.7	5.1	5.3	117	111	28	20	15
AC-FT	936	849	621	482	404	370	1820	10990	9120	3480	1570	1150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1992, BY WATER YEAR (WY)

MEAN	23.8	15.0	9.70	7.72	6.93	7.34	27.7	163	310	110	33.1	26.0
MAX	83.7	37.2	17.4	12.8	10.6	11.9	74.5	315	547	425	104	75.5
(WY)	1962	1962	1962	1985	1984	1972	1962	1958	1971	1983	1983	1961
MIN	9.25	7.43	4.56	3.91	3.90	4.57	9.11	70.9	69.8	27.3	11.1	11.8
(WY)	1957	1957	1957	1957	1977	1977	1991	1981	1954	1954	1954	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1953 - 1992	
ANNUAL TOTAL	18487.6		16033.2			
ANNUAL MEAN	50.7		43.8		62.1	
HIGHEST ANNUAL MEAN					109	1983
LOWEST ANNUAL MEAN					26.3	1954
HIGHEST DAILY MEAN	395	Jun 15	280	May 27	916	Jun 30 1957
LOWEST DAILY MEAN	[a]4.5	Jan 1	5.1	Mar 26	3.0	Jan 13 1963
ANNUAL SEVEN-DAY MINIMUM	4.6	Jan 1	5.4	Mar 24	3.5	Feb 4 1977
INSTANTANEOUS PEAK FLOW			318	May 21	976	Jun 30 1957
INSTANTANEOUS PEAK STAGE			5.89	May 21	[b]7.19	Jun 30 1957
ANNUAL RUNOFF (AC-FT)	36670		31800		44970	
10 PERCENT EXCEEDS	201		153		184	
50 PERCENT EXCEEDS	14		16		18	
90 PERCENT EXCEEDS	5.6		6.8		6.2	

a-Also occurred Jan 2-5.
b-Maximum gage height 7.30 ft, Jun 25, 1971.

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.73 W., 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 with satellite telemetry, 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.--46 years, 284 ft^3/s; 205,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 592 ft^3/s, June 30, 1962; no flow at times in most years.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	527	531	439	524	432	256	206	100	442	196	169	102
2	520	500	451	443	430	263	205	9.8	151	196	169	101
3	500	484	448	439	430	289	203	79	504	241	178	112
4	376	495	438	437	428	252	202	87	426	318	181	113
5	373	499	422	437	430	260	95	92	307	340	194	117
6	394	495	426	438	419	251	10	158	336	295	195	186
7	134	496	426	435	434	258	20	134	361	192	285	224
8	.49	498	426	430	436	265	18	213	363	3.2	285	187
9	.43	499	424	431	441	217	18	408	364	189	279	186
10	53	499	450	434	349	309	165	406	367	278	282	202
11	8.7	496	446	435	332	261	156	420	336	297	299	187
12	.39	496	435	432	274	272	137	481	264	307	307	203
13	.30	495	452	433	277	268	134	502	250	293	305	205
14	.30	498	453	434	365	262	106	493	250	304	339	.73
15	.30	493	454	437	363	260	7.0	477	251	248	256	.03
16	.30	493	455	437	362	258	79	445	250	204	255	.00
17	.28	492	451	436	366	257	97	428	250	195	258	.00
18	54	483	454	439	365	259	80	395	409	196	255	51
19	6.8	474	452	445	369	257	107	396	331	133	243	212
20	.31	458	443	437	369	204	111	346	217	112	243	208
21	.30	446	445	441	259	202	119	228	187	103	237	122
22	.24	448	452	429	260	204	115	209	6.8	134	221	65
23	.22	446	451	438	262	206	99	278	177	131	138	.00
24	.21	450	447	431	261	171	99	267	143	119	187	.00
25	51	426	435	435	392	206	101	253	120	89	110	186
26	.31	416	442	434	443	193	12	277	2.0	110	112	233
27	.20	452	441	438	446	205	115	239	213	124	111	218
28	51	454	441	405	437	205	109	214	248	121	96	292
29	.28	449	436	434	255	206	6.8	351	196	126	96	321
30	222	456	431	438	---	208	15	380	197	117	104	229
31	546	---	312	431	---	202	---	396	---	114	105	---
TOTAL	3821.36	14317	13578	13567	10686	7386	2946.8	9161.8	7918.8	5825.2	6494	4262.76
MEAN	123	477	438	438	368	238	98.2	296	264	188	209	142
MAX	546	531	455	524	446	309	206	502	504	340	339	321
MIN	.20	416	312	405	255	171	6.8	9.8	2.0	3.2	96	.00
AC-FT	7580	28400	26930	26910	21200	14650	5840	18170	15710	11550	12880	8460

CAL YR 1991 TOTAL 107124.95 MEAN 293 MAX 549 MIN .00 AC-FT 212500
WTR YR 1992 TOTAL 99964.72 MEAN 273 MAX 546 MIN .00 AC-FT 198300

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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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
OCT											
01...	1155	533	51	8.2	13.5	7.8	20	6.2	1.2	1.9	0.2
NOV											
20...	1049	561	49	7.8	4.0	8.8	20	6.3	1.1	2.0	0.2
JAN											
28...	1030	557	63	7.4	2.0	9.0	27	8.3	1.4	2.4	0.2
MAR											
25...	1145	361	62	8.0	2.5	9.2	26	7.8	1.5	3.0	0.3
MAY											
12...	1320	504	46	7.6	5.5	8.3	19	5.7	1.1	2.0	0.2
21...	1200	--	--	--	--	--	--	--	--	--	--
JUL											
14...	1230	359	22	8.0	14.0	7.9	8	2.5	0.46	1.0	0.2
SEP											
16...	1245	0.40	46	7.5	13.5	7.5	15	4.5	0.92	3.1	0.3
16...	1250	--	--	--	--	--	--	--	--	--	--

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)
OCT										
01...	0.7	22	3.0	0.4	0.1	3.2	31	30	0.04	44.6
NOV										
20...	0.7	22	6.6	0.4	0.2	4.0	46	35	0.06	69.7
JAN										
28...	0.8	27	3.1	0.9	0.2	6.0	30	40	0.04	45.1
MAR										
25...	1.2	27	3.2	0.2	<0.1	5.9	38	40	0.05	37.0
MAY										
12...	0.7	20	2.8	0.1	0.2	5.4	10	30	0.01	13.6
21...	--	--	--	--	--	--	--	--	--	--
JUL										
14...	0.3	9	1.7	0.2	<0.1	3.5	4	15	0.01	3.88
SEP										
16...	0.6	18	2.4	0.6	0.2	4.9	46	28	0.06	0.05
16...	--	--	--	--	--	--	--	--	--	--

DATE	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, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT									
01...	<0.01	<0.05	<0.05	0.02	<0.01	0.50	0.05	0.04	<0.01
NOV									
20...	<0.01	<0.05	0.07	<0.01	0.01	<0.20	0.02	<0.01	<0.01
JAN									
28...	<0.01	0.09	0.11	<0.01	0.01	<0.20	<0.01	<0.01	<0.01
MAR									
25...	<0.01	0.10	0.10	0.02	0.02	<0.20	<0.01	--	--
MAY									
12...	<0.01	0.06	0.08	0.06	<0.01	<0.20	<0.01	<0.01	<0.01
21...	--	--	--	--	--	--	--	--	--
JUL									
14...	<0.01	<0.05	<0.05	0.02	0.02	<0.20	<0.01	<0.01	<0.01
SEP									
16...	<0.01	<0.05	<0.05	0.03	0.03	0.30	0.02	<0.01	<0.01
16...	--	--	--	--	--	--	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	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									
01...	1155	4	<0.5	<10	<1.0	<5	<3	<10	24
NOV									
20...	1049	6	<0.5	<10	<1.0	<5	<3	<10	20
JAN									
28...	1030	6	<0.5	<10	<1.0	<5	<3	<10	58
MAR									
25...	1145	7	<0.5	<10	<1.0	<5	<3	<10	54
MAY									
12...	1320	5	<0.5	<10	<1.0	<5	<3	<10	35
21...	1200	--	--	--	--	--	--	--	--
JUL									
14...	1230	3	<0.5	<10	<1.0	<5	<3	<10	25
SEP									
16...	1245	5	<0.5	<10	<1.0	<5	<3	<10	17
16...	1250	--	--	--	--	--	--	--	--

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	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)	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									
01...	<10	<4	<1	<10	<10	[a]<0.2	36	<6	<3
NOV									
20...	<10	<4	2	<10	<10	<1.0	35	<6	11
JAN									
28...	<10	<4	4	<10	<10	<1.0	48	<6	5
MAR									
25...	<10	<4	6	<10	<10	2.0	50	<6	3
MAY									
12...	<10	<4	3	<10	<10	[a]<1.0	36	<6	5
21...	--	--	--	--	--	[a]<0.2	--	--	--
JUL									
14...	<10	<4	1	<10	<10	1.0	14	<6	3
SEP									
16...	10	<4	3	<10	<10	[a]<1.0	27	<6	<3
16...	--	--	--	--	--	[a]<0.2	--	--	--

a-Analysis based on preliminary method.

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.

WATER-DISCHARGE RECORDS

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, 17,520 acre-ft, Feb. 21, elevation, 8,366.82 ft; minimum, 8,810 acre-ft, Oct. 18, 19 elevation, 8,360.00 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,366.83	17,480	-
Oct. 31	8,366.74	17,340	-140
Nov. 30	8,366.68	17,240	-100
Dec. 31	8,366.75	17,320	+ 20
CAL YR 1991			+170
Jan. 31	8,366.70	17,270	-50
Feb. 29	8,366.66	17,220	-50
Mar. 31	8,366.70	17,290	+70
Apr. 30	8,366.65	17,230	-60
May 31	8,366.50	16,940	-290
June 30	8,366.71	17,340	+400
July 31	8,366.71	17,320	-20
Aug. 31	8,366.74	17,370	+50
Sept. 30	8,366.68	17,270	-100
WTR YR 1992			-210

09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO

PERIOD OF RECORD.--May 1989 to current year.

REMARKS.--Samples collected at various depths near dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
OCT						
03...	0936	0.1	61	7.0	10.0	4.3
03...	0938	5.0	62	7.0	10.0	4.3
03...	0940	10.0	61	7.0	10.0	4.3
03...	0942	15.0	62	7.0	10.0	4.2
03...	0944	20.0	61	7.0	10.0	4.2
03...	0946	25.0	61	7.0	10.0	4.2
MAY						
28...	0935	0.1	51	7.4	12.0	8.0
28...	0936	5.0	51	7.4	12.0	7.9
28...	0937	10.0	51	7.4	12.0	7.9
28...	0938	15.0	51	7.4	11.5	7.5
28...	0939	20.0	51	7.3	10.5	7.1
28...	0940	22.0	52	7.3	10.0	7.7
JUN						
19...	0900	0.1	54	7.8	14.5	7.8
19...	0901	5.0	54	7.8	14.0	7.7
19...	0902	10.0	54	7.7	13.5	7.6
19...	0903	15.0	54	7.6	13.0	7.3
19...	0904	20.0	54	7.4	12.5	6.4
19...	0905	25.0	54	7.3	12.0	5.8
JUL						
30...	0956	0.1	46	9.5	16.5	8.5
30...	0957	5.0	46	9.5	16.0	8.6
30...	0958	10.0	48	9.2	16.0	7.9
30...	0959	15.0	55	7.9	14.0	5.7
30...	1000	20.0	57	7.5	13.0	5.6
30...	1001	25.0	59	7.2	12.5	3.0
30...	1002	28.0	59	7.1	12.0	2.3
AUG						
28...	0954	0.1	56	7.4	13.5	6.8
28...	0955	5.0	58	7.4	13.0	6.7
28...	0956	10.0	58	7.4	13.0	6.6
28...	0957	15.0	58	7.2	12.5	5.3
28...	0958	20.0	59	7.1	12.5	4.7
28...	0959	25.0	62	7.1	12.0	2.6
SEP						
23...	1015	0.1	66	7.4	12.5	7.0
23...	1016	5.0	66	7.4	12.0	6.8
23...	1017	10.0	66	7.4	12.0	6.6
23...	1018	15.0	67	7.3	12.0	6.1
23...	1019	20.0	67	7.3	11.5	4.9
23...	1020	25.0	68	7.2	11.5	4.6
23...	1021	27.0	68	7.2	11.0	4.0

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (IN)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT											
03...	0955	0.1	61	7.0	10.0	83.0	4.3	K<1	25	8.0	1.3
03...	1010	25.0	61	7.0	10.0	--	4.2	--	25	7.6	1.4
MAY											
28...	0950	0.1	51	7.4	12.0	77.0	8.0	K<1	19	5.8	1.2
28...	1000	22.0	52	7.3	10.0	--	7.7	--	19	5.7	1.2
JUN											
19...	0915	0.1	54	7.8	14.5	81.0	7.8	--	20	6.2	1.1
19...	0930	25.0	54	7.3	12.0	--	5.8	--	21	6.4	1.2
JUL											
30...	1030	0.1	48	9.5	16.5	59.0	8.5	K<1	18	5.5	1.0
30...	1100	28.0	59	7.1	12.0	--	2.3	--	23	7.1	1.3
AUG											
28...	1020	0.1	56	7.4	13.5	79.0	6.8	K<1	23	6.9	1.3
28...	1050	25.0	62	7.1	12.0	--	2.6	--	23	7.1	1.3
SEP											
23...	1030	0.1	66	7.4	12.5	132	7.0	K<1	24	7.4	1.3
23...	1045	27.0	68	7.2	11.0	--	4.0	--	24	7.5	1.3

K-Based on non-ideal colony count.

09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
OCT										
03...	2.3	0.2	0.7	27	3.5	1.0	0.2	6.2	34	40
03...	2.4	0.2	0.7	27	3.8	0.7	0.2	6.0	36	40
MAY										
28...	1.9	0.2	0.8	21	3.4	<0.1	0.1	5.9	28	--
28...	1.9	0.2	0.8	20	3.4	0.5	0.1	6.5	34	32
JUN										
19...	1.8	0.2	0.7	18	3.5	0.5	0.2	5.1	36	30
19...	1.7	0.2	0.7	19	3.4	<0.1	0.2	5.9	24	--
JUL										
30...	2.0	0.2	0.7	20	3.2	0.1	0.1	6.3	40	31
30...	2.3	0.2	0.8	24	3.2	0.2	0.1	8.0	54	38
AUG										
28...	2.1	0.2	0.8	25	3.2	0.2	0.1	7.4	34	37
28...	2.3	0.2	0.8	27	3.1	0.3	0.1	7.8	32	40
SEP										
23...	2.4	0.2	0.8	28	3.4	0.7	0.1	5.5	39	39
23...	2.4	0.2	0.7	28	3.4	0.9	<0.1	6.2	43	40

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, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CHLOR-A PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTO-PLANK-TON CHROMO FLUOROM (UG/L)
OCT										
03...	<0.01	0.09	0.02	<0.01	<0.20	0.01	<0.01	<0.01	3.1	<0.1
03...	<0.01	0.09	0.02	<0.01	<0.20	0.06	0.02	<0.01	--	--
MAY										
28...	<0.01	<0.05	0.02	0.02	<0.20	0.03	<0.01	<0.01	1.4	<0.1
28...	<0.01	<0.05	0.02	0.02	0.20	0.03	<0.01	<0.01	--	--
JUN										
19...	<0.01	<0.05	<0.01	<0.01	0.20	<0.01	<0.01	0.01	2.2	<0.1
19...	<0.01	<0.05	0.02	<0.01	0.30	0.02	<0.01	0.01	--	--
JUL										
30...	<0.01	<0.05	0.01	0.03	0.80	<0.01	<0.01	<0.01	--	<0.1
30...	<0.01	<0.05	0.14	0.15	0.40	0.02	<0.01	0.02	--	--
AUG										
28...	<0.01	0.05	0.03	0.04	0.40	0.03	<0.01	<0.01	4.6	0.1
28...	<0.01	0.07	0.08	0.09	0.30	0.03	<0.01	<0.01	--	--
SEP										
23...	<0.01	<0.05	0.02	0.01	0.30	0.02	<0.01	<0.01	2.2	<0.1
23...	<0.01	0.06	0.02	0.02	0.30	0.01	<0.01	<0.01	--	--

DATE	TIME	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									
03...	0955	8	<0.5	<10	<1.0	<5	<3	<10	53
03...	1010	8	<0.5	<10	<1.0	<5	<3	<10	49
MAY									
28...	0950	7	<0.5	<10	<1.0	<5	<3	<10	81
28...	1000	7	<0.5	<10	<1.0	<5	<3	<10	98
JUN									
19...	0915	<2	<0.5	<10	<1.0	<5	<3	<10	71
19...	0930	<2	<0.5	<10	<1.0	<5	<3	<10	77
JUL									
30...	1030	5	0.8	<10	<1.0	<5	<3	<10	140
30...	1100	10	0.8	<10	<1.0	<5	<3	<10	210
AUG									
28...	1020	8	<0.5	<10	<1.0	<5	<3	<10	79
28...	1050	9	<0.5	<10	<1.0	<5	<3	<10	25
SEP									
23...	1030	8	<0.5	<10	<1.0	<5	<3	<10	39
23...	1045	8	<0.5	<10	<1.0	<5	<3	<10	31

09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	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)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT									
03...	<10	<4	87	<10	<10	<1.0	47	<6	3
03...	<10	<4	89	<10	<10	<1.0	47	<6	<3
MAY									
28...	<10	<4	3	<10	<10	[a]<0.2	34	<6	<3
28...	<10	<4	59	<10	<10	[a]<0.2	32	<6	<3
JUN									
19...	<10	<4	1	<10	<10	[a]<0.2	31	<6	10
19...	<10	<4	81	<10	<10	[a]<0.2	33	<6	12
JUL									
30...	<10	<4	19	<10	<10	[a]<0.2	31	<6	7
30...	<10	<4	320	<10	<10	[a]<0.2	42	<6	11
AUG									
28...	<10	<4	46	<10	<10	[a]<0.2	40	<6	9
28...	<10	<4	150	<10	<10	[a]<0.2	43	<6	6
SEP									
23...	<10	<4	47	<10	<10	[a]<0.2	43	<6	<3
23...	<10	<4	70	<10	<10	[a]<0.2	44	<6	4

a-Analysis based on preliminary method.

09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°12'25", long 105°50'56", in SW1/4NE1/4 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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (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										
30...	1925	1020	61	7.6	8.5	8.2	25	7.7	1.3	2.4
NOV										
20...	1830	652	63	--	4.0	8.8	26	8.0	1.5	2.7
JAN										
15...	1830	617	63	7.6	2.0	8.4	27	8.3	1.4	2.6
JUL										
20...	2100	200	61	7.1	12.5	4.4	25	7.7	1.3	2.5
AUG										
14...	0530	669	65	6.9	8.5	3.2	25	7.7	1.4	2.5
SEP										
29...	0600	550	65	7.0	9.0	3.9	27	8.6	1.4	2.6

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, 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										
30...	0.2	0.7	27	3.5	0.7	0.2	4.9	33	38	0.05
NOV										
20...	0.2	0.8	28	3.2	0.8	0.1	5.4	48	40	0.06
JAN										
15...	0.2	0.9	29	3.2	0.5	0.2	5.7	49	41	0.07
JUL										
20...	0.2	0.8	28	3.6	0.9	<0.1	6.6	<1	41	0.05
AUG										
14...	0.2	0.7	28	3.9	<0.1	0.1	7.4	66	--	--
SEP										
29...	0.2	0.8	29	3.0	0.9	<0.1	7.0	56	42	0.08

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC 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)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT									
30...	90.6	<0.01	0.30	<0.05	0.02	0.02	0.02	<0.01	<0.01
NOV									
20...	84.5	<0.01	<0.20	0.06	<0.01	0.01	<0.01	<0.01	<0.01
JAN									
15...	81.6	<0.01	0.50	0.08	0.02	0.01	0.02	0.04	0.01
JUL									
20...	21.9	<0.01	0.20	0.07	0.02	0.01	<0.01	<0.01	<0.01
AUG									
14...	--	<0.01	<0.20	0.11	0.02	<0.01	<0.01	<0.01	0.01
SEP									
29...	83.2	<0.01	<0.20	0.12	0.02	0.02	0.01	<0.01	0.01

09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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 30...	8	<0.5	<1.0	<5	<3	<10	35	<10
NOV 20...	7	<0.5	<1.0	<5	<3	<10	35	<10
JAN 15...	<2	<0.5	<1.0	<5	<3	<10	42	<10
JUL 20...	8	<0.5	<1.0	<5	<3	<10	37	<10
AUG 14...	8	<0.5	<1.0	<5	<3	<10	28	<10
SEP 29...	8	0.5	<1.0	<5	<3	<10	41	<10

DATE	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)	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 30...	<4	4	<10	<10	<1.0	47	<6	<3
NOV 20...	<4	3	<10	<10	1.0	48	<6	<3
JAN 15...	<4	2	<10	10	<1.0	49	<6	5
JUL 20...	<4	12	<10	<10	<1.0	46	<6	3
AUG 14...	<4	13	<10	<10	<1.0	48	<6	5
SEP 29...	<4	72	<10	<10	<1.0	50	<6	5

400833105532000 LAKE GRANBY INFLOW FROM WINDY GAP TUNNEL

WATER-QUALITY RECORDS

LOCATION.--Lat 40°08'33", long 105°53'20", SW¼SE¼ sec.10, T.2 N., R.76 W., Grand County, Hydrologic Unit 14010001, left tunnel in outflow structure.

PERIOD OF RECORD.--June 12, 1991 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAY									
06...	1530	96	7.8	13.0	K18	38	12	2.0	4.2
26...	1420	133	7.8	14.5	120	53	17	2.5	5.6
JUN									
08...	1500	126	8.5	12.5	21	55	18	2.5	5.2
17...	1430	105	7.9	12.0	--	46	15	2.1	4.6

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
MAY										
06...	0.3	1.2	41	4.2	1.3	0.1	11	68	61	0.01
26...	0.3	1.4	59	4.5	1.8	0.1	14	90	83	<0.01
JUN										
08...	0.3	1.3	58	3.9	0.9	<0.1	13	98	80	<0.01
17...	0.3	0.9	46	3.2	1.5	0.2	11	76	67	<0.01

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
MAY									
06...	<0.05	0.04	0.03	<0.20	0.06	0.02	0.02	--	--
26...	<0.05	0.03	0.02	0.30	0.05	0.02	0.02	1.0	<0.1
JUN									
08...	<0.05	0.03	0.01	0.40	0.06	0.03	0.02	1.1	0.1
17...	0.12	0.02	0.02	0.30	0.04	0.04	0.04	1.0	<0.1

DATE	TIME	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, DISSOLVED (UG/L AS CR)	COBALT, DISSOLVED (UG/L AS CO)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)
MAY									
06...	1530	16	<0.5	<10	<1.0	<5	<3	<10	140
26...	1420	19	<0.5	<10	<1.0	<5	<3	<10	120
JUN									
08...	1500	28	<0.5	10	<1.0	<5	<3	<10	140
17...	1430	3	<0.5	<10	<1.0	<5	<3	<10	100

DATE	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)	ZINC, DISSOLVED (UG/L AS ZN)
MAY									
06...	<10	<4	56	<10	<10	[a]<0.2	68	<6	7
26...	<10	<4	52	<10	<10	[a]<0.2	95	<6	6
JUN									
08...	<10	<4	36	<10	<10	[a]<0.2	91	<6	6
17...	10	4	30	<10	<10	[a]<0.2	73	<6	--

a-Analysis based on preliminary method.
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, 278,700 acre-ft, July 28, elevation, 8,251.67 ft; minimum, 144,400 acre ft, Apr. 5, elevation, 8,226.19 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,248.84	262,200	-
Oct. 31	8,247.63	255,300	-6,900
Nov. 30	8,243.01	229,300	-26,000
Dec. 31	8,238.27	203,900	-25,400
CAL YR 1991			+23,900
Jan. 31	8,233.32	178,600	-25,300
Feb. 29	8,229.18	158,400	-20,200
Mar. 31	8,226.50	145,800	-12,600
Apr. 30	8,228.95	157,300	+11,500
May 31	8,241.41	220,600	+63,300
June 30	8,250.69	273,000	+52,400
July 31	8,251.66	278,700	+5,700
Aug. 31	8,250.59	272,400	-6,300
Sept. 30	8,249.45	265,700	-6,700
WTR YR 1992			+3,500

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1973 to June 1975, June 1979 to current year.

REMARKS.--Samples collected at various depths near spillway.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
OCT						
02...	0954	0.1	66	7.6	14.0	7.1
02...	0956	5.0	66	7.6	14.0	7.0
02...	0958	10	66	7.6	14.0	7.0
02...	1000	15	66	7.6	13.5	6.9
02...	1002	20	66	7.5	13.5	6.9
02...	1004	25	66	7.5	13.5	6.9
02...	1006	30	66	7.5	13.5	6.9
02...	1008	40	66	7.5	13.5	6.9
02...	1010	50	66	--	11.5	3.2
02...	1012	60	66	--	9.0	2.1
02...	1014	70	66	--	8.5	1.9
02...	1016	80	66	--	8.5	1.7
02...	1018	90	67	--	8.0	1.6
02...	1020	100	67	--	8.0	1.6
02...	1022	110	67	--	8.0	1.6
02...	1024	120	67	--	8.0	1.6
02...	1026	130	68	--	8.0	1.6
02...	1028	140	67	--	8.0	1.6
02...	1030	150	67	--	8.0	1.6
02...	1032	155	67	--	8.0	1.5
MAY						
27...	1033	0.1	56	7.8	11.5	8.7
27...	1034	5.0	56	7.8	11.5	8.7
27...	1035	10	56	7.8	11.0	8.7
27...	1036	20	56	7.7	11.0	8.6
27...	1037	25	56	7.7	11.0	8.6
27...	1038	30	56	7.7	9.5	8.3
27...	1039	40	57	7.6	8.0	7.9
27...	1040	50	56	7.6	7.0	7.4
27...	1041	60	56	7.4	6.5	7.2
27...	1042	70	57	7.4	6.5	7.1
27...	1043	80	56	7.3	6.0	7.0
27...	1044	90	56	7.3	6.0	7.0
27...	1045	100	57	7.3	5.5	6.9
27...	1046	110	57	7.3	5.5	6.8
27...	1047	120	57	7.2	5.5	6.8
27...	1048	130	57	7.2	5.5	6.6
27...	1049	140	58	7.2	5.0	6.6
27...	1050	145	57	7.2	5.0	6.5
JUN						
18...	0955	0.1	68	8.1	13.5	7.9
18...	0956	5.0	66	8.2	13.0	8.0
18...	0957	10	66	8.2	12.5	8.0
18...	0958	15	66	8.1	12.5	8.0
18...	0959	20	66	8.0	12.5	7.9
18...	1000	25	66	8.0	12.5	7.8
18...	1001	30	67	7.7	12.0	7.5
18...	1002	40	67	7.6	11.0	7.2
18...	1003	50	67	7.4	8.5	6.3
18...	1004	60	67	7.3	8.0	6.0
18...	1005	70	67	7.3	7.5	5.9
18...	1006	80	67	7.2	7.0	5.8
18...	1007	90	67	7.2	7.0	5.7
18...	1008	100	67	7.2	7.0	5.7
18...	1009	110	67	7.2	7.0	5.7
18...	1010	120	67	7.1	6.5	5.7

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL						
29...	0931	0.1	64	9.0	17.0	8.0
29...	0932	5.0	64	9.0	17.0	7.9
29...	0933	10	64	9.0	17.0	7.9
29...	0934	15	64	8.2	16.0	7.1
29...	0935	20	64	7.8	15.5	6.5
29...	0936	25	65	7.8	15.5	6.4
29...	0937	30	65	7.7	15.0	6.2
29...	0938	40	65	7.4	12.0	4.8
29...	0939	50	65	7.3	9.0	4.3
29...	0940	60	65	7.1	8.0	4.0
29...	0941	70	65	7.0	8.0	3.8
29...	0942	80	66	7.0	7.5	3.8
29...	0943	90	66	7.0	7.5	3.8
29...	0944	100	66	7.0	7.5	3.8
29...	0945	110	66	7.0	7.5	3.7
29...	0946	120	66	7.0	7.5	3.7
29...	0947	130	66	7.0	7.5	3.6
29...	0948	140	66	7.0	7.5	3.6
29...	0949	150	66	7.0	7.5	3.6
29...	0950	160	66	7.0	7.5	3.5
AUG						
27...	0939	0.1	67	9.1	15.5	7.4
27...	0940	5.0	67	9.1	15.5	7.4
27...	0941	10	67	9.1	15.5	7.4
27...	0942	15	67	9.1	15.5	7.3
27...	0943	20	67	9.0	15.5	7.3
27...	0944	25	67	9.0	15.5	7.3
27...	0945	30	67	9.0	15.5	7.2
27...	0946	40	67	7.4	13.5	4.3
27...	0947	50	67	7.2	11.0	3.0
27...	0948	60	68	7.0	9.0	2.2
27...	0949	70	68	6.9	8.5	2.1
27...	0950	80	68	6.9	8.5	2.2
27...	0951	90	68	6.9	8.0	2.1
27...	0952	100	68	6.9	8.0	2.0
27...	0953	110	68	6.9	8.0	2.3
27...	0954	120	68	6.9	8.0	2.2
27...	0955	130	68	6.8	8.0	2.1
27...	0956	140	68	6.8	8.0	2.1
27...	0957	150	68	6.8	7.5	2.1
27...	0958	160	68	6.8	7.5	2.0
27...	0959	165	68	6.8	7.5	2.0
SEP						
22...	0957	0.1	66	7.7	14.0	7.0
22...	0958	5.0	66	7.7	14.0	7.0
22...	0959	10	66	7.7	13.5	6.9
22...	1000	15	66	7.7	13.5	6.8
22...	1001	20	67	7.7	13.5	6.7
22...	1002	25	67	7.7	13.5	6.7
22...	1003	30	67	7.6	13.5	6.7
22...	1004	40	67	7.5	13.5	6.2
22...	1005	50	67	7.4	13.0	5.4
22...	1006	60	67	7.2	9.0	1.5
22...	1007	70	68	7.2	8.5	1.3
22...	1008	80	68	7.1	8.5	1.2
22...	1009	90	68	7.1	8.5	1.2
22...	1010	100	68	7.1	8.5	1.2
22...	1011	110	68	7.1	8.0	1.2
22...	1012	120	68	7.1	8.0	1.2
22...	1013	130	68	7.1	8.0	1.1
22...	1014	140	68	7.1	8.0	1.1
22...	1015	150	68	7.1	8.0	1.1

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (IN)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT											
02...	1040	0.1	66	7.6	14.0	199	7.1	K<1	24	7.5	1.3
02...	1055	155	67	7.0	8.0	--	1.5	--	25	7.5	1.4
MAY											
27...	1100	0.1	56	7.8	11.5	97.0	8.7	K<1	22	6.8	1.3
27...	1115	145	57	7.2	5.0	--	6.5	--	25	7.8	1.4
JUN											
18...	1030	0.1	68	8.1	13.5	87.0	7.9	--	28	8.7	1.4
18...	1045	120	67	7.1	6.5	--	5.7	--	27	8.4	1.4
JUL											
29...	1000	0.1	64	9.0	17.0	109	8.0	K<1	26	8.1	1.5
29...	1030	160	66	7.0	7.5	--	3.5	--	26	7.9	1.4
AUG											
27...	1040	0.1	67	9.1	15.5	112	7.4	K<1	25	7.7	1.4
27...	1100	165	68	6.8	7.5	--	2.0	--	25	7.6	1.4
SEP											
22...	1030	0.1	66	7.7	14.0	164	7.0	K<1	25	7.6	1.4
22...	1045	150	68	7.1	8.0	--	1.1	--	25	7.7	1.4

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT										
02...	2.4	0.2	0.7	27	3.7	0.8	0.2	4.1	21	37
02...	2.3	0.2	0.8	27	3.6	0.8	0.2	6.4	27	40
MAY										
27...	2.3	0.2	0.7	24	3.4	0.8	0.1	6.0	44	36
27...	2.5	0.2	0.8	28	2.9	0.6	<0.1	7.0	46	40
JUN										
18...	2.6	0.2	0.8	28	3.3	0.7	0.1	5.8	34	40
18...	2.6	0.2	0.8	27	3.3	0.8	0.1	7.0	40	41
JUL										
29...	2.7	0.2	0.8	28	4.4	0.1	0.1	4.4	50	39
29...	2.7	0.2	0.8	27	3.8	0.2	0.1	7.3	60	41
AUG										
27...	2.6	0.2	0.8	29	5.0	0.3	0.1	4.4	36	40
27...	2.9	0.3	0.9	28	3.4	0.2	0.1	7.8	30	42
SEP										
22...	2.6	0.2	0.7	29	3.8	1.1	0.2	4.6	43	40
22...	2.4	0.2	0.7	28	3.3	0.8	0.1	8.0	43	42

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
OCT										
02...	<0.01	<0.05	0.02	<0.01	<0.20	<0.01	0.02	<0.01	1.8	<0.1
02...	<0.01	0.19	0.02	<0.01	<0.20	0.06	0.02	0.02	--	--
MAY										
27...	<0.01	<0.05	0.01	0.01	0.20	0.03	0.01	<0.01	3.0	<0.1
27...	<0.01	0.09	0.03	0.03	<0.20	0.07	<0.01	<0.01	--	--
JUN										
18...	<0.01	<0.05	0.01	<0.01	<0.20	<0.01	0.01	0.01	1.4	0.1
18...	<0.01	0.08	0.01	<0.01	<0.20	<0.01	<0.01	0.01	--	--
JUL										
29...	<0.01	<0.05	0.01	0.03	0.30	<0.01	<0.01	0.02	4.6	0.1
29...	<0.01	0.11	0.02	0.03	<0.20	<0.01	<0.01	0.01	--	--
AUG										
27...	<0.01	<0.05	<0.01	0.01	0.20	<0.01	<0.01	<0.01	5.1	<0.1
27...	<0.01	0.14	0.01	0.02	<0.20	0.02	0.01	<0.01	--	--
SEP										
22...	<0.01	<0.05	0.03	0.03	---	---	<0.01	<0.01	4.8	0.3
22...	<0.01	0.15	0.01	0.01	<0.20	0.02	<0.01	0.02	--	--

K-Based on non-ideal colony count.

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	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									
02...	1040	8	<0.5	<10	<1	<5	<3	<10	30
02...	1055	7	<0.5	<10	<1	<5	<3	<10	56
MAY									
27...	1100	8	<0.5	<10	<1	<5	<3	<10	40
27...	1115	8	<0.5	<10	<1	<5	<3	<10	39
JUN									
18...	1030	<2	<0.5	40	<1	<5	<3	<10	17
18...	1045	<2	<0.5	<10	<1	<5	<3	<10	23
JUL									
29...	1000	8	0.8	<10	1	<5	<3	<10	32
29...	1030	8	0.8	<10	<1	<5	<3	<10	35
AUG									
27...	1040	8	<0.5	<10	<1	<5	<3	<10	25
27...	1100	8	<0.5	<10	1	<5	<3	<10	43
SEP									
22...	1030	9	<0.5	<10	<1	<5	<3	<10	29
22...	1045	8	<0.5	<10	<1	<5	<3	<10	25

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	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)	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									
02...	<10	<4	2	<10	<10	<1	47	<6	<3
02...	<10	<4	130	<10	<10	<1	46	<6	4
MAY									
27...	<10	<4	2	<10	<10	[a]<0.2	42	<6	<3
27...	<10	<4	140	<10	<10	[a]<0.2	49	<6	<3
JUN									
18...	<10	<4	1	<10	<10	[a]<0.2	50	<6	11
18...	10	<4	14	<10	<10	[a]<0.2	49	<6	11
JUL									
29...	<10	<4	4	<10	<10	[a]<0.2	57	<6	10
29...	<10	<4	19	<10	<10	[a]<0.2	51	<6	11
AUG									
27...	<10	<4	2	<10	<10	[a]<0.2	49	<6	6
27...	10		41	<10	<10	[a]<0.2	49	<6	16
SEP									
22...	<10	<4	2	<10	<10	[a]<0.2	46	<6	<3
22...	<10	<4	69	<10	<10	[a]<0.2	47	<6	<3

a-Analysis based on preliminary method.

400844105530800 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1989 to current year.

REMARKS.--Samples collected at various depths near dam in Rainbow Bay.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
OCT						
02...	1130	0.1	61	7.6	13.5	7.0
02...	1132	5.0	61	7.6	14.0	6.9
02...	1134	10	61	7.6	14.0	6.9
02...	1136	15	61	7.6	14.0	6.9
02...	1138	20	62	7.5	14.0	6.9
02...	1140	25	63	7.5	13.5	6.9
02...	1142	30	63	7.5	13.5	6.8
02...	1144	40	63	7.5	13.5	6.7
MAY						
27...	1156	0.1	87	7.7	11.0	8.4
27...	1157	5.0	87	7.7	11.0	8.3
27...	1158	10	88	7.7	11.0	8.2
27...	1159	20	87	7.7	11.0	8.2
27...	1200	25	88	7.6	10.5	8.0
JUN						
18...	1105	0.1	76	8.1	14.0	7.9
18...	1107	5.0	76	8.2	13.0	8.0
18...	1108	10	76	8.1	13.0	7.9
18...	1109	15	79	8.1	13.0	7.9
18...	1110	20	86	8.1	12.5	7.9
18...	1111	25	87	8.0	12.5	7.8
18...	1112	30	87	8.0	12.5	7.9
18...	1113	37	87	7.9	12.0	8.0
JUL						
29...	1120	0.1	63	8.7	16.5	7.7
29...	1121	5.0	63	8.7	16.5	7.7
29...	1122	10	64	8.2	16.0	7.2
29...	1123	15	63	8.3	16.0	7.3
29...	1124	20	63	8.1	16.0	7.1
29...	1125	25	63	8.0	15.5	6.7
29...	1126	30	64	7.7	15.5	6.5
AUG						
27...	1146	0.1	61	9.0	16.5	7.4
27...	1147	5.0	63	9.1	16.0	7.4
27...	1148	10	63	9.1	15.5	7.5
27...	1149	15	63	9.1	15.5	7.4
27...	1150	20	64	9.1	15.5	7.4
27...	1151	25	65	9.1	15.5	7.4
27...	1152	30	65	9.1	15.5	7.4
27...	1153	35	65	7.3	14.0	4.0
SEP						
22...	1200	0.1	66	7.6	14.5	7.0
22...	1201	5.0	66	7.6	14.0	7.0
22...	1202	10	67	7.6	14.0	6.9
22...	1203	15	67	7.6	14.0	6.8
22...	1204	20	68	7.6	14.0	6.8
22...	1205	25	68	7.6	14.0	6.7
22...	1206	30	68	7.6	13.5	6.6

400844105530800 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TRANSPARENCY (SECCHI DISK) (IN)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
OCT											
02...	1155	0.1	61	7.6	13.5	186	7.0	K<1	25	8.0	1.3
02...	1210	40.0	63	7.5	13.5	--	6.7	--	25	7.6	1.4
MAY											
27...	1215	0.1	87	7.7	11.0	54.0	8.4	K70	35	11	1.8
27...	1225	25.0	88	7.6	10.5	--	8.0	--	35	11	1.7
JUN											
18...	1125	0.1	76	8.1	14.0	81.0	7.9	--	32	10	1.6
18...	1135	37.0	87	7.9	12.0	--	8.0	--	--	--	--
JUL											
29...	1130	0.1	63	8.7	16.5	92.0	7.7	K<1	26	8.1	1.4
29...	1150	30.0	64	7.7	15.5	--	6.5	--	27	8.3	1.4
AUG											
27...	1215	0.1	61	9.0	16.5	85.0	7.4	K<1	24	7.6	1.3
27...	1240	35.0	65	7.3	14.0	--	4.0	--	26	8.0	1.4
SEP											
22...	1220	0.1	66	7.6	14.5	146	7.0	K<1	25	7.8	1.3
22...	1235	30.0	68	7.6	13.5	--	6.6	--	25	8.0	1.3

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
OCT										
02...	2.4	0.2	0.7	27	3.5	0.7	0.2	4.5	35	38
02...	2.4	0.2	0.7	27	3.5	0.7	0.2	4.4	23	37
MAY										
27...	3.6	0.3	1.0	38	3.8	1.3	0.1	9.0	56	55
27...	3.5	0.3	0.9	37	3.8	1.2	0.1	8.7	56	53
JUN										
18...	3.0	0.2	0.8	32	3.5	0.8	0.2	7.0	46	46
18...	--	--	--	--	--	--	--	--	--	--
JUL										
29...	2.7	0.2	0.8	28	3.5	0.2	0.1	4.8	46	39
29...	2.7	0.2	0.8	29	3.5	0.2	0.1	5.0	38	39
AUG										
27...	2.3	0.2	0.8	29	3.1	0.2	0.1	4.4	14	37
27...	2.4	0.2	0.8	30	3.1	0.2	0.1	5.6	26	40
SEP										
22...	2.4	0.2	0.7	30	3.5	0.8	0.1	4.6	39	39
22...	2.5	0.2	0.7	29	3.2	0.9	0.1	4.6	39	39

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	CHLOR-A PHYTOPLANKTON CHROMO FLUOROM (UG/L)	CHLOR-B PHYTOPLANKTON CHROMO FLUOROM (UG/L)
OCT										
02...	<0.01	<0.05	0.03	<0.01	<0.20	0.04	0.02	<0.01	1.8	<0.1
02...	<0.01	<0.05	0.02	<8.01	<0.20	0.02	0.03	<0.01	--	--
MAY										
27...	<0.01	<0.05	0.02	0.02	0.20	0.03	0.01	<0.01	1.3	<0.1
27...	<0.01	<0.05	0.02	0.02	<0.20	0.03	0.02	<0.01	--	--
JUN										
18...	<0.01	<0.05	0.01	<0.01	<0.20	<0.01	0.01	0.01	1.8	0.1
18...	<0.01	<0.05	0.02	0.01	0.20	0.03	<0.01	0.02	--	--
JUL										
29...	<0.01	<0.05	<0.01	0.02	0.20	<0.01	<0.01	<0.01	3.7	0.1
29...	<0.01	<0.05	0.02	0.01	<0.20	<0.01	<0.01	<0.01	--	--
AUG										
27...	<0.01	<0.05	<0.01	<0.01	0.30	0.02	<0.01	<0.01	7.3	<0.1
27...	<0.01	<0.05	0.03	0.03	<0.20	0.02	<0.01	<0.01	--	--
SEP										
22...	<0.01	<0.05	0.03	0.03	0.20	0.02	<0.01	<0.01	3.0	<1.0
22...	<0.01	<0.05	0.03	0.03	0.30	0.01	<0.01	<0.01	--	--

K-Based on non-ideal colony count.

400844105530800 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	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									
02...	1155	9	<0.5	<10	<1	<5	<3	<10	45
02...	1210	8	<0.5	<10	<1	<5	<3	<10	42
MAY									
27...	1215	11	<0.5	<10	<1	<5	<3	<10	59
27...	1225	11	<0.5	<10	<1	<5	<3	<10	58
JUN									
18...	1125	<2	<0.5	<10	<1	<5	<3	<10	29
18...	1135	--	--	<10	--	--	--	--	--
JUL									
29...	1130	8	0.8	<10	<1	<5	<3	<10	36
29...	1150	8	0.8	<10	<1	<5	<3	<10	23
AUG									
27...	1215	7	<0.5	<10	<1	<5	<3	<10	22
27...	1240	9	<0.5	<10	<1	<5	<3	<10	26
SEP									
22...	1220	9	<0.5	<10	<1	<5	<3	<10	21
22...	1235	9	<0.5	<10	<1	<5	<3	<10	15

DATE	LEAD, DIS-SOLVED (UG/L AS PB)	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)	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									
02...	<10	<4	4	<10	<10	<1	46	<6	<3
02...	<10	<4	3	<10	<10	<1	46	<6	<3
MAY									
27...	<10	<4	17	<10	<10	[a]<0.2	65	<6	<3
27...	<10	<4	11	<10	<10	[a]<0.2	63	<6	<3
JUN									
18...	<10	<4	2	<10	<10	[a]<0.2	57	<6	13
18...	--	--	--	--	--	[a]<0.2	--	--	--
JUL									
29...	<10	<4	2	<10	<10	[a]<0.2	48	<6	10
29...	<10	<4	2	<10	<10	[a]<0.2	49	<6	5
AUG									
27...	<10	<4	3	<10	<10	[a]<0.2	46	<6	3
27...	<10	<4	21	<10	<10	[a]<0.2	47	<6	4
SEP									
22...	<10	<4	5	<10	<10	[a]<0.2	46	<6	<3
22...	<10	<4	6	<10	<10	[a]<0.2	47	<6	7

a-Analysis based on preliminary method.

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 with satellite telemetry. 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 measurements 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 2330 May 26, gage height, 1.23 ft; maximum gage height, 1.28 ft, July 20; minimum daily discharge, 20 ft³/s, Sept. 3-5.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	39	55	48	27	27
2	---	---	---	---	---	---	---	51	56	47	28	21
3	---	---	---	---	---	---	---	56	51	47	26	20
4	---	---	---	---	---	---	---	55	55	48	26	20
5	---	---	---	---	---	---	---	63	60	48	27	20
6	---	---	---	---	---	---	---	55	59	48	27	21
7	---	---	---	---	---	---	---	56	59	50	26	21
8	---	---	---	---	---	---	---	56	53	51	26	21
9	---	---	---	---	---	---	---	57	51	48	26	21
10	---	---	---	---	---	---	---	59	58	53	26	21
11	---	---	---	---	---	---	---	57	58	60	26	22
12	---	---	---	---	---	---	---	57	52	59	25	24
13	---	---	---	---	---	---	---	56	51	59	25	23
14	---	---	---	---	---	---	---	51	52	59	23	23
15	---	---	---	---	---	---	---	53	50	59	23	21
16	---	---	---	---	---	---	---	52	50	58	23	22
17	---	---	---	---	---	---	---	53	50	59	28	22
18	---	---	---	---	---	---	---	52	50	59	30	22
19	---	---	---	---	---	---	---	52	51	59	31	22
20	---	---	---	---	---	---	---	51	53	58	32	22
21	---	---	---	---	---	---	---	53	51	55	33	23
22	---	---	---	---	---	---	---	55	53	56	34	24
23	---	---	---	---	---	---	---	50	48	56	32	25
24	---	---	---	---	---	---	---	51	50	57	34	25
25	---	---	---	---	---	---	---	55	50	57	33	25
26	---	---	---	---	---	---	---	60	47	57	32	25
27	---	---	---	---	---	---	---	60	44	53	33	25
28	---	---	---	---	---	---	---	53	50	53	35	26
29	---	---	---	---	---	---	26	53	50	55	35	26
30	---	---	---	---	---	---	26	55	48	55	35	26
31	---	---	---	---	---	---	---	57	---	39	36	---
TOTAL	---	---	---	---	---	---	---	1683	1565	1670	903	686
MEAN	---	---	---	---	---	---	---	54.3	52.2	53.9	29.1	22.9
MAX	---	---	---	---	---	---	---	63	60	60	36	27
MIN	---	---	---	---	---	---	---	39	44	39	23	20
AC-FT	---	---	---	---	---	---	---	3340	3100	3310	1790	1360

09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO

LOCATION.--Lat 40°08'49", long 105°56'31", in SE^1/4 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 mi^2.

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.

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, 7,620 acre-ft, Apr. 5, elevation, 8,124.90 ft; minimum, 5,720 acre-ft, Nov. 7, elevation, 8,116.89 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,120.79	6,590	-
Oct. 31	8,120.34	6,490	-100
Nov. 30	8,118.73	6,120	-370
Dec. 31	8,120.08	6,420	+300
CAL YR 1991			+370
Jan. 31	8,121.23	6,700	+280
Feb. 29	8,122.19	6,930	+230
Mar. 31	8,124.36	7,480	+550
Apr. 30	8,119.80	6,360	-1,120
May 31	8,122.10	6,910	+550
June 30	8,120.87	6,610	-300
July 31	8,118.44	6,050	-560
Aug. 31	8,120.32	6,480	+430
Sept. 30	8,120.52	6,530	+50
WTR YR 1992			-60

09022000 FRASER RIVER AT UPPER STATION, NEAR WINTER PARK, CO

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, 2.5 mi south of Winter Park, and 7.8 mi southeast of Fraser.

DRAINAGE AREA.--10.5 mi^2.

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.

REMARKS.--Estimated daily discharges: Oct. 29 to Mar. 23, Mar. 26, Apr. 1, and July 7 to Aug. 10. Records fair except for estimated daily discharges, which are poor. Transmountain diversions upstream from station through Berthoud Pass ditch to Moffat water tunnel, (see elsewhere in this report). Several measurements of specific conductance and water temperature were obtained, and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	3.6	2.5	3.1	1.9	1.9	2.3	17	40	35	10	10
2	5.8	3.5	2.6	3.0	1.9	1.9	2.3	20	38	30	10	10
3	6.2	2.8	2.7	2.9	2.0	1.9	2.6	22	34	27	10	9.1
4	6.2	2.8	2.7	2.7	2.0	2.0	2.7	22	38	25	10	9.0
5	6.4	2.7	2.6	2.6	2.0	2.2	2.7	22	40	23	11	9.0
6	6.0	2.7	2.4	2.4	2.0	2.2	2.9	26	40	23	11	8.6
7	6.0	2.9	2.4	2.4	2.0	2.2	3.5	30	39	22	11	8.2
8	5.8	2.8	2.4	2.6	2.0	2.4	3.5	32	40	22	11	8.1
9	4.4	2.9	2.4	2.6	2.0	2.5	4.3	35	41	22	10	7.9
10	3.2	2.9	2.4	2.5	1.9	2.1	4.5	31	43	22	11	7.9
11	3.3	2.9	2.4	2.4	1.8	2.1	4.5	28	43	20	13	7.8
12	3.6	2.8	2.4	2.3	1.7	2.1	4.7	28	49	8.2	11	7.2
13	5.2	2.6	2.4	2.2	1.7	2.1	5.2	31	51	7.6	9.7	7.7
14	5.2	2.4	2.4	2.0	1.7	2.1	5.6	33	53	8.0	8.8	7.2
15	4.7	2.4	2.4	2.0	1.7	2.1	5.6	35	56	8.8	13	7.2
16	3.5	2.4	2.5	2.0	1.8	2.1	5.4	38	54	8.2	21	6.8
17	3.6	2.4	2.6	2.1	1.7	2.1	5.1	41	48	7.8	13	7.6
18	3.6	2.5	2.7	2.2	1.7	2.2	4.7	56	49	7.8	9.6	7.5
19	3.5	2.8	2.6	2.1	1.7	2.1	4.5	65	48	7.4	8.9	6.5
20	3.5	2.6	2.6	1.9	1.7	2.0	4.1	57	49	8.8	9.0	6.0
21	3.5	2.5	2.6	1.8	1.7	2.0	5.3	57	48	14	8.6	5.8
22	3.3	2.4	2.4	1.8	1.7	2.0	4.7	56	47	29	9.3	5.4
23	3.2	2.5	2.4	1.9	1.7	2.0	4.4	59	48	33	9.9	5.4
24	3.5	2.6	2.5	1.8	1.7	1.9	5.3	61	48	20	16	5.4
25	3.6	2.6	2.6	1.9	1.7	1.9	4.9	60	45	15	13	5.9
26	3.6	2.6	2.6	1.8	1.6	1.9	5.1	61	43	13	10	5.7
27	3.6	2.6	2.6	1.8	1.6	2.0	6.2	68	43	12	9.8	5.4
28	3.9	2.5	2.9	1.8	1.7	2.1	8.3	68	40	12	9.3	5.1
29	3.8	2.5	3.1	1.9	1.7	1.9	11	60	38	11	9.3	4.7
30	3.6	2.4	3.2	1.9	---	2.6	14	45	37	11	9.0	4.5
31	3.5	---	3.1	1.9	---	2.3	---	43	---	11	9.9	---
TOTAL	135.3	80.6	80.1	68.3	52.0	64.9	149.9	1307	1330	524.6	336.1	212.6
MEAN	4.36	2.69	2.58	2.20	1.79	2.09	5.00	42.2	44.3	16.9	10.8	7.09
MAX	6.5	3.6	3.2	3.1	2.0	2.6	14	68	56	35	21	10
MIN	3.2	2.4	2.4	1.8	1.6	1.9	2.3	17	34	7.4	8.6	4.5
AC-FT	268	160	159	135	103	129	297	2590	2640	1040	667	422

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1992, BY WATER YEAR (WY)

MEAN	5.84	4.06	3.04	2.38	1.97	2.00	4.59	27.0	68.9	27.7	12.0	8.05
MAX	9.66	5.62	3.68	2.85	2.57	2.61	6.45	42.2	86.1	41.7	14.6	13.0
(WY)	1985	1985	1971	1985	1985	1969	1971	1992	1986	1971	1986	1984
MIN	4.36	2.69	2.58	1.63	1.45	1.41	2.12	17.1	38.2	16.1	8.45	6.19
(WY)	1969	1992	1992	1987	1987	1987	1973	1971	1989	1987	1990	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1969 - 1992	
ANNUAL TOTAL	5370.2		4341.4			
ANNUAL MEAN	14.7		11.9		13.9	
HIGHEST ANNUAL MEAN					16.9	1970
LOWEST ANNUAL MEAN					10.5	1989
HIGHEST DAILY MEAN	124	Jun 12	[a]68	May 27	135	Jun 22 1971
LOWEST DAILY MEAN	1.6	Mar 15	[b]1.6	Feb 26	1.2	Feb 26 1989
ANNUAL SEVEN-DAY MINIMUM	1.7	Mar 9	1.7	Feb 21	1.4	Feb 20 1989
INSTANTANEOUS PEAK FLOW			81	Jun 14	181	Jun 5 1972
INSTANTANEOUS PEAK STAGE			1.64	Jun 14	2.15	Jun 5 1972
ANNUAL RUNOFF (AC-FT)	10650		8610		10100	
10 PERCENT EXCEEDS	52		40		41	
50 PERCENT EXCEEDS	3.3		4.4		5.2	
90 PERCENT EXCEEDS	1.9		1.9		2.0	

a-Also occurred May 28.
b-Also occurred Feb 27.

09023750 FRASER RIVER BELOW BUCK CREEK AT WINTER PARK, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°53'33", long 105°45'49", T.2. S., R.75 W., Grand County, Hydrologic Unit 14010001 on left bank approximately 400 ft upstream from the confluence of Cub Creek and the Fraser River.

DRAINAGE AREA.--23.6 mi^2.

PERIOD OF RECORD.--August 1990 to current year.

REMARKS.--Nutrient analysis based on low-level methods.

WATER-QUALITY DATA, DURING PERIOD OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
03...	0820	21	69	7.6	3.5	10.1	0.074	0.002	0.076	0.013
08...	1240	15	76	8.0	5.0	8.7	--	--	--	--
18...	1135	13	77	8.2	4.5	9.4	--	--	--	--
23...	1125	12	76	8.1	4.0	9.4	--	--	--	--
31...	0915	--	76	7.8	1.0	10.1	--	--	--	--
NOV										
07...	0930	7.6	83	7.7	1.5	11.8	0.117	0.014	0.131	0.056
13...	1315	6.6	86	7.7	1.5	12.4	--	--	--	--
21...	0800	5.3	86	--	1.0	9.7	--	--	--	--
26...	1115	6.0	86	7.0	1.0	10.1	--	--	--	--
DEC										
04...	0900	4.7	88	7.7	0.0	11.1	0.092	0.005	0.097	0.005
12...	0815	4.8	93	8.0	0.0	11.6	--	--	--	--
18...	1445	5.8	102	7.7	0.0	9.8	--	--	--	--
27...	1120	5.5	95	7.9	0.0	11.7	--	--	--	--
JAN										
03...	1500	4.9	94	7.9	0.0	10.4	--	--	--	--
09...	0915	4.9	93	8.3	0.5	11.8	0.086	0.005	0.091	0.007
16...	1400	5.1	--	7.8	0.0	11.6	--	--	--	--
22...	1200	5.1	94	8.0	0.0	12.8	--	--	--	--
29...	0915	4.4	101	8.0	0.0	9.8	--	--	--	--
FEB										
05...	0930	4.9	96	8.3	0.5	12.8	0.067	0.005	0.072	0.008
12...	1430	4.9	96	8.3	1.5	--	--	--	--	--
19...	0900	4.5	95	8.0	0.0	10.9	--	--	--	--
26...	1300	5.6	157	8.2	2.5	9.7	--	--	--	--
MAR										
04...	1445	4.5	106	8.0	1.5	9.8	--	<0.010	0.111	0.010
11...	1215	5.0	106	7.6	2.5	10.2	--	--	--	--
18...	1100	4.9	114	8.2	2.0	11.5	--	--	--	--
25...	0800	4.6	125	8.0	1.5	12.0	--	--	--	--
APR										
01...	1555	5.5	139	7.7	2.0	9.9	0.081	0.044	0.125	0.109
08...	1240	5.9	140	8.0	2.5	11.0	--	--	--	--
15...	1030	7.8	121	8.0	2.5	10.6	--	--	--	--
23...	0930	6.8	142	7.9	1.5	10.5	--	--	--	--
29...	1230	8.1	110	7.7	6.0	10.6	--	--	--	--
MAY										
07...	1100	12	90	7.7	5.0	9.5	0.045	0.003	0.048	0.017
13...	0930	9.8	85	7.6	3.5	9.5	--	--	--	--
20...	0800	11	69	7.5	4.0	9.5	--	--	--	--
27...	1145	17	62	7.8	5.0	9.3	--	--	--	--
JUN										
03...	0930	17	65	7.7	4.5	9.4	0.021	0.001	0.022	0.008
10...	1030	30	61	8.1	5.5	9.1	--	--	--	--
24...	1230	107	44	7.8	7.5	8.1	--	--	--	--
JUL										
02...	1150	64	48	7.9	5.0	8.5	0.085	0.001	0.086	0.011
08...	1015	31	53	8.1	7.0	8.7	--	--	--	--
15...	0850	10	70	7.8	6.5	8.8	--	--	--	--
22...	1215	51	60	7.9	8.0	8.4	--	--	--	--
29...	1145	12	72	8.0	7.5	8.8	--	--	--	--
AUG										
05...	1000	8.7	75	7.9	7.5	8.5	--	<0.001	0.025	<0.002
12...	0815	9.4	78	8.2	6.5	9.0	--	--	--	--
19...	1235	12	78	8.0	9.5	8.2	--	--	--	--
26...	1130	12	78	7.7	6.5	10.8	--	--	--	--
SEP										
02...	1045	10	79	8.2	6.5	9.0	0.056	0.001	0.057	0.006
09...	0845	10	81	7.9	4.5	9.0	--	--	--	--
18...	1530	5.0	93	7.9	9.5	8.1	--	--	--	--
23...	1215	16	77	8.2	7.0	8.8	--	--	--	--
30...	1015	19	66	8.2	4.0	9.4	--	--	--	--

09024000 FRASER RIVER NEAR WINTER PARK, CO

LOCATION.--Lat 39°54'00", long 105°46'34", in SE1/4 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 mi^2.

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. WDR CO-89-2: 1988 (M).

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: Oct. 29 to Nov. 5, Nov. 8, 12-14, Nov. 19 to Feb. 22, Feb. 26, Feb. 28 to Mar. 3, Mar. 7, 9-11, 13-14, 16, 21-22, 26, and Apr. 1. Records fair 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	12	5.0	5.5	4.7	5.9	6.8	16	17	87	9.4	12
2	20	11	5.3	5.2	4.7	6.0	6.5	15	17	64	9.4	12
3	20	9.4	5.4	5.0	4.7	6.0	7.1	15	18	51	9.4	11
4	19	8.6	5.2	5.0	4.7	6.0	8.0	14	17	44	9.3	12
5	18	8.0	5.0	4.8	4.8	5.9	8.3	14	17	41	9.3	12
6	20	7.3	4.8	4.6	5.0	6.0	8.9	17	17	38	9.6	12
7	21	7.2	4.8	4.6	5.1	6.0	8.9	17	18	40	9.4	11
8	17	7.2	4.8	4.2	5.1	5.9	8.4	16	21	38	9.2	11
9	15	7.0	4.8	4.2	5.1	6.0	9.2	17	28	32	9.1	11
10	15	7.3	4.8	4.3	5.2	6.0	11	15	38	26	10	11
11	15	7.2	4.8	4.4	5.2	6.0	11	14	58	9.0	11	11
12	15	7.0	4.8	4.5	5.2	6.0	12	14	62	9.6	10	11
13	14	6.4	4.8	4.6	5.0	6.0	12	14	73	7.9	9.8	11
14	14	6.4	4.8	4.4	5.0	6.0	14	14	75	10	9.5	11
15	14	6.5	4.8	4.3	5.0	6.2	14	14	69	9.7	10	9.9
16	14	6.5	4.8	4.3	5.3	6.2	14	13	64	8.9	13	5.8
17	13	6.6	5.0	4.9	5.4	6.4	13	13	64	9.1	13	5.8
18	13	6.8	5.1	4.9	5.4	6.3	13	14	61	8.6	12	5.8
19	13	7.2	5.2	4.3	5.5	6.1	11	14	66	9.0	11	5.8
20	13	7.0	5.1	4.3	5.6	6.1	10	15	83	9.6	11	5.7
21	13	6.0	5.1	4.2	5.7	6.2	10	16	101	23	11	5.7
22	13	5.1	5.0	4.2	5.8	6.2	11	15	99	58	11	6.1
23	13	4.9	4.8	4.2	5.9	6.1	10	15	120	47	12	19
24	14	5.1	4.5	4.2	5.9	5.9	9.7	14	139	34	17	33
25	14	5.2	4.6	4.2	6.0	5.8	10	15	146	16	13	17
26	14	5.2	4.7	4.2	6.0	6.1	12	17	151	12	12	16
27	14	5.2	4.8	4.4	5.7	6.3	14	18	125	11	12	16
28	13	5.0	4.8	4.6	5.8	6.7	16	18	111	11	11	19
29	13	4.9	5.0	4.7	5.8	6.5	16	18	107	11	11	18
30	13	4.9	5.3	4.7	---	6.9	16	18	100	9.7	11	18
31	13	---	5.5	4.7	---	6.7	---	18	---	9.6	11	---
TOTAL	470	204.1	153.2	140.6	154.3	190.4	331.8	477	2082	794.7	336.4	365.6
MEAN	15.2	6.80	4.94	4.54	5.32	6.14	11.1	15.4	69.4	25.6	10.9	12.2
MAX	21	12	5.5	5.5	6.0	6.9	16	18	151	87	17	33
MIN	13	4.9	4.5	4.2	4.7	5.8	6.5	13	17	7.9	9.1	5.7
AC-FT	932	405	304	279	306	378	658	946	4130	1580	667	725

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

MEAN	10.7	9.79	7.72	6.72	6.26	6.66	13.0	49.8	113	47.1	19.4	13.1
MAX	31.0	20.4	21.1	12.1	9.88	13.6	31.5	163	354	209	72.2	46.0
(WY)	1914	1928	1928	1928	1938	1918	1925	1928	1918	1957	1929	1925
MIN	2.93	2.72	2.83	2.92	3.11	3.58	5.05	7.42	5.76	4.92	3.37	2.57
(WY)	1957	1965	1965	1967	1933	1990	1970	1954	1954	1954	1954	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	5365.2		5700.1			
ANNUAL MEAN	14.7		15.6			
HIGHEST ANNUAL MEAN					60.9	1914
LOWEST ANNUAL MEAN					5.93	1954
HIGHEST DAILY MEAN	221	Jun 15	151	Jun 26	622	Jun 14 1918
LOWEST DAILY MEAN	4.5	Dec 24	[a]4.2	Jan 8	[b]2.0	Mar 29 1912
ANNUAL SEVEN-DAY MINIMUM	4.6	Feb 21	4.2	Jan 20	2.1	Oct 5 1956
INSTANTANEOUS PEAK FLOW			194	Jun 24	820	Jun 13 1918
INSTANTANEOUS PEAK STAGE			1.71	Jun 24	2.9	Jun 13 1918
ANNUAL RUNOFF (AC-FT)	10640		11310			
10 PERCENT EXCEEDS	27		24		58	
50 PERCENT EXCEEDS	9.9		9.6		8.8	
90 PERCENT EXCEEDS	4.8		4.8		4.1	

a-Also occurred Jan 9 and Jan 21-26.
b-Also occurred Mar 30, Apr 9, 1912, and Jan 23, 1915.

09025000 VASQUEZ CREEK AT WINTER PARK, CO

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 southeast of Fraser, and 4.5 mi downstream from Moffat water tunnel diversion.

DRAINAGE AREA.--27.8 mi^2.

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, as "near West Portal" 1934-39, and as "near Winter Park" 1940-87. Records for May 26, 1937, to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--See PERIOD OF RECORD.

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: Oct. 28 to Nov. 12 and Nov. 19 to May 13. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Moffat water tunnel not known since 1959. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	4.8	4.5	5.0	5.0	6.0	5.4	11	14	13	7.6	9.4
2	9.1	4.4	4.7	5.0	5.0	6.0	5.4	10	13	13	7.6	9.4
3	8.7	4.3	4.7	4.9	5.0	6.4	5.4	10	12	13	7.7	8.8
4	8.2	4.2	4.5	4.8	5.0	6.6	5.7	10	12	12	7.7	8.6
5	6.8	4.1	4.2	4.7	5.2	6.6	5.7	10	12	11	7.6	9.3
6	5.1	4.1	4.2	4.6	5.6	6.6	5.7	11	13	10	7.8	9.0
7	5.0	4.1	4.2	4.5	5.6	6.8	5.7	13	16	13	7.7	9.1
8	4.7	4.2	4.2	4.3	5.6	7.0	5.7	15	16	14	7.6	9.0
9	4.1	4.2	4.2	4.2	5.7	7.0	6.2	14	16	17	6.4	9.0
10	4.3	4.2	4.2	4.2	5.8	7.0	6.5	12	22	16	7.0	8.9
11	4.1	4.3	4.2	4.2	5.6	7.0	7.0	11	28	11	8.2	8.8
12	4.1	4.4	4.2	4.2	5.6	7.0	7.4	11	42	10	8.3	8.8
13	4.2	4.5	4.2	4.2	5.6	7.0	8.2	10	57	10	9.5	8.8
14	4.4	6.0	4.2	4.2	5.6	7.0	9.0	9.7	60	10	9.4	8.7
15	4.4	5.4	4.2	4.2	5.6	7.0	9.0	11	59	9.8	9.3	7.7
16	4.3	5.4	4.3	4.5	5.6	7.0	9.0	14	55	7.8	10	4.4
17	4.2	5.2	4.4	4.6	6.0	7.0	10	14	52	8.8	10	3.7
18	4.2	5.3	4.5	4.6	6.0	7.0	8.4	13	49	6.9	8.9	4.5
19	4.2	5.6	4.7	4.3	6.0	7.4	8.0	13	49	8.2	8.5	4.4
20	4.1	5.6	4.5	4.3	6.0	7.4	9.6	12	59	10	9.0	4.2
21	4.1	4.7	4.5	4.3	6.0	7.0	8.2	11	70	22	9.2	4.1
22	4.0	4.7	4.5	4.3	6.0	6.8	7.1	14	70	36	9.4	5.1
23	4.0	4.4	4.2	4.5	6.0	6.6	8.4	12	68	34	9.7	15
24	4.3	4.6	4.2	4.3	6.0	6.8	7.6	12	62	25	13	14
25	4.3	4.8	4.4	4.3	5.8	6.8	7.4	12	59	8.4	10	16
26	5.2	4.7	4.4	4.3	5.6	6.0	8.0	12	31	7.6	9.3	16
27	5.3	4.7	4.5	4.3	5.6	5.8	9.0	14	16	7.9	8.9	14
28	5.1	4.7	4.8	4.3	6.0	5.8	10	14	14	7.8	8.7	9.9
29	5.0	4.5	5.0	4.5	6.0	6.0	10	13	14	8.0	8.6	9.4
30	5.0	4.5	5.1	5.0	---	6.0	10	13	14	7.8	8.7	8.5
31	4.9	---	5.1	5.0	---	5.8	---	14	---	7.7	9.3	---
TOTAL	158.6	140.6	137.7	138.6	164.1	206.2	228.7	375.7	1074	396.7	270.6	266.5
MEAN	5.12	4.69	4.44	4.47	5.66	6.65	7.62	12.1	35.8	12.8	8.73	8.88
MAX	9.2	6.0	5.1	5.0	6.0	7.4	10	15	70	36	13	16
MIN	4.0	4.1	4.2	4.2	5.0	5.8	5.4	9.7	12	6.9	6.4	3.7
AC-FT	315	279	273	275	325	409	454	745	2130	787	537	529

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

MEAN	5.81	6.83	5.47	4.67	4.28	4.38	7.36	26.1	62.7	21.2	7.39	6.07
MAX	35.1	21.9	13.4	10.0	9.99	9.02	19.8	119	234	177	41.2	24.5
(WY)	1962	1962	1962	1958	1958	1958	1943	1958	1942	1983	1936	1984
MIN	.66	1.84	1.30	1.28	.80	1.02	2.41	2.81	.14	.34	.39	.20
(WY)	1965	1963	1965	1965	1960	1965	1965	1954	1940	1956	1960	1944

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	3651.3		3558.0			
ANNUAL MEAN	10.0		9.72			
HIGHEST ANNUAL MEAN					39.6	1936
LOWEST ANNUAL MEAN					2.30	1963
HIGHEST DAILY MEAN	123	Jun 15	[a]70	Jun 21	417	Jun 25 1983
LOWEST DAILY MEAN	3.7	Mar 16	3.7	Sep 17	[b].00	Sep 9 1944
ANNUAL SEVEN-DAY MINIMUM	3.8	Mar 10	4.1	Oct 17	.00	Sep 9 1944
INSTANTANEOUS PEAK FLOW			75	Jun 20	[c]526	Jun 27 1983
INSTANTANEOUS PEAK STAGE			2.32	Jun 20	4.14	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	7240		7060		9770	
10 PERCENT EXCEEDS	15		14		20	
50 PERCENT EXCEEDS	4.8		6.8		5.2	
90 PERCENT EXCEEDS	3.8		4.2		1.4	

a-Also occurred Jun 22.
b-Also no flow at times in 1946, 1956, 1960, and 1966.
c-From rating curve extended above 286 ft^3/s.

09025010 FRASER RIVER BELOW VASQUEZ CREEK AT WINTER PARK, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°55'40", long 105°47'08", NE¼SW¼ sec.28, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001 on left bank approximately 1,500 ft downstream from the confluence of Vasquez Creek and the Fraser River.

DRAINAGE AREA.--59.1 mi².

PERIOD OF RECORD.--August 1990 to current year.

REMARKS.--Nutrient analysis based on low-level methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
03...	0925	27	63	7.7	4.0	9.5	0.072	0.003	0.075	0.017
08...	1100	30	80	8.5	6.0	7.6	--	--	--	--
18...	1240	18	71	8.0	6.0	9.2	--	--	--	--
23...	1316	14	70	8.1	3.5	9.7	--	--	--	--
31...	1110	16	76	7.5	0.0	9.7	--	--	--	--
NOV										
07...	1200	13	71	7.7	1.0	10.2	0.103	0.004	0.107	0.075
13...	0900	8.2	74	7.4	0.0	--	--	--	--	--
21...	0900	12	70	--	0.0	9.6	--	--	--	--
26...	1300	14	71	7.6	0.0	10.4	--	--	--	--
DEC										
04...	1100	9.6	74	7.5	0.0	10.5	0.196	0.009	0.205	0.060
12...	0815	8.6	76	7.7	0.0	12.0	--	--	--	--
18...	1350	11	79	7.5	--	14.0	--	--	--	--
27...	1225	11	82	7.5	0.0	10.4	--	--	--	--
JAN										
03...	1350	7.3	86	7.5	0.0	9.9	--	--	--	--
09...	1045	8.0	82	7.9	0.0	12.4	0.231	0.014	0.245	0.294
16...	1300	11	--	7.4	0.0	12.1	--	--	--	--
22...	1330	10	85	7.4	0.0	11.3	--	--	--	--
29...	1100	9.3	88	7.8	0.0	12.2	--	--	--	--
FEB										
05...	1215	11	88	7.8	0.0	12.2	0.243	0.007	0.250	0.284
12...	1300	11	83	7.8	0.0	12.8	--	--	--	--
19...	1045	9.9	86	7.7	0.0	10.7	--	--	--	--
26...	1200	13	92	8.0	0.0	10.7	--	--	--	--
MAR										
04...	1100	12	94	7.7	0.0	11.3	--	<0.010	0.327	0.442
11...	1400	15	98	7.4	0.5	11.2	--	--	--	--
18...	1230	12	95	8.2	1.0	11.5	--	--	--	--
25...	0915	10	97	8.0	0.5	12.6	--	--	--	--
APR										
01...	0955	9.4	127	8.1	0.0	10.6	0.363	0.026	0.389	0.640
08...	1400	16	102	8.3	2.0	11.9	--	--	--	--
15...	1200	24	100	8.3	4.0	9.7	--	--	--	--
23...	1130	17	108	8.0	1.0	10.9	--	--	--	--
29...	0800	27	88	8.0	1.5	10.5	--	--	--	--
MAY										
07...	1045	30	74	8.2	5.5	9.4	0.044	0.004	0.048	0.029
13...	1050	24	73	7.7	5.0	10.0	--	--	--	--
20...	0930	28	61	7.7	6.0	8.9	--	--	--	--
27...	0800	37	60	7.7	5.0	9.4	--	--	--	--
JUN										
03...	1115	33	62	7.7	6.5	8.9	0.026	0.002	0.028	0.011
10...	1200	44	56	8.1	7.5	8.7	--	--	--	--
24...	0900	165	41	7.6	5.5	9.2	--	--	--	--
JUL										
02...	1305	78	48	7.9	6.5	9.1	0.079	0.002	0.081	0.014
08...	1135	41	50	8.3	9.5	8.4	--	--	--	--
15...	1015	21	58	8.0	9.0	8.3	--	--	--	--
22...	0830	90	50	8.0	7.0	8.6	--	--	--	--
29...	1245	22	62	8.0	9.0	8.3	--	--	--	--
AUG										
05...	1100	19	63	8.0	11.5	8.4	0.047	0.005	0.052	0.015
12...	0900	20	66	8.1	7.5	8.7	--	--	--	--
19...	0915	21	70	8.3	7.5	10.3	--	--	--	--
26...	1230	23	70	7.7	9.0	9.0	--	--	--	--
SEP										
02...	1215	24	70	7.9	7.5	9.2	0.088	0.007	0.095	0.040
09...	1000	17	69	8.2	6.0	8.9	--	--	--	--
18...	0930	10	79	7.5	5.5	8.4	--	--	--	--
23...	1325	30	65	8.2	9.0	8.3	--	--	--	--
30...	1130	27	66	8.0	5.5	9.3	--	--	--	--

09025400 ELK CREEK NEAR FRASER, CO

LOCATION.--Lat 39°55'09", long 105°49'31", in SE¼NW¼ sec.31, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank 100 ft upstream from unnamed tributary, 1,150 ft downstream from West Elk Creek, 2.0 mi southwest of Fraser, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--7.15 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,805 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 17 to Apr. 4. Records fair except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Moffat water tunnel. Diversions for irrigation of about 100 acres of hay meadows upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.34	.29	.43	.29	.27	.34	4.0	6.1	4.4	1.1	2.3
2	1.6	.34	.29	.41	.29	.27	.31	3.9	5.8	4.5	.67	2.7
3	.82	.34	.30	.41	.29	.26	.27	4.2	4.7	4.3	.66	1.9
4	.81	.34	.30	.41	.29	.27	.24	4.3	3.6	3.8	.63	1.6
5	.88	.34	.29	.41	.30	.27	.20	4.2	3.8	3.6	.57	1.8
6	.96	.34	.29	.40	.30	.27	.19	4.1	4.7	3.4	.61	1.5
7	.86	.38	.29	.40	.30	.26	.24	4.1	8.2	3.1	.60	1.3
8	.60	.35	.29	.40	.30	.27	.28	3.4	8.7	3.8	.53	1.2
9	.42	.35	.28	.40	.30	.29	.33	3.1	8.9	3.6	.51	1.1
10	.33	.38	.27	.39	.28	.29	.48	3.2	8.0	2.8	.53	1.0
11	.31	.38	.29	.39	.25	.29	.70	2.8	7.7	2.3	.65	1.0
12	.29	.35	.31	.39	.25	.28	.91	2.0	7.6	2.0	.94	1.1
13	.27	.33	.31	.39	.25	.30	1.2	1.6	7.7	2.3	1.1	.97
14	.30	.32	.31	.38	.25	.30	1.5	1.8	7.7	2.1	.94	.90
15	.31	.30	.31	.38	.25	.29	1.8	1.8	7.3	2.3	.49	.96
16	.31	.28	.31	.38	.25	.31	2.2	1.7	6.8	2.1	.64	.97
17	.31	.26	.31	.36	.26	.30	2.3	1.8	6.5	2.2	1.3	.99
18	.31	.26	.31	.34	.26	.30	2.3	1.8	6.5	2.0	.75	1.3
19	.32	.26	.33	.32	.26	.30	1.1	1.7	6.4	2.2	.61	1.2
20	.32	.27	.33	.32	.26	.30	.77	1.9	6.5	3.1	.56	1.3
21	.32	.26	.33	.32	.26	.29	.93	2.0	6.4	3.0	.66	1.1
22	.32	.26	.33	.32	.26	.29	1.2	2.4	6.1	1.5	.85	1.0
23	.32	.25	.32	.32	.26	.29	.91	2.1	5.8	1.2	1.3	1.1
24	.33	.28	.32	.30	.27	.29	1.0	1.8	5.7	1.1	5.4	.93
25	.33	.30	.32	.28	.27	.29	1.7	2.6	6.4	1.4	4.2	1.3
26	.33	.29	.32	.28	.27	.30	2.5	4.4	6.3	1.9	2.7	1.3
27	.33	.29	.32	.28	.26	.31	3.3	6.4	5.6	1.3	2.2	1.1
28	.33	.29	.35	.28	.26	.34	4.2	7.2	5.5	1.0	1.7	1.1
29	.33	.28	.38	.28	.26	.34	4.4	6.2	5.0	.99	1.3	1.0
30	.34	.28	.41	.29	---	.35	4.1	6.0	4.6	1.0	1.4	.94
31	.34	---	.43	.29	---	.37	---	6.1	---	1.3	1.6	---
TOTAL	15.15	9.29	9.84	10.95	7.85	9.15	41.90	104.6	190.6	75.59	37.70	37.96
MEAN	.49	.31	.32	.35	.27	.30	1.40	3.37	6.35	2.44	1.22	1.27
MAX	1.6	.38	.43	.43	.30	.37	4.4	7.2	8.9	4.5	5.4	2.7
MIN	.27	.25	.27	.28	.25	.26	.19	1.6	3.6	.99	.49	.90
AC-FT	30	18	20	22	16	18	83	207	378	150	75	75

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	.86	.56	.45	.44	.42	.45	1.62	9.71	12.3	5.26	1.57	1.10
MAX	2.00	1.35	.90	.80	.78	.78	4.14	34.8	45.1	22.7	3.65	2.65
(WY)	1971	1971	1975	1975	1975	1979	1971	1984	1983	1983	1984	1984
MIN	.30	.26	.12	.11	.11	.26	.32	1.69	1.07	1.05	.69	.35
(WY)	1984	1984	1977	1977	1977	1977	1973	1977	1977	1976	1978	1978

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	669.68		550.58			
ANNUAL MEAN	1.83		1.50			
HIGHEST ANNUAL MEAN					7.22	1984
LOWEST ANNUAL MEAN					.83	1977
HIGHEST DAILY MEAN	20	Jun 15	8.9	Jun 9	95	May 25 1984
LOWEST DAILY MEAN	[a].23	Feb 7	.19	Apr 6	.10	Jan 13 1977
ANNUAL SEVEN-DAY MINIMUM	.23	Feb 6	.25	Apr 2	.11	Jan 9 1977
INSTANTANEOUS PEAK FLOW			9.4	Jun 9	106	May 24 1984
INSTANTANEOUS PEAK STAGE			1.75	Jun 9	[b]3.13	May 24 1984
ANNUAL RUNOFF (AC-FT)	1330		1090			
10 PERCENT EXCEEDS	6.6		4.4		6.6	
50 PERCENT EXCEEDS	.55		.43		.79	
90 PERCENT EXCEEDS	.25		.27		.33	

a-Also occurred Feb 8-12.
b-Maximum gage height, 3.97 ft, Mar 12 and Apr 10-16, 1987, backwater from ice.

09026500 ST. LOUIS CREEK NEAR FRASER, CO

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.

DRAINAGE AREA.--32.9 mi².

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.

REVISED RECORDS.--WSP 2124: Drainage area.

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

REMARKS.--Estimated daily discharges: Nov. 4 to May 13. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station to Moffat water tunnel not known since 1959. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	5.9	5.0	5.6	4.6	4.6	4.0	12	27	53	16	14
2	18	6.0	4.9	5.8	4.6	4.6	4.3	14	26	50	18	14
3	18	6.1	4.9	5.8	4.6	4.6	4.6	14	26	45	18	12
4	18	6.2	5.0	5.6	4.6	4.7	5.0	14	26	51	18	11
5	17	6.0	5.1	5.5	4.6	4.7	5.0	13	24	46	17	12
6	18	6.0	5.1	5.4	4.6	4.6	4.9	13	26	46	18	11
7	18	5.9	5.1	5.4	4.6	5.0	5.0	15	39	47	19	11
8	16	6.0	5.0	5.4	4.6	5.2	5.6	17	48	49	17	10
9	13	5.9	4.9	5.3	4.5	4.6	6.0	18	56	45	16	10
10	12	5.7	4.9	5.2	4.5	4.6	6.8	17	72	36	17	9.9
11	12	5.6	4.9	5.2	4.5	4.6	7.4	17	100	23	17	9.9
12	12	5.6	5.1	5.1	4.5	4.4	8.0	17	115	21	17	9.5
13	11	5.4	5.1	5.0	4.6	4.4	8.3	16	126	22	16	9.8
14	11	5.5	5.2	5.0	4.6	4.5	8.8	15	125	21	14	9.2
15	10	5.5	5.2	5.0	4.6	4.5	9.3	18	118	21	14	9.1
16	10	5.4	5.0	5.0	4.6	4.6	9.0	23	89	21	15	7.8
17	10	5.2	5.0	5.0	4.6	4.6	9.4	23	57	21	18	8.1
18	10	5.6	4.9	5.0	4.5	4.6	9.8	24	53	20	14	9.0
19	10	5.7	4.9	4.7	4.5	4.8	7.6	24	52	20	13	7.9
20	10	5.0	4.9	4.4	4.5	4.7	8.0	26	78	22	13	7.8
21	9.0	5.1	4.9	4.5	4.5	4.7	9.0	24	102	33	12	7.4
22	7.0	5.1	4.9	4.7	4.5	4.6	8.6	24	100	48	13	7.5
23	6.2	5.3	4.9	4.7	4.5	4.5	7.6	25	94	45	15	14
24	6.2	5.3	4.9	4.6	4.5	4.5	9.4	24	62	35	24	14
25	6.2	5.4	4.7	4.6	4.4	4.5	8.3	24	53	20	21	16
26	6.0	5.4	4.8	4.7	4.4	4.6	8.1	25	34	18	17	15
27	5.5	5.3	4.9	4.5	4.4	4.4	8.4	27	30	17	14	14
28	5.4	5.2	4.9	4.5	4.6	4.6	8.9	28	40	17	13	14
29	5.5	5.2	5.0	4.6	4.6	4.5	9.4	27	57	17	12	14
30	5.7	5.1	5.2	4.6	---	4.4	9.8	25	55	17	12	14
31	5.7	---	5.4	4.5	---	4.2	---	25	---	16	12	---
TOTAL	341.4	166.6	154.6	154.9	131.7	142.4	224.3	628	1910	963	490	332.9
MEAN	11.0	5.55	4.99	5.00	4.54	4.59	7.48	20.3	63.7	31.1	15.8	11.1
MAX	19	6.2	5.4	5.8	4.6	5.2	9.8	28	126	53	24	16
MIN	5.4	5.0	4.7	4.4	4.4	4.2	4.0	12	24	16	12	7.4
AC-FT	677	330	307	307	261	282	445	1250	3790	1910	972	660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

MEAN	11.8	9.40	7.64	6.86	6.30	6.39	9.64	37.2	113	65.7	24.5	14.7
MAX	31.4	17.8	14.3	12.0	11.0	12.0	26.2	102	257	209	70.1	34.1
(WY)	1962	1950	1946	1946	1946	1946	1960	1936	1952	1983	1945	1938
MIN	2.63	2.90	2.28	2.00	2.07	2.35	3.41	8.62	21.6	19.3	11.3	4.39
(WY)	1965	1967	1968	1961	1968	1968	1970	1968	1989	1989	1963	1963

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	7059.0		5639.8			
ANNUAL MEAN	19.3		15.4			
HIGHEST ANNUAL MEAN					47.9	1952
LOWEST ANNUAL MEAN					9.98	1963
HIGHEST DAILY MEAN	284	Jun 15	126	Jun 13	377[b]	Jun 10 1952
LOWEST DAILY MEAN	4.6[a]	Feb 22	4.0	Apr 1	1.8[b]	Jan 25 1968
ANNUAL SEVEN-DAY MINIMUM	4.6	Feb 22	4.3	Mar 27	1.8	Jan 24 1968
INSTANTANEOUS PEAK FLOW			147[c]	Jun 12	470	Jun 15 1952
INSTANTANEOUS PEAK STAGE			1.92[c]	Jun 12	2.89[d]	Jun 15 1952
ANNUAL RUNOFF (AC-FT)	14000		11190			
10 PERCENT EXCEEDS	36		33		62	
50 PERCENT EXCEEDS	8.0		8.1		10	
90 PERCENT EXCEEDS	4.9		4.6		4.6	

a-Also occurred Feb 23 to Mar 7.
b-Also occurred Jan 26-30, Feb 1, 2, and Feb 14.
c-Also occurred Jun 13.
d-Maximum gage height, 3.21 ft, Jun 10, 1952, backwater from log on control.

09027010 FRASER RIVER BELOW ST. LOUIS CREEK AT FRASER, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°57'40", long 105°48'51", SE¼SE¼ sec.18, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001 on left bank approximately 600 ft downstream from the confluence of St. Louis Creek and the Fraser River.

DRAINAGE AREA.--111.0 mi².

PERIOD OF RECORD.--August 1990 to current year.

REMARK.--Nutrient analysis based on low-level methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
03...	1035	43	80	8.0	6.5	10.2	0.048	0.003	0.051	0.090
08...	0950	40	79	8.0	3.5	9.2	--	--	--	--
18...	0900	21	81	7.9	3.0	10.1	--	--	--	--
23...	1435	20	95	8.8	4.0	10	--	--	--	--
31...	1245	24	94	7.8	0.0	11.2	--	--	--	--
NOV										
07...	1330	25	82	7.6	0.0	12.4	0.180	0.004	0.184	0.027
13...	1045	17	94	7.9	0.0	11.8	--	--	--	--
21...	1000	21	82	--	0.0	9.6	--	--	--	--
26...	1405	22	88	7.7	0.0	--	--	--	--	--
DEC										
04...	1415	23	83	7.4	0.0	10.5	0.222	0.011	0.233	0.078
12...	1415	12	88	7.8	0.0	11.7	--	--	--	--
18...	0930	23	92	7.4	0.0	12.0	--	--	--	--
27...	1415	13	96	7.5	0.0	10.4	--	--	--	--
JAN										
03...	1130	16	97	7.4	0.0	9.5	--	--	--	--
09...	1345	32	94	7.1	0.0	12.9	0.268	0.010	0.278	0.294
16...	1100	19	--	7.4	0.0	12.3	--	--	--	--
22...	1440	16	97	7.4	0.0	11.4	--	--	--	--
29...	1230	18	98	7.6	0.0	10.0	--	--	--	--
FEB										
05...	1530	15	97	7.7	0.0	11.7	0.204	0.007	0.211	0.265
12...	0930	18	97	7.6	0.0	13.0	--	--	--	--
19...	1430	15	97	8.2	0.0	10.2	--	--	--	--
26...	1100	17	106	7.8	0.0	11.6	--	--	--	--
MAR										
04...	1245	16	104	7.5	0.0	10.3	--	<0.010	0.330	0.792
11...	0915	21	110	7.5	0.0	11.1	--	--	--	--
18...	1330	22	118	8.0	0.0	11.6	--	--	--	--
25...	1030	17	114	7.6	0.0	12.2	--	--	--	--
APR										
01...	1055	20	115	7.7	0.0	10.3	0.361	0.029	0.390	1.10
08...	0855	28	121	7.7	0.0	10.3	--	--	--	--
15...	1330	50	97	8.1	7.5	8.8	--	--	--	--
23...	1430	29	110	7.9	3.5	10.4	--	--	--	--
29...	0900	41	88	8.1	4.0	9.9	--	--	--	--
MAY										
07...	0800	49	84	7.8	4.5	9.5	0.072	0.009	0.081	0.077
13...	1145	39	82	7.6	9.0	8.8	--	--	--	--
20...	1115	46	71	8.2	10.5	8.6	--	--	--	--
27...	0915	72	70	7.9	6.0	8.7	--	--	--	--
JUN										
03...	0915	47	71	7.9	7.0	9.0	0.056	0.005	0.061	0.026
10...	1330	96	62	8.2	11.5	7.9	--	--	--	--
24...	1000	208	43	8.6	7.0	8.8	--	--	--	--
JUL										
02...	0820	110	60	7.8	6.0	8.9	0.067	0.004	0.071	0.012
08...	1305	65	60	8.0	12.5	7.7	--	--	--	--
15...	1115	25	68	8.3	13.0	8.0	--	--	--	--
22...	0930	93	52	7.8	9.0	8.4	--	--	--	--
29...	0845	25	72	7.8	8.5	8.5	--	--	--	--
AUG										
05...	1210	17	71	8.2	14.0	7.6	0.062	0.007	0.069	0.034
12...	1000	24	78	8.1	10.0	8.1	--	--	--	--
19...	1000	29	81	7.8	10.5	8.0	--	--	--	--
26...	0900	38	80	7.4	7.0	10.4	--	--	--	--
SEP										
02...	1345	35	80	8.4	12.5	7.6	0.061	0.006	0.067	0.026
09...	1145	24	77	8.3	10.0	8.5	--	--	--	--
18...	1200	10	90	7.7	9.5	8.8	--	--	--	--
23...	0905	30	76	7.7	5.5	9.0	--	--	--	--
30...	1300	33	77	8.0	8.5	9.2	--	--	--	--

09027100 FRASER RIVER AT TABERNASH, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°59'25", long 105°49'44", SE1/4NW1/4 sec.6, T.1 S., R.75 W., Grand County, Hydrologic Unit 14010001, on right bank approximately 100 ft upstream from the bridge over the Fraser River.

DRAINAGE AREA.--118 mi^2.

PERIOD OF RECORD.--August 1990 to current year.

REMARKS.--Nutrient analysis based on low-level methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
03...	1155	27	74	9.1	10.0	9.6	0.028	0.002	0.030	0.013
08...	0840	26	65	7.6	2.5	9.1	--	--	--	--
18...	1015	9.8	102	8.1	5.5	9.8	--	--	--	--
23...	1010	13	95	8.5	3.0	10.3	--	--	--	--
31...	1430	26	88	--	0.5	11.7	--	--	--	--
NOV										
08...	1000	22	97	7.7	0.0	--	0.168	0.006	0.174	0.076
13...	1230	14	111	7.6	0.0	11.8	--	--	--	--
21...	1130	23	98	--	0.0	10.8	--	--	--	--
26...	0930	22	90	7.6	0.0	11.6	--	--	--	--
DEC										
04...	1530	19	96	7.5	1.0	10.7	0.298	0.013	0.311	0.074
12...	1200	18	97	7.5	0.0	10.2	--	--	--	--
18...	1200	19	99	7.3	0.0	11.2	--	--	--	--
27...	1000	17	108	7.3	0.0	10.0	--	--	--	--
JAN										
03...	1030	25	111	7.4	0.0	8.2	--	--	--	--
09...	1500	21	107	--	0.0	12.7	0.421	0.011	0.432	0.294
16...	1015	19	--	7.4	0.0	12.8	--	--	--	--
22...	1000	20	108	7.3	0.0	12.6	--	--	--	--
29...	1415	18	109	7.7	0.0	9.5	--	--	--	--
FEB										
05...	1400	16	108	7.3	0.0	10.6	0.404	0.010	0.414	0.293
12...	1030	19	107	7.4	0.0	12.8	--	--	--	--
19...	1300	17	108	7.5	0.0	9.2	--	--	--	--
26...	1000	18	115	7.8	0.0	10.6	--	--	--	--
MAR										
05...	1000	18	117	7.4	0.0	11.7	--	<0.010	0.613	0.972
11...	1030	21	118	7.2	0.0	9.6	--	--	--	--
18...	0930	23	125	7.8	0.0	10.3	--	--	--	--
25...	1215	19	125	7.7	0.0	12.2	--	--	--	--
APR										
01...	1245	18	136	7.5	0.5	9.9	0.683	0.029	0.712	1.20
08...	1055	33	128	7.8	0.0	10.1	--	--	--	--
15...	0900	53	107	8.1	1.5	10.2	--	--	--	--
23...	1530	31	111	8.4	5.5	9.8	--	--	--	--
29...	1100	46	89	9.0	6.5	11.2	--	--	--	--
MAY										
07...	0930	40	82	8.4	6.0	11.6	0.058	0.009	0.067	0.033
13...	0800	39	86	7.8	4.0	10.0	--	--	--	--
20...	1230	33	75	9.0	--	8.6	--	--	--	--
27...	1020	70	74	8.0	7.0	9.0	--	--	--	--
JUN										
03...	1040	58	74	8.5	9.0	8.8	0.049	0.006	0.055	0.022
10...	0900	88	56	8.2	6.5	9.4	--	--	--	--
24...	1100	175	48	7.9	9.5	9.0	--	--	--	--
JUL										
02...	1020	113	58	8.1	7.5	8.6	0.056	0.003	0.059	0.026
08...	0855	68	67	8.2	10.5	8.8	--	--	--	--
15...	1215	20	85	9.1	17.0	8.5	--	--	--	--
22...	1100	102	63	8.2	12.0	8.5	--	--	--	--
29...	1000	21	72	9.0	12.0	8.3	--	--	--	--
AUG										
05...	0845	17	90	8.8	10.5	9.3	0.120	0.020	0.140	0.004
12...	1100	34	86	9.3	13.0	9.4	--	--	--	--
19...	1130	33	87	9.2	14.5	9.8	--	--	--	--
26...	1015	48	88	8.1	8.5	11.8	--	--	--	--
SEP										
02...	0930	42	90	8.4	7.0	10.9	0.083	0.013	0.096	0.023
09...	1330	26	85	9.9	14.0	9.7	--	--	--	--
18...	1330	15	96	9.8	14.0	10.2	--	--	--	--
23...	1035	34	84	9.3	7.5	10.2	--	--	--	--
30...	0900	34	79	8.4	3.5	10.6	--	--	--	--

400009105504600 FRASER RIVER BELOW CROOKED CREEK AT TABERNASH, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°00'09", long 105°50'46", NW¼SE¼ sec.36, T.1 N., R.76 W., Grand County, Hydrologic Unit 14010001 on left bank approximately 100 ft downstream from the confluence of Crooked Creek and the Fraser River.

DRAINAGE AREA.--166 mi².

PERIOD OF RECORD.--October 1990 to current year.

REMARKS.--Nutrient analysis based on low-level methods.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)
OCT										
03...	1350	50	114	8.5	11.5	8.8	0.008	0.003	0.011	0.037
NOV										
08...	1300	61	136	7.9	0.0	9.8	--	<0.010	0.198	0.057
DEC										
05...	1000	33	102	7.4	0.0	--	--	<0.010	0.233	0.054
JAN										
09...	1000	--	104	7.0	0.0	12.1	--	<0.010	0.299	0.277
FEB										
06...	0930	26	178	7.9	0.0	9.8	--	<0.010	0.205	0.144
MAR										
05...	1230	7.2	160	7.5	0.5	10.3	--	<0.010	0.321	0.292
APR										
01...	1410	45	145	7.8	1.0	10.2	0.364	0.010	0.374	0.427
MAY										
07...	1230	165	102	8.2	11.0	8.3	0.004	0.010	0.014	0.037
JUN										
03...	1330	148	110	8.2	12.0	8.2	--	<0.010	0.015	0.018
AUG										
05...	1400	48	124	9.1	17.5	7.9	--	<0.010	0.013	0.009
SEP										
02...	1545	81	120	9.0	15.5	7.3	0.009	0.003	0.012	0.012

09032000 RANCH CREEK NEAR FRASER, CO

LOCATION.--Lat 39°57'00", long 105°45'54", in NW1/4NE1/4 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 mi^2.

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. 29, Nov. 12-14, 19, 20, Mar. 9, 28, and Apr. 1. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	3.5	2.6	3.8	2.1	2.2	2.3	14	11	22	5.2	5.6
2	4.7	3.2	2.6	3.6	2.1	2.2	2.2	14	10	20	4.5	6.0
3	4.6	2.6	2.7	3.3	2.1	2.1	2.3	13	9.3	20	5.1	4.9
4	4.4	2.6	2.7	3.2	2.1	2.2	2.7	13	9.1	28	5.2	4.6
5	4.5	2.6	2.6	3.1	2.2	2.2	2.8	12	9.0	26	5.1	4.7
6	4.8	2.6	2.6	3.1	2.2	2.2	2.7	13	15	24	5.2	4.2
7	4.7	2.9	2.6	3.1	2.2	2.1	2.8	14	34	23	5.2	4.0
8	4.7	2.7	2.6	2.8	2.2	2.2	2.8	15	41	25	4.8	4.0
9	4.6	2.7	2.5	2.6	2.2	2.4	3.1	17	49	24	4.8	3.8
10	3.3	2.9	2.4	2.5	2.2	2.4	4.0	16	61	19	4.9	3.6
11	.68	2.9	2.4	2.4	2.1	2.4	4.5	14	69	7.7	5.0	4.8
12	.68	2.6	2.6	2.1	2.1	2.2	5.0	14	76	2.4	4.9	9.0
13	.74	2.5	2.6	2.0	2.1	2.3	5.6	14	84	6.2	4.7	8.8
14	.67	2.4	2.6	1.9	2.1	2.3	6.7	13	89	7.9	4.7	9.1
15	.67	2.4	2.6	1.9	2.1	2.2	7.5	14	91	6.5	4.3	9.3
16	.62	2.4	2.6	2.0	2.1	2.3	7.2	14	82	5.8	6.4	9.6
17	.58	2.4	2.6	2.1	2.2	2.2	6.6	14	72	5.9	8.4	10
18	.58	2.4	2.6	2.1	2.2	2.2	7.4	14	64	5.4	5.8	9.9
19	.59	2.6	2.7	1.9	2.2	2.2	5.2	15	57	6.0	4.9	9.9
20	.62	3.0	2.7	1.9	2.3	2.2	4.5	18	71	4.8	4.5	10
21	.62	2.6	2.7	1.9	2.4	2.1	6.4	22	83	7.0	4.4	9.7
22	.64	2.6	2.7	1.9	2.4	2.1	4.6	19	79	18	4.7	9.2
23	.65	2.4	2.6	2.0	2.2	2.1	4.0	19	75	19	5.2	8.8
24	2.0	2.5	2.6	1.9	2.2	2.2	6.1	18	55	18	11	8.7
25	2.6	2.7	2.6	1.9	2.2	2.1	5.4	18	50	7.0	7.8	10
26	2.5	2.6	2.6	1.9	2.2	2.1	5.2	16	16	5.6	6.9	9.9
27	2.6	2.6	2.6	1.9	2.1	2.2	6.8	16	3.9	5.2	5.8	9.3
28	2.7	2.6	2.9	1.9	2.1	2.4	9.1	13	17	4.9	5.2	9.0
29	3.3	2.5	3.4	2.0	2.1	2.4	11	12	28	5.6	4.8	8.6
30	3.3	2.5	3.6	2.1	---	2.5	12	12	24	5.5	4.7	8.4
31	3.5	---	3.8	2.1	---	2.6	---	11	---	5.5	4.9	---
TOTAL	75.94	79.5	84.0	72.9	63.0	69.5	158.5	461	1434.3	390.9	169.0	227.4
MEAN	2.45	2.65	2.71	2.35	2.17	2.24	5.28	14.9	47.8	12.6	5.45	7.58
MAX	4.8	3.5	3.8	3.8	2.4	2.6	12	22	91	28	11	10
MIN	.58	2.4	2.4	1.9	2.1	2.1	2.2	11	3.9	2.4	4.3	3.6
AC-FT	151	158	167	145	125	138	314	914	2840	775	335	451

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1992, BY WATER YEAR (WY)

MEAN	4.71	4.32	3.49	3.05	2.72	2.65	5.43	30.2	74.8	24.8	7.63	4.98
MAX	19.6	14.6	8.11	5.63	4.65	5.34	17.4	99.4	192	130	27.3	13.8
(WY)	1962	1962	1962	1962	1966	1950	1946	1936	1983	1983	1945	1945
MIN	.98	1.09	.87	.89	.74	.65	1.61	3.69	2.68	2.40	1.52	.98
(WY)	1969	1965	1965	1964	1964	1964	1961	1954	1966	1966	1960	1960

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1935 - 1992	
ANNUAL TOTAL	3005.74		3285.94			
ANNUAL MEAN	8.23.		8.98			
HIGHEST ANNUAL MEAN					31.4	1983
LOWEST ANNUAL MEAN					2.55	1964
HIGHEST DAILY MEAN	133	Jun 15	91	Jun 15	345	Jun 29 1957
LOWEST DAILY MEAN	[a].58	Oct 17	[a].58	Oct 17	[b].40	Sep 21 1960
ANNUAL SEVEN-DAY MINIMUM	.61	Oct 16	.61	Oct 16	.42	Sep 21 1988
INSTANTANEOUS PEAK FLOW			103	Jun 14	451	Jun 27 1983
INSTANTANEOUS PEAK STAGE			2.34	Jun 14	3.96	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	5960		6520		10190	
10 PERCENT EXCEEDS	20		18		30	
50 PERCENT EXCEEDS	2.9		3.7		4.1	
90 PERCENT EXCEEDS	2.2		2.1		1.7	

a-Also occurred Oct 18.
b-Also occurred Oct 6, 1960, and Sep 24-26, 1988.

09032100 CABIN CREEK NEAR FRASER, CO

LOCATION.--Lat 39°59'09", long 105°44'40", in NW¼SE¼ sec.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.

DRAINAGE AREA.--4.87 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 28 to May 5 and June 9-15. Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station to Moffat water tunnel. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.3	2.1	1.5	1.4	1.4	1.4	.28	12	19	4.8	5.5
2	2.4	2.3	2.1	1.5	1.4	1.4	1.4	.28	12	17	4.8	5.7
3	2.4	2.3	2.1	1.5	1.4	1.4	1.4	.28	12	16	5.1	5.2
4	2.3	2.3	2.0	1.5	1.4	1.4	1.4	.28	24	14	4.8	4.8
5	2.3	2.3	1.9	1.5	1.4	1.4	1.4	1.3	31	14	4.6	5.1
6	2.3	2.3	1.8	1.5	1.4	1.4	1.4	2.9	31	13	4.6	4.6
7	2.1	2.3	1.8	1.5	1.4	1.4	1.4	2.8	31	13	4.4	4.3
8	2.1	2.3	1.8	1.5	1.4	1.4	1.4	3.5	31	14	4.2	4.1
9	2.0	2.3	1.8	1.5	1.4	1.4	1.4	3.4	33	13	4.9	4.0
10	2.1	2.3	1.8	1.5	1.4	1.4	1.4	2.7	33	12	4.6	3.9
11	2.0	2.3	1.8	1.5	1.4	1.4	1.4	3.4	32	11	4.6	3.8
12	2.0	2.3	1.8	1.5	1.4	1.4	1.4	4.8	34	11	4.4	3.7
13	2.0	2.3	1.8	1.5	1.4	1.4	1.4	5.0	37	10	4.1	3.6
14	2.0	2.3	1.7	1.4	1.4	1.4	1.4	4.8	38	9.5	4.0	3.5
15	2.0	2.3	1.6	1.3	1.4	1.4	.62	6.0	37	8.9	3.8	3.3
16	2.0	2.3	1.6	1.2	1.4	1.4	.28	7.4	32	8.5	4.6	3.8
17	1.9	2.3	1.6	1.1	1.4	1.4	.28	8.9	28	8.3	5.4	3.8
18	1.9	2.3	1.6	1.2	1.4	1.4	.28	8.5	27	7.5	4.6	3.6
19	1.7	2.3	1.6	1.2	1.4	1.4	.28	12	31	7.6	4.0	3.5
20	1.7	2.3	1.6	1.2	1.4	1.4	.28	23	37	7.8	3.6	3.4
21	1.7	2.3	1.6	1.2	1.4	1.4	.28	38	35	7.1	3.5	3.2
22	1.8	2.3	1.6	1.3	1.4	1.4	.28	32	32	6.8	3.6	3.1
23	1.8	2.3	1.6	1.4	1.4	1.4	.28	22	30	6.7	4.1	3.0
24	2.2	2.3	1.6	1.4	1.4	1.4	.28	24	29	6.5	9.8	2.9
25	2.0	2.3	1.6	1.4	1.4	1.4	.28	20	30	6.6	7.1	3.6
26	2.3	2.3	1.6	1.4	1.4	1.4	.28	28	29	6.2	6.5	3.6
27	2.3	2.2	1.6	1.4	1.4	1.4	.28	31	25	5.6	5.3	3.2
28	2.3	2.1	1.5	1.4	1.4	1.4	.28	14	24	5.5	5.2	3.0
29	2.3	2.1	1.5	1.4	1.4	1.4	.28	6.9	23	5.4	4.7	2.8
30	2.3	2.1	1.5	1.4	---	1.4	.28	12	20	5.3	4.4	2.7
31	2.3	---	1.5	1.4	---	1.4	---	12	---	5.0	4.6	---
TOTAL	65.1	68.3	53.1	43.2	40.6	43.4	24.42	341.42	860	301.8	148.7	114.3
MEAN	2.10	2.28	1.71	1.39	1.40	1.40	.81	11.0	28.7	9.74	4.80	3.81
MAX	2.6	2.3	2.1	1.5	1.4	1.4	1.4	38	38	19	9.8	5.7
MIN	1.7	2.1	1.5	1.1	1.4	1.4	.28	.28	12	5.0	3.5	2.7
AC-FT	129	135	105	86	81	86	48	677	1710	599	295	227

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

MEAN	2.48	1.95	1.44	1.23	1.03	1.06	1.43	9.04	31.9	11.2	4.57	3.31
MAX	4.54	2.93	2.12	1.74	1.40	1.40	2.58	24.1	58.3	25.8	8.05	5.12
(WY)	1986	1986	1986	1987	1992	1992	1986	1984	1984	1984	1984	1984
MIN	1.67	.48	.47	.59	.30	.12	.079	1.60	9.99	5.72	3.47	1.93
(WY)	1990	1985	1985	1985	1985	1985	1985	1985	1989	1989	1988	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	2104.56		2104.34			
ANNUAL MEAN	5.77		5.75		5.89	
HIGHEST ANNUAL MEAN					11.0	1984
LOWEST ANNUAL MEAN					3.77	1989
HIGHEST DAILY MEAN	53	Jun 15	[a]38	May 21	96	Jun 14 1984
LOWEST DAILY MEAN	[b].94	Jan 12	[c].28	Apr 16	.04	May 7 1985
ANNUAL SEVEN-DAY MINIMUM	.97	Jan 9	.28	Apr 16	.07	Apr 12 1985
INSTANTANEOUS PEAK FLOW			49	May 26	126	Jun 13 1984
INSTANTANEOUS PEAK STAGE			1.81	May 26	2.37	Jun 13 1984
ANNUAL RUNOFF (AC-FT)	4170		4170		4270	
10 PERCENT EXCEEDS	13		18		14	
50 PERCENT EXCEEDS	2.3		2.3		2.0	
90 PERCENT EXCEEDS	1.1		1.4		1.0	

a-Also occurred Jun 14.
b-Also occurred Jan 13-15.
c-Also occurred Apr 17 to May 4.

09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, CO

LOCATION.--Lat 40°06'30", long 106°00'13" in NW1/4 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 mi^2.

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. 10-16, 23, 24, and Nov. 26 to Mar. 14. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, and diversions for irrigation. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	84	68	71	71	78	92	158	235	396	122	156
2	114	93	72	66	77	75	107	153	208	371	122	121
3	119	63	79	66	77	76	111	154	169	349	122	95
4	114	98	80	66	74	84	137	137	158	326	125	106
5	94	103	77	71	73	84	163	133	181	313	119	107
6	99	120	74	71	74	86	163	120	191	278	115	107
7	104	117	77	79	72	80	200	101	197	268	119	105
8	107	100	79	69	81	85	183	99	238	313	112	99
9	100	116	80	75	81	85	205	106	222	324	107	95
10	94	116	77	79	80	78	216	128	273	295	105	93
11	83	115	75	81	79	79	297	110	309	267	115	91
12	82	90	74	77	80	81	217	97	335	247	117	88
13	82	95	77	78	71	84	300	97	371	252	113	90
14	79	90	72	80	80	78	237	96	401	222	108	88
15	82	96	75	78	78	77	291	94	405	216	101	86
16	89	90	69	81	68	84	318	93	358	220	99	88
17	95	98	77	76	80	81	348	91	296	221	127	87
18	97	86	77	76	78	79	331	95	251	221	143	85
19	94	83	74	77	77	85	275	96	218	205	126	83
20	93	67	78	70	75	83	215	97	235	211	116	84
21	87	88	74	78	78	75	194	94	335	215	112	84
22	80	87	74	73	78	74	201	118	348	254	113	83
23	83	86	74	76	78	79	190	147	361	276	122	83
24	99	81	72	71	74	82	169	137	338	271	153	92
25	112	72	72	79	77	91	165	144	362	226	218	118
26	88	78	62	73	67	87	178	159	360	201	166	122
27	87	76	62	73	79	96	193	270	258	182	139	118
28	91	76	60	74	82	103	205	264	249	161	128	112
29	79	72	66	75	75	97	271	234	288	157	123	110
30	70	71	64	76	---	115	267	210	406	158	119	110
31	97	---	68	72	---	109	---	256	---	139	128	---
TOTAL	2912	2707	2259	2307	2214	2630	6439	4288	8556	7755	3854	2986
MEAN	93.9	90.2	72.9	74.4	76.3	84.8	215	138	285	250	124	99.5
MAX	119	120	80	81	82	115	348	270	406	396	218	156
MIN	70	63	60	66	67	74	92	91	158	139	99	83
AC-FT	5780	5370	4480	4580	4390	5220	12770	8510	16970	15380	7640	5920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1992, BY WATER YEAR (WY)

MEAN	94.5	102	81.1	76.2	77.0	105	290	656	833	559	169	99.9
MAX	152	188	120	110	110	260	827	2326	2997	2096	403	202
(WY)	1985	1986	1985	1985	1985	1984	1984	1984	1984	1983	1983	1984
MIN	59.9	76.5	64.3	59.0	63.5	75.8	132	138	186	172	106	65.4
(WY)	1982	1982	1982	1989	1982	1983	1983	1992	1990	1989	1989	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1982 - 1992	
ANNUAL TOTAL	57635		48907			
ANNUAL MEAN	158		134		262	
HIGHEST ANNUAL MEAN					726	1984
LOWEST ANNUAL MEAN					122	1989
HIGHEST DAILY MEAN	758	Jun 16	406	Jun 30	4930	May 25 1984
LOWEST DAILY MEAN	[b]59	Jan 4	60	Dec 28	[a]42	Oct 1 1981
ANNUAL SEVEN-DAY MINIMUM	60	Jan 1	65	Dec 26	51	Oct 1 1981
INSTANTANEOUS PEAK FLOW			445	Jun 15	5260	May 25 1984
INSTANTANEOUS PEAK STAGE			[c]3.65	Jun 15	7.34	May 25 1984
ANNUAL RUNOFF (AC-FT)	114300		97010		190100	
10 PERCENT EXCEEDS	306		269		505	
50 PERCENT EXCEEDS	100		96		106	
90 PERCENT EXCEEDS	67		73		67	

a-Also occurred Feb 5.
b-Also occurred Oct 2, 1981.
c-Maximum gage height, 5.09 ft, Feb 18, backwater from ice.

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO

LOCATION.--Lat 40°05'00", long 106°05'15", in NE1/4NE1/4 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 mi^2.

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. Statistical summary computed for 1954 to current year.

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

GAGE.--Water-stage recorder with satellite telemetry. 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. 4, and Nov. 22 to Apr. 1. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	84	87	74	76	74	143	203	252	392	152	151
2	98	104	86	73	78	75	146	183	225	361	152	140
3	100	88	85	70	77	77	145	187	180	352	151	107
4	109	110	89	71	76	84	172	164	162	331	154	113
5	85	124	91	72	75	85	198	157	178	317	158	118
6	87	116	87	76	75	86	197	147	198	283	159	120
7	92	116	86	79	76	84	230	127	203	270	158	114
8	97	111	87	77	76	85	216	125	251	314	147	112
9	91	111	90	77	78	88	237	131	240	323	143	109
10	88	121	85	79	78	84	246	148	278	299	140	106
11	79	122	83	78	77	84	328	136	321	272	149	95
12	75	92	83	77	76	86	252	120	349	254	154	97
13	75	100	84	79	74	89	322	118	375	256	131	96
14	74	99	80	78	70	85	262	118	402	229	115	100
15	72	103	79	77	71	85	322	115	406	212	111	92
16	75	89	82	76	69	90	333	113	360	220	111	93
17	77	102	80	76	70	97	364	109	307	221	132	91
18	75	91	81	76	71	96	345	110	264	219	154	89
19	75	92	80	76	73	100	301	112	223	207	138	89
20	75	81	80	71	70	108	240	113	232	213	124	88
21	72	96	78	77	69	109	216	112	324	221	123	88
22	68	100	77	73	71	106	227	129	345	247	123	88
23	74	97	77	74	72	107	215	163	365	273	130	89
24	88	91	76	71	72	110	201	149	343	272	150	93
25	99	89	76	77	71	117	188	154	358	246	218	118
26	80	90	73	78	71	124	202	166	361	222	171	121
27	78	88	70	77	70	130	218	283	260	204	147	120
28	82	90	70	77	70	138	235	284	249	181	138	115
29	80	88	68	77	70	141	299	258	292	170	133	114
30	65	87	68	77	---	142	300	217	381	173	128	112
31	95	---	71	76	---	142	---	274	---	167	137	---
TOTAL	2580	2972	2489	2346	2122	3108	7300	4925	8684	7921	4431	3178
MEAN	83.2	99.1	80.3	75.7	73.2	100	243	159	289	256	143	106
MAX	109	124	91	79	78	142	364	284	406	392	218	151
MIN	65	81	68	70	69	74	143	109	162	167	111	88
AC-FT	5120	5890	4940	4650	4210	6160	14480	9770	17220	15710	8790	6300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	92.4	91.4	77.2	72.2	74.3	99.8	271	642	754	414	148	85.4
MAX	291	201	133	122	125	265	1254	2415	2950	2081	401	186
(WY)	1962	1986	1985	1985	1985	1984	1962	1984	1984	1983	1983	1961
MIN	52.8	58.1	49.7	47.5	54.1	55.6	124	159	174	141	82.0	44.2
(WY)	1965	1965	1961	1961	1961	1964	1981	1992	1954	1954	1981	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	59827		52056			
ANNUAL MEAN	164		142		[a]236	
HIGHEST ANNUAL MEAN					736	1984
LOWEST ANNUAL MEAN					111	1954
HIGHEST DAILY MEAN	770	Jun 16	406	Jun 15	5310	May 25 1984
LOWEST DAILY MEAN	60	Jan 4	65	Oct 30	33	Sep 27 1956
ANNUAL SEVEN-DAY MINIMUM	61	Jan 1	70	Feb 15	37	Sep 24 1956
INSTANTANEOUS PEAK FLOW			439	Jun 15	[b]5720	May 25 1984
INSTANTANEOUS PEAK STAGE			1.44	Jun 15	[c]5.10	May 25 1984
ANNUAL RUNOFF (AC-FT)	118700		103300		170700	
10 PERCENT EXCEEDS	315		275		520	
50 PERCENT EXCEEDS	98		109		99	
90 PERCENT EXCEEDS	69		74		63	

a-Average discharge for 39 years (water years 1905-09, 1911-47), 675 ft^3/s; 489000 acre-ft/yr, prior to storage by Lake Granby.
b-Maximum discharge and stage for period of record, 10300 ft^3/s, Jun 15, 1921, gage height, 8.7 ft, site and datum then in use.
c-Maximum gage height for statistical period, 5.52 ft, Nov 22, 1961, backwater from ice.

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 TEMPERATURE: April 1949 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily instantaneous, 524 microsiemens, Dec. 24, 1986; minimum daily instantaneous, 48 microsiemens, June 2, 1947.
WATER TEMPERATURE: Maximum daily instantaneous, 29°C, Aug. 3, 1981; minimum daily instantaneous, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily instantaneous, 304 microsiemens, Mar. 3; minimum daily instantaneous, 100 microsiemens, June 23.
WATER TEMPERATURE: Maximum daily instantaneous, 22°C, Aug. 9; minimum daily instantaneous, freezing point on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
DEC										
05...	1300	94	154	8.0	1.0	13.2	61	19	3.4	7.1
APR										
16...	1140	415	127	8.0	6.5	12.0	51	16	2.7	5.6
MAY										
19...	0830	120	130	8.0	12.0	--	--	--	--	--
JUN										
10...	1100	293	131	8.7	12.0	7.8	55	18	2.5	5.8
JUL										
09...	1045	324	137	8.1	14.0	11.7	62	20	2.9	5.4
SEP										
21...	1545	80	170	7.4	15.0	--	--	--	--	--

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)
DEC									
05...	0.4	1.3	64	7.4	2.7	0.2	13	93	0.13
APR									
16...	0.3	2.0	51	5.7	3.7	0.2	11	78	0.11
MAY									
19...	--	--	--	--	--	--	--	--	--
JUN									
10...	0.3	1.2	59	4.2	0.6	<0.1	12	80	0.11
JUL									
09...	0.3	1.1	66	3.6	1.2	0.2	12	86	0.12
SEP									
21...	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	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)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)
DEC								
05...	23.7	1	0.19	0.17	<0.20	<0.20	0.04	0.02
APR								
16...	87.8	--	0.12	0.12	0.50	0.40	0.08	0.03
MAY								
19...	--	9	--	--	--	--	--	--
JUN								
10...	63.3	<1	<0.05	<0.05	0.50	0.20	0.10	0.06
JUL								
09...	75.4	14	<0.05	<0.05	0.30	<0.20	0.06	0.02
SEP								
21...	--	19	--	--	--	--	--	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
DEC 05...	<1	<1	<1	17	<0.5	<1	<1.0	<1	<1
APR 16...	<1	<1	<1	18	<0.5	<1	<1.0	2	<1
MAY 19...	--	--	--	--	--	--	--	--	--
JUN 10...	<1	<1	<1	13	<0.5	--	<1.0	--	<1
JUL 09...	<1	<1	<1	15	<0.5	<1	<1.0	5	<1
SEP 21...	--	--	--	--	--	--	--	--	--

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
DEC 05...	--	1	58	1	<1	17	<0.1	<0.1
APR 16...	<1	2	210	2	<1	37	<0.1	0.1
MAY 19...	--	--	--	--	--	--	--	--
JUN 10...	--	2	120	--	<1	24	<0.1	<0.1
JUL 09...	2	2	130	<1	<1	17	<0.1	<0.1
SEP 21...	--	--	--	--	--	--	--	--

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
DEC 05...	1	<1	<1	<1	<1	<1.0	30	6
APR 16...	2	<1	<1	<1	<1	<1.0	20	14
MAY 19...	--	--	--	--	<1	[a]<0.2	--	--
JUN 10...	--	<1	<1	<1	--	<1.0	--	3
JUL 09...	<1	<1	<1	<1	<1	<1.0	<10	<3
SEP 21...	--	--	--	--	<1	[a]<0.2	--	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 31...	1200	118	145	1.0
NOV 21...	1215	95	138	0.5
JAN 16...	1055	76	149	1.0
FEB 27...	1005	68	146	0.0
MAR 27...	0950	130	166	0.0
MAY 05...	1100	172	103	12.0
AUG 13...	1210	122	146	17.5
SEP 15...	0950	93	134	11.5

a-Analysis based on preliminary method.

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 mi^2.

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. 5-7, 14, 16, 19, Oct. 21 to Apr. 30, and June 10. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	1.5	1.3	.90	.80	.66	.67	14	20	43	8.7	7.4
2	2.4	1.5	1.3	.90	.80	.66	.68	9.5	22	39	8.1	7.4
3	2.3	1.5	1.3	.90	.80	.65	.68	10	24	32	8.1	6.4
4	2.3	1.5	1.3	.90	.80	.66	.68	11	27	31	8.1	6.1
5	2.2	1.5	1.2	.90	.80	.66	.70	12	27	31	8.3	6.2
6	2.2	1.5	1.2	.90	.80	.66	.75	14	28	33	9.3	5.6
7	2.2	1.5	1.2	.90	.80	.66	.80	14	28	32	7.5	5.2
8	2.1	1.5	1.2	.90	.80	.66	.80	15	29	32	7.1	4.9
9	2.1	1.4	1.1	.90	.80	.66	.85	17	31	28	7.1	4.6
10	2.1	1.4	1.1	.90	.70	.66	.90	14	37	26	7.3	4.5
11	2.0	1.4	1.1	.90	.70	.66	.95	13	46	24	8.1	4.3
12	1.9	1.4	1.1	.90	.70	.66	1.0	15	56	24	8.3	4.1
13	1.8	1.4	1.1	.90	.70	.66	1.1	16	59	24	8.0	4.3
14	1.8	1.4	1.0	.90	.70	.66	1.3	19	55	21	7.6	3.8
15	1.8	1.4	1.0	.90	.70	.66	1.5	21	50	21	7.2	3.8
16	1.7	1.4	1.0	.80	.70	.66	2.0	23	43	19	7.7	3.7
17	1.7	1.4	1.0	.80	.70	.66	3.4	25	41	17	7.5	4.7
18	1.7	1.4	1.0	.80	.68	.66	4.0	29	48	16	6.4	5.7
19	1.7	1.4	1.0	.80	.68	.66	4.4	36	58	15	5.8	4.9
20	1.7	1.4	1.0	.80	.68	.66	4.4	49	68	18	5.6	5.0
21	1.7	1.3	1.0	.80	.68	.66	4.1	50	65	15	6.6	4.5
22	1.7	1.3	1.0	.80	.68	.66	4.3	48	60	14	7.7	4.0
23	1.6	1.3	1.0	.80	.68	.66	4.5	50	64	13	7.7	3.8
24	1.6	1.3	1.0	.80	.68	.66	5.1	43	68	13	10	3.7
25	1.6	1.3	1.0	.80	.68	.66	4.7	40	64	14	9.3	4.7
26	1.6	1.3	1.0	.80	.68	.66	4.9	41	61	15	8.4	4.3
27	1.6	1.3	1.0	.80	.68	.66	5.2	37	53	12	7.3	4.0
28	1.6	1.3	.90	.80	.68	.66	5.3	30	52	11	6.7	4.0
29	1.6	1.3	.90	.80	.66	.66	6.1	27	50	11	6.1	4.2
30	1.6	1.3	.90	.80	---	.66	7.8	25	48	10	6.1	4.5
31	1.5	---	.90	.80	---	.66	---	23	---	9.3	6.6	---
TOTAL	57.9	41.8	33.10	26.30	20.94	20.45	83.56	790.5	1382	663.3	234.3	144.3
MEAN	1.87	1.39	1.07	.85	.72	.66	2.79	25.5	46.1	21.4	7.56	4.81
MAX	2.5	1.5	1.3	.90	.80	.66	7.8	50	68	43	10	7.4
MIN	1.5	1.3	.90	.80	.66	.65	.67	9.5	20	9.3	5.6	3.7
AC-FT	115	83	66	52	42	41	166	1570	2740	1320	465	286

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

MEAN	2.90	1.71	1.10	.87	.77	.75	1.47	14.0	55.9	29.1	9.40	4.51
MAX	5.49	3.33	1.79	1.24	1.10	1.12	4.30	28.8	82.0	70.6	25.5	9.74
(WY)	1985	1984	1983	1983	1984	1984	1969	1969	1986	1983	1983	1983
MIN	1.51	1.03	.78	.58	.48	.52	.68	3.90	27.3	7.08	4.90	2.35
(WY)	1981	1974	1977	1972	1972	1972	1973	1983	1966	1977	1977	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	3486.17		3498.45			
ANNUAL MEAN	9.55		9.56		10.2	
HIGHEST ANNUAL MEAN					15.5	1984
LOWEST ANNUAL MEAN					6.28	1977
HIGHEST DAILY MEAN	95	Jun 15	[a]68	Jun 20	146	Jun 25 1983
LOWEST DAILY MEAN	[b].60	Jan 1	.65	Mar 3	.44	Feb 11 1972
ANNUAL SEVEN-DAY MINIMUM	.62	Mar 1	.66	Feb 29	.46	Feb 11 1972
INSTANTANEOUS PEAK FLOW			91	Jun 20	290	Jun 28 1988
INSTANTANEOUS PEAK STAGE			4.16	Jun 20	[c]5.19	Jun 28 1988
ANNUAL RUNOFF (AC-FT)	6910		6940		7400	
10 PERCENT EXCEEDS	32		31		32	
50 PERCENT EXCEEDS	1.5		1.7		1.9	
90 PERCENT EXCEEDS	.65		.68		.70	

a-Also occurred Jun 24.
b-Also occurred Jan 2-4.
c-Maximum gage height, 7.57 ft, May 15, 1984, backwater from ice.

09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

LOCATION (REVISED).--Lat 39°46'44", long 105°55'40", in sec.20, T.3 S., R.76 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 mi^2.

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: Oct. 18 to Apr. 30. Records good 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	5.1	4.8	4.2	3.9	3.2	2.9	33	64	89	20	16
2	7.8	5.1	4.8	4.2	3.9	3.2	3.0	32	64	83	19	16
3	7.7	5.1	4.8	4.2	3.9	3.2	3.0	34	69	73	19	14
4	7.3	5.1	4.8	4.2	3.8	3.2	3.0	37	73	69	18	13
5	7.2	5.1	4.7	4.2	3.8	3.2	3.0	40	73	67	17	13
6	7.3	5.1	4.7	4.2	3.8	3.2	3.1	45	73	68	19	12
7	7.2	5.1	4.7	4.2	3.8	3.2	3.2	47	73	68	18	11
8	7.0	5.1	4.7	4.1	3.7	3.2	3.3	46	73	68	16	11
9	6.9	5.0	4.6	4.1	3.7	3.2	3.5	51	77	62	15	10
10	6.7	4.9	4.6	4.1	3.7	3.2	3.7	45	85	57	15	10
11	6.7	4.9	4.6	4.1	3.7	3.2	3.9	40	99	52	15	10
12	6.5	4.9	4.6	4.1	3.7	3.1	4.2	45	112	51	15	9.7
13	6.3	4.9	4.6	4.1	3.7	3.1	4.5	48	120	52	14	10
14	6.2	4.9	4.5	4.1	3.6	3.1	5.0	53	120	44	13	9.3
15	6.3	4.9	4.5	4.1	3.6	3.1	6.0	59	115	43	13	9.5
16	6.1	4.9	4.5	4.0	3.6	3.1	8.6	61	103	40	14	9.3
17	5.5	4.9	4.4	4.0	3.6	3.1	12	65	98	38	17	11
18	5.5	4.9	4.4	4.0	3.6	3.1	15	75	108	35	14	15
19	5.5	4.9	4.3	4.0	3.6	3.1	17	89	119	34	12	12
20	5.5	4.9	4.3	4.0	3.5	3.1	18	113	133	41	12	13
21	5.5	4.8	4.3	4.0	3.5	3.1	17	116	129	34	12	11
22	5.5	4.8	4.3	4.0	3.5	3.0	16	112	122	31	13	10
23	5.3	4.8	4.3	4.0	3.4	3.0	18	114	124	29	14	9.7
24	5.3	4.8	4.3	4.0	3.4	3.0	19	111	127	28	25	9.3
25	5.3	4.8	4.3	4.0	3.4	3.0	19	104	122	32	20	12
26	5.3	4.8	4.3	3.9	3.3	3.0	19	104	118	31	19	11
27	5.3	4.8	4.3	3.9	3.3	3.0	20	101	107	26	16	10
28	5.3	4.8	4.3	3.9	3.3	3.0	20	87	104	24	14	9.5
29	5.3	4.8	4.3	3.9	3.2	3.0	21	79	100	24	13	9.2
30	5.3	4.8	4.3	3.9	---	3.0	22	75	95	22	13	9.0
31	5.1	---	4.2	3.9	---	3.0	---	69	---	21	14	---
TOTAL	191.8	147.7	139.1	125.6	104.5	96.2	316.9	2130	2999	1436	488	335.5
MEAN	6.19	4.92	4.49	4.05	3.60	3.10	10.6	68.7	100	46.3	15.7	11.2
MAX	8.1	5.1	4.8	4.2	3.9	3.2	22	116	133	89	25	16
MIN	5.1	4.8	4.2	3.9	3.2	3.0	2.9	32	64	21	12	9.0
AC-FT	380	293	276	249	207	191	629	4220	5950	2850	968	665

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1992, BY WATER YEAR (WY)

MEAN	4.97	3.14	2.13	1.80	1.76	1.78	3.62	28.9	110	56.6	11.3	6.82
MAX	16.3	8.07	4.80	4.30	3.90	4.99	10.6	89.2	213	188	44.5	18.4
(WY)	1985	1938	1939	1939	1939	1985	1992	1936	1938	1983	1983	1984
MIN	.98	.58	.39	.31	.30	.35	.61	5.45	15.5	4.85	.70	.70
(WY)	1967	1987	1987	1978	1978	1987	1973	1991	1976	1968	1979	1979

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1933 - 1992	
ANNUAL TOTAL	7193.21		8510.3			
ANNUAL MEAN	19.7		23.3		[a]25.8	
HIGHEST ANNUAL MEAN					38.6	1984
LOWEST ANNUAL MEAN					4.11	1976
HIGHEST DAILY MEAN	193	Jun 15	133	Jun 20	325	Jun 21 1938
LOWEST DAILY MEAN	[b].46	Jan 1	2.9	Apr 1	.20	Mar 6 1967
ANNUAL SEVEN-DAY MINIMUM	.48	Jan 1	3.0	Mar 26	.27	Feb 13 1971
INSTANTANEOUS PEAK FLOW			168	Jun 20	[c]441	Jun 21 1938
INSTANTANEOUS PEAK STAGE			4.87	Jun 20	[d]2.48	Jun 21 1938
ANNUAL RUNOFF (AC-FT)	14270		16880		18690	
10 PERCENT EXCEEDS	59		75		63	
50 PERCENT EXCEEDS	4.8		6.1		3.2	
90 PERCENT EXCEEDS	.50		3.2		.60	

a-Including diversions to August P. Gumlick Tunnel.
b-Also occurred Jan 2-4.
c-Site and datum then in use, from rating curve extended above 260 ft^3/s.
d-Maximum gage height, 6.96 ft, May 15, 1984, backwater from ice.

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 mi^2.

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. Prior to Nov. 1, 1990 at site 75 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 24 to Apr. 28. Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09036000). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	11	11	9.8	8.5	7.5	7.8	55	95	125	33	26
2	14	11	11	9.7	8.5	7.4	8.0	54	94	118	32	26
3	14	11	11	9.7	8.4	7.4	8.0	55	99	105	31	22
4	13	12	11	9.7	8.4	7.4	8.2	57	104	97	31	20
5	13	13	11	9.7	8.4	7.4	8.4	59	105	93	29	22
6	13	13	11	9.6	8.3	7.4	8.9	63	104	91	31	19
7	13	13	11	9.6	8.2	7.4	9.9	67	106	93	31	17
8	13	13	11	9.6	8.1	7.4	10	66	105	95	28	17
9	13	13	11	9.5	8.0	7.4	11	72	111	88	26	16
10	13	12	11	9.5	8.0	7.4	12	67	120	79	26	16
11	13	12	11	9.5	7.9	7.4	14	57	138	75	26	15
12	12	12	11	9.5	7.8	7.3	16	64	161	73	26	15
13	12	12	11	9.4	7.7	7.3	17	67	173	74	24	16
14	12	12	11	9.4	7.7	7.3	19	72	173	65	23	15
15	12	12	10	9.3	7.6	7.3	21	79	168	63	22	15
16	12	12	10	9.3	7.6	7.3	20	82	152	61	24	15
17	11	12	10	9.3	7.6	7.2	20	86	143	58	31	16
18	11	12	10	9.3	7.6	7.3	20	99	155	54	25	25
19	11	12	10	9.2	7.6	7.3	19	112	171	52	22	18
20	11	12	10	9.1	7.6	7.3	17	146	191	62	21	20
21	11	11	10	9.0	7.6	7.3	17	157	186	54	20	18
22	11	11	10	9.0	7.5	7.3	17	154	177	49	21	16
23	11	11	10	8.9	7.5	7.3	18	152	177	46	24	15
24	11	11	10	8.8	7.5	7.3	19	151	182	45	41	14
25	11	11	10	8.8	7.5	7.4	18	142	175	48	35	17
26	11	11	10	8.7	7.5	7.4	20	142	169	50	31	17
27	11	11	10	8.7	7.5	7.6	24	145	156	42	26	16
28	11	11	9.9	8.7	7.5	7.7	30	129	149	40	23	15
29	11	11	9.9	8.6	7.5	7.7	37	115	143	39	22	14
30	11	11	9.8	8.6	---	7.8	46	108	134	37	21	14
31	11	---	9.8	8.6	---	7.8	---	101	---	35	22	---
TOTAL	372	352	323.4	286.1	227.1	229.7	521.2	2975	4316	2106	828	527
MEAN	12.0	11.7	10.4	9.23	7.83	7.41	17.4	96.0	144	67.9	26.7	17.6
MAX	15	13	11	9.8	8.5	7.8	46	157	191	125	41	26
MIN	11	11	9.8	8.6	7.5	7.2	7.8	54	94	35	20	14
AC-FT	738	698	641	567	450	456	1030	5900	8560	4180	1640	1050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

MEAN	11.1	8.27	6.89	5.89	5.34	5.75	10.3	52.7	193	103	25.4	14.6
MAX	26.2	15.2	11.9	9.23	7.98	9.00	17.4	121	319	318	75.5	40.9
(WY)	1985	1985	1984	1992	1970	1972	1992	1984	1984	1983	1983	1984
MIN	6.20	4.90	3.87	3.43	3.47	3.21	5.29	21.3	63.6	21.9	10.4	7.09
(WY)	1980	1990	1975	1975	1975	1980	1973	1975	1966	1977	1981	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	13538.1		13063.5			
ANNUAL MEAN	37.1		35.7		36.8	
HIGHEST ANNUAL MEAN					71.3	1984
LOWEST ANNUAL MEAN					17.6	1976
HIGHEST DAILY MEAN	303	Jun 15	191	Jun 20	518	Jun 25 1971
LOWEST DAILY MEAN	[a]3.7	Jan 1	7.2	Mar 17	2.7	Apr 5 1977
ANNUAL SEVEN-DAY MINIMUM	3.8	Jan 1	7.3	Mar 12	2.8	Mar 31 1977
INSTANTANEOUS PEAK FLOW			226	Jun 20	[b]677	Jun 24 1971
INSTANTANEOUS PEAK STAGE			4.04	Jun 20	7.12	Jun 24 1971
ANNUAL RUNOFF (AC-FT)	26850		25910		26670	
10 PERCENT EXCEEDS	103		107		104	
50 PERCENT EXCEEDS	11		13		9.8	
90 PERCENT EXCEEDS	4.0		7.6		4.7	

a-Also occurred Jan 2-4.
b-Site and datum then in use, from rating curve extended above 430 ft^3/s.

09035800 DARLING CREEK NEAR LEAL, CO

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.

DRAINAGE AREA.--8.21 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,090 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 24 to Apr. 28. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.8	3.8	3.4	2.0	2.6	3.0	11	23	26	7.2	5.9
2	3.6	3.7	3.7	3.4	2.0	2.5	3.0	11	23	25	7.0	5.8
3	3.6	3.7	3.7	3.4	2.1	2.6	3.1	11	25	23	7.0	5.1
4	3.5	3.7	3.8	3.4	2.1	2.6	3.1	12	26	22	7.0	4.9
5	3.5	3.8	3.9	3.4	2.1	2.5	3.1	12	26	21	6.7	5.1
6	3.6	3.7	4.0	3.3	2.1	2.6	3.1	13	26	20	7.1	4.7
7	3.6	3.7	4.0	3.3	2.2	2.6	3.0	14	26	20	6.8	4.5
8	3.5	3.7	4.2	3.3	2.2	2.8	3.1	12	26	19	6.6	4.3
9	3.5	3.6	4.4	3.3	2.2	2.6	3.1	13	27	18	6.3	4.1
10	3.5	3.7	4.5	3.3	2.1	2.5	3.2	12	29	16	6.2	4.1
11	3.3	3.7	4.3	3.2	2.2	2.5	3.2	11	31	15	6.3	4.0
12	3.3	3.7	4.2	3.2	2.3	2.7	3.1	13	35	15	6.3	3.9
13	3.3	3.7	4.0	3.2	2.4	2.7	3.1	14	38	15	6.1	4.0
14	3.3	3.8	4.0	3.1	2.4	2.7	3.2	16	37	14	5.9	3.9
15	3.3	3.8	4.0	3.1	2.4	2.7	3.3	17	36	14	5.7	4.0
16	3.2	3.8	4.0	3.0	2.5	2.8	3.2	17	34	13	6.0	3.9
17	3.2	3.8	3.9	3.0	2.4	2.8	3.4	19	32	12	6.5	4.3
18	3.1	3.8	3.9	2.9	2.5	2.8	3.6	21	35	11	5.7	5.7
19	3.3	3.7	3.8	2.8	2.4	2.7	3.8	24	38	12	5.4	4.8
20	3.4	3.8	3.8	2.8	2.4	2.7	3.7	29	40	15	5.3	5.0
21	3.3	3.8	3.7	2.7	2.4	2.8	3.7	31	39	13	5.1	4.5
22	3.3	3.8	3.7	2.6	2.3	2.8	3.8	30	39	11	5.3	4.2
23	3.3	3.8	3.6	2.6	2.3	2.8	4.1	30	40	10	5.6	4.0
24	3.8	3.8	3.6	2.5	2.4	2.9	4.3	31	39	10	9.2	3.9
25	3.9	3.8	3.6	2.4	2.4	2.9	4.5	30	36	11	7.0	4.7
26	3.9	3.8	3.6	2.3	2.4	2.9	4.8	30	35	10	6.6	4.4
27	3.8	3.8	3.6	2.3	2.4	2.9	5.3	30	33	8.8	5.8	4.2
28	3.8	3.8	3.6	2.3	2.5	3.0	5.6	29	32	8.2	5.4	4.0
29	3.8	3.8	3.5	2.1	2.6	3.0	7.6	27	29	7.9	5.1	3.9
30	3.8	3.8	3.5	2.0	---	2.9	10	25	28	7.6	5.2	3.8
31	3.8	---	3.5	2.0	---	3.0	---	24	---	7.4	5.4	---
TOTAL	108.9	112.7	119.4	89.6	66.7	84.9	118.1	619	963	450.9	192.8	133.6
MEAN	3.51	3.76	3.85	2.89	2.30	2.74	3.94	20.0	32.1	14.5	6.22	4.45
MAX	3.9	3.8	4.5	3.4	2.6	3.0	10	31	40	26	9.2	5.9
MIN	3.1	3.6	3.5	2.0	2.0	2.5	3.0	11	23	7.4	5.1	3.8
AC-FT	216	224	237	178	132	168	234	1230	1910	894	382	265

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

MEAN	3.99	3.04	2.51	2.13	1.94	1.95	2.87	13.9	48.0	21.9	7.15	4.55
MAX	7.86	5.52	4.33	3.00	3.00	2.90	6.03	26.3	85.1	91.6	20.2	9.64
(WY)	1985	1985	1985	1985	1985	1985	1985	1974	1984	1983	1983	1984
MIN	2.55	1.82	1.38	1.20	1.21	1.10	1.49	4.39	20.5	5.32	3.44	2.59
(WY)	1979	1976	1976	1976	1975	1975	1975	1983	1966	1977	1981	1979

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	3243.2		3059.6			
ANNUAL MEAN	8.89		8.36		9.50	
HIGHEST ANNUAL MEAN					18.1	1983
LOWEST ANNUAL MEAN					5.64	1977
HIGHEST DAILY MEAN	[a]62	Jun 12	[b]40	Jun 20	175	Jun 25 1983
LOWEST DAILY MEAN	[c]1.5	Jan 1	[d]2.0	Jan 30	1.0	Jan 12 1975
ANNUAL SEVEN-DAY MINIMUM	1.5	Jan 1	2.0	Jan 29	1.1	Feb 24 1975
INSTANTANEOUS PEAK FLOW			[e]48	Jun 20	[f]241	Jun 30 1984
INSTANTANEOUS PEAK STAGE			[e]3.31	Jun 20	4.30	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	6430		6070		6880	
10 PERCENT EXCEEDS	30		26		26	
50 PERCENT EXCEEDS	3.8		3.8		3.4	
90 PERCENT EXCEEDS	1.8		2.5		1.8	

a-Also occurred Jun 15.
b-Also occurred Jun 23.
c-Also occurred Jan 2-5.
d-Also occurred Jan 31 to Feb 2.
e-Also occurred Jun 23.
f-From rating curve extended above 100 ft³/s.

09035900 SOUTH FORK WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°47'45", long 106°01'48", in NE1/4 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 mi^2.

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: Oct. 24 to May 20, and July 22 to Aug. 13. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	11	9.8	7.4	7.6	8.2	32	70	81	21	19
2	11	11	11	9.6	7.4	7.6	8.2	31	68	77	21	20
3	11	11	11	9.6	7.4	7.8	8.2	32	73	68	21	17
4	11	11	11	9.4	7.4	7.8	8.2	33	77	62	21	16
5	11	11	11	9.4	7.4	7.8	8.2	34	79	59	21	17
6	11	11	11	9.4	7.4	7.8	8.4	35	80	57	20	16
7	11	11	11	9.4	7.4	7.8	8.6	36	80	57	21	15
8	11	11	11	9.4	7.4	8.0	8.8	37	79	58	21	15
9	11	11	11	9.4	7.4	8.0	9.4	37	82	53	20	14
10	10	11	11	9.4	7.4	8.0	9.8	40	87	49	19	14
11	10	11	11	9.4	7.4	8.2	11	35	99	46	18	14
12	10	11	11	9.2	7.4	8.2	12	33	114	45	18	14
13	10	11	11	9.2	7.4	8.2	13	36	121	45	18	14
14	9.9	11	11	9.2	7.4	8.2	14	42	133	40	16	13
15	10	11	10	9.2	7.4	8.2	14	46	125	38	16	13
16	9.9	11	10	9.2	7.4	8.2	14	50	113	38	17	13
17	9.8	11	10	9.0	7.4	8.2	14	56	103	36	24	13
18	9.5	11	10	8.8	7.4	8.2	14	62	108	34	20	17
19	9.5	11	10	8.6	7.4	8.2	13	72	118	33	17	15
20	9.8	11	10	8.6	7.4	8.2	12	82	129	35	16	15
21	9.6	11	10	8.4	7.4	8.2	12	105	126	33	16	16
22	9.7	11	10	8.4	7.6	8.2	12	105	120	30	16	15
23	9.7	11	10	8.2	7.6	8.2	12	103	119	28	18	14
24	9.8	11	10	8.0	7.6	8.2	13	103	120	27	30	13
25	9.8	11	10	7.8	7.6	8.2	12	103	114	28	26	13
26	9.8	11	10	7.6	7.6	8.2	15	100	107	29	23	15
27	10	11	10	7.6	7.6	8.2	18	102	100	26	20	14
28	10	11	10	7.6	7.6	8.2	20	99	97	25	18	13
29	10	11	10	7.4	7.6	8.2	24	82	96	23	17	13
30	10	11	10	7.4	---	8.2	29	77	87	22	16	13
31	11	---	10	7.4	---	8.2	---	74	---	22	17	---
TOTAL	316.8	330	324	271.0	216.2	250.4	384.0	1914	3024	1304	603	443
MEAN	10.2	11.0	10.5	8.74	7.46	8.08	12.8	61.7	101	42.1	19.5	14.8
MAX	11	11	11	9.8	7.6	8.2	29	105	133	81	30	20
MIN	9.5	11	10	7.4	7.4	7.6	8.2	31	68	22	16	13
AC-FT	628	655	643	538	429	497	762	3800	6000	2590	1200	879

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1992, BY WATER YEAR (WY)

MEAN	13.4	10.5	8.93	7.34	6.92	7.01	11.5	54.8	154	70.3	25.7	16.4
MAX	24.0	15.6	21.1	10.3	9.55	9.77	25.0	99.3	243	215	63.3	32.3
(WY)	1985	1985	1986	1983	1983	1981	1971	1984	1984	1983	1983	1984
MIN	8.94	3.71	3.46	2.95	2.90	3.19	4.47	23.0	78.9	24.0	12.0	10.1
(WY)	1970	1967	1967	1967	1967	1967	1967	1968	1977	1966	1966	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1966 - 1992	
ANNUAL TOTAL	11408.6		9380.4			
ANNUAL MEAN	31.3		25.6		32.2	
HIGHEST ANNUAL MEAN					54.8	1984
LOWEST ANNUAL MEAN					20.2	1977
HIGHEST DAILY MEAN	260	Jun 15	133	Jun 14	355	Jun 17 1978
LOWEST DAILY MEAN	[a]5.6	Jan 1	[b]7.4	Jan 29	2.6	Mar 6 1967
ANNUAL SEVEN-DAY MINIMUM	5.7	Jan 1	7.4	Jan 29	2.8	Feb 28 1967
INSTANTANEOUS PEAK FLOW			158	Jun 13	464	Jun 15 1978
INSTANTANEOUS PEAK STAGE			3.30	Jun 13	[c]3.37	Jun 15 1978
ANNUAL RUNOFF (AC-FT)	22630		18610		23360	
10 PERCENT EXCEEDS	104		79		93	
50 PERCENT EXCEEDS	11		11		12	
90 PERCENT EXCEEDS	6.0		7.6		6.4	

a-Also occurred Jan 2-4.
b-Also occurred Jan 30 to Feb 21.
c-Maximum gage height, 4.22 ft, Nov 22, 1979, backwater from ice.

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 mi^2.

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 with satellite telemetry. 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: Nov. 6 to Dec. 11, Dec. 14, 24, and Dec. 30 to Mar. 12. Records good. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	32	26	20	19	19	20	146	257	289	79	65
2	35	30	25	20	19	19	21	144	248	274	76	68
3	35	31	25	20	19	19	21	145	260	246	73	60
4	34	32	25	20	19	19	24	151	270	227	75	57
5	33	34	25	20	19	19	25	155	278	217	72	59
6	34	35	25	19	19	19	26	160	273	211	73	54
7	34	34	25	19	19	19	27	175	277	211	79	49
8	34	34	24	19	19	19	28	169	274	217	69	47
9	33	34	24	19	19	19	30	178	282	206	67	45
10	29	34	24	18	17	19	36	175	298	188	66	43
11	29	34	24	18	18	19	42	146	338	179	66	42
12	29	34	24	18	18	19	43	160	386	177	67	40
13	30	34	24	19	18	18	51	166	411	178	64	42
14	29	35	23	19	18	19	53	176	416	160	60	40
15	30	34	23	19	18	19	51	189	402	153	58	39
16	29	32	23	19	19	19	55	196	377	153	58	39
17	29	31	23	19	19	19	51	196	344	144	75	40
18	28	31	22	19	19	19	51	225	360	134	66	61
19	29	31	23	19	19	19	43	247	396	131	58	48
20	30	31	23	19	19	18	39	318	432	151	54	55
21	28	29	23	19	19	19	39	352	429	135	52	49
22	27	29	22	19	19	20	41	362	408	113	56	44
23	28	29	22	19	19	19	38	345	407	107	62	41
24	31	29	22	19	19	19	37	356	415	105	97	39
25	31	27	22	19	19	19	42	339	400	108	89	45
26	31	27	21	19	19	19	47	342	384	116	80	48
27	31	28	20	19	19	20	57	367	357	99	68	43
28	31	28	20	19	19	20	78	337	336	93	62	42
29	25	28	20	19	19	20	104	298	331	90	59	39
30	30	28	20	19	---	20	128	283	307	87	56	38
31	30	---	20	19	---	21	---	271	---	82	59	---
TOTAL	952	939	712	591	544	594	1348	7269	10353	4981	2095	1421
MEAN	30.7	31.3	23.0	19.1	18.8	19.2	44.9	234	345	161	67.6	47.4
MAX	36	35	26	20	19	21	128	367	432	289	97	68
MIN	25	27	20	18	17	18	20	144	248	82	52	38
AC-FT	1890	1860	1410	1170	1080	1180	2670	14420	20540	9880	4160	2820
a	0	0	0	0	0	0	0	0	0	0	0	0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

MEAN	37.5	29.3	23.7	20.5	19.0	19.0	36.5	172	476	211	68.7	43.1
MAX	102	52.6	35.1	28.6	26.4	24.5	91.3	386	966	765	198	98.4
(WY)	1962	1962	1985	1985	1962	1946	1946	1936	1938	1983	1983	1961
MIN	18.5	18.7	14.4	14.1	14.0	14.1	19.8	76.1	119	59.6	29.0	24.2
(WY)	1964	1964	1964	1964	1964	1964	1944	1968	1954	1934	1954	1964

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	33261		31799			
ANNUAL MEAN	91.1		[b]86.9		[c]96.4	
HIGHEST ANNUAL MEAN					[c]176	1984
LOWEST ANNUAL MEAN					[c]45.4	1954
HIGHEST DAILY MEAN	686	Jun 15	432	Jun 20	1430	Jun 21 1938
LOWEST DAILY MEAN	[d]14	Jan 1	17	Feb 10	[e]13	Dec 28 1939
ANNUAL SEVEN-DAY MINIMUM	14	Jan 1	18	Feb 9	14	Dec 23 1939
INSTANTANEOUS PEAK FLOW			490	Jun 20	1720	Jun 10 1952
INSTANTANEOUS PEAK STAGE			2.84	Jun 20	[f]4.23	Jun 10 1952
INSTANTANEOUS LOW FLOW			17	Feb 10	13	Dec 28 1939
ANNUAL RUNOFF (AC-FT)	65970		63070		69870	
10 PERCENT EXCEEDS	290		275		266	
50 PERCENT EXCEEDS	30		34		33	
90 PERCENT EXCEEDS	15		19		18	

a-Diversions in acre-feet, through August P. Gumlick Tunnel, provided by Colorado Division of Water Resources.
b-Includes diversions through August P. Gumlick Tunnel.
c-Does not include diversions through August P. Gumlick Tunnel.
d-Also occurred Jan 2-4.
e-Also occurred at times in 1963, 1964, and 1967.
f-Maximum gage height, 5.46 ft, Jun 29, 1971, backwater from log.

09037500 WILLIAMS FORK NEAR PARSHALL, CO

LOCATION.--Lat 40°00'01", long 106°10'45", in SW¼SW¼ sec.31, T.1 N., R.78 W., Grand County, Hydrologic Unit 14010001, on left bank 30 ft downstream from bridge on State Highway 286, 3.7 mi downstream from Skylark Creek, 3.9 mi south of Parshall, and 4.2 mi upstream from Williams Fork Reservoir Dam.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--July 1904 to September 1924, June 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. Published as "near (Hot) Sulphur Springs" 1904-12 and as Williams River near Parshall June 1933 to September 1958. Water-quality data available, April 1986 to September 1987.

REVISED RECORDS.--WSP 1243: 1918. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,808.95 ft, (Denver Board of Water Commissioners Datum). See WSP 1733 for history of changes prior to Aug. 9, 1938. Aug. 10, 1938 to Aug. 19, 1983, gage located on right bank at present datum. Aug. 19, 1983 to May 14, 1991, gage located 120 ft downstream of present site on left bank at present datum.

REMARKS.--Estimated daily discharges: Oct. 31 to Apr. 3 and July 29 to Aug. 12. Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09036000). Diversions upstream from station for irrigation of about 1,300 acres upstream from station, and about 2,500 acres downstream from station. About 150 acres upstream from station irrigated by diversions into the drainage area. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	48	46	40	37	34	41	215	351	170	22	67
2	46	47	44	40	36	34	43	221	292	154	22	76
3	45	46	44	40	36	34	46	215	256	129	22	64
4	44	46	43	40	36	34	54	223	252	106	22	58
5	44	46	42	40	36	34	58	220	257	95	21	59
6	44	47	42	41	36	35	59	219	249	87	21	56
7	44	48	41	40	35	35	64	253	223	79	22	51
8	44	49	41	40	35	35	62	229	212	88	22	49
9	40	50	41	40	35	35	68	229	209	86	22	48
10	35	50	41	40	35	35	81	240	223	61	22	47
11	35	50	40	40	36	36	89	192	248	47	22	47
12	35	50	40	40	36	36	90	194	301	29	23	46
13	35	50	40	40	36	36	104	196	324	31	24	47
14	35	52	40	39	36	36	108	215	332	27	23	47
15	35	52	40	39	36	37	107	224	313	25	23	47
16	35	54	40	38	35	36	114	216	285	25	24	47
17	35	56	41	38	35	36	107	207	243	25	27	47
18	35	54	41	38	35	37	109	229	247	25	25	66
19	35	54	40	37	35	37	97	216	280	24	24	56
20	35	53	40	37	35	37	88	259	312	52	23	57
21	35	54	41	38	34	38	84	295	318	64	23	57
22	35	56	41	38	34	38	92	317	296	45	23	52
23	34	55	40	38	34	39	88	288	290	51	24	49
24	35	55	40	38	34	39	80	299	298	58	36	47
25	35	50	40	38	34	38	87	287	290	58	47	50
26	35	50	40	37	33	38	96	286	274	69	31	56
27	35	50	41	37	33	38	106	329	246	47	27	51
28	35	48	40	37	33	39	133	371	220	41	25	48
29	39	48	40	37	33	39	170	389	219	27	24	48
30	47	46	40	37	---	38	203	377	191	23	23	45
31	49	---	40	37	---	39	---	369	---	22	27	---
TOTAL	1196	1514	1270	1199	1014	1132	2728	8019	8051	1870	766	1585
MEAN	38.6	50.5	41.0	38.7	35.0	36.5	90.9	259	268	60.3	24.7	52.8
MAX	49	56	46	41	37	39	203	389	351	170	47	76
MIN	34	46	40	37	33	34	41	192	191	22	21	45
AC-FT	2370	3000	2520	2380	2010	2250	5410	15910	15970	3710	1520	3140
a	0	0	0	0	0	0	0	0	0	0	0	0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1992, BY WATER YEAR (WY)

MEAN	60.8	51.5	42.4	37.2	35.3	39.8	81.4	266	561	219	89.9	64.6
MAX	151	80.9	65.6	59.5	53.9	87.8	199	711	1243	855	245	153
(WY)	1962	1985	1985	1910	1912	1910	1962	1984	1918	1983	1984	1909
MIN	17.6	32.5	26.8	22.6	22.6	21.5	29.9	28.9	38.6	19.4	13.8	11.1
(WY)	1956	1982	1950	1964	1964	1971	1981	1963	1954	1963	1988	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1905 - 1992	
ANNUAL TOTAL	37604		30344			
ANNUAL MEAN	103		[b]82.9		[c]129	
HIGHEST ANNUAL MEAN					[c]248	1984
LOWEST ANNUAL MEAN					[c]38.8	1963
HIGHEST DAILY MEAN	713	Jun 15	389	May 29	2520	Jun 14 1918
LOWEST DAILY MEAN	[d]28	Feb 26	21	Aug 5	[e]4.8	May 6 1972
ANNUAL SEVEN-DAY MINIMUM	29	Feb 22	22	Jul 31	5.1	May 6 1972
INSTANTANEOUS PEAK FLOW			444	May 28	[f]2620	Jun 14 1918
INSTANTANEOUS PEAK STAGE			3.84	May 28	6.05	Jun 14 1918
ANNUAL RUNOFF (AC-FT)	74590		60190		93520	
10 PERCENT EXCEEDS	335		241		344	
50 PERCENT EXCEEDS	47		43		54	
90 PERCENT EXCEEDS	31		27		30	

a-Diversions in acre-ft through August P. Gumlick Tunnel provided by Colorado Division of Water Resources.
b-Includes diversions through August P. Gumlick Tunnel.
c-Does not include diversions through August P. Gumlick Tunnel.
d-Also occurred Feb 27 and 28.
e-Also occurred May 8-10, 1972.
f-Site and datum then in use, from rating curve extended above 1400 ft³/s.

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, 89,070 acre-ft, July 17, elevation, 7,806.05 ft; minimum, 55,420 acre-ft, Apr. 28, elevation, 7,779.67 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7,801.28	82,110	-
Oct. 31	7,798.13	77,750	-4,360
Nov. 30	7,795.98	74,870	-2,880
Dec. 31	7,793.01	71,000	-3,870
CAL YR 1991			+3,800
Jan. 31	7,789.80	66,980	-4,020
Feb. 29	7,786.45	62,970	-4,010
Mar. 31	7,783.07	59,120	-3,850
Apr. 30	7,779.72	55,470	-3,650
May 31	7,788.79	65,750	+10,280
June 30	7,803.20	84,860	+19,110
July 31	7,804.92	87,380	+2,520
Aug. 31	7,797.35	76,700	-10,680
Sept. 30	7,793.58	71,730	-4,970
WTR YR 1992			-10,380

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.

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. Water-quality data available, April 1986 to September 1987.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, 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 excellent. 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. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	108	109	109	112	116	115	190	31	26	242	175
2	109	108	109	109	111	115	115	189	31	26	242	177
3	109	109	109	111	112	115	115	188	31	26	243	177
4	108	109	110	110	113	114	113	188	31	26	247	178
5	109	109	109	110	115	115	113	188	31	25	247	177
6	109	109	110	111	114	115	114	188	32	26	247	177
7	109	108	109	111	113	115	116	189	32	26	249	177
8	108	108	109	110	113	115	116	189	32	26	250	177
9	109	109	109	110	113	115	164	188	32	26	250	177
10	109	109	109	110	114	115	189	188	31	25	251	180
11	109	109	109	109	115	115	188	187	31	25	247	181
12	109	109	109	109	114	115	189	186	31	25	245	182
13	109	109	109	109	113	115	190	186	31	25	252	182
14	108	109	109	109	112	115	190	188	32	25	251	182
15	108	108	109	110	114	115	189	188	32	26	251	182
16	108	108	109	111	113	116	188	187	28	25	254	182
17	109	109	110	111	111	115	183	187	25	70	257	182
18	109	109	109	111	112	114	189	188	25	168	254	160
19	108	109	109	111	113	113	189	187	25	169	203	111
20	108	109	109	112	113	116	188	85	25	167	174	113
21	109	109	109	113	114	116	188	31	25	126	173	113
22	109	109	109	113	115	115	188	31	25	107	176	113
23	109	108	109	111	115	115	188	31	25	109	177	122
24	108	109	111	111	115	115	189	31	26	106	176	114
25	109	109	111	111	115	115	190	31	26	107	175	113
26	108	109	109	111	115	115	190	31	26	108	174	113
27	108	109	109	111	115	115	189	31	26	109	173	113
28	109	108	109	112	115	115	188	31	26	172	173	113
29	109	109	111	112	115	115	189	31	26	231	175	113
30	109	110	111	111	---	115	190	31	26	236	177	113
31	109	---	109	112	---	115	---	31	---	241	175	---
TOTAL	3390	3263	3390	3431	3294	3565	5042	3995	856	2635	6780	4569
MEAN	109	109	109	111	114	115	168	129	28.5	85.0	219	152
MAX	130	110	111	113	115	116	190	190	32	241	257	182
MIN	108	108	109	109	111	113	113	31	25	25	173	111
AC-FT	6720	6470	6720	6810	6530	7070	10000	7920	1700	5230	13450	9060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1992, BY WATER YEAR (WY)

MEAN	129	136	108	108	93.0	91.3	66.1	107	184	155	154	156
MAX	264	276	251	264	279	265	273	401	1007	782	352	342
(WY)	1979	1979	1966	1984	1966	1966	1986	1952	1952	1983	1981	1981
MIN	23.5	44.5	13.5	14.7	14.1	14.1	6.04	6.29	10.8	7.97	19.2	17.1
(WY)	1988	1967	1983	1983	1984	1983	1960	1960	1961	1963	1986	1986

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1949 - 1992	
ANNUAL TOTAL	43375		44210			
ANNUAL MEAN	119		121		[a]126	
HIGHEST ANNUAL MEAN					254	1984
LOWEST ANNUAL MEAN					39.1	1959
HIGHEST DAILY MEAN	[b]260	May 12	257	Aug 17	1860	Jun 28 1983
LOWEST DAILY MEAN	[c]14	Mar 9	[d]25	Jun 17	[e].30	May 14 1963
ANNUAL SEVEN-DAY MINIMUM	15	Mar 5	25	Jun 17	.54	Apr 27 1959
INSTANTANEOUS PEAK FLOW			269	Sep 23	[f]2640	Jun 20 1953
INSTANTANEOUS PEAK STAGE			2.31	Sep 23	8.50	Jun 20 1953
ANNUAL RUNOFF (AC-FT)	86030		87690		91290	
10 PERCENT EXCEEDS	250		189		251	
50 PERCENT EXCEEDS	109		111		110	
90 PERCENT EXCEEDS	15		31		15	

a-Adjusted for storage in Williams Fork Reservoir.
b-Also occurred May 15, 16, 19, and 22.
c-Also occurred Mar 10, 11, and Jul 1.
d-Also occurred Jun 18-23, Jul 5, Jul 10-14, and Jul 16.
e-No flow for part of Apr 29, 1975.
f-Site and datum then in use, from rating curve extended above 1500 ft³/s.

09039000 TROUBLESOME CREEK NEAR PEARMONT, CO

LOCATION.--Lat 40°13'03", long 106°18'45", in SE1/4 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 mi^2.

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. 2-4, 20, 22-28, Nov. 30 to Mar. 17, Sept. 4-14, and Sept. 18-30. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	10	9.0	9.0	11	13	29	64	33	17	18
2	10	11	10	9.0	9.0	11	13	30	59	35	16	19
3	10	11	10	9.0	9.0	11	14	31	57	32	10	22
4	10	12	10	9.0	9.0	11	17	31	54	28	11	20
5	11	12	10	9.0	9.0	10	19	32	53	21	11	19
6	11	11	10	9.0	9.0	9.0	19	35	50	20	12	20
7	11	11	10	9.0	9.0	9.0	15	37	48	20	12	18
8	10	13	10	9.0	9.0	9.2	15	38	48	22	11	16
9	10	11	10	9.0	9.0	9.4	16	45	45	21	12	15
10	10	12	10	9.0	10	9.4	16	60	41	19	12	14
11	10	11	10	9.0	11	9.2	17	55	39	19	15	12
12	9.9	12	10	9.0	11	9.1	17	52	37	23	13	11
13	10	12	9.0	9.0	11	9.0	18	50	35	22	13	11
14	10	13	9.0	9.0	11	8.8	18	51	33	20	13	10
15	10	11	9.0	9.0	11	8.6	19	52	31	24	13	10
16	10	11	9.0	9.0	11	8.6	21	53	30	27	13	11
17	10	11	9.0	9.0	11	8.4	19	54	34	26	13	17
18	10	12	9.0	9.0	11	8.3	22	56	37	24	13	20
19	10	12	9.0	9.0	11	8.2	18	57	38	25	13	20
20	10	12	9.0	9.0	11	8.1	18	59	41	25	13	19
21	10	13	9.0	9.0	11	7.9	17	67	40	25	13	16
22	10	13	9.0	9.0	11	8.0	18	65	38	23	14	14
23	11	12	9.0	9.0	11	7.9	18	59	37	23	14	12
24	12	12	9.0	9.0	11	7.9	17	53	36	25	14	13
25	11	12	9.0	9.0	11	8.2	18	52	38	28	15	11
26	12	11	9.0	9.0	11	9.5	19	55	42	25	18	10
27	11	11	9.0	9.0	11	10	22	75	40	23	15	11
28	12	11	9.0	9.0	11	11	24	74	39	21	15	11
29	10	11	9.0	9.0	11	12	25	67	37	18	15	10
30	9.9	11	9.0	9.0	---	13	27	66	35	17	16	10
31	13	---	9.0	9.0	---	14	---	66	---	17	16	---
TOTAL	325.8	349	291.0	279.0	300.0	295.7	549	1606	1256	731	421	440
MEAN	10.5	11.6	9.39	9.00	10.3	9.54	18.3	51.8	41.9	23.6	13.6	14.7
MAX	13	13	10	9.0	11	14	27	75	64	35	18	22
MIN	9.9	11	9.0	9.0	9.0	7.9	13	29	30	17	10	10
AC-FT	646	692	577	553	595	587	1090	3190	2490	1450	835	873

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	14.3	12.5	11.0	10.6	10.7	11.4	19.8	85.0	110	37.6	18.3	15.5
MAX	25.1	19.2	17.7	15.0	17.8	17.7	51.5	182	273	119	31.9	26.4
(WY)	1962	1987	1980	1980	1980	1980	1962	1984	1983	1983	1983	1984
MIN	10.4	7.77	4.97	5.19	5.43	7.30	12.4	26.9	26.9	14.0	10.2	8.01
(WY)	1978	1978	1977	1977	1977	1977	1964	1981	1954	1954	1954	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	9235.4		6843.5			
ANNUAL MEAN	25.3		18.7		29.8	
HIGHEST ANNUAL MEAN					50.9	1983
LOWEST ANNUAL MEAN					13.6	1977
HIGHEST DAILY MEAN	141	May 22	75	May 27	562	Jun 25 1983
LOWEST DAILY MEAN	[a]6.6	Feb 26	[b]7.9	Mar 21	[c]4.5	Dec 20 1976
ANNUAL SEVEN-DAY MINIMUM	6.7	Feb 22	8.0	Mar 19	4.6	Dec 18 1976
INSTANTANEOUS PEAK FLOW			[d]81	May 26	630	Jun 25 1983
INSTANTANEOUS PEAK STAGE			[d,e]1.22	May 26	[f]2.81	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	18320		13570		21550	
10 PERCENT EXCEEDS	76		40		69	
50 PERCENT EXCEEDS	12		12		14	
90 PERCENT EXCEEDS	7.6		9.0		9.0	

a-Also occurred Feb 27 and 28.
b-Also occurred Mar 23 and 24.
c-Also occurred Dec 21-24, 1976.
d-Also occurred May 27 and 28.
e-Maximum gage height, 1.93 ft, Sep 30, due to backwater from beaver dam.
f-Maximum gage height, 3.93 ft, Mar 31, 1965, backwater from ice.

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO

LOCATION.--Lat 40°12'09", long 106°25'19", in SE¼SE¼ sec.23, T.3 N., R.81 W., Grand County, Hydrologic Unit 14010001, on left bank at upstream side of box culverts on U.S. Highway 40, 10.9 mi north of Kremmling, on U.S. Highway 40.

DRAINAGE AREA.--145 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1990 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 1, Nov. 5-16, 19-21, and Nov. 24 to Apr. 11. Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	5.0	6.2	3.3	3.8	5.5	28	276	114	3.7	5.7	5.7
2	3.2	4.8	6.4	3.3	4.0	5.5	28	277	82	3.6	6.3	6.6
3	3.2	5.7	6.5	3.3	4.0	6.0	30	270	66	4.1	5.8	7.7
4	2.9	5.7	6.2	3.5	4.0	6.5	35	244	62	2.3	5.8	7.1
5	2.8	5.7	5.5	3.5	4.0	6.5	42	244	55	2.0	6.6	6.4
6	2.9	5.8	4.5	3.5	3.8	6.5	35	239	50	1.6	8.0	7.0
7	3.2	6.0	5.0	3.5	3.8	6.0	33	273	45	1.7	8.8	6.7
8	3.6	6.2	5.0	3.5	3.8	6.0	34	277	55	3.2	7.4	5.6
9	3.6	6.0	4.8	3.5	3.8	6.0	43	258	43	10	7.0	5.1
10	3.6	6.4	4.4	3.5	4.0	6.0	45	237	41	10	6.2	4.8
11	3.8	6.6	4.0	3.5	4.2	6.5	51	179	37	8.0	6.4	4.5
12	3.9	6.8	3.7	3.5	4.2	7.0	63	194	38	6.2	5.9	4.3
13	3.9	6.8	3.5	3.5	4.2	7.5	73	195	28	12	5.5	4.0
14	3.9	6.7	3.5	3.5	4.2	8.0	77	227	24	10	4.9	4.1
15	4.1	7.2	3.5	3.5	4.2	8.5	90	222	19	6.0	4.9	4.2
16	4.3	7.4	3.5	3.5	4.0	9.0	90	184	11	5.7	4.9	4.8
17	4.5	8.4	3.5	3.3	4.0	9.0	86	180	14	4.3	5.8	5.5
18	4.4	6.8	3.5	3.3	4.0	9.5	105	162	19	3.3	6.0	8.3
19	3.9	8.1	3.5	3.3	4.0	9.5	89	137	15	2.4	5.6	8.6
20	4.1	7.8	3.5	3.3	4.0	9.5	81	103	15	2.3	5.3	6.8
21	4.1	7.4	3.5	3.3	4.5	10	73	129	19	2.3	4.9	6.5
22	4.3	7.0	3.5	3.5	5.0	11	80	124	16	2.8	4.9	5.3
23	4.3	6.6	3.5	3.5	5.5	12	82	136	8.4	2.4	4.9	4.4
24	6.0	6.4	3.5	3.8	5.5	15	75	101	7.4	3.6	5.2	4.0
25	7.1	6.2	3.5	4.0	5.5	19	66	91	8.3	11	5.9	4.3
26	6.7	6.4	3.3	4.0	5.0	20	69	103	27	11	7.7	3.4
27	6.6	6.2	3.3	4.0	5.0	22	80	176	20	5.3	8.2	4.1
28	5.9	6.2	3.3	4.0	5.0	24	118	224	12	2.4	6.6	4.2
29	5.5	6.2	3.3	3.8	5.0	24	169	172	8.0	2.1	5.4	3.8
30	5.5	6.1	3.3	3.8	---	25	226	141	6.3	3.8	5.1	3.5
31	5.2	---	3.3	3.8	---	26	---	130	---	6.1	5.1	---
TOTAL	134.7	194.6	127.5	110.1	126.0	352.5	2196	5905	965.4	155.2	186.7	161.3
MEAN	4.35	6.49	4.11	3.55	4.34	11.4	73.2	190	32.2	5.01	6.02	5.38
MAX	7.1	8.4	6.5	4.0	5.5	26	226	277	114	12	8.8	8.6
MIN	2.8	4.8	3.3	3.3	3.8	5.5	28	91	6.3	1.6	4.9	3.4
AC-FT	267	386	253	218	250	699	4360	11710	1910	308	370	320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	5.17	6.06	3.47	3.12	3.68	10.6	88.3	255	93.0	8.51	9.67	5.44
MAX	5.99	6.49	4.11	3.55	4.34	11.4	121	372	173	10.7	13.9	6.60
(WY)	1991	1992	1992	1992	1992	1992	1990	1991	1991	1991	1991	1991
MIN	4.35	5.64	2.82	2.68	3.00	9.92	70.4	190	32.2	5.01	6.02	4.34
(WY)	1992	1991	1991	1991	1991	1991	1991	1992	1992	1992	1992	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	20710.3		10615.0			
ANNUAL MEAN	56.7		29.0		42.8	
HIGHEST ANNUAL MEAN					56.7	1991
LOWEST ANNUAL MEAN					29.0	1992
HIGHEST DAILY MEAN	658	May 22	[a]277	May 2	658	May 22 1991
LOWEST DAILY MEAN	1.2	Jul 17	1.6	Jul 6	[b]1.2	Sep 15 1990
ANNUAL SEVEN-DAY MINIMUM	2.5	Jan 20	2.6	Jul 2	1.9	Sep 11 1990
INSTANTANEOUS PEAK FLOW			321	May 8	732	May 22 1991
INSTANTANEOUS PEAK STAGE			[c]4.46	May 8	6.44	May 22 1991
ANNUAL RUNOFF (AC-FT)	41080		21050		31030	
10 PERCENT EXCEEDS	189		90		168	
50 PERCENT EXCEEDS	7.0		6.0		7.0	
90 PERCENT EXCEEDS	3.0		3.5		3.0	

a-Also occurred May 8.
b-Also occurred Sep 16, 1990 and Jul 17, 1991.
c-Maximum gage height, 6.28 ft, Apr 4, backwater from ice.

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1990 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1990 to current year.
WATER TEMPERATURE: April 1990 to current year.
SUSPENDED-SEDIMENT DISCHARGE: April 1990 to current year.

INSTRUMENTATION.--Water-quality monitor from April 1990 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 969 microsiemens, July 8, 1992; minimum, 89 microsiemens, May 9, 1992.
WATER TEMPERATURE: Maximum, 26.4, July 14, 1991; minimum, 0.3°C, Oct. 29, 30, Nov. 1, 2, 5-9, 11, and Nov. 16-18, 1991.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 969 microsiemens, July 8, 1992; minimum daily, 89 microsiemens, May 9, 1992.
WATER TEMPERATURE: Maximum 23.5°C, July 28 and Aug. 19, 1992; minimum, 0.3°C, Oct. 29, 30, Nov. 1, 2, 5-9, Nov. 11, and Nov. 16-18, 1991.
SEDIMENT CONCENTRATION: Maximum daily, 614 mg/L, Apr. 29, 1992; minimum daily, 10 mg/L, Sept. 30, 1992.
SEDIMENT LOADS: Maximum daily, 411 tons, May 1, 1992; minimum daily 0.09 tons, Sept. 30, 1992.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	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											
29...	1130	3.2	548	8.4	0.5	4.6	10.8	250	67	20	25
NOV											
19...	1200	8.1	463	8.3	0.5	3.7	10.8	220	59	17	22
APR											
13...	1500	49	323	8.1	7.0	110	10.2	140	41	9.4	10
27...	1845	80	233	8.4	13.0	41	8.6	100	30	6.5	6.6
MAY											
07...	1200	255	99	8.1	4.5	55	9.8	45	14	2.4	2.5
JUN											
04...	1100	50	324	8.2	13.0	6.5	8.5	140	38	10	12
25...	1345	6.3	633	8.1	18.0	2.0	7.8	300	85	21	23
JUL											
08...	1130	1.3	851	7.9	16.0	1.7	8.3	370	99	30	48
20...	1445	2.3	738	7.7	20.0	1.5	7.4	340	93	25	34
AUG											
10...	1600	6.3	525	8.3	21.0	2.7	7.8	220	61	17	20
SEP											
03...	1130	8.2	426	8.2	12.5	5.3	8.9	180	49	14	15

DATE	SODIUM PERCENT	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)
OCT										
29...	18	0.7	2.5	165	140	3.9	0.2	7.9	339	365
NOV										
19...	18	0.6	1.9	145	120	3.2	0.2	8.2	317	318
APR										
13...	13	0.4	2.1	103	57	3.0	0.2	9.1	211	194
27...	12	0.3	1.3	78	37	1.2	<0.1	8.3	139	138
MAY										
07...	11	0.2	0.8	42	10	0.2	<0.1	6.9	274	--
JUN										
04...	16	0.4	1.5	103	57	0.6	0.2	9.2	204	190
25...	14	0.6	2.1	247	110	0.7	0.2	9.7	414	400
JUL										
08...	22	1	2.5	277	180	2.8	0.2	6.6	538	535
20...	18	0.8	2.2	244	130	4.2	0.2	7.8	416	443
AUG										
10...	16	0.6	2.0	165	99	0.8	0.2	5.3	324	304
SEP										
03...	15	0.5	1.9	134	87	0.9	<0.1	5.3	268	254

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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 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										
29...	0.46	2.93	--	<0.01	--	0.06	--	0.01	--	0.29
NOV										
19...	0.43	6.91	--	<0.01	--	<0.05	--	<0.01	--	--
APR										
13...	0.29	27.9	--	<0.01	--	0.17	--	0.03	--	0.77
27...	0.19	30.1	--	0.04	--	<0.05	--	0.06	--	0.24
MAY										
07...	0.37	189	61	<0.01	<0.01	<0.05	<0.05	<0.01	0.02	--
JUN										
04...	0.28	27.5	--	<0.01	--	<0.05	--	0.04	--	0.36
25...	0.56	7.02	--	<0.01	--	<0.05	--	<0.01	--	--
JUL										
08...	0.73	1.90	6	<0.01	--	<0.05	--	0.02	--	0.58
20...	0.57	2.62	--	--	--	--	--	--	--	--
AUG										
10...	0.44	5.52	--	<0.01	--	<0.05	--	0.02	--	0.28
SEP										
03...	0.36	5.92	5	<0.01	<0.01	<0.05	<0.05	0.03	0.02	0.27

DATE	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 TOTAL (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									
29...	0.30	--	0.36	0.03	--	<0.01	--	--	--
NOV									
19...	<0.20	--	--	0.02	--	<0.01	--	--	--
APR									
13...	0.80	--	0.97	0.15	--	<0.01	--	--	--
27...	0.30	--	--	0.02	--	0.07	--	--	--
MAY									
07...	<0.20	<0.20	--	0.03	<0.01	<0.01	0.01	12	7.6
JUN									
04...	0.40	--	--	0.06	--	0.04	--	--	--
25...	0.50	--	--	0.08	--	<0.01	--	--	--
JUL									
08...	0.60	--	--	0.02	--	0.01	--	7.5	--
20...	--	--	--	--	--	--	--	--	--
AUG									
10...	0.30	--	--	<0.01	--	0.03	--	--	--
SEP									
03...	0.30	<0.20	--	0.06	<0.01	0.02	<0.01	4.8	--

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												
29...	1130	--	--	--	--	--	--	--	--	--	--	--
NOV												
19...	1200	--	--	--	--	--	--	--	--	--	--	--
APR												
13...	1500	--	--	--	--	--	--	--	--	--	--	--
27...	1845	--	--	--	--	--	--	--	--	--	--	--
MAY												
07...	1200	1300	2	<1	<100	25	<10	20	<1	<1.0	1	<1
JUN												
04...	1100	--	--	--	--	--	--	--	--	--	--	--
25...	1345	--	--	--	--	--	--	--	--	--	--	--
JUL												
08...	1130	--	--	--	--	--	--	--	--	--	--	--
20...	1445	--	--	--	--	--	--	--	--	--	--	--
AUG												
10...	1600	--	--	--	--	--	--	--	--	--	--	--
SEP												
03...	1130	150	1	1	<100	59	<10	50	<1	<1.0	1	<1

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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)	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)
OCT												
29...	--	--	--	--	15	--	--	--	--	--	--	--
NOV												
19...	--	--	--	--	7	--	--	--	--	--	--	--
APR												
13...	--	--	--	--	28	--	--	--	--	--	--	--
27...	--	--	--	--	47	--	--	--	--	--	--	--
MAY												
07...	2	5	2	2700	120	5	<1	<10	90	9	<0.1	<0.1
JUN												
04...	--	--	--	--	110	--	--	--	--	--	--	--
25...	--	--	--	--	43	--	--	--	--	--	--	--
JUL												
08...	--	--	--	--	36	--	--	--	--	--	--	--
20...	--	--	--	--	21	--	--	--	--	--	--	--
AUG												
10...	--	--	--	--	16	--	--	--	--	--	--	--
SEP												
03...	<1	2	1	490	23	<1	<1	20	50	25	<0.1	<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 (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											
29...	--	--	--	--	--	--	--	--	--	--	--
NOV											
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
13...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	<1	<1	5	<1	1	<1	<1	<1.0	94	20	3
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
08...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
SEP											
03...	2	2	3	<1	<1	<1	<1	<1.0	420	10	<3

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
29...	1130	3.2	36	0.31	93
APR					
13...	1500	49	187	25	100
MAY					
07...	1200	255	226	156	79
JUN					
04...	1100	50	36	4.8	--
SEP					
03...	1130	8.2	35	0.77	--

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	NUMBER OF SAMPLING POINTS (COUNT)	DISCHARGE, INST. CUBIC FEET PER SECOND	STREAM WIDTH (FT)	SEDIMENT DISCHARGE, BEDLOAD (TONS/DAY)	SED. BEDLOAD SIEVE DIAM. % FINER THAN .062 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .125 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN .250 MM
APR								
24...	0915	20	74	34.0	3.7	0.1	0.1	0.2
24...	0930	20	74	34.0	0.95	0.3	0.5	0.6
MAY								
01...	1320	16	255	35.0	4.0	2	3	7
01...	1340	16	251	35.0	14	0.6	1	2
07...	1050	20	271	34.0	1.6	1	2	3
07...	1120	20	267	34.0	1.6	0.8	2	4

DATE	SED. BEDLOAD SIEVE DIAM. % FINER THAN .500 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 1.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 2.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 4.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 8.00 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 16.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 32.0 MM	SED. BEDLOAD SIEVE DIAM. % FINER THAN 64.0 MM
APR								
24...	3	10	15	19	21	23	77	100
24...	12	33	52	65	79	92	100	--
MAY								
01...	58	90	97	99	100	--	--	--
01...	18	32	38	41	42	42	43	100
07...	31	68	84	91	97	100	--	--
07...	36	65	76	80	86	100	--	--

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	518	592	533	---	---	---	---	113	248	628	633	446
2	530	598	550	---	---	---	---	109	283	643	642	442
3	552	635	563	---	---	---	---	106	294	674	647	419
4	559	634	544	---	---	---	---	106	311	712	628	405
5	557	596	517	---	---	---	---	105	---	730	629	408
6	559	527	497	---	---	---	---	106	---	717	578	412
7	568	485	505	---	---	---	---	97	---	738	569	400
8	569	474	513	---	---	---	---	97	---	845	543	399
9	568	512	507	---	---	---	---	---	---	813	540	411
10	566	469	509	---	---	---	---	---	---	776	525	424
11	565	459	488	---	---	---	---	---	---	781	526	435
12	565	480	477	---	---	---	---	---	---	790	514	442
13	563	512	486	---	---	---	---	126	---	750	515	449
14	566	515	507	---	---	---	287	123	---	711	510	453
15	619	485	---	---	---	---	272	109	---	716	501	449
16	586	461	---	---	---	---	239	106	---	721	505	447
17	579	501	---	---	---	---	227	104	---	731	490	434
18	571	494	---	---	---	---	240	108	---	740	470	427
19	572	492	---	---	---	---	257	119	---	748	448	390
20	570	529	---	---	---	---	258	148	---	755	439	392
21	573	541	---	---	---	---	250	171	---	770	439	409
22	570	495	---	---	---	---	236	188	---	769	447	415
23	564	519	---	---	---	---	252	177	---	758	462	433
24	557	538	---	---	---	---	267	210	---	726	457	450
25	551	506	---	---	---	---	251	232	---	703	452	466
26	542	479	---	---	---	---	243	248	583	673	445	487
27	542	476	---	---	---	---	220	257	548	672	421	496
28	537	474	---	---	---	---	190	226	546	713	398	481
29	551	461	---	---	---	---	155	222	580	735	411	466
30	568	484	---	---	---	---	132	237	584	705	427	473
31	563	---	---	---	---	---	---	237	---	664	438	---
MEAN	562	514	---	---	---	---	---	---	---	729	505	435

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

TEMPERATURE WATER, (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.0	8.6	.9	.3	---	---	---	---	---	---	---	---
2	16.0	7.5	1.0	.3	---	---	---	---	---	---	---	---
3	14.8	6.8	.8	.4	---	---	---	---	---	---	---	---
4	11.6	5.5	1.3	.5	---	---	---	---	---	---	---	---
5	10.8	2.8	.7	.3	---	---	---	---	---	---	---	---
6	11.8	2.4	.6	.3	---	---	---	---	---	---	---	---
7	12.2	3.1	.9	.3	---	---	---	---	---	---	---	---
8	13.3	4.1	1.1	.3	---	---	---	---	---	---	---	---
9	13.7	4.7	1.6	.3	---	---	---	---	---	---	---	---
10	13.5	4.4	1.8	.4	---	---	---	---	---	---	---	---
11	13.6	4.2	2.9	.3	---	---	---	---	---	---	---	---
12	12.7	4.4	1.8	.4	---	---	---	---	---	---	---	---
13	12.0	4.7	1.7	.4	---	---	---	---	---	---	---	---
14	11.0	3.6	1.0	.4	---	---	---	---	---	---	---	---
15	12.4	3.9	1.8	.4	---	---	---	---	---	---	---	---
16	12.2	3.7	1.9	.3	---	---	---	---	---	---	---	---
17	12.2	4.4	.8	.3	---	---	---	---	---	---	---	---
18	11.6	4.6	1.4	.3	---	---	---	---	---	---	---	---
19	9.9	4.0	---	---	---	---	---	---	---	---	---	---
20	10.7	3.6	---	---	---	---	---	---	---	---	---	---
21	8.2	2.7	---	---	---	---	---	---	---	---	---	---
22	9.5	1.6	---	---	---	---	---	---	---	---	---	---
23	9.2	3.2	---	---	---	---	---	---	---	---	---	---
24	8.9	3.5	---	---	---	---	---	---	---	---	---	---
25	6.8	2.6	---	---	---	---	---	---	---	---	---	---
26	7.5	1.9	---	---	---	---	---	---	---	---	---	---
27	8.6	2.0	---	---	---	---	---	---	---	---	---	---
28	4.0	.5	---	---	---	---	---	---	---	---	---	---
29	1.8	.3	---	---	---	---	---	---	---	---	---	---
30	2.0	.3	---	---	---	---	---	---	---	---	---	---
31	1.8	.4	---	---	---	---	---	---	---	---	---	---
MONTH	17.0	.3	---	---	---	---	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	9.9	3.3	13.0	6.9	20.1	12.3	21.4	13.5	13.7	9.6
2	---	---	9.7	3.4	16.4	7.7	17.0	11.8	22.3	13.0	17.6	9.3
3	---	---	9.8	3.0	17.5	10.8	21.6	9.5	22.7	14.2	15.2	10.3
4	---	---	10.0	2.9	16.8	10.8	20.9	11.9	21.9	13.7	17.3	11.0
5	---	---	9.3	3.6	---	---	21.1	12.2	21.2	13.5	16.7	11.8
6	---	---	10.0	4.1	---	---	23.1	13.5	16.4	14.3	15.3	9.6
7	---	---	9.1	4.7	---	---	19.8	13.6	20.6	12.9	17.5	9.6
8	---	---	8.4	4.0	---	---	16.6	12.5	20.2	15.7	15.9	9.2
9	---	---	---	---	---	---	22.4	11.8	22.9	14.0	18.0	8.2
10	---	---	---	---	---	---	21.7	12.2	20.9	15.0	19.1	7.8
11	---	---	---	---	---	---	20.9	13.0	22.7	13.8	17.3	8.0
12	---	---	---	---	---	---	16.9	12.8	23.1	14.2	16.6	9.0
13	---	---	8.6	4.8	---	---	23.2	12.5	22.7	14.1	18.2	10.4
14	7.1	4.4	11.1	5.6	---	---	21.2	11.9	22.4	14.3	16.3	8.9
15	9.0	4.0	10.0	5.9	---	---	17.8	12.8	22.8	13.2	16.7	10.1
16	7.8	4.0	13.1	6.3	---	---	22.4	10.0	20.2	14.1	16.1	10.1
17	6.7	2.7	13.2	6.9	---	---	23.1	13.2	20.9	14.4	16.9	9.5
18	6.2	2.1	12.9	7.6	---	---	24.0	12.3	22.7	13.6	16.6	10.3
19	7.0	1.8	15.5	8.0	---	---	18.4	13.2	23.5	13.6	13.0	10.0
20	6.6	3.4	16.1	8.6	---	---	19.8	12.6	22.2	13.5	14.9	8.8
21	11.5	3.0	12.7	9.2	---	---	21.2	13.0	21.4	13.5	16.8	10.0
22	8.4	4.1	17.1	8.5	---	---	20.0	12.2	19.4	14.7	17.8	8.4
23	10.7	3.8	15.6	8.4	---	---	20.2	12.5	15.6	13.6	18.1	8.1
24	10.5	3.4	16.0	8.2	---	---	20.7	13.1	13.6	11.0	14.5	8.3
25	12.5	3.6	14.1	11.1	---	---	20.8	14.5	14.5	9.4	15.5	8.6
26	13.2	5.0	13.9	8.7	20.8	12.6	22.4	14.1	17.2	9.9	14.9	5.6
27	12.3	6.0	12.7	8.7	17.0	11.9	23.0	13.0	16.7	9.0	14.6	5.1
28	13.3	7.1	11.7	8.3	23.0	12.6	23.5	12.3	18.2	9.2	15.7	5.6
29	11.7	5.5	12.8	7.2	22.9	13.5	18.1	13.0	17.7	9.4	15.6	5.6
30	10.9	4.3	13.0	8.4	20.9	12.9	23.1	11.6	14.9	10.1	15.8	5.4
31	---	---	11.4	8.2	---	---	22.5	13.6	15.5	9.1	---	---
MONTH	---	---	---	---	---	---	24.0	9.5	23.5	9.0	19.1	5.1

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

SEDIMENT-DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER	
1	3.7	28	.28
2	3.2	33	.29
3	3.2	33	.29
4	2.9	33	.26
5	2.8	33	.25
6	2.9	33	.26
7	3.2	33	.29
8	3.6	34	.33
9	3.6	33	.32
10	3.6	34	.33
11	3.8	31	.31
12	3.9	33	.35
13	3.9	38	.40
14	3.9	43	.45
15	4.1	50	.55
16	4.3	54	.63
17	4.5	58	.70
18	4.4	66	.78
19	3.9	65	.68
20	4.1	59	.65
21	4.1	55	.61
22	4.3	56	.65
23	4.3	54	.63
24	6.0	52	.84
25	7.1	48	.92
26	6.7	42	.76
27	6.6	36	.64
28	5.9	36	.57
29	5.5	36	.53
30	5.5	36	.53
31	5.2	36	.51
TOTAL	134.7	---	15.59

09041090 MUDDY CREEK ABOVE ANTELOPE CREEK NEAR KREMMLING, CO--Continued

SEDIMENT-DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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	--	---	---	276	551	411	114	40	12
2	--	---	---	277	383	286	82	41	9.1
3	--	---	---	270	268	195	66	38	6.8
4	--	---	---	244	189	125	62	54	9.0
5	--	---	---	244	191	126	55	46	6.8
6	--	---	---	239	158	102	50	105	14
7	--	---	---	273	226	167	45	163	20
8	--	---	---	277	155	116	55	57	8.5
9	--	---	---	258	136	95	43	19	2.2
10	--	---	---	237	130	83	41	15	1.7
11	--	---	---	179	136	66	37	18	1.8
12	--	---	---	194	121	63	38	22	2.3
13	--	---	---	195	131	69	28	20	1.5
14	77	208	43	227	168	103	24	19	1.2
15	90	260	63	222	155	99	19	16	.82
16	90	143	35	184	84	42	11	44	.64
17	86	220	51	180	124	60	14	46	1.7
18	105	219	62	162	110	48	19	36	1.8
19	89	115	28	137	122	45	15	36	1.5
20	81	74	16	103	72	20	15	27	1.1
21	73	77	15	129	95	33	19	33	1.7
22	80	83	18	124	90	30	16	46	2.0
23	82	68	15	136	66	24	8.4	85	1.9
24	75	55	11	101	60	16	7.4	85	1.7
25	66	45	8.0	91	47	12	8.3	60	1.3
26	69	50	9.3	103	50	14	27	230	17
27	80	74	16	176	133	66	20	207	11
28	118	411	128	224	114	69	12	200	6.5
29	169	614	280	172	52	24	8.0	254	5.5
30	226	525	320	141	126	62	6.3	202	3.4
31	---	---	---	130	54	19	---	---	---
TOTAL	2196	---	---	5905	---	2690	965.4	---	156.46
		JULY			AUGUST			SEPTEMBER	
1	3.7	164	1.6	5.7	65	1.0	5.7	23	.35
2	3.6	145	1.4	6.3	60	1.0	6.6	24	.43
3	4.1	135	1.5	5.8	55	.86	7.7	29	.60
4	2.3	125	.78	5.8	53	.83	7.1	25	.48
5	2.0	120	.65	6.6	48	.86	6.4	22	.38
6	1.6	101	.44	8.0	44	.95	7.0	22	.42
7	1.7	80	.37	8.8	40	.95	6.7	22	.40
8	3.2	98	.85	7.4	37	.74	5.6	21	.32
9	10	142	3.8	7.0	33	.62	5.1	21	.29
10	10	124	3.3	6.2	27	.45	4.8	21	.27
11	8.0	119	2.6	6.4	22	.38	4.5	21	.26
12	6.2	102	1.7	5.9	20	.32	4.3	21	.24
13	12	120	3.9	5.5	23	.34	4.0	21	.23
14	10	121	3.3	4.9	27	.36	4.1	21	.23
15	6.0	87	1.4	4.9	31	.41	4.2	21	.24
16	5.7	65	1.0	4.9	27	.36	4.8	21	.27
17	4.3	61	.71	5.8	18	.28	5.5	22	.33
18	3.3	60	.53	6.0	13	.21	8.3	24	.54
19	2.4	58	.38	5.6	13	.20	8.6	25	.58
20	2.3	58	.36	5.3	13	.19	6.8	24	.44
21	2.3	62	.39	4.9	12	.16	6.5	23	.40
22	2.8	64	.48	4.9	12	.16	5.3	23	.33
23	2.4	60	.39	4.9	12	.16	4.4	22	.26
24	3.6	75	.73	5.2	12	.17	4.0	21	.23
25	11	100	3.0	5.9	13	.21	4.3	15	.34
26	11	115	3.4	7.7	18	.37	3.4	20	.18
27	5.3	87	1.2	8.2	22	.49	4.1	17	.19
28	2.4	80	.52	6.6	22	.39	4.2	15	.17
29	2.1	75	.43	5.4	22	.32	3.8	12	.12
30	3.8	70	.72	5.1	22	.30	3.5	10	.09
31	6.1	68	1.1	5.1	23	.32	---	---	---
TOTAL	155.2	---	42.93	186.7	---	14.36	161.3	---	9.61

09041500 MUDDY CREEK AT KREMMLING, CO

LOCATION.--Lat 40°03'43", long 106°23'43", in NW1/4SE1/4 sec. 7, T.1 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 900 ft upstream from U.S. Highway 40 bridge at Kremmling and 3.0 mi upstream from mouth.

DRAINAGE AREA.--290 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August to October 1904, April to October 1905. Monthly discharge only in WSP 1313. April 1982 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,340 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 23, 1989, at site 450 ft downstream at same datum. Supplementary recorder on diversion ditch about 2,000 ft downstream from point of diversion.

REMARKS.--Estimated daily discharges: Oct. 30 to Dec. 3, and Dec. 9 to Apr. 3. Records good except for estimated daily discharges, which are poor. Records include flow of diversion ditch.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	7.5	7.0	6.5	7.5	11	56	300	184	41	23	9.3
2	10	7.0	6.5	6.5	8.0	11	59	318	137	38	20	9.8
3	8.8	6.5	7.0	6.5	8.0	12	63	314	113	41	20	11
4	8.3	7.0	7.7	6.5	8.0	13	71	290	104	41	20	11
5	7.7	8.0	8.6	7.0	8.0	13	83	281	103	37	20	11
6	6.6	9.0	9.7	7.0	7.5	13	70	275	101	34	20	10
7	6.6	10	10	7.0	7.5	12	71	291	96	32	24	9.7
8	6.9	11	10	7.0	7.5	12	77	312	113	43	24	9.3
9	7.1	11	9.5	7.0	7.5	12	87	303	106	61	23	7.8
10	6.8	11	8.5	7.0	8.0	12	90	293	83	52	19	6.8
11	7.0	10	8.0	7.0	8.5	13	101	235	88	68	17	5.9
12	5.7	10	7.5	7.0	8.5	14	84	218	98	41	16	5.2
13	6.7	9.5	7.0	7.0	8.5	15	91	222	86	43	16	4.5
14	6.9	9.5	7.0	7.0	8.5	16	97	239	66	43	13	3.8
15	7.4	9.5	7.0	7.0	8.5	17	126	226	58	41	11	4.2
16	7.3	9.5	7.0	7.0	8.0	18	130	215	47	40	8.4	4.7
17	7.2	9.5	7.0	6.5	8.0	18	122	205	44	38	10	6.1
18	7.3	9.0	7.0	6.5	8.0	19	128	212	58	31	11	7.7
19	6.5	8.0	7.0	6.5	8.0	19	134	193	56	30	11	11
20	6.7	7.5	7.0	6.5	8.0	19	115	144	44	35	10	13
21	6.6	7.0	7.0	6.5	9.0	20	105	151	37	39	9.3	12
22	6.6	8.0	7.0	7.0	10	22	106	190	41	31	9.5	18
23	6.9	7.5	7.0	7.0	11	23	115	177	35	28	10	8.8
24	11	7.0	7.0	7.5	11	30	112	155	40	25	11	7.8
25	15	8.0	7.0	8.0	11	38	100	134	45	30	12	6.9
26	14	9.0	7.0	8.0	10	40	98	137	64	33	13	6.8
27	13	10	6.5	8.0	10	45	112	174	70	26	15	7.1
28	13	9.0	6.5	7.5	10	47	141	268	63	20	14	6.5
29	9.8	8.0	6.5	7.5	10	49	194	279	56	19	12	7.1
30	9	7.5	6.5	7.5	---	51	254	197	44	22	10	6.9
31	8	---	6.5	7.5	---	53	---	188	---	23	9.3	---
TOTAL	267.4	261.0	230.5	218.0	252.0	707	3192	7136	2280	1126	461.5	249.7
MEAN	8.63	8.70	7.44	7.03	8.69	22.8	106	230	76.0	36.3	14.9	8.32
MAX	17	11	10	8.0	11	53	254	318	184	68	24	18
MIN	5.7	6.5	6.5	6.5	7.5	11	56	134	35	19	8.4	3.8
AC-FT	530	518	457	432	500	1400	6330	14150	4520	2230	915	495

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

MEAN	17.8	17.0	15.6	15.0	17.5	40.5	164	485	283	88.6	27.4	15.2
MAX	33.2	29.3	28.6	24.5	42.1	91.2	310	957	722	246	64.4	34.4
(WY)	1987	1986	1986	1986	1986	1986	1986	1984	1983	1983	1983	1984
MIN	7.60	8.35	6.77	5.52	7.01	21.5	59.8	214	76.0	36.3	11.5	6.86
(WY)	1990	1988	1991	1991	1991	1983	1983	1990	1992	1992	1988	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1983 - 1992	
ANNUAL TOTAL	29695.0		16381.1			
ANNUAL MEAN	81.4		44.8		99.3	
HIGHEST ANNUAL MEAN					172	1984
LOWEST ANNUAL MEAN					44.8	1992
HIGHEST DAILY MEAN	721	May 24	318	May 2	1590	May 17 1984
LOWEST DAILY MEAN	5.2[a]	Jan 21	3.8	Sep 14	2.7[b]	Sep 16 1990
ANNUAL SEVEN-DAY MINIMUM	5.2	Jan 21	4.9	Sep 11	4.1	Sep 11 1990
INSTANTANEOUS PEAK FLOW			356	May 2	1670	May 16 1984
INSTANTANEOUS PEAK STAGE			5.81	May 2	12.67	May 16 1984
ANNUAL RUNOFF (AC-FT)	58900		32490		71940	
10 PERCENT EXCEEDS	321		134		282	
50 PERCENT EXCEEDS	14		11		24	
90 PERCENT EXCEEDS	5.8		6.9		8.0	

a-Also occurred Jan 22-31.
b-Minimum daily discharge for period of record, 1.0 ft^3/s, Sep 24, 25, 1905.

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1986 to September 1987, April 1990 to current year.
WATER TEMPERATURE: April 1986 to September 1987, April 1990 to current year.

INSTRUMENTATION.--Water-quality monitor from April 1986 to September 1987, April 1990 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum mean, 2,280 microsiemens, Sept. 8, 1990; minimum mean, 177 microsiemens, May 15, 1991.
WATER TEMPERATURE: Maximum, 25.9°C, July 1-2, 1990; minimum, 0.0°C, on many days during winter.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum mean measured, 1,640 microsiemens, Oct. 29; minimum mean measured, 201 microsiemens, May 12. WATER TEMPERATURE: Maximum, 22.3°C, July 26; minimum, 0.0°C, on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)	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											
30...	1300	7.5	1670	8.5	1.5	13	10.9	770	160	91	100
NOV											
20...	0900	5.6	1460	8.5	0.5	10	15.6	640	130	77	87
JAN											
14...	1400	6.9	847	7.8	--	19	8.3	410	110	33	40
FEB											
25...	1000	11	664	8.0	0.0	14	11.4	290	77	24	32
MAR											
24...	1100	38	1010	8.2	0.0	30	11.8	410	88	45	62
APR											
14...	1100	94	491	8.2	7.0	160	8.8	200	53	17	20
MAY											
04...	1550	331	164	8.2	10.0	180	8.4	71	21	4.4	4.7
JUN											
09...	1115	84	782	8.9	13.0	30	12.0	360	94	30	27
JUL											
08...	1330	22	1290	8.2	16.5	17	6.9	650	170	55	47
AUG											
12...	1200	17	1140	8.1	17.0	35	10.9	570	140	54	62
SEP											
03...	1630	12	1150	8.3	15.0	25	8.2	520	120	53	55

DATE	SODIUM PERCENT	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											
30...	22	2	4.4	198	730	8.5	0.3	7.1	1360	1220	1.85
NOV											
20...	23	1	3.1	118	630	6.9	0.3	7.6	1090	1010	1.48
JAN											
14...	17	0.9	3.6	242	230	6.1	0.2	14	584	582	0.79
FEB											
25...	19	0.8	2.8	179	170	5.8	0.2	14	499	433	0.68
MAR											
24...	25	1	3.7	152	340	11	0.3	8.1	705	649	0.96
APR											
14...	17	0.6	2.5	119	110	3.7	0.1	7.7	295	285	0.40
MAY											
04...	12	0.2	1.1	70	26	0.2	0.1	7.5	94	107	0.13
JUN											
09...	14	0.6	2.6	153	270	2.9	<0.1	9.9	534	528	0.73
JUL											
08...	14	0.8	3.0	210	480	3.6	0.5	7.7	972	893	1.32
AUG											
12...	19	1	5.9	175	550	6.6	0.3	9.2	952	933	1.29
SEP											
03...	19	1	3.1	171	470	6.0	0.4	4.4	814	816	1.11

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	RESIDUE TOTAL AT 105 DEG. C, 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 30...	27.6	--	--	0.01	--	<0.05	--	0.02	--	0.38
NOV 20...	16.4	--	--	<0.01	--	<0.05	--	<0.01	--	--
JAN 14...	10.9	--	0.11	0.02	--	0.13	--	0.03	--	0.57
FEB 25...	15.0	--	--	<0.01	--	0.13	--	0.04	--	0.36
MAR 24...	72.3	--	0.11	0.04	--	0.15	--	0.12	--	0.48
APR 14...	74.9	--	--	<0.01	--	0.16	--	0.04	--	0.76
MAY 04...	84.0	--	--	0.07	--	<0.05	--	0.11	--	--
JUN 09...	121	--	--	0.02	--	<0.05	--	0.03	--	0.57
JUL 08...	56.9	39	--	0.02	--	<0.05	--	0.03	--	0.57
AUG 12...	42.9	--	--	<0.01	--	<0.05	--	0.02	--	0.38
SEP 03...	26.8	56	--	0.02	<0.01	<0.05	<0.05	0.02	0.02	0.28

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 TOTAL (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 30...	--	0.40	--	--	0.03	--	<0.01	--	--	--
NOV 20...	--	0.30	--	--	0.03	--	<0.01	--	--	--
JAN 14...	--	0.60	--	0.73	0.04	--	0.01	--	--	--
FEB 25...	--	0.40	--	0.53	0.03	--	<0.01	--	--	--
MAR 24...	--	0.60	--	0.75	0.06	--	0.06	--	--	--
APR 14...	--	0.80	--	0.96	0.21	--	0.01	--	--	--
MAY 04...	--	<0.20	--	--	0.06	--	0.01	--	--	--
JUN 09...	--	0.60	--	--	0.07	--	0.05	--	--	--
JUL 08...	--	0.60	--	--	0.07	--	0.03	--	8.4	8.4
AUG 12...	--	0.40	--	--	0.05	--	0.03	--	--	--
SEP 03...	0.18	0.30	0.20	--	0.03	<0.01	0.05	<0.01	6.5	6.3

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	CHROMIUM, DISSOLVED (UG/L AS CR)
OCT 30...	1300	--	--	--	--	--	--	--	--	--	--	--
NOV 20...	0900	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	1400	--	--	--	--	--	--	--	--	--	--	--
FEB 25...	1000	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	1100	--	--	--	--	--	--	--	--	--	--	--
APR 14...	1100	--	--	--	--	--	--	--	--	--	--	--
MAY 04...	1550	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	1115	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	1330	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	1200	--	--	--	--	--	--	--	--	--	--	--
SEP 03...	1630	630	1	1	100	72	<10	120	<1	<1.0	2	<1

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)
OCT 30...	--	--	--	--	440	--	--	--	--	--	--	--
NOV 20...	--	--	--	--	6	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	18	--	--	--	--	--	--	--
FEB 25...	--	--	--	--	31	--	--	--	--	--	--	--
MAR 24...	--	--	--	--	13	--	--	--	--	--	--	--
APR 14...	--	--	--	--	39	--	--	--	--	--	--	--
MAY 04...	--	--	--	--	64	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	30	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	12	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	8	--	--	--	--	--	--	--
SEP 03...	<1	3	2	1300	5	70	2	<1	90	82	<0.1	<0.1

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
OCT 30...	--	--	--	--	--	--	--	--	--	--	--
NOV 20...	--	--	--	--	--	--	--	--	--	--	--
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
FEB 25...	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	--	--	--	--	--	--	--	--	--	--	--
APR 14...	--	--	--	--	--	--	--	--	--	--	--
MAY 04...	--	--	--	--	--	--	--	--	--	--	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--
JUL 08...	--	--	--	--	--	--	--	--	--	--	--
AUG 12...	--	--	--	--	--	--	--	--	--	--	--
SEP 03...	3	3	5	1	3	2	<1	<1.0	1300	10	<3

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 30...	1300	7.5	109	2.2	98
NOV 20...	0900	5.6	--	--	--
JAN 14...	1400	6.9	--	--	--
FEB 25...	1000	11	--	--	--
MAR 24...	1100	38	59	6.1	--
APR 14...	1100	94	352	89	--
MAY 04...	1550	331	754	674	--
JUN 09...	1115	84	--	--	--
JUL 08...	1330	22	--	--	--
AUG 12...	1200	17	--	--	--
SEP 03...	1630	12	145	4.8	--

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1250	---	---	---	---	---	---	---	510	1090	---	1240
2	1270	---	---	---	---	---	---	---	547	1120	---	1230
3	1290	---	---	---	---	---	---	---	603	1150	---	1210
4	1290	---	---	---	---	---	---	---	648	1170	---	1220
5	1310	---	---	---	---	---	---	---	670	1180	---	1290
6	1330	---	---	---	---	---	---	---	708	1200	---	1350
7	1320	---	---	---	---	---	---	---	739	1240	---	1370
8	1380	---	---	---	---	---	---	---	766	1250	---	1260
9	1380	---	---	---	---	---	---	---	754	1270	---	1210
10	1410	---	---	---	---	---	---	---	821	1370	---	1220
11	1420	---	---	---	---	---	---	---	800	1240	---	---
12	1420	---	---	---	---	---	---	203	812	1130	---	---
13	1420	---	---	---	---	---	---	201	863	1140	1370	---
14	1410	---	---	---	---	---	---	240	904	1210	1410	---
15	1420	---	---	---	---	---	---	233	944	1160	1390	---
16	1410	---	---	---	---	---	---	216	957	1090	1310	---
17	1420	---	---	---	---	---	---	219	990	1100	1340	---
18	1430	---	---	---	---	---	---	220	1060	1070	1350	---
19	1430	---	---	---	---	---	---	220	1030	1080	1390	---
20	1410	---	---	---	---	---	---	239	1010	1040	1380	---
21	1400	---	---	---	---	---	---	282	1060	1020	1380	---
22	1420	---	---	---	---	---	---	375	1060	1060	1330	---
23	1420	---	---	---	---	---	---	346	1040	1050	1290	---
24	1400	---	---	---	---	---	---	322	1090	1040	1250	---
25	1370	---	---	---	---	---	---	391	1070	1010	1240	---
26	1380	---	---	---	---	---	---	449	1090	1020	1270	---
27	1420	---	---	---	---	---	---	518	1040	1090	1380	---
28	1450	---	---	---	---	---	---	437	967	1100	1350	---
29	1640	---	---	---	---	---	---	440	1000	1090	1310	---
30	---	---	---	---	---	---	---	458	1030	---	1320	---
31	---	---	---	---	---	---	---	481	---	---	1330	---
MEAN	---	---	---	---	---	---	---	---	886	---	---	---

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.4	12.0	---	---	---	---	---	---	---	---	---	---
2	14.1	11.4	---	---	---	---	---	---	---	---	---	---
3	13.5	11.1	---	---	---	---	---	---	---	---	---	---
4	12.2	10.0	---	---	---	---	---	---	---	---	---	---
5	10.0	7.9	---	---	---	---	---	---	---	---	---	---
6	9.2	7.4	---	---	---	---	---	---	---	---	---	---
7	9.5	7.6	---	---	---	---	---	---	---	---	---	---
8	9.4	8.0	---	---	---	---	---	---	---	---	---	---
9	9.9	7.9	---	---	---	---	---	---	---	---	---	---
10	10.1	8.3	---	---	---	---	---	---	---	---	---	---
11	10.3	8.4	---	---	---	---	---	---	---	---	---	---
12	10.0	8.8	---	---	---	---	---	---	---	---	---	---
13	10.0	8.5	---	---	---	---	---	---	---	---	---	---
14	9.4	7.9	---	---	---	---	---	---	---	---	---	---
15	9.8	7.2	---	---	---	---	---	---	---	---	---	---
16	9.6	7.9	---	---	---	---	---	---	---	---	---	---
17	9.9	8.0	---	---	---	---	---	---	---	---	---	---
18	9.9	8.4	---	---	---	---	---	---	---	---	---	---
19	9.5	8.1	---	---	---	---	---	---	---	---	---	---
20	9.2	7.6	---	---	---	---	---	---	---	---	---	---
21	8.8	7.1	---	---	---	---	---	---	---	---	---	---
22	8.4	6.6	---	---	---	---	---	---	---	---	---	---
23	8.2	6.9	---	---	---	---	---	---	---	---	---	---
24	7.5	5.8	---	---	---	---	---	---	---	---	---	---
25	7.3	5.5	---	---	---	---	---	---	---	---	---	---
26	7.1	4.8	---	---	---	---	---	---	---	---	---	---
27	6.5	4.6	---	---	---	---	---	---	---	---	---	---
28	6.5	3.8	---	---	---	---	---	---	---	---	---	---
29	3.8	2.3	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	11.5	8.7	13.0	9.3	17.9	15.8	---	---	14.2	13.3
2	---	---	10.3	8.0	15.8	10.7	16.6	15.0	---	---	14.9	12.7
3	---	---	11.0	7.3	16.1	13.4	16.5	13.4	---	---	15.0	13.4
4	---	---	11.1	7.6	16.2	14.5	17.7	14.0	---	---	15.7	13.8
5	---	---	11.6	7.9	15.6	12.3	19.1	14.7	---	---	16.1	14.2
6	---	---	11.6	7.8	15.8	13.6	18.7	15.4	---	---	15.3	13.5
7	---	---	11.3	8.3	15.7	13.5	18.8	17.4	---	---	15.7	13.3
8	---	---	9.8	7.7	14.6	11.6	17.4	16.0	---	---	15.1	12.8
9	---	---	9.1	7.7	15.1	13.1	16.1	14.6	---	---	15.2	11.8
10	---	---	8.5	6.2	15.8	13.6	17.1	15.7	---	---	15.0	11.1
11	---	---	11.5	6.0	15.8	14.7	19.1	15.3	---	---	14.5	12.7
12	---	---	10.9	8.5	15.0	12.9	18.1	16.0	---	---	14.6	10.5
13	---	---	9.5	7.2	16.4	14.2	18.4	14.5	19.9	14.9	15.5	12.7
14	---	---	10.0	7.3	16.6	15.8	18.5	14.5	19.4	15.1	15.4	12.6
15	8.5	5.6	11.8	8.3	16.3	14.8	17.5	15.0	19.1	12.7	16.3	13.6
16	8.3	6.6	11.6	8.7	15.1	13.5	19.1	13.1	18.7	17.7	15.3	13.8
17	8.7	5.8	13.1	9.5	13.5	12.9	20.7	15.4	18.8	17.2	15.4	13.0
18	8.0	5.1	13.8	10.7	14.7	12.7	21.7	16.1	19.2	13.9	14.9	13.6
19	5.5	4.0	14.3	11.0	16.8	14.7	19.9	17.4	19.5	14.0	14.2	12.9
20	5.4	4.1	15.9	12.5	18.2	16.7	18.7	15.4	19.4	16.5	13.5	11.7
21	9.4	4.4	15.9	12.9	18.4	17.0	19.9	15.2	18.8	15.0	13.8	12.2
22	9.4	7.1	14.8	11.2	17.4	16.2	20.0	15.2	18.7	12.5	14.1	11.9
23	9.0	5.9	15.9	12.7	19.0	16.9	19.0	16.4	18.4	17.0	14.0	11.4
24	9.5	5.7	16.0	13.5	18.9	17.9	18.6	15.9	17.0	14.9	13.6	11.1
25	10.4	6.3	15.8	13.5	17.9	17.3	20.8	16.7	14.9	10.7	12.6	11.4
26	11.2	8.0	14.8	12.4	17.4	16.7	22.3	17.4	15.2	11.8	11.9	10.0
27	11.5	8.6	13.2	10.9	17.6	15.7	21.6	16.8	15.1	12.1	11.5	9.7
28	13.5	9.0	12.6	10.9	16.8	15.7	19.5	15.4	15.4	13.1	11.6	9.4
29	13.2	9.7	12.0	10.2	18.4	16.8	18.8	16.3	15.3	13.5	11.7	9.6
30	12.9	9.4	12.4	11.3	18.5	17.1	---	---	15.0	11.3	11.6	9.6
31	---	---	12.4	10.7	---	---	---	---	14.3	12.9	---	---
MONTH	---	---	16.0	6.0	19.0	9.3	---	---	---	---	16.3	9.4

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 (seasonal record).

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: Apr. 1-26, July 28 to Aug. 4, and Sept. 4-30. Records good except for estimated daily discharges, which are poor. 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, 72 ft³/s, July 25, 1989; no flow for most of each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	11	3.3	2.4	.00	29
2	---	---	---	---	---	---	.00	12	2.8	?.0	.00	24
3	---	---	---	---	---	---	.00	11	2.6	1.8	.00	21
4	---	---	---	---	---	---	.00	10	3.0	1.7	24	5.0
5	---	---	---	---	---	---	.00	11	3.6	1.5	48	.67
6	---	---	---	---	---	---	.00	12	3.6	1.5	33	.65
7	---	---	---	---	---	---	.00	13	3.8	1.5	27	.00
8	---	---	---	---	---	---	.00	13	3.5	24	27	.00
9	---	---	---	---	---	---	.00	13	3.5	32	26	.00
10	---	---	---	---	---	---	.00	11	3.5	25	27	.00
11	---	---	---	---	---	---	.00	8.9	4.1	21	30	.00
12	---	---	---	---	---	---	.00	9.1	5.0	23	35	.00
13	---	---	---	---	---	---	.00	5.7	4.7	24	35	.00
14	---	---	---	---	---	---	.00	4.0	4.2	18	37	.00
15	---	---	---	---	---	---	.00	4.2	3.7	15	42	.00
16	---	---	---	---	---	---	.00	4.1	2.9	15	47	.00
17	---	---	---	---	---	---	.00	4.2	2.3	15	46	.00
18	---	---	---	---	---	---	.00	4.8	2.2	13	45	.00
19	---	---	---	---	---	---	.00	4.8	2.3	14	44	.00
20	---	---	---	---	---	---	.00	5.4	2.6	14	43	.00
21	---	---	---	---	---	---	.00	5.9	2.6	13	41	.00
22	---	---	---	---	---	---	.00	5.0	2.4	12	40	.00
23	---	---	---	---	---	---	.00	5.2	2.5	11	39	.00
24	---	---	---	---	---	---	.00	5.2	2.6	12	29	.00
25	---	---	---	---	---	---	.00	4.4	2.7	17	3.5	.00
26	---	---	---	---	---	---	1.9	4.5	4.2	28	15	.00
27	---	---	---	---	---	---	6.2	5.8	3.7	17	38	.00
28	---	---	---	---	---	---	8.2	4.6	2.9	6.0	36	.00
29	---	---	---	---	---	---	11	3.7	2.9	.00	34	.00
30	---	---	---	---	---	---	11	3.9	2.7	.00	32	.00
31	---	---	---	---	---	---	---	3.8	---	.00	29	---
TOTAL	---	---	---	---	---	---	38.30	224.2	96.4	381.40	952.50	80.32
MEAN	---	---	---	---	---	---	1.28	7.23	3.21	12.3	30.7	2.68
MAX	---	---	---	---	---	---	11	13	5.0	32	48	29
MIN	---	---	---	---	---	---	.00	3.7	2.2	.00	.00	.00
AC-FT	---	---	---	---	---	---	76	445	191	757	1890	159

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.78 W., 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 (seasonal record).

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: Apr. 1-27 and Aug. 19 to Sept. 30. Records good except for estimated daily discharges, which are poor. 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, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	11	8.8	10	1.9	.00
2	---	---	---	---	---	---	.00	12	8.5	9.1	1.9	.00
3	---	---	---	---	---	---	.00	12	8.8	8.5	1.9	.00
4	---	---	---	---	---	---	.00	12	9.6	8.0	1.8	.00
5	---	---	---	---	---	---	.00	13	10	7.7	1.8	.00
6	---	---	---	---	---	---	.00	13	11	7.5	1.8	.00
7	---	---	---	---	---	---	.00	14	11	7.2	1.7	.00
8	---	---	---	---	---	---	.00	13	11	7.6	1.7	.00
9	---	---	---	---	---	---	.00	13	10	6.9	1.7	.00
10	---	---	---	---	---	---	.00	12	11	6.4	1.9	.00
11	---	---	---	---	---	---	.00	12	12	6.1	1.8	.00
12	---	---	---	---	---	---	.00	13	13	5.9	1.7	.00
13	---	---	---	---	---	---	.00	7.8	15	5.8	1.6	.00
14	---	---	---	---	---	---	.00	5.3	15	5.4	1.6	.00
15	---	---	---	---	---	---	.00	5.8	14	5.1	1.5	.00
16	---	---	---	---	---	---	.00	6.0	12	4.9	1.6	.00
17	---	---	---	---	---	---	.00	7.0	12	4.6	1.7	.00
18	---	---	---	---	---	---	.00	8.2	13	4.5	1.6	.00
19	---	---	---	---	---	---	.00	8.8	13	4.3	1.1	.00
20	---	---	---	---	---	---	.00	9.7	13	4.2	.00	.00
21	---	---	---	---	---	---	.00	11	12	3.9	.00	.00
22	---	---	---	---	---	---	.00	9.9	12	3.8	.00	.00
23	---	---	---	---	---	---	.00	10	12	3.7	.00	.00
24	---	---	---	---	---	---	.00	10	12	3.6	.00	.00
25	---	---	---	---	---	---	.00	10	12	4.0	.00	.00
26	---	---	---	---	---	---	.00	11	15	3.7	.00	.00
27	---	---	---	---	---	---	3.1	12	12	3.3	.00	.00
28	---	---	---	---	---	---	8.4	11	11	2.6	.00	.00
29	---	---	---	---	---	---	9.6	9.8	11	2.1	.00	.00
30	---	---	---	---	---	---	10	9.9	11	2.1	.00	.00
31	---	---	---	---	---	---	---	9.5	---	2.0	.00	---
TOTAL	---	---	---	---	---	---	31.10	322.7	351.7	164.5	32.30	0.00
MEAN	---	---	---	---	---	---	1.04	10.4	11.7	5.31	1.04	.000
MAX	---	---	---	---	---	---	10	14	15	10	1.9	.00
MIN	---	---	---	---	---	---	.00	5.3	8.5	2.0	.00	.00
AC-FT	---	---	---	---	---	---	62	640	698	326	64	.00

09044800 MCCULLOUGH-SPRUCE-CRYSTAL DIVERSION NEAR HOOSIER PASS, CO

LOCATION.--Lat 39°22'51", long 106°04'14", in NE1/4SE1/4 sec.2, T.8 S., R.78 W., Summit County, Hydrologic Unit 14010002, on left bank at entrance to Hoosier Pass tunnel, 1.4 mi northwest of Hoosier Pass, 1.6 mi downstream from diversion point on McCullough Gulch, and 7 mi southwest of Breckenridge.

PERIOD OF RECORD.--October 1957 to current year (seasonal record). Prior to October 1961, Published as McCullough diversion near Hoosier Pass.

GAGE.--Water-stage recorder with satellite telemetry, 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 McCullough Gulch and Spruce and Crystal 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 secs.14, 23, and 26, T.7 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, 123 ft^3/s, June 20, 1968; no flow for most of each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	15	16	59	.00	.00
2	---	---	---	---	---	---	.00	18	15	45	.00	.00
3	---	---	---	---	---	---	.00	19	20	31	.00	.00
4	---	---	---	---	---	---	.00	20	27	37	.00	.00
5	---	---	---	---	---	---	.00	24	27	46	.00	.00
6	---	---	---	---	---	---	.00	30	25	60	.00	.00
7	---	---	---	---	---	---	.00	34	26	64	.00	.00
8	---	---	---	---	---	---	.00	37	25	91	.00	.00
9	---	---	---	---	---	---	.00	37	26	61	.00	.00
10	---	---	---	---	---	---	.00	33	31	48	.00	.00
11	---	---	---	---	---	---	.00	27	44	43	.00	.00
12	---	---	---	---	---	---	.00	28	50	46	.00	.00
13	---	---	---	---	---	---	.00	21	58	49	.00	.00
14	---	---	---	---	---	---	.00	21	58	35	.00	.00
15	---	---	---	---	---	---	.00	25	50	32	.00	.00
16	---	---	---	---	---	---	.00	29	37	33	.00	.00
17	---	---	---	---	---	---	.00	30	29	31	.00	.00
18	---	---	---	---	---	---	.00	39	42	30	.00	.00
19	---	---	---	---	---	---	.00	41	55	30	.00	.00
20	---	---	---	---	---	---	.00	45	60	29	.00	.00
21	---	---	---	---	---	---	.00	51	57	28	.00	.00
22	---	---	---	---	---	---	.00	38	56	27	.00	.00
23	---	---	---	---	---	---	.00	37	67	25	.00	.00
24	---	---	---	---	---	---	.00	37	75	27	.00	.00
25	---	---	---	---	---	---	1.0	30	74	44	.00	.00
26	---	---	---	---	---	---	7.4	36	93	51	.00	.00
27	---	---	---	---	---	---	8.5	41	66	33	.00	.00
28	---	---	---	---	---	---	10	27	55	17	.00	.00
29	---	---	---	---	---	---	12	21	69	.00	.00	.00
30	---	---	---	---	---	---	15	19	66	.00	.00	.00
31	---	---	---	---	---	---	---	18	---	.00	.00	---
TOTAL	---	---	---	---	---	---	53.90	928	1399	1152.00	0.00	0.00
MEAN	---	---	---	---	---	---	1.80	29.9	46.6	37.2	.000	.000
MAX	---	---	---	---	---	---	15	51	93	91	.00	.00
MIN	---	---	---	---	---	---	.00	15	15	.00	.00	.00
AC-FT	---	---	---	---	---	---	107	1840	2770	2280	.00	.00

09046490 BLUE RIVER AT BLUE RIVER, CO

LOCATION.--Lat 39°27'21", long 106°01'52", in NE1/4SE1/4 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 and 2.0 mi southeast of Breckenridge.

DRAINAGE AREA.--22.6 mi^2.

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,835 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Transmountain diversions upstream from station by Boreas Pass ditch and Hoosier Pass tunnel. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	8.8	9.0	5.9	4.9	3.5	4.3	36	71	44	37	36
2	21	8.5	9.0	5.7	4.8	3.5	4.2	38	66	42	36	37
3	17	8.5	9.1	5.8	4.9	3.5	4.3	37	62	39	36	35
4	18	8.0	8.9	6.1	5.0	4.1	4.7	36	61	35	39	36
5	19	7.5	9.0	6.0	4.9	3.9	5.1	37	66	32	37	47
6	16	7.5	8.7	5.8	4.8	3.6	5.3	37	65	30	35	43
7	15	7.5	8.5	6.2	4.7	3.4	5.6	42	66	29	38	40
8	16	7.5	8.4	6.3	4.5	3.7	6.1	47	64	34	39	36
9	15	7.5	8.4	5.9	4.5	3.8	6.9	50	67	32	40	31
10	15	7.5	8.2	5.7	4.6	3.3	7.9	47	65	28	46	27
11	17	7.7	8.5	5.8	4.4	3.3	9.4	42	64	27	57	25
12	19	10	8.4	5.8	4.7	3.2	9.9	43	69	26	47	23
13	19	8.0	8.4	5.9	4.5	3.2	12	43	71	28	40	22
14	18	8.0	7.9	5.8	4.9	3.3	12	48	73	25	36	22
15	15	8.0	7.8	6.0	4.4	3.1	13	51	72	23	34	22
16	14	8.0	7.9	5.7	4.1	3.2	15	53	70	22	35	22
17	14	8.0	7.9	5.6	4.3	3.3	14	57	65	20	46	23
18	12	7.9	7.8	5.4	4.3	3.6	16	64	63	19	43	23
19	10	8.0	7.9	5.1	4.1	4.1	13	71	62	18	38	24
20	10	8.4	7.8	5.3	4.2	4.3	12	75	62	19	35	30
21	9.5	9.5	7.4	5.5	4.2	3.7	11	83	61	18	34	28
22	8.5	11	7.4	5.8	4.0	4.1	11	84	58	16	34	26
23	8.6	9.8	6.9	5.7	4.2	3.7	10	81	57	16	35	23
24	7.8	9.4	6.8	5.6	4.0	3.9	9.0	77	56	16	55	22
25	8.1	9.8	7.0	5.3	4.0	3.9	9.0	75	57	18	58	25
26	8.0	10	6.9	5.2	3.8	3.7	11	80	67	21	52	25
27	8.0	10	6.4	5.2	3.8	3.8	14	86	58	17	45	23
28	8.1	9.5	6.1	5.2	3.7	4.8	21	83	54	15	40	22
29	9.2	9.7	6.0	5.3	3.6	4.4	28	75	53	33	36	21
30	10	9.0	5.8	5.2	---	4.0	35	74	47	41	34	19
31	9.4	---	5.8	5.1	---	4.1	---	73	---	39	33	---
TOTAL	417.2	258.5	240.0	174.9	126.8	115.0	339.7	1825	1892	822	1250	838
MEAN	13.5	8.62	7.74	5.64	4.37	3.71	11.3	58.9	63.1	26.5	40.3	27.9
MAX	22	11	9.1	6.3	5.0	4.8	35	86	73	44	58	47
MIN	7.8	7.5	5.8	5.1	3.6	3.1	4.2	36	47	15	33	19
AC-FT	828	513	476	347	252	228	674	3620	3750	1630	2480	1660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

MEAN	20.1	14.7	11.2	8.25	6.14	5.75	13.6	59.5	107	68.6	41.4	25.2
MAX	32.2	26.5	18.9	14.3	8.11	7.96	21.9	114	254	217	111	44.3
(WY)	1985	1985	1985	1985	1985	1985	1989	1984	1984	1984	1984	1984
MIN	13.5	8.62	7.74	5.62	4.12	3.71	6.78	33.6	63.1	23.0	18.0	14.2
(WY)	1992	1992	1992	1991	1991	1992	1991	1990	1992	1991	1986	1986

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	7214.3		8299.1			
ANNUAL MEAN	19.8		22.7		31.9	
HIGHEST ANNUAL MEAN					70.1	1984
LOWEST ANNUAL MEAN					20.5	1990
HIGHEST DAILY MEAN	[a]100	Jun 9	86	May 27	404	Jul 10 1984
LOWEST DAILY MEAN	3.6	Feb 25	3.1	Mar 15	3.1	Mar 15 1992
ANNUAL SEVEN-DAY MINIMUM	3.7	Feb 22	3.2	Mar 10	3.2	Mar 10 1992
INSTANTANEOUS PEAK FLOW			92	May 26	506	Jul 1 1984
INSTANTANEOUS PEAK STAGE			1.58	May 26	2.84	Jul 1 1984
ANNUAL RUNOFF (AC-FT)	14310		16460		23090	
10 PERCENT EXCEEDS	57		59		76	
50 PERCENT EXCEEDS	9.2		11		16	
90 PERCENT EXCEEDS	4.2		4.1		5.8	

a-Also occurred Jun 11.

09046600 BLUE RIVER NEAR DILLON, CO

LOCATION.--Lat 39°33'58", long 106°02'56", in SW¼SE¼ sec.31, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.3 mi upstream from Dillon Reservoir and 5.0 mi south of Dillon.

DRAINAGE AREA.--121 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,030 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 6, 1992, gage site 1.4 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 2-12, and June 15 to Aug. 6. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Boreas Pass ditch and Hoosier Pass tunnel (see elsewhere in this report). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	36	30	22	18	18	19	126	221	160	100	87
2	64	35	30	21	18	18	20	138	207	155	100	94
3	66	35	29	21	18	18	20	143	198	150	100	95
4	64	34	28	21	17	19	21	144	197	145	96	89
5	61	33	27	21	17	19	22	142	206	145	92	85
6	59	32	27	21	18	18	22	142	205	140	90	93
7	58	33	27	21	17	18	23	151	207	155	88	92
8	57	32	27	21	17	18	25	162	206	150	87	87
9	57	32	28	20	17	18	26	158	204	140	89	83
10	56	32	29	20	17	18	30	166	209	135	90	78
11	55	32	29	20	17	18	33	154	210	130	98	72
12	54	32	27	19	17	18	36	144	224	140	107	69
13	56	32	25	19	17	18	42	141	232	130	102	66
14	57	31	25	19	17	18	45	146	240	125	94	63
15	55	31	25	19	17	18	48	156	225	120	86	60
16	54	31	24	18	17	18	52	166	220	115	84	60
17	53	30	24	18	17	19	54	174	210	110	92	60
18	50	30	24	19	17	19	57	184	200	100	104	62
19	49	30	23	19	17	19	54	197	200	97	98	63
20	48	28	23	18	17	18	50	216	190	94	90	62
21	45	27	23	18	17	18	46	242	185	90	84	66
22	44	27	23	18	17	18	46	263	180	90	81	67
23	43	27	24	18	17	18	46	261	180	94	80	64
24	42	27	24	18	17	18	46	254	180	105	96	61
25	42	27	24	18	17	18	49	243	190	102	143	59
26	41	27	25	17	17	18	52	241	200	92	136	60
27	40	28	23	17	17	18	57	272	190	100	119	63
28	41	29	24	18	18	19	68	265	180	120	106	60
29	41	30	21	18	18	19	85	247	175	128	96	56
30	38	30	21	18	---	19	108	225	170	118	89	55
31	37	---	21	17	---	19	---	227	---	110	86	---
TOTAL	1588	920	784	592	499	567	1302	5890	6041	3785	3003	2131
MEAN	51.2	30.7	25.3	19.1	17.2	18.3	43.4	190	201	122	96.9	71.0
MAX	66	36	30	22	18	19	108	272	240	160	143	95
MIN	37	27	21	17	17	18	19	126	170	90	80	55
AC-FT	3150	1820	1560	1170	990	1120	2580	11680	11980	7510	5960	4230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

MEAN	52.3	39.0	31.4	26.6	24.5	23.8	39.4	167	327	194	103	67.1
MAX	101	74.4	54.0	40.3	36.0	32.5	77.7	333	641	477	241	143
(WY)	1985	1985	1984	1984	1983	1983	1985	1984	1983	1983	1984	1983
MIN	30.6	23.8	21.7	19.1	17.2	18.3	23.0	65.1	72.0	73.7	55.1	40.5
(WY)	1978	1978	1978	1992	1992	1992	1964	1981	1963	1966	1977	1962

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	32933		27102			
ANNUAL MEAN	90.2		74.0		[a]104	
HIGHEST ANNUAL MEAN					168	1984
LOWEST ANNUAL MEAN					45.8	1963
HIGHEST DAILY MEAN	383	Jun 14	272	May 27	1160	Jun 26 1983
LOWEST DAILY MEAN	[b]21	Dec 29	[c]17	Jan 26	[d]17	Mar 21 1961
ANNUAL SEVEN-DAY MINIMUM	23	Dec 25	17	Feb 7	17	Feb 7 1992
INSTANTANEOUS PEAK FLOW			278	May 27	[e]1250	Jun 17 1965
INSTANTANEOUS PEAK STAGE			3.73	May 27	5.38	Jun 17 1965
ANNUAL RUNOFF (AC-FT)	65320		53760		75350	
10 PERCENT EXCEEDS	280		186		240	
50 PERCENT EXCEEDS	44		48		44	
90 PERCENT EXCEEDS	28		18		23	

a-Adjusted for diversions to Hoosier Pass tunnel.
b-Also occurred Dec 30 and 31.
c-Also occurred Jan 27, 31, Feb 4, 5, and Feb 7-27.
d-Also occurred Feb 24-26, 1978, Jan 26, 27, 31, Feb 4, 5, and Feb 7-27, 1992.
e-From rating curve extended above 800 ft^3/s.

09047500 SNAKE RIVER NEAR MONTEZUMA, CO

LOCATION.--Lat 39°36'20", long 105°56'33", in NW1/4 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 mi^2.

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. 1 to Apr. 16. Records fair except for estimated daily discharges, which are poor. Small diversions upstream from station for irrigation and domestic use. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	20	14	12	11	9.0	10	63	142	162	51	59
2	31	20	13	12	11	9.0	10	66	138	149	49	58
3	30	19	13	12	11	9.0	10	70	147	135	48	50
4	29	17	13	12	11	8.7	11	77	164	128	48	48
5	27	15	12	12	11	8.6	12	84	168	122	46	49
6	28	15	12	12	10	8.5	12	99	162	119	47	45
7	28	14	12	12	10	8.4	13	113	164	120	44	43
8	27	14	12	12	10	8.4	13	113	158	126	42	41
9	27	14	12	12	10	8.3	14	113	165	115	41	39
10	27	14	12	12	10	8.2	14	98	176	106	48	37
11	27	14	12	12	10	8.1	15	90	197	100	54	35
12	26	14	12	12	10	8.0	16	96	214	102	50	33
13	26	14	12	12	10	8.0	16	103	224	102	45	34
14	25	14	12	12	10	8.0	17	115	219	92	42	32
15	25	14	12	11	10	8.2	18	126	213	86	39	31
16	25	14	12	11	10	8.4	17	139	196	85	44	31
17	25	14	12	11	10	8.6	16	154	181	86	58	33
18	24	14	12	11	10	8.8	15	174	189	76	47	33
19	24	14	12	11	9.8	9.0	13	200	197	75	40	33
20	24	14	12	11	9.4	9.0	12	229	201	77	39	34
21	23	14	12	11	9.2	9.0	13	236	199	70	37	31
22	23	14	12	11	9.0	9.0	12	225	192	66	38	29
23	23	14	12	11	9.0	9.0	12	220	194	66	42	27
24	25	14	12	11	9.0	9.0	12	217	205	67	80	27
25	25	14	12	11	9.0	9.0	13	211	196	77	70	31
26	23	14	12	11	9.0	9.0	16	214	203	77	62	29
27	24	14	12	11	9.0	9.5	21	213	196	65	54	27
28	24	14	12	11	9.0	10	32	193	184	60	49	27
29	26	14	12	11	9.0	10	43	174	187	59	46	27
30	21	14	12	11	---	10	55	163	172	56	45	27
31	20	---	12	11	---	10	---	152	---	53	48	---
TOTAL	794	442	377	355	285.4	273.7	503	4540	5543	2879	1493	1080
MEAN	25.6	14.7	12.2	11.5	9.84	8.83	16.8	146	185	92.9	48.2	36.0
MAX	32	20	14	12	11	10	55	236	224	162	80	59
MIN	20	14	12	11	9.0	8.0	10	63	138	53	37	27
AC-FT	1570	877	748	704	566	543	998	9010	10990	5710	2960	2140

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1992, BY WATER YEAR (WY)

MEAN	27.2	19.6	15.2	11.9	10.6	10.6	18.2	96.0	277	142	65.5	37.7
MAX	66.9	39.5	25.9	18.0	16.0	14.9	35.4	216	465	378	177	90.7
(WY)	1985	1985	1985	1985	1987	1985	1946	1958	1952	1957	1984	1984
MIN	16.1	11.8	9.90	7.03	7.00	7.40	8.34	34.0	101	50.9	24.4	18.0
(WY)	1945	1965	1978	1963	1946	1973	1973	1968	1966	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1943 - 1992	
ANNUAL TOTAL	20083		18565.1			
ANNUAL MEAN	55.0		50.7		61.0	
HIGHEST ANNUAL MEAN					94.6	1984
LOWEST ANNUAL MEAN					35.1	1954
HIGHEST DAILY MEAN	364	Jun 12	236	May 21	804	Jun 10 1952
LOWEST DAILY MEAN	10	Feb 22	[a]8.0	Mar 12	5.0	Feb 26 1964
ANNUAL SEVEN-DAY MINIMUM	11	Mar 21	8.1	Mar 9	6.0	Jan 9 1963
INSTANTANEOUS PEAK FLOW			270	May 20	1250	Jun 10 1952
INSTANTANEOUS PEAK STAGE			2.41	May 20	[b]3.51	Jun 10 1952
ANNUAL RUNOFF (AC-FT)	39830		36820		44220	
10 PERCENT EXCEEDS	173		164		170	
50 PERCENT EXCEEDS	15		23		22	
90 PERCENT EXCEEDS	12		9.5		10	

a-Also occurred Mar 13 and 14.
b-Maximum gage height, 3.88 ft, Jun 6, 1972.

09047700 KEYSTONE GULCH NEAR DILLON, CO

LOCATION.--Lat 39°35'40", long 105°58'19", in NE1/4NE1/4 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 mi^2.

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: Oct. 30 to Apr. 16. Records good except for estimated daily discharges, which are poor. No known diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.5	2.9	1.7	1.4	1.4	1.5	11	13	11	4.9	5.9
2	4.5	3.5	2.8	1.7	1.4	1.4	1.5	11	13	11	4.9	5.9
3	4.4	3.4	2.8	1.7	1.4	1.4	1.6	11	13	10	4.7	5.0
4	4.4	3.4	2.7	1.7	1.4	1.4	1.6	11	15	9.5	4.5	4.7
5	4.5	3.4	2.6	1.7	1.4	1.4	1.6	11	14	9.2	4.3	4.6
6	4.6	3.4	2.5	1.6	1.4	1.4	1.7	12	14	8.9	4.3	4.1
7	4.8	3.4	2.4	1.6	1.4	1.4	1.8	12	14	8.5	4.3	3.8
8	4.7	3.4	2.3	1.6	1.4	1.4	1.9	11	14	9.1	4.4	3.6
9	4.6	3.4	2.3	1.6	1.4	1.3	2.0	12	15	8.5	5.1	3.6
10	4.7	3.4	2.3	1.6	1.4	1.4	2.1	10	14	7.8	4.9	3.6
11	4.3	3.4	2.3	1.5	1.4	1.4	2.2	11	15	7.4	4.6	3.6
12	4.3	3.4	2.3	1.5	1.4	1.4	2.3	11	15	7.4	4.5	3.6
13	4.4	3.4	2.3	1.5	1.4	1.4	2.4	12	15	7.6	4.5	3.4
14	4.0	3.4	2.3	1.5	1.4	1.4	2.7	12	15	6.9	4.4	3.6
15	3.8	3.4	2.3	1.5	1.4	1.4	3.0	13	15	6.8	4.3	3.6
16	3.6	3.4	2.3	1.5	1.4	1.4	3.2	13	14	6.7	5.2	3.4
17	3.3	3.4	2.3	1.4	1.4	1.4	4.7	14	14	7.2	7.0	3.4
18	3.3	3.4	2.3	1.4	1.4	1.4	4.8	14	14	6.5	5.1	3.6
19	4.2	3.4	2.3	1.4	1.4	1.4	4.3	15	14	6.3	4.7	3.7
20	3.9	3.4	2.3	1.4	1.4	1.4	4.3	16	14	6.6	4.6	3.6
21	3.8	3.4	2.2	1.4	1.4	1.5	4.0	17	14	6.2	4.6	3.4
22	4.2	3.4	2.1	1.4	1.4	1.5	3.8	17	14	5.7	4.3	3.2
23	4.2	3.4	2.0	1.4	1.4	1.5	3.4	18	13	5.7	4.9	3.1
24	5.0	3.4	2.0	1.4	1.4	1.5	3.5	16	14	5.8	11	3.0
25	5.5	3.4	2.0	1.4	1.4	1.5	3.9	15	14	6.9	7.7	3.5
26	4.9	3.4	2.0	1.4	1.4	1.5	4.5	17	16	7.2	6.4	3.4
27	4.7	3.3	1.9	1.4	1.4	1.5	5.9	18	14	5.8	5.4	3.2
28	4.8	3.2	1.8	1.4	1.4	1.5	7.9	17	13	5.5	5.1	3.2
29	3.7	3.1	1.7	1.4	1.4	1.5	9.3	15	13	5.1	4.8	3.0
30	3.6	3.0	1.7	1.4	---	1.5	11	14	12	4.8	4.6	3.0
31	3.5	---	1.7	1.4	---	1.5	---	14	---	4.6	4.4	---
TOTAL	132.7	101.2	69.7	46.5	40.6	44.4	108.4	421	421	226.2	158.4	112.3
MEAN	4.28	3.37	2.25	1.50	1.40	1.43	3.61	13.6	14.0	7.30	5.11	3.74
MAX	5.5	3.5	2.9	1.7	1.4	1.5	11	18	16	11	11	5.9
MIN	3.3	3.0	1.7	1.4	1.4	1.3	1.5	10	12	4.6	4.3	3.0
AC-FT	263	201	138	92	81	88	215	835	835	449	314	223

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

MEAN	3.36	2.89	2.44	2.14	2.00	2.02	3.09	11.9	23.1	9.66	5.28	3.76
MAX	6.12	4.33	3.68	2.85	2.80	3.00	6.19	31.0	56.5	25.9	15.5	7.97
(WY)	1985	1985	1966	1971	1991	1986	1986	1984	1984	1984	1984	1984
MIN	2.02	1.77	1.37	1.39	1.40	1.40	1.44	5.49	4.49	2.55	2.19	1.83
(WY)	1982	1964	1964	1964	1961	1973	1973	1981	1963	1963	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	2203.1		1882.4			
ANNUAL MEAN	6.04		5.14		5.98	
HIGHEST ANNUAL MEAN					13.1	1984
LOWEST ANNUAL MEAN					3.10	1963
HIGHEST DAILY MEAN	[b]32	Jun 6	[a]18	May 23	81	May 31 1984
LOWEST DAILY MEAN	[b]1.7	Dec 29	1.3	Mar 9	1.1	Feb 26 1964
ANNUAL SEVEN-DAY MINIMUM	1.8	Dec 25	1.4	Mar 3	1.3	Nov 28 1963
INSTANTANEOUS PEAK FLOW			23	May 23	[c]118	Jun 27 1983
INSTANTANEOUS PEAK STAGE			2.40	May 23	3.01	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	4370		3730		4330	
10 PERCENT EXCEEDS	13		14		14	
50 PERCENT EXCEEDS	3.8		3.5		3.0	
90 PERCENT EXCEEDS	2.6		1.4		1.9	

a-Also occurred May 27.
b-Also occurred Dec 30 and 31.
c-From rating curve extended above 65 ft^3/s.

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: Oct. 1-2, and Oct. 29 to Apr. 23. Records fair 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	19	16	15	13	21	30	173	265	236	68	54
2	30	19	16	15	14	21	30	184	256	215	67	61
3	30	19	16	15	15	22	34	192	278	197	64	52
4	28	19	16	15	15	24	38	199	315	194	68	46
5	28	19	16	15	15	24	42	219	327	192	63	49
6	28	18	16	15	15	24	45	249	315	195	59	46
7	27	18	16	15	15	25	48	267	312	194	53	41
8	27	18	16	15	15	26	52	274	300	218	52	36
9	27	18	16	15	16	26	58	274	308	193	53	33
10	27	18	16	15	17	26	62	252	306	175	58	32
11	27	18	16	15	18	26	66	223	325	162	69	30
12	27	18	16	14	19	26	68	236	348	161	61	29
13	27	18	16	14	19	26	70	248	382	157	58	31
14	26	17	16	14	19	26	74	269	377	147	53	29
15	26	17	16	14	19	26	78	279	347	138	53	29
16	27	17	16	14	19	27	80	300	311	132	53	33
17	28	17	16	14	19	28	84	312	281	125	66	36
18	26	17	16	14	19	30	76	330	307	121	54	33
19	25	17	16	14	19	30	70	353	322	119	44	32
20	23	17	16	14	19	30	64	395	322	121	38	39
21	24	17	16	14	19	30	54	417	312	115	35	39
22	25	17	16	14	19	30	45	400	304	110	34	33
23	25	17	16	14	20	30	35	395	316	107	41	31
24	25	17	15	14	20	30	31	399	319	98	84	29
25	23	17	15	14	20	30	33	369	306	112	83	34
26	23	17	15	14	21	30	42	387	328	116	78	34
27	23	17	15	14	21	30	58	436	285	99	59	30
28	23	17	15	14	21	30	84	372	268	88	50	28
29	22	17	15	14	21	30	116	320	273	85	45	27
30	21	17	15	14	---	30	147	299	256	82	42	27
31	20	---	15	14	---	30	---	285	---	72	41	---
TOTAL	798	528	488	445	521	844	1814	9307	9271	4476	1746	1083
MEAN	25.7	17.6	15.7	14.4	18.0	27.2	60.5	300	309	144	56.3	36.1
MAX	30	19	16	15	21	30	147	436	382	236	84	61
MIN	20	17	15	14	13	21	30	173	256	72	34	27
AC-FT	1580	1050	968	883	1030	1670	3600	18460	18390	8880	3460	2150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1992, BY WATER YEAR (WY)

MEAN	31.9	24.4	18.7	15.9	16.0	17.7	36.9	247	464	186	72.8	42.8
MAX	77.7	76.2	30.0	25.9	33.8	46.0	95.0	468	805	484	251	127
(WY)	1985	1985	1962	1985	1983	1983	1962	1970	1983	1984	1984	1984
MIN	13.0	9.83	11.7	11.0	9.55	9.20	13.7	114	156	44.9	25.3	21.8
(WY)	1978	1978	1978	1963	1978	1976	1973	1981	1963	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1958 - 1992	
ANNUAL TOTAL	32977		31321			
ANNUAL MEAN	90.3		85.6		98.0	
HIGHEST ANNUAL MEAN					183	1984
LOWEST ANNUAL MEAN					47.0	1977
HIGHEST DAILY MEAN	657	Jun 14	436	May 27	1480	Jun 17 1965
LOWEST DAILY MEAN	13	Feb 23	13	Feb 1	[a]7.0	Mar 8 1960
ANNUAL SEVEN-DAY MINIMUM	14	Jan 1	14	Jan 26	7.9	Mar 8 1960
INSTANTANEOUS PEAK FLOW			[b]491	May 20	[c]1910	Jun 16 1965
INSTANTANEOUS PEAK STAGE			[d]3.48	May 20	6.15	Jun 16 1965
ANNUAL RUNOFF (AC-FT)	65410		62130		70980	
10 PERCENT EXCEEDS	328		299		311	
50 PERCENT EXCEEDS	23		30		29	
90 PERCENT EXCEEDS	15		15		13	

a-Also occurred Mar 14, 1960.
b-Also occurred May 23.
c-From rating curve extended above 750 ft³/s.
d-Maximum gage height, 3.49 ft, May 23, 26, and 27.

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. Statistical summary computed for 1963 to current year.

GAGE.--Water-stage recorder with satellite telemetry, 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 excellent. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	53	106	104	104	104	106	104	103	440	101	100
2	107	53	106	104	103	104	106	104	101	372	106	106
3	104	53	106	104	104	104	106	104	101	342	106	104
4	105	53	106	104	103	104	106	75	103	314	106	103
5	106	53	106	104	104	104	106	53	103	289	104	104
6	106	53	106	102	104	104	106	53	107	213	103	103
7	109	53	106	101	104	103	106	79	188	191	104	104
8	106	53	105	101	103	104	106	105	327	199	104	104
9	106	53	106	101	104	104	106	106	449	199	104	104
10	107	53	106	101	104	105	106	106	510	192	105	104
11	106	53	106	101	104	106	106	105	521	176	106	104
12	106	53	106	101	104	106	106	106	524	158	106	104
13	106	53	106	101	104	109	108	106	543	149	106	103
14	106	53	104	101	104	109	110	106	570	139	106	103
15	106	79	104	101	104	109	107	106	566	127	106	104
16	106	106	104	101	106	108	106	106	529	119	107	104
17	74	106	104	101	106	106	107	105	473	108	106	104
18	53	106	104	102	106	106	107	104	441	104	106	104
19	53	106	103	102	106	99	106	104	435	102	106	104
20	53	106	104	103	106	104	106	106	438	97	106	104
21	53	106	104	103	106	104	106	108	449	101	105	104
22	53	106	104	104	106	104	107	109	449	101	107	104
23	53	106	104	104	106	104	107	109	448	101	113	103
24	53	106	104	103	106	104	107	109	454	101	107	104
25	53	106	104	104	106	104	106	109	451	102	106	103
26	53	106	104	104	104	104	106	105	482	104	106	104
27	53	106	104	104	104	106	106	105	510	103	107	104
28	53	106	104	104	104	106	107	103	519	104	106	104
29	53	106	104	104	104	106	107	102	517	104	106	104
30	53	106	104	104	---	106	104	102	493	104	106	104
31	53	---	103	104	---	106	---	103	---	104	103	---
TOTAL	2517	2411	3247	3182	3033	3256	3192	3107	11904	5159	3276	3112
MEAN	81.2	80.4	105	103	105	105	106	100	397	166	106	104
MAX	109	106	106	104	106	109	110	109	570	440	113	106
MIN	53	53	103	101	103	99	104	53	101	97	101	100
AC-FT	4990	4780	6440	6310	6020	6460	6330	6160	23610	10230	6500	6170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

MEAN	112	89.5	80.8	71.9	73.4	72.9	110	306	682	422	251	164
MAX	243	268	193	158	136	126	217	1101	1813	1476	999	348
(WY)	1987	1985	1985	1966	1984	1983	1985	1984	1984	1984	1984	1983
MIN	.000	23.2	44.6	31.0	47.6	48.6	39.3	24.0	32.3	51.5	51.7	18.6
(WY)	1964	1964	1989	1984	1986	1986	1965	1965	1965	1981	1981	1963

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1963 - 1992	
ANNUAL TOTAL	56704		47396			
ANNUAL MEAN	155		129		203	
HIGHEST ANNUAL MEAN					538	1984
LOWEST ANNUAL MEAN					65.5	1981
HIGHEST DAILY MEAN	[a]1270	Jun 16	570	Jun 14	1940	May 24 1984
LOWEST DAILY MEAN	[b]49	Mar 23	[c]53	Oct 18	[d].00	Sep 4 1963
ANNUAL SEVEN-DAY MINIMUM	51	Mar 20	53	Oct 18	.00	Sep 4 1963
INSTANTANEOUS PEAK FLOW			577	Jun 14	2010	May 25 1984
INSTANTANEOUS PEAK STAGE			2.14	Jun 14	[e]3.88	May 25 1984
ANNUAL RUNOFF (AC-FT)	112500		94010		147300	
10 PERCENT EXCEEDS	229		152		451	
50 PERCENT EXCEEDS	106		104		98	
90 PERCENT EXCEEDS	53		100		51	

a-Also occurred Jun 17.
b-Also occurred Mar 24.
c-Occurred on many days.
d-Also occurred Sep 5 to Nov 19, 1963.
e-Maximum gage height for period of record, 3.95 ft, Jun 22, 1983.

09051050 STRAIGHT CREEK BELOW LASKEY GULCH, NEAR 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 right 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 mi^2.

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

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. 31 to Nov. 3, Nov. 12-14, and Nov. 19 to Apr. 16. Records good except for estimated daily discharges, which are poor. Diversion upstream from station for municipal purposes downstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	5.2	4.2	3.3	1.9	3.1	2.9	15	26	33	9.2	12
2	5.9	5.4	4.2	3.1	2.0	3.2	2.9	15	27	32	7.7	11
3	5.7	5.4	4.2	3.1	2.0	3.2	2.9	15	29	28	11	9.1
4	5.7	5.4	4.2	3.1	2.0	3.2	3.0	16	31	26	11	8.6
5	5.8	5.7	4.2	3.1	2.0	3.2	3.2	17	32	25	11	8.7
6	5.8	5.6	4.0	3.0	2.0	3.2	3.3	18	33	23	11	8.1
7	5.7	5.5	4.0	3.0	2.0	3.2	3.4	19	33	22	11	7.6
8	5.7	5.7	4.0	2.9	2.0	3.2	3.5	18	33	25	10	7.5
9	5.6	5.8	4.0	2.8	2.0	3.2	3.8	19	35	25	9.7	7.3
10	5.5	5.9	4.0	2.7	2.0	3.2	4.0	18	38	23	9.7	6.9
11	5.4	5.6	4.0	2.6	2.1	3.2	4.3	16	43	22	10	7.0
12	5.4	5.6	4.0	2.5	2.1	3.2	4.5	17	46	22	10	6.8
13	5.4	5.4	4.0	2.4	2.2	3.2	4.8	18	51	23	9.7	7.1
14	5.4	5.2	4.0	2.4	2.3	3.2	5.0	20	53	20	9.1	6.8
15	5.5	5.2	4.0	2.3	2.3	3.2	5.2	23	51	17	8.3	6.9
16	5.4	5.2	4.0	2.3	2.4	3.2	5.2	23	47	17	10	6.8
17	5.3	5.3	3.9	2.2	2.5	3.2	5.4	25	43	16	14	7.6
18	5.3	5.3	3.9	2.2	2.5	3.2	5.5	27	43	15	10	8.6
19	5.2	4.9	3.9	2.2	2.5	3.2	5.0	31	45	14	8.6	7.9
20	5.3	4.7	3.9	2.1	2.6	3.1	4.9	37	47	16	8.1	8.4
21	5.3	4.5	3.9	2.1	2.7	3.1	5.5	43	46	14	8.1	7.7
22	5.3	4.4	3.9	2.1	2.7	3.1	4.7	40	45	13	9.0	7.1
23	5.3	4.4	3.8	2.1	2.8	3.1	4.9	37	46	12	9.9	6.6
24	5.8	4.4	3.6	2.0	2.8	3.1	5.2	36	46	12	21	6.4
25	5.8	4.3	3.5	2.0	2.9	3.1	5.6	36	44	16	14	7.8
26	5.7	4.2	3.5	2.0	3.0	3.1	6.0	40	43	17	11	7.1
27	5.6	4.2	3.5	2.0	3.0	3.0	7.4	42	42	14	10	6.7
28	5.7	4.2	3.5	2.0	3.0	3.0	10	42	42	14	9.1	6.4
29	4.8	4.2	3.5	2.0	3.0	3.0	13	34	41	13	8.5	6.3
30	5.5	4.2	3.5	1.9	---	2.9	15	30	36	12	8.5	6.0
31	5.2	---	3.4	1.8	---	2.9	---	29	---	12	8.7	---
TOTAL	171.0	151.0	120.2	75.3	69.3	97.2	160.0	816	1217	593	316.9	228.8
MEAN	5.52	5.03	3.88	2.43	2.39	3.14	5.33	26.3	40.6	19.1	10.2	7.63
MAX	6.0	5.9	4.2	3.3	3.0	3.2	15	43	53	33	21	12
MIN	4.8	4.2	3.4	1.8	1.9	2.9	2.9	15	26	12	7.7	6.0
AC-FT	339	300	238	149	137	193	317	1620	2410	1180	629	454

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

MEAN	6.44	5.55	4.44	3.82	3.45	3.98	6.74	22.7	53.9	21.3	10.3	6.57
MAX	9.62	7.79	5.14	4.63	4.30	5.40	9.99	26.5	77.6	29.1	13.1	7.63
(WY)	1987	1989	1989	1989	1990	1989	1989	1991	1988	1988	1989	1992
MIN	4.08	3.86	3.80	2.43	2.39	3.14	5.33	11.6	36.2	13.5	8.89	4.31
(WY)	1990	1990	1988	1992	1992	1992	1992	1990	1987	1987	1987	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1987 - 1992	
ANNUAL TOTAL	4756.9		4015.7			
ANNUAL MEAN	13.0		11.0		12.4	
HIGHEST ANNUAL MEAN					14.5	1988
LOWEST ANNUAL MEAN					10.9	1987
HIGHEST DAILY MEAN	100	Jun 15	53	Jun 14	100	Jun 15 1991
LOWEST DAILY MEAN	3.4	Dec 31	1.8	Jan 31	1.8	Jan 31 1992
ANNUAL SEVEN-DAY MINIMUM	3.5	Dec 25	1.9	Jan 26	1.9	Jan 26 1992
INSTANTANEOUS PEAK FLOW			63	Jun 13	146	Jul 5 1990
INSTANTANEOUS PEAK STAGE			[a]4.71	Jun 13	[b]5.42	Jul 5 1990
ANNUAL RUNOFF (AC-FT)	9440		7970		9020	
10 PERCENT EXCEEDS	36		32		33	
50 PERCENT EXCEEDS	5.6		5.5		6.1	
90 PERCENT EXCEEDS	4.0		2.5		3.4	

a-Maximum gage height, 4.83 ft, Nov 20, backwater from ice.
b-Maximum gage height, 5.71 ft, Mar 5, 1989, backwater from ice.

09052000 ROCK CREEK NEAR DILLON, CO

LOCATION.--Lat 39°43'23", long 106°07'41", in NE1/4 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 mi^2.

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 daily discharges: Oct. 1-9, Oct. 29-31, and Nov. 2 to Apr. 14. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	6.3	6.8	4.2	3.8	3.3	5.0	44	33	46	15	13
2	12	6.5	6.6	4.2	3.8	3.2	4.8	43	29	39	14	16
3	12	6.4	6.4	4.2	3.8	3.1	5.0	42	35	29	14	15
4	10	6.3	6.2	4.2	3.7	3.2	5.4	45	41	27	14	15
5	8.2	6.3	6.0	4.2	3.6	3.5	5.8	49	54	32	14	16
6	7.6	6.7	5.9	4.2	3.4	3.5	6.4	55	46	40	14	14
7	7.2	7.2	5.5	4.2	3.3	3.5	7.0	58	45	45	17	12
8	6.9	7.6	5.5	4.5	3.2	3.7	7.8	55	45	48	14	11
9	6.9	7.6	5.5	4.5	3.1	3.9	8.6	54	48	46	14	9.8
10	6.8	7.6	5.5	4.4	3.0	3.6	9.1	45	45	38	14	9.2
11	6.7	7.4	5.5	4.2	2.9	3.4	10	35	50	33	14	8.7
12	6.6	7.3	5.5	4.2	3.0	3.4	11	36	57	34	13	8.3
13	6.5	7.2	5.2	4.2	3.0	3.4	12	38	63	34	12	10
14	6.4	7.0	5.1	4.2	3.1	3.2	13	41	64	31	12	9.0
15	6.4	6.8	4.9	4.2	3.2	3.2	13	41	54	28	11	8.6
16	6.3	6.6	4.8	4.5	3.2	3.2	14	45	43	27	12	8.5
17	6.1	6.5	4.7	4.2	3.3	3.2	14	46	34	26	21	8.5
18	6.0	6.5	4.6	4.2	3.3	3.4	13	57	39	24	17	11
19	6.0	6.4	4.4	4.2	3.3	3.6	10	64	49	23	14	9.8
20	6.0	6.4	4.3	4.2	3.3	3.6	8.7	72	57	23	13	9.7
21	6.0	6.6	4.2	4.2	3.3	3.6	8.6	78	57	25	11	9.0
22	5.9	6.6	4.2	3.9	3.4	3.9	9.0	72	51	23	11	8.2
23	6.0	6.6	4.2	3.9	3.4	3.9	8.3	58	55	22	13	7.7
24	6.7	6.6	4.2	3.9	3.5	3.7	8.4	57	59	21	23	7.4
25	6.7	6.6	4.2	3.8	3.5	3.7	9.2	59	57	22	22	8.8
26	6.5	6.6	4.2	3.8	3.5	3.7	11	58	61	21	17	8.6
27	6.6	6.6	4.2	3.8	3.5	3.9	16	71	56	19	14	7.5
28	6.3	7.0	4.2	3.8	3.4	4.4	23	55	44	18	12	7.1
29	6.3	7.4	4.2	3.8	3.4	4.6	30	43	51	18	10	6.8
30	6.5	7.0	4.2	3.8	---	4.4	38	40	50	16	10	6.4
31	6.5	---	4.2	3.8	---	4.7	---	36	---	16	10	---
TOTAL	223.6	204.2	155.1	127.6	97.2	112.6	345.1	1592	1472	894	436	300.6
MEAN	7.21	6.81	5.00	4.12	3.35	3.63	11.5	51.4	49.1	28.8	14.1	10.0
MAX	13	7.6	6.8	4.5	3.8	4.7	38	78	64	48	23	16
MIN	5.9	6.3	4.2	3.8	2.9	3.1	4.8	35	29	16	10	6.4
AC-FT	444	405	308	253	193	223	685	3160	2920	1770	865	596

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1992, BY WATER YEAR (WY)

MEAN	7.77	5.97	4.78	4.06	3.68	3.84	9.41	46.8	94.3	55.7	23.2	11.9
MAX	15.9	9.83	8.40	7.08	5.34	5.68	28.4	81.8	143	96.5	50.0	25.8
(WY)	1985	1948	1948	1948	1985	1986	1943	1948	1952	1984	1984	1984
MIN	4.21	3.77	3.21	2.58	2.29	1.99	3.44	24.2	38.9	17.1	9.50	5.48
(WY)	1945	1945	1977	1988	1991	1989	1983	1968	1954	1977	1954	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1943 - 1992	
ANNUAL TOTAL	7745.8		5960.0			
ANNUAL MEAN	21.2		16.3		22.7	
HIGHEST ANNUAL MEAN					32.4	1984
LOWEST ANNUAL MEAN					12.5	1977
HIGHEST DAILY MEAN	130	Jun 15	78	May 21	203	Jun 8 1948
LOWEST DAILY MEAN	[a]2.2	Feb 25	2.9	Feb 11	1.5	Mar 23 1989
ANNUAL SEVEN-DAY MINIMUM	2.3	Feb 20	3.0	Feb 8	1.6	Mar 21 1989
INSTANTANEOUS PEAK FLOW			90	May 21	[b]289	Jun 10 1973
INSTANTANEOUS PEAK STAGE			3.51	May 21	[c]4.35	Jun 10 1973
ANNUAL RUNOFF (AC-FT)	15360		11820		16430	
10 PERCENT EXCEEDS	64		46		70	
50 PERCENT EXCEEDS	7.0		7.4		7.2	
90 PERCENT EXCEEDS	2.4		3.5		3.5	

a-Also occurred Feb 26.
b-From rating curve extended above 154 ft^3/s.
c-Maximum gage height, 4.36 ft, June 24, 1971.

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.

REVISED RECORDS.--WDR CO-89-2: 1988 (M).

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. 24 to Apr. 28. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	3.2	4.2	2.1	2.0	1.8	2.9	26	22	41	11	10
2	5.8	3.7	4.0	2.0	2.0	1.7	2.8	25	20	32	11	12
3	5.5	3.8	3.8	2.0	2.0	1.7	2.8	25	24	22	11	12
4	5.2	3.8	3.7	2.0	1.9	1.8	3.0	27	31	22	11	11
5	4.8	3.8	3.6	2.0	1.9	1.8	3.2	30	39	27	11	11
6	4.7	3.8	3.5	2.0	1.8	1.8	3.5	35	34	34	11	10
7	4.6	4.2	3.4	2.0	1.7	1.8	3.9	36	32	37	12	9.1
8	4.5	4.4	3.2	2.1	1.7	2.0	4.5	33	32	37	11	8.2
9	4.5	4.4	3.1	2.1	1.6	1.9	5.0	31	35	35	10	7.4
10	4.4	4.4	3.0	2.0	1.5	1.9	6.8	27	34	28	10	7.0
11	4.3	4.3	2.9	2.0	1.7	1.9	8.4	20	39	25	10	6.8
12	4.2	4.2	2.9	2.0	1.7	1.9	11	20	49	28	9.8	6.6
13	3.5	4.1	2.9	2.0	1.7	1.8	14	20	58	26	9.3	7.1
14	2.9	4.0	2.8	2.0	1.7	1.8	17	24	62	23	9.1	6.7
15	2.8	3.9	2.7	2.1	1.8	1.6	20	27	44	22	8.8	6.6
16	2.6	3.8	2.7	2.0	1.8	1.6	23	28	35	21	8.9	6.4
17	2.4	3.8	2.6	2.0	1.8	1.6	22	29	27	19	12	6.4
18	2.1	3.8	2.5	2.0	1.9	1.8	24	40	34	18	11	8.2
19	1.9	3.8	2.4	2.0	1.8	1.8	19	49	48	17	9.7	7.6
20	1.9	3.8	2.4	2.0	1.8	1.8	15	69	56	18	8.3	7.6
21	1.9	3.8	2.3	2.0	1.8	1.8	13	76	50	19	7.7	7.2
22	1.8	4.0	2.3	2.0	1.9	1.9	11	59	47	17	7.7	6.7
23	1.8	4.2	2.3	2.0	1.9	1.9	10	44	53	16	8.9	6.3
24	2.3	4.1	2.3	2.0	1.9	1.8	8.6	47	58	16	13	6.0
25	2.4	4.0	2.3	2.0	1.9	1.8	7.4	51	53	17	14	6.6
26	2.6	4.0	2.2	2.0	1.9	1.8	6.6	49	56	17	11	6.6
27	2.7	4.0	2.2	2.0	1.9	2.1	6.4	58	51	15	9.5	6.0
28	2.8	4.3	2.1	2.0	1.8	2.6	6.5	40	41	14	8.3	5.6
29	2.9	4.5	2.1	2.0	1.8	2.6	10	30	49	13	7.5	5.4
30	3.1	4.3	2.1	2.0	---	2.5	20	28	46	13	7.1	5.1
31	3.2	---	2.1	2.0	---	2.5	---	25	---	12	7.4	---
TOTAL	106.4	120.2	86.6	62.4	52.6	59.1	311.3	1128	1259	701	308.0	229.2
MEAN	3.43	4.01	2.79	2.01	1.81	1.91	10.4	36.4	42.0	22.6	9.94	7.64
MAX	6.3	4.5	4.2	2.1	2.0	2.6	24	76	62	41	14	12
MIN	1.8	3.2	2.1	2.0	1.5	1.6	2.8	20	20	12	7.1	5.1
AC-FT	211	238	172	124	104	117	617	2240	2500	1390	611	455

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	5.08	3.30	2.60	2.08	1.94	2.03	4.79	28.4	77.3	49.2	18.1	9.17
MAX	12.1	7.27	5.00	3.28	3.14	5.00	10.4	59.8	111	91.8	39.2	18.0
(WY)	1985	1985	1985	1984	1988	1988	1992	1974	1991	1984	1984	1984
MIN	2.77	1.89	1.31	.93	1.06	1.11	1.75	11.2	42.0	16.6	7.04	4.00
(WY)	1974	1978	1977	1977	1977	1977	1973	1968	1992	1977	1981	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	7982.8		4423.8			
ANNUAL MEAN	21.9		12.1		17.0	
HIGHEST ANNUAL MEAN					26.1	1984
LOWEST ANNUAL MEAN					9.50	1977
HIGHEST DAILY MEAN	166	Jun 15	76	May 21	210	Jun 25 1983
LOWEST DAILY MEAN	[a]1.3	Apr 1	1.5	Feb 10	.80	Jan 6 1977
ANNUAL SEVEN-DAY MINIMUM	1.3	Mar 31	1.7	Feb 7	.88	Jan 1 1977
INSTANTANEOUS PEAK FLOW			95	May 20	316	Jul 1 1984
INSTANTANEOUS PEAK STAGE			2.53	May 20	3.42	Jul 1 1984
ANNUAL RUNOFF (AC-FT)	15830		8770		12340	
10 PERCENT EXCEEDS	85		35		55	
50 PERCENT EXCEEDS	3.8		4.5		4.5	
90 PERCENT EXCEEDS	1.9		1.8		1.7	

a-Also occurred Apr 2-5.

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: Oct. 22 to Apr. 29, and May 1-22. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	4.2	5.7	3.0	2.3	2.7	3.7	38	35	62	20	20
2	12	4.4	5.3	3.0	2.3	2.6	3.7	38	29	50	18	27
3	11	4.7	5.3	3.0	2.3	2.6	4.0	43	33	36	18	27
4	10	4.7	5.3	3.0	2.3	2.7	4.2	41	41	36	18	23
5	9.7	4.7	5.3	3.0	2.3	2.8	4.5	39	53	45	17	25
6	9.3	4.7	5.3	2.8	2.3	2.9	4.8	40	45	52	18	23
7	9.1	5.0	5.3	2.8	2.3	3.0	5.2	41	43	58	20	20
8	8.9	5.3	5.3	2.8	2.2	3.0	5.8	45	44	67	18	17
9	8.7	5.2	4.8	2.8	2.2	3.0	6.3	42	49	62	18	15
10	8.6	5.0	4.8	2.8	2.2	3.0	6.8	36	44	51	17	13
11	8.3	4.8	4.8	2.7	2.2	2.9	7.5	33	53	44	16	12
12	8.1	4.6	4.8	2.7	2.2	2.8	9.0	31	63	51	16	11
13	8.0	4.5	4.8	2.7	2.1	2.8	10	30	70	47	15	12
14	7.7	4.2	4.8	2.7	2.2	2.8	11	33	77	44	15	12
15	7.5	4.1	4.8	2.7	2.2	2.8	13	37	59	39	14	11
16	7.4	4.0	4.8	2.6	2.2	2.8	14	42	49	37	14	11
17	7.2	4.0	4.8	2.6	2.3	2.8	14	40	38	33	19	11
18	6.9	4.0	4.7	2.6	2.4	2.8	15	44	42	31	20	15
19	6.7	4.0	4.6	2.6	2.4	2.8	14	50	58	30	17	15
20	6.6	4.2	4.5	2.6	2.4	2.8	11	62	66	31	15	14
21	6.6	4.4	4.5	2.5	2.5	2.8	9.0	82	65	37	14	14
22	6.3	4.7	4.3	2.5	2.5	2.8	8.0	72	60	33	13	13
23	6.0	4.5	4.2	2.5	2.6	2.8	7.0	61	66	29	15	11
24	5.5	4.5	4.1	2.5	2.7	2.8	6.2	66	74	29	23	10
25	4.5	4.5	4.1	2.5	2.6	2.8	5.8	71	74	30	28	11
26	4.3	4.5	4.0	2.4	2.6	3.0	5.6	65	73	31	22	13
27	4.3	5.0	3.6	2.4	2.7	3.3	7.0	74	68	29	19	11
28	5.0	5.5	3.6	2.4	2.7	3.4	15	58	57	25	16	9.9
29	5.0	5.7	3.6	2.4	2.8	3.5	24	45	70	23	14	9.1
30	5.0	5.7	3.6	2.4	---	3.5	36	41	65	22	12	8.3
31	4.0	---	3.6	2.4	---	3.6	---	40	---	21	12	---
TOTAL	230.2	139.3	143.0	82.4	69.0	90.7	291.1	1480	1663	1215	531	444.3
MEAN	7.43	4.64	4.61	2.66	2.38	2.93	9.70	47.7	55.4	39.2	17.1	14.8
MAX	12	5.7	5.7	3.0	2.8	3.6	36	82	77	67	28	27
MIN	4.0	4.0	3.6	2.4	2.1	2.6	3.7	30	29	21	12	8.3
AC-FT	457	276	284	163	137	180	577	2940	3300	2410	1050	881

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	8.39	5.04	3.75	2.91	2.65	3.03	8.28	44.9	109	76.7	29.3	14.5
MAX	18.1	8.33	6.25	5.41	3.84	5.14	15.1	85.9	152	143	66.6	30.9
(WY)	1985	1985	1984	1984	1971	1990	1989	1974	1980	1984	1983	1984
MIN	4.12	2.73	1.82	1.26	1.49	1.46	3.04	20.0	55.4	26.0	12.3	5.41
(WY)	1979	1988	1974	1977	1975	1974	1975	1968	1992	1977	1977	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	9893.3		6379.0			
ANNUAL MEAN	27.1		17.4		25.8	
HIGHEST ANNUAL MEAN					40.2	1984
LOWEST ANNUAL MEAN					14.3	1977
HIGHEST DAILY MEAN	171	Jun 15	82	May 21	292	Jun 25 1983
LOWEST DAILY MEAN	[a]2.4	Feb 26	2.1	Feb 13	[b]1.0	Mar 14 1974
ANNUAL SEVEN-DAY MINIMUM	2.4	Feb 26	2.2	Feb 8	1.1	Mar 8 1974
INSTANTANEOUS PEAK FLOW			[c]94	Jun 14	[d]485	Aug 5 1983
INSTANTANEOUS PEAK STAGE			[c]4.22	Jun 14	[e]6.14	Aug 5 1983
ANNUAL RUNOFF (AC-FT)	19620		12650		18660	
10 PERCENT EXCEEDS	86		49		81	
50 PERCENT EXCEEDS	7.5		7.4		6.9	
90 PERCENT EXCEEDS	2.5		2.6		2.5	

a-Also occurred Feb 27 to Mar 7.
b-Also occurred Jan 12, 1977.
c-Maximum recorded, but may have been higher during period of no gage-height record, May 1-22.
d-From rating curve extended above 170 ft³/s.
e-Maximum gage height, 6.56 ft, May 2, 1975, backwater from beaver dam and ice.

09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO

LOCATION.--Lat 39°47'57", long 106°16'04", in SW1/4SW1/4 sec.8, T.3 S., R.79 W., Summit County, Hydrologic Unit 14010002, on left 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 mi^2.

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 550 ft downstream at different datums. Oct. 1, 1949 to Oct. 2, 1989 water-stage recorder at site 50 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 10 to Mar. 23. Records fair except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	5.7	5.3	3.2	2.7	2.6	4.2	68	41	84	28	14
2	9.5	5.3	5.3	3.2	2.7	2.6	4.2	63	35	69	27	22
3	10	5.3	5.3	3.2	2.7	2.7	4.2	62	41	46	26	23
4	9.1	5.3	5.2	3.2	2.6	2.7	4.2	67	54	46	27	22
5	8.6	5.6	4.9	3.2	2.6	2.7	4.3	74	72	63	26	27
6	8.3	6.1	4.7	3.2	2.6	2.7	4.5	80	60	82	24	23
7	8.4	5.9	4.5	3.2	2.6	2.7	4.6	87	56	89	27	19
8	8.4	5.8	4.4	3.2	2.6	2.7	4.8	86	55	94	25	16
9	7.9	5.9	4.2	3.2	2.6	2.8	4.8	76	64	89	24	13
10	7.5	6.0	4.0	3.2	2.6	2.7	5.0	66	58	70	24	12
11	7.3	6.2	4.0	3.2	2.5	2.6	5.6	46	70	62	24	11
12	7.3	5.9	4.0	3.2	2.5	2.6	6.2	44	102	74	24	11
13	7.3	5.8	4.0	3.3	2.5	2.6	7.1	45	104	70	23	11
14	6.9	5.6	4.0	3.3	2.5	2.5	9.2	53	108	62	22	10
15	6.8	5.7	4.0	3.3	2.5	2.2	13	60	90	54	21	11
16	6.6	5.6	4.0	3.2	2.6	2.3	15	61	67	50	20	11
17	6.4	5.5	4.0	3.2	2.6	2.3	15	57	49	47	26	11
18	6.1	5.7	4.0	3.2	2.6	2.4	17	77	57	44	25	17
19	5.6	5.6	3.9	3.2	2.6	2.4	14	89	86	45	21	18
20	5.2	5.5	3.7	3.2	2.6	2.4	12	128	105	50	19	19
21	5.0	5.5	3.7	3.1	2.6	2.5	10	145	104	55	17	18
22	4.8	5.9	3.8	3.0	2.6	2.5	10	118	94	48	16	15
23	4.7	5.9	3.7	2.8	2.6	2.5	10	91	101	42	21	14
24	4.6	5.8	3.7	2.8	2.6	2.8	9.2	96	108	41	35	12
25	4.5	5.4	3.7	2.8	2.7	3.4	9.0	100	111	46	38	14
26	4.6	5.3	3.7	2.8	2.7	3.5	11	92	109	55	28	15
27	4.9	5.4	3.7	2.8	2.7	3.5	17	96	91	45	21	14
28	5.0	5.0	3.7	2.8	2.7	4.7	30	75	78	37	17	12
29	4.9	5.1	3.6	2.8	2.7	4.2	45	60	96	34	14	11
30	5.1	5.3	3.6	2.8	---	4.2	60	50	92	31	12	10
31	5.3	---	3.6	2.8	---	4.2	---	46	---	30	12	---
TOTAL	206.6	168.6	127.9	95.6	75.7	89.2	370.1	2358	2358	1754	714	456
MEAN	6.66	5.62	4.13	3.08	2.61	2.88	12.3	76.1	78.6	56.6	23.0	15.2
MAX	10	6.2	5.3	3.3	2.7	4.7	60	145	111	94	38	27
MIN	4.5	5.0	3.6	2.8	2.5	2.2	4.2	44	35	30	12	10
AC-FT	410	334	254	190	150	177	734	4680	4680	3480	1420	904

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1992, BY WATER YEAR (WY)

MEAN	8.66	5.04	3.64	2.71	2.41	2.75	9.88	55.3	131	100	39.8	18.0
MAX	17.7	8.46	5.83	4.57	4.08	4.74	33.8	98.4	183	181	88.0	37.2
(WY)	1985	1948	1988	1988	1988	1986	1946	1974	1980	1983	1984	1984
MIN	2.83	2.70	1.89	1.42	1.40	1.46	2.78	26.1	78.6	40.6	22.9	5.71
(WY)	1943	1989	1977	1977	1979	1976	1983	1983	1992	1977	1977	1944

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1943 - 1992	
ANNUAL TOTAL	10293.1		8773.7			
ANNUAL MEAN	28.2		24.0		31.8	
HIGHEST ANNUAL MEAN					46.7	1984
LOWEST ANNUAL MEAN					19.3	1977
HIGHEST DAILY MEAN	199	Jun 15	145	May 21	404	Jun 25 1983
LOWEST DAILY MEAN	1.5	Mar 2	2.2	Mar 15	[a]1.3	Feb 22 1976
ANNUAL SEVEN-DAY MINIMUM	1.6	Feb 24	2.4	Mar 14	1.4	Jan 9 1977
INSTANTANEOUS PEAK FLOW			178	May 21	[b]555	Jun 25 1983
INSTANTANEOUS PEAK STAGE			2.18	May 21	[c]4.74	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	20420		17400		23000	
10 PERCENT EXCEEDS	92		74		104	
50 PERCENT EXCEEDS	6.4		7.2		7.1	
90 PERCENT EXCEEDS	2.3		2.7		2.3	

a-Also occurred Jan 10, 1977.
b-Site and datum then in use, from rating curve extended above 240 ft^3/s.
c-Maximum gage height, 5.64 ft, Jun 30, 1984, site and datum then in use.

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: Nov. 3-5. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	1.7	2.9	1.4	1.1	.98	1.8	41	31	47	8.0	5.4
2	3.8	1.9	2.8	1.3	1.1	.97	1.7	41	27	38	7.5	5.6
3	3.3	2.1	2.7	1.3	1.1	.93	1.7	53	29	31	7.0	6.0
4	2.6	2.2	2.6	1.3	.99	.97	1.8	45	38	28	6.7	6.2
5	2.4	2.2	2.6	1.3	.94	1.1	1.9	43	56	30	6.5	6.3
6	2.4	2.4	2.5	1.3	.94	1.1	2.1	46	54	34	6.4	6.3
7	2.3	2.8	2.4	1.3	.90	1.1	2.3	54	50	37	6.6	6.0
8	2.1	3.0	2.3	1.4	.90	1.1	2.6	65	46	38	6.4	5.6
9	2.2	2.9	2.3	1.4	.89	1.3	3.1	56	46	39	6.2	5.2
10	2.3	3.0	2.2	1.3	.86	1.2	3.8	49	40	35	6.0	4.8
11	2.3	2.9	2.2	1.3	.84	1.2	5.0	37	43	30	5.8	4.6
12	2.0	2.8	2.2	1.3	.85	1.1	6.3	35	76	29	5.7	4.1
13	1.7	2.8	2.1	1.3	.84	1.1	7.9	38	86	29	5.5	3.7
14	1.7	2.7	2.1	1.3	.89	1.1	11	44	94	29	5.4	3.6
15	1.7	2.7	2.0	1.3	.92	1.0	13	49	76	26	5.3	3.6
16	1.6	2.6	2.0	1.4	.94	1.0	14	50	56	23	5.1	3.6
17	1.4	2.6	1.9	1.3	.95	1.0	13	46	39	21	5.2	3.5
18	1.3	2.6	1.8	1.3	.98	1.1	15	60	41	19	5.3	3.5
19	1.3	2.6	1.8	1.3	.96	1.1	12	68	65	17	5.2	3.6
20	1.3	2.6	1.7	1.3	.94	1.1	9.8	97	80	19	5.1	4.2
21	1.3	2.6	1.7	1.3	.94	1.1	7.8	103	79	20	5.0	4.7
22	1.2	2.8	1.7	1.2	.95	1.2	7.1	96	65	18	4.7	5.0
23	1.2	2.9	1.7	1.2	1.0	1.2	6.6	71	67	17	4.7	5.0
24	1.1	2.8	1.7	1.2	1.0	1.1	6.2	75	70	16	5.3	4.6
25	1.3	2.8	1.6	1.1	1.1	1.1	5.6	80	74	16	8.1	5.0
26	1.5	2.8	1.6	1.1	1.1	1.1	5.9	77	74	16	8.8	4.9
27	1.8	2.7	1.5	1.1	1.1	1.2	10	87	68	14	7.8	4.6
28	1.9	3.2	1.5	1.1	1.0	1.6	22	73	50	13	6.9	4.5
29	2.1	3.4	1.4	1.1	1.0	1.6	31	53	55	11	6.2	4.3
30	2.3	3.2	1.4	1.1	---	1.5	36	39	54	10	5.6	4.2
31	2.2	---	1.4	1.1	---	1.5	---	34	---	8.8	5.5	---
TOTAL	61.7	80.3	62.3	39.0	28.02	35.75	268.0	1805	1729	758.8	189.5	142.2
MEAN	1.99	2.68	2.01	1.26	.97	1.15	8.93	58.2	57.6	24.5	6.11	4.74
MAX	4.1	3.4	2.9	1.4	1.1	1.6	36	103	94	47	8.8	6.3
MIN	1.1	1.7	1.4	1.1	.84	.93	1.7	34	27	8.8	4.7	3.5
AC-FT	122	159	124	77	56	71	532	3580	3430	1510	376	282

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	4.08	2.52	1.79	1.29	1.12	1.28	6.00	45.5	106	51.5	13.0	6.50
MAX	11.0	4.97	2.96	2.11	1.89	2.33	14.5	75.2	147	128	29.7	17.1
(WY)	1985	1985	1971	1985	1985	1986	1989	1974	1988	1983	1983	1972
MIN	.97	1.07	.80	.44	.42	.56	1.88	17.8	56.5	12.5	4.07	1.25
(WY)	1980	1980	1977	1977	1977	1977	1975	1983	1989	1977	1981	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	8399.47		5199.57			
ANNUAL MEAN	23.0		14.2		20.1	
HIGHEST ANNUAL MEAN					28.7	1983
LOWEST ANNUAL MEAN					10.8	1977
HIGHEST DAILY MEAN	206	Jun 15	103	May 21	298	Jun 25 1983
LOWEST DAILY MEAN	[a].65	Feb 11	[b].84	Feb 11	.28	Oct 7 1971
ANNUAL SEVEN-DAY MINIMUM	.66	Feb 10	.87	Feb 8	.38	Feb 12 1977
INSTANTANEOUS PEAK FLOW			114	May 21	353	Jun 25 1983
INSTANTANEOUS PEAK STAGE			3.97	May 21	[c]5.20	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	16660		10310		14530	
10 PERCENT EXCEEDS	84		50		68	
50 PERCENT EXCEEDS	2.9		2.9		3.3	
90 PERCENT EXCEEDS	.99		1.1		1.0	

a-Also occurred Feb 12-15.
b-Also occurred Feb 13.
c-Maximum gage height, 5.43 ft, Jun 21, 1967.

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, 257,100 acre-ft, June 13, elevation, 9,017.93 ft; minimum, 213,000 acre-ft, Apr. 7, elevation, 9,003.30 ft.

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 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, 143,900 acre-ft, July 29, 30 elevation, 7,948.63 ft; minimum, 60,260 acre-ft, Apr. 28, elevation, 7,896.93 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation [a](feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation [a](feet)	Contents (acre-feet)	Change in contents (acre-feet)
	09050600 DILLON RESERVOIR			09057000 GREEN MOUNTAIN RESERVOIR		
Sept. 30.....	9,016.17	251,400	-	7,943.36	133,100	-
Oct. 31.....	9,014.95	247,500	-3,900	7,933.03	113,400	-19,700
Nov. 30.....	9,012.54	240,000	-7,500	7,927.14	103,100	-10,300
Dec. 31.....	9,010.08	232,500	-7,500	7,921.28	93,500	-9,600
CAL YR 1991..			-8,500			+35,180
Jan. 31.....	9,007.54	225,000	-7,500	7,914.86	83,800	-9,700
Feb. 29.....	9,005.10	218,100	-6,900	7,908.09	74,320	-9,480
Mar. 31.....	9,003.38	213,300	-4,800	7,900.98	65,140	-9 180
Apr. 30.....	9,004.52	216,400	+3,100	7,897.29	60,690	-4,450
May 31.....	9,015.92	250,500	+34,100	7,915.32	84,460	+23,770
June 30.....	9,017.78	256,600	+6,100	7,940.15	126,800	+42,340
July 31.....	9,016.43	252,200	-4,400	7,948.51	143,600	+16,800
Aug. 31.....	9,015.29	248,500	-3,700	7,935.80	118,600	-25-000
Sept. 30.....	9,014.74	246,800	-1,700	7,924.40	98,500	-20,100
WTR YR 1992..			-4,600			-34,600

a-National Geodetic Vertical Datum of 1929.

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.

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1943, published as Blue River below Green Mountain Reservoir, near Kremmling. Statistical summary computed for 1943 to current year. Water-quality data available, January 1986 to September 1987.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	418	332	292	291	301	297	245	259	102	63	378	665
2	424	332	293	292	302	297	293	252	99	63	454	616
3	424	336	293	292	300	291	291	251	103	62	538	612
4	450	333	298	290	300	294	289	254	99	62	576	608
5	466	333	289	290	297	293	300	253	92	62	578	609
6	465	331	290	296	297	292	300	202	94	62	577	609
7	466	328	294	297	298	290	300	115	92	62	576	608
8	462	326	294	296	295	288	300	116	94	62	543	604
9	464	324	291	292	296	289	299	114	73	62	583	539
10	462	323	299	297	297	292	305	115	58	62	617	539
11	462	324	301	298	298	291	304	114	60	62	673	623
12	462	331	298	295	296	291	300	114	61	62	669	732
13	461	326	296	294	296	296	293	115	61	62	674	743
14	468	303	301	295	301	295	320	117	61	62	672	735
15	468	291	303	296	296	295	336	118	62	62	671	717
16	466	293	302	298	293	294	343	121	62	113	674	658
17	463	295	298	299	292	300	338	118	62	195	654	593
18	470	295	296	300	301	302	339	110	62	192	628	497
19	472	297	294	300	297	301	340	98	63	222	660	428
20	472	293	290	301	293	297	339	99	63	234	731	430
21	465	292	291	302	291	298	339	99	64	228	789	412
22	460	292	295	299	290	296	341	97	64	231	795	381
23	402	293	295	297	289	301	338	96	64	191	720	379
24	377	294	293	292	302	299	336	95	64	193	702	377
25	475	296	293	287	301	298	339	96	64	227	678	378
26	471	295	293	286	296	297	346	96	65	243	681	380
27	471	292	293	297	292	297	362	97	65	242	683	380
28	472	292	295	299	296	295	358	97	65	241	679	381
29	472	293	299	301	299	293	291	96	65	264	680	382
30	472	293	298	301	---	289	263	97	65	297	684	381
31	410	---	295	301	---	293	---	95	---	329	681	---
TOTAL	14112	9278	9152	9171	8602	9141	9487	4116	2168	4574	19898	15996
MEAN	455	309	295	296	297	295	316	133	72.3	148	642	533
MAX	475	336	303	302	302	302	362	259	103	329	795	743
MIN	377	291	289	286	289	288	245	95	58	62	378	377
AC-FT	27990	18400	18150	18190	17060	18130	18820	8160	4300	9070	39470	31730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1992, BY WATER YEAR (WY)

MEAN	382	294	310	304	291	315	388	548	728	780	614	502
MAX	1258	800	580	566	559	864	802	1557	2134	2536	1547	846
(WY)	1963	1963	1947	1948	1962	1962	1962	1952	1984	1984	1984	1990
MIN	144	82.5	.72	.46	.19	.61	47.2	55.7	54.4	131	270	192
(WY)	1950	1943	1943	1943	1943	1943	1943	1969	1981	1981	1964	1946

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1943 - 1992	
ANNUAL TOTAL	110742		115695			
ANNUAL MEAN	303		316		456	
HIGHEST ANNUAL MEAN					946	1984
LOWEST ANNUAL MEAN					200	1964
HIGHEST DAILY MEAN	714	Jun 19	795	Aug 22	[a]3370	Jul 8 1957
LOWEST DAILY MEAN	[b]93	May 22	58	Jun 10	[c,d].00	Dec 6 1942
ANNUAL SEVEN-DAY MINIMUM	95	May 22	61	Jun 10	.00	Jan 5 1943
INSTANTANEOUS PEAK FLOW			854	Aug 21	[e]3520	Jul 8 1957
INSTANTANEOUS PEAK STAGE			5.75	Aug 21	10.13	Jul 8 1957
ANNUAL RUNOFF (AC-FT)	219700		229500		330100	
10 PERCENT EXCEEDS	462		596		843	
50 PERCENT EXCEEDS	303		297		365	
90 PERCENT EXCEEDS	101		71		119	

a-Maximum daily discharge for period of record, 3620 ft³/s, Jun 22, 1938.
b-Also occurred May 23.
c-No flow at times in 1943.
d-Minimum daily discharge (prior to Green Mountain Reservoir), 80 ft³/s, Feb 18-24, 1938, Feb 18 and 19, 1940.
e-Maximum discharge and stage for period of record 4000 ft³/s, Jun 4, 1938, gage height, 5.93 ft, site and datum then in use, from rating curve extended above 3000 ft³/s.

09057520 BLUE RIVER BELOW SPRUCE CREEK NEAR KREMMLING, CO

LOCATION.--Lat 39°57'49", long 106°21'35", in NW¼SW¼ sec.16, T.1 S., R.80 W., Grand County, Hydrologic Unit 14010002, on right bank 3,400 ft upstream of Camp Creek, 1.4 mi downstream from Spruce Creek, 6.5 mi southeast of Kremmling, 7.7 mi downstream from Green Mountain Reservoir, and 7.8 mi upstream from mouth.

DRAINAGE AREA.--645 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,425 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 21 to May 1. Records good except for estimated daily discharges, which are poor. Flow is regulated by Green Mountain Reservoir 7.7 mi upstream and the Trans Mountain Hydro Corporation Diversion 0.5 mi upstream. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	305	236	194	193	194	193	160	168	61	29	252	500
2	311	236	194	192	195	193	195	140	59	28	309	453
3	311	238	194	193	195	193	195	159	62	28	377	449
4	330	234	198	192	194	192	195	161	61	29	421	447
5	347	236	191	194	194	192	196	161	53	29	422	448
6	344	239	191	192	194	192	196	139	45	28	424	447
7	345	235	195	193	193	192	196	66	45	28	422	448
8	343	233	195	194	193	191	196	69	46	29	392	453
9	345	231	190	195	193	191	195	67	40	29	423	360
10	344	230	194	196	194	190	195	67	27	29	447	318
11	343	231	200	196	194	180	196	64	29	29	501	374
12	344	236	197	196	194	180	196	61	31	30	498	479
13	344	233	194	195	195	180	196	63	30	30	503	508
14	348	214	198	195	195	190	220	50	30	30	501	567
15	350	193	199	194	195	190	250	67	30	30	502	559
16	347	193	197	194	195	190	251	69	31	37	505	499
17	346	196	193	193	196	191	251	69	31	72	490	455
18	351	197	192	193	196	191	250	66	30	76	464	369
19	353	197	190	192	195	191	250	49	30	102	484	307
20	353	195	189	194	195	192	250	47	30	118	551	308
21	348	194	191	194	194	192	250	48	31	116	606	301
22	344	193	192	195	194	192	251	47	31	120	631	277
23	301	194	192	195	194	193	250	46	31	84	545	277
24	270	195	193	195	194	193	250	47	32	92	531	276
25	350	197	192	194	194	193	250	43	32	155	504	277
26	345	197	193	194	194	192	280	47	32	167	504	277
27	347	193	192	193	194	193	290	49	32	165	506	277
28	349	194	192	193	194	194	300	53	32	167	505	278
29	347	196	193	193	194	194	200	55	31	178	505	279
30	346	195	194	193	---	194	180	60	30	198	511	277
31	301	---	195	193	---	195	---	51	---	225	507	---
TOTAL	10452	6381	6004	6008	5635	5919	6730	2348	1115	2507	14743	11544
MEAN	337	213	194	194	194	191	224	75.7	37.2	80.9	476	385
MAX	353	239	200	196	196	195	300	168	62	225	631	567
MIN	270	193	189	192	193	180	160	43	27	28	252	276
AC-FT	20730	12660	11910	11920	11180	11740	13350	4660	2210	4970	29240	22900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	380	173	156	165	171	165	272	98.0	120	152	443	478
MAX	602	213	194	196	194	208	362	137	271	239	601	690
(WY)	1990	1992	1992	1990	1992	1990	1990	1991	1991	1991	1990	1990
MIN	200	121	94.0	106	130	96.0	224	75.7	37.2	80.9	252	359
(WY)	1991	1991	1991	1991	1991	1991	1992	1992	1992	1992	1991	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	78055		79386			
ANNUAL MEAN	214		217		231	
HIGHEST ANNUAL MEAN					291	1990
LOWEST ANNUAL MEAN					186	1991
HIGHEST DAILY MEAN	550	Jun 18	631	Aug 22	1180	Sep 1 1990
LOWEST DAILY MEAN	76	May 29	27	Jun 10	11	May 31 1990
ANNUAL SEVEN-DAY MINIMUM	82	May 26	28	Jul 1	12	May 25 1990
INSTANTANEOUS PEAK FLOW			681	Aug 21	[a]1210	Sep 1 1990
INSTANTANEOUS PEAK STAGE			4.81	Aug 21	5.25	Sep 1 1990
ANNUAL RUNOFF (AC-FT)	154800		157500		167500	
10 PERCENT EXCEEDS	344		431		478	
50 PERCENT EXCEEDS	199		194		193	
90 PERCENT EXCEEDS	90		35		67	

a-Also occurred Sep 4, 1990.

09058000 COLORADO RIVER NEAR KREMMLING, CO

LOCATION.--Lat 40°02'12", long 106°26'22", in NE1/4SW1/4 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to September 1918 (published as Grand River near Kremmling), October 1961 to September 1970, October 1971 to current year. Statistical summary computed for 1962 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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: Dec. 13 to Feb. 8. Records good except for estimated daily discharges, which are poor. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	782	664	552	540	540	576	707	1180	785	509	754	980
2	733	640	543	540	540	579	657	1070	692	516	819	952
3	723	603	572	540	540	572	701	1090	601	500	881	873
4	741	616	591	540	540	584	730	1060	548	480	957	873
5	754	679	589	540	540	594	784	1020	511	464	974	882
6	742	681	579	540	540	606	798	1010	519	482	965	867
7	747	710	577	540	540	620	794	873	523	443	959	869
8	752	677	583	540	560	634	830	884	565	458	924	868
9	755	676	582	540	581	632	840	869	588	533	949	796
10	742	684	577	540	586	616	927	865	510	523	946	756
11	743	693	585	540	569	608	987	830	508	508	1020	772
12	736	693	577	540	575	617	958	757	558	471	1040	908
13	732	651	571	540	561	632	962	744	588	486	1030	920
14	733	634	560	540	561	664	1010	755	599	462	1030	935
15	742	622	550	540	566	682	1060	763	621	437	1020	945
16	737	624	550	540	564	705	1110	729	550	434	1020	890
17	741	617	550	540	554	729	1140	673	551	504	1040	895
18	740	622	540	540	558	709	1140	664	575	607	1010	789
19	746	616	540	540	557	670	1150	623	525	655	994	675
20	745	586	540	540	568	651	1040	538	439	723	992	658
21	744	598	540	540	568	643	960	434	452	749	1010	653
22	730	601	540	540	565	637	965	475	518	657	1080	614
23	707	579	540	540	566	642	990	470	498	663	1020	605
24	658	569	540	540	562	654	955	484	504	664	1030	752
25	800	602	540	540	576	658	911	471	535	677	1050	767
26	796	607	540	540	571	666	912	518	588	677	1080	781
27	769	617	540	540	565	688	959	749	546	650	1030	625
28	780	603	540	540	567	728	1010	956	498	621	995	619
29	785	607	540	540	578	733	1070	965	465	694	978	618
30	770	589	540	540	---	726	1120	771	454	732	962	615
31	733	---	540	540	---	741	---	762	---	764	960	---
TOTAL	23138	18960	17248	16740	16258	20196	28177	24052	16414	17743	30519	23752
MEAN	746	632	556	540	561	651	939	776	547	572	984	792
MAX	800	710	591	540	586	741	1150	1180	785	764	1080	980
MIN	658	569	540	540	540	572	657	434	439	434	754	605
AC-FT	45890	37610	34210	33200	32250	40060	55890	47710	32560	35190	60530	47110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

MEAN	755	657	578	557	550	638	1008	1892	1987	1496	1062	859
MAX	1413	1029	1067	1000	1025	1394	3297	6200	7160	5840	2321	1366
(WY)	1963	1985	1985	1985	1962	1962	1962	1984	1984	1983	1984	1984
MIN	547	352	277	278	294	331	536	477	379	539	630	733
(WY)	1989	1978	1964	1964	1964	1977	1964	1977	1966	1963	1963	1969

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1962 - 1992	
ANNUAL TOTAL	282717		253197			
ANNUAL MEAN	775		692		1005	
HIGHEST ANNUAL MEAN					2378	1984
LOWEST ANNUAL MEAN					568	1964
HIGHEST DAILY MEAN	2140	May 24	1180	May 1	[a]12700	May 26 1984
LOWEST DAILY MEAN	290	Mar 9	[b]434	May 21	[c]250	Dec 13 1963
ANNUAL SEVEN-DAY MINIMUM	302	Mar 6	472	Jul 11	264	Dec 20 1963
INSTANTANEOUS PEAK FLOW			1250	May 1	[d]13600	May 26 1984
INSTANTANEOUS PEAK STAGE			6.20	May 1	16.60	May 26 1984
ANNUAL RUNOFF (AC-FT)	560800		502200		728300	
10 PERCENT EXCEEDS	1350		982		1790	
50 PERCENT EXCEEDS	733		634		762	
90 PERCENT EXCEEDS	389		531		430	

a-Maximum daily discharge for period of record, 20000 ft^3/s, Jun 7, 1912.
b-Also occurred Jul 16.
c-Minimum discharge observed for period of record, 166 ft^3/s, Dec 19, 1907.
d-Maximum discharge observed for period of record, 21500 ft^3/s, Jun 7, 1912, gage height, 21.8 ft, datum then in use, from rating curve extended above 14000 ft^3/s.

09058000 COLORADO RIVER NEAR KREMMLING, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1989 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	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)
OCT										
28...	1640	763	220	8.1	6.0	9.4	--	21	90	28
MAR										
24...	1200	632	256	8.0	5.0	11.4	K1	30	99	30
APR										
15...	1400	1130	227	8.0	5.5	11.0	K8	K2	92	28
MAY										
06...	1230	991	182	8.0	10.0	8.0	27	K17	76	24
JUL										
07...	1500	441	428	7.9	19.0	6.3	34	K4	180	51
AUG										
11...	1430	1020	224	7.9	15.0	7.3	20	K7	95	30
SEP										
02...	1500	955	207	7.9	12.0	8.2	K19	K13	85	27

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
OCT									
28...	4.9	8.1	0.4	2.1	68	42	3.3	0.4	6.9
MAR									
24...	5.9	11	0.5	2.4	75	45	4.4	0.4	7.2
APR									
15...	5.2	9.1	0.4	2.2	71	35	4.3	0.3	8.5
MAY									
06...	3.9	5.9	0.3	1.6	61	25	2.9	0.3	8.7
JUL									
07...	13	17	0.6	2.3	128	87	2.8	0.3	15
AUG									
11...	4.8	7.5	0.3	1.7	71	36	3.9	0.3	8.9
SEP									
02...	4.2	7.0	0.3	1.9	69	32	4.1	0.3	8.5

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)
OCT									
28...	125	137	0.17	258	<0.01	<0.01	<0.20	0.06	0.06
MAR									
24...	148	152	0.20	253	<0.01	<0.01	<0.20	0.10	0.10
APR									
15...	148	136	0.20	450	0.02	<0.01	0.50	0.11	0.11
MAY									
06...	118	109	0.16	316	0.02	<0.01	<0.20	0.06	0.06
JUL									
07...	268	266	0.36	319	<0.01	<0.01	0.50	<0.05	<0.05
AUG									
11...	144	136	0.20	395	<0.01	<0.01	<0.20	0.10	0.11
SEP									
02...	110	127	0.15	284	<0.01	<0.01	<0.20	0.11	0.12

K-Based on non-ideal colony count.

09058000 COLORADO RIVER NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS PHORUS DIS SOLV (MG/ AS	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT						
28...	0.02	0.02	0.02	<0.0	<0.01	<0.01
MAR						
24...	0.02	0.02	<0.01	<0.0	0.01	<0.01
APR						
15...	0.04	0.02	0.07	<0.0	0.06	<0.01
MAY						
06...	0.06	0.02	0.03	<0.0	--	<0.01
JUL						
07...	0.04	0.02	0.04	0.0	0.02	0.01
AUG						
11...	0.03	0.02	<0.01	<0.01	0.01	0.01
SEP						
02...	0.02	0.02	0.02	<0.0	0.02	<0.01

DATE	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)	CADMIUM DIS-SOLVED (UG/L AS CD)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR)	COBALT, DIS-SOLVED (UG/L AS CO)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, DIS-SOLVED (UG/L AS FE)	LEAD, DIS-SOLVED (UG/L AS PB)	LITHIUM DIS-SOLVED (UG/L AS LI)
OCT									
28...	38	<0.5	<1.0	<5	<3	<10	14	<10	8
MAR									
24...	37	<0.5	<1.0	<5	<3	<10	29	<10	10
APR									
15...	33	<0.5	<1.0	<5	<3	<10	66	<10	9
MAY									
06...	31	<0.5	<1.0	<5	<3	<10	65	<10	<4
JUL									
07...	51	<0.5	<1.0	<5	<3	10	120	<10	16
AUG									
11...	36	<0.5	<1.0	<5	<3	<10	17	<10	5
SEP									
02...	37	<0.5	<1.0	<5	<3	<10	28	<10	7

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)	ZINC, DIS-SOLVED (UG/L AS ZN)
OCT							
28...	15	30	<10	<1.0	170	<6	7
MAR							
24...	28	30	<10	<1.0	180	<6	6
APR							
15...	25	20	<10	<1.0	170	<6	<3
MAY							
06...	21	20	<10	<1.0	140	<6	5
JUL							
07...	87	<10	<10	<1.0	390	<6	7
AUG							
11...	22	30	<10	<1.0	160	<6	6
SEP							
02...	16	30	<10	<1.0	150	<6	5

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV				
18...	1610	603	227	3.0
DEC				
02...	1620	574	234	0.0
JUN				
03...	1350	603	368	14.0

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 mi^2.

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: Oct. 28 to Apr. 15. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9	4.0	3.5	2.6	2.6	2.9	4.7	132	47	79	11	13
2	5.4	3.8	3.2	2.4	2.7	2.9	5.0	116	41	59	11	28
3	5.0	3.5	3.4	2.2	2.6	2.9	4.6	104	49	43	10	27
4	4.6	4.1	3.4	2.4	2.5	3.1	4.5	90	60	44	9.8	19
5	4.3	4.5	3.8	2.7	2.4	3.1	4.7	103	77	51	9.6	19
6	4.2	4.8	3.8	2.7	2.4	3.1	5.2	127	64	55	9.8	17
7	4.0	5.2	3.8	2.4	2.7	3.1	6.8	107	60	59	10	14
8	3.9	4.9	4.2	2.4	3.1	3.4	8.4	119	66	61	9.4	12
9	4.4	4.5	4.2	2.2	2.8	3.1	10	91	73	60	8.6	10
10	4.3	4.8	3.7	2.1	2.7	2.9	12	71	66	48	8.0	9.2
11	3.6	5.0	3.9	2.1	2.7	2.9	15	51	72	42	8.1	8.5
12	3.6	4.7	3.5	1.9	2.6	3.2	16	52	111	43	8.4	7.9
13	3.6	4.4	3.2	1.8	2.8	3.3	20	53	139	44	8.0	7.6
14	3.6	4.7	2.7	1.7	2.8	3.3	22	66	159	40	7.4	7.5
15	3.5	5.0	2.9	1.8	2.8	3.3	23	76	118	34	6.4	7.0
16	3.4	4.7	3.1	1.9	2.8	3.8	23	75	77	30	7.0	7.0
17	3.4	4.7	3.1	2.2	2.8	3.8	21	69	53	27	17	6.9
18	3.4	4.9	3.4	2.5	2.7	3.8	20	109	62	25	17	8.7
19	3.2	5.1	3.5	2.3	2.6	3.5	17	114	109	24	12	8.8
20	3.1	4.6	3.4	2.3	2.8	3.3	15	184	143	25	9.6	9.1
21	3.1	4.8	3.0	2.5	3.2	3.4	14	200	130	28	8.5	9.5
22	3.0	4.2	3.0	2.7	3.1	3.8	15	175	95	24	7.9	8.5
23	2.8	3.6	2.6	2.7	2.9	3.5	14	120	102	21	9.5	7.6
24	4.3	3.8	2.3	2.9	2.9	3.2	13	154	114	20	21	6.9
25	4.0	4.4	2.4	2.7	3.1	3.2	15	169	114	24	27	7.4
26	4.0	4.1	2.6	2.7	2.8	3.5	19	151	115	27	19	8.9
27	4.0	4.0	2.5	2.6	3.0	3.5	27	152	94	22	14	8.3
28	3.9	3.8	2.4	2.5	3.2	3.7	42	110	71	17	12	7.9
29	3.7	3.8	2.4	2.5	3.1	3.9	59	72	87	15	10	7.2
30	3.9	4.0	2.4	2.5	---	4.1	93	57	82	14	8.9	6.5
31	4.0	---	2.5	2.6	---	4.3	---	53	---	12	8.9	---
TOTAL	121.1	132.4	97.8	73.5	81.2	104.8	568.9	3322	2650	1117	344.8	325.9
MEAN	3.91	4.41	3.15	2.37	2.80	3.38	19.0	107	88.3	36.0	11.1	10.9
MAX	5.9	5.2	4.2	2.9	3.2	4.3	93	200	159	79	27	28
MIN	2.8	3.5	2.3	1.7	2.4	2.9	4.5	51	41	12	6.4	6.5
AC-FT	240	263	194	146	161	208	1130	6590	5260	2220	684	646

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1992, BY WATER YEAR (WY)

MEAN	5.93	3.75	2.65	2.07	1.86	2.35	11.2	64.2	124	57.1	14.4	7.08
MAX	15.1	8.40	5.41	4.00	3.60	5.04	23.0	107	202	139	45.3	14.8
(WY)	1985	1985	1986	1952	1952	1986	1952	1984	1952	1983	1984	1984
MIN	1.71	1.23	1.04	.79	.83	.84	2.12	26.6	52.1	8.70	3.69	2.16
(WY)	1980	1980	1980	1975	1975	1975	1973	1968	1954	1977	1954	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1948 - 1992	
ANNUAL TOTAL	9474.4		8939.4			
ANNUAL MEAN	26.0		24.4		24.8	
HIGHEST ANNUAL MEAN					41.2	1984
LOWEST ANNUAL MEAN					12.9	1977
HIGHEST DAILY MEAN	252	Jun 15	200	May 21	362	Jun 9 1985
LOWEST DAILY MEAN	2.2	Feb 21	1.7	Jan 14	.40	Oct 6 1975
ANNUAL SEVEN-DAY MINIMUM	2.3	Feb 17	1.9	Jan 10	.62	Mar 28 1975
INSTANTANEOUS PEAK FLOW			234	May 21	560	Jun 8 1985
INSTANTANEOUS PEAK STAGE			4.39	May 21	[a]5.12	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	18790		17730		17950	
10 PERCENT EXCEEDS	85		80		84	
50 PERCENT EXCEEDS	4.7		5.0		4.6	
90 PERCENT EXCEEDS	2.5		2.6		1.5	

a-Maximum gage height for period of record, 6.44 ft, Apr 13, 1977.

09058610 DICKSON CREEK NEAR VAIL, CO

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.

DRAINAGE AREA.--3.41 mi^2.

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: Oct. 9 to Apr. 22, May 30 to July 21. Records fair 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.2	1.1	.92	.96	.84	1.5	10	8.0	4.0	1.8	2.6
2	1.8	1.3	.92	.94	.96	.84	1.4	9.8	7.5	3.5	1.8	1.9
3	2.1	1.3	.92	.92	.96	.84	1.3	9.4	7.0	3.0	1.7	1.6
4	1.8	.98	.94	.88	.92	.86	1.3	9.3	7.5	2.5	1.8	1.6
5	1.8	1.0	.96	.90	.92	.90	1.3	8.8	8.5	2.5	2.0	1.8
6	1.7	1.4	.98	.96	.92	.90	1.3	9.1	9.0	3.0	2.0	1.5
7	1.6	1.5	.98	.96	.92	.90	1.3	9.4	9.5	3.5	1.9	1.4
8	1.5	1.6	.96	.94	.92	.90	1.5	8.6	9.5	3.5	1.7	1.4
9	1.5	1.4	1.0	.94	.92	.90	1.7	9.1	8.5	6.0	1.6	1.4
10	1.5	1.4	.98	.94	.90	.94	1.9	8.4	8.0	5.0	1.6	1.4
11	1.4	1.4	.94	.98	.88	.92	2.0	6.6	8.5	4.5	1.6	1.3
12	1.4	1.5	1.0	.98	.88	.90	2.2	6.6	9.0	4.0	1.6	1.3
13	1.4	1.4	1.0	.98	.88	.92	2.4	7.4	10	4.5	1.5	1.4
14	1.5	1.3	.96	1.0	.88	.94	2.5	7.9	11	4.0	1.5	1.3
15	1.4	1.3	.92	.98	.88	.96	2.5	8.2	9.0	3.5	1.5	1.3
16	1.4	1.4	.88	.96	.88	.98	2.6	9.5	6.0	3.0	1.9	1.3
17	1.3	1.3	.86	.96	.86	.98	2.7	9.9	4.5	3.0	3.1	1.4
18	1.3	1.3	.88	.98	.86	1.0	2.8	10	4.0	2.5	1.9	1.6
19	1.2	1.3	.94	1.0	.86	1.0	2.8	11	5.0	2.0	1.7	1.3
20	1.1	1.3	1.0	1.0	.84	.98	2.6	12	6.0	2.0	1.7	1.4
21	1.1	1.1	1.0	.98	.86	.98	2.3	13	6.5	2.5	1.7	1.3
22	1.0	1.3	.96	.98	.88	1.0	2.1	14	6.5	2.4	1.8	1.2
23	.98	1.3	.96	1.0	.86	.98	2.0	13	6.0	2.2	1.9	1.2
24	.98	1.0	.92	.96	.86	.96	1.9	12	6.0	2.4	2.4	1.2
25	1.2	.98	.86	.96	.84	.96	2.2	12	6.5	2.8	2.1	1.4
26	1.3	1.4	.84	.98	.84	1.0	2.9	12	6.5	2.5	1.9	1.3
27	1.2	1.4	.86	.98	.84	1.1	4.3	14	6.5	2.0	1.7	1.2
28	1.2	1.3	.86	.98	.84	1.0	6.8	13	4.5	2.0	1.7	1.1
29	1.2	1.2	.86	.96	.84	.98	8.8	12	4.0	1.9	1.6	1.1
30	1.1	1.3	.86	.96	---	1.0	10	10	4.5	1.9	1.5	1.1
31	1.1	---	.90	.96	---	1.2	---	9.0	---	1.9	1.6	---
TOTAL	42.86	38.86	29.00	29.82	25.66	29.56	82.9	315.0	213.5	94.0	55.8	42.3
MEAN	1.38	1.30	.94	.96	.88	.95	2.76	10.2	7.12	3.03	1.80	1.41
MAX	2.1	1.6	1.1	1.0	.96	1.2	10	14	11	6.0	3.1	2.6
MIN	.98	.98	.84	.88	.84	.84	1.3	6.6	4.0	1.9	1.5	1.1
AC-FT	85	77	58	59	51	59	164	625	423	186	111	84

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1992, BY WATER YEAR (WY)

MEAN	1.05	.91	.74	.64	.62	.73	1.52	6.27	9.00	2.79	1.37	1.17
MAX	1.83	1.56	1.36	1.06	1.07	1.23	6.10	14.3	17.1	6.10	3.04	2.30
(WY)	1985	1985	1985	1985	1985	1985	1979	1979	1978	1991	1991	1991
MIN	.007	.002	.000	.000	.000	.000	.000	1.22	.91	.73	.17	.042
(WY)	1984	1984	1984	1984	1984	1984	1984	1977	1977	1977	1982	1972

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1972 - 1992	
ANNUAL TOTAL	1393.18		999.26			
ANNUAL MEAN	3.82		2.73		2.24	
HIGHEST ANNUAL MEAN					3.88	1974
LOWEST ANNUAL MEAN					.58	1977
HIGHEST DAILY MEAN	[a]26	May 24	14	May 22	[d]42	May 6 1979
LOWEST DAILY MEAN	[b].66	Feb 19	[c].84	Dec 26	[d].00	Aug 12 1972
ANNUAL SEVEN-DAY MINIMUM	.69	Mar 5	.84	Feb 25	.00	Sep 12 1972
INSTANTANEOUS PEAK FLOW			17	May 21	48	May 6 1979
INSTANTANEOUS PEAK STAGE			2.79	May 21	[e]2.75	May 6 1979
ANNUAL RUNOFF (AC-FT)	2760		1980		1620	
10 PERCENT EXCEEDS	11		8.5		5.3	
50 PERCENT EXCEEDS	1.3		1.4		1.0	
90 PERCENT EXCEEDS	.77		.90		.37	

a-Also occurred Jun 16.
b-Also occurred Feb 27.
c-Also occurred Feb 20, Feb 25 to Mar 3.
d-No flow at times some years.
e-Maximum gage height, 4.89 ft, May 9, 1984, backwater from ice.

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 mi^2.

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. 12-20, Oct. 24 to Apr. 30, and July 13-20. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.12	.09	.02	.00	.03	.22	9.4	3.4	.73	.19	.45
2	.10	.11	.08	.02	.00	.03	.25	13	3.0	.73	.18	.48
3	.09	.10	.07	.01	.00	.04	.25	15	2.7	.73	.17	.27
4	.09	.11	.08	.01	.00	.04	.26	13	2.6	.69	.21	.19
5	.08	.11	.08	.00	.00	.04	.29	11	2.9	.57	.27	.35
6	.08	.11	.08	.00	.00	.05	.31	11	2.5	.56	.29	.20
7	.08	.12	.08	.00	.00	.05	.34	9.7	2.4	.53	.30	.14
8	.11	.11	.08	.00	.00	.06	.36	8.8	2.2	.54	.21	.12
9	.14	.11	.07	.00	.00	.06	.40	9.6	2.1	.73	.17	.10
10	.12	.11	.07	.00	.00	.07	.45	8.0	2.0	.68	.14	.10
11	.12	.11	.07	.00	.00	.07	.52	8.0	2.0	.56	.13	.10
12	.13	.11	.07	.00	.00	.07	.68	7.6	2.0	.48	.14	.10
13	.14	.12	.07	.00	.00	.08	.78	7.4	1.6	.46	.12	.14
14	.15	.11	.06	.00	.00	.09	.94	6.9	1.4	.45	.10	.14
15	.14	.11	.06	.00	.01	.10	1.2	6.4	1.3	.44	.09	.13
16	.14	.11	.06	.00	.01	.10	1.0	6.0	1.1	.43	.22	.14
17	.13	.10	.06	.00	.01	.11	.84	5.3	1.1	.42	.39	.15
18	.13	.11	.05	.00	.01	.11	.76	5.1	1.1	.43	.22	.40
19	.13	.10	.05	.00	.01	.12	.68	4.9	1.1	.44	.14	.33
20	.12	.09	.05	.00	.01	.13	.62	4.8	1.1	.44	.11	.27
21	.12	.09	.04	.00	.01	.14	.58	5.1	1.1	.46	.10	.28
22	.12	.09	.04	.00	.01	.16	.50	4.9	1.1	.36	.12	.22
23	.13	.09	.04	.00	.01	.16	.45	4.0	1.0	.36	.16	.20
24	.12	.10	.04	.00	.02	.15	.47	3.5	.92	.44	.35	.19
25	.12	.10	.04	.00	.02	.16	.44	3.5	.92	.61	.30	.15
26	.12	.10	.04	.00	.02	.16	.44	3.2	.92	.43	.25	.47
27	.11	.11	.03	.00	.02	.16	.50	5.4	.92	.32	.13	.30
28	.11	.11	.03	.00	.03	.17	.60	5.0	.92	.29	.06	.23
29	.11	.10	.03	.00	.03	.18	.90	3.9	.88	.28	.05	.19
30	.12	.10	.02	.00	---	.19	1.5	4.0	.73	.26	.07	.16
31	.13	---	.02	.00	---	.20	---	4.0	---	.22	.10	---
TOTAL	3.66	3.17	1.75	0.06	0.23	3.28	17.53	217.4	49.01	15.07	5.48	6.69
MEAN	.12	.11	.056	.002	.008	.11	.58	7.01	1.63	.49	.18	.22
MAX	.15	.12	.09	.02	.03	.20	1.5	15	3.4	.73	.39	.48
MIN	.08	.09	.02	.00	.00	.03	.22	3.2	.73	.22	.05	.10
AC-FT	7.3	6.3	3.5	.1	.5	6.5	35	431	97	30	11	13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	.27	.17	.12	.092	.084	.13	.67	6.40	6.20	.90	.32	.24
MAX	.78	.45	.26	.24	.21	.29	1.73	18.0	23.2	3.26	1.25	.70
(WY)	1985	1985	1983	1983	1983	1986	1971	1984	1983	1983	1983	1984
MIN	.085	.030	.000	.000	.000	.000	.000	1.26	.30	.15	.065	.079
(WY)	1991	1965	1965	1965	1965	1991	1991	1977	1977	1977	1981	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	376.88		323.33			
ANNUAL MEAN	1.03		.88		1.30	
HIGHEST ANNUAL MEAN					3.54	1984
LOWEST ANNUAL MEAN					.31	1977
HIGHEST DAILY MEAN	17	May 20	15	May 3	63	May 25 1984
LOWEST DAILY MEAN	[a].00	Feb 1	[a].00	Jan 5	[b].00	Nov 10 1964
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 1	.00	Jan 5	.00	Nov 10 1964
INSTANTANEOUS PEAK FLOW			20	May 3	82	May 25 1984
INSTANTANEOUS PEAK STAGE			2.05	May 3	[c]2.21	May 25 1984
ANNUAL RUNOFF (AC-FT)	748		641		942	
10 PERCENT EXCEEDS	2.5		2.5		3.2	
50 PERCENT EXCEEDS	.10		.13		.20	
90 PERCENT EXCEEDS	.00		.00		.05	

a-No flow many days.
b-No flow some days some years.
c-Maximum gage height, 3.51 ft, May 18, 1973, backwater from ice.

09058800 EAST MEADOW CREEK NEAR MINTURN, CO

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.

DRAINAGE AREA.--3.61 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 9,455 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29 to Apr. 23, and June 17 to July 20. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.0	1.0	.82	.74	.86	.82	10	14	9.0	2.1	2.4
2	1.2	.96	.90	.80	.78	.90	.84	10	14	7.0	2.0	2.4
3	1.2	.86	.86	.76	.80	.92	.90	10	15	6.0	1.9	1.7
4	1.2	.94	.88	.80	.82	.90	.94	10	16	6.6	2.1	1.5
5	1.1	1.0	.90	.86	.72	.88	.96	11	17	7.0	2.2	1.7
6	1.2	1.1	.92	.88	.60	.76	1.0	12	16	8.0	2.1	1.4
7	1.2	1.2	.94	.90	.66	.74	1.1	13	16	9.0	2.0	1.3
8	1.0	1.2	.98	.92	.70	.76	1.2	12	15	10	1.7	1.3
9	1.0	1.1	1.0	.86	.72	.78	1.3	11	16	8.0	1.6	1.2
10	1.0	1.1	.98	.80	.70	.80	1.4	10	16	7.0	1.5	1.2
11	1.0	1.1	.96	.82	.68	.82	1.5	9.9	16	6.0	2.1	1.1
12	1.0	1.0	.94	.86	.70	.84	1.6	11	17	7.0	2.0	1.1
13	1.0	1.1	.90	.88	.74	.86	1.7	12	17	6.0	1.5	1.2
14	1.1	1.1	.80	.86	.76	.88	1.8	13	17	5.0	1.3	1.1
15	1.1	1.0	.74	.80	.74	.90	1.7	14	17	4.5	1.2	1.2
16	1.0	1.0	.80	.74	.72	.92	1.6	13	16	4.2	4.0	1.2
17	.96	1.1	.90	.8	.70	.94	1.5	14	13	4.0	2.5	1.3
18	.90	1.2	.96	.78	.72	.90	1.4	16	14	3.8	1.6	1.8
19	.93	1.1	1.0	.76	.74	.88	1.7	18	15	3.6	1.3	1.4
20	.98	1.0	1.1	.72	.76	.86	1.5	20	16	3.2	1.2	1.7
21	.94	1.1	.96	.70	.78	.84	1.3	20	15	3.6	1.2	1.4
22	.98	1.0	.90	.74	.80	.82	1.1	19	13	3.3	1.8	1.2
23	1.0	.90	.94	.78	.78	.80	1.1	18	14	3.2	3.9	1.2
24	1.3	1.0	.84	.80	.76	.78	.98	18	15	3.5	2.9	1.1
25	1.7	1.1	.74	.82	.74	.76	1.2	19	16	4.1	2.1	1.5
26	1.4	1.2	.76	.86	.72	.78	1.5	19	14	3.4	2.2	1.4
27	1.3	1.2	.78	.84	.74	.80	2.3	21	12	3.0	1.8	1.3
28	1.3	1.1	.84	.78	.78	.86	4.8	20	11	2.8	1.6	1.2
29	1.2	1.1	.88	.70	.80	.84	6.3	19	12	2.8	1.4	1.1
30	1.1	1.1	.90	.68	---	.82	8.8	17	11	2.7	1.3	1.1
31	1.1	---	.84	.70	---	.80	---	16	---	2.5	1.3	---
TOTAL	34.69	31.96	27.84	24.82	21.40	26.00	55.84	455.9	446	159.8	59.4	41.7
MEAN	1.12	1.07	.90	.80	.74	.84	1.86	14.7	14.9	5.15	1.92	1.39
MAX	1.7	1.2	1.1	.92	.82	.94	8.8	21	17	10	4.0	2.4
MIN	.90	.86	.74	.68	.60	.74	.82	9.9	11	2.5	1.2	1.1
AC-FT	69	63	55	49	42	52	111	904	885	317	118	83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	1.26	.97	.77	.66	.62	.71	1.66	10.9	22.5	8.02	2.21	1.40
MAX	2.78	2.00	1.50	1.11	1.04	1.16	3.75	26.3	45.7	28.8	5.85	3.09
(WY)	1966	1966	1966	1983	1983	1983	1987	1986	1983	1983	1965	1984
MIN	.73	.55	.44	.35	.40	.40	.66	2.97	7.55	1.28	.68	.75
(WY)	1978	1979	1979	1979	1965	1965	1975	1975	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	1451.77		1385.35			
ANNUAL MEAN	3.98		3.79		4.35	
HIGHEST ANNUAL MEAN					8.05	1983
LOWEST ANNUAL MEAN					1.83	1977
HIGHEST DAILY MEAN	[a]33	Jun 6	21	May 27	81	Jun 20 1983
LOWEST DAILY MEAN	[b].42	Jan 17	.60	Feb 6	.32	Jan 7 1979
ANNUAL SEVEN-DAY MINIMUM	.44	Jan 31	.68	Feb 6	.33	Jan 6 1979
INSTANTANEOUS PEAK FLOW			24	May 21	81	Jun 30 1984
INSTANTANEOUS PEAK STAGE			1.34	May 21	[c]1.71	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	2880		2750		3150	
10 PERCENT EXCEEDS	16		14		15	
50 PERCENT EXCEEDS	1.1		1.2		1.1	
90 PERCENT EXCEEDS	.48		.76		.56	

a-Also occurred Jun 15.
b-Also occurred Feb 5.
c-Maximum gage height, 2.22 ft, May 12, 1970, backwater from ice.

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 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 with satellite telemetry. 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: Oct. 30, 31, Nov. 1, 3-5, 7, 8, 10, 12-15, 17, Nov. 19 to Jan. 17, Feb. 20-23, 28, 29, Mar. 1, 3-25. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	18	15	11	14	12	27	295	191	99	25	22
2	16	19	14	12	14	12	25	286	164	87	24	36
3	16	18	13	13	14	12	23	276	168	73	24	36
4	15	18	11	13	14	12	27	270	186	68	24	30
5	15	18	10	12	14	12	32	275	220	71	24	28
6	15	18	12	11	14	12	30	306	200	74	23	27
7	15	17	12	11	14	11	30	311	188	76	26	24
8	14	17	13	12	14	12	33	310	183	79	22	20
9	14	17	13	13	14	11	38	291	186	79	22	19
10	13	17	12	12	14	12	48	263	179	67	20	17
11	13	18	13	12	14	12	59	217	171	59	20	16
12	13	17	14	12	14	13	59	225	202	58	22	16
13	14	17	13	13	14	13	72	250	214	64	20	16
14	13	16	12	13	14	13	80	275	224	64	18	15
15	14	17	13	13	14	13	73	296	193	58	18	15
16	14	16	14	13	13	13	76	294	157	52	18	15
17	14	15	13	14	13	14	68	281	125	46	34	16
18	14	15	12	14	13	14	68	340	124	43	31	20
19	13	15	11	14	13	14	58	347	153	41	26	20
20	14	15	11	14	12	14	49	410	175	42	21	21
21	14	15	12	14	12	14	45	446	166	44	20	21
22	13	15	12	14	12	14	52	412	139	41	19	19
23	14	14	14	14	11	15	49	332	134	38	19	17
24	15	15	15	14	12	15	43	332	135	36	29	16
25	16	15	14	14	13	15	48	344	136	39	40	17
26	16	14	12	14	12	18	60	338	131	41	35	19
27	17	14	11	14	12	20	83	371	119	37	28	18
28	17	14	11	14	12	21	135	340	108	35	24	17
29	17	15	11	14	12	22	187	270	110	31	20	17
30	17	15	11	14	---	24	253	243	105	30	20	16
31	18	---	11	14	---	27	---	224	---	27	19	---
TOTAL	459	484	385	406	382	456	1930	9470	4886	1699	735	606
MEAN	14.8	16.1	12.4	13.1	13.2	14.7	64.3	305	163	54.8	23.7	20.2
MAX	18	19	15	14	14	27	253	446	224	99	40	36
MIN	13	14	10	11	11	11	23	217	105	27	18	15
AC-FT	910	960	764	805	758	904	3830	18780	9690	3370	1460	1200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1992, BY WATER YEAR (WY)

MEAN	19.2	17.4	15.1	13.5	13.0	15.2	53.3	256	344	108	30.7	17.2
MAX	62.9	34.1	24.6	20.0	24.5	35.3	167	495	656	379	94.9	46.1
(WY)	1962	1985	1985	1966	1986	1986	1962	1958	1957	1983	1983	1984
MIN	6.72	8.68	7.19	7.44	7.86	9.18	16.8	99.0	74.1	14.8	6.22	4.00
(WY)	1978	1980	1980	1980	1980	1980	1961	1977	1954	1977	1954	1944

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1944 - 1992	
ANNUAL TOTAL	27784		21898			
ANNUAL MEAN	76.1		59.8		75.3	
HIGHEST ANNUAL MEAN					127	1984
LOWEST ANNUAL MEAN					27.2	1977
HIGHEST DAILY MEAN	571	Jun 6	446	May 21	1300	May 25 1984
LOWEST DAILY MEAN	[a]10	Feb 18	10	Dec 5	[b]1.9	Sep 1 1954
ANNUAL SEVEN-DAY MINIMUM	11	Mar 2	11	Dec 26	2.3	Sep 17 1954
INSTANTANEOUS PEAK FLOW			487	May 21	[c,d]1300	May 25 1984
INSTANTANEOUS PEAK STAGE			4.81	May 21		
ANNUAL RUNOFF (AC-FT)	55110		43430		54570	
10 PERCENT EXCEEDS	313		201		254	
50 PERCENT EXCEEDS	18		17		19	
90 PERCENT EXCEEDS	12		12		10	

a-Also occurred Dec 5.
b-Also occurred Sep 18, 19, 1954.
c-Maximum daily discharge for period of record.
d-Maximum discharge and stage, (recorded), 1220 ft³/s, Jun 27, 1983, gage height 5.82 ft, from peak stage indicator, but may have been higher May 25, 1984.

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.

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.--Estimated daily discharges: Apr. 10-15, and June 26 to July 14. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of approximately 1,025 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	11	8.9	8.5	9.1	11	14	172	52	2.2	1.6	1.8
2	2.5	8.3	10	8.5	9.3	11	14	161	41	2.2	1.6	2.1
3	2.5	6.1	11	8.2	9.6	11	14	148	38	2.6	1.6	2.1
4	2.4	9.7	11	8.4	9.1	11	18	145	34	2.7	1.5	2.0
5	2.3	12	11	8.6	8.9	11	23	136	29	2.3	1.5	1.9
6	2.3	13	10	8.7	8.9	11	24	127	25	1.9	1.5	1.8
7	2.4	13	10	8.6	8.9	11	25	133	24	1.6	1.6	1.8
8	2.4	11	10	9.2	8.9	11	30	122	27	1.8	1.7	1.8
9	2.4	11	10	9.6	9.1	11	36	126	29	2.0	1.7	1.7
10	2.4	12	10	9.6	9.3	10	40	113	26	2.3	1.7	1.7
11	2.5	13	10	9.1	9.4	10	48	96	20	2.0	1.6	1.7
12	2.4	11	10	9.1	9.5	10	62	104	23	2.3	1.6	1.7
13	2.4	10	10	9.1	9.1	10	80	93	19	3.0	1.6	1.7
14	2.4	10	9.5	9.6	9.8	11	98	96	13	2.6	1.5	1.5
15	2.4	11	9.5	9.6	9.8	11	94	92	11	2.0	1.5	1.5
16	2.4	11	9.6	9.5	9.9	11	99	85	10	4.9	1.5	1.5
17	2.4	11	9.6	9.6	9.9	11	93	78	10	2.3	1.6	1.7
18	2.3	11	9.6	9.6	9.8	11	100	75	7.6	1.9	1.6	1.8
19	2.3	10	9.8	9.1	10	11	66	71	6.9	1.9	1.6	1.9
20	2.3	8.1	10	9.1	11	11	54	72	6.7	1.9	1.6	1.9
21	2.3	12	10	9.0	11	10	52	82	6.6	2.2	1.6	1.9
22	2.3	11	9.7	9.0	10	11	62	94	6.6	2.0	1.5	1.9
23	2.4	9.7	9.5	9.1	11	11	59	68	5.0	1.9	1.5	1.7
24	2.8	10	9.0	9.4	11	11	54	60	2.9	1.9	1.5	1.7
25	2.7	11	8.7	9.2	11	11	62	56	2.9	2.2	1.6	1.7
26	4.7	11	8.6	8.9	11	10	80	57	2.3	2.2	1.9	1.9
27	12	11	8.5	8.9	11	12	100	129	2.7	1.9	1.8	2.0
28	12	11	8.1	8.9	11	12	136	101	2.9	1.8	1.7	2.0
29	8.9	11	7.9	8.9	11	12	156	72	2.8	1.8	1.7	1.9
30	10	11	7.9	8.8	---	12	163	62	2.5	1.7	1.7	1.9
31	7.2	---	7.9	9.1	---	13	---	56	---	1.7	1.7	---
TOTAL	115.2	321.9	295.3	280.5	287.3	341	1956	3082	489.4	67.7	49.9	54.2
MEAN	3.72	10.7	9.53	9.05	9.91	11.0	65.2	99.4	16.3	2.18	1.61	1.81
MAX	12	13	11	9.6	11	13	163	172	52	4.9	1.9	2.1
MIN	2.3	6.1	7.9	8.2	8.9	10	14	56	2.3	1.6	1.5	1.5
AC-FT	228	638	586	556	570	676	3880	6110	971	134	99	108

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	10.0	12.0	10.7	10.1	9.93	12.6	63.2	157	59.9	10.9	5.71	5.56
MAX	20.4	16.9	14.1	13.9	12.8	20.0	95.1	262	115	25.7	11.7	15.5
(WY)	1987	1987	1985	1985	1985	1986	1986	1985	1986	1986	1986	1986
MIN	3.72	8.27	7.74	7.91	7.66	8.77	22.5	73.2	16.3	2.18	1.55	1.81
(WY)	1992	1990	1991	1991	1990	1991	1991	1990	1992	1992	1990	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	10660.1		7340.4			
ANNUAL MEAN	29.2		20.1		30.8	
HIGHEST ANNUAL MEAN					50.2	1986
LOWEST ANNUAL MEAN					17.8	1990
HIGHEST DAILY MEAN	310	May 26	172	May 1	410	May 10 1985
LOWEST DAILY MEAN	[a]1.9	Aug 23	[b]1.5	Aug 4	1.2	Aug 15 1990
ANNUAL SEVEN-DAY MINIMUM	2.0	Aug 22	1.6	Aug 1	1.3	Aug 25 1990
INSTANTANEOUS PEAK FLOW			223	Apr 30	454	May 9 1991
INSTANTANEOUS PEAK STAGE			3.39	Apr 30	[c]3.86	May 9 1991
ANNUAL RUNOFF (AC-FT)	21140		14560		22280	
10 PERCENT EXCEEDS	102		69		92	
50 PERCENT EXCEEDS	8.5		9.5		11	
90 PERCENT EXCEEDS	2.4		1.7		3.6	

a-Also occurred Aug 24-27.
b-Also occurred Aug 5, 6, 14-16, 22-24, and Sep 14-16.
c-Maximum gage height, 3.97 ft, May 6, 1985, but may have been higher during period of no gage-height record May 7-14, 1985.

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.
WATER TEMPERATURES: April 1986 to September 1987.

INSTRUMENTATION.--Water-quality monitor April 1986 to September 1987.

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, 18.9°C July 26,1987; minimum, 0.0°C many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
APR												
15...	1230	62	91	--	3.0	10.3	47	14	2.9	2.7	0.2	1.2
MAY												
19...	1310	68	58	7.9	10.0	8.5	26	7.5	1.7	2.3	0.2	0.7
JUL												
14...	1230	2.5	169	8.2	11.0	9.2	78	22	5.5	4.2	0.2	1.2
SEP												
01...	1225	1.7	215	7.9	10.0	10.3	100	30	6.1	5.2	0.2	1.1

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, 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)
APR												
15...	39	6.6	0.3	0.2	12	64	0.09	10.6	0.02	--	0.17	--
MAY												
19...	25	2.7	0.2	<0.1	10	40	0.05	7.36	<0.01	0.01	<0.05	<0.05
JUL												
14...	77	6.1	<0.1	<0.1	13	--	--	--	<0.01	--	0.13	--
SEP												
01...	105	11	0.5	0.2	29	146	0.20	0.65	<0.01	--	0.12	--

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, 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 TOTAL (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)
APR												
15...	0.04	--	0.26	0.3	--	0.47	0.10	--	0.10	--	11	7.8
MAY												
19...	0.03	0.03	0.27	0.3	<0.2	--	0.02	<0.01	<0.01	<0.01	6.4	6.0
JUL												
14...	0.03	--	--	<0.2	--	--	0.02	--	0.02	--	3.0	3.1
SEP												
01...	0.04	--	--	<0.2	--	--	<0.01	--	0.03	--	1.9	1.9

09060550 ROCK CREEK AT CRATER, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
APR											
15...	1230	--	--	--	--	--	<10	--	--	--	--
MAY											
19...	1310	190	<1	<100	<10	10	10	<1	<1	<1	<1
JUL											
14...	1230	--	--	--	--	--	10	--	--	--	--
SEP											
01...	1225	--	--	--	--	--	20	--	--	--	--

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR											
15...	--	300	--	--	--	--	--	--	--	--	--
MAY											
19...	380	190	<1	20	<0.1	<1	<1	<1	<1	30	<10
JUL											
14...	--	44	--	--	--	--	--	--	--	--	--
SEP											
01...	--	4	--	--	--	--	--	--	--	--	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT				
08...	1020	2.4	177	7.5
NOV				
19...	1150	10	128	2.0
JAN				
16...	1225	9.8	134	0.5
MAR				
11...	1358	16	131	0.5
JUN				
15...	1344	11	107	13.5

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.

WATER-DISCHARGE RECORDS

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. Prior to Oct. 1, 1989, at datum 1.0 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 23-26, Nov. 30 to Feb. 9, Feb. 15-20, and April 4-15. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of approximately 5,000 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	23	23	20	22	22	63	157	70	9.5	7.2	9.3
2	16	23	21	20	23	22	62	153	60	9.6	6.7	10
3	15	31	19	20	23	22	59	140	52	11	7.3	11
4	14	30	21	19	23	23	56	135	48	9.1	7.9	11
5	14	25	23	19	23	22	60	126	42	6.4	8.0	9.8
6	14	28	23	20	23	23	68	118	43	4.4	7.2	9.7
7	14	29	23	21	22	23	76	127	39	3.6	8.8	8.8
8	14	28	22	21	20	23	88	118	34	4.4	10	7.8
9	13	28	21	23	20	23	108	120	36	11	10	8.0
10	13	29	22	24	20	28	112	117	35	9.8	10	7.2
11	13	30	22	24	20	24	122	105	32	7.4	9.7	7.1
12	13	25	22	24	20	25	138	107	30	11	9.8	7.1
13	13	25	21	24	20	25	130	102	25	25	9.3	6.3
14	13	24	22	23	20	26	120	105	19	14	7.9	5.6
15	13	28	21	24	20	26	120	104	15	11	7.6	5.8
16	13	24	20	25	21	27	120	99	14	14	8.3	6.2
17	13	22	21	25	21	28	109	91	13	15	8.9	7.2
18	13	25	20	24	20	29	116	87	9.9	10	9.5	8.3
19	13	20	21	24	21	31	112	82	7.9	7.9	8.2	8.8
20	13	21	21	24	22	32	91	81	10	10	5.7	9.0
21	13	24	22	24	21	31	85	87	13	14	4.1	9.4
22	14	21	22	24	22	29	94	98	14	9.4	4.5	9.5
23	14	24	22	25	21	28	88	79	13	6.6	5.9	9.5
24	17	24	22	25	23	29	85	68	10	8.7	7.1	9.4
25	18	22	21	25	22	28	84	61	9.5	13	7.6	9.7
26	19	23	21	24	22	32	95	62	11	13	8.4	9.9
27	25	23	20	24	22	35	105	106	13	10	8.7	9.9
28	27	22	20	22	22	37	126	94	13	7.8	11	9.1
29	21	23	20	22	22	40	144	82	13	7.5	10	9.1
30	24	24	19	22	---	55	146	70	11	7.6	9.5	9.2
31	21	---	19	23	---	67	---	70	---	7.4	9.1	---
TOTAL	487	748	657	708	621	915	2982	3151	755.3	309.1	253.9	258.7
MEAN	15.7	24.9	21.2	22.8	21.4	29.5	99.4	102	25.2	9.97	8.19	8.62
MAX	27	31	23	25	23	67	146	157	70	25	11	11
MIN	13	20	19	19	20	22	56	61	7.9	3.6	4.1	5.6
AC-FT	966	1480	1300	1400	1230	1810	5910	6250	1500	613	504	513

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

MEAN	28.8	30.5	25.5	23.9	24.7	34.8	146	306	109	30.2	22.0	21.0
MAX	50.0	46.0	38.8	31.1	35.8	68.5	272	618	299	72.1	59.0	48.2
(WY)	1987	1987	1986	1986	1986	1986	1986	1984	1984	1984	1984	1984
MIN	14.7	19.2	15.8	17.5	17.9	19.1	67.2	89.3	25.2	9.97	4.90	5.93
(WY)	1990	1990	1991	1991	1990	1991	1984	1990	1992	1992	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	17805		11846.0			
ANNUAL MEAN	48.8		32.4		67.0	
HIGHEST ANNUAL MEAN					115	1986
LOWEST ANNUAL MEAN					29.3	1990
HIGHEST DAILY MEAN	379	May 22	157	May 1	1270	May 16 1984
LOWEST DAILY MEAN	[a]11	Jul 7	3.6	Jul 7	1.5	Jul 1 1990
ANNUAL SEVEN-DAY MINIMUM	13	Sep 1	6.2	Aug 19	3.1	Sep 10 1990
INSTANTANEOUS PEAK FLOW			180	Apr 30	1760	May 16 1984
INSTANTANEOUS PEAK STAGE			[b]2.57	Apr 30	[c]4.74	May 16 1984
ANNUAL RUNOFF (AC-FT)	35320		23500		48560	
10 PERCENT EXCEEDS	132		92		158	
50 PERCENT EXCEEDS	20		22		28	
90 PERCENT EXCEEDS	14		8.1		13	

a-Also occurred Jul 8.
b-Maximum gage height for current year, 2.94 ft, Jan 21, backwater from ice.
c-Datum then in use, from outside high-water mark.

09060770 ROCK CREEK AT MCCOY, CO--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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)
APR												
15...	0950	117	243	7.6	4.0	10.4	120	36	8.0	7.1	0.3	2.2
MAY												
19...	1000	86	143	7.9	9.0	8.6	75	22	4.9	8.1	0.4	2.1
JUL												
14...	1200	16	451	8.2	13.0	8.0	210	58	16	19	0.6	6.1
SEP												
01...	1320	9.8	494	8.3	12.0	11.0	200	52	17	24	0.7	13

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, 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)
APR												
15...	99	35	2.7	0.2	12	163	0.22	51.4	0.03	--	0.14	--
MAY												
19...	62	12	--	0.2	11	--	--	--	0.01	<0.01	<0.05	<0.05
JUL												
14...	185	64	5.0	0.3	15	294	0.40	12.4	0.05	--	1.60	--
SEP												
01...	212	59	4.6	0.4	10	307	0.42	8.15	<0.01	--	0.33	--

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, AMMONIA + ORGANIC TOTAL (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 TOTAL (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)
APR											
15...	0.03	--	0.47	0.5	0.64	0.07	--	0.05	--	11	6.8
MAY											
19...	0.04	0.05	--	--	--	0.02	0.02	0.03	0.02	6.6	5.5
JUL											
14...	0.15	--	0.25	0.4	2.0	0.07	--	0.09	--	7.1	5.6
SEP											
01...	0.04	--	0.16	0.2	0.53	0.02	--	0.04	--	3.8	3.2

09060770 ROCK CREEK AT MCCOY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BORON, TOTAL RECOVERABLE (UG/L AS B)	BORON, DISSOLVED (UG/L AS B)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)
APR 15...	0950	--	--	--	--	--	10	--	--	--	--
MAY 19...	1000	170	<1	<100	<10	<10	10	<1	<1	<1	<1
JUL 14...	1200	--	--	--	--	--	50	--	--	--	--
SEP 01...	1320	--	--	--	--	--	70	--	--	--	--

DATE	IRON, TOTAL RECOVERABLE (UG/L AS FE)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
APR 15...	--	240	--	--	--	--	--	--	--	--	--
MAY 19...	370	140	<1	30	<0.1	<1	<1	<1	<1	100	<10
JUL 14...	--	43	--	--	--	--	--	--	--	--	--
SEP 01...	--	46	--	--	--	--	--	--	--	--	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 08...	0917	14	453	6.0
NOV 19...	1400	20	327	3.0
JAN 16...	1500	25	360	0.0
MAR 11...	1540	30	437	5.5
JUN 15...	1547	16	356	18.0

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 Red Cliff, 0.3 mi upstream from Turkey Creek.

DRAINAGE AREA.--70.0 mi^2.

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 with satellite telemetry. Datum of gage is 8,653.80 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 24, 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. 3-7, 13-15, 20-27, and Nov. 30 to Mar. 11. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	15	17	11	9.6	8.0	10	96	109	54	18	18
2	11	15	17	12	9.6	8.2	11	97	98	53	18	20
3	11	16	16	13	9.5	8.0	11	98	96	50	17	17
4	11	17	13	13	9.4	8.0	12	97	96	47	17	15
5	11	16	12	12	9.3	8.0	12	95	103	44	17	15
6	11	15	13	11	9.0	8.4	13	94	101	42	18	14
7	11	16	14	11	8.8	8.4	14	97	101	41	18	13
8	11	18	14	10	8.8	8.6	15	124	95	47	16	12
9	11	18	14	9.6	8.8	8.6	17	124	95	44	15	12
10	12	16	14	9.2	8.8	8.6	19	112	97	40	15	12
11	13	16	15	10	8.8	8.8	22	98	95	38	16	11
12	12	15	15	10	8.6	9.0	23	102	97	37	16	11
13	11	15	14	10	8.4	9.0	28	104	97	37	16	11
14	12	15	16	10	8.2	9.5	30	108	98	36	15	10
15	12	14	15	10	8.4	9.0	28	110	96	33	14	11
16	12	14	14	9.8	8.2	9.3	28	114	92	31	14	13
17	12	15	13	9.4	8.4	9.2	31	116	88	29	18	17
18	11	15	12	9.2	8.2	9.5	33	123	84	28	15	14
19	11	16	11	9.2	8.0	9.2	28	128	82	27	13	15
20	11	17	12	9.4	8.2	9.6	25	137	80	27	12	16
21	11	18	13	9.0	8.0	11	24	145	79	26	12	14
22	11	18	15	10	7.8	9.6	25	145	74	24	12	13
23	12	17	14	9.8	8.2	9.2	25	139	71	25	15	12
24	12	18	14	9.7	8.4	9.0	24	137	70	25	27	13
25	13	17	13	10	8.4	9.1	27	130	72	27	28	16
26	12	15	12	9.2	8.2	10	35	133	74	25	25	14
27	12	16	11	9.4	8.0	9.6	48	155	67	22	21	13
28	13	18	10	9.8	8.0	9.5	67	140	65	22	17	12
29	13	18	10	9.8	8.0	9.5	80	124	61	21	16	13
30	13	18	10	9.6	---	9.7	92	115	58	20	15	13
31	16	---	10	9.4	---	11	---	112	---	19	15	---
TOTAL	366	487	413	314.5	248.0	282.1	857	3649	2591	1041	521	410
MEAN	11.8	16.2	13.3	10.1	8.55	9.10	28.6	118	86.4	33.6	16.8	13.7
MAX	16	18	17	13	9.6	11	92	155	109	54	28	20
MIN	11	14	10	9.0	7.8	8.0	10	94	58	19	12	10
AC-FT	726	966	819	624	492	560	1700	7240	5140	2060	1030	813

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

MEAN	16.3	13.6	11.3	10.5	10.3	11.8	33.7	157	197	56.1	25.9	18.4
MAX	31.8	25.2	18.8	16.3	19.7	25.6	81.3	387	422	131	54.5	39.0
(WY)	1962	1985	1985	1918	1916	1916	1916	1911	1912	1983	1945	1921
MIN	10.4	8.47	7.06	5.07	4.74	5.68	9.48	36.5	38.4	18.8	10.7	8.89
(WY)	1989	1965	1989	1989	1989	1981	1975	1981	1954	1981	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	11652.2		11179.6			
ANNUAL MEAN	31.9		30.5		46.9	
HIGHEST ANNUAL MEAN					90.2	1912
LOWEST ANNUAL MEAN					16.5	1981
HIGHEST DAILY MEAN	185	May 28	155	May 27	900	Jun 5 1912
LOWEST DAILY MEAN	7.3	Feb 27	7.8	Feb 22	[a]1.0	Oct 15 1917
ANNUAL SEVEN-DAY MINIMUM	7.6	Feb 23	8.0	Feb 27	3.8	Jan 31 1989
INSTANTANEOUS PEAK FLOW			164	May 27	[b]1010	Jun 5 1912
INSTANTANEOUS PEAK STAGE			4.17	May 27	[c]4.0	Jun 5 1912
ANNUAL RUNOFF (AC-FT)	23110		22170		33950	
10 PERCENT EXCEEDS	104		97		129	
50 PERCENT EXCEEDS	13		15		16	
90 PERCENT EXCEEDS	8.6		9.0		9.0	

a-Also occurred Oct 16, 1917.
b-Maximum disharge observed, site and datum then in use, from rating curve extended above 500 ft^3/s.
c-Maximum gage height recorded, 6.43 ft, May 24, 1984.

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. 28 to Apr. 16, Aug. 3-7. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.6	1.2	.84	.86	.90	.94	7.4	22	19	6.4	4.3
2	2.5	1.5	1.4	.88	.90	.88	1.01	8.0	22	18	6.4	4.1
3	2.4	1.5	1.4	.82	.85	.86	1.03	8.4	22	17	6.0	3.8
4	2.4	1.4	1.5	.86	.78	.92	1.02	8.7	22	16	5.6	3.8
5	2.4	1.3	1.4	.90	.80	.86	1.02	9.1	22	15	5.2	3.7
6	2.3	1.4	1.4	.90	.80	.88	1.20	9.4	22	14	5.0	3.5
7	2.3	1.3	1.3	.90	.81	.84	1.30	10	23	14	4.7	3.5
8	2.3	1.3	1.0	.92	.82	.86	1.30	11	23	14	4.6	3.3
9	2.3	1.1	.98	.80	.81	.80	1.04	12	24	13	4.5	3.3
10	2.3	1.3	.99	.78	.80	.84	1.40	11	25	12	4.6	3.2
11	2.2	1.4	1.0	.92	.76	.88	1.50	11	26	11	4.7	3.1
12	2.1	1.5	.98	1.0	.72	.90	1.60	11	28	11	4.5	3.1
13	2.1	1.5	1.1	1.0	.78	.88	1.80	11	31	11	4.4	3.1
14	2.1	1.4	1.2	.96	.84	.88	2.0	12	34	10	4.4	3.1
15	2.1	1.4	1.2	.94	.82	.88	2.20	12	36	9.9	4.3	3.1
16	2.1	1.5	1.2	.86	.80	.87	2.7	13	36	9.4	4.4	3.2
17	2.1	1.6	1.1	.84	.78	.80	2.9	14	34	8.9	4.6	3.4
18	2.1	1.6	1.1	.88	.78	.84	3.7	14	33	8.4	s4.4	3.1
19	2.0	1.7	1.0	.90	.80	.86	6.2	15	33	8.5	4.1	3.2
20	2.1	1.6	.92	.92	.82	.90	3.3	16	32	8.6	3.9	3.4
21	2.0	1.4	.78	.82	.84	.92	3.0	17	30	8.4	3.9	3.2
22	1.9	1.5	.82	.78	.83	.94	3.0	18	28	8.0	4.0	3.0
23	1.9	1.3	.9	.72	.82	.96	2.9	19	28	8.3	4.1	3.0
24	2.1	1.4	.94	.90	.83	1.0	3.0	22	28	8.1	5.2	2.9
25	2.0	1.3	1.0	.86	.78	.98	3.3	22	27	8.0	4.6	3.1
26	1.8	1.3	1.1	.78	.76	.92	3.5	24	26	7.7	4.2	2.9
27	1.6	1.4	1.0	.80	.80	.88	4.0	26	25	7.5	3.9	2.8
28	1.6	1.3	.94	.82	.96	.90	4.7	26	23	7.3	3.8	2.8
29	1.5	1.2	.9	.84	.92	.94	5.3	25	22	7.1	3.7	2.8
30	1.6	1.0	.82	.86	---	.92	6.5	23	20	7.1	3.7	2.7
31	1.7	---	.82	.88	---	.93	---	23	---	6.6	3.7	---
TOTAL	64.3	42.0	33.39	26.88	23.67	27.62	78.36	469.0	807	332.8	141.5	97.5
MEAN	2.07	1.40	1.08	.87	.82	.89	2.61	15.1	26.9	10.7	4.56	3.25
MAX	2.5	1.7	1.5	1.0	.96	1.0	6.5	26	36	19	6.4	4.3
MIN	1.5	1.0	.78	.72	.72	.80	.94	7.4	20	6.6	3.7	2.7
AC-FT	128	83	66	53	47	55	155	930	1600	660	281	193

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	2.78	1.94	1.56	1.29	1.20	1.30	2.14	12.1	44.9	20.6	6.86	3.84
MAX	5.02	2.86	2.48	1.95	1.80	2.28	4.66	34.4	90.2	46.3	17.4	9.57
(WY)	1985	1985	1985	1985	1985	1985	1985	1984	1984	1983	1984	1984
MIN	1.65	1.27	1.06	.87	.45	.80	1.13	5.33	16.7	5.13	2.71	2.16
(WY)	1989	1970	1989	1992	1967	1965	1968	1981	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	2738.59		2144.02			
ANNUAL MEAN	7.50		5.86		8.38	
HIGHEST ANNUAL MEAN					17.4	1984
LOWEST ANNUAL MEAN					3.61	1977
HIGHEST DAILY MEAN	68	Jun 15	[a]36	Jun 15	140	Jun 20 1983
LOWEST DAILY MEAN	.78	Dec 21	[b].72	Jan 23	.30	Feb 21 1967
ANNUAL SEVEN-DAY MINIMUM	.91	Dec 19	.79	Feb 7	.40	Feb 8 1967
INSTANTANEOUS PEAK FLOW			48	Jun 15	155	Jun 20 1983
INSTANTANEOUS PEAK STAGE			2.61	Jun 15	3.61	Jun 20 1983
ANNUAL RUNOFF (AC-FT)	5430		4250		6070	
10 PERCENT EXCEEDS	24		22		24	
50 PERCENT EXCEEDS	1.8		2.1		2.4	
90 PERCENT EXCEEDS	1.3		.83		1.1	

a-Also occurred Jun 16.
b-Also occurred Feb 12.

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.--23.8 mi^2.

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

REVISED RECORDS.--WDR CO-88-2: Drainage area.

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: Oct. 27 to Apr. 16. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	4.9	4.8	3.4	3.1	3.3	4.9	35	90	60	13	10
2	6.2	4.8	4.4	3.2	3.1	3.2	5.0	37	83	57	13	9.2
3	6.2	4.5	3.9	2.9	3.2	3.1	5.0	38	82	53	13	8.0
4	6.0	4.7	3.5	3.4	2.9	3.3	5.3	40	83	49	12	7.9
5	6.0	5.0	3.7	3.7	2.8	3.4	5.6	41	92	47	12	7.9
6	6.0	5.2	3.8	3.6	2.7	3.4	5.8	45	92	44	12	7.4
7	6.0	5.6	3.9	3.5	2.8	3.4	5.8	50	85	43	11	7.1
8	6.0	5.4	3.9	3.5	2.9	3.5	5.9	50	86	43	11	6.8
9	5.9	5.2	4.1	3.2	3.1	3.3	5.9	53	88	40	10	6.7
10	5.8	5.3	4.5	3.1	3.0	3.3	6.0	49	87	37	11	6.6
11	5.8	5.4	4.5	3.1	3.0	3.2	6.2	46	90	34	11	6.5
12	5.8	5.1	4.3	3.3	3.0	3.3	6.4	46	95	33	9.9	6.5
13	5.8	5.0	4.1	3.5	3.0	3.4	6.8	47	101	31	9.6	6.6
14	5.7	5.0	3.7	3.3	3.1	3.5	7.2	51	108	30	9.3	6.5
15	5.7	5.4	3.2	3.2	3.2	3.6	7.6	55	112	28	8.9	6.3
16	5.7	5.2	3.1	3.0	3.4	3.6	8.0	60	112	26	9.6	6.4
17	5.6	5.0	3.2	2.8	3.3	3.7	8.8	66	98	25	11	6.5
18	5.6	4.9	3.4	3.3	3.2	3.7	9.2	68	94	24	9.6	6.3
19	5.6	4.8	3.8	3.0	3.0	3.7	8.6	75	96	24	8.4	6.4
20	5.6	4.4	4.1	2.8	2.9	3.5	8.1	90	96	24	8.0	6.7
21	5.6	4.3	3.8	3.0	3.3	3.5	8.2	98	96	22	7.8	6.3
22	5.6	4.8	3.5	3.1	3.6	3.5	8.7	96	98	21	8.1	6.2
23	5.6	4.3	3.4	3.1	3.5	3.6	8.3	103	96	21	8.9	6.0
24	5.8	3.7	3.1	3.2	3.3	3.6	8.3	98	91	21	15	5.9
25	5.8	4.5	3.0	3.3	3.3	3.6	8.9	100	86	22	11	6.2
26	5.7	5.2	3.1	3.3	3.5	3.6	9.8	101	83	19	9.6	6.0
27	5.4	5.3	3.2	3.4	3.3	3.7	12	111	75	17	8.4	5.9
28	5.3	4.8	3.0	3.2	3.4	4.0	16	114	71	16	8.0	5.8
29	5.2	4.7	3.4	3.0	3.5	4.8	22	103	65	16	7.6	5.8
30	5.0	4.8	3.3	3.0	---	4.7	30	87	62	15	7.5	5.8
31	5.2	---	3.3	2.9	---	4.8	---	89	---	14	7.8	---
TOTAL	177.5	147.2	114.0	99.3	91.4	111.8	264.3	2142	2693	956	313.0	202.2
MEAN	5.73	4.91	3.68	3.20	3.15	3.61	8.81	69.1	89.8	30.8	10.1	6.74
MAX	6.3	5.6	4.8	3.7	3.6	4.8	30	114	112	60	15	10
MIN	5.0	3.7	3.0	2.8	2.7	3.1	4.9	35	62	14	7.5	5.8
AC-FT	352	292	226	197	181	222	524	4250	5340	1900	621	401

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	6.22	4.60	3.61	3.12	2.90	3.45	7.73	46.5	119	46.0	13.9	8.04
MAX	12.1	9.19	5.76	4.96	4.39	6.36	23.1	103	274	123	39.1	19.8
(WY)	1985	1985	1985	1985	1985	1985	1985	1984	1984	1984	1984	1984
MIN	3.77	2.84	2.68	1.92	1.00	2.10	2.66	21.5	40.9	11.0	6.34	4.23
(WY)	1978	1978	1982	1987	1964	1981	1973	1968	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	7742.6		7311.7			
ANNUAL MEAN	21.2		20.0		22.1	
HIGHEST ANNUAL MEAN					49.4	1984
LOWEST ANNUAL MEAN					9.46	1977
HIGHEST DAILY MEAN	184	Jun 19	114	May 28	415	Jun 17 1965
LOWEST DAILY MEAN	2.9	Feb 26	2.7	Feb 6	[a]1.0	Jan 21 1964
ANNUAL SEVEN-DAY MINIMUM	3.0	Mar 6	2.9	Feb 4	1.0	Jan 21 1964
INSTANTANEOUS PEAK FLOW			116	May 27	[b]556	Jun 8 1985
INSTANTANEOUS PEAK STAGE			2.22	May 27	[c]2.87	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	15360		14500		16000	
10 PERCENT EXCEEDS	83		83		69	
50 PERCENT EXCEEDS	5.2		5.8		5.8	
90 PERCENT EXCEEDS	3.2		3.2		2.8	

a-Also occurred Jan 21 to Feb 29, 1964.
b-From rating curve extended above 325 ft^3/s.
c-Maximum gage height, 3.22 ft, Jun 24, 1983, backwater from debris.

09063900 MISSOURI CREEK NEAR GOLD PARK, CO

LOCATION.--Lat 39°23'25", long 106°28'10", Eagle County, Hydrologic Unit 14010003, on left bank 50 ft downstream from road culvert, 0.6 mi upstream from Fancy Creek, 2.2 mi southwest of Gold Park, and 10 mi southwest of Red Cliff.

DRAINAGE AREA.--6.39 mi^2.

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

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 9,980 ft, above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 1 to Apr. 16. Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station to Arkansas River basin through Homestake Tunnel. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.4	.79	.66	.60	.66	1.2	13	10	9.2	7.8	9.9
2	2.1	1.2	.74	.58	.64	.62	1.2	13	9.8	8.4	7.6	10
3	1.7	.96	.74	.54	.64	.62	1.3	13	11	8.0	7.5	8.0
4	1.4	1.2	.77	.58	.64	.66	1.4	14	14	8.5	7.4	7.8
5	1.3	1.3	.80	.62	.60	.66	1.4	14	15	9.0	7.3	8.1
6	1.3	1.4	.80	.62	.60	.70	1.5	14	14	9.2	11	6.7
7	1.3	1.4	.80	.60	.70	.70	1.6	16	14	9.6	11	5.9
8	1.3	1.2	.85	.64	.76	.70	1.8	21	14	30	9.2	9.3
9	1.2	1.1	.85	.64	.70	.70	2.1	18	15	12	8.0	4.6
10	1.0	1.1	.80	.60	.70	.68	2.5	14	15	8.9	8.0	4.5
11	.97	1.2	.80	.58	.66	.68	2.8	11	16	8.3	7.5	3.8
12	.97	1.1	.76	.60	.62	.70	3.1	13	19	8.3	7.1	3.6
13	.88	1.0	.72	.63	.62	.74	3.7	16	23	9.4	7.4	3.7
14	.82	1.0	.64	.61	.62	.80	4.6	15	18	7.8	6.6	3.4
15	.82	1.1	.68	.58	.64	.80	4.5	15	14	7.4	5.7	4.1
16	.79	1.0	.70	.58	.64	.86	4.3	14	11	8.8	5.7	4.9
17	.69	.92	.74	.63	.64	.90	3.8	14	11	17	15	5.8
18	.64	.92	.77	.68	.64	.90	3.8	16	14	19	16	5.2
19	.61	.96	.82	.60	.58	.86	4.1	20	17	21	9.9	5.9
20	.61	.86	.78	.62	.62	.80	3.7	29	16	20	7.8	11
21	.61	.92	.70	.62	.68	.80	3.3	31	13	17	6.7	11
22	.59	.80	.74	.62	.68	.84	3.2	25	13	17	6.3	9.4
23	.67	.74	.68	.64	.70	.88	2.7	24	14	16	8.1	7.6
24	.92	.78	.62	.64	.66	.88	2.6	19	14	15	21	5.6
25	1.5	.89	.62	.60	.70	.86	2.7	14	14	16	24	4.3
26	1.6	.90	.62	.64	.66	.84	3.9	18	15	15	24	5.9
27	1.3	.84	.62	.60	.62	.87	7.0	24	12	13	18	5.5
28	1.2	.80	.62	.58	.62	1.1	14	15	14	11	13	4.9
29	1.2	.84	.67	.56	.62	1.0	15	12	12	10	10	4.5
30	1.2	.87	.65	.56	---	1.0	13	12	11	9.7	8.4	4.1
31	1.5	---	.66	.56	---	1.1	---	11	---	8.8	7.9	---
TOTAL	34.89	30.70	22.55	18.81	18.80	24.91	121.8	518	422.8	388.3	320.9	189.0
MEAN	1.13	1.02	.73	.61	.65	.80	4.06	16.7	14.1	12.5	10.4	6.30
MAX	2.2	1.4	.85	.68	.76	1.1	15	31	23	30	24	11
MIN	.59	.74	.62	.54	.58	.62	1.2	11	9.8	7.4	5.7	3.4
AC-FT	69	61	45	37	37	49	242	1030	839	770	637	375

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1992, BY WATER YEAR (WY)

MEAN	2.88	1.68	1.01	.69	.59	.71	2.77	15.1	32.7	22.6	9.99	4.44
MAX	7.29	3.58	1.73	1.30	1.30	1.45	7.02	41.7	79.0	78.6	29.1	9.46
(WY)	1985	1986	1986	1991	1991	1991	1974	1984	1984	1984	1983	1984
MIN	.84	.61	.35	.31	.28	.37	.71	4.00	12.7	9.32	3.55	1.65
(WY)	1980	1977	1977	1976	1977	1979	1983	1983	1977	1988	1977	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1972 - 1992	
ANNUAL TOTAL	2191.04		2111.46			
ANNUAL MEAN	6.00		5.77		7.96	
HIGHEST ANNUAL MEAN					20.6	1984
LOWEST ANNUAL MEAN					4.35	1977
HIGHEST DAILY MEAN	60	Jun 15	31	May 21	172	Jul 10 1984
LOWEST DAILY MEAN	.59	Oct 22	.54	Jan 3	[a].24	Feb 12 1977
ANNUAL SEVEN-DAY MINIMUM	.63	Oct 17	.59	Jan 25	.25	Feb 7 1977
INSTANTANEOUS PEAK FLOW			72	Jul 8	[b]300	Jul 4 1975
INSTANTANEOUS PEAK STAGE			2.67	Jul 8	[c]3.10	Jul 4 1975
ANNUAL RUNOFF (AC-FT)	4350		4190		5770	
10 PERCENT EXCEEDS	16		15		20	
50 PERCENT EXCEEDS	1.7		1.5		2.1	
90 PERCENT EXCEEDS	.80		.62		.49	

a-Also occurred Feb 13, 1977.
b-From rating curve extended above 35 ft^3/s.
c-Maximum gage height, 3.83 ft, Jul 30, 1983.

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.--36.0 mi^2.

PERIOD OF RECORD.--October 1947 to September 1954, August 1972 to current year. Statistical summary computed for 1973 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

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. 28 to Apr. 16. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	9.0	8.0	4.4	3.8	3.8	5.8	54	40	33	25	27
2	11	8.2	7.4	4.6	4.0	3.8	5.6	52	36	33	24	28
3	10	8.6	6.8	4.6	4.0	3.6	5.6	50	36	31	23	24
4	9.3	9.2	6.0	4.4	4.0	3.6	5.6	49	39	31	23	23
5	8.8	10	5.8	4.0	3.8	3.8	5.6	48	43	31	23	24
6	8.9	11	6.0	4.0	3.8	4.0	5.6	49	42	31	27	21
7	8.9	11	5.8	4.2	3.8	4.6	6.0	54	39	32	30	19
8	8.6	10	6.0	4.6	3.8	5.0	6.2	72	39	52	26	20
9	8.5	9.6	6.2	4.8	3.8	5.2	6.6	62	39	37	22	17
10	8.0	9.0	5.8	4.6	3.8	4.8	7.0	46	39	32	24	16
11	8.2	8.8	6.0	4.4	3.8	4.8	8.2	35	41	30	23	15
12	8.2	8.4	5.6	4.4	3.6	4.6	10	38	44	30	22	14
13	7.8	8.0	6.0	4.4	3.4	4.4	12	43	45	31	23	14
14	7.8	7.8	6.2	4.4	3.6	4.4	15	42	42	29	21	14
15	7.8	7.6	5.8	4.4	3.6	4.4	18	42	36	41	19	15
16	7.5	7.8	5.2	4.4	3.8	4.6	21	39	32	47	19	17
17	7.5	8.0	4.6	4.4	3.6	4.8	24	36	30	49	39	19
18	7.2	8.4	4.6	4.6	3.6	4.8	26	39	32	51	39	18
19	7.2	8.6	4.8	4.6	3.4	4.8	22	44	36	52	27	18
20	7.2	8.4	5.2	4.6	3.4	5.0	18	57	38	50	23	27
21	7.2	8.0	5.4	4.4	3.4	5.0	18	58	37	46	20	27
22	7.0	8.0	5.6	4.2	3.2	4.6	18	50	34	44	20	23
23	7.0	8.0	5.4	4.2	3.4	4.6	16	43	34	43	24	20
24	7.8	8.0	5.0	4.2	3.8	4.8	17	43	38	42	52	18
25	8.3	8.0	4.6	4.0	3.8	5.2	18	35	39	48	54	18
26	8.7	7.4	4.2	4.0	3.6	5.0	24	39	43	43	59	19
27	8.6	8.0	4.0	4.0	3.6	4.6	39	66	38	38	42	18
28	8.2	8.0	4.0	4.0	3.6	4.6	60	55	38	33	32	16
29	8.4	8.0	4.0	4.0	3.8	4.8	81	48	36	31	27	15
30	8.8	8.0	4.0	4.0	---	5.0	69	44	34	30	23	14
31	9.0	---	4.2	4.0	---	5.8	---	43	---	28	22	---
TOTAL	258.4	256.8	168.2	133.8	106.6	142.8	593.8	1475	1139	1179	877	578
MEAN	8.34	8.56	5.43	4.32	3.68	4.61	19.8	47.6	38.0	38.0	28.3	19.3
MAX	11	11	8.0	4.8	4.0	5.8	81	72	45	52	59	28
MIN	7.0	7.4	4.0	4.0	3.2	3.6	5.6	35	30	28	19	14
AC-FT	513	509	334	265	211	283	1180	2930	2260	2340	1740	1150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY)

MEAN	13.8	9.66	7.33	5.82	5.46	6.45	15.1	63.8	95.4	59.2	32.1	16.4
MAX	31.3	15.2	13.8	10.9	10.3	12.4	33.8	211	310	239	121	34.8
(WY)	1985	1991	1986	1986	1986	1989	1989	1984	1984	1984	1983	1984
MIN	6.15	4.37	2.78	2.16	1.98	2.56	5.50	29.7	38.0	24.4	12.9	8.36
(WY)	1990	1990	1976	1976	1976	1976	1983	1977	1992	1988	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1973 - 1992	
ANNUAL TOTAL	7819.7		6908.4			
ANNUAL MEAN	21.4		18.9		[a]27.6	
HIGHEST ANNUAL MEAN					79.2	1984
LOWEST ANNUAL MEAN					15.3	1977
HIGHEST DAILY MEAN	135	Jun 15	81	Apr 29	[b]602	Jun 30 1984
LOWEST DAILY MEAN	3.7	Jan 24	3.2	Feb 22	1.8	Feb 5 1976
ANNUAL SEVEN-DAY MINIMUM	3.9	Jan 31	3.4	Feb 17	1.9	Jan 31 1976
INSTANTANEOUS PEAK FLOW			103	Apr 29	[c]930	Jun 30 1984
INSTANTANEOUS PEAK STAGE			4.63	Apr 29	[d]6.21	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	15510		13700		20020	
10 PERCENT EXCEEDS	64		43		61	
50 PERCENT EXCEEDS	8.6		9.0		12	
90 PERCENT EXCEEDS	4.3		4.0		4.4	

a-Average discharge for 7 years (water years 1948-54), 63.4 ft^3/s, 45,930 acre-ft/yr, prior to diversion through Homestake Tunnel.
b-Maximum daily discharge for period of record, 755 ft^3/s, Jun 21, 1951.
c-Maximum discharge and stage for period of record, 1080 ft^3/s, Jun 13, 1953, gage height, 6.84 ft, site and datum then in use, from rating curve extended above 700 ft^3/s.
d-Maximum gage height for statistical period, 6.31 ft, Apr 5, 1978, backwater from ice.

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.--58.2 mi².

PERIOD OF RECORD.--October 1910 to September 1918, May 1944 to current year. Published as "at Redcliff" October 1910 to September 1916. Statistical summary computed for 1967 to current year.

REVISED RECORDS.--WDR CO-88-2: 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: Oct. 24 to Apr. 16. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	11	12	5.8	6.0	5.4	8.0	129	69	40	24	26
2	16	10	10	6.4	6.2	5.4	7.8	124	61	42	22	34
3	15	9.2	8.0	6.8	6.2	5.2	7.8	122	58	38	21	25
4	14	11	7.0	6.8	6.0	5.2	7.6	117	59	35	21	20
5	12	12	7.2	6.0	5.8	5.2	7.8	115	71	34	20	24
6	12	13	7.6	6.0	5.6	5.6	8.0	114	68	34	24	20
7	12	13	7.2	6.6	5.6	6.0	8.2	119	65	34	28	16
8	12	12	8.0	7.0	5.6	6.4	8.6	150	59	62	23	13
9	12	12	7.6	6.8	5.6	6.6	9.0	143	61	51	19	15
10	11	13	8.0	6.6	5.6	6.8	10	121	60	39	20	9.8
11	11	12	8.4	6.2	5.6	6.8	12	89	61	36	23	10
12	10	12	7.4	6.0	5.4	6.4	14	92	63	35	19	9.7
13	9.9	11	8.0	6.0	5.2	5.8	20	103	63	37	21	10
14	9.5	12	8.6	6.0	5.2	5.8	30	105	62	34	18	9.3
15	8.7	12	8.0	6.0	5.0	6.0	40	102	54	39	14	11
16	8.7	12	7.4	6.0	5.4	6.2	48	96	48	57	13	16
17	8.7	13	6.4	6.0	5.2	6.4	50	88	43	50	30	22
18	8.4	13	6.0	6.0	5.2	6.4	63	94	44	57	45	24
19	7.7	13	6.2	6.2	5.0	6.4	46	100	46	56	26	22
20	7.7	12	6.4	6.4	5.0	6.6	37	114	50	60	18	38
21	7.7	12	7.4	6.6	4.8	6.6	37	117	49	54	14	48
22	7.7	12	8.2	6.4	5.0	6.0	42	107	45	50	13	40
23	7.7	12	7.6	6.2	5.2	5.8	38	92	47	48	20	34
24	9.0	12	7.2	6.4	5.4	5.8	34	91	51	48	54	29
25	10	11	7.0	6.2	5.4	6.4	42	77	53	59	66	32
26	11	9.6	5.8	6.0	5.2	6.8	54	79	56	54	67	35
27	10	11	5.4	6.2	5.2	6.4	78	124	51	45	53	33
28	11	12	5.4	6.2	5.2	6.4	115	99	51	38	37	29
29	10	12	5.2	6.2	5.2	6.6	145	79	46	33	26	26
30	10	12	5.4	6.2	---	7.2	148	71	42	31	22	24
31	11	---	5.6	6.2	---	8.4	---	71	---	28	20	---
TOTAL	328.4	353.8	225.6	194.4	157.0	193.0	1175.8	3244	1656	1358	841	704.8
MEAN	10.6	11.8	7.28	6.27	5.41	6.23	39.2	105	55.2	43.8	27.1	23.5
MAX	17	13	12	7.0	6.2	8.4	148	150	71	62	67	48
MIN	7.7	9.2	5.2	5.8	4.8	5.2	7.6	71	42	28	13	9.3
AC-FT	651	702	447	386	311	383	2330	6430	3280	2690	1670	1400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	19.0	13.2	10.2	8.26	8.13	10.6	36.4	120	142	70.9	35.5	21.5
MAX	45.1	31.0	19.7	15.9	14.0	22.5	73.1	358	439	313	136	42.3
(WY)	1985	1985	1985	1969	1984	1989	1986	1984	1984	1984	1983	1984
MIN	8.59	5.30	4.66	3.19	2.93	3.60	10.8	53.6	55.2	27.8	8.54	8.29
(WY)	1976	1967	1989	1987	1987	1981	1983	1990	1992	1967	1990	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	13345.3		10431.8			
ANNUAL MEAN	36.6		28.5		[a]41.5	
HIGHEST ANNUAL MEAN					116	1984
LOWEST ANNUAL MEAN					20.3	1977
HIGHEST DAILY MEAN	230	May 21	150	May 8	831	May 25 1984
LOWEST DAILY MEAN	5.2	Dec 29	4.8	Feb 21	[b]1.8	Sep 2 1990
ANNUAL SEVEN-DAY MINIMUM	5.7	Dec 25	5.1	Feb 17	2.1	Aug 29 1990
INSTANTANEOUS PEAK FLOW			189	Apr 29	[c]943	May 24 1984
INSTANTANEOUS PEAK STAGE			2.69	Apr 29	3.96	May 24 1984
ANNUAL RUNOFF (AC-FT)	26470		20690		30060	
10 PERCENT EXCEEDS	127		70		108	
50 PERCENT EXCEEDS	13		12		17	
90 PERCENT EXCEEDS	8.2		5.8		6.0	

a-Average discharge for 30 years (water years 1911-18, 1945-66), 86.6 ft³/s; 62,740 acre-ft/yr, prior to diversion through Homestake tunnel.
b-Minimum observed for period of record, 0.60 ft³/s, Jan 25, 1915 (discharge measurement).
c-Maximum discharge and stage for period of record, 1300 ft³/s, Jun 24, 1918, gage height, 6.20 ft, site and datum then in use.

09064600 EAGLE RIVER NEAR MINTURN, CO

LOCATION.--Lat 39°33'14", long 106°24'07", in SW¼SE¼ of unsurveyed sec. T.6 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on left bank 500 ft upstream from U.S. Highway 24 bridge and 2.5 miles southeast of White River National Forest Headquarters in Minturn.

DRAINAGE AREA.--186 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,078.37 ft above National Geodetic Vertical Datum of 1929, from levels by private engineering firm.

REMARKS.--Estimated daily discharges: Nov. 2-10, 13, 14, and Nov. 24 to Apr. 13. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station by Columbine, Ewing, and Wurtz ditches. Transmountain diversion from Robinson Reservoir, capacity 2,520 acre-ft, for use in Tenmile creek basin. Several small diversions for irrigation upstream from station. No regulation. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	37	41	29	28	22	41	313	298	173	68	70
2	38	36	33	30	28	22	42	308	273	164	65	80
3	36	36	34	29	27	23	45	308	266	151	63	69
4	35	38	35	28	26	23	48	305	272	140	64	61
5	34	40	37	29	25	24	50	304	302	134	61	64
6	34	38	39	30	25	25	56	305	300	132	63	59
7	34	35	40	31	25	25	60	319	297	132	71	54
8	34	38	41	30	25	24	66	361	279	159	65	49
9	34	39	40	30	25	23	70	360	283	166	61	49
10	34	40	39	30	24	23	80	329	285	132	58	45
11	34	39	38	29	24	23	90	278	290	119	63	43
12	33	37	39	28	23	24	100	280	299	117	62	41
13	33	35	40	27	23	25	122	294	308	116	60	42
14	32	34	38	26	23	25	121	307	310	111	62	41
15	32	35	34	26	23	26	115	307	294	104	57	41
16	32	35	30	27	23	27	115	314	274	120	52	44
17	32	34	27	27	23	28	117	313	255	108	66	52
18	31	34	26	28	22	27	134	330	249	111	83	51
19	30	39	30	29	22	28	109	349	250	107	70	49
20	31	43	34	30	21	27	95	384	254	112	58	60
21	30	40	33	29	22	25	92	404	252	106	54	68
22	30	39	33	28	23	24	100	395	237	98	51	59
23	31	37	31	29	24	25	96	374	231	96	58	52
24	34	40	30	28	23	27	88	379	233	102	78	48
25	35	44	28	27	23	26	99	359	235	108	137	51
26	35	45	25	28	23	28	118	366	243	108	109	53
27	35	46	24	29	23	29	155	443	220	94	100	49
28	36	46	24	29	22	30	221	397	207	86	78	46
29	33	45	24	28	23	35	276	348	198	80	67	44
30	34	43	26	28	---	41	315	325	184	77	61	42
31	35	---	28	27	---	40	---	313	---	72	58	---
TOTAL	1041	1167	1021	883	691	824	3236	10471	7878	3635	2123	1576
MEAN	33.6	38.9	32.9	28.5	23.8	26.6	108	338	263	117	68.5	52.5
MAX	40	46	41	31	28	41	315	443	310	173	137	80
MIN	30	34	24	26	21	22	41	278	184	72	51	41
AC-FT	2060	2310	2030	1750	1370	1630	6420	20770	15630	7210	4210	3130

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	37.2	33.8	27.7	25.2	21.6	25.5	78.8	299	370	121	63.3	49.7
MAX	50.5	38.9	32.9	29.1	23.8	26.6	108	341	439	127	71.6	53.0
(WY)	1991	1992	1992	1991	1992	1992	1992	1991	1991	1991	1991	1991
MIN	27.6	25.3	21.2	17.9	18.4	23.5	50.4	219	263	117	49.8	43.6
(WY)	1990	1990	1990	1990	1990	1991	1991	1990	1992	1992	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	38511		34546			
ANNUAL MEAN	106		94.4		96.2	
HIGHEST ANNUAL MEAN					106	1991
LOWEST ANNUAL MEAN					87.9	1990
HIGHEST DAILY MEAN	632	Jun 15	443	May 27	740	Jun 10 1990
LOWEST DAILY MEAN	19	Feb 26	21	Feb 20	13	Jan 4 1990
ANNUAL SEVEN-DAY MINIMUM	20	Feb 24	22	Feb 15	16	Jan 4 1990
INSTANTANEOUS PEAK FLOW			463	May 27	881	Jun 7 1990
INSTANTANEOUS PEAK STAGE			4.85	May 27	[a]5.29	Jun 7 1990
ANNUAL RUNOFF (AC-FT)	76390		68520		69730	
10 PERCENT EXCEEDS	373		295		291	
50 PERCENT EXCEEDS	41		42		43	
90 PERCENT EXCEEDS	24		25		22	

a-Maximum gage height, 5.42 ft, Jun 15, 1991.

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.--34.2 mi^2.

PERIOD OF RECORD.--May 1956 to September 1963, October 1967 to current year.

REVISED RECORDS.--WDR CO-81-2: 1980 (M). WDR CO-88-2: Drainage area.

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: Oct. 30 to Nov. 7, Nov. 12-30, Dec. 1 to Mar. 11, Mar. 13-17, 20-22, 26. 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 0.5 mi upstream from station for water supply of school and for municipal supply of Minturn. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	7.2	4.6	2.8	2.9	2.5	6.6	128	85	155	33	28
2	15	7.4	4.3	2.8	2.7	2.5	6.4	117	77	119	32	35
3	14	6.6	4.3	2.7	2.6	2.7	8.0	124	88	85	31	32
4	12	6.2	4.4	2.5	2.5	3.1	9.6	122	106	88	30	28
5	12	6.4	4.4	2.6	2.5	3.1	11	132	134	110	29	32
6	11	6.6	4.6	2.8	2.6	3.2	14	143	114	127	29	30
7	11	6.8	4.6	2.9	2.5	3.1	17	134	117	141	34	26
8	11	6.7	4.2	2.8	2.5	3.2	20	125	104	188	31	22
9	10	6.2	4.5	2.8	2.5	3.4	21	152	135	161	28	20
10	9.7	6.2	4.3	2.8	2.5	3.5	27	126	148	117	26	18
11	9.5	6.6	3.8	2.9	2.4	3.5	32	88	177	93	27	16
12	9.7	6.2	4.2	2.9	2.3	3.1	32	87	185	103	25	15
13	8.2	6.2	4.2	2.8	2.4	3.2	39	100	223	101	27	16
14	7.4	5.6	4.1	2.8	2.3	3.4	40	114	222	89	26	15
15	7.1	5.6	3.8	2.7	2.2	3.5	37	113	183	76	22	15
16	6.8	5.8	3.4	2.7	2.4	3.5	35	128	145	71	22	19
17	6.4	5.4	2.9	2.7	2.4	3.6	33	134	100	68	31	22
18	5.9	5.2	3.1	2.7	2.3	3.8	37	153	135	63	37	27
19	5.8	5.2	3.3	2.8	2.4	3.7	31	181	188	61	31	23
20	5.4	5.0	3.5	2.9	2.3	3.5	26	239	216	57	25	29
21	5.6	4.8	3.5	2.7	2.5	3.5	24	240	209	59	22	34
22	5.4	5.0	3.4	2.8	2.7	3.3	27	233	155	58	21	32
23	5.2	5.4	3.4	2.8	2.7	3.2	25	199	189	55	26	27
24	7.4	5.0	3.3	2.6	2.6	3.5	23	206	214	60	38	24
25	8.5	4.6	2.8	2.6	2.5	3.7	25	176	199	62	50	25
26	8.6	5.0	2.6	2.7	2.6	3.8	31	179	231	59	44	26
27	8.4	5.4	2.6	2.8	2.6	4.0	45	227	193	52	39	22
28	8.7	5.4	2.5	2.8	2.6	5.1	65	160	168	45	32	19
29	7.7	5.4	2.5	2.8	2.6	5.8	86	115	181	41	28	18
30	7.2	5.0	2.6	2.8	---	6.2	113	97	168	40	25	16
31	7.2	---	2.6	2.9	---	6.1	---	91	---	37	24	---
TOTAL	273.8	174.1	112.3	85.7	72.6	113.3	946.6	4563	4789	2641	925	711
MEAN	8.83	5.80	3.62	2.76	2.50	3.65	31.6	147	160	85.2	29.8	23.7
MAX	16	7.4	4.6	2.9	2.9	6.2	113	240	231	188	50	35
MIN	5.2	4.6	2.5	2.5	2.2	2.5	6.4	87	77	37	21	15
AC-FT	543	345	223	170	144	225	1880	9050	9500	5240	1830	1410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	13.2	6.92	3.95	2.69	2.57	3.48	21.2	118	250	132	42.6	21.5
MAX	49.5	15.6	8.99	5.09	6.19	9.42	57.6	221	360	355	122	65.0
(WY)	1962	1962	1985	1986	1982	1986	1962	1970	1980	1957	1983	1961
MIN	3.39	1.99	.99	.17	.48	1.09	6.35	59.5	134	38.5	14.4	6.68
(WY)	1957	1957	1963	1963	1977	1977	1973	1968	1977	1977	1977	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	17939.4		15407.4			
ANNUAL MEAN	49.1		42.1		51.6	
HIGHEST ANNUAL MEAN					83.2	1984
LOWEST ANNUAL MEAN					25.4	1977
HIGHEST DAILY MEAN	331	Jun 15	240	May 21	618	Jun 30 1957
LOWEST DAILY MEAN	2.5	Dec 28	2.2	Feb 15	[a].10	Dec 27 1962
ANNUAL SEVEN-DAY MINIMUM	2.6	Dec 25	2.3	Feb 12	.13	Dec 26 1962
INSTANTANEOUS PEAK FLOW			275	May 21	754	Jun 30 1957
INSTANTANEOUS PEAK STAGE			4.09	May 21	[b]5.45	Jun 30 1957
ANNUAL RUNOFF (AC-FT)	35580		30560		37390	
10 PERCENT EXCEEDS	182		137		172	
50 PERCENT EXCEEDS	8.2		11		10	
90 PERCENT EXCEEDS	3.6		2.6		2.0	

a-Also occurred Dec 28-31, 1962, Jan 6-8, 11-15, 1963.
b-Maximum gage height, 6.14 ft, Aug 6, 1983.

09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO

LOCATION.--Lat 39°37'33", long 106°16'39", in NE1/4NW1/4 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.--14.4 mi^2.

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder. Elevation 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. 14 to Apr. 22. Records fair except for estimated daily discharges which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	3.6	3.5	2.6	2.2	2.5	6.0	77	62	73	14	16
2	7.8	4.0	3.5	2.5	2.2	2.5	6.2	73	61	63	13	23
3	7.2	4.2	3.5	2.4	2.2	2.5	7.0	75	72	53	13	24
4	6.6	3.9	3.5	2.3	2.2	2.5	8.0	78	85	55	13	23
5	6.6	3.5	3.5	2.2	2.2	2.5	8.4	84	92	60	12	24
6	7.0	2.9	3.5	2.3	2.2	2.5	9.0	92	88	64	14	20
7	6.4	3.5	3.5	2.4	2.2	2.5	10	94	86	63	16	17
8	6.2	3.1	3.5	2.4	2.2	2.5	12	90	86	65	13	15
9	5.8	3.1	3.5	2.4	2.2	2.5	14	81	86	60	11	13
10	5.8	3.1	3.5	2.4	2.0	2.5	17	72	84	53	13	12
11	5.7	2.7	3.5	2.4	2.2	2.5	20	61	91	46	14	11
12	4.8	3.0	3.5	2.4	2.2	2.5	21	65	101	45	13	10
13	4.8	3.4	3.4	2.4	2.2	2.6	24	70	111	44	12	11
14	4.5	4.0	3.3	2.4	2.2	2.9	26	80	109	41	11	10
15	4.8	3.8	3.3	2.4	2.2	3.0	24	86	96	36	10	9.7
16	4.4	3.7	3.2	2.4	2.2	3.0	22	92	84	34	12	9.5
17	3.9	3.6	3.2	2.4	2.3	3.0	22	97	76	31	20	9.7
18	3.6	3.6	3.2	2.4	2.3	3.0	21	104	91	29	15	11
19	3.4	3.5	3.2	2.4	2.3	3.0	18	110	100	27	12	9.8
20	3.2	3.5	3.2	2.4	2.3	3.0	16	117	102	28	10	11
21	3.6	3.4	3.2	2.4	2.3	3.0	15	117	99	27	9.6	11
22	3.2	3.4	3.2	2.2	2.3	3.0	15	109	93	26	10	9.6
23	3.4	3.4	3.2	2.2	2.3	3.0	13	100	95	25	12	8.9
24	3.8	3.4	3.2	2.2	2.3	3.0	12	104	97	23	23	8.2
25	4.1	3.5	3.2	2.2	2.3	3.0	15	100	92	25	22	9.9
26	3.9	3.5	3.0	2.2	2.3	3.1	18	103	94	24	18	9.5
27	3.6	3.5	2.9	2.2	2.4	3.4	26	110	86	21	15	8.2
28	3.1	3.5	2.8	2.2	2.4	4.3	43	93	79	19	13	7.7
29	3.2	3.5	2.8	2.2	2.5	4.0	60	80	83	18	11	7.3
30	3.9	3.5	2.6	2.2	---	5.2	75	73	79	17	10	6.9
31	3.8	---	2.6	2.2	---	5.6	---	69	---	15	10	---
TOTAL	150.3	104.3	100.7	72.3	65.3	94.1	603.6	2756	2660	1210	414.6	376.9
MEAN	4.85	3.48	3.25	2.33	2.25	3.04	20.1	88.9	88.7	39.0	13.4	12.6
MAX	8.2	4.2	3.5	2.6	2.5	5.6	75	117	111	73	23	24
MIN	3.1	2.7	2.6	2.2	2.0	2.5	6.0	61	61	15	9.6	6.9
AC-FT	298	207	200	143	130	187	1200	5470	5280	2400	822	748

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1992, BY WATER YEAR (WY)

MEAN	7.32	4.95	3.71	3.20	3.06	3.64	11.9	67.3	153	68.3	20.0	9.52
MAX	19.8	15.3	9.23	9.75	10.6	12.6	22.5	121	245	198	83.7	22.9
(WY)	1985	1985	1986	1986	1986	1985	1969	1974	1978	1983	1983	1984
MIN	3.12	2.50	1.94	1.86	1.55	1.57	3.81	23.4	59.2	17.2	7.37	3.52
(WY)	1976	1976	1964	1964	1977	1977	1973	1968	1954	1977	1954	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1948 - 1992	
ANNUAL TOTAL	9996.4		8608.1			
ANNUAL MEAN	27.4		23.5		29.7	
HIGHEST ANNUAL MEAN					48.3	1983
LOWEST ANNUAL MEAN					17.4	1954
HIGHEST DAILY MEAN	320	Jun 15	[a]117	May 20	455	Jun 25 1983
LOWEST DAILY MEAN	[b]1.9	Jan 28	2.0	Feb 10	1.2	Mar 5 1977
ANNUAL SEVEN-DAY MINIMUM	1.9	Jan 25	2.2	Feb 4	1.3	Feb 27 1977
INSTANTANEOUS PEAK FLOW			[c]132	May 20	[d]662	Jun 24 1983
INSTANTANEOUS PEAK STAGE			[c]3.13	May 20	[e]2.60	Jun 24 1983
ANNUAL RUNOFF (AC-FT)	19830		17070		21510	
10 PERCENT EXCEEDS	101		86		97	
50 PERCENT EXCEEDS	5.7		7.0		7.0	
90 PERCENT EXCEEDS	2.0		2.3		2.4	

a-Also occurred May 21.
b-Also occurred Jan 29-31.
c-Also occurred Jun 13.
d-From rating curve extended above 140 ft^3/s.
e-Maximum gage height, 6.65 ft, Jun 18, 1951, datum then in use.

09066000 BLACK GORE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°35'47", long 106°15'52", T.5 S., R.79 W., 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.--12.6 mi^2.

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,150 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1963, at site 15 ft upstream, at present datum.

REMARKS.--Estimated daily discharges: Oct. 29 to May 14. Records good except for estimated daily discharges, which are poor. No diversions upstream from station. Natural regulation by two small recreation lakes upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	2.3	2.2	2.1	2.1	2.1	3.2	50	54	27	5.4	7.4
2	3.3	2.3	2.2	2.1	2.0	2.2	3.4	48	51	26	5.1	7.0
3	3.1	2.3	2.2	2.1	2.0	2.2	3.5	50	52	22	5.1	5.2
4	3.0	2.3	2.2	2.1	2.0	2.2	3.9	54	58	19	5.1	4.8
5	3.0	2.3	2.2	2.1	2.0	2.2	4.3	58	60	18	4.9	4.9
6	2.9	2.4	2.2	2.1	2.0	2.2	5.0	61	58	17	5.5	4.5
7	2.9	2.4	2.2	2.1	2.0	2.2	5.8	70	56	17	5.1	4.1
8	2.9	2.4	2.2	2.1	2.0	2.2	6.6	70	54	17	4.6	3.9
9	2.9	2.4	2.2	2.1	2.0	2.2	7.6	64	52	16	4.4	3.8
10	2.8	2.4	2.2	2.1	2.0	2.2	9.0	60	50	15	4.7	4.4
11	2.8	2.4	2.2	2.1	2.0	2.2	11	46	52	13	4.9	4.4
12	2.7	2.4	2.2	2.1	2.0	2.2	13	44	52	13	4.8	7.3
13	2.7	2.4	2.2	2.1	2.0	2.4	14	50	53	13	4.6	7.9
14	2.7	2.4	2.2	2.1	2.0	2.5	13	54	51	13	4.4	7.5
15	2.7	2.4	2.2	2.1	2.0	2.6	13	58	48	12	4.4	9.8
16	2.7	2.4	2.2	2.1	2.0	2.6	12	65	46	11	5.3	8.9
17	2.6	2.3	2.2	2.1	2.0	2.7	11	71	43	11	6.1	10
18	2.6	2.3	2.2	2.1	2.0	2.6	9.6	76	42	9.7	5.0	8.7
19	2.6	2.3	2.3	2.1	2.0	2.5	8.8	81	42	9.2	4.4	4.3
20	2.6	2.3	2.3	2.1	2.0	2.5	8.0	90	43	9.6	4.1	4.5
21	2.6	2.3	2.3	2.1	2.0	2.4	7.2	95	42	9.2	4.0	3.8
22	2.6	2.3	2.3	2.1	2.0	2.4	6.4	91	40	8.3	4.2	3.5
23	2.6	2.2	2.3	2.1	2.0	2.5	5.4	89	39	8.2	4.7	3.3
24	3.3	2.2	2.3	1.9	2.0	2.5	5.0	86	38	8.0	11	3.2
25	3.7	2.2	2.3	2.1	2.0	2.5	5.8	83	38	8.7	7.2	3.8
26	4.1	2.2	2.3	2.1	2.0	2.5	7.4	85	36	7.3	5.5	3.4
27	3.8	2.2	2.2	2.1	2.0	2.6	11	92	34	6.5	4.5	3.2
28	2.3	2.2	2.1	2.1	2.0	2.7	16	83	33	6.6	4.2	3.1
29	2.3	2.2	2.1	2.1	2.0	2.8	23	70	31	6.8	4.1	3.0
30	2.3	2.2	2.1	2.1	---	2.9	32	65	28	7.1	4.0	3.0
31	2.3	---	2.1	2.1	---	3.0	---	59	---	5.9	4.2	---
TOTAL	88.6	69.3	68.6	64.9	58.1	75.5	284.9	2118	1376	391.1	155.5	156.6
MEAN	2.86	2.31	2.21	2.09	2.00	2.44	9.50	68.3	45.9	12.6	5.02	5.22
MAX	4.1	2.4	2.3	2.1	2.1	3.0	32	95	60	27	11	10
MIN	2.3	2.2	2.1	1.9	2.0	2.1	3.2	44	28	5.9	4.0	3.0
AC-FT	176	137	136	129	115	150	565	4200	2730	776	308	311

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1992, BY WATER YEAR (WY)

MEAN	3.93	3.44	2.80	2.38	2.29	2.86	7.65	55.6	89.2	21.4	7.29	4.34
MAX	10.7	10.7	9.57	8.08	9.09	14.5	22.8	130	160	54.5	21.4	12.0
(WY)	1985	1985	1985	1986	1986	1986	1985	1948	1978	1984	1984	1984
MIN	1.90	1.84	1.35	1.01	.91	1.40	2.86	21.7	21.8	6.09	2.56	2.43
(WY)	1951	1964	1970	1979	1979	1971	1973	1968	1954	1954	1954	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1948 - 1992	
ANNUAL TOTAL	5795.5		4907.1			
ANNUAL MEAN	15.9		13.4		16.9	
HIGHEST ANNUAL MEAN					30.3	1984
LOWEST ANNUAL MEAN					8.16	1954
HIGHEST DAILY MEAN	146	Jun 6	95	May 21	253	Jun 17 1965
LOWEST DAILY MEAN	[a]1.6	Jan 27	1.9	Jan 24	[b].90	Feb 22 1968
ANNUAL SEVEN-DAY MINIMUM	1.6	Jan 25	2.0	Feb 2	.90	Feb 4 1979
INSTANTANEOUS PEAK FLOW			[c]108	May 21	365	Jun 7 1952
INSTANTANEOUS PEAK STAGE			[c]4.01	May 21	[d]5.42	Jun 7 1952
ANNUAL RUNOFF (AC-FT)	11500		9730		12270	
10 PERCENT EXCEEDS	55		51		53	
50 PERCENT EXCEEDS	3.1		3.2		3.7	
90 PERCENT EXCEEDS	1.7		2.1		1.9	

a-Also occurred Jan 28-31.
b-Also occurred Jan 30, 1970, Feb 4 to Mar 6, 1979.
c-Also occurred May 26.
d-Maximun gage height, 6.00 ft, Mar 30, 1968, backwater from ice.

09066100 BIGHORN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'24", long 106°17'34", in N1/2 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.--4.54 mi^2.

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

REVISED RECORDS.--WDR CO-88-2: Drainage area.

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. 30 to Mar. 25 and Apr. 9-13. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	1.7	.88	.80	.82	.88	1.3	43	17	32	5.0	5.0
2	2.4	1.7	.88	.80	.80	.90	1.4	39	18	23	5.1	6.5
3	2.3	1.7	.88	.80	.80	.90	1.5	39	25	17	4.9	6.2
4	2.2	1.7	.88	.74	.80	.88	1.7	41	33	20	4.9	6.1
5	2.1	1.7	.88	.70	.86	.86	1.8	45	37	24	4.6	6.5
6	2.1	1.8	.88	.72	.82	.86	2.1	48	36	29	5.3	5.7
7	2.0	1.7	.90	.76	.80	.86	2.6	50	35	27	5.5	4.9
8	2.0	1.7	.90	.76	.76	.90	3.1	46	37	26	4.8	4.4
9	1.9	1.7	.90	.76	.76	.92	4.0	34	36	23	4.7	4.1
10	1.9	1.7	.92	.78	.76	.90	5.2	27	33	20	5.1	3.9
11	1.8	1.7	.98	.78	.76	.88	6.0	18	38	17	4.8	3.7
12	1.8	1.7	.98	.78	.76	.88	8.0	21	50	17	4.8	3.3
13	1.7	1.7	.98	.78	.82	.90	9.1	24	67	17	4.4	3.5
14	1.7	1.7	.98	.78	.80	.96	9.2	27	63	14	4.1	3.1
15	1.7	1.6	.98	.78	.78	1.0	7.8	31	46	12	3.9	3.1
16	1.6	1.4	.98	.78	.78	1.1	8.3	37	34	11	5.3	3.0
17	1.6	1.3	.98	.79	.78	1.1	6.8	42	29	11	7.6	3.1
18	1.5	1.3	.98	.79	.78	1.0	6.2	52	43	9.7	6.1	3.6
19	1.5	1.3	.98	.79	.78	1.0	5.2	63	54	9.2	4.9	3.1
20	1.5	1.4	.98	.79	.78	1.0	4.4	70	57	9.1	4.2	3.4
21	1.5	1.3	.98	.79	.78	.96	4.0	67	48	9.5	3.8	3.1
22	1.5	1.2	.98	.79	.78	1.0	4.1	54	40	9.1	3.9	2.8
23	1.5	1.1	.98	.79	.78	1.1	3.7	43	41	9.1	5.0	2.6
24	1.7	1.0	.98	.79	.78	1.1	3.7	51	45	8.4	7.8	2.4
25	1.8	1.0	.90	.84	.78	1.1	4.1	52	43	8.6	7.2	2.9
26	1.9	1.0	.90	.86	.80	1.2	4.8	45	47	7.9	6.2	2.6
27	1.9	1.0	.88	.86	.82	1.2	7.6	44	39	7.3	5.2	2.4
28	1.7	1.0	.88	.86	.84	1.2	14	32	34	6.7	4.5	2.3
29	1.7	.94	.86	.86	.84	1.3	24	25	38	6.2	4.0	2.2
30	1.7	.84	.80	.86	---	1.2	37	22	37	5.7	3.7	2.2
31	1.7	---	.80	.86	---	1.3	---	20	---	5.4	3.7	---
TOTAL	56.3	42.58	28.64	24.62	23.00	31.34	202.7	1252	1200	451.9	155.0	111.7
MEAN	1.82	1.42	.92	.79	.79	1.01	6.76	40.4	40.0	14.6	5.00	3.72
MAX	2.4	1.8	.98	.86	.86	1.3	37	70	67	32	7.8	6.5
MIN	1.5	.84	.80	.70	.76	.86	1.3	18	17	5.4	3.7	2.2
AC-FT	112	84	57	49	46	62	402	2480	2380	896	307	222

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	2.75	1.71	1.04	.84	.84	.98	4.01	23.7	49.4	22.2	7.34	3.65
MAX	8.03	4.65	2.53	2.04	2.54	2.97	10.0	52.5	85.2	61.2	22.6	9.94
(WY)	1986	1985	1985	1986	1986	1986	1985	1984	1978	1983	1984	1984
MIN	1.01	.84	.63	.45	.30	.32	.86	9.55	17.7	5.61	3.39	1.12
(WY)	1964	1980	1977	1967	1964	1981	1964	1968	1966	1977	1969	1975

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	3424.60		3579.78			
ANNUAL MEAN	9.38		9.78		9.89	
HIGHEST ANNUAL MEAN					18.6	1984
LOWEST ANNUAL MEAN					5.15	1966
HIGHEST DAILY MEAN	113	Jun 15	70	May 20	170	Jun 26 1983
LOWEST DAILY MEAN	[a].76	Jan 27	.70	Jan 5	[b].10	Feb 8 1967
ANNUAL SEVEN-DAY MINIMUM	.77	Jan 25	.75	Jan 4	.20	Mar 4 1981
INSTANTANEOUS PEAK FLOW			94	Jun 13	[c]338	Jun 8 1985
INSTANTANEOUS PEAK STAGE			3.49	Jun 13	[d]4.10	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	6790		7100		7160	
10 PERCENT EXCEEDS	31		37		32	
50 PERCENT EXCEEDS	1.8		2.1		2.3	
90 PERCENT EXCEEDS	.80		.79		.60	

a-Also occurred Jan 28-31.
b-Minimum daily discharge determined, also occurred Jan 30, 1970.
c-From rating curve extended above 82 ft^3/s.
d-Maximum gage height, 4.26 ft, Jun 8, 1985, backwater from debris.

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, 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.--5.32 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. WDR CO-88-2: Drainage area.

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, at site 300 ft downstream.

REMARKS.--Estimated daily discharges: Oct. 29 to Nov. 7, and Nov. 22 to Mar. 25. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	2.3	1.6	.92	.79	.84	1.3	41	25	40	6.9	9.0
2	3.0	2.3	1.6	.88	.79	.86	1.4	39	26	32	6.7	12
3	2.9	2.4	1.6	.86	.79	.86	1.4	39	31	24	6.0	11
4	2.7	2.4	1.6	.84	.79	.86	1.6	41	36	28	6.0	9.7
5	2.7	2.4	1.5	.80	.79	.86	1.8	42	39	31	6.2	10
6	2.8	2.4	1.5	.80	.79	.88	2.0	42	38	34	6.7	8.7
7	2.7	2.5	1.5	.80	.79	.88	2.3	42	37	34	6.7	7.6
8	2.6	2.5	1.5	.80	.79	.88	2.6	40	38	32	6.1	6.9
9	2.5	2.4	1.5	.80	.79	.88	3.2	36	40	28	5.9	6.3
10	2.5	2.3	1.5	.80	.79	.88	4.5	30	37	24	6.1	5.7
11	2.4	2.3	1.3	.80	.79	.88	5.8	24	39	22	6.2	5.3
12	2.3	2.3	1.3	.80	.79	.88	6.1	25	42	22	6.4	5.1
13	2.3	2.3	1.3	.80	.79	.88	9.0	26	48	21	6.0	5.5
14	2.3	2.3	1.2	.80	.79	.94	8.6	29	51	17	5.3	4.8
15	2.3	2.2	1.2	.80	.79	.94	7.6	33	42	16	5.1	4.8
16	2.2	2.1	1.2	.84	.79	.94	8.0	35	38	15	7.5	4.5
17	2.2	2.2	1.2	.84	.79	.94	7.2	36	33	13	11	4.6
18	2.2	2.4	1.2	.84	.79	.94	7.0	38	40	13	8.6	6.2
19	2.2	2.5	1.2	.84	.79	.94	6.4	39	46	12	7.2	5.1
20	2.3	2.5	1.2	.84	.79	.94	5.8	49	48	13	6.4	5.5
21	2.1	2.4	1.2	.82	.80	.94	5.3	50	43	13	6.0	5.2
22	2.0	2.3	1.2	.77	.80	.94	5.3	45	40	12	5.9	4.6
23	1.9	2.2	1.2	.77	.80	.94	4.9	42	42	11	6.9	4.3
24	2.5	2.1	1.2	.77	.80	.94	4.8	46	44	11	11	4.1
25	2.6	2.0	1.2	.77	.80	.94	5.3	49	42	12	10	5.1
26	2.7	1.9	1.1	.77	.80	.95	6.1	43	44	11	9.0	4.8
27	2.6	1.8	1.1	.77	.80	.95	9.0	42	41	10	7.5	4.4
28	2.2	1.7	1.1	.77	.80	.93	15	39	41	9.2	6.7	4.0
29	2.2	1.7	.98	.77	.80	.81	25	33	42	8.7	6.1	3.7
30	2.2	1.6	.96	.78	---	1.0	35	30	42	8.1	6.0	3.4
31	2.3	---	.94	.78	---	1.1	---	28	---	7.5	6.0	---
TOTAL	75.6	66.7	39.88	25.04	23.00	28.34	209.3	1173	1195	584.5	214.1	181.9
MEAN	2.44	2.22	1.29	.81	.79	.91	6.98	37.8	39.8	18.9	6.91	6.06
MAX	3.2	2.5	1.6	.92	.80	1.1	35	50	51	40	11	12
MIN	1.9	1.6	.94	.77	.79	.81	1.3	24	25	7.5	5.1	3.4
AC-FT	150	132	79	50	46	56	415	2330	2370	1160	425	361

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	4.01	2.49	1.78	1.43	1.32	1.41	4.02	23.7	53.2	29.2	9.63	5.10
MAX	9.43	3.84	3.28	3.84	3.94	3.85	6.98	44.8	101	94.5	31.1	11.2
(WY)	1985	1982	1986	1986	1986	1985	1992	1974	1978	1984	1983	1984
MIN	1.49	1.26	.94	.58	.70	.87	1.44	9.66	23.2	9.08	4.15	2.78
(WY)	1967	1980	1967	1967	1981	1981	1973	1968	1989	1977	1969	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	3173.82		3816.36			
ANNUAL MEAN	8.70		10.4		11.5	
HIGHEST ANNUAL MEAN					22.7	1984
LOWEST ANNUAL MEAN					6.77	1989
HIGHEST DAILY MEAN	64	Jun 17	51[b]	Jun 14	186[c]	Jun 14 1978
LOWEST DAILY MEAN	.86[a]	Jan 29	.77[b]	Jan 22	.24[c]	Oct 29 1972
ANNUAL SEVEN-DAY MINIMUM	.88	Jan 28	.77	Jan 22	.26	Oct 26 1972
INSTANTANEOUS PEAK FLOW			63[d]	May 20	265	Jun 8 1985
INSTANTANEOUS PEAK STAGE			2.44[d]	May 20	2.85[e]	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	6300		7570		8300	
10 PERCENT EXCEEDS	30		39		37	
50 PERCENT EXCEEDS	2.6		2.6		3.2	
90 PERCENT EXCEEDS	.90		.80		1.0	

a-Also occurred Jan 30 to Feb 1.
b-Also occurred Jan 23-29.
c-Also occurred Oct 30 to Nov 1, 1972.
d-Also occurred Jun 13.
e-Maximum gage height, 3.60 ft, Jun 21, 1983, backwater from debris.

09066200 BOOTH CREEK NEAR MINTURN, CO

LOCATION (REVISED).--Lat 39°38'54", long 106°19'21", at NE1/4SE1/4 of sec.3, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, near center of span on downstream side of old Highway 6 bridge pier, 100 ft upstream from frontage road to I-70, 0.2 mi upstream from mouth, 3.0 mi northeast of Vail, and 7.0 mi northeast of Minturn.

DRAINAGE AREA.--6.02 mi^2.

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

REVISED RECORDS.--WDR CO-89-2: Drainage area.

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: Oct. 29-30, Nov. 2-4, Nov. 14 to Mar. 10, June 3-10, and Aug. 19 to Sept. 14. Records fair except for estimated daily discharges, which are poor. No diversion or regulation upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.7	1.6	.84	.77	.90	1.9	36	25	32	3.9	6.0
2	2.1	1.7	1.5	.82	.77	.90	2.0	35	24	22	3.7	5.6
3	2.1	1.7	1.4	.80	.77	.90	2.1	35	28	16	3.5	5.6
4	2.0	1.7	1.3	.78	.77	.90	2.6	37	33	17	3.4	5.8
5	2.0	1.7	1.3	.77	.77	.90	3.1	39	38	17	3.4	5.0
6	2.0	1.8	1.3	.77	.77	.90	2.9	41	37	17	3.6	4.5
7	1.9	1.9	1.3	.77	.76	.98	3.2	40	37	17	3.7	4.0
8	1.9	1.9	1.3	.77	.74	1.1	3.5	41	36	17	3.2	3.5
9	1.8	2.0	1.3	.77	.74	1.2	3.6	34	34	16	3.0	3.3
10	1.7	2.1	1.3	.77	.74	1.2	5.2	30	34	14	2.9	3.1
11	1.7	2.1	1.3	.77	.74	1.3	6.9	26	39	12	2.8	3.0
12	1.6	2.1	1.3	.77	.76	1.2	6.5	27	48	13	2.9	3.2
13	1.6	2.0	1.3	.77	.76	1.3	9.5	26	57	13	2.8	3.1
14	1.6	2.2	1.3	.77	.77	1.4	8.8	30	56	11	2.5	3.1
15	1.6	2.2	1.2	.77	.77	1.3	7.8	32	47	9.8	2.3	3.2
16	1.6	2.2	1.1	.77	.77	1.4	7.9	33	37	9.6	3.9	3.0
17	1.5	2.3	1.1	.77	.77	1.5	6.8	39	34	9.0	5.6	3.2
18	1.5	2.1	1.1	.77	.77	1.4	6.4	39	42	7.6	4.4	4.0
19	1.5	2.3	1.1	.77	.77	1.4	5.7	47	49	7.9	3.7	3.2
20	1.5	2.1	1.1	.77	.77	1.4	5.0	53	51	8.5	3.4	3.4
21	1.5	1.9	1.1	.77	.80	1.4	4.4	50	43	8.0	3.4	3.2
22	1.5	1.9	1.1	.77	.80	1.4	4.7	43	41	7.1	4.0	2.9
23	1.5	1.9	1.1	.77	.80	1.4	4.3	44	42	6.9	6.2	2.8
24	1.8	1.9	1.1	.77	.80	1.4	4.0	48	41	6.7	5.8	2.6
25	1.9	1.5	1.0	.77	.80	1.4	4.5	48	38	7.5	4.7	3.2
26	2.1	1.5	1.0	.77	.82	1.4	5.0	42	39	6.8	4.2	2.8
27	2.0	1.6	.98	.77	.84	1.5	6.5	40	34	6.0	3.8	2.6
28	1.9	1.6	.96	.77	.88	1.7	12	32	35	5.4	3.4	2.4
29	1.8	1.6	.94	.77	.90	1.8	21	27	34	4.8	3.3	2.3
30	1.8	1.6	.90	.77	---	1.8	32	26	33	4.4	3.3	2.2
31	1.7	---	.88	.77	---	2.0	---	25	---	4.1	4.4	---
TOTAL	54.9	56.8	36.56	24.03	22.69	40.68	199.8	1145	1166	354.1	115.1	105.8
MEAN	1.77	1.89	1.18	.78	.78	1.31	6.66	36.9	38.9	11.4	3.71	3.53
MAX	2.2	2.3	1.6	.84	.90	2.0	32	53	57	32	6.2	6.0
MIN	1.5	1.5	.88	.77	.74	.90	1.9	25	24	4.1	2.3	2.2
AC-FT	109	113	73	48	45	81	396	2270	2310	702	228	210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	2.80	2.07	1.28	1.01	.95	1.32	5.61	30.5	64.8	25.1	5.85	3.06
MAX	8.30	7.17	3.54	2.48	2.97	5.72	14.2	57.8	123	70.4	14.4	7.29
(WY)	1985	1985	1985	1985	1985	1986	1986	1974	1982	1983	1984	1984
MIN	.88	.66	.67	.37	.39	.41	1.39	15.2	23.5	4.75	1.92	.97
(WY)	1975	1965	1975	1977	1981	1981	1973	1983	1966	1977	1988	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	4013.53		3321.46			
ANNUAL MEAN	11.0		9.08		12.0	
HIGHEST ANNUAL MEAN					19.0	1982
LOWEST ANNUAL MEAN					6.66	1977
HIGHEST DAILY MEAN	104	Jun 15	57	Jun 13	218	Jun 15 1978
LOWEST DAILY MEAN	[a].66	Jan 28	[b].74	Feb 8	[c].20	Feb 8 1967
ANNUAL SEVEN-DAY MINIMUM	.68	Jan 27	.75	Feb 7	.33	Feb 7 1967
INSTANTANEOUS PEAK FLOW			87	Jun 13	355	Jun 15 1978
INSTANTANEOUS PEAK STAGE			3.09	Jun 13	[d]4.07	Jun 15 1978
ANNUAL RUNOFF (AC-FT)	7960		6590		8720	
10 PERCENT EXCEEDS	42		35		40	
50 PERCENT EXCEEDS	2.1		2.2		2.3	
90 PERCENT EXCEEDS	.80		.77		.70	

a-Also occurred Jan 29-31.
b-Also occurred Feb 9-11.
c-Also occurred Jan 29, 1970, Feb 10, 11, 1981.
d-Maximum gage height, 4.62 ft, Jun 18, 1963, backwater from debris.

09066300 MIDDLE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'45", long 106°22'54", in sec.6, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 200 ft upstream from Interstate Highway 70, 0.2 mi upstream from mouth, and 5.0 mi northeast of Minturn.

DRAINAGE AREA.--5.94 mi^2.

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

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1977 at site 700 ft upstream, at different datum.

REMARKS.--Estimated daily discharges: Nov. 20 to Mar. 10. Records fair except for estimated daily discharges, which are poor. No diversion or regulation upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.84	.49	.28	.16	.18	.38	8.8	17	12	1.9	2.3
2	1.1	.81	.49	.25	.16	.18	.40	9.3	16	11	1.8	2.3
3	1.1	.77	.49	.23	.16	.18	.40	11	17	9.1	1.7	1.7
4	1.1	.77	.49	.20	.16	.18	.58	11	18	8.2	1.6	1.5
5	1.1	.77	.49	.17	.16	.18	.59	12	19	7.7	1.6	1.7
6	1.5	.73	.49	.16	.15	.19	.61	13	19	7.4	1.7	1.5
7	1.5	.77	.49	.16	.15	.20	.67	13	19	7.2	1.3	1.3
8	1.3	.74	.49	.16	.15	.21	.79	14	20	7.3	1.1	1.1
9	1.2	.69	.49	.16	.15	.23	.90	13	20	7.1	1.1	.97
10	1.2	.71	.49	.16	.15	.25	1.2	13	20	6.1	.95	.93
11	1.1	.67	.49	.16	.15	.22	1.4	12	21	5.5	.76	1.0
12	1.1	.62	.49	.16	.15	.25	1.3	13	23	5.3	.92	.95
13	1.1	.62	.49	.16	.15	.26	1.7	13	26	5.3	1.3	1.0
14	.97	.56	.49	.16	.16	.30	1.8	13	27	4.7	1.0	.96
15	1.1	.49	.49	.16	.16	.28	1.7	14	25	4.4	.94	1.1
16	1.0	.49	.49	.16	.16	.31	1.8	14	23	4.0	1.4	.99
17	.89	.49	.49	.16	.17	.32	1.7	15	21	3.6	2.8	1.1
18	.84	.49	.49	.16	.17	.32	1.7	17	21	3.3	2.1	1.7
19	.81	.49	.49	.16	.17	.32	1.5	18	22	3.2	1.4	1.2
20	.92	.49	.49	.16	.17	.32	1.4	21	23	3.4	1.2	1.4
21	.87	.49	.49	.16	.17	.32	1.4	23	22	2.9	1.2	1.3
22	.87	.49	.49	.16	.17	.32	1.4	22	21	2.7	1.2	1.0
23	.89	.49	.49	.16	.17	.32	1.4	21	20	2.8	1.6	.97
24	.96	.49	.49	.16	.17	.32	1.3	22	20	2.7	2.9	.91
25	1.1	.49	.45	.16	.17	.32	1.4	23	18	3.3	2.2	1.3
26	1.1	.52	.40	.16	.17	.32	1.6	23	18	3.0	1.8	1.2
27	1.0	.52	.40	.16	.17	.33	2.3	25	16	2.3	1.5	.99
28	.88	.52	.40	.16	.18	.35	4.0	24	15	2.4	1.3	.93
29	.80	.52	.40	.16	.18	.35	5.6	22	14	2.3	1.1	.85
30	.92	.52	.36	.16	---	.37	7.3	20	13	2.2	1.1	.87
31	.88	---	.32	.16	---	.37	---	18	---	2.0	1.2	---
TOTAL	32.30	18.06	14.49	5.29	4.71	8.57	50.22	511.1	594	154.4	45.67	37.02
MEAN	1.04	.60	.47	.17	.16	.28	1.67	16.5	19.8	4.98	1.47	1.23
MAX	1.5	.84	.49	.28	.18	.37	7.3	25	27	12	2.9	2.3
MIN	.80	.49	.32	.16	.15	.18	.38	8.8	13	2.0	.76	.85
AC-FT	64	36	29	10	9.3	17	100	1010	1180	306	91	73

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	1.21	.83	.49	.40	.37	.40	1.32	11.7	34.7	13.0	3.31	1.79
MAX	3.90	3.10	1.75	2.45	2.34	2.16	6.53	25.5	53.1	31.5	14.0	7.18
(WY)	1985	1983	1986	1986	1986	1985	1985	1984	1984	1984	1983	1979
MIN	.36	.030	.000	.000	.000	.000	.26	3.85	14.3	2.30	.86	.36
(WY)	1965	1965	1965	1965	1965	1965	1976	1968	1966	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	1797.01		1475.83			
ANNUAL MEAN	4.92		4.03		5.79	
HIGHEST ANNUAL MEAN					11.3	1984
LOWEST ANNUAL MEAN					2.52	1977
HIGHEST DAILY MEAN	49	Jun 15	27	Jun 14	93	Jun 22 1983
LOWEST DAILY MEAN	.19	Apr 1	[a].15	Feb 6	[b].00	Nov 10 1964
ANNUAL SEVEN-DAY MINIMUM	.20	Feb 1	.15	Feb 6	.00	Nov 10 1964
INSTANTANEOUS PEAK FLOW			29	Jun 13	116	Jun 20 1974
INSTANTANEOUS PEAK STAGE			2.20	Jun 13	[c,d]2.65	Jun 20 1974
ANNUAL RUNOFF (AC-FT)	3560		2930		4190	
10 PERCENT EXCEEDS	18		17		20	
50 PERCENT EXCEEDS	.81		.96		.94	
90 PERCENT EXCEEDS	.20		.16		.20	

a-Also occurred Feb 7-13.
b-No flow at times most years.
c-Datum then in use.
d-Maximum gage height, 3.28 ft, Jun 25, 1983, backwater from debris.

09066310 GORE CREEK AT LOWER STATION, AT VAIL, CO

LOCATION.--Lat 39°38'28", long 106°23'37", in NW¼NW¼ SEC.7, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 40 ft south of the water treatment plant at Vail, 0.1 mi upstream from Red Sandstone Creek, and 0.6 mi downstream from Middle Creek.

DRAINAGE AREA.--77.1 mi^2.

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,060 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges, Nov. 3, 4, 8, 20, 22, 23, Nov. 30 to Dec. 2, Dec. 5-7, 9, 10, 13-18, 21, 23-31, Jan. 2-4, 10, 11, 15-17, 19-21, 28-30, Feb.1, 5-7, 19, and 24. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	17	17	10	9.0	9.6	18	258	296	248	45	56
2	20	17	16	10	8.5	10	19	239	289	210	43	64
3	19	17	15	9.4	8.5	10	19	245	322	174	42	60
4	19	17	15	9.0	8.7	9.8	24	273	361	168	44	55
5	19	17	15	8.5	9.0	9.9	25	308	417	171	43	59
6	19	18	15	8.7	8.8	10	26	334	398	196	45	50
7	19	18	15	9.2	8.6	10	30	357	395	203	50	44
8	19	18	15	8.9	8.4	11	35	343	391	184	42	38
9	19	18	15	8.9	8.1	11	40	309	390	165	39	35
10	19	18	15	9.0	8.1	10	51	278	361	145	39	34
11	18	19	15	9.2	8.1	9.9	59	220	374	129	42	32
12	17	16	15	9.4	8.3	10	61	225	435	128	40	32
13	17	17	15	9.0	8.5	10	80	271	492	126	39	35
14	17	17	15	9.2	8.5	11	78	307	489	116	35	32
15	17	17	14	9.4	8.2	12	68	334	423	105	33	34
16	17	17	14	9.5	8.7	12	70	374	359	100	38	33
17	17	18	14	9.6	8.8	13	65	423	314	96	63	34
18	16	17	14	9.6	9.0	12	67	477	362	89	52	39
19	16	19	13	9.8	9.0	12	54	511	399	88	41	30
20	17	18	13	9.8	8.9	12	48	599	414	86	36	33
21	16	18	13	9.8	9.0	11	45	626	390	83	33	31
22	16	17	13	9.8	9.2	12	47	572	357	77	33	27
23	16	17	13	8.6	8.9	12	43	517	356	76	39	25
24	19	17	13	8.0	9.2	12	39	528	366	74	69	24
25	19	16	13	8.6	9.2	12	44	553	352	79	64	29
26	19	16	12	9.0	9.1	12	50	530	360	72	53	27
27	19	17	12	8.8	9.4	13	70	611	322	65	43	25
28	18	17	11	9.0	9.5	16	118	510	291	59	38	24
29	16	17	11	9.0	9.5	14	168	417	291	56	34	22
30	18	17	11	9.0	---	16	236	380	271	55	33	21
31	17	---	10	8.9	---	17	---	343	---	49	34	---
TOTAL	555	519	427	284.6	254.7	362.2	1797	12272	11037	3672	1324	1084
MEAN	17.9	17.3	13.8	9.18	8.78	11.7	59.9	396	368	118	42.7	36.1
MAX	21	19	17	10	9.5	17	236	626	492	248	69	64
MIN	16	16	10	8.0	8.1	9.6	18	220	271	49	33	21
AC-FT	1100	1030	847	565	505	718	3560	24340	21890	7280	2630	2150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

MEAN	19.9	16.2	12.5	9.84	8.63	12.5	53.5	298	497	129	43.0	27.1
MAX	25.9	19.6	13.8	11.5	9.16	17.0	87.0	396	698	154	49.9	37.5
(WY)	1991	1991	1992	1990	1989	1989	1989	1992	1991	1991	1989	1991
MIN	16.8	12.9	11.1	9.02	7.73	9.74	25.5	181	360	118	32.8	19.3
(WY)	1990	1989	1989	1991	1990	1991	1991	1990	1989	1989	1990	1988

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1988 - 1992	
ANNUAL TOTAL	40131.2		33588.5			
ANNUAL MEAN	110		91.8		94.1	
HIGHEST ANNUAL MEAN					111	1991
LOWEST ANNUAL MEAN					86.5	1990
HIGHEST DAILY MEAN	1080	Jun 15	626	May 21	1080	Jun 15 1991
LOWEST DAILY MEAN	[a]8.0	Jan 29	8.0	Jan 24	[b]7.2	Feb 12 1990
ANNUAL SEVEN-DAY MINIMUM	8.1	Jan 27	8.3	Feb 9	7.4	Feb 8 1990
INSTANTANEOUS PEAK FLOW			736	May 20	1290	Jun 14 1991
INSTANTANEOUS PEAK STAGE			9.61	May 20	[c]10.67	Jun 14 1991
ANNUAL RUNOFF (AC-FT)	79600		66620		68150	
10 PERCENT EXCEEDS	424		356		350	
50 PERCENT EXCEEDS	19		19		21	
90 PERCENT EXCEEDS	9.0		9.0		9.1	

a-Also occurred Jan 30 to Feb 1.
b-Also occurred Feb 13, 1990.
c-Maximum gage height, 10.83 ft, Jun 8, 1990.

09066400 RED SANDSTONE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°40'58", long 106°24'03", in sec.25, T.4 S., R.81 W., (projected), 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.--7.32 mi^2.

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

REVISED RECORDS.--WDR CO-88-2: Drainage area.

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. 27-31, Nov. 10-14, Dec. 1-5, and Dec. 21 to Jan. 7. Records good except for estimated daily discharges, which are poor. No regulation or diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.3	1.5	1.6	1.5	1.1	1.5	21	28	14	2.2	5.0
2	1.4	1.3	1.4	1.6	1.5	1.1	1.5	23	26	13	2.0	4.7
3	1.3	1.2	1.3	1.5	1.5	1.2	1.5	23	26	12	1.9	3.7
4	1.3	1.2	1.4	1.4	1.4	1.2	2.0	25	28	11	1.8	3.4
5	1.3	1.3	1.5	1.3	1.3	1.1	2.0	26	28	11	1.7	3.6
6	1.4	1.4	1.5	1.4	1.3	1.0	2.0	28	27	10	2.1	3.1
7	1.3	1.4	1.5	1.4	1.4	1.0	2.6	29	26	10	2.7	3.0
8	1.3	1.4	1.5	1.5	1.4	1.0	3.0	30	26	10	2.1	2.7
9	1.2	1.5	1.5	1.6	1.4	1.0	3.5	29	26	9.9	1.9	2.6
10	1.2	1.4	1.5	1.8	1.4	1.0	5.0	26	25	9.0	1.8	2.5
11	1.2	1.3	1.5	1.9	1.4	1.1	5.1	25	25	8.2	2.2	2.3
12	1.2	1.2	1.5	1.9	1.3	1.2	5.1	28	27	8.1	2.4	2.3
13	1.2	1.1	1.5	1.9	1.2	1.2	6.5	28	28	8.4	1.8	2.4
14	1.1	1.2	1.5	1.9	1.2	1.2	6.4	29	28	7.4	1.7	2.2
15	1.2	1.5	1.5	1.9	1.3	1.2	5.7	31	26	6.9	1.6	2.3
16	1.2	1.5	1.5	1.9	1.3	1.2	5.7	30	24	6.4	4.0	2.2
17	1.2	1.5	1.6	1.9	1.3	1.2	5.3	32	22	5.7	6.1	2.5
18	1.2	1.5	1.6	1.8	1.2	1.2	5.2	35	22	5.3	3.9	3.9
19	1.2	1.4	1.6	1.8	1.2	1.2	4.7	38	22	4.8	2.4	2.8
20	1.2	2.0	1.6	1.6	1.2	1.2	4.2	42	23	5.3	1.9	3.3
21	1.2	1.4	1.5	1.6	1.2	1.2	4.4	41	22	4.8	1.8	2.8
22	1.2	1.4	1.4	1.5	1.2	1.3	4.8	39	20	4.4	1.9	2.4
23	1.2	1.5	1.3	1.5	1.2	1.3	4.3	36	19	4.2	3.3	2.2
24	1.6	1.5	1.4	1.5	1.1	1.3	4.1	37	19	4.3	6.9	2.1
25	1.4	1.5	1.4	1.5	1.1	1.3	4.9	38	19	6.2	4.4	3.5
26	1.4	1.5	1.5	1.5	1.1	1.3	5.9	38	19	4.8	3.4	3.0
27	1.4	1.5	1.6	1.5	1.1	1.3	7.9	40	17	4.0	2.6	2.4
28	1.3	1.5	1.7	1.5	1.1	1.3	11	36	16	3.5	2.4	2.2
29	1.2	1.5	1.6	1.5	1.1	1.4	14	33	16	3.2	2.2	2.2
30	1.2	1.5	1.6	1.5	---	1.5	18	32	14	2.9	2.2	2.1
31	1.2	---	1.6	1.5	---	1.5	---	29	---	2.5	2.6	---
TOTAL	39.4	42.4	46.6	50.2	36.9	37.3	157.8	977	694	221.2	81.9	85.4
MEAN	1.27	1.41	1.50	1.62	1.27	1.20	5.26	31.5	23.1	7.14	2.64	2.85
MAX	1.6	2.0	1.7	1.9	1.5	1.5	18	42	28	14	6.9	5.0
MIN	1.1	1.1	1.3	1.3	1.1	1.0	1.5	21	14	2.5	1.6	2.1
AC-FT	78	84	92	100	73	74	313	1940	1380	439	162	169

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1992, BY WATER YEAR (WY)

MEAN	1.99	1.52	1.21	1.02	.96	1.08	3.53	28.1	49.7	12.3	3.72	2.22
MAX	5.14	3.80	2.60	2.14	2.14	1.90	6.60	53.0	92.0	44.0	15.0	5.57
(WY)	1985	1985	1985	1985	1985	1985	1971	1974	1983	1983	1983	1984
MIN	.92	.57	.51	.52	.48	.46	1.47	11.2	16.3	3.22	1.59	.98
(WY)	1989	1977	1977	1987	1987	1987	1973	1968	1966	1977	1987	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1964 - 1992	
ANNUAL TOTAL	3582.39		2470.1			
ANNUAL MEAN	9.81		6.75		8.95	
HIGHEST ANNUAL MEAN					14.9	1983
LOWEST ANNUAL MEAN					4.31	1977
HIGHEST DAILY MEAN	113	Jun 6	42	May 20	164	Jun 20 1983
LOWEST DAILY MEAN	.88	Mar 17	[a]1.0	Mar 6	.20	Jan 30 1970
ANNUAL SEVEN-DAY MINIMUM	.92	Mar 13	1.0	Mar 5	.34	Jan 28 1970
INSTANTANEOUS PEAK FLOW			47	May 19	215	Jun 19 1983
INSTANTANEOUS PEAK STAGE			3.59	May 19	[b]4.66	Jun 19 1983
ANNUAL RUNOFF (AC-FT)	7110		4900		6480	
10 PERCENT EXCEEDS	33		26		29	
50 PERCENT EXCEEDS	1.6		1.8		1.8	
90 PERCENT EXCEEDS	1.0		1.2		.79	

a-Also occurred Mar 7-10.
b-Maximum gage height, 5.18 ft, Apr 17, 1987, backwater from ice.

09067000 BEAVER CREEK AT AVON, CO

LOCATION.--Lat 39°37'47", long 106°31'20", in NE1/4SW1/4 sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft upstream from U.S. Highway 6 and 24, and 700 ft upstream from mouth.

DRAINAGE AREA.--14.8 mi^2.

PERIOD OF RECORD.--January to December 1911, January 1912 to September 1914, gage heights and discharge measurements only, May 1974 to February 1988. October 1988 to current year.

REVISED RECORDS.--WDR CO-88-2: Drainage area.

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: Oct. 23 to Jan. 13, and Jan. 24. 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. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	2.7	2.4	2.0	1.9	1.9	3.3	21	27	26	7.3	7.8
2	3.9	2.6	2.4	1.9	1.9	2.0	3.2	20	26	25	6.4	7.9
3	3.8	2.5	2.3	1.7	1.9	2.2	3.5	19	26	22	6.6	6.3
4	3.7	2.6	2.2	1.9	1.8	2.2	3.9	20	27	21	6.2	6.0
5	3.4	2.7	2.1	2.0	1.8	2.3	3.8	19	29	20	6.4	6.4
6	3.5	2.5	2.1	2.0	1.8	2.3	3.9	19	28	20	7.0	5.6
7	3.3	2.1	2.1	2.1	1.8	2.4	4.1	20	28	20	7.8	4.8
8	3.3	2.3	2.2	2.2	1.8	2.6	4.4	20	26	22	6.6	4.1
9	3.4	2.4	2.3	2.3	1.9	2.6	4.9	21	27	20	5.7	4.3
10	3.5	2.5	2.3	2.4	1.9	2.5	5.6	22	29	19	5.8	4.1
11	3.4	2.5	2.2	2.3	1.9	2.8	6.1	19	32	16	5.3	3.8
12	3.5	2.4	2.4	2.3	1.9	2.5	7.0	20	33	18	5.6	3.9
13	3.5	2.4	2.4	2.3	1.9	2.7	7.9	21	36	19	5.4	4.2
14	3.2	2.4	2.2	2.3	1.9	2.8	8.6	23	38	16	5.7	4.1
15	3.1	2.4	2.3	2.1	1.9	2.8	8.2	25	37	15	4.8	3.7
16	3.1	2.3	2.4	2.0	1.9	2.9	7.9	27	35	14	5.7	4.3
17	3.1	2.2	2.4	2.0	1.9	2.7	8.1	28	33	13	7.7	4.5
18	3.1	2.2	2.2	2.0	1.9	2.4	9.2	30	34	12	6.6	4.8
19	3.0	2.3	1.9	2.0	1.8	2.1	6.9	31	33	12	5.6	4.6
20	3.0	2.3	1.9	2.2	1.8	2.8	6.0	37	33	12	5.0	5.8
21	3.0	2.4	2.0	2.3	1.9	2.7	6.2	36	32	12	4.4	7.1
22	3.1	2.3	2.1	2.2	1.9	3.0	6.6	34	31	10	4.9	7.4
23	2.8	2.2	2.4	2.0	1.9	2.9	6.2	33	31	10	5.1	6.3
24	2.6	2.4	2.5	2.0	1.9	2.5	6.3	33	32	13	7.6	5.6
25	2.4	2.4	2.4	1.9	1.9	2.5	6.8	34	32	14	8.1	6.8
26	2.3	2.2	2.3	1.9	1.9	2.6	7.9	36	35	12	6.9	6.3
27	2.5	2.2	2.1	1.9	1.9	2.8	11	39	33	10	5.9	5.7
28	2.7	2.4	2.0	1.8	1.9	3.6	14	37	31	9.2	5.2	5.1
29	2.8	2.5	2.0	1.9	1.9	3.4	17	33	30	8.8	4.4	4.4
30	2.7	2.5	2.0	1.9	---	3.3	21	31	28	8.1	4.1	4.2
31	2.7	---	2.1	1.9	---	3.3	---	29	---	7.3	4.6	---
TOTAL	97.5	71.8	68.6	63.7	54.4	82.1	219.5	837	932	476.4	184.4	159.9
MEAN	3.15	2.39	2.21	2.05	1.88	2.65	7.32	27.0	31.1	15.4	5.95	5.33
MAX	4.1	2.7	2.5	2.4	1.9	3.6	21	39	38	26	8.1	7.9
MIN	2.3	2.1	1.9	1.7	1.8	1.9	3.2	19	26	7.3	4.1	3.7
AC-FT	193	142	136	126	108	163	435	1660	1850	945	366	317

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1992, BY WATER YEAR (WY)

MEAN	4.11	3.36	2.92	2.45	2.27	2.79	5.96	25.3	60.4	29.8	9.64	5.44
MAX	8.27	5.54	5.01	4.17	3.99	3.88	9.94	51.7	114	79.5	25.6	10.6
(WY)	1985	1984	1984	1986	1986	1986	1989	1974	1983	1983	1984	1984
MIN	2.28	2.07	1.80	1.44	1.51	1.49	2.48	11.5	22.6	4.81	2.34	1.41
(WY)	1981	1980	1981	1981	1977	1977	1975	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1974 - 1992	
ANNUAL TOTAL	4554.1		3247.3			
ANNUAL MEAN	12.5		8.87		12.8	
HIGHEST ANNUAL MEAN					22.7	1984
LOWEST ANNUAL MEAN					4.94	1977
HIGHEST DAILY MEAN	89	Jun 15	39	May 27	242	Jun 27 1983
LOWEST DAILY MEAN	[a]1.9	Dec 19	1.7	Jan 3	.55	Sep 10 1977
ANNUAL SEVEN-DAY MINIMUM	2.1	Feb 5	1.8	Feb 2	.75	Sep 5 1977
INSTANTANEOUS PEAK FLOW			46	May 20	249	Jun 27 1983
INSTANTANEOUS PEAK STAGE			2.53	May 20	3.46	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	9030		6440		9290	
10 PERCENT EXCEEDS	46		28		38	
50 PERCENT EXCEEDS	3.7		3.7		4.2	
90 PERCENT EXCEEDS	2.2		1.9		1.9	

a-Also occurred Dec 20.

09067005 EAGLE RIVER AT AVON, CO

LOCATION.--Lat 39°37'54", long 106°31'19", in SE¼NW¼ sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft downstream from bridge, 300 ft north of Highway 6 and 24, and 350 ft downstream from Beaver Creek, in the city of Avon.

DRAINAGE AREA.--395 mi².

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,410 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 12 to Mar. 5 and Apr. 24 to May 18. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation and municipal use. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	77	54	42	39	43	56	430	863	676	187	200
2	107	71	51	41	38	44	59	590	803	596	178	236
3	102	71	50	39	39	42	61	770	835	512	176	208
4	97	101	51	36	37	45	74	990	907	499	177	186
5	91	103	53	37	37	50	83	1200	1000	518	170	195
6	94	101	54	35	37	55	90	1200	967	535	178	181
7	96	106	55	34	38	53	113	1200	962	546	204	161
8	94	92	56	34	37	57	135	1300	926	614	179	145
9	90	101	58	33	38	56	170	1300	964	577	165	136
10	89	104	55	35	37	52	211	1350	966	487	157	127
11	85	107	54	36	36	52	265	1400	1020	436	171	121
12	81	84	56	40	36	55	251	1400	1070	445	165	117
13	75	81	54	44	37	55	336	1400	1160	445	163	122
14	71	81	50	42	37	55	349	1300	1160	407	158	117
15	72	93	45	41	37	55	320	1200	1050	366	146	117
16	71	77	43	40	39	53	324	1100	940	370	145	125
17	69	77	42	39	38	53	306	1200	835	343	212	135
18	68	82	43	39	37	53	352	1300	895	332	221	154
19	66	78	47	40	36	48	279	1270	978	320	180	133
20	65	59	50	41	38	46	227	1410	1020	324	157	153
21	64	89	48	40	40	44	204	1430	985	317	141	174
22	63	70	45	39	42	49	233	1370	894	295	135	155
23	65	64	43	38	45	45	216	1290	919	288	157	139
24	97	67	41	37	46	43	250	1310	941	302	247	127
25	98	89	39	38	44	43	250	1270	913	322	310	134
26	94	88	38	39	43	43	270	1270	951	301	263	140
27	93	81	39	38	43	47	270	1420	858	270	230	127
28	103	85	40	38	43	60	270	1280	782	239	189	119
29	72	82	41	38	43	53	290	1080	785	223	164	111
30	80	63	41	37	---	55	340	985	727	217	150	108
31	74	---	42	38	---	58	---	923	---	201	149	---
TOTAL	2599	2524	1478	1188	1137	1562	6654	36938	28076	12323	5624	4403
MEAN	83.8	84.1	47.7	38.3	39.2	50.4	222	1192	936	398	181	147
MAX	113	107	58	44	46	60	352	1430	1160	676	310	236
MIN	63	59	38	33	36	42	56	430	727	201	135	108
AC-FT	5160	5010	2930	2360	2260	3100	13200	73270	55690	24440	11160	8730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

MEAN	86.0	69.1	52.8	46.7	44.6	54.8	225	1011	1294	458	179	123
MAX	115	84.1	60.1	55.9	48.6	68.1	349	1192	1702	549	208	155
(WY)	1991	1992	1989	1989	1989	1989	1989	1992	1991	1991	1991	1991
MIN	67.5	47.6	43.6	38.3	39.2	47.6	124	719	936	398	128	94.0
(WY)	1989	1990	1990	1992	1992	1991	1991	1990	1992	1992	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1989 - 1992	
ANNUAL TOTAL	129370		104506			
ANNUAL MEAN	354		286		304	
HIGHEST ANNUAL MEAN					358	1991
LOWEST ANNUAL MEAN					283	1990
HIGHEST DAILY MEAN	2380	Jun 7	1430	May 21	2460	Jun 8 1990
LOWEST DAILY MEAN	38	Dec 26	33	Jan 9	[a]32	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	40	Dec 24	35	Jan 4	35	Jan 4 1992
INSTANTANEOUS PEAK FLOW			1520	May 20	2970	Jun 8 1990
INSTANTANEOUS PEAK STAGE			[b]3.70	May 20	4.79	Jun 8 1990
ANNUAL RUNOFF (AC-FT)	256600		207300		220400	
10 PERCENT EXCEEDS	1370		970		1020	
50 PERCENT EXCEEDS	101		103		94	
90 PERCENT EXCEEDS	47		39		43	

a-Also occurred Jan 5 and 6, 1990.
b-Maximum gage height, 4.01 ft, Dec 28, backwater from ice.

09069000 EAGLE RIVER AT GYPSUM, CO

WATER-QUALITY RECORDS

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 mi^2, 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, 2,200 microsiemens March 9, 1990; minimum daily, 130 microsiemens June 9, 10, 1976.
WATER TEMPERATURES: Maximum daily, 24°C Aug. 24, 1949, several days in August, 1988, and July 27, 1990; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,200 microsiemens Mar. 1, 2; minimum daily, 200 microsiemens several days in May.
WATER TEMPERATURES: Maximum daily, 22.0°C July 30; minimum daily, 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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												
18...	1235	222	994	8.5	3.5	10.9	360	110	21	70	2	2.7
MAR												
12...	0945	126	1040	8.4	3.0	11.7	370	110	23	74	2	3.3
MAY												
28...	1145	1850	212	8.1	8.5	9.4	87	26	5.3	7.2	0.3	0.8
AUG												
11...	1215	264	796	8.6	18.5	8.7	290	88	16	51	1	2.4

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF 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 TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV											
18...	133	250	100	0.2	7.3	643	0.87	385	1	<0.01	<0.01
MAR											
12...	141	230	100	0.1	7.2	635	0.86	216	<1	<0.01	<0.01
MAY											
28...	57	33	9.3	<0.1	5.1	122	0.17	608	38	<0.01	<0.01
AUG											
11...	119	160	76	0.2	7.1	473	0.64	337	<1	<0.01	<0.01

DATE	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, 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 TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
NOV											
18...	0.38	0.35	0.04	0.03	0.2	<0.2	0.58	0.03	0.02	0.03	0.02
MAR											
12...	0.56	0.57	0.03	0.02	<0.2	<0.2	--	0.11	0.10	0.11	0.10
MAY											
28...	0.11	0.11	0.02	0.02	0.2	0.2	0.31	0.03	0.03	0.02	0.01
AUG											
11...	0.15	0.16	0.04	0.04	0.2	0.4	0.35	0.02	0.03	0.03	0.02

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, DISSOLVED (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CADMIUM DISSOLVED (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)
NOV 18...	1235	<1	--	<1	48	<0.5	<1	<1	<1
MAR 12...	0945	<1	<1	<1	51	<0.5	<1	<1	<1
MAY 28...	1145	<1	<1	<1	40	<0.5	<1	<1	<1
AUG 11...	1215	<1	<1	<1	51	<0.5	<1	<1	<1

DATE	CHROMIUM, DISSOLVED (UG/L AS CR)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	COPPER, DISSOLVED (UG/L AS CU)	IRON, DISSOLVED (UG/L AS FE)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
NOV 18...	<1	--	<1	21	6	<1	270	<0.1	--
MAR 12...	<1	7	4	11	<1	<1	170	0.5	<0.1
MAY 28...	<1	9	6	120	24	--	46	<0.1	<0.1
AUG 11...	<1	3	3	37	6	<1	31	0.4	<0.1

DATE	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 18...	2	<1	--	<1	<1	<1	140	80
MAR 12...	1	2	<1	<1	<1	<1	130	67
MAY 28...	2	4	<1	<1	<1	<1	80	47
AUG 11...	<1	1	<1	<1	<1	<1	40	11

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	820	600	650	500	800	1200	900	250	260	400	1000	850
2	840	620	650	520	580	1200	900	250	260	400	1000	850
3	800	620	650	500	800	800	900	250	260	420	950	800
4	800	620	650	520	820	800	850	250	260	420	950	800
5	800	600	600	520	900	820	850	250	240	400	1000	850
6	800	600	650	520	800	800	850	250	260	420	950	900
7	720	600	650	520	800	800	700	250	240	420	950	900
8	700	600	650	500	750	820	700	250	240	400	950	800
9	700	600	650	500	800	800	700	250	240	340	950	950
10	700	700	650	520	800	800	650	250	280	440	950	950
11	700	750	650	520	750	900	650	250	240	500	1000	1000
12	700	750	650	500	700	900	580	260	260	520	1000	1000
13	720	750	650	580	700	900	600	280	260	520	1000	1000
14	720	750	620	580	750	900	600	260	260	560	1000	1000
15	720	800	600	580	700	900	400	240	240	650	950	1000
16	700	800	620	580	700	1000	490	240	250	600	950	1000
17	700	750	650	500	700	900	500	220	300	700	950	1000
18	600	750	650	600	750	900	500	200	260	700	980	900
19	650	750	600	600	800	900	540	200	260	700	950	900
20	600	750	620	600	800	900	550	200	280	750	800	950
21	600	750	600	620	800	900	600	200	260	700	1000	900
22	460	800	600	600	800	900	600	220	280	700	850	820
23	460	750	620	600	800	1000	550	220	260	800	900	900
24	400	750	650	600	800	1000	600	200	310	900	900	900
25	400	750	650	500	850	1000	600	200	260	850	850	1000
26	420	750	680	520	800	1000	550	200	260	900	850	1000
27	420	800	700	600	700	1000	400	200	260	900	700	1000
28	---	800	720	570	700	1000	320	220	260	900	850	1000
29	520	750	740	520	700	1000	300	220	260	900	850	1000
30	500	750	740	500	---	1000	300	220	280	950	850	1000
31	500	---	740	520	---	1000	---	220	---	950	850	---
MEAN	---	714	652	545	764	927	608	231	261	636	896	931

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	4.0	.0	.0	.0	3.0	8.0	11.0	10.0	15.0	19.0	15.0
2	16.0	4.0	.0	.0	.0	3.0	8.0	10.0	10.0	16.0	19.0	15.0
3	15.0	3.0	.0	.0	.0	1.0	8.0	5.0	10.0	15.0	19.0	16.0
4	15.0	4.0	.0	.0	.0	.0	7.0	6.0	10.0	15.0	19.0	16.0
5	15.0	4.0	.0	.0	.0	.0	7.0	10.0	9.0	15.0	19.0	15.0
6	15.0	4.0	.0	.0	.0	1.0	7.0	10.0	10.0	15.0	19.0	16.0
7	14.0	4.0	.0	.0	.0	.0	7.0	11.0	9.0	15.0	19.0	16.0
8	14.0	4.0	.0	.0	.0	.0	6.0	11.0	9.0	16.0	19.0	19.0
9	14.0	4.0	.0	.0	.0	.0	6.0	11.0	9.0	18.0	19.0	18.0
10	14.0	3.0	.0	.0	.0	1.0	6.0	11.0	8.0	17.0	19.0	18.0
11	14.0	2.0	.0	.0	.0	2.0	6.0	13.0	10.0	18.0	20.0	18.0
12	13.0	2.0	.0	.0	.0	2.0	6.0	13.0	10.0	18.0	20.0	19.0
13	14.0	2.0	.0	.0	.0	1.0	6.0	15.0	10.0	18.0	20.0	18.0
14	14.0	1.0	.0	.0	.0	2.0	5.0	13.0	10.0	17.0	18.0	18.0
15	14.0	1.0	.0	.0	.0	2.0	5.0	12.0	13.0	20.0	19.0	18.0
16	14.0	1.0	.0	.0	.0	3.0	11.0	12.0	11.0	18.0	19.0	18.0
17	14.0	2.0	.0	.0	.0	2.0	11.0	12.0	12.0	18.0	19.0	18.0
18	13.0	2.0	.0	.0	.0	1.0	10.0	11.0	14.0	18.0	15.0	17.0
19	13.0	1.0	.0	.0	.0	1.0	11.0	10.0	14.0	17.0	19.0	17.0
20	14.0	1.0	.0	.0	.0	1.0	13.0	12.0	16.0	17.0	20.0	18.0
21	14.0	1.0	.0	.0	.0	1.0	15.0	9.0	15.0	18.0	20.0	17.0
22	13.0	1.0	.0	.0	.0	1.0	14.0	10.0	16.0	17.0	18.0	17.0
23	14.0	1.0	.0	.0	.0	2.0	12.0	10.0	15.0	15.0	18.0	17.0
24	11.0	2.0	.0	.0	.0	2.0	14.0	9.0	17.0	16.0	15.0	17.0
25	11.0	1.0	.0	.0	.0	2.0	14.0	9.0	15.0	18.0	16.0	16.0
26	10.0	1.0	.0	.0	.0	1.0	12.0	9.0	15.0	17.0	16.0	16.0
27	10.0	.0	.0	.0	.0	1.0	11.0	9.0	15.0	18.0	15.0	16.0
28	---	.0	.0	.0	.0	1.0	9.0	10.0	15.0	20.0	16.0	15.0
29	10.0	1.0	.0	.0	.0	1.0	7.0	10.0	15.0	20.0	16.0	14.0
30	10.0	1.0	.0	.0	---	2.0	6.0	10.0	14.0	22.0	16.0	14.0
31	10.0	---	.0	.0	---	2.0	---	11.0	---	21.0	16.0	---
MEAN	---	2.1	.0	.0	.0	1.4	8.9	10.5	12.2	17.4	18.1	16.7

09070000 EAGLE RIVER BELOW GYPSUM, CO

LOCATION.--Lat 39°38'58", long 106°57'11", in SW¼NW¼ sec.5, T.5 S., R.85 W., 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.--945 mi².

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

REVISED RECORDS.--WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	217	145	155	142	123	184	1220	1250	1060	316	286
2	206	220	143	147	143	122	183	1220	1120	936	301	378
3	200	171	152	127	128	125	183	1210	1140	788	291	354
4	196	190	162	139	128	137	194	1230	1210	721	290	319
5	192	239	169	159	128	136	211	1260	1390	748	284	320
6	191	245	170	153	128	138	216	1310	1350	766	286	319
7	191	262	164	147	128	136	228	1330	1340	815	331	294
8	190	242	185	142	129	139	243	1360	1280	874	310	263
9	188	238	174	143	126	145	265	1370	1290	968	280	250
10	186	243	157	149	124	131	287	1340	1300	772	266	241
11	185	250	189	152	122	130	333	1100	1380	669	267	220
12	185	240	185	150	126	133	339	1060	1480	682	272	214
13	184	225	167	149	122	137	392	1110	1620	697	265	217
14	180	224	145	133	126	143	443	1200	1720	672	266	216
15	181	240	123	131	126	146	434	1240	1560	589	252	215
16	179	227	121	132	122	144	429	1310	1370	564	246	222
17	177	223	128	135	121	147	414	1340	1170	531	327	230
18	170	224	149	146	122	150	472	1450	1180	504	338	247
19	165	221	189	148	115	139	443	1570	1340	483	314	238
20	165	199	185	140	120	134	381	1850	1440	497	264	236
21	160	215	165	139	128	134	345	2010	1430	499	241	274
22	150	220	164	145	124	143	357	1990	1280	467	237	266
23	151	179	143	135	124	155	364	1770	1290	438	241	249
24	215	173	121	136	120	149	335	1840	1330	459	286	231
25	219	222	113	144	121	144	338	1790	1330	493	465	230
26	211	220	116	145	120	141	370	1800	1390	518	398	246
27	208	218	116	147	121	153	438	2070	1330	459	370	235
28	210	213	114	144	122	206	598	1860	1170	401	323	225
29	200	216	119	142	122	200	826	1590	1180	371	287	213
30	197	199	132	144	---	183	1050	1400	1130	366	260	200
31	206	---	149	143	---	184	---	1330	---	342	252	---
TOTAL	5849	6615	4654	4441	3628	4527	11295	45530	39790	19149	9126	7648
MEAN	189	220	150	143	125	146	376	1469	1326	618	294	255
MAX	219	262	189	159	143	206	1050	2070	1720	1060	465	378
MIN	150	171	113	127	115	122	183	1060	1120	342	237	200
AC-FT	11600	13120	9230	8810	7200	8980	22400	90310	78920	37980	18100	15170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1992, BY WATER YEAR (WY)

MEAN	260	242	200	182	174	186	351	1301	2268	998	379	267
MAX	526	382	277	243	252	297	862	2722	4134	2989	1096	625
(WY)	1962	1985	1985	1984	1986	1986	1962	1984	1984	1957	1984	1984
MIN	129	169	150	139	125	138	183	528	742	251	150	141
(WY)	1957	1990	1992	1990	1992	1965	1983	1977	1954	1977	1977	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1947 - 1992	
ANNUAL TOTAL	182475		162252			
ANNUAL MEAN	500		443		568	
HIGHEST ANNUAL MEAN					1082	1984
LOWEST ANNUAL MEAN					264	1977
HIGHEST DAILY MEAN	3070	Jun 15	2070	May 27	6580	May 25 1984
LOWEST DAILY MEAN	113	Dec 25	113	Dec 25	93	Sep 16 1990
ANNUAL SEVEN-DAY MINIMUM	119	Dec 24	119	Dec 24	99	Aug 29 1990
INSTANTANEOUS PEAK FLOW			2170	May 27	7020	May 25 1984
INSTANTANEOUS PEAK STAGE			6.03	May 27	9.46	May 25 1984
ANNUAL RUNOFF (AC-FT)	361900		321800		411400	
10 PERCENT EXCEEDS	1650		1310		1550	
50 PERCENT EXCEEDS	218		222		241	
90 PERCENT EXCEEDS	148		128		158	

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 with satellite telemetry. Elevation of gage is 6,130 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 16-20, and Dec. 23 to Feb. 21. 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. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1160	1190	893	980	920	997	1190	3140	2670	1690	1220	1410
2	1150	1110	1030	960	960	982	1130	3170	2470	1630	1200	1530
3	1090	975	1110	940	980	988	1090	3050	2310	1510	1270	1500
4	1080	988	1110	900	940	1000	1170	3040	2260	1390	1350	1390
5	1090	1120	1130	920	900	1010	1260	3020	2390	1370	1420	1370
6	1110	1200	1100	980	940	1030	1330	3030	2370	1360	1430	1390
7	1110	1220	1060	940	940	1010	1330	3040	2310	1410	1470	1350
8	1100	1210	1050	920	940	1010	1330	2980	2250	1430	1460	1310
9	1090	1160	1010	910	960	1030	1400	3010	2290	1590	1390	1280
10	1090	1170	1000	900	980	983	1480	2970	2330	1480	1390	1180
11	1080	1200	997	960	1000	966	1640	2640	2280	1340	1410	1120
12	1080	1190	958	960	980	966	1740	2470	2480	1310	1490	1140
13	1070	1160	998	940	980	974	1770	2480	2610	1340	1480	1280
14	1060	1110	937	930	940	1000	1910	2580	2730	1330	1480	1290
15	1060	1150	948	940	980	1040	1950	2680	2580	1200	1450	1310
16	1070	1100	960	880	980	1050	2050	2750	2350	1140	1450	1330
17	1060	1090	920	860	1000	1080	2010	2730	2030	1090	1540	1280
18	1060	1090	910	900	960	1100	2140	2800	1960	1120	1560	1300
19	1070	1090	980	920	940	1070	2100	2940	2150	1210	1520	1200
20	1080	1030	1100	960	900	1020	1940	3180	2230	1300	1430	1070
21	1080	1030	1090	910	960	993	1770	3330	2150	1400	1410	1080
22	1070	1060	1080	910	950	1000	1700	3350	2010	1360	1440	1060
23	1060	990	1100	920	958	1000	1730	3030	2040	1220	1480	999
24	1150	1040	1000	880	943	1010	1690	3060	2070	1240	1460	969
25	1100	1080	980	890	975	1010	1650	3010	2080	1300	1670	960
26	1220	1090	860	940	966	1000	1650	3050	2190	1360	1690	988
27	1240	1080	840	960	977	1030	1770	3430	2200	1300	1620	995
28	1220	1080	850	950	978	1130	2060	3610	1990	1190	1530	986
29	1220	1070	860	960	981	1170	2470	3440	1900	1120	1470	964
30	1220	1050	900	910	---	1150	2830	3070	1800	1200	1420	949
31	1180	---	920	910	---	1170	---	2770	---	1210	1380	---
TOTAL	34520	33123	30681	28740	27808	31969	51280	92850	67480	41140	44980	35980
MEAN	1114	1104	990	927	959	1031	1709	2995	2249	1327	1451	1199
MAX	1240	1220	1130	980	1000	1170	2830	3610	2730	1690	1690	1530
MIN	1060	975	840	860	900	966	1090	2470	1800	1090	1200	949
AC-FT	68470	65700	60860	57010	55160	63410	101700	184200	133800	81600	89220	71370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1992, BY WATER YEAR (WY)

MEAN	1198	1085	953	906	918	1027	1870	4828	6330	3086	1689	1281
MAX	2038	1664	1503	1473	1603	1961	5601	10770	13440	9354	4055	2616
(WY)	1963	1963	1985	1985	1962	1962	1962	1984	1984	1983	1984	1984
MIN	759	677	521	504	529	610	1039	1436	1373	1021	1050	737
(WY)	1943	1978	1943	1941	1943	1964	1964	1977	1954	1963	1958	1942

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1941 - 1992	
ANNUAL TOTAL	597517		520551			
ANNUAL MEAN	1637		1422		2100	
HIGHEST ANNUAL MEAN					4173	1984
LOWEST ANNUAL MEAN					1117	1977
HIGHEST DAILY MEAN	6550	Jun 15	3610	May 28	20800	May 25 1984
LOWEST DAILY MEAN	582	Mar 9	840	Dec 27	350	Jan 5 1944
ANNUAL SEVEN-DAY MINIMUM	636	Mar 7	887	Dec 25	417	Jan 13 1944
INSTANTANEOUS PEAK FLOW			3700	May 27	22200	May 25 1984
INSTANTANEOUS PEAK STAGE			4.90	May 27	14.20	May 25 1984
ANNUAL RUNOFF (AC-FT)	1185000		1033000		1521000	
10 PERCENT EXCEEDS	3760		2470		4950	
50 PERCENT EXCEEDS	1160		1150		1250	
90 PERCENT EXCEEDS	745		940		755	

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: Oct. 22 to Nov. 24, and Apr. 10 to May 4. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	.56	.58	.41	.27	.13	.10	2.7	30	3.3	1.8	.73
2	.77	.57	.58	.42	.28	.15	.10	5.0	26	3.6	1.7	.94
3	1.3	.58	.60	.43	.27	.12	.10	12	23	3.5	3.2	.77
4	1.4	.62	.61	.43	.16	.10	.10	23	31	2.9	1.3	.77
5	.82	.61	.61	.43	.16	.10	.13	35	58	2.9	1.7	.82
6	.77	.56	.61	.43	.16	.10	.13	42	54	2.5	1.9	.82
7	.64	.60	.61	.43	.16	.10	.13	67	44	2.5	1.8	.78
8	.67	.64	.61	.42	.16	.10	.13	91	38	3.1	1.5	.70
9	.65	.62	.61	.40	.16	.10	.13	104	31	3.9	1.4	.66
10	.61	.62	.58	.40	.16	.10	.13	75	29	3.6	2.4	.64
11	.61	.60	.58	.40	.21	.10	.13	87	27	3.1	1.6	.62
12	.61	.59	.58	.42	.25	.12	.14	98	30	3.7	1.3	.55
13	.61	.58	.60	.41	.25	.13	.15	87	25	5.4	1.1	.55
14	.63	.60	.61	.40	.25	.13	.17	102	23	3.5	.95	.61
15	.64	.64	.59	.40	.25	.13	.19	95	21	3.0	.83	.72
16	.64	.62	.58	.37	.25	.13	.21	97	13	3.5	2.3	.81
17	.64	.60	.58	.37	.25	.11	.22	87	8.7	3.6	1.3	.85
18	.64	.58	.58	.34	.16	.10	.24	102	7.6	3.1	.74	.85
19	.64	.60	.55	.34	.16	.10	.28	109	6.8	2.2	.58	.85
20	.56	.61	.55	.34	.16	.10	.30	115	6.7	2.1	.53	.85
21	.43	.62	.55	.34	.12	.10	.35	114	6.2	2.2	.46	.85
22	.42	.60	.55	.34	.13	.10	.38	114	6.0	2.0	.59	.83
23	.40	.59	.57	.34	.13	.10	.40	101	5.4	2.4	.80	.82
24	.37	.59	.57	.34	.13	.10	.45	81	4.7	3.6	.77	.76
25	.35	.58	.53	.32	.13	.10	.50	84	4.9	4.1	.65	.73
26	.35	.58	.52	.31	.13	.10	.60	90	5.4	2.6	.64	.73
27	.36	.58	.52	.31	.13	.10	.70	79	4.9	2.2	.63	.73
28	.55	.58	.46	.31	.13	.10	.80	67	4.9	2.1	.64	.73
29	.60	.58	.46	.31	.13	.10	1.0	57	4.5	2.0	.62	.73
30	.58	.58	.46	.25	---	.10	1.6	49	4.0	1.8	.50	.72
31	.56	---	.46	.25	---	.10	---	34	---	1.7	.51	---
TOTAL	19.62	17.88	17.45	11.41	5.29	3.35	9.99	2305.7	583.7	91.7	36.74	22.52
MEAN	.63	.60	.56	.37	.18	.11	.33	74.4	19.5	2.96	1.19	.75
MAX	1.4	.64	.61	.43	.28	.15	1.6	115	58	5.4	3.2	.94
MIN	.35	.56	.46	.25	.12	.10	.10	2.7	4.0	1.7	.46	.55
AC-FT	39	35	35	23	10	6.6	20	4570	1160	182	73	45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	2.40	1.69	1.05	.59	.43	.38	2.17	42.2	92.8	13.4	2.42	1.84
MAX	7.42	5.07	3.12	2.21	1.90	1.87	10.9	75.9	206	49.4	5.78	5.35
(WY)	1985	1983	1983	1985	1985	1985	1987	1987	1986	1983	1984	1984
MIN	.48	.25	.14	.000	.000	.000	.000	8.91	13.0	1.33	.55	.55
(WY)	1978	1978	1978	1978	1978	1980	1991	1983	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	3846.89		3125.35			
ANNUAL MEAN	10.5		8.54		13.4	
HIGHEST ANNUAL MEAN					23.8	1986
LOWEST ANNUAL MEAN					5.79	1977
HIGHEST DAILY MEAN	155	Jun 10	115	May 20	290	Jun 8 1986
LOWEST DAILY MEAN	[a].00	Feb 1	[b].10	Mar 4	[c].00	Apr 7 1977
ANNUAL SEVEN-DAY MINIMUM	.00	Feb 1	.10	Mar 4	.00	Apr 7 1977
INSTANTANEOUS PEAK FLOW			129	May 20	364	Jun 5 1986
INSTANTANEOUS PEAK STAGE			[d]4.45	May 20	[e]4.99	Jun 5 1986
ANNUAL RUNOFF (AC-FT)	7630		6200		9720	
10 PERCENT EXCEEDS	22		28		40	
50 PERCENT EXCEEDS	.59		.61		1.3	
90 PERCENT EXCEEDS	.00		.13		.01	

a-No flow many days.
b-Also occurred Mar 5-11, Mar 18 to Apr 4.
c-No flow many days most years.
d-Maximum gage height, 4.54 ft, Apr 30, backwater from ice.
e-Maximum gage height observed, 8.63 ft, May 4, 1982, backwater from ice.

09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO

WATER-QUALITY RECORDS

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 mi^2.

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. Daily records are good except for specific-conductance records during the summer period which are fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,740 microsiemens Aug. 21, 1990; minimum, 203 microsiemens May 12, 1991.
WATER TEMPERATURE: Maximum, 22.5°C July 26, 1987; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 822 microsiemens Dec. 26; minimum, 255 microsiemens Apr. 29.
WATER TEMPERATURE: Maximum 19.0°C July 19 (may have been greater during periods of missing record); minumum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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										
18...	1530	E1160	703	8.1	4.0	9.5	190	58	12	63
DEC										
18...	1115	E927	735	8.2	0.5	9.5	200	60	12	74
JAN										
28...	1130	E1170	739	8.3	0.0	12.3	180	55	11	72
MAR										
12...	1215	E1030	653	8.7	6.0	11.0	180	54	12	68
APR										
03...	1215	E1180	667	8.4	9.0	10.2	190	55	13	63
29...	1200	E2420	386	8.0	12.5	8.5	120	35	7.2	28
MAY										
28...	1415	E3810	315	8.2	11.5	8.7	100	31	6.6	19
JUN										
23...	1200	E2270	483	8.5	15.5	8.1	150	46	9.7	39
AUG										
03...	1345	E1430	624	8.4	19.0	7.5	180	54	10	53
SEP										
18...	1050	E1560	614	7.9	14.5	8.6	160	49	8.7	52

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)
NOV										
18...	2	2.7	112	110	98	0.3	8.8	420	0.57	1320
DEC										
18...	2	2.9	119	99	110	0.3	9.3	439	0.60	1100
JAN										
28...	2	2.6	106	89	110	0.3	9.2	413	0.56	1300
MAR										
12...	2	3.4	105	100	91	0.3	8.9	401	0.54	1110
APR										
03...	2	2.8	106	98	91	0.3	8.6	395	0.54	1260
29...	1	1.8	83	49	43	0.3	7.7	222	0.30	1450
MAY										
28...	0.8	1.3	78	37	27	0.2	6.8	176	0.24	1810
JUN										
23...	1	1.7	95	67	52	0.2	7.5	280	0.38	1720
AUG										
03...	2	2.3	109	82	75	0.3	9.0	351	0.48	1360
SEP										
18...	2	2.8	94	70	73	0.3	6.6	319	0.43	1340

E-Estimated.

09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	674	652	694	660	685	643	640	302	391	471	---	---
2	681	665	759	620	688	645	643	282	410	473	---	---
3	678	684	743	631	681	649	649	286	441	485	---	---
4	690	709	688	681	670	645	612	292	469	519	---	---
5	690	711	657	677	678	646	590	369	481	544	---	---
6	677	684	640	672	689	642	551	391	474	548	---	---
7	681	655	640	663	711	631	537	434	472	546	---	---
8	682	651	638	660	697	648	518	440	480	520	554	---
9	678	658	628	669	689	650	485	440	485	520	560	---
10	678	674	643	684	651	662	493	449	477	523	563	---
11	677	662	641	706	655	695	433	446	471	545	567	---
12	685	655	639	718	644	712	391	433	471	571	562	---
13	689	663	641	690	644	697	380	461	472	575	539	---
14	689	666	646	669	657	694	368	461	402	583	577	---
15	688	671	681	655	651	669	344	468	414	579	556	---
16	684	674	673	671	660	656	330	466	405	604	538	---
17	689	674	666	714	660	657	324	476	384	610	---	---
18	691	683	721	722	667	653	330	452	426	591	---	568
19	688	670	700	704	678	648	312	440	415	576	---	598
20	684	674	656	702	671	669	323	409	421	536	---	623
21	683	683	657	722	657	678	345	341	438	524	---	672
22	684	689	682	739	648	674	358	298	451	543	---	668
23	685	695	710	707	648	666	352	294	456	537	---	674
24	676	723	720	681	657	674	337	311	438	---	---	696
25	686	716	711	648	641	663	344	315	445	---	---	708
26	678	689	765	655	641	667	352	316	492	---	---	709
27	652	667	747	676	647	657	331	310	495	---	---	697
28	650	665	722	706	643	646	297	297	460	---	---	689
29	644	665	727	703	647	646	315	328	477	---	---	698
30	638	673	700	695	---	640	329	348	466	---	---	707
31	639	---	682	688	---	640	---	375	---	---	---	---
MEAN	677	677	684	683	664	660	420	378	449	---	---	---

09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	14.9	13.8	3.1	2.2	1.0	.0	.1	.0	.3	.1	3.2	1.7
2	14.5	13.4	3.2	1.8	.0	.0	.1	.0	.3	.1	2.6	1.6
3	13.9	12.6	2.0	.2	.1	.0	.1	.0	.4	.1	3.4	2.2
4	12.9	11.2	1.1	.4	.1	.0	.1	.0	.4	.1	3.2	2.1
5	11.3	9.9	3.0	.9	.1	.0	.2	.1	.4	.0	2.8	2.2
6	10.2	9.0	5.3	3.0	.2	.0	.2	.0	.4	.0	3.9	2.7
7	10.6	9.2	6.2	5.3	.2	.0	.1	.1	.5	.1	4.2	2.4
8	11.3	9.9	6.3	4.6	.4	.1	.2	.1	.5	.2	5.0	3.4
9	11.5	9.8	5.3	4.3	.4	.0	.2	.1	.8	.3	5.1	3.7
10	11.5	10.4	6.4	5.2	.4	.0	.2	.0	1.0	.3	5.1	3.5
11	11.3	10.3	6.7	5.8	.5	.1	.2	.0	.9	.3	5.4	3.8
12	11.4	10.2	6.5	4.6	.5	.1	.2	.1	1.1	.3	7.3	4.1
13	11.3	10.1	5.2	3.5	.7	.0	.2	.0	.8	.3	10.0	6.8
14	10.9	9.5	4.2	3.3	.1	.0	.2	.1	1.1	.1	11.5	8.0
15	10.8	9.5	4.5	3.7	.1	.0	.2	.0	1.2	.5	12.0	9.5
16	10.9	9.5	4.9	4.2	.0	.0	.1	.0	.9	.3	11.7	9.7
17	10.8	9.4	4.3	3.5	.1	.0	.2	.0	1.1	.4	10.9	9.2
18	10.7	9.3	4.0	3.7	.2	.0	.1	.0	1.3	.3	10.9	8.8
19	10.4	9.3	3.8	2.7	.4	.1	.2	.0	1.1	.0	9.4	7.6
20	10.1	9.1	3.0	1.6	.5	.1	.2	.0	1.3	.6	9.6	7.8
21	10.0	8.6	2.5	2.0	.3	.0	.2	.0	2.3	1.2	8.4	7.1
22	9.7	8.2	2.5	1.3	.5	.0	.2	.0	2.0	1.2	10.0	7.3
23	9.8	8.8	1.5	.0	.1	.0	.2	.1	2.2	1.1	10.6	8.8
24	9.2	7.8	.6	.0	.1	.0	.2	.1	1.5	.6	10.6	9.0
25	8.4	7.3	1.0	.1	.1	.0	.2	.0	2.2	1.5	12.2	9.7
26	7.9	7.1	1.7	.9	.1	.0	.2	.0	2.2	1.0	10.8	8.9
27	8.3	7.2	2.6	1.7	.1	.0	.2	.1	2.5	1.3	11.3	9.7
28	7.8	5.3	3.3	2.4	.1	.0	.2	.1	2.7	1.3	10.7	9.8
29	5.3	3.9	3.1	2.3	.1	.0	.2	.0	3.0	1.5	12.4	10.6
30	4.3	3.3	2.4	1.0	.1	.0	.2	.0	---	---	12.2	10.1
31	3.8	2.1	---	---	.1	.0	.3	.0	---	---	13.0	10.4
MONTH	14.9	2.1	6.7	.0	1.0	.0	.3	.0	3.0	.0	13.0	1.6

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.6	10.0	13.3	11.3	11.6	10.8	15.8	14.9	---	---	---	---
2	12.1	9.8	12.6	10.7	12.7	11.4	15.1	14.6	---	---	---	---
3	11.6	8.4	12.6	10.7	13.6	12.7	14.9	14.5	---	---	---	---
4	12.5	9.9	12.4	10.2	13.9	13.6	16.0	14.8	---	---	---	---
5	15.4	12.5	12.1	10.6	13.9	12.8	17.0	15.8	---	---	---	---
6	14.4	12.7	12.1	10.5	13.2	12.3	17.7	16.8	---	---	---	---
7	14.7	12.9	11.9	10.1	12.9	12.3	18.8	17.1	---	---	---	---
8	14.0	11.6	12.1	10.4	12.9	12.6	17.1	16.1	17.8	17.2	---	---
9	13.2	11.8	12.0	10.0	13.2	12.8	16.8	15.4	18.4	17.3	---	---
10	14.3	12.6	10.4	8.9	13.5	12.9	17.7	16.8	18.9	18.4	---	---
11	14.4	12.7	11.3	8.8	13.7	13.2	18.4	17.4	18.5	17.1	---	---
12	13.7	12.5	12.3	10.8	14.3	13.3	18.3	16.5	17.3	16.7	---	---
13	13.7	11.6	12.5	10.9	14.9	14.2	17.6	16.0	17.3	16.7	---	---
14	12.1	11.1	12.6	11.5	15.0	14.2	18.6	17.6	17.5	17.0	---	---
15	11.9	11.0	12.3	11.0	14.8	13.8	18.2	17.2	17.4	16.8	---	---
16	12.9	10.9	12.3	11.1	14.5	12.9	17.2	16.3	17.7	17.3	---	---
17	12.7	11.1	13.0	11.0	14.3	12.7	18.3	16.8	---	---	---	---
18	12.5	10.3	13.0	11.6	15.4	14.3	18.7	17.5	---	---	---	---
19	10.3	9.0	13.7	12.1	16.0	15.3	19.0	17.8	---	---	15.1	14.3
20	9.5	8.4	13.6	12.6	16.2	15.6	17.9	16.7	---	---	14.7	13.5
21	10.3	8.8	13.4	12.2	16.5	15.5	17.4	16.7	---	---	15.0	13.2
22	10.7	10.0	13.1	11.8	15.5	14.4	17.7	17.1	---	---	15.0	14.1
23	10.8	9.7	13.1	12.0	16.0	14.7	17.5	16.4	---	---	15.2	14.1
24	11.0	10.0	13.2	12.2	15.6	14.9	---	---	---	---	15.2	14.1
25	11.9	10.3	13.2	12.4	15.7	14.5	---	---	---	---	14.5	13.9
26	13.0	11.1	13.4	12.1	15.4	14.9	---	---	---	---	14.0	12.0
27	14.5	12.4	13.4	12.3	15.5	14.4	---	---	---	---	12.5	11.2
28	15.4	13.7	12.6	11.2	15.8	14.4	---	---	---	---	12.8	11.3
29	15.6	12.3	11.8	11.2	16.1	15.6	---	---	---	---	13.0	11.7
30	13.7	12.1	12.0	11.3	16.2	15.2	---	---	---	---	13.1	11.9
31	---	---	12.0	11.3	---	---	---	---	---	---	---	---
MONTH	15.6	8.4	13.7	8.8	16.5	10.8	---	---	---	---	---	---

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 mi^2.

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 to Nov.6, Nov. 19 to Jan. 27, Feb. 5-22, 24-28, Mar. 4-9, 16-24, Mar. 26 to Apr. 7, May 28 to June 10, and July 4-14. 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 (41,500 acre-ft diverted, during current year, provided by U.S. Bureau of Reclamation). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	20	14	12	14	12	15	105	120	135	43	82
2	26	19	15	11	14	12	15	104	110	121	44	78
3	26	18	14	11	14	12	15	103	100	111	45	77
4	26	18	15	12	14	13	17	98	110	105	46	67
5	26	19	15	13	12	14	18	105	120	100	78	63
6	25	19	15	14	13	13	18	114	130	98	84	62
7	25	20	15	13	14	12	20	112	130	95	84	61
8	25	20	14	14	13	12	20	114	130	94	84	61
9	24	19	14	13	12	12	24	124	120	90	88	61
10	24	19	15	13	13	11	28	122	120	84	88	61
11	23	19	16	14	12	11	33	104	120	78	88	59
12	22	18	14	14	12	11	32	100	123	76	87	54
13	22	18	15	13	11	11	32	100	125	74	86	43
14	22	17	16	13	12	12	36	112	127	72	89	43
15	23	17	15	13	12	12	37	112	145	69	89	43
16	23	17	15	12	12	13	37	113	150	67	87	43
17	23	17	15	13	12	13	37	113	141	61	87	43
18	23	17	14	14	12	13	37	119	140	57	81	44
19	23	16	14	14	11	12	36	138	138	55	69	43
20	22	14	14	14	12	11	33	146	139	56	66	43
21	22	17	14	14	13	12	29	172	147	55	59	43
22	22	16	14	14	12	13	30	179	147	52	56	52
23	22	13	15	15	12	13	30	176	154	50	56	64
24	25	14	14	14	12	12	29	173	162	51	56	50
25	25	15	14	14	13	11	31	162	164	51	60	48
26	25	16	15	15	12	12	32	157	164	52	80	48
27	22	15	15	15	12	13	40	158	165	52	105	45
28	20	15	15	14	12	14	57	170	160	49	106	44
29	17	14	15	14	12	13	78	150	158	48	105	44
30	18	14	14	14	---	14	99	140	145	47	96	44
31	21	---	13	14	---	15	---	120	---	44	90	---
TOTAL	718	510	452	417	361	384	995	4015	4104	2249	2382	1613
MEAN	23.2	17.0	14.6	13.5	12.4	12.4	33.2	130	137	72.5	76.8	53.8
MAX	26	20	16	15	14	15	99	179	165	135	106	82
MIN	17	13	13	11	11	11	15	98	100	44	43	43
AC-FT	1420	1010	897	827	716	762	1970	7960	8140	4460	4720	3200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY)

MEAN	29.5	21.9	17.8	15.6	14.7	15.3	31.8	153	393	157	61.0	39.9
MAX	53.3	43.3	31.0	24.4	20.6	22.6	53.8	512	939	542	133	83.7
(WY)	1987	1985	1985	1985	1985	1986	1985	1984	1984	1984	1984	1986
MIN	16.4	15.5	12.2	11.7	10.8	9.60	14.9	64.2	103	41.8	21.2	17.7
(WY)	1982	1980	1980	1980	1981	1981	1983	1981	1989	1981	1981	1981

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1980 - 1992	
ANNUAL TOTAL	20533.0		18200			
ANNUAL MEAN	56.3		49.7		[a]127	
HIGHEST ANNUAL MEAN					194	1984
LOWEST ANNUAL MEAN					35.7	1981
HIGHEST DAILY MEAN	435	Jun 11	179	May 22	1930	Jun 8 1985
LOWEST DAILY MEAN	[b]9.7	Jan 17	[c]11	Jan 2	8.0	Jan 11 1980
ANNUAL SEVEN-DAY MINIMUM	10	Jan 15	11	Mar 7	9.2	Mar 22 1981
INSTANTANEOUS PEAK FLOW			180	May 21	[d]2350	Jun 8 1985
INSTANTANEOUS PEAK STAGE			[e]2.48	May 21	5.10	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	40730		36100		[a]92010	
10 PERCENT EXCEEDS	163		122		172	
50 PERCENT EXCEEDS	22		25		26	
90 PERCENT EXCEEDS	14		12		13	

a-Includes Twin Lakes tunnel.
b-Also occurred Jan 18.
c-Also occurred Jan 3, Feb 13, 19, Mar 10-13, 20, and Mar 25.
d-From rating curve extended above 910 ft^3/s.
e-Maximum gage height, 3.00 ft, Jan 19, backwater from ice.

09073400 ROARING FORK RIVER NEAR ASPEN, CO

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.

DRAINAGE AREA.--108 mi^2.

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

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,014.01 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 25, 1968, at site 85 ft upstream, at datum 1.16 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 14, 21, 23-30, Jan. 1-3, 10, 16, 17, 19, Feb. 4-7, 10, June 9-16, July 8 to Aug. 4. 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 (41,500) acre-ft diverted, during current year, provided by U.S. Bureau of Reclamation). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	37	28	25	24	23	29	184	214	199	62	85
2	42	35	30	23	23	23	29	189	197	180	63	95
3	43	33	28	23	23	24	31	191	211	163	64	84
4	43	37	30	29	24	26	34	192	227	148	65	73
5	42	39	31	28	22	26	36	197	248	139	93	73
6	43	38	30	28	23	25	36	202	248	135	103	72
7	43	39	30	29	22	24	40	201	249	131	111	74
8	42	36	29	27	22	24	41	230	233	127	110	77
9	42	39	30	27	22	24	48	253	232	118	103	76
10	42	38	38	27	22	23	54	216	231	101	99	73
11	41	37	32	29	22	23	60	176	231	94	106	66
12	42	31	30	29	22	23	57	191	232	97	106	64
13	40	31	35	28	22	23	63	197	233	97	102	56
14	40	32	32	28	23	24	71	223	235	91	103	53
15	39	34	32	26	22	24	69	224	243	86	101	55
16	40	32	33	23	22	25	68	238	245	85	98	56
17	41	32	32	29	22	25	64	240	242	79	96	56
18	41	32	31	28	22	26	69	260	263	76	92	56
19	40	32	31	28	21	24	62	285	288	74	83	53
20	39	28	29	29	23	23	57	317	300	75	78	61
21	39	33	29	30	25	24	55	354	292	74	73	71
22	39	32	33	29	23	26	58	338	287	72	71	77
23	40	27	29	32	25	25	56	308	295	69	80	80
24	45	30	29	31	22	24	52	311	302	70	96	62
25	44	33	29	31	25	23	57	292	303	70	103	59
26	44	33	31	30	22	24	63	307	288	71	130	59
27	39	32	33	30	23	28	75	349	256	71	136	58
28	40	32	32	29	23	28	99	304	244	67	126	56
29	30	32	32	28	23	26	131	267	239	66	105	55
30	37	29	30	25	---	28	168	244	215	66	94	56
31	37	---	28	23	---	29	---	228	---	63	90	---
TOTAL	1258	1005	956	861	659	767	1832	7708	7523	3054	2942	1991
MEAN	40.6	33.5	30.8	27.8	22.7	24.7	61.1	249	251	98.5	94.9	66.4
MAX	45	39	38	32	25	29	168	354	303	199	136	95
MIN	30	27	28	23	21	23	29	176	197	63	62	53
AC-FT	2500	1990	1900	1710	1310	1520	3630	15290	14920	6060	5840	3950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	42.6	34.2	29.4	26.4	25.1	26.5	48.4	197	404	182	65.4	49.0
MAX	80.0	61.6	47.5	37.0	35.9	41.7	79.7	554	1017	647	184	87.1
(WY)	1966	1985	1987	1985	1989	1986	1985	1984	1984	1984	1984	1986
MIN	23.5	20.7	18.6	17.0	15.4	16.6	26.2	97.0	119	48.4	29.3	23.8
(WY)	1978	1978	1977	1977	1977	1977	1973	1983	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	33135		30556			
ANNUAL MEAN	90.8		83.5		[a]147	
HIGHEST ANNUAL MEAN					229	1984
LOWEST ANNUAL MEAN					42.1	1977
HIGHEST DAILY MEAN	565	Jun 12	354	May 21	1790	Jun 9 1985
LOWEST DAILY MEAN	[b]25	Jan 21	21	Feb 19	12	Nov 28 1976
ANNUAL SEVEN-DAY MINIMUM	27	Jan 17	22	Feb 7	15	Feb 1 1977
INSTANTANEOUS PEAK FLOW			406	May 21	2230	Jun 9 1985
INSTANTANEOUS PEAK STAGE			[c]2.50	May 21	5.29	Jun 9 1985
ANNUAL RUNOFF (AC-FT)	65720		60610		[a]106500	
10 PERCENT EXCEEDS	283		233		241	
50 PERCENT EXCEEDS	39		42		38	
90 PERCENT EXCEEDS	29		24		22	

a-Including diversion by Twin Lakes tunnel.
b-Also occurred Jan 22.
c-Maximum gage height, 2.72 ft, Dec 30, backwater from ice.

09074000 HUNTER CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°12'21", long 106°47'49", Pitkin County, Hydrologic Unit 14010004, on right bank 280 ft upstream from headgate of Red Mountain ditch, 1.5 mi upstream from mouth, and 1.5 mi northeast of Aspen.

DRAINAGE AREA.--41.1 mi^2.

PERIOD OF RECORD.--June 1950 to September 1956, September 1969 to current year. Statistical summary computed for 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,610 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 1, 1969, at site 220 ft downstream, at different datum, Sept. 1, 1969 to July 10, 1991 at datum 1.0 ft lower.

REMARKS.--Estimated daily discharges: Nov. 2-4, 19-28, Dec. 16-19, Dec. 23 to Jan. 11, Jan. 15 to Mar. 3, Mar. 7, 10, and Mar. 11. Records fair except for estimated daily discharges, which are poor. Transmountain diversion upstream from station to Charles H. Boustead tunnel by feeder conduit. Several small diversions upstream from station for irrigation of hay meadows upstream from and downstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.3	8.5	7.4	3.6	3.5	5.3	5.5	101	95	60	31	22
2	8.2	9.1	7.4	3.4	3.4	5.9	5.3	98	86	58	29	23
3	8.2	7.9	7.5	3.4	3.3	6.3	6.0	97	89	57	27	20
4	7.4	7.7	7.9	3.6	3.4	5.6	7.3	95	95	55	26	18
5	7.3	7.4	8.0	3.5	3.2	5.3	8.3	92	100	54	26	22
6	6.7	7.0	8.1	3.5	3.4	5.7	9.1	98	94	53	37	19
7	7.6	7.1	8.8	3.6	3.5	5.4	10	105	88	55	40	17
8	7.7	8.3	9.5	3.4	3.3	4.8	11	134	85	77	47	15
9	7.7	7.2	7.9	3.1	3.3	5.5	12	108	87	69	31	14
10	7.3	7.5	7.4	3.2	3.5	5.3	17	93	96	60	33	13
11	7.1	8.4	7.4	3.1	3.2	5.0	19	80	95	54	32	13
12	7.1	8.3	6.4	3.2	3.2	4.8	21	92	96	52	37	13
13	7.2	9.1	4.7	3.1	3.1	4.3	26	101	103	52	28	13
14	7.2	7.9	4.4	3.2	3.3	4.9	31	106	88	51	25	13
15	7.9	7.1	4.3	3.1	3.3	4.6	32	109	81	49	26	15
16	8.4	6.9	4.4	2.8	3.3	4.6	29	109	72	49	24	16
17	7.0	6.6	4.2	3.4	3.2	4.4	27	108	70	50	30	14
18	7.1	6.4	4.0	3.4	3.1	4.0	28	113	73	48	25	16
19	8.9	6.5	4.0	3.3	3.0	4.1	23	120	75	47	21	17
20	7.6	6.3	4.0	3.5	3.3	4.4	19	122	75	47	18	22
21	7.8	6.9	4.0	3.6	3.5	3.8	18	138	70	52	17	26
22	8.3	6.9	4.0	3.5	3.5	4.3	20	122	71	48	17	21
23	8.0	6.7	3.9	3.7	3.7	4.4	21	117	73	46	21	17
24	6.7	6.9	3.9	3.5	4.0	3.4	17	111	72	46	51	15
25	6.6	7.3	3.9	3.6	4.3	4.0	23	108	79	53	48	18
26	8.9	7.3	4.1	3.6	4.3	4.0	29	117	74	50	55	21
27	9.7	7.5	4.3	3.6	4.3	3.8	37	154	64	46	38	17
28	11	7.7	4.2	3.5	4.7	5.0	57	130	67	40	27	16
29	9.2	7.6	4.2	3.6	4.7	5.7	89	111	64	38	24	15
30	7.0	7.3	4.0	3.7	---	5.7	114	105	61	37	21	15
31	7.9	---	3.8	3.4	---	4.9	---	99	---	34	20	---
TOTAL	244.0	223.3	172.0	105.7	102.8	149.2	771.5	3393	2438	1587	932	516
MEAN	7.87	7.44	5.55	3.41	3.54	4.81	25.7	109	81.3	51.2	30.1	17.2
MAX	11	9.1	9.5	3.7	4.7	6.3	114	154	103	77	55	26
MIN	6.6	6.3	3.8	2.8	3.0	3.4	5.3	80	61	34	17	13
AC-FT	484	443	341	210	204	296	1530	6730	4840	3150	1850	1020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1992, BY WATER YEAR (WY)

MEAN	16.1	11.2	7.40	6.17	5.66	6.33	20.3	114	200	70.5	30.4	19.0
MAX	32.7	25.1	14.4	11.3	9.21	9.86	40.8	195	296	194	71.4	39.8
(WY)	1985	1985	1985	1987	1985	1989	1989	1987	1984	1984	1983	1984
MIN	5.35	3.32	2.33	2.74	2.89	3.66	7.68	58.4	72.6	34.2	10.6	7.03
(WY)	1990	1990	1981	1981	1990	1990	1983	1983	1989	1980	1980	1980

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1980 - 1992	
ANNUAL TOTAL	12164.2		10634.5			
ANNUAL MEAN	33.3		29.1		[a]42.3	
HIGHEST ANNUAL MEAN					69.3	1984
LOWEST ANNUAL MEAN					27.9	1989
HIGHEST DAILY MEAN	280	Jun 12	154	May 27	786	Jun 6 1988
LOWEST DAILY MEAN	3.8	Dec 31	2.8	Jan 16	[b]1.8	Dec 20 1980
ANNUAL SEVEN-DAY MINIMUM	4.0	Dec 19	3.1	Jan 10	1.9	Dec 20 1980
INSTANTANEOUS PEAK FLOW			175	May 21	[c]1170	Jun 8 1985
INSTANTANEOUS PEAK STAGE			2.10	May 21	[d]2.33	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	24130		21090		30660	
10 PERCENT EXCEEDS	114		93		109	
50 PERCENT EXCEEDS	8.8		9.1		13	
90 PERCENT EXCEEDS	4.7		3.5		4.6	

a-Average discharge for 16 years (water years 1951-1956, 1970-1979), 50.7 ft^3/s; 36730 acre-ft/yr, prior to diversion through Charles H. Boustead tunnel.
b-Also occurred Dec 21 and 22, 1980.
c-From rating curve extended above 300 ft^3/s.
d-Maximum gage height for period of record, 4.30 ft, Nov 30, 1984, backwater from ice.

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^2.

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: Oct. 1 to Nov. 5, Dec. 14, Feb. 6, and 19. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	17	17	12	10	10	12	55	69	122	52	36
2	30	18	15	12	10	10	12	56	67	103	49	36
3	30	22	14	14	10	10	12	58	73	94	47	35
4	29	17	16	11	10	10	12	60	89	99	46	33
5	28	17	17	11	12	10	12	65	101	108	44	33
6	28	18	17	11	11	10	11	68	93	117	47	30
7	27	17	16	11	10	10	11	68	90	116	50	28
8	26	17	16	11	10	10	11	68	85	160	49	27
9	25	17	15	11	10	11	12	72	90	128	43	27
10	25	17	15	11	10	10	14	62	96	107	48	26
11	24	18	16	11	10	10	14	54	114	98	69	25
12	24	17	15	11	10	11	15	57	136	96	55	25
13	24	17	16	11	10	11	16	59	162	91	47	25
14	23	17	10	11	10	11	18	70	162	82	43	25
15	23	17	13	11	11	11	18	78	138	78	41	26
16	22	17	14	11	10	11	18	80	119	86	40	27
17	22	17	16	12	11	11	17	91	103	75	40	27
18	21	18	16	11	11	11	20	106	132	70	38	26
19	21	17	15	11	9.0	11	17	121	154	68	35	28
20	20	18	14	12	10	11	17	142	162	72	34	31
21	20	17	14	10	10	11	17	143	167	70	32	30
22	19	16	14	10	10	11	18	127	166	69	33	29
23	19	18	13	10	11	11	19	118	157	74	39	28
24	20	17	13	10	11	11	18	119	162	81	46	27
25	20	18	13	10	11	11	19	110	174	101	47	28
26	19	17	13	10	11	11	20	113	170	94	47	27
27	18	17	13	10	11	11	23	113	142	76	42	26
28	19	17	13	10	11	11	27	91	131	65	39	25
29	18	17	13	10	11	12	30	82	145	63	36	25
30	18	16	13	10	---	12	37	78	137	62	34	24
31	17	---	13	10	---	12	---	73	---	56	34	---
TOTAL	710	520	448	337	302.0	334	517	2657	3786	2781	1346	845
MEAN	22.9	17.3	14.5	10.9	10.4	10.8	17.2	85.7	126	89.7	43.4	28.2
MAX	31	22	17	14	12	12	37	143	174	160	69	36
MIN	17	16	10	10	9.0	10	11	54	67	56	32	24
AC-FT	1410	1030	889	668	599	662	1030	5270	7510	5520	2670	1680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1992, BY WATER YEAR (WY)

MEAN	20.8	15.9	13.0	10.9	9.97	9.83	13.9	64.0	174	109	45.2	29.1
MAX	29.9	23.2	20.4	17.7	14.9	14.8	23.3	131	298	267	95.0	56.6
(WY)	1971	1985	1985	1985	1985	1986	1987	1984	1984	1984	1984	1970
MIN	11.5	8.63	8.03	7.47	6.97	6.63	8.72	34.8	64.8	24.1	17.6	14.4
(WY)	1978	1978	1978	1990	1978	1978	1980	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1970 - 1992	
ANNUAL TOTAL	15976.9		14583.0			
ANNUAL MEAN	43.8		39.8		43.0	
HIGHEST ANNUAL MEAN					77.8	1984
LOWEST ANNUAL MEAN					19.2	1977
HIGHEST DAILY MEAN	254	Jun 15	174	Jun 25	456	Jun 9 1985
LOWEST DAILY MEAN	[a]6.5	Apr 4	9.0	Feb 19	5.5	Jan 28 1990
ANNUAL SEVEN-DAY MINIMUM	6.9	Mar 25	10	Jan 21	6.0	Jan 7 1982
INSTANTANEOUS PEAK FLOW			212	Jun 25	559	Jun 30 1984
INSTANTANEOUS PEAK STAGE			2.41	Jun 25	[b]3.64	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	31690		28930		31180	
10 PERCENT EXCEEDS	129		104		118	
50 PERCENT EXCEEDS	19		19		18	
90 PERCENT EXCEEDS	7.7		10		9.0	

a-Also occurred Apr 5.
b-Maximum gage height, 3.88 ft, Jun 23, 1970.

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 mi^2.

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: Oct. 1, Dec. 2 to Mar. 3, Mar. 8 to Apr. 28, and Aug. 4 to Sept. 16. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Natural regulation by Maroon Lake. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	27	22	18	16	16	15	29	125	195	86	62
2	40	28	21	18	16	16	15	33	112	185	83	62
3	40	32	20	20	16	14	15	35	109	168	79	61
4	39	27	22	17	16	14	15	38	114	167	77	58
5	38	27	23	17	18	13	15	41	127	168	74	57
6	38	26	23	17	17	13	14	46	125	169	77	54
7	37	26	22	17	16	13	14	50	123	175	79	51
8	36	26	22	17	16	13	14	53	114	205	79	50
9	35	26	21	17	16	14	15	66	116	195	73	49
10	35	26	21	17	16	13	17	75	126	182	77	48
11	34	26	22	17	16	13	17	75	136	181	95	47
12	34	25	21	17	16	14	18	78	155	182	84	46
13	34	25	22	17	16	14	19	81	174	176	77	45
14	33	25	16	17	16	14	21	87	179	169	73	44
15	33	25	19	17	17	14	21	92	171	161	70	45
16	32	24	20	17	16	14	21	94	170	158	69	46
17	32	24	22	18	17	14	20	101	162	147	69	47
18	31	25	22	17	17	14	23	115	176	134	67	47
19	31	24	21	17	15	14	20	136	191	123	65	47
20	30	24	20	18	16	14	20	173	197	121	63	48
21	30	24	20	16	16	14	20	195	198	113	61	49
22	29	23	20	16	16	14	21	193	201	107	63	48
23	29	24	19	16	17	14	22	197	203	103	68	48
24	30	23	19	16	17	14	21	201	206	106	76	47
25	30	23	19	16	17	14	22	196	212	115	77	47
26	29	23	19	16	17	14	22	197	217	105	77	46
27	28	23	19	16	17	14	22	197	209	96	71	46
28	29	23	19	16	17	14	22	183	197	94	68	45
29	28	23	19	16	17	15	22	167	206	91	65	45
30	28	22	19	16	---	15	25	155	203	90	63	45
31	27	---	19	16	---	15	---	143	---	88	63	---
TOTAL	1020	749	633	523	476	435	568	3522	4954	4469	2268	1480
MEAN	32.9	25.0	20.4	16.9	16.4	14.0	18.9	114	165	144	73.2	49.3
MAX	41	32	23	20	18	16	25	201	217	205	95	62
MIN	27	22	16	16	15	13	14	29	109	88	61	44
AC-FT	2020	1490	1260	1040	944	863	1130	6990	9830	8860	4500	2940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1992, BY WATER YEAR (WY)

MEAN	38.2	28.2	21.9	18.4	17.0	15.8	19.2	71.4	242	188	83.6	50.7
MAX	67.0	44.5	36.0	31.3	27.0	28.5	41.4	174	371	352	164	89.5
(WY)	1985	1985	1985	1985	1985	1988	1984	1984	1985	1984	1983	1984
MIN	18.0	15.0	12.1	10.4	10.8	11.0	11.6	28.7	91.9	37.3	26.8	22.2
(WY)	1978	1978	1978	1978	1978	1977	1975	1975	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1969 - 1992	
ANNUAL TOTAL	22078		21097			
ANNUAL MEAN	60.5		57.6		66.4	
HIGHEST ANNUAL MEAN					112	1984
LOWEST ANNUAL MEAN					29.0	1977
HIGHEST DAILY MEAN	342	Jun 15	217	Jun 26	570	Jun 25 1983
LOWEST DAILY MEAN	10	Mar 9	[a]13	Mar 5	9.0	Mar 29 1975
ANNUAL SEVEN-DAY MINIMUM	12	Mar 7	13	Mar 5	10	Mar 27 1975
INSTANTANEOUS PEAK FLOW			230	Jul 8	[b]836	Jun 22 1980
INSTANTANEOUS PEAK STAGE			2.70	Jul 8	[c]3.39	Jun 22 1980
ANNUAL RUNOFF (AC-FT)	43790		41850		48100	
10 PERCENT EXCEEDS	182		169		191	
50 PERCENT EXCEEDS	27		28		30	
90 PERCENT EXCEEDS	14		15		14	

a-Also occurred Mar 6-8, 10, 11.
b-From rating curve extended above 350 ft^3/s, but may have been higher during period of indefinite stage-discharge relationship in Jun, 1984.
c-Maximum gage height, 4.53 ft, Feb 3, 1972, (backwater from ice).

09078600 FRYINGPAN RIVER NEAR THOMASVILLE, CO

LOCATION.--Lat 39°20'41", long 106°40'23", in NW¼NW¼ 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 mi^2.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,210 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 21, 24, 25, Dec.11 to Jan. 8, Jan. 16-22, Feb. 4-12, and Feb. 20, 21. Records good except for estimated daily discharges, which are fair. 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.

CORRECTIONS.--The average discharge figures published in reports prior to this report were in error. The correct figures are: 5 years, 95.7 ft^3/s, 69,330 acre-ft; 6 years, 91.8 ft^3/s, 66,510 acre-ft; 7 years, 92.5 ft^3/s, 67,020 acre-ft; 8 years, 96.5 ft^3/s, 69,910 acre-ft; 9 years, 104 ft^3/s, 75,350 acre-ft; 10 years, 105 ft^3/s, 76,070 acre-ft; 11 years, 110 ft^3/s, 79,700 acre-ft; 12 years,112 ft^3/s, 81,140 acre-ft; 13 years, 112 ft^3/s, 81,140 acre-ft; 14 years, 109 ft^3/s, 78,970 acre-ft; 15 years, 107 ft^3/s, 77,520 acre-ft; 16 years,105 ft^3/s, 76,070 acre-ft. These figures supersede those published in the reports for water years 1980-91.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	31	27	21	21	19	27	294	182	177	90	84
2	37	30	28	20	21	19	30	278	219	106	78	74
3	34	27	27	19	21	20	32	263	212	122	82	72
4	33	35	27	20	19	20	35	253	211	116	81	74
5	33	36	27	21	19	20	38	236	200	123	81	85
6	34	35	26	21	18	20	42	226	223	120	95	77
7	32	35	26	21	18	20	46	217	194	112	90	71
8	31	33	26	21	18	20	50	255	194	170	76	66
9	31	33	26	21	18	20	61	244	232	110	77	62
10	31	35	25	21	18	21	73	225	209	108	84	58
11	30	35	25	21	18	21	86	184	213	119	86	57
12	29	29	24	21	18	21	90	193	211	114	78	54
13	29	31	23	21	18	21	119	198	205	116	82	53
14	28	33	23	21	19	22	128	205	208	109	73	52
15	28	32	23	21	19	22	116	205	202	116	78	54
16	30	30	23	19	18	22	112	202	212	122	73	59
17	28	30	23	20	19	23	107	198	212	112	103	62
18	27	32	23	20	19	23	119	210	219	115	83	61
19	26	30	24	19	19	22	95	220	212	113	65	57
20	26	28	24	20	20	22	82	241	207	112	69	75
21	26	29	23	20	19	23	78	252	212	104	68	88
22	26	30	23	19	19	23	92	239	205	107	65	76
23	26	28	22	19	19	22	89	222	206	106	77	65
24	30	27	22	20	19	22	81	226	218	114	140	58
25	32	29	22	20	19	22	96	214	207	116	145	61
26	34	32	22	20	18	23	120	220	215	106	114	66
27	33	30	22	20	19	23	155	287	197	103	97	58
28	35	30	22	20	19	24	233	247	213	105	83	53
29	26	30	22	20	19	25	294	211	208	108	81	52
30	34	28	22	20	---	26	303	189	205	103	79	48
31	32	---	22	20	---	28	---	183	---	99	79	---
TOTAL	949	933	744	627	548	679	3029	7037	6263	3583	2652	1932
MEAN	30.6	31.1	24.0	20.2	18.9	21.9	101	227	209	116	85.5	64.4
MAX	38	36	28	21	21	28	303	294	232	177	145	88
MIN	26	27	22	19	18	19	27	183	182	99	65	48
AC-FT	1880	1850	1480	1240	1090	1350	6010	13960	12420	7110	5260	3830

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	44.0	33.4	26.0	21.6	21.1	26.5	85.6	288	409	161	74.4	53.3
MAX	77.8	53.9	45.1	34.5	29.6	54.9	131	531	647	332	112	103
(WY)	1987	1985	1985	1985	1984	1986	1985	1984	1978	1984	1983	1986
MIN	26.3	19.8	13.7	12.0	13.6	13.3	38.4	160	187	71.0	40.6	31.2
(WY)	1990	1977	1977	1977	1977	1977	1983	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	30443		28976			
ANNUAL MEAN	83.4		79.2		104	
HIGHEST ANNUAL MEAN					164	1984
LOWEST ANNUAL MEAN					54.6	1977
HIGHEST DAILY MEAN	428	May 11	303	Apr 30	1200	Jun 8 1987
LOWEST DAILY MEAN	18	Feb 5	[a]18	Feb 6	[b]10	Nov 28 1976
ANNUAL SEVEN-DAY MINIMUM	19	Jan 30	18	Feb 6	11	Jan 13 1977
INSTANTANEOUS PEAK FLOW			366	Apr 29	1550	Jun 8 1987
INSTANTANEOUS PEAK STAGE			3.00	Apr 29	4.50	Jun 8 1987
ANNUAL RUNOFF (AC-FT)	60380		57470		75230	
10 PERCENT EXCEEDS	273		211		266	
50 PERCENT EXCEEDS	36		35		43	
90 PERCENT EXCEEDS	20		20		20	

a-Also occurred Feb 7-13, 16, 26.
b-Also occurred Jan 2, 1979.

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, 102,400 acre-ft, July 20, 21, elevation, 7,766.00 ft; minimum contents, 67,400 acre-ft, Apr. 8, 9 elevation, 7,726.15 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7,753.94	90,800	-
Oct. 31	7,743.18	81,200	-9,600
Nov. 30	7,740.65	79,100	-2,100
Dec. 31	7,737.47	76,400	-2,700
CAL YR 1991			-5,200
Jan. 31	7,733.85	73,400	-3,000
Feb. 29	7,730.17	70,500	-2,900
Mar. 31	7,726.67	67,800	-2,700
Apr. 30	7,729.33	69,900	+2,100
May 31	7,748.59	86,000	+16,100
June 30	7,763.03	99,400	+13,400
July 31	7,765.27	101,600	+2,200
Aug. 31	7,762.76	99,200	-2,400
Sept. 30	7,754.73	91,500	-7,700
WTR YR 1992			+ 700

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. Statistical summary computed for 1969 to current year.

GAGE.--Water-stage recorder with satellite telemetry 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.--No estimated daily discharges. Records good. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	217	134	87	87	83	84	85	140	118	110	164	137
2	217	119	88	87	82	84	85	146	116	108	164	136
3	214	110	89	87	82	84	85	149	116	108	164	135
4	214	110	89	87	82	84	85	149	116	114	177	135
5	214	110	89	86	82	84	86	149	116	114	225	135
6	214	111	89	85	83	84	87	149	116	114	226	135
7	213	111	89	85	82	84	87	143	118	114	226	135
8	210	104	89	85	82	84	87	128	117	114	226	135
9	210	85	89	85	82	84	87	118	116	118	227	150
10	202	85	88	85	84	84	87	118	117	118	229	177
11	207	85	88	86	84	84	87	117	116	117	215	186
12	227	85	89	87	84	84	87	116	116	116	185	221
13	229	85	87	87	85	84	98	116	116	116	170	223
14	229	85	87	87	84	84	144	116	118	116	135	234
15	229	87	87	86	85	84	144	118	117	116	135	262
16	229	87	86	85	84	84	144	120	115	116	135	262
17	229	87	86	85	83	84	141	122	112	127	135	262
18	229	87	87	85	84	84	114	124	112	156	135	262
19	229	87	87	85	83	84	114	126	113	154	134	262
20	232	87	87	85	83	84	88	129	116	153	135	262
21	232	87	87	85	84	84	71	131	116	152	137	262
22	232	87	87	85	83	84	84	128	116	185	154	262
23	232	87	87	85	82	84	126	122	116	185	154	264
24	232	87	87	87	83	84	127	121	115	185	144	266
25	219	87	87	86	84	84	128	120	114	186	115	260
26	184	87	86	85	84	84	128	122	114	188	115	258
27	182	87	85	85	84	84	127	126	114	188	118	258
28	164	87	85	85	84	85	133	126	114	188	118	259
29	133	87	85	85	84	85	134	125	114	186	118	262
30	133	87	87	85	---	85	135	121	112	164	118	262
31	134	---	87	83	---	85	---	119	---	164	129	---
TOTAL	6471	2811	2707	2653	2415	2608	3215	3954	3462	4390	4962	6459
MEAN	209	93.7	87.3	85.6	83.3	84.1	107	128	115	142	160	215
MAX	232	134	89	87	85	85	144	149	118	188	229	266
MIN	133	85	85	83	82	84	71	116	112	108	115	135
AC-FT	12840	5580	5370	5260	4790	5170	6380	7840	6870	8710	9840	12810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1992, BY WATER YEAR (WY)

MEAN	136	128	140	135	137	140	157	261	373	271	151	130
MAX	366	185	198	195	209	234	370	669	950	596	242	215
(WY)	1970	1985	1986	1986	1986	1986	1971	1970	1984	1983	1983	1992
MIN	54.8	44.0	38.2	36.8	36.3	33.6	39.1	116	115	95.9	57.1	49.1
(WY)	1978	1969	1969	1969	1969	1977	1969	1990	1992	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1969 - 1992	
ANNUAL TOTAL	54033		46107			
ANNUAL MEAN	148		126		[a]180	
HIGHEST ANNUAL MEAN					288	1984
LOWEST ANNUAL MEAN					83.9	1977
HIGHEST DAILY MEAN	951	May 1	266	Sep 24	1390	Jun 25 1983
LOWEST DAILY MEAN	[b]85	Nov 9	71	Apr 21	[c]29	Mar 5 1981
ANNUAL SEVEN-DAY MINIMUM	85	Nov 9	82	Feb 2	29	Mar 5 1981
INSTANTANEOUS PEAK FLOW			275	Sep 23	[d]1400	Sep 16 1976
INSTANTANEOUS PEAK STAGE			2.13	Sep 23	[e]3.50	Sep 16 1976
ANNUAL RUNOFF (AC-FT)	107200		91450		130300	
10 PERCENT EXCEEDS	228		224		300	
50 PERCENT EXCEEDS	123		114		152	
90 PERCENT EXCEEDS	87		84		80	

a-Subsequent to completion of Ruedi Reservoir.
b-Also occurred Nov 10-14, Dec 27-29.
c-Minimum daily discharge for period of record, 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.
d-Maximum discharge and stage for period of record, 2690 ft³/s, Jun 18, 1965, gage height, 5.16 ft, site and datum then in use.
e-Maximum gage height for statistical period, 3.89 ft, Jun 24, 1983.

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 mi^2.

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,905 ft, from river-profile map.

REMARKS.--No estimated daily discharges. Records good. A few small diversions for irrigation upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	69	56	49	43	47	71	715	533	583	164	134
2	81	67	49	42	44	43	73	691	513	495	157	134
3	76	54	51	41	44	46	75	688	546	404	152	124
4	73	70	51	52	42	48	83	680	616	415	149	117
5	72	72	55	53	39	48	94	742	733	466	149	122
6	72	76	55	50	39	48	94	796	787	503	169	112
7	70	81	55	51	43	49	102	836	767	512	182	106
8	69	72	62	49	46	48	107	795	674	759	188	100
9	69	73	62	45	43	48	119	816	653	587	159	96
10	69	74	57	43	43	44	141	676	684	454	154	93
11	69	75	61	47	42	47	176	542	744	401	156	90
12	69	70	55	50	43	47	193	526	856	434	144	87
13	68	69	51	48	42	49	238	548	963	408	136	88
14	66	73	40	49	45	51	277	638	973	350	131	86
15	66	75	43	45	45	52	276	702	880	317	130	90
16	65	71	45	38	45	52	271	724	747	307	134	96
17	64	68	47	46	45	54	240	759	606	277	164	100
18	60	71	52	48	45	55	279	863	675	263	138	100
19	60	69	58	40	40	52	237	938	801	253	124	99
20	62	61	57	42	47	49	204	1120	894	253	117	126
21	61	71	48	44	52	50	184	1250	905	256	113	124
22	61	64	51	44	49	51	181	1050	836	247	129	113
23	63	50	46	45	50	52	178	947	821	245	215	105
24	82	56	42	47	47	51	167	930	859	250	276	99
25	82	75	43	46	50	51	188	887	891	283	236	100
26	78	74	45	49	46	52	216	995	881	259	215	95
27	75	72	43	46	48	55	269	1200	760	226	174	91
28	76	66	43	43	49	72	384	955	664	198	151	88
29	69	67	48	42	45	66	508	788	715	188	138	85
30	73	68	46	42	---	69	637	681	671	182	128	83
31	67	---	47	43	---	70	---	602	---	172	125	---
TOTAL	2171	2073	1564	1419	1301	1616	6262	25080	22648	10947	4897	3083
MEAN	70.0	69.1	50.5	45.8	44.9	52.1	209	809	755	353	158	103
MAX	84	81	62	53	52	72	637	1250	973	759	276	134
MIN	60	50	40	38	39	43	71	526	513	172	113	83
AC-FT	4310	4110	3100	2810	2580	3210	12420	49750	44920	21710	9710	6120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1992, BY WATER YEAR (WY)

MEAN	96.5	70.9	55.6	49.0	48.3	63.9	195	749	1272	617	188	122
MAX	220	152	95.9	85.3	89.9	184	464	1223	2019	1872	531	253
(WY)	1987	1987	1986	1985	1986	1986	1962	1984	1957	1957	1957	1986
MIN	49.7	39.5	36.3	34.1	28.3	32.4	83.4	288	375	96.9	74.6	59.8
(WY)	1978	1978	1978	1978	1964	1964	1964	1977	1977	1977	1977	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1956 - 1992	
ANNUAL TOTAL	99080		83061			
ANNUAL MEAN	271		227		294	
HIGHEST ANNUAL MEAN					468	1957
LOWEST ANNUAL MEAN					107	1977
HIGHEST DAILY MEAN	1940	Jun 15	1250	May 21	3500	Jun 25 1983
LOWEST DAILY MEAN	[a]35	Jan 21	38	Jan 16	[b]22	Dec 5 1955
ANNUAL SEVEN-DAY MINIMUM	37	Jan 30	42	Jan 31	27	Feb 11 1964
INSTANTANEOUS PEAK FLOW			1420	May 27	4180	Jun 25 1983
INSTANTANEOUS PEAK STAGE			3.76	May 27	6.12	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	196500		164800		213200	
10 PERCENT EXCEEDS	927		736		933	
50 PERCENT EXCEEDS	81		81		92	
90 PERCENT EXCEEDS	43		45		43	

a-Also occurred Jan 22 and 30.
b-Also occurred Feb 15, 1964, Jan 2, Feb 17, 18, 1978.

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, 2,100 ft upstream from mouth.

DRAINAGE AREA.--1,451 mi².

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. Statistical summary computed for 1972 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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.--Estimated daily discharges: Dec. 29 to Jan. 4, and Jan 17-28. Records good except for estimated daily discharges, which are poor. 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 Fryingpan River (station 09080190) since May 1968. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	650	698	513	450	381	359	453	1490	1540	1690	636	659
2	654	715	493	440	386	359	455	1430	1400	1520	615	649
3	632	625	484	420	388	368	454	1390	1390	1330	599	642
4	626	665	479	410	374	408	471	1360	1480	1280	575	619
5	616	709	505	422	360	417	502	1380	1660	1320	621	619
6	619	723	503	384	364	409	504	1430	1760	1360	699	592
7	636	757	495	416	370	401	520	1490	1810	1400	788	565
8	607	706	511	404	391	396	533	1510	1620	1730	802	546
9	592	674	506	380	387	399	556	1560	1570	1930	754	534
10	592	664	472	369	383	379	607	1480	1630	1490	712	541
11	583	664	511	395	374	371	676	1190	1700	1320	773	535
12	593	644	509	409	371	373	692	1120	1900	1350	731	540
13	612	621	475	399	366	376	774	1160	2120	1340	700	550
14	600	619	442	397	375	387	894	1280	2250	1220	650	533
15	616	640	465	391	368	390	934	1380	2140	1120	638	578
16	616	616	471	377	360	386	910	1430	1930	1090	631	616
17	622	604	480	360	371	389	862	1490	1680	982	687	620
18	619	615	487	350	364	397	941	1650	1670	939	655	614
19	632	609	498	350	335	391	859	1840	1890	927	604	606
20	639	557	481	350	362	381	750	2210	2120	961	605	704
21	647	597	449	360	383	375	640	2620	2190	976	601	747
22	666	586	449	360	372	394	617	2420	2130	953	616	725
23	696	531	443	370	370	401	642	2120	2060	931	703	726
24	777	501	428	390	354	398	603	2150	2070	987	803	717
25	800	582	435	400	356	389	585	2060	2250	1090	794	720
26	726	581	443	400	354	383	615	2250	2270	1060	832	737
27	692	556	428	390	354	387	681	2830	2090	946	787	729
28	679	552	436	380	330	508	857	2450	1840	823	732	713
29	610	552	440	382	362	491	1130	2090	1920	787	688	715
30	633	542	450	380	---	465	1340	1830	1860	732	661	690
31	683	---	460	383	---	453	---	1660	---	665	637	---
TOTAL	19965	18705	14641	12068	10665	12380	21057	53750	55940	36249	21329	19081
MEAN	644	623	472	389	368	399	702	1734	1865	1169	688	636
MAX	800	757	513	450	391	508	1340	2830	2270	1930	832	747
MIN	583	501	428	350	330	359	453	1120	1390	665	575	533
AC-FT	39600	37100	29040	23940	21150	24560	41770	106600	111000	71900	42310	37850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1992, BY WATER YEAR (WY)

MEAN	710	668	576	509	478	525	803	2097	4000	2338	913	692
MAX	1159	969	790	665	689	861	1602	4663	7383	5223	1801	1151
(WY)	1985	1985	1985	1986	1986	1986	1985	1984	1984	1984	1984	1984
MIN	384	411	382	371	315	298	352	593	1139	422	316	363
(WY)	1978	1978	1978	1978	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1972 - 1992	
ANNUAL TOTAL	376330		295830			
ANNUAL MEAN	1031		808		[a]1194	
HIGHEST ANNUAL MEAN					2092	1984
LOWEST ANNUAL MEAN					485	1977
HIGHEST DAILY MEAN	4670	Jun 15	2830	May 27	[b]11200	Jun 25 1983
LOWEST DAILY MEAN	392	Mar 30	330	Feb 28	[c,d]248	Aug 11 1977
ANNUAL SEVEN-DAY MINIMUM	411	Mar 26	353	Feb 24	258	Aug 9 1977
INSTANTANEOUS PEAK FLOW			3130	May 27	[e]12100	Jun 25 1983
INSTANTANEOUS PEAK STAGE			4.42	May 27	[f]8.06	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	746500		586800		864900	
10 PERCENT EXCEEDS	2630		1670		2860	
50 PERCENT EXCEEDS	625		619		656	
90 PERCENT EXCEEDS	423		376		420	

a-Average discharge for 65 years (water years 1906-09, 1911-71), 1368 ft³/s; 991100 acre-ft/yr, prior to diversion through Charles H. Boustead tunnel.
b-Maximum daily discharge for period of record, 16600 ft³/s, Jun 30, 1957.
c-Minimum daily discharge for period of record, 179 ft³/s, Jan 21, 1935; minimum discharge, 145 ft³/s, Jan 21, 1935, gage height, 0.65 ft.
d-Also occurred Aug 12, 1977.
e-Maximum discharge and stage for period of record, 19000 ft³/s, Jul 1, 1957, gage height, 8.65 ft.
f-Maximum gage height for period of record, 8.7 ft, Jun 14, 1921, from floodmarks.

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°33'18", long 107°20'13", in NW¼NW¼ sec.9, T.6 S., R.89 W., 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.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1930	1970	1450	1410	1330	1390	1740	4590	4390	3610	2120	2310
2	1910	1930	1350	1290	1330	1390	1690	4630	4020	3420	2060	2420
3	1840	1710	1420	1190	1360	1410	1660	4480	3860	3130	2070	2390
4	1800	1710	1460	1300	1360	1460	1640	4480	3890	2920	2160	2260
5	1780	1920	1540	1370	1310	1480	1810	4490	4180	2930	2290	2210
6	1820	1990	1540	1380	1290	1460	1900	4560	4310	2990	2430	2210
7	1830	2080	1510	1430	1290	1480	1930	4700	4290	3050	2510	2140
8	1790	2020	1590	1430	1330	1450	2030	4660	4060	3410	2530	2090
9	1770	1920	1590	1370	1370	1490	1870	4800	4010	3770	2410	2030
10	1730	1900	1470	1310	1370	1440	2120	4630	4150	3260	2380	1950
11	1670	1930	1590	1290	1380	1400	2360	4060	4150	2950	2440	1860
12	1740	1910	1590	1330	1390	1390	2490	3830	4540	2930	2480	1850
13	1770	1850	1510	1360	1380	1420	2580	3860	4870	2960	2440	2020
14	1750	1810	1310	1380	1380	1440	2800	4060	5150	2800	2380	2030
15	1770	1850	1260	1390	1350	1480	2930	4240	4930	2630	2360	2100
16	1780	1790	1300	1270	1340	1500	2970	4380	4530	2530	2330	2140
17	1760	1760	1280	1230	1350	1530	2950	4420	4000	2370	2470	2110
18	1780	1780	1390	1270	1320	1560	3100	4660	3850	2300	2490	2140
19	1770	1780	1600	1260	1280	1550	3050	5030	4220	2380	2400	2030
20	1800	1660	1600	1240	1340	1490	2800	5600	4540	2480	2300	2020
21	1790	1690	1470	1230	1400	1450	2540	6190	4560	2610	2270	2030
22	1840	1720	1390	1210	1370	1470	2440	6030	4360	2590	2280	1990
23	1830	1570	1330	1330	1380	1480	2490	5530	4300	2460	2450	1930
24	2000	1470	1280	1410	1330	1470	2430	5440	4340	2480	2500	1880
25	1990	1730	1220	1430	1370	1470	2370	5350	4530	2610	2790	1860
26	1990	1740	1190	1410	1350	1460	2400	5550	4620	2630	2850	1890
27	2020	1710	1220	1360	1360	1490	2540	6330	4490	2510	2680	1910
28	2010	1700	1200	1330	1380	1700	2960	6200	4060	2330	2530	1880
29	1930	1690	1250	1320	1380	1750	3580	5740	4050	2180	2420	1870
30	1930	1670	1300	1320	---	1700	4120	5130	3890	2120	2330	1840
31	1980	---	1330	1330	---	1680	---	4650	---	2130	2290	---
TOTAL	57100	53960	43530	41180	39170	46330	74290	152300	129140	85470	74440	61390
MEAN	1842	1799	1404	1328	1351	1495	2476	4913	4305	2757	2401	2046
MAX	2020	2080	1600	1430	1400	1750	4120	6330	5150	3770	2850	2420
MIN	1670	1470	1190	1190	1280	1390	1640	3830	3850	2120	2060	1840
AC-FT	113300	107000	86340	81680	77690	91900	147400	302100	256100	169500	147700	121800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	2097	1912	1611	1505	1495	1694	2704	6884	10230	5559	2796	2244
MAX	3082	2703	2487	2192	2209	2814	4823	15570	20710	13610	5975	3716
(WY)	1985	1985	1985	1985	1986	1986	1985	1984	1984	1983	1984	1984
MIN	1394	1186	1162	1147	1023	1018	1571	2146	2781	1755	1674	1647
(WY)	1978	1978	1967	1990	1981	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	1011650		858300			
ANNUAL MEAN	2772		2345		3399	
HIGHEST ANNUAL MEAN					6276	1984
LOWEST ANNUAL MEAN					1638	1977
HIGHEST DAILY MEAN	11500	Jun 15	[a]6330	May 27	30200	May 25 1984
LOWEST DAILY MEAN	1120	Jan 23	[a]1190	Dec 26	870	Feb 11 1981
ANNUAL SEVEN-DAY MINIMUM	1190	Feb 22	1240	Dec 24	978	Mar 10 1977
INSTANTANEOUS PEAK FLOW			6550	May 27	31500	May 25 1984
INSTANTANEOUS PEAK STAGE			6.08	May 27	12.49	May 25 1984
ANNUAL RUNOFF (AC-FT)	2007000		1702000		2462000	
10 PERCENT EXCEEDS	6750		4380		7890	
50 PERCENT EXCEEDS	1930		1920		2080	
90 PERCENT EXCEEDS	1220		1330		1330	

a-Also occurred Jan 3.

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV									
05...	1100	1920	931	8.3	4.0	--	K5	K3	<1.0
MAR									
17...	1030	1540	943	8.1	7.5	10.5	>160	K470	<1.0
JUN									
18...	1347	4530	514	8.3	12.5	8.3	45	21	<1.0
AUG									
11...	1155	2460	774	8.2	17.0	8.4	27	K6	<1.0

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV									
05...	1	380	<1	40	20	<0.1	<1	[a]<0.2	<10
MAR									
17...	2	570	<1	60	30	<0.1	<1	[a]<0.2	<10
JUN									
18...	1	510	<1	50	10	<0.1	<1	[a]<0.2	<10
AUG									
11...	1	420	<1	50	10	<0.1	<1	[a]<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
10...	1405	1620	1180	11.0
NOV				
20...	1345	1690	830	3.5
JAN				
16...	1550	1220	1050	0.5
MAR				
10...	1011	1380	992	5.5
APR				
15...	1300	3050	587	9.0
MAY				
21...	1122	6380	300	10.0
JUL				
17...	0813	2340	760	14.0
SEP				
02...	1410	2420	910	15.0

a-Analysis based on preliminary method
K-Based on non-ideal colony count

09086000 WEST ELK CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°39'59", long 107°37'35", Garfield County, Hydrologic Unit 14010005, on left bank 1.9 mi downstream from West Elk Reservoir and just inside White River National Forest boundary.

DRAINAGE AREA.--9.55 mi^2 (revised).

PERIOD OF RECORD.--1911, October 1990 to September 1991. Published as West Fork Elk Creek near New Castle, 1911.

GAGE.--Water-stage recorder. Elevation of gage is 6,760.0 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 2 to Mar. 20, and Aug. 25 to Sept. 3. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.44	.24	.20	.20	.20	.23	.60	.76	.65	.63	.68	.62
2	.44	.24	.22	.21	.20	.24	.59	.71	.62	.67	.66	.60
3	.42	.23	.21	.23	.20	.24	.60	.72	.61	.66	.65	.60
4	.38	.22	.20	.22	.19	.23	.62	.69	.61	.65	.67	.59
5	.36	.23	.20	.21	.21	.23	.63	.66	.63	.62	.65	.61
6	.34	.24	.20	.21	.24	.30	.63	.66	.63	.60	.70	.59
7	.34	.23	.20	.20	.24	.30	.63	.66	.63	.62	.71	.54
8	.33	.22	.21	.20	.23	.30	.62	.66	.62	.65	.68	.52
9	.31	.22	.22	.21	.23	.24	.59	.73	.63	.66	.65	.51
10	.31	.23	.22	.22	.24	.30	.59	.71	.61	.64	.61	.50
11	.32	.23	.22	.23	.24	.29	.58	.70	.58	.62	.61	.48
12	.32	.20	.21	.24	.24	.32	.53	.73	.58	.68	.61	.48
13	.32	.21	.21	.24	.26	.33	.57	.75	.57	.72	.59	.48
14	.31	.22	.22	.23	.26	.40	.61	.71	.57	.64	.58	.44
15	.31	.23	.23	.22	.26	.42	.60	.70	.62	.63	.58	.45
16	.32	.23	.23	.23	.26	.43	.56	.68	.68	.63	.57	.63
17	.32	.21	.20	.25	.25	.45	.55	.65	.68	.60	.59	.90
18	.32	.21	.20	.24	.26	.46	.65	.61	.69	.58	.56	.88
19	.32	.21	.20	.22	.30	.47	.64	.56	.69	.57	.54	.89
20	.31	.21	.20	.22	.31	.47	.66	.56	.68	.56	.54	.97
21	.31	.20	.20	.21	.30	.48	.64	.64	.69	.54	.55	.87
22	.30	.20	.20	.22	.29	.47	.63	.63	.69	.64	.56	.72
23	.30	.18	.20	.22	.28	.51	.66	.57	.68	.64	.62	.61
24	.30	.20	.20	.21	.27	.54	.70	.63	.67	.68	.60	.31
25	.30	.21	.21	.2	.29	.52	.71	.66	.67	.71	.56	.29
26	.29	.22	.22	.20	.31	.54	.76	.63	.70	.67	.54	.30
27	.29	.22	.23	.19	.30	.60	.79	.66	.71	.71	.54	.30
28	.29	.22	.23	.19	.31	.69	.89	.63	.68	.70	.58	.25
29	.26	.20	.22	.20	.31	.63	.91	.62	.63	.70	.54	.24
30	.24	.20	.22	.20	---	.61	.90	.64	.61	.69	.54	.24
31	.23	---	.21	.20	---	.62	---	.66	---	.68	.58	---
TOTAL	9.95	6.51	6.54	6.67	7.48	12.86	19.64	20.58	19.31	19.99	18.64	16.41
MEAN	.32	.22	.21	.22	.26	.41	.65	.66	.64	.64	.60	.55
MAX	.44	.24	.23	.25	.31	.69	.91	.76	.71	.72	.71	.97
MIN	.23	.18	.20	.19	.19	.23	.53	.56	.57	.54	.54	.24
AC-FT	20	13	13	13	15	26	39	41	38	40	37	33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

MEAN	.32	.24	.21	.21	.21	.30	.61	.72	.56	.55	.53	.51
MAX	.33	.26	.21	.22	.26	.41	.65	.78	.64	.64	.60	.55
(WY)	1991	1991	1992	1992	1992	1992	1992	1991	1992	1992	1992	1992
MIN	.32	.22	.20	.20	.17	.18	.57	.66	.47	.46	.45	.47
(WY)	1992	1992	1991	1991	1991	1991	1991	1992	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1991 - 1992	
ANNUAL TOTAL	136.80		164.58			
ANNUAL MEAN	.37		.45		.41	
HIGHEST ANNUAL MEAN					.45	1992
LOWEST ANNUAL MEAN					.38	1991
HIGHEST DAILY MEAN	[a]1.2	May 18	.97	Sep 20	1.2	May 18 1991
LOWEST DAILY MEAN	.14	Feb 14	.18	Nov 23	.14	Feb 14 1991
ANNUAL SEVEN-DAY MINIMUM	.16	Feb 19	.20	Jan 25	.16	Feb 19 1991
INSTANTANEOUS PEAK FLOW			1.2	Sep 20	1.4	May 18 1991
INSTANTANEOUS PEAK STAGE			.36	Sep 20	.44	May 18 1991
ANNUAL RUNOFF (AC-FT)	271		326		300	
10 PERCENT EXCEEDS	.59		.69		.68	
50 PERCENT EXCEEDS	.32		.48		.36	
90 PERCENT EXCEEDS	.17		.21		.19	

a-Also occurred May 19.

09086470 MAIN ELK CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°40'41", long 107°34'21", Garfield County, Hydrologic Unit 14010005, on right bank about 500 ft upstream from bridge and 9.5 miles northeast of New Castle.

DRAINAGE AREA.--91.0 mi^2.

PERIOD OF RECORD.--October 1990 to current year.

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

REMARKS.--Estimated daily discharges: Oct. 1-10, Nov. 3-21, 23, Dec. 1, 6, 14-17, 23-29, Jan. 2, 3, 10-13, 15-22, Mar. 27 to Apr. 17, and July 26 to Aug. 13. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	10	10	10	9.0	9.3	14	306	180	52	20	19
2	14	9.8	11	10	9.0	9.3	14	330	162	45	20	18
3	13	10	11	11	9.0	9.0	14	338	151	45	19	18
4	13	9.2	9.8	10	8.4	9.0	16	362	147	53	18	17
5	12	9.8	10	9.7	8.0	9.0	18	388	147	51	18	17
6	12	10	10	9.3	10	8.9	20	387	152	52	19	15
7	12	11	10	9.3	9.4	8.6	22	407	131	51	18	17
8	12	10	10	9.3	9.3	8.6	25	403	122	49	17	15
9	12	10	11	9.5	9.2	8.6	23	430	120	42	17	15
10	12	10	11	10	8.6	7.3	33	423	110	39	18	15
11	12	11	11	10	8.6	7.7	40	375	105	32	17	17
12	12	10	11	11	8.6	7.8	54	340	100	32	16	15
13	12	11	11	11	8.8	8.1	58	366	107	33	17	17
14	11	11	11	10	9.0	8.2	62	388	110	27	18	15
15	11	12	11	10	9.0	8.2	65	376	97	28	19	16
16	11	11	12	11	9.0	8.4	65	371	82	29	19	15
17	11	11	11	12	9.0	8.6	65	374	79	29	18	16
18	11	11	11	11	8.0	8.6	63	379	72	28	20	19
19	11	10	11	10	10	8.9	59	397	77	27	17	18
20	11	10	11	10	9.5	9.0	54	399	71	26	18	18
21	11	11	11	10	9.0	9.1	50	414	68	25	21	19
22	9.7	9.9	11	10	8.6	9.1	48	408	59	25	20	19
23	10	9.2	11	9.4	8.6	9.0	46	393	66	24	23	19
24	12	10	11	9.3	7.5	9.0	44	366	71	23	20	16
25	12	12	11	9.3	8.7	9.0	45	320	63	25	21	16
26	11	12	11	9.0	7.7	9.0	51	292	61	27	20	17
27	11	11	12	9.0	8.2	9.8	67	289	56	25	18	17
28	11	11	12	9.0	8.7	12	106	263	56	23	19	15
29	9.4	11	11	9.0	9.1	13	171	245	56	22	17	15
30	9.7	9.7	11	9.0	---	12	241	216	49	20	17	16
31	8.2	---	11	9.0	---	12	---	198	---	20	18	---
TOTAL	354.0	314.6	337.8	306.1	255.5	284.1	1653	10943	2927	1029	577	501
MEAN	11.4	10.5	10.9	9.87	8.81	9.16	55.1	353	97.6	33.2	18.6	16.7
MAX	14	12	12	12	10	13	241	430	180	53	23	19
MIN	8.2	9.2	9.8	9.0	7.5	7.3	14	198	49	20	16	15
AC-FT	702	624	670	607	507	564	3280	21710	5810	2040	1140	994

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

MEAN	11.9	10.3	9.71	8.46	7.80	7.89	34.7	323	184	47.7	20.4	16.8
MAX	12.4	10.5	10.9	9.87	8.81	9.16	55.1	353	270	62.1	22.1	17.0
(WY)	1991	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991
MIN	11.4	10.1	8.52	7.05	6.76	6.61	14.4	292	97.6	33.2	18.6	16.7
(WY)	1992	1991	1991	1991	1991	1991	1991	1991	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1991 - 1992	
ANNUAL TOTAL	22343.6		19482.1			
ANNUAL MEAN	61.2		53.2		57.1	
HIGHEST ANNUAL MEAN					61.1	1991
LOWEST ANNUAL MEAN					53.2	1992
HIGHEST DAILY MEAN	[a]581	May 27	430	May 9	581	May 27 1991
LOWEST DAILY MEAN	5.8	Jan 23	7.3	Mar 10	5.8	Jan 23 1991
ANNUAL SEVEN-DAY MINIMUM	6.2	Jan 22	8.0	Mar 10	6.2	Jan 22 1991
INSTANTANEOUS PEAK FLOW			454	May 9	622	May 28 1991
INSTANTANEOUS PEAK STAGE			5.57	May 9	6.08	May 28 1991
ANNUAL RUNOFF (AC-FT)	44320		38640		41400	
10 PERCENT EXCEEDS	212		151		194	
50 PERCENT EXCEEDS	12		14		13	
90 PERCENT EXCEEDS	6.6		9.0		7.2	

a-Also occurred May 28.

09086970 EAST ELK CREEK ABOVE BOILER CREEK, NEAR NEW CASTLE, CO

LOCATION.--Lat 39°40'05", long 107°31'28", Garfield County, Hydrologic Unit 14010005, on left bank 45 ft downstream from Forest Service footbridge and 6 miles northeast of New Castle.

DRAINAGE AREA.--23.4 mi^2.

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,800.0 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-10. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	5.8	5.2	5.3	4.8	4.4	6.2	97	129	25	12	8.8
2	9.0	4.9	6.2	5.3	4.8	4.8	6.1	96	117	24	12	9.8
3	9.0	4.1	6.2	5.3	4.8	5.4	6.4	97	114	23	11	8.8
4	9.0	5.5	6.2	5.3	4.8	5.7	7.9	106	109	22	11	8.8
5	8.0	5.1	5.9	5.3	4.9	5.5	8.6	115	110	22	11	9.7
6	8.0	4.8	5.7	5.3	4.9	5.4	10	124	109	20	11	8.5
7	8.0	5.3	5.7	5.3	5.0	5.7	11	134	102	20	10	8.2
8	8.0	4.8	5.7	5.3	4.8	5.7	10	126	96	22	10	8.2
9	8.0	4.8	5.7	5.3	4.8	5.7	13	125	88	22	11	8.2
10	7.0	4.8	5.4	5.5	4.8	5.3	17	125	83	20	10	8.5
11	6.7	5.3	5.3	5.7	4.8	5.7	20	126	83	19	9.6	8.8
12	6.7	4.7	5.3	5.7	4.8	5.7	26	119	80	20	9.4	8.8
13	6.7	5.0	5.7	5.3	4.8	5.8	27	132	73	23	9.2	8.8
14	7.0	5.2	5.4	5.3	4.7	6.6	30	156	70	19	8.8	8.2
15	7.8	6.1	5.3	5.3	4.4	6.4	29	150	62	18	8.8	8.2
16	7.2	5.5	5.3	5.3	4.4	6.5	26	160	57	17	9.1	8.5
17	6.9	5.2	5.3	5.1	4.4	6.2	23	162	52	16	10	9.2
18	7.3	5.0	5.3	4.9	4.4	5.7	24	181	46	17	9.2	9.0
19	6.7	5.1	5.3	4.8	4.4	5.4	21	188	41	15	8.7	8.8
20	6.7	4.6	5.3	4.8	4.8	5.7	17	210	39	15	8.2	10
21	6.7	6.5	5.3	4.8	4.8	4.8	17	236	39	15	8.2	10
22	6.7	5.0	5.3	4.8	4.8	4.8	16	225	38	15	8.2	9.0
23	7.4	4.3	5.3	4.8	4.8	4.8	14	209	37	14	9.8	8.8
24	7.9	5.9	5.3	4.8	4.6	4.4	14	187	35	14	9.4	8.2
25	7.0	6.7	5.3	4.8	4.6	4.4	16	192	32	16	8.7	8.2
26	6.3	6.7	5.3	4.8	4.4	5.0	19	209	33	15	9.3	8.5
27	6.2	6.7	5.6	4.8	4.4	5.2	27	209	31	14	9.3	8.8
28	6.0	6.5	5.4	4.8	4.4	5.7	43	196	28	13	9.0	8.8
29	4.2	6.7	5.3	4.8	4.4	5.5	60	174	27	12	8.7	8.8
30	5.8	6.0	5.3	4.8	---	5.6	83	166	26	12	8.2	8.8
31	3.6	---	5.3	4.8	---	6.0	---	143	---	12	8.2	---
TOTAL	221.5	162.6	170.1	158.2	135.5	169.5	648.2	4875	1986	551	297.0	263.7
MEAN	7.15	5.42	5.49	5.10	4.67	5.47	21.6	157	66.2	17.8	9.58	8.79
MAX	10	6.7	6.2	5.7	5.0	6.6	83	236	129	25	12	10
MIN	3.6	4.1	5.2	4.8	4.4	4.4	6.1	96	26	12	8.2	8.2
AC-FT	439	323	337	314	269	336	1290	9670	3940	1090	589	523

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1992, BY WATER YEAR (WY)

MEAN	6.52	5.34	5.05	4.76	4.40	5.02	15.6	133	155	25.9	13.2	11.3
MAX	7.15	5.42	5.49	5.10	4.67	5.47	21.6	157	244	34.1	16.9	13.7
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991	1991
MIN	5.89	5.26	4.61	4.42	4.11	4.58	9.62	109	66.2	17.8	9.58	8.79
(WY)	1991	1991	1991	1991	1991	1991	1991	1991	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1990 - 1992	
ANNUAL TOTAL	13935.1		9638.3			
ANNUAL MEAN	38.2		26.3		32.2	
HIGHEST ANNUAL MEAN					38.0	1991
LOWEST ANNUAL MEAN					26.3	1992
HIGHEST DAILY MEAN	437	Jun 9	236	May 21	437	Jun 9 1991
LOWEST DAILY MEAN	3.6	Oct 31	3.6	Oct 31	3.6	Oct 31 1991
ANNUAL SEVEN-DAY MINIMUM	4.0	Feb 19	4.5	Feb 24	4.0	Feb 19 1991
INSTANTANEOUS PEAK FLOW			246	May 20	527	Jun 8 1991
INSTANTANEOUS PEAK STAGE			4.76	May 20	5.21	Jun 8 1991
ANNUAL RUNOFF (AC-FT)	27640		19120		23290	
10 PERCENT EXCEEDS	127		97		102	
50 PERCENT EXCEEDS	8.0		8.1		8.0	
90 PERCENT EXCEEDS	4.2		4.8		4.4	

09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in NE1/4SW1/4 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 mi^2.

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, 18, 20-24, and Jan. 17 to Mar.23. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	3.7	2.8	3.2	3.1	3.3	15	167	137	23	3.0	1.4
2	.93	2.8	2.5	3.2	3.1	3.5	17	161	125	21	2.7	1.6
3	.77	3.2	2.6	3.2	3.2	3.1	19	160	117	20	2.4	1.5
4	.76	2.7	2.7	3.0	3.1	3.3	23	159	109	18	2.4	1.5
5	.81	2.8	2.6	3.2	2.6	3.6	28	152	126	16	2.8	1.6
6	.80	3.3	2.6	3.4	2.6	3.6	30	144	120	15	4.3	1.6
7	.79	3.8	2.5	3.4	2.9	3.6	36	160	111	14	6.3	1.4
8	.80	2.9	2.6	3.4	3.4	3.7	44	196	103	17	3.8	1.2
9	.83	3.0	2.5	3.4	3.1	3.6	52	205	94	16	2.9	1.0
10	.83	3.1	2.3	3.3	3.1	3.6	60	174	96	13	2.3	.91
11	.84	3.2	2.6	3.1	3.0	3.2	67	149	102	12	2.1	.85
12	.85	2.7	2.6	3.2	3.1	3.5	72	152	92	21	2.5	.80
13	.85	2.6	2.5	3.2	3.0	3.5	78	152	87	32	2.2	.78
14	.86	2.9	2.3	3.1	3.3	3.8	87	152	81	16	1.9	.77
15	.83	3.2	2.1	2.8	3.3	4.0	82	146	76	13	1.6	.87
16	.89	3.1	2.1	2.6	3.3	4.0	81	138	75	13	1.5	1.4
17	.93	3.1	2.2	3.4	3.3	4.2	77	134	68	11	1.9	1.7
18	.97	3.4	2.3	3.6	3.3	4.4	92	135	64	9.2	2.2	1.5
19	.99	3.2	2.6	2.8	2.8	4.2	71	137	60	8.2	1.6	1.5
20	.96	2.4	2.7	2.9	3.2	3.8	59	143	57	8.3	1.2	4.1
21	1.0	3.4	2.7	3.2	4.0	4.3	53	163	53	10	1.0	6.1
22	1.1	2.8	2.7	3.2	3.7	4.8	63	142	49	7.6	1.2	3.3
23	1.1	1.3	2.6	3.3	3.8	5.3	66	127	46	7.9	2.0	2.3
24	2.6	1.8	2.6	3.5	3.5	6.3	62	131	42	7.8	4.4	1.9
25	3.6	3.1	2.6	3.4	3.8	7.1	76	136	40	12	3.5	1.8
26	3.4	3.2	2.6	3.7	3.4	8.2	88	164	40	8.4	3.5	1.7
27	3.0	3.2	2.6	3.5	3.5	8.2	101	236	36	6.6	3.1	1.7
28	3.5	3.1	2.6	3.2	3.7	8.4	130	202	33	5.4	2.1	1.7
29	3.7	3.1	2.6	3.0	3.7	13	155	174	30	4.7	1.6	1.6
30	3.6	3.0	2.8	3.0	---	14	167	159	26	4.5	1.4	1.6
31	3.7	---	3.0	3.0	---	13	---	149	---	3.6	1.3	---
TOTAL	47.69	89.1	79.1	99.4	94.9	166.1	2051	4899	2295	395.2	76.7	51.68
MEAN	1.54	2.97	2.55	3.21	3.27	5.36	68.4	158	76.5	12.7	2.47	1.72
MAX	3.7	3.8	3.0	3.7	4.0	14	167	236	137	32	6.3	6.1
MIN	.76	1.3	2.1	2.6	2.6	3.1	15	127	26	3.6	1.0	.77
AC-FT	95	177	157	197	188	329	4070	9720	4550	784	152	103

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1992, BY WATER YEAR (WY)

MEAN	3.13	3.09	2.62	2.39	2.47	6.01	47.0	191	124	25.5	4.08	2.38
MAX	15.3	13.1	9.05	8.07	7.76	29.3	146	491	389	73.1	24.8	10.4
(WY)	1985	1987	1985	1985	1986	1986	1985	1984	1983	1983	1983	1970
MIN	.097	.28	.002	.000	.000	.81	9.32	18.4	5.37	.075	.000	.000
(WY)	1957	1957	1977	1977	1977	1977	1968	1977	1977	1977	1977	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1956 - 1992	
ANNUAL TOTAL	11844.73		10344.87			
ANNUAL MEAN	32.5		28.3		34.6	
HIGHEST ANNUAL MEAN					76.2	1984
LOWEST ANNUAL MEAN					3.38	1977
HIGHEST DAILY MEAN	318	May 19	236	May 27	932	May 14 1984
LOWEST DAILY MEAN	.47	Sep 5	.76	Oct 4	[a].00	Oct 1 1955
ANNUAL SEVEN-DAY MINIMUM	.59	Sep 1	.79	Oct 3	.00	Jul 21 1956
INSTANTANEOUS PEAK FLOW			277	May 27	[b]1410	May 14 1984
INSTANTANEOUS PEAK STAGE			4.33	May 27	5.83	May 14 1984
ANNUAL RUNOFF (AC-FT)	23490		20520		25030	
10 PERCENT EXCEEDS	134		125		116	
50 PERCENT EXCEEDS	3.1		3.4		3.8	
90 PERCENT EXCEEDS	.96		1.4		.60	

a-No flow at times in most years.
b-From rating curve extended above 670 ft^3/s.

09093700 COLORADO RIVER NEAR DE BEQUE, CO

LOCATION.--Lat 39°21'45", long 108°09'07", in NE1/4SW1/4 sec.7, T.8 S., R.96 W., Mesa County, Hydrologic Unit 14010006, on left bank 3.0 mi downstream from Alkali Creek and 3.8 mi northeast of DeBeque.

DRAINAGE AREA.--7,370 mi^2.

PERIOD OF RECORD.--Streamflow records, October 1966 to current year. Water-quality data available, August 1973 to September 1982. Sediment data available, October 1974 to September 1976.

GAGE.--Water-stage recorder. Elevation of gage is 4,940 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 4, 15-30, and Feb. 3-6. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of about 158,000 acres. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	1990	1630	1440	1410	1550	1730	4920	5180	3800	2070	2240
2	1940	2010	1400	1420	1410	1560	1790	5180	4820	3520	2030	2310
3	1920	1890	1420	1270	1420	1540	1730	5000	4420	3270	2000	2360
4	1830	1710	1460	1320	1420	1610	1690	4960	4300	2970	2020	2280
5	1810	1810	1520	1410	1400	1680	1750	4990	4470	2850	2150	2190
6	1840	1940	1580	1430	1450	1640	1910	5040	4770	2890	2290	2170
7	1840	2110	1530	1460	1490	1620	1960	5220	4710	2890	2390	2130
8	1830	2070	1560	1450	1550	1600	1980	5340	4550	3080	2450	2050
9	1800	2000	1650	1430	1590	1600	2040	5680	4320	3860	2430	1990
10	1780	1920	1560	1350	1630	1580	2050	5830	4400	3440	2280	1950
11	1730	1940	1510	1310	1620	1530	2280	5110	4420	3050	2270	1860
12	1670	1950	1630	1340	1660	1490	2520	4440	4670	2870	2340	1800
13	1780	1890	1550	1390	1650	1490	2680	4440	4960	3070	2340	1860
14	1750	1870	1510	1420	1660	1500	2820	4580	5300	2880	2310	1970
15	1750	1880	1270	1430	1640	1530	3100	4820	5250	2720	2250	2020
16	1770	1870	1280	1370	1580	1560	3080	5000	4850	2570	2230	2080
17	1780	1790	1340	1300	1580	1570	3150	5130	4440	2390	2280	2120
18	1760	1820	1350	1320	1560	1600	3090	5220	3940	2240	2380	2090
19	1780	1830	1520	1300	1520	1620	3250	5610	4110	2230	2320	2090
20	1790	1760	1610	1300	1480	1560	3000	6050	4490	2340	2260	2350
21	1820	1670	1570	1270	1560	1510	2700	6870	4660	2470	2170	2130
22	1810	1760	1440	1270	1600	1500	2460	7120	4580	2530	2180	2020
23	1880	1700	1400	1400	1570	1510	2420	6610	4340	2490	2290	1970
24	2260	1540	1330	1500	1560	1520	2460	6180	4380	2450	2410	1910
25	2200	1610	1280	1500	1520	1530	2400	6160	4530	2630	2490	1860
26	2000	1770	1230	1470	1540	1510	2370	6240	4690	2610	2860	1850
27	2060	1750	1220	1450	1520	1510	2440	6900	4730	2560	2660	1890
28	2120	1730	1240	1400	1540	1710	2710	7470	4430	2390	2540	1890
29	2020	1720	1290	1400	1540	1850	3350	6770	4100	2230	2380	1880
30	1980	1700	1320	1400	---	1770	4140	6230	4030	2130	2280	1850
31	2000	---	1340	1390	---	1740	---	5610	---	2090	2220	---
TOTAL	58300	55000	44540	42910	44670	49090	75050	174720	136840	85510	71570	61160
MEAN	1881	1833	1437	1384	1540	1584	2502	5636	4561	2758	2309	2039
MAX	2260	2110	1650	1500	1660	1850	4140	7470	5300	3860	2860	2360
MIN	1670	1540	1220	1270	1400	1490	1690	4440	3940	2090	2000	1800
AC-FT	115600	109100	88350	85110	88600	97370	148900	346600	271400	169600	142000	121300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	2187	2013	1740	1636	1630	1851	2988	8067	11620	5878	2828	2268
MAX	3537	3092	2855	2512	2353	2953	6449	19450	25230	16030	6420	4072
(WY)	1985	1985	1985	1985	1986	1986	1985	1984	1984	1983	1984	1984
MIN	1474	1289	1257	1176	1182	1178	1643	2273	2890	1862	1732	1685
(WY)	1978	1978	1978	1990	1981	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	1094890		899360			
ANNUAL MEAN	3000		2457		3730	
HIGHEST ANNUAL MEAN					7310	1984
LOWEST ANNUAL MEAN					1785	1977
HIGHEST DAILY MEAN	13200	Jun 16	7470	May 28	37400	May 26 1984
LOWEST DAILY MEAN	[a]1210	Jan 22	1220	Dec 27	914	Dec 22 1977
ANNUAL SEVEN-DAY MINIMUM	1260	Feb 9	1270	Dec 24	1090	Dec 21 1990
INSTANTANEOUS PEAK FLOW			7700	May 27	38200	May 26 1984
INSTANTANEOUS PEAK STAGE			7.09	May 27	14.83	May 26 1984
ANNUAL RUNOFF (AC-FT)	2172000		1784000		2702000	
10 PERCENT EXCEEDS	7730		4720		8860	
50 PERCENT EXCEEDS	1990		1940		2120	
90 PERCENT EXCEEDS	1290		1420		1450	

a-Also occurred Jan 23 and Feb 11.

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 Interstate 70, 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 mi^2, approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1970.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,813.73 ft above National Geodetic Vertical Datum of 1929 (Levels by Colorado Department of Highways). 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. 5, Jan. 12 to Feb. 8, Feb. 21-24, and May 29 to June 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2100	2100	1890	1490	1320	1500	1860	4920	5400	3810	2160	2360
2	1990	2090	1650	1490	1320	1520	1920	5300	4990	3570	2160	2440
3	1980	1990	1670	1280	1330	1510	1870	5160	4560	3370	2120	2500
4	1900	1810	1700	1320	1400	1580	1830	5110	4400	3080	2160	2440
5	1860	1830	1700	1400	1400	1700	1860	5140	4530	2990	2270	2350
6	1870	1840	1770	1480	1400	1690	2020	5180	4950	3020	2410	2310
7	1900	1920	1720	1500	1380	1640	2090	5390	4930	3000	2560	2300
8	1900	2030	1700	1490	1400	1620	2140	5570	4810	3140	2630	2210
9	1870	2070	1800	1490	1410	1580	2230	5970	4520	3810	2630	2170
10	1860	2030	1730	1400	1490	1580	2170	6370	4590	3570	2450	2140
11	1830	2060	1660	1340	1510	1560	2430	5330	4590	3220	2440	2110
12	1760	2080	1800	1350	1570	1490	2680	4640	4800	3010	2530	2060
13	1860	2050	1740	1400	1570	1470	2830	4640	5120	3200	2570	2090
14	1890	2040	1670	1420	1610	1490	2970	4780	5470	3040	2540	2250
15	1900	2110	1430	1450	1550	1510	3240	4970	5530	2880	2470	2320
16	1890	2080	1430	1400	1480	1560	3250	5100	5090	2740	2450	2400
17	1900	1980	1450	1320	1470	1570	3320	5220	4650	2570	2500	2430
18	1890	2060	1470	1350	1430	1640	3230	5300	4060	2400	2600	2370
19	1910	2060	1620	1340	1400	1660	3440	5740	4160	2370	2530	2400
20	1930	1970	1760	1300	1340	1660	3230	6260	4550	2490	2470	2660
21	1950	1870	1730	1300	1400	1610	2940	7200	4770	2630	2350	2400
22	1970	1910	1590	1300	1450	1590	2680	7480	4670	2740	2350	2190
23	2020	1890	1510	1350	1440	1600	2600	6970	4400	2730	2420	2140
24	2490	1750	1450	1400	1420	1650	2640	6470	4420	2630	2560	2070
25	2470	1740	1390	1400	1440	1630	2550	6540	4560	2810	2610	2010
26	2200	1940	1320	1450	1480	1620	2490	7280	4680	2780	2950	2000
27	2230	1960	1310	1450	1470	1620	2550	7990	4720	2720	2790	2030
28	2360	1960	1310	1450	1480	1860	2740	7180	4440	2550	2680	2050
29	2160	1950	1340	1370	1490	1980	3330	6700	4060	2340	2510	2030
30	2120	1930	1350	1350	---	1930	4120	6300	4020	2230	2430	2020
31	2100	---	1410	1320	---	1890	---	5900	---	2180	2360	---
TOTAL	62060	59100	49070	43150	41850	50510	79250	182100	140440	89620	76660	67250
MEAN	2002	1970	1583	1392	1443	1629	2642	5874	4681	2891	2473	2242
MAX	2490	2110	1890	1500	1610	1980	4120	7990	5530	3810	2950	2660
MIN	1760	1740	1310	1280	1320	1470	1830	4640	4020	2180	2120	2000
AC-FT	123100	117200	97330	85590	83010	100200	157200	361200	278600	177800	152100	133400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

MEAN	2098	1919	1685	1565	1576	1766	3184	9172	12550	5779	2781	2145
MAX	3732	3253	3002	2621	2775	3365	8615	20290	25830	17430	6571	4271
(WY)	1985	1985	1985	1985	1986	1986	1962	1984	1984	1957	1984	1984
MIN	1084	1037	1004	940	941	1020	1730	2536	2959	1515	1332	1243
(WY)	1935	1935	1935	1964	1935	1935	1961	1977	1977	1934	1940	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	1120040		941060			
ANNUAL MEAN	3069		2571		3857	
HIGHEST ANNUAL MEAN					7605	1984
LOWEST ANNUAL MEAN					1937	1977
HIGHEST DAILY MEAN	13400	Jun 16	7990	May 27	38000	May 26 1984
LOWEST DAILY MEAN	1220	Jan 23	1280	Jan 3	700	Dec 29 1939
ANNUAL SEVEN-DAY MINIMUM	1290	Jan 21	1320	Jan 17	852	Dec 24 1939
INSTANTANEOUS PEAK FLOW			8240	May 27	39300	May 26 1984
INSTANTANEOUS PEAK STAGE			[a]6.33	May 27	14.36	May 26 1984
ANNUAL RUNOFF (AC-FT)	2222000		1867000		2794000	
10 PERCENT EXCEEDS	7840		4840		9630	
50 PERCENT EXCEEDS	2060		2070		2100	
90 PERCENT EXCEEDS	1340		1400		1350	

a-Maximum gage height, 10.61 ft, Jan 25, backwater from ice.

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 TEMPERATURE: April 1949 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1982.

REMARKS.--Daily maximum and minimum specific conductance data available in district office. Daily water temperature data are good. Daily specific conductance data are good. Interruptions in daily data are due to instrument malfunctions or power failures.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum , 1,970 microsiemens Jan. 19, 1940; minimum, 230 microsiemens June 2, 3, 1984.
WATER TEMPERATURE: Maximum, 28.5°C July 22, 1989; minimum, 0.0°C on many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum not determined; minimum recorded, 390 microsiemens May 22, (more than 20 percent missing record).
WATER TEMPERATURE: Maximum recorded, 23.6°C Aug. 3, (more than 20 percent missing record); minimum recorded, 0.0°C several days in Dec.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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										
17...	1235	1960	1060	8.7	11.0	9.2	230	68	15	110
NOV										
12...	1040	2110	1020	8.5	7.0	10.5	250	71	17	110
DEC										
03...	0930	1520	1190	8.2	0.0	13.1	270	78	19	140
FEB										
26...	1045	1460	1130	8.4	4.0	11.2	240	68	16	130
MAR										
18...	1400	1680	1070	8.4	9.0	9.9	230	67	16	120
APR										
21...	0930	2970	650	8.3	9.5	9.2	180	52	11	64
28...	1300	2710	740	8.4	17.0	9.1	180	52	12	75
MAY										
27...	1445	7440	442	8.4	14.0	8.5	130	39	7.0	37
JUN										
25...	1050	4520	549	8.6	18.0	7.7	150	46	9.2	48
JUL										
22...	0905	2730	873	8.6	19.0	7.6	230	68	14	91
AUG										
25...	1410	2640	861	8.4	18.0	9.0	220	65	13	88
SEP										
16...	1510	2420	931	8.5	18.5	9.4	210	61	13	100

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										
17...	3	3.6	138	150	170	0.4	5.8	606	0.82	3200
NOV										
12...	3	3.8	150	150	160	0.4	6.4	609	0.83	3470
DEC										
03...	4	4.1	157	180	180	0.3	8.0	704	0.96	2890
FEB										
26...	4	4.2	140	130	170	0.2	7.6	611	0.83	2410
MAR										
18...	3	4.3	140	140	170	0.3	7.9	610	0.83	2770
APR										
21...	2	2.7	107	84	89	0.3	9.1	382	0.52	3060
28...	2	2.9	113	93	110	0.3	6.9	420	0.57	3070
MAY										
27...	1	1.8	95	56	46	0.2	6.2	250	0.34	5030
JUN										
25...	2	1.7	103	71	68	<0.1	6.1	312	0.42	3800
JUL										
22...	3	2.9	139	110	130	0.3	8.0	508	0.69	3740
AUG										
25...	3	3.5	130	110	120	0.3	8.3	486	0.66	3470
SEP										
16...	3	3.5	123	100	140	0.3	6.3	498	0.68	3250

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MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
01...	0930	2070	1040	14.0
08...	1230	1920	946	11.0
23...	1210	2010	992	10.0
30...	1140	2130	975	6.5
NOV				
05...	1101	1860	1110	3.0
14...	1355	2050	1010	8.0
20...	1400	1970	1040	3.5
26...	1030	1880	1100	1.5
DEC				
04...	1415	1780	1150	0.0
FEB				
21...	1400	1440	1150	5.5
MAR				
06...	1100	1680	1070	6.0
09...	1030	1590	1130	5.5
25...	1330	1600	1090	10.0
APR				
01...	1000	1930	1060	10.5
07...	0940	2050	1070	11.0
17...	0930	3370	637	11.0
24...	1015	2660	801	10.5
MAY				
08...	1040	5550	452	13.0
15...	1340	4970	503	14.0
21...	1022	7180	436	13.5
JUN				
01...	1325	5400	541	13.5
04...	1005	4380	629	15.5
11...	1100	4510	583	16.0
30...	1130	3940	619	17.0
JUL				
09...	1245	4030	690	18.8
15...	1045	2860	846	19.0
28...	1200	2550	870	20.5
AUG				
04...	1045	2160	964	20.0
05...	1400	2300	956	20.5
13...	1050	2570	870	18.5
20...	1130	2460	893	20.0
SEP				
01...	1300	2340	894	16.5
09...	1025	2180	976	15.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
08...	1230	1920	571	2960	86
17...	1235	1960	24	127	91
23...	1210	2010	86	467	89
30...	1140	2130	91	523	80
NOV					
05...	1101	1860	43	216	77
14...	1355	2050	18	100	85
20...	1400	1970	31	165	69
26...	1030	1880	38	193	71
DEC					
04...	1415	1780	27	130	81
FEB					
21...	1400	1440	63	245	88
26...	1045	1460	37	146	83
MAR					
06...	1100	1680	562	2550	92
09...	1030	1590	138	592	88
18...	1400	1680	80	363	84
25...	1330	1600	96	415	81
APR					
01...	1000	1930	148	771	80
07...	0940	2050	112	620	82
17...	0930	3370	274	2490	76
24...	1015	2660	92	661	76
28...	1300	2710	67	490	75
MAY					
08...	1040	5550	305	4570	72
15...	1340	4970	116	1560	71
21...	1022	7180	501	9710	76
27...	1445	7440	1220	24500	83
JUN					
04...	1005	4380	70	828	64
11...	1100	4510	34	414	57
25...	1050	4520	30	366	85
30...	1130	3940	30	319	84
JUL					
09...	1245	4030	97	1060	77
15...	1045	2860	54	417	88
22...	0905	2730	82	604	85
28...	1200	2550	84	578	93
AUG					
05...	1400	2300	134	832	88
13...	1050	2570	55	382	92
20...	1130	2460	165	1100	95
25...	1410	2640	74	527	92
SEP					
01...	1300	2340	54	341	87
09...	1025	2180	67	394	95
16...	1510	2420	18	118	92

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	961	950	1040	---	---	1080	998	---	546	621	960	868
2	972	---	1040	---	---	1090	995	---	560	649	943	876
3	989	---	1070	---	---	1080	984	---	592	674	932	864
4	991	---	1130	---	---	1080	994	---	611	711	941	850
5	1010	---	1200	---	---	1060	1010	---	602	758	941	860
6	1020	---	1270	---	---	1040	974	---	572	767	910	882
7	1020	---	1270	---	---	1040	926	---	553	759	881	889
8	1010	---	1160	---	---	1040	898	451	558	750	868	897
9	1010	---	1070	---	---	1040	917	452	583	708	861	912
10	1030	---	1040	---	---	1050	859	447	598	651	857	967
11	1000	---	---	---	---	1050	847	463	584	727	874	921
12	1020	---	---	---	---	1090	796	506	587	781	861	972
13	1030	---	---	---	1050	1090	742	535	559	806	849	995
14	1010	---	---	---	1070	1090	704	539	523	814	847	966
15	1010	997	---	---	1040	1090	674	500	499	827	852	918
16	1010	987	---	---	1060	1080	644	493	506	832	859	929
17	1020	992	---	---	1070	1060	639	487	536	860	867	929
18	1010	1010	---	---	1080	1050	642	487	580	896	900	928
19	1020	1020	---	---	1080	1040	633	469	608	930	1000	935
20	1010	1020	---	---	1100	1030	630	447	574	951	878	945
21	1010	1010	---	---	1090	1040	659	419	554	928	875	929
22	1010	1040	---	---	---	1070	707	397	551	887	886	987
23	1060	1030	---	---	---	1070	739	416	567	873	885	994
24	1030	1030	---	---	1070	1060	748	437	580	887	862	990
25	976	1060	---	---	1080	1060	745	449	565	892	841	1010
26	954	1090	---	---	1090	1070	759	456	550	855	812	1020
27	977	1040	---	---	1080	1070	766	449	546	850	770	1020
28	949	1030	---	---	1090	1050	743	417	554	866	770	1010
29	952	1030	---	---	1090	1020	---	429	595	904	805	1000
30	961	1020	---	---	---	979	---	469	612	952	832	1010
31	972	---	---	---	---	996	---	512	---	977	855	---
MEAN	1000	---	---	---	---	1060	---	---	567	818	873	942

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.7	14.2	---	---	.9	.0	---	---	---	---	7.5	4.7
2	17.4	14.1	---	---	.2	.0	---	---	---	---	8.2	5.2
3	16.5	13.5	---	---	.0	.0	---	---	---	---	7.3	5.6
4	15.0	12.1	---	---	.2	.0	---	---	---	---	7.0	5.6
5	13.9	10.8	---	---	.3	.0	---	---	---	---	6.2	5.3
6	13.5	9.9	---	---	.6	.0	---	---	---	---	8.1	5.2
7	13.6	10.0	---	---	.9	.0	---	---	---	---	9.2	5.9
8	13.9	10.4	---	---	1.2	.2	---	---	---	---	8.5	7.0
9	14.4	10.9	---	---	2.0	.3	---	---	---	---	7.6	5.3
10	14.5	10.9	---	---	1.5	.1	---	---	---	---	8.0	4.8
11	14.3	10.9	---	---	---	---	---	---	---	---	8.6	5.0
12	14.0	11.0	---	---	---	---	---	---	---	---	9.2	5.7
13	14.3	11.0	---	---	---	---	---	---	4.0	3.4	9.9	6.2
14	13.7	10.9	---	---	---	---	---	---	3.9	2.4	10.4	6.7
15	13.8	10.4	6.1	5.2	---	---	---	---	4.8	2.8	10.6	7.3
16	13.8	10.5	6.4	5.3	---	---	---	---	4.1	3.1	10.7	7.4
17	13.3	10.1	5.5	4.3	---	---	---	---	3.6	1.7	9.4	7.5
18	13.2	10.1	5.3	4.7	---	---	---	---	4.0	1.5	9.8	7.5
19	12.0	9.9	5.2	4.0	---	---	---	---	4.2	1.6	9.0	6.8
20	12.2	9.0	4.1	2.6	---	---	---	---	4.4	2.1	9.2	5.9
21	12.3	9.4	4.3	2.8	---	---	---	---	5.3	3.3	8.3	6.1
22	11.8	9.0	3.6	2.4	---	---	---	---	---	---	9.2	6.0
23	11.1	10.0	2.6	.9	---	---	---	---	---	---	9.4	7.7
24	10.3	9.0	2.4	1.0	---	---	---	---	---	---	8.7	7.6
25	9.7	8.3	2.7	1.5	---	---	---	---	6.0	3.4	11.2	7.3
26	10.0	7.7	2.8	1.5	---	---	---	---	5.9	3.1	11.1	8.0
27	9.6	8.8	2.9	1.7	---	---	---	---	6.7	3.4	10.5	9.2
28	8.7	5.9	3.8	2.0	---	---	---	---	7.2	3.9	11.4	8.7
29	---	---	3.3	2.2	---	---	---	---	7.6	4.3	11.2	8.6
30	---	---	2.5	.9	---	---	---	---	---	---	12.3	8.2
31	---	---	---	---	---	---	---	---	---	---	13.4	9.7
MONTH	---	---	---	---	---	---	---	---	---	---	13.4	4.7
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.5	9.7	---	---	15.1	12.1	17.7	16.2	23.5	18.7	17.6	15.7
2	13.0	9.4	---	---	15.7	12.9	18.7	15.4	23.1	19.3	18.4	15.0
3	13.5	9.3	---	---	17.0	14.8	19.5	15.9	23.6	19.8	17.8	15.6
4	14.4	9.9	---	---	17.5	15.5	20.5	16.9	22.6	19.3	16.6	15.4
5	14.4	10.8	---	---	16.8	14.9	21.4	17.3	22.2	18.6	17.7	14.1
6	15.0	11.1	---	---	15.6	13.7	22.3	18.7	20.9	18.8	17.2	14.7
7	14.6	10.8	---	---	16.0	13.7	20.3	18.0	22.3	18.4	17.8	14.2
8	14.9	10.6	15.5	12.7	15.1	12.9	18.7	17.4	23.0	19.6	18.4	14.5
9	15.2	11.0	14.7	11.9	16.4	13.9	20.0	16.6	23.2	19.5	18.7	14.7
10	15.2	11.2	12.5	10.4	18.0	14.6	20.0	17.5	23.1	20.2	19.0	14.9
11	16.0	12.2	13.9	10.5	17.0	15.0	20.5	17.7	23.2	19.6	18.7	14.9
12	15.4	12.6	14.9	12.6	17.3	13.9	20.2	18.5	22.3	19.2	19.0	15.1
13	14.6	11.9	15.9	13.4	17.0	15.2	20.6	17.8	21.9	17.7	19.0	15.8
14	14.5	12.4	16.0	13.7	16.7	14.7	21.6	18.1	21.4	18.4	18.3	15.0
15	13.2	11.7	15.1	13.0	16.1	13.6	20.9	18.4	23.0	18.8	18.5	16.1
16	12.9	11.0	14.5	12.6	15.4	13.9	20.7	17.5	22.9	19.7	19.4	16.0
17	13.0	10.9	16.0	12.6	16.3	12.7	21.7	18.2	22.2	19.6	19.0	15.8
18	12.6	10.8	15.7	13.4	18.1	14.7	23.0	18.8	22.9	19.4	17.9	15.8
19	12.0	10.1	15.6	13.0	19.0	16.1	22.8	18.9	22.3	18.9	17.6	15.4
20	12.0	9.6	15.4	13.7	19.3	16.5	21.4	18.9	22.3	18.7	16.9	14.6
21	12.9	8.8	14.9	13.2	19.1	16.9	21.1	18.0	21.6	18.3	17.5	14.0
22	13.0	10.8	15.2	12.4	18.6	15.9	20.6	18.4	20.3	18.4	18.0	14.9
23	12.9	10.4	16.0	12.7	18.9	16.4	21.0	18.6	18.7	17.7	18.4	14.3
24	14.1	10.2	15.4	13.5	19.5	17.1	20.9	18.3	18.6	17.0	17.5	14.4
25	14.6	10.9	16.3	13.2	19.1	17.1	20.8	18.2	18.4	15.9	17.4	14.8
26	15.5	11.4	15.4	13.7	18.3	16.3	22.4	18.6	17.8	15.4	---	---
27	16.6	12.7	14.9	13.2	17.6	15.6	22.9	19.4	17.6	14.5	---	---
28	---	---	14.7	12.4	18.9	15.9	23.2	19.6	17.9	13.5	---	---
29	---	---	14.7	12.0	19.4	17.3	21.8	19.4	18.1	14.9	---	---
30	---	---	14.4	12.9	18.6	16.8	22.4	18.0	18.9	15.6	16.2	12.3
31	---	---	13.8	12.1	---	---	23.4	18.9	18.5	16.7	---	---
MONTH	---	---	---	---	19.5	12.1	23.4	15.4	23.6	13.5	---	---

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 with satellite telemetry. 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: Nov. 21, 22, Nov. 25 to Feb. 6, and Mar. 22-24. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	113	61	45	60	83	141	431	673	76	66	124
2	115	129	60	45	60	84	134	363	520	76	65	126
3	110	109	60	45	60	90	136	332	459	75	73	122
4	103	118	59	45	60	143	157	306	424	76	94	126
5	108	134	58	45	60	209	167	350	395	76	93	130
6	106	142	57	46	60	157	163	242	374	74	93	122
7	102	158	56	47	59	115	185	225	338	73	100	124
8	113	145	55	50	58	111	179	353	299	82	100	117
9	113	140	54	52	63	105	190	562	263	90	99	111
10	109	140	53	52	71	90	208	445	236	82	100	102
11	110	140	52	52	79	90	230	289	222	83	98	102
12	109	134	51	53	86	92	237	260	227	89	99	100
13	110	132	51	54	79	95	258	268	193	101	102	101
14	110	138	62	54	80	101	273	266	174	96	105	99
15	106	179	57	58	73	104	263	258	154	116	71	100
16	106	161	54	67	68	105	242	240	153	112	69	99
17	105	144	52	76	68	108	217	249	148	100	75	99
18	92	149	50	69	65	107	235	231	142	95	76	95
19	72	104	49	63	58	95	228	213	133	94	73	81
20	74	93	48	62	67	84	182	273	121	88	69	115
21	73	90	47	60	75	90	148	293	118	71	69	101
22	71	84	46	62	77	87	145	304	109	70	72	91
23	78	89	46	70	69	84	151	251	101	74	87	89
24	154	90	45	68	62	80	141	245	97	76	86	87
25	131	78	45	66	67	79	151	279	90	94	89	90
26	98	72	45	66	66	78	171	440	92	80	89	90
27	92	68	45	64	71	88	203	1970	94	77	80	95
28	133	66	45	63	76	205	282	1450	90	72	84	96
29	104	64	45	62	82	148	335	1020	84	70	82	95
30	109	62	45	61	---	126	388	855	79	71	81	96
31	94	---	45	60	---	127	---	773	---	70	92	---
TOTAL	3218	3465	1598	1782	1979	3360	6140	14036	6602	2579	2631	3125
MEAN	104	115	51.5	57.5	68.2	108	205	453	220	83.2	84.9	104
MAX	154	179	62	76	86	209	388	1970	673	116	105	130
MIN	71	62	45	45	58	78	134	213	79	70	65	81
AC-FT	6380	6870	3170	3530	3930	6660	12180	27840	13100	5120	5220	6200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1992, BY WATER YEAR (WY)

MEAN	111	101	85.1	75.8	80.8	103	238	649	483	112	76.2	88.9
MAX	333	207	148	116	148	202	759	1825	2975	761	328	241
(WY)	1942	1987	1942	1972	1958	1986	1942	1942	1983	1983	1983	1986
MIN	25.2	37.3	42.1	41.4	42.7	58.3	71.9	33.8	19.8	16.6	13.4	17.4
(WY)	1978	1978	1991	1961	1978	1964	1990	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1936 - 1992	
ANNUAL TOTAL	39034		50515			
ANNUAL MEAN	107		138		185	
HIGHEST ANNUAL MEAN					542	1983
LOWEST ANNUAL MEAN					48.8	1977
HIGHEST DAILY MEAN	719	May 28	1970	May 27	4100	Jun 25 1983
LOWEST DAILY MEAN	42	Jan 23	[a]45	Dec 24	8.2	Aug 15 1977
ANNUAL SEVEN-DAY MINIMUM	45	Dec 24	45	Dec 24	9.1	Aug 10 1977
INSTANTANEOUS PEAK FLOW			2540	May 27	5010	Jun 22 1983
INSTANTANEOUS PEAK STAGE			6.17	May 27	[b]8.51	Jun 22 1983
ANNUAL RUNOFF (AC-FT)	77420		100200		133700	
10 PERCENT EXCEEDS	197		259		413	
50 PERCENT EXCEEDS	72		94		93	
90 PERCENT EXCEEDS	48		56		44	

a-Also occurred Dec 25 to Jan 5.
b-Maximum gage height, 8.59 ft, May 28,1983.

09106150 COLORADO RIVER BELOW GRAND VALLEY DIVERSION, NEAR PALISADE, CO

LOCATION.--Lat 39°05'55", long 108°21'16", in NW¼SE¼ sec.18, T.1 S., R.2 E., Mesa County, Hydrologic Unit 14010005, on right bank 0.25 mile downstream of intake structure for Grand Valley Diversion Canal, and 0.25 mile south of Palisade.

DRAINAGE AREA.--8,753 mi².

PERIOD OF RECORD.--October 1990 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,670 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.-- No estimated daily discharges: Records good except May 27 to June 6, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 230,000 acres. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	857	1880	1690	1440	1460	1470	2100	3590	4510	2160	550	911
2	754	1930	1390	1430	1460	1480	2090	3910	3980	1890	531	988
3	731	1820	1360	1320	1480	1490	2040	3790	3540	1660	489	1050
4	679	1740	1530	1250	1520	1570	1930	3640	3380	1360	513	993
5	660	1860	1580	1420	1480	1760	1860	3720	3400	1220	601	950
6	655	2060	1660	1490	1450	1700	1710	3660	3730	1240	718	904
7	672	2220	1670	1570	1420	1570	1580	3850	3560	1260	847	899
8	669	2210	1670	1530	1440	1560	1560	4150	3400	1410	917	791
9	665	2130	1710	1460	1500	1580	1480	4670	3040	2100	915	752
10	652	2050	1680	1390	1540	1690	1310	4910	3060	1990	817	721
11	633	2060	1610	1350	1580	1630	1510	4050	3070	1560	783	650
12	619	2180	1690	1310	1570	1600	1700	3270	3230	1320	814	589
13	617	2020	1680	1350	1580	1590	2030	3400	3460	1520	838	580
14	640	1980	1590	1470	1610	1620	2260	3400	3770	1390	833	680
15	627	2140	1410	1430	1560	1630	2220	3690	3810	1240	741	721
16	647	2050	1340	1350	1470	1810	2120	3810	3440	1090	705	782
17	657	1910	1370	1260	1460	1710	2140	3890	3010	942	742	839
18	706	1980	1500	1190	1440	1730	2040	3920	2420	786	840	826
19	763	1930	1570	1300	1400	1640	2240	4310	2440	735	812	850
20	785	1730	1700	1250	1370	1620	2010	4820	2830	797	763	1080
21	811	1740	1670	1270	1440	1620	1640	5740	3060	855	687	1050
22	808	1810	1560	1230	1500	1610	1330	6040	2990	922	678	831
23	855	1800	1470	1210	1460	1640	1240	5430	2730	921	772	785
24	1370	1670	1370	1320	1440	1680	1250	4910	2710	848	963	735
25	1330	1650	1310	1440	1400	1670	1180	5010	2800	1040	1050	684
26	1090	1820	1250	1470	1430	1630	1130	5180	2980	1040	1380	663
27	1080	1820	1250	1490	1420	1620	1190	7110	3010	1000	1250	688
28	1320	1800	1250	1460	1440	1910	1410	7560	2800	865	1160	696
29	1200	1790	1270	1420	1460	2130	2050	6530	2380	730	999	688
30	1260	1760	1340	1430	---	2150	2850	5730	2380	635	909	652
31	1660	---	1410	1430	---	2090	---	4990	---	554	866	---
TOTAL	26472	57540	46550	42730	42780	52200	53200	142680	94920	37080	25483	24028
MEAN	854	1918	1502	1378	1475	1684	1773	4603	3164	1196	822	801
MAX	1660	2220	1710	1570	1610	2150	2850	7560	4510	2160	1380	1080
MIN	617	1650	1250	1190	1370	1470	1130	3270	2380	554	489	580
AC-FT	52510	114100	92330	84750	84850	103500	105500	283000	188300	73550	50550	47660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1992, BY WATER YEAR (WY)

MEAN	696	1722	1355	1329	1388	1493	1461	4831	5826	1682	810	890
MAX	854	1918	1502	1378	1475	1684	1773	5059	8488	2168	822	980
(WY)	1992	1992	1992	1992	1992	1992	1992	1991	1991	1991	1992	1991
MIN	538	1525	1209	1280	1297	1302	1148	4603	3164	1196	797	801
(WY)	1991	1991	1991	1991	1991	1991	1991	1992	1992	1992	1991	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1991 - 1992	
ANNUAL TOTAL	814145		645663			
ANNUAL MEAN	2231		1764		1955	
HIGHEST ANNUAL MEAN					2146	1991
LOWEST ANNUAL MEAN					1764	1992
HIGHEST DAILY MEAN	12900	Jun 16	7560	May 28	12900	Jun 16 1991
LOWEST DAILY MEAN	557	Aug 26	489	Aug 3	448	Oct 2 1990
ANNUAL SEVEN-DAY MINIMUM	632	Aug 26	553	Jul 30	514	Oct 1 1990
INSTANTANEOUS PEAK FLOW			8070	May 28	14100	Jun 15 1991
INSTANTANEOUS PEAK STAGE			6.76	May 28	8.00	Jun 15 1991
ANNUAL RUNOFF (AC-FT)	1615000		1281000		1416000	
10 PERCENT EXCEEDS	5840		3450		3810	
50 PERCENT EXCEEDS	1330		1470		1370	
90 PERCENT EXCEEDS	713		720		679	

09107000 TAYLOR RIVER AT TAYLOR PARK, CO

LOCATION.--Lat 38°51'37", long 108°33'58", in NW¼NE¼ sec.5, T.14 S., R.82 W., Gunnison County, Hydrologic Unit 14020001, on left bank 0.2 mi upstream from Taylor Park Reservoir waterline, 2.7 mi north of Taylor Park, and 21 mi northeast of Almont.

DRAINAGE AREA.--128 mi².

PERIOD OF RECORD.--June 1929 to Sept. 1934, Oct. 1987 to current year. Records for 1929-1934 provided by Colorado Division of Water Resources, published in WSP 1313. Statistical summary computed for 1988 to current year.

REVISED RECORDS.--WSP 1313: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,340 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1929 to Sept. 1934 water-stage recorder at different datum at site flooded by waters of Taylor Park Reservoir since 1937.

REMARKS.--Estimated daily discharges: Nov. 4, 8-29, Dec. 2 to Jan. 22, Jan. 27 to Feb. 1, Feb. 5-7, and Feb. 18-20. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	49	45	33	29	32	40	171	183	147	74	72
2	45	44	58	31	29	32	41	172	174	141	72	77
3	44	40	58	31	29	32	45	172	180	130	67	72
4	43	40	50	34	30	33	48	176	201	120	65	70
5	42	43	48	36	30	33	51	184	221	118	67	69
6	40	45	45	35	30	35	49	197	209	115	70	65
7	40	45	44	34	29	33	56	195	208	111	81	62
8	40	45	44	32	29	32	54	202	195	145	77	60
9	40	44	45	30	29	32	67	215	206	178	72	58
10	40	43	45	28	29	40	81	206	202	130	71	57
11	40	43	43	27	29	36	82	167	212	114	95	55
12	40	42	40	28	30	33	90	169	214	113	88	56
13	39	41	40	28	30	35	93	167	223	113	81	56
14	38	41	40	28	30	33	97	182	233	111	73	56
15	38	43	41	30	31	35	87	197	226	100	70	56
16	38	40	40	30	33	36	82	204	203	127	66	62
17	37	39	39	30	31	35	79	211	186	108	68	61
18	37	42	40	30	31	35	87	219	185	94	69	59
19	37	40	42	29	30	34	73	239	189	86	61	57
20	36	37	40	28	30	35	65	256	196	88	59	60
21	36	38	38	28	31	36	65	297	190	91	58	68
22	36	38	37	29	33	35	72	270	191	87	59	62
23	37	40	36	29	33	35	70	247	189	88	72	55
24	40	39	37	29	35	33	68	250	188	125	104	55
25	44	37	36	29	32	35	77	227	196	130	128	53
26	46	38	35	30	34	35	81	244	186	136	117	55
27	47	41	35	30	31	34	93	276	178	105	91	53
28	52	45	34	29	31	33	122	242	168	90	81	52
29	42	46	34	29	31	35	141	213	165	85	74	51
30	37	46	34	29	---	37	166	201	157	86	70	49
31	47	---	34	28	---	38	---	185	---	80	69	---
TOTAL	1263	1254	1277	931	889	1067	2322	6553	5854	3492	2369	1793
MEAN	40.7	41.8	41.2	30.0	30.7	34.4	77.4	211	195	113	76.4	59.8
MAX	52	49	58	36	35	40	166	297	233	178	128	77
MIN	36	37	34	27	29	32	40	167	157	80	58	49
AC-FT	2510	2490	2530	1850	1760	2120	4610	13000	11610	6930	4700	3560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

MEAN	48.3	42.7	37.4	33.8	33.1	39.3	80.3	208	296	117	68.2	53.4
MAX	59.5	50.9	41.2	39.0	37.6	47.0	117	243	395	141	87.9	59.8
(WY)	1988	1991	1988	1988	1988	1988	1989	1991	1991	1991	1989	1992
MIN	39.6	34.5	30.0	28.6	28.2	34.4	58.0	162	195	98.8	55.3	46.5
(WY)	1989	1989	1989	1990	1990	1992	1991	1990	1992	1988	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1988 - 1992	
ANNUAL TOTAL	36223		29064			
ANNUAL MEAN	99.2		79.4		88.1	
HIGHEST ANNUAL MEAN					101	1991
LOWEST ANNUAL MEAN					79.4	1992
HIGHEST DAILY MEAN	592	Jun 15	297	May 21	592	Jun 15 1991
LOWEST DAILY MEAN	32	Mar 6	27	Jan 11	[a]24	Feb 7 1989
ANNUAL SEVEN-DAY MINIMUM	33	Mar 6	28	Jan 9	26	Feb 3 1989
INSTANTANEOUS PEAK FLOW			330	May 21	[b]670	Jun 15 1991
INSTANTANEOUS PEAK STAGE			2.52	May 21	[c]3.22	Jun 15 1991
ANNUAL RUNOFF (AC-FT)	71850		57650		63840	
10 PERCENT EXCEEDS	286		192		211	
50 PERCENT EXCEEDS	45		49		50	
90 PERCENT EXCEEDS	35		30		32	

a-Minimum daily discharge for period of record, 23 ft³/s, Jan 1-19, 1931.
b-Maximum discharge and stage for period of record, 1020 ft³/s, May 31, 1933, gage height 2.80 ft, from rating curve extended above 480 ft³/s, site and datum then in use.
c-Maximum gage height for statistical period, 3.23 ft, Jun 6, 1990.

09107500 TEXAS CREEK AT TAYLOR PARK, CO

LOCATION.--Lat 38°50'51", long 106°33'13", in SE¼NW¼ sec.9, T.14 S., R.82 W., Gunnison County, Hydrologic Unit 14020001, on right bank 150 ft upstream from bridge on county road 742, 1.8 mi north of Taylor Park, and 20 mi northeast of Almont.

DRAINAGE AREA.--40.4 mi².

PERIOD OF RECORD.--June 1929 to September 1934, September 1987 to September 1992 (discontinued). Records for 1929-34 provided by Colorado Division of Water Resources, published in WSP 1313.

REVISED RECORDS.--WSP 1313: Drainage area; WDR CO-90-2: 1988-89 (M).

GAGE.--Water-stage recorder. Elevation of gage is 9,380 ft above National Geodetic Vertical Datum of 1929, from topographic map. June 1929 to Sept. 1934, water-stage recorder at different datum. Site flooded by Taylor Park Reservoir since 1937.

REMARKS.--Estimated daily discharges: Oct. 26 to Dec. 3, and Dec. 29 to May 19. Records fair except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	7.6	3.8	4.4	6.2	11	60	86	47	21	42
2	12	11	7.4	3.6	4.4	6.6	11	60	76	42	20	42
3	12	10	7.4	3.5	4.4	6.6	12	60	88	33	19	39
4	11	9.4	6.7	3.7	4.6	6.6	13	68	102	32	19	35
5	11	9.4	6.4	4.0	4.6	6.6	14	70	109	31	19	33
6	11	9.7	6.2	4.4	4.6	7.4	13	76	98	29	21	30
7	11	9.7	6.2	4.1	4.4	7.0	14	70	93	33	26	28
8	11	9.7	6.2	3.8	4.3	6.8	13	70	83	52	22	26
9	11	9.2	6.1	3.7	4.3	7.5	15	90	88	43	20	24
10	10	9.0	5.4	3.6	4.3	8.4	17	85	94	25	23	23
11	9.9	9.0	5.0	3.6	4.5	7.8	18	74	102	22	46	22
12	9.7	8.6	5.3	3.6	4.5	7.4	20	70	98	21	36	20
13	9.7	8.3	5.8	3.8	4.5	8.0	21	74	105	26	29	21
14	9.4	8.3	5.4	4.2	4.7	7.7	23	80	112	24	27	19
15	9.0	8.7	4.6	4.2	5.0	8.0	22	87	106	21	27	24
16	9.0	8.4	4.1	4.2	5.4	8.4	20	95	88	38	25	25
17	9.0	8.0	3.8	4.1	5.2	8.8	19	100	73	27	26	24
18	8.7	8.9	3.7	4.0	5.0	8.6	22	110	78	23	22	22
19	8.6	8.6	4.0	4.0	5.0	8.6	19	120	88	22	19	25
20	8.7	7.9	4.6	4.0	5.0	8.8	16	129	89	20	16	25
21	8.7	8.4	4.7	4.2	5.4	9.4	14	156	88	20	16	26
22	8.8	8.4	4.8	4.2	6.0	9.0	16	150	80	20	18	25
23	8.9	9.0	5.2	4.2	6.0	9.0	17	135	80	21	20	22
24	9.8	8.4	5.1	4.2	6.7	8.5	17	142	83	34	50	20
25	11	7.8	4.6	4.2	6.3	8.8	19	122	74	37	67	20
26	12	8.2	4.3	4.6	6.6	8.8	22	124	71	38	68	19
27	12	8.6	4.1	4.5	6.2	8.7	30	143	67	30	56	19
28	11	8.6	3.8	4.3	6.2	8.2	40	131	58	27	54	18
29	10	8.2	3.8	4.3	6.2	8.6	48	111	57	24	48	17
30	10	7.8	3.8	4.3	---	9.2	56	102	52	25	45	16
31	11	---	3.8	4.1	---	10	---	93	---	22	40	---
TOTAL	317.9	267.2	159.9	125.0	148.7	250.0	612	3057	2566	909	965	751
MEAN	10.3	8.91	5.16	4.03	5.13	8.06	20.4	98.6	85.5	29.3	31.1	25.0
MAX	13	12	7.6	4.6	6.7	10	56	156	112	52	68	42
MIN	8.6	7.8	3.7	3.5	4.3	6.2	11	60	52	20	16	16
AC-FT	631	530	317	248	295	496	1210	6060	5090	1800	1910	1490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1929 - 1992, BY WATER YEAR (WY)

MEAN	16.6	12.0	10.7	10.7	9.65	9.63	23.5	86.5	143	58.2	35.9	24.2
MAX	34.9	18.0	21.8	32.7	25.2	16.0	50.0	119	207	102	61.1	59.5
(WY)	1930	1930	1931	1931	1931	1932	1934	1933	1932	1932	1929	1929
MIN	10.3	7.17	5.16	4.00	5.13	6.36	13.1	45.7	53.3	29.1	19.2	14.7
(WY)	1992	1933	1992	1930	1992	1990	1991	1990	1934	1931	1931	1931

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1929 - 1992	
ANNUAL TOTAL	12187.7		10128.7			
ANNUAL MEAN	33.4		27.7		35.5	
HIGHEST ANNUAL MEAN					49.7	1932
LOWEST ANNUAL MEAN					27.7	1992
HIGHEST DAILY MEAN	232	Jun 12	156	May 21	380	Jun 11 1990
LOWEST DAILY MEAN	3.7	Dec 18	3.5	Jan 3	3.5	Jan 3 1992
ANNUAL SEVEN-DAY MINIMUM	4.0	Dec 25	3.7	Dec 29	3.7	Dec 29 1991
INSTANTANEOUS PEAK FLOW			192	May 21	524	Jun 9 1990
INSTANTANEOUS PEAK STAGE			3.38	May 21	3.82	Jun 9 1990
ANNUAL RUNOFF (AC-FT)	24170		20090		25690	
10 PERCENT EXCEEDS	111		84		102	
50 PERCENT EXCEEDS	11		12		17	
90 PERCENT EXCEEDS	5.6		4.3		6.5	

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 mi^2.

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 with satellite telemetry. 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, 91,400 acre-ft, July 5-7, elevation, 9,322.40 ft; minimum contents, 63,900 acre-ft, Apr. 26-28, elevation, 9,306.10 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	9,319.00	85,100	
Oct. 31	9,316.40	80,500	-4,600
Nov. 30	9,315.40	78,800	-1,700
Dec. 31	9,313.70	75,900	-2,900
CAL YR 1991	-	-	-1,700
Jan. 31	9,310.20	70,200	-5,700
Feb. 29	9,308.70	67,800	-2,400
Mar. 31	9,307.00	65,200	-2,600
Apr. 30	9,306.30	64,200	-1,000
May 31	9,314.90	78,000	+13,800
June 30	9,320.00	86,900	+8,900
July 31	9,322.00	90,600	+3,700
Aug. 31		[a]80,500	-10,100
Sept. 30	9,309.70	69,400	-11,100
WTR YR 1992	-	-	-15,700

a-Estimate provided by Uncompahgre Valley Water Users Association.

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 mi^2.

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharges only, published in WSP 1313), October 1938 to current year. Statistical summary computed for 1939 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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. 13 to Apr. 14. Records good. Flow regulated by Taylor Park Reservoir (station 09108500) since 1937. One small diversion for irrigation from Willow Creek upstream from reservoir. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	133	105	100	100	100	100	174	183	287	237	234
2	144	114	108	100	100	100	100	173	184	287	238	243
3	147	102	108	100	100	100	100	173	186	289	238	249
4	144	102	108	100	100	100	100	174	175	292	237	251
5	145	102	107	100	100	100	100	174	177	292	237	251
6	146	99	106	100	100	100	100	174	177	290	236	251
7	146	87	104	100	100	100	100	174	178	289	234	251
8	146	86	102	100	100	100	100	174	181	289	234	251
9	144	87	102	100	100	100	130	174	202	289	234	251
10	145	89	102	100	100	100	158	174	215	289	234	251
11	144	91	100	100	100	100	165	174	216	289	236	251
12	143	92	100	100	100	100	165	174	216	290	237	251
13	144	94	100	100	100	100	165	174	215	291	235	251
14	146	96	100	100	100	100	165	174	217	289	235	251
15	146	98	100	100	100	100	174	174	220	252	234	251
16	146	99	100	100	100	100	174	174	266	234	234	248
17	143	100	100	100	100	100	172	176	294	234	234	248
18	142	100	100	100	100	100	174	177	292	234	234	248
19	142	100	100	100	100	100	172	177	292	234	234	249
20	142	100	100	100	100	100	172	177	292	234	234	252
21	123	100	100	100	98	100	172	177	292	230	234	253
22	143	100	100	100	98	100	172	177	292	228	234	253
23	145	100	100	100	97	100	173	177	292	229	234	253
24	146	100	100	100	96	100	174	177	290	232	236	253
25	146	100	100	100	96	100	174	176	287	234	235	253
26	146	100	100	100	96	100	174	176	287	234	234	253
27	146	100	100	100	96	100	174	182	287	234	234	253
28	146	102	100	100	97	100	174	181	287	234	234	251
29	146	102	100	100	100	100	174	181	287	236	234	251
30	146	104	100	100	---	100	174	181	287	237	234	251
31	146	---	100	100	---	100	---	181	---	237	234	---
TOTAL	4466	2979	3152	3100	2874	3100	4521	5455	7266	8039	7283	7507
MEAN	144	99.3	102	100	99.1	100	151	176	242	259	235	250
MAX	147	133	108	100	100	100	174	182	294	292	238	253
MIN	123	86	100	100	96	100	100	173	175	228	234	234
AC-FT	8860	5910	6250	6150	5700	6150	8970	10820	14410	15950	14450	14890

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

MEAN	190	95.5	71.7	59.0	57.0	84.9	149	166	314	383	365	410
MAX	586	438	353	195	196	320	655	550	931	1249	646	809
(WY)	1969	1968	1966	1966	1971	1986	1970	1962	1948	1957	1950	1956
MIN	11.4	10.0	6.00	4.02	4.00	4.19	9.44	.000	.000	147	183	99.5
(WY)	1962	1941	1964	1964	1964	1964	1964	1940	1940	1964	1977	1961

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1939 - 1992	
ANNUAL TOTAL	64710		59742			
ANNUAL MEAN	177		163		197	
HIGHEST ANNUAL MEAN					317	1986
LOWEST ANNUAL MEAN					94.8	1941
HIGHEST DAILY MEAN	517	Jul 2	294	Jun 17	2180	Jul 1 1957
LOWEST DAILY MEAN	86	Nov 8	86	Nov 8	[a].00	May 1 1940
ANNUAL SEVEN-DAY MINIMUM	89	Nov 7	89	Nov 7	.00	May 1 1940
INSTANTANEOUS PEAK FLOW			294	Jun 16	2270	Jul 1 1957
INSTANTANEOUS PEAK STAGE			4.24	Jun 16	7.56	Jul 1 1957
ANNUAL RUNOFF (AC-FT)	128400		118500		142500	
10 PERCENT EXCEEDS	297		252		484	
50 PERCENT EXCEEDS	144		146		107	
90 PERCENT EXCEEDS	100		100		14	

a-Also occurred May 2 to Jul 3, 1940, May 7-22, 1942, May 5-21, 1943.

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 with satellite telemetry. 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. 19 to Apr. 15, and Aug. 24 to Sept. 3. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	211	140	118	132	148	170	287	384	397	299	308
2	204	190	130	118	135	152	175	291	366	391	298	316
3	204	187	130	124	135	152	178	291	357	387	296	320
4	204	187	140	135	130	150	190	292	356	381	296	319
5	204	187	140	147	122	140	208	292	387	378	298	319
6	204	187	142	150	122	130	208	300	393	371	301	319
7	203	187	148	148	130	130	210	310	385	364	305	316
8	201	187	145	150	130	130	228	324	376	375	307	315
9	201	187	140	135	138	130	234	347	401	379	299	304
10	200	185	142	130	138	130	245	344	417	370	298	303
11	198	184	142	138	140	130	252	318	418	372	313	303
12	198	178	135	142	138	127	260	317	419	382	312	303
13	197	181	128	145	140	127	265	321	420	394	301	303
14	198	181	120	142	148	130	270	327	414	380	295	303
15	198	181	126	138	145	133	270	329	402	357	296	305
16	198	180	132	132	142	138	268	333	409	358	295	307
17	198	178	140	135	140	138	263	340	433	328	300	304
18	198	181	140	147	137	136	280	342	429	318	298	303
19	199	170	143	140	134	136	259	355	433	315	295	300
20	201	166	138	140	137	142	251	387	431	311	292	294
21	187	175	127	143	142	145	250	465	429	311	292	292
22	199	160	128	145	150	140	253	443	426	313	298	292
23	201	148	120	148	142	137	248	414	420	316	303	292
24	213	156	112	150	145	130	244	417	423	323	320	292
25	216	168	118	140	148	130	247	405	425	351	338	292
26	215	168	122	148	148	140	247	420	421	329	360	292
27	213	155	122	145	140	146	251	500	415	316	355	291
28	213	141	120	138	140	150	266	461	409	314	340	288
29	211	145	125	128	145	150	266	423	406	307	330	288
30	216	148	127	124	---	158	276	403	401	307	312	288
31	216	---	125	127	---	162	---	395	---	303	308	---
TOTAL	6317	5239	4087	4290	4013	4317	7232	11193	12205	10798	9550	9071
MEAN	204	175	132	138	138	139	241	361	407	348	308	302
MAX	216	211	148	150	150	162	280	500	433	397	360	320
MIN	187	141	112	118	122	127	170	287	356	303	292	288
AC-FT	12530	10390	8110	8510	7960	8560	14340	22200	24210	21420	18940	17990

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1992, BY WATER YEAR (WY)

MEAN	244	156	120	108	107	133	248	597	921	560	414	394
MAX	699	518	424	240	288	456	784	1485	2419	1975	707	855
(WY)	1969	1968	1966	1966	1971	1985	1970	1936	1914	1957	1960	1956
MIN	60.3	53.3	39.8	40.8	35.2	34.6	55.8	129	109	168	83.2	91.6
(WY)	1938	1938	1963	1941	1941	1938	1941	1940	1940	1931	1913	1937

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1910 - 1992	
ANNUAL TOTAL	103688		88312			
ANNUAL MEAN	284		241		335	
HIGHEST ANNUAL MEAN					545	1984
LOWEST ANNUAL MEAN					155	1977
HIGHEST DAILY MEAN	765	Jun 15	500	May 27	3600	Jun 9 1920
LOWEST DAILY MEAN	[a]112	Mar 9	112	Dec 24	[b]24	Mar 12 1938
ANNUAL SEVEN-DAY MINIMUM	115	Jan 13	120	Dec 23	27	Feb 19 1941
INSTANTANEOUS PEAK FLOW			515	May 27	[c]3760	Jun 9 1920
INSTANTANEOUS PEAK STAGE			2.58	May 27	[d]5.00	Jun 9 1920
ANNUAL RUNOFF (AC-FT)	205700		175200		242400	
10 PERCENT EXCEEDS	602		392		740	
50 PERCENT EXCEEDS	201		212		195	
90 PERCENT EXCEEDS	120		130		80	

a-Also occurred Dec 24.
b-Minimum discharge observed for period of record, before storage began in Taylor Park Reservoir, 50 ft³/s for several days in August 1913, gage height, 1.2 ft.
c-From rating curve extended above 2300 ft³/s.
d-Maximum gage height, 5.32 ft, Jul 1, 1957.

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.

WATER-DISCHARGE RECORDS

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 with satellite telemetry. 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: Oct. 30 to Feb. 25. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 7,400 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	79	62	69	57	53	66	751	627	401	165	202
2	67	77	66	68	57	53	68	765	546	346	160	199
3	59	68	67	63	60	57	72	761	545	312	164	187
4	54	72	68	60	63	61	82	756	634	290	176	178
5	53	82	70	67	64	59	89	798	748	283	183	184
6	54	86	68	68	60	58	99	840	776	295	185	181
7	54	90	69	66	54	56	113	840	770	300	195	173
8	55	87	71	62	59	60	125	834	676	415	184	172
9	56	80	70	61	62	57	146	869	648	510	176	168
10	54	82	67	64	59	50	175	772	657	339	186	161
11	51	82	66	69	57	51	229	622	695	304	239	155
12	54	78	69	72	54	53	234	614	747	309	229	149
13	55	75	67	70	55	54	282	624	781	321	204	144
14	56	74	64	72	53	56	374	686	790	306	192	134
15	59	78	60	74	51	57	406	748	743	305	189	139
16	60	74	63	66	52	58	355	721	668	369	183	147
17	60	73	65	64	54	57	319	707	547	293	191	141
18	61	75	68	66	53	59	392	746	546	263	188	134
19	62	71	71	68	52	55	320	770	602	247	181	131
20	63	66	68	65	50	51	256	892	622	229	175	156
21	63	70	68	63	51	53	223	1030	615	200	172	174
22	63	67	68	62	53	58	232	960	608	192	176	159
23	65	61	65	64	54	56	215	868	570	206	192	142
24	72	58	62	67	58	54	197	875	608	251	278	96
25	80	65	65	71	60	50	209	829	730	294	309	91
26	98	71	68	70	52	52	239	862	679	289	364	86
27	91	71	66	72	53	57	276	1120	599	244	286	85
28	99	70	63	70	53	60	336	962	499	219	245	83
29	89	68	65	66	53	59	478	822	501	203	214	74
30	83	67	69	63	---	62	652	755	472	194	195	72
31	79	---	66	60	---	65	---	698	---	179	194	---
TOTAL	2040	2217	2064	2062	1613	1741	7259	24897	19249	8908	6370	4297
MEAN	65.8	73.9	66.6	66.5	55.6	56.2	242	803	642	287	205	143
MAX	99	90	71	74	64	65	652	1120	790	510	364	202
MIN	51	58	60	60	50	50	66	614	472	179	160	72
AC-FT	4050	4400	4090	4090	3200	3450	14400	49380	38180	17670	12630	8520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

MEAN	117	95.3	73.9	62.6	59.5	67.0	250	1011	1364	553	231	128
MAX	279	172	128	102	90.4	137	670	1978	2670	2037	621	271
(WY)	1912	1987	1985	1985	1962	1986	1936	1936	1920	1957	1957	1965
MIN	56.3	47.8	42.0	25.5	28.7	43.1	77.2	222	289	93.5	25.0	52.4
(WY)	1978	1978	1977	1940	1940	1976	1964	1977	1977	1977	1913	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	102072		82717			
ANNUAL MEAN	280		226		335	
HIGHEST ANNUAL MEAN					573	1957
LOWEST ANNUAL MEAN					104	1977
HIGHEST DAILY MEAN	1700	Jun 15	1120	May 27	5000	Jun 12 1918
LOWEST DAILY MEAN	42	Jan 28	[a]50	Feb 20	19	Aug 13 1913
ANNUAL SEVEN-DAY MINIMUM	44	Jan 23	52	Feb 15	21	Jan 15 1940
INSTANTANEOUS PEAK FLOW			1210	May 27	[b]6500	Jun 15 1921
INSTANTANEOUS PEAK STAGE			4.84	May 27	6.60	Jun 15 1921
ANNUAL RUNOFF (AC-FT)	202500		164100		242700	
10 PERCENT EXCEEDS	1030		689		1040	
50 PERCENT EXCEEDS	89		84		107	
90 PERCENT EXCEEDS	48		55		55	

a-Also occurred Mar 10 and 25.
b-Site and datum then in use, from rating curve extended above 3000 ft³/s.

09112500 EAST RIVER AT ALMONT, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV									
06...	0845	86	292	8.4	3.5	--	K14	K9	<1.0
MAR									
18...	0830	62	330	8.8	2.0	11.8	<1	<1	<1.0
JUN									
17...	0800	570	239	8.2	7.0	8.6	140	67	<1.0
AUG									
12...	0825	235	305	8.1	10.0	8.4	K65	48	<1.0

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV									
06...	<1	40	<1	<10	<10	<0.1	<1	[a]<0.2	<10
MAR									
18...	<1	60	<1	10	<10	<0.1	<1	[a]<0.2	10
JUN									
17...	3	220	<1	20	<10	<0.1	<1	[a]<0.2	10
AUG									
12...	<1	190	<1	30	<10	<0.1	<1	[a]<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
22...	1555	62	369	9.5
DEC				
04...	1050	67	340	0.0
JAN				
07...	1325	66	328	2.0
FEB				
25...	1240	66	307	4.5
APR				
15...	1050	398	208	4.0
MAY				
13...	1000	641	190	6.0
JUN				
10...	1255	672	231	11.0
JUL				
08...	1450	380	274	12.0
AUG				
06...	1535	184	314	15.0
SEP				
09...	0935	170	313	8.5

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09114500 GUNNISON RIVER NEAR GUNNISON, CO

LOCATION.--Lat 38°32'31", long 106°56'57", in NW¼NW¼ sec.2, T.49 N., R.1 W., Gunnison County, Hydrologic Unit 14020002, on right bank 0.7 mi downstream from Antelope Creek and 1.2 mi west of Gunnison.

DRAINAGE AREA.--1,012 mi².

PERIOD OF RECORD.--October 1910 to December 1928, October 1944 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911, 1916.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,655 ft above National Geodetic Vertical Datum of 1929, from topographic map. Nov. 25, 1910 to Dec. 31, 1928, nonrecording gages (supplementary water-stage recorder Apr. 28, 1916 to June 17, 1918) at bridge about 0.6 mi downstream at various datums. Oct. 1, 1944 to July 28, 1970, water-stage recorder at sites 0.4 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 26 to Dec. 9, and Jan. 28 to Feb. 25. Records good except for estimated daily discharges, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500), 37 mi upstream from station. Diversions for irrigation of about 22,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	298	326	305	246	210	222	240	1130	1160	854	587	568
2	297	322	270	216	215	220	247	1160	1030	781	567	568
3	291	283	265	205	220	225	257	1160	970	738	552	560
4	287	275	270	248	226	227	286	1150	1030	679	554	543
5	285	340	278	281	222	230	320	1150	1170	654	569	516
6	282	340	275	249	212	225	324	1170	1250	629	587	489
7	279	353	265	272	210	228	360	1150	1260	625	612	472
8	280	338	265	254	207	230	377	1160	1180	709	599	460
9	272	330	275	230	212	230	413	1210	1140	972	576	459
10	272	326	258	230	223	219	514	1210	1170	772	566	452
11	272	326	280	233	225	220	623	1000	1200	704	703	440
12	272	317	292	263	220	213	627	917	1280	761	671	407
13	272	292	273	266	210	217	708	929	1290	828	617	401
14	272	305	260	245	208	222	816	992	1270	810	589	396
15	273	314	254	253	220	225	893	1070	1220	770	580	396
16	279	319	262	225	220	228	843	1070	1170	910	553	396
17	272	319	257	228	218	230	764	1050	1120	776	552	396
18	266	326	243	238	213	233	836	1090	1050	695	552	396
19	266	322	301	219	208	226	779	1120	1080	651	536	396
20	265	306	260	235	210	206	678	1290	1090	646	530	402
21	258	328	255	243	228	206	613	1510	1090	649	518	420
22	245	351	241	249	230	205	599	1450	1080	618	522	418
23	262	308	242	260	230	205	592	1340	1030	667	542	404
24	279	309	230	276	222	203	551	1350	1040	790	700	371
25	294	354	233	258	220	197	541	1320	1200	915	824	355
26	312	350	232	256	227	202	567	1380	1170	870	841	345
27	332	340	223	248	229	210	614	1790	1090	758	752	331
28	336	325	207	232	231	220	710	1640	1020	685	664	319
29	333	320	222	220	223	223	871	1400	961	654	609	319
30	326	312	214	208	---	227	1010	1290	912	650	577	319
31	326	---	235	210	---	234	---	1240	---	610	568	---
TOTAL	8855	9676	7942	7496	6349	6808	17573	37888	33723	22830	18769	12714
MEAN	286	323	256	242	219	220	586	1222	1124	736	605	424
MAX	336	354	305	281	231	234	1010	1790	1290	972	841	568
MIN	245	275	207	205	207	197	240	917	912	610	518	319
AC-FT	17560	19190	15750	14870	12590	13500	34860	75150	66890	45280	37230	25220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

MEAN	400	299	235	209	201	249	610	1819	2498	1256	733	546
MAX	805	614	616	395	365	582	1381	3605	6074	4621	1510	908
(WY)	1969	1968	1966	1966	1971	1986	1962	1914	1918	1957	1957	1985
MIN	186	162	128	119	111	117	214	283	425	288	317	221
(WY)	1978	1964	1963	1945	1955	1964	1964	1977	1977	1977	1977	1924

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	236974		190623			
ANNUAL MEAN	649		521		756	
HIGHEST ANNUAL MEAN					1246	1984
LOWEST ANNUAL MEAN					256	1977
HIGHEST DAILY MEAN	2840	Jun 15	1790	May 27	11400	Jun 11 1918
LOWEST DAILY MEAN	176	Mar 8	197	Mar 25	80	Dec 27 1962
ANNUAL SEVEN-DAY MINIMUM	186	Mar 7	203	Mar 20	95	Dec 25 1962
INSTANTANEOUS PEAK FLOW			1930	May 27	[a]11400	Jun 13 1918
INSTANTANEOUS PEAK STAGE			2.65	May 27	4.05	Jun 13 1918
ANNUAL RUNOFF (AC-FT)	470000		378100		547800	
10 PERCENT EXCEEDS	1740		1130		1880	
50 PERCENT EXCEEDS	338		332		392	
90 PERCENT EXCEEDS	210		220		175	

a-Site and datum then in use, from rating curve extended above 5000 ft³/s.

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. 20 to Feb. 7, Mar. 17, and Mar. 23. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	37	15	14	18	27	22	42	40	32	61	60
2	17	32	13	13	17	27	23	37	33	32	81	56
3	14	39	14	12	18	33	24	34	28	37	61	51
4	15	42	15	12	18	30	31	36	27	34	54	50
5	14	48	15	13	18	23	37	30	31	29	52	48
6	14	44	15	14	18	23	38	25	37	28	58	44
7	14	36	15	15	18	20	47	16	39	26	59	41
8	17	29	16	16	18	24	48	18	39	31	56	40
9	17	28	16	15	17	17	50	22	43	37	80	37
10	19	32	17	14	18	16	49	23	51	32	99	36
11	26	32	17	14	18	21	50	19	52	23	88	35
12	27	28	16	14	18	27	44	15	72	26	82	34
13	26	27	15	15	18	23	43	15	60	43	79	33
14	26	28	14	14	18	28	44	14	59	34	78	32
15	26	30	15	14	18	28	43	14	48	28	80	40
16	26	29	15	15	18	29	36	13	44	39	71	38
17	26	29	15	15	18	31	34	13	38	30	78	36
18	26	28	14	14	17	32	36	14	35	26	70	33
19	26	26	14	14	16	27	30	14	36	25	64	35
20	26	23	16	14	15	28	28	17	40	28	60	37
21	28	23	15	15	16	25	29	16	39	36	56	36
22	29	23	14	16	16	26	29	14	38	44	56	33
23	29	22	14	17	17	29	29	13	40	53	56	31
24	30	21	14	18	17	27	29	16	44	103	131	31
25	31	20	13	20	18	29	31	20	46	115	124	31
26	30	20	13	19	22	30	32	22	53	120	97	28
27	30	20	13	18	22	29	35	26	45	86	75	28
28	29	19	13	17	25	28	40	31	45	83	65	28
29	32	18	13	17	27	29	45	24	43	79	48	28
30	32	16	13	17	---	32	49	40	40	76	47	28
31	37	---	13	18	---	31	---	54	---	62	54	---
TOTAL	756	849	450	473	532	829	1105	707	1285	1477	2220	1118
MEAN	24.4	28.3	14.5	15.3	18.3	26.7	36.8	22.8	42.8	47.6	71.6	37.3
MAX	37	48	17	20	27	33	50	54	72	120	131	60
MIN	14	16	13	12	15	16	22	13	27	23	47	28
AC-FT	1500	1680	893	938	1060	1640	2190	1400	2550	2930	4400	2220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

MEAN	39.7	33.6	25.1	21.9	22.4	32.4	57.9	93.5	103	58.1	69.5	46.3
MAX	72.6	49.9	39.5	36.6	33.4	52.3	135	413	240	117	144	90.8
(WY)	1983	1983	1985	1984	1986	1985	1987	1984	1984	1986	1984	1982
MIN	17.7	17.6	10.3	11.1	10.5	12.5	27.9	18.4	21.5	21.1	34.7	16.8
(WY)	1990	1982	1982	1982	1982	1982	1990	1989	1989	1989	1989	1981

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1981 - 1992	
ANNUAL TOTAL	13467		11801			
ANNUAL MEAN	36.9		32.2		50.6	
HIGHEST ANNUAL MEAN					106	1984
LOWEST ANNUAL MEAN					26.2	1989
HIGHEST DAILY MEAN	151	May 10	131	Aug 24	954	May 23 1984
LOWEST DAILY MEAN	13	Dec 2	[a]12	Jan 3	8.4	Feb 7 1982
ANNUAL SEVEN-DAY MINIMUM	13	Dec 25	13	Dec 29	8.9	Feb 7 1982
INSTANTANEOUS PEAK FLOW			224	Aug 24	1120	May 23 1984
INSTANTANEOUS PEAK STAGE			[b]2.93	Aug 24	4.49	May 23 1984
ANNUAL RUNOFF (AC-FT)	26710		23410		36670	
10 PERCENT EXCEEDS	61		56		96	
50 PERCENT EXCEEDS	31		28		36	
90 PERCENT EXCEEDS	16		14		17	

a-Also occurred Jan 4.
b-Maximum gage height, 3.44 ft, Dec 14, backwater from ice.

09119000 TOMICHI CREEK AT GUNNISON, CO

LOCATION.--Lat 38°31'18", long 106°56'25", in NE¼SW¼ 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.

DRAINAGE AREA.--1,061 mi².

WATER-DISCHARGE RECORDS

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.

REVISED RECORDS.--WSP 2124: Drainage area. WDR CO-86-2: 1985.

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.

REMARKS.--Estimated daily discharges: Nov. 21 to Apr. 16. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 24,000 acres upstream from station. Water diverted upstream from station by Larkspur ditch to Arkansas River basin since 1935 and by Tarbell ditch to Rio Grande basin since 1914.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	77	95	57	57	68	108	140	172	546	160	168	196
2	63	110	52	55	70	116	145	180	459	137	161	191
3	62	78	52	52	72	122	147	192	382	119	157	179
4	60	95	56	50	70	110	153	186	344	114	146	171
5	57	118	54	52	70	90	162	182	354	107	153	163
6	57	140	52	55	70	90	166	163	381	98	156	154
7	59	151	54	59	71	90	168	160	368	94	170	145
8	60	135	58	64	70	90	170	168	366	97	159	137
9	63	122	60	61	73	90	170	223	368	126	151	129
10	64	127	57	57	75	88	173	297	354	128	157	126
11	66	135	53	54	75	90	182	297	358	149	152	121
12	71	126	53	53	74	93	190	246	385	146	154	119
13	74	106	53	54	74	94	210	224	395	179	151	108
14	75	103	53	56	74	95	230	224	373	192	143	105
15	65	119	51	57	78	99	235	222	326	166	141	111
16	68	115	52	56	74	105	235	222	293	197	159	121
17	70	113	53	56	74	112	219	216	256	195	152	105
18	70	116	55	56	74	120	215	223	208	164	153	96
19	69	100	59	57	73	118	211	230	192	155	136	105
20	70	81	60	59	72	114	184	226	192	152	129	117
21	77	80	57	59	80	112	169	282	200	165	123	127
22	79	79	54	58	87	112	164	350	182	159	116	114
23	83	77	53	61	85	115	165	332	185	158	116	107
24	89	73	53	66	84	115	157	340	168	173	172	113
25	97	76	54	70	86	115	151	381	188	236	359	109
26	102	77	54	68	92	115	143	392	188	244	336	114
27	100	70	51	66	95	118	144	465	212	247	284	113
28	100	71	53	69	100	122	148	524	212	214	235	106
29	94	68	53	66	105	134	161	516	190	199	208	99
30	87	62	52	68	---	130	153	510	172	219	197	97
31	83	---	54	70	---	135	---	528	---	194	190	---
TOTAL	2311	3018	1682	1841	2265	3357	5260	8873	8797	5083	5384	3798
MEAN	74.5	101	54.3	59.4	78.1	108	175	286	293	164	174	127
MAX	102	151	60	70	105	135	235	528	546	247	359	196
MIN	57	62	51	50	68	88	140	160	168	94	116	96
AC-FT	4580	5990	3340	3650	4490	6660	10430	17600	17450	10080	10680	7530

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	93.5	103	77.4	66.5	69.0	111	248	398	471	193	161	90.9
MAX	209	158	117	116	98.0	279	564	2073	1481	859	440	318
(WY)	1970	1971	1987	1971	1986	1939	1942	1984	1984	1957	1957	1970
MIN	33.5	62.4	45.8	37.1	36.2	59.8	56.5	22.4	51.8	42.5	51.5	19.2
(WY)	1964	1951	1964	1979	1979	1981	1967	1977	1977	1955	1977	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	59973		51669			
ANNUAL MEAN	164		141		174	
HIGHEST ANNUAL MEAN					478	1984
LOWEST ANNUAL MEAN					60.4	1977
HIGHEST DAILY MEAN	660	Jun 15	546	Jun 1	4040	May 26 1984
LOWEST DAILY MEAN	[a]51	Dec 15	50	Jan 4	2.6	Sep 30 1977
ANNUAL SEVEN-DAY MINIMUM	53	Dec 11	53	Dec 11	7.6	May 4 1967
INSTANTANEOUS PEAK FLOW			568	Jun 1	4620	May 23 1984
INSTANTANEOUS PEAK STAGE			2.92	Jun 1	5.49	May 23 1984
ANNUAL RUNOFF (AC-FT)	119000		102500		125800	
10 PERCENT EXCEEDS	357		238		390	
50 PERCENT EXCEEDS	122		115		98	
90 PERCENT EXCEEDS	61		57		53	

a-Also occurred Dec 27.

09119000 TOMICHI CREEK AT GUNNISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV									
06...	1045	125	241	8.0	2.0	--	76	K48	<1.0
MAR									
18...	1005	120	278	8.0	1.0	10.4	K5	K1	<1.0
JUN									
17...	1115	262	314	8.4	13.0	8.7	45	30	<1.0
AUG									
12...	1045	153	265	8.5	15.0	8.4	K58	24	<1.0

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV									
06...	<1	1300	<1	160	40	<0.1	<1	[a]<0.2	<10
MAR									
18...	1	1100	<1	110	50	<0.1	<1	[a]<0.2	<10
JUN									
17...	<1	430	<1	90	60	<0.1	<1	[a]<0.2	<10
AUG									
12...	<1	480	<1	70	20	<0.1	<1	[a]<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
23...	1145	82	351	7.5
DEC				
02...	1645	50	262	0.0
JAN				
08...	1255	68	278	0.0
FEB				
26...	1140	93	242	0.5
APR				
16...	0940	236	204	7.0
MAY				
13...	1425	231	291	17.5
JUN				
10...	1450	357	298	15.5
JUL				
09...	1250	127	365	18.5
AUG				
06...	1220	155	280	15.5
SEP				
10...	0915	132	246	11.0

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

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.

WATER-DISCHARGE RECORDS

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, Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft, higher, and Oct. 1, 1945 to Sept. 3, 1991, at datum 1.00 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 4, and Nov. 16 to Apr. 16. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,600 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	63	38	39	41	52	56	246	554	534	196	165
2	79	64	33	37	42	56	58	261	584	457	181	155
3	76	51	30	34	42	66	60	271	598	415	177	149
4	75	80	29	36	39	61	67	259	662	396	171	141
5	74	70	34	39	36	50	71	276	796	396	170	133
6	75	61	35	39	34	47	70	298	823	402	177	125
7	73	65	35	38	37	48	73	322	824	398	182	117
8	72	59	38	41	39	47	76	337	751	392	175	110
9	70	59	38	41	37	47	80	346	659	385	172	104
10	70	60	36	39	39	43	86	321	660	370	163	98
11	69	61	38	38	37	46	90	276	780	336	164	93
12	70	58	35	40	36	46	95	258	847	337	162	88
13	69	55	34	38	36	46	100	276	968	334	153	84
14	68	58	33	40	39	48	100	324	903	309	144	85
15	67	63	33	37	38	48	96	375	783	282	138	92
16	65	58	33	34	37	48	90	390	685	292	128	91
17	66	55	35	37	37	50	85	422	582	267	127	91
18	64	58	38	39	37	50	94	466	619	254	120	87
19	62	56	41	37	35	47	92	488	691	238	113	86
20	63	50	40	39	38	45	84	566	742	229	104	91
21	63	56	36	40	43	47	79	613	767	222	101	94
22	63	52	39	40	41	49	76	544	763	212	101	89
23	62	41	37	42	41	49	73	503	733	211	108	86
24	67	44	35	44	41	47	71	532	700	246	148	83
25	65	50	35	42	44	47	75	517	673	362	181	82
26	63	48	37	44	45	47	82	552	652	376	204	77
27	63	45	36	42	45	52	95	716	603	313	197	75
28	63	42	36	39	45	59	124	670	542	273	186	71
29	55	42	38	37	48	56	163	576	561	244	181	72
30	59	42	36	37	---	54	211	574	550	227	176	71
31	64	---	36	38	---	54	---	545	---	210	169	---
TOTAL	2099	1666	1107	1207	1149	1552	2672	13120	21055	9919	4869	2985
MEAN	67.7	55.5	35.7	38.9	39.6	50.1	89.1	423	702	320	157	99.5
MAX	85	80	41	44	48	66	211	716	968	534	204	165
MIN	55	41	29	34	34	43	56	246	542	210	101	71
AC-FT	4160	3300	2200	2390	2280	3080	5300	26020	41760	19670	9660	5920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1992, BY WATER YEAR (WY)

MEAN	93.5	68.3	52.6	46.3	43.6	55.8	134	534	982	485	205	128
MAX	242	143	75.7	66.5	71.0	102	339	1153	1586	1266	479	430
(WY)	1942	1942	1984	1984	1986	1939	1952	1984	1944	1957	1982	1970
MIN	40.3	42.7	34.6	32.5	30.4	30.5	53.3	205	263	107	82.5	45.5
(WY)	1957	1940	1940	1977	1990	1977	1990	1977	1977	1977	1956	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1938 - 1992	
ANNUAL TOTAL	77197		63400			
ANNUAL MEAN	211		173		236	
HIGHEST ANNUAL MEAN					413	1984
LOWEST ANNUAL MEAN					88.7	1977
HIGHEST DAILY MEAN	1400	Jun 9	968	Jun 13	2410	Jun 29 1957
LOWEST DAILY MEAN	29	Dec 4	29	Dec 4	22	Jan 21 1976
ANNUAL SEVEN-DAY MINIMUM	33	Dec 1	33	Dec 1	23	Jan 19 1976
INSTANTANEOUS PEAK FLOW			1030	Jun 13	2720	Jul 10 1983
INSTANTANEOUS PEAK STAGE			3.51	Jun 13	4.18	Jul 10 1983
ANNUAL RUNOFF (AC-FT)	153100		125800		171000	
10 PERCENT EXCEEDS	719		546		682	
50 PERCENT EXCEEDS	73		71		85	
90 PERCENT EXCEEDS	42		37		40	

09124500 LAKE FORK AT GATEVIEW, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV									
06...	1320	59	162	7.8	6.5	--	K2	<1	<1
MAR									
18...	1245	50	150	8.6	0.5	11.2	<1	<1	<1
JUN									
17...	1540	557	110	8.2	13.0	7.8	K3	K3	<1
AUG									
12...	1440	163	151	8.1	18.0	7.3	22	K16	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV									
06...	1	60	<1	30	10	<0.1	<1	[a]<0.2	20
MAR									
18...	2	80	<1	20	20	<0.1	<1	[a]<0.2	10
JUN									
17...	2	180	<1	30	<10	<0.1	<1	[a]<0.2	<10
AUG									
12...	1	120	<1	40	<10	<0.1	<1	[a]<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
23...	1410	64	208	10.0
DEC				
04...	1515	21	196	0.0
JAN				
08...	1025	42	187	0.0
FEB				
26...	0950	45	168	0.0
APR				
16...	1220	85	168	9.5
MAY				
14...	1015	316	134	9.5
JUN				
11...	1020	776	108	9.0
JUL				
09...	1900	349	114	12.0
AUG				
04...	1445	171	146	16.5
SEP				
04...	0930	142	141	12.0

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09125800 SILVER JACK RESERVOIR NEAR CIMARRON, CO

LOCATION.--Lat 38°13'58", long 107°32'28", in T.46 N., R. 6 W., Gunnison County, Hydrologic Unit 14020002, in gate house of Silver Jack Dam on Cimarron River, 14.5 mi south of Cimarron.

DRAINAGE AREA.--59 mi^2

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

GAGE.--Water-stage recorder with satellite telemetry. 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 December 1970; dam completed December 1971. Capacity, 13,520 acre-ft, 1971 survey, between elevation 8,800.0 ft, streambed at dam, and 8,925.6 ft, crest of spillway. Dead storage below elevation 8,836.0, 520 acre-ft. Figures given are live contents.

COOPERATION.--Capacity tables provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 13,400 acre-ft, June 7, 1988, and June 9, 1991, elevation, 8,926.95 ft; minimum contents, 2,470 acre-ft, Mar. 20, 21, 1988, elevation, 8,871.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,340 acre-ft, May 27, elevation, 8,926.72 ft; minimum contents, 3,500 acre-ft, Nov. 12, elevation, 8,879.81 ft.

REVISIONS.--The minimum contents for the water year 1991 has been revised to 2,940 acre-ft, Oct. 1, elevation, 8,875.21 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,886.30	4,460	-
Oct. 31	8,881.49	3,750	-710
Nov. 30	8,884.77	4,220	+470
Dec. 31	8,887.82	4,690	+470
CAL YR 1991	-	-	-1,000
Jan. 31	8,890.33	5,090	+400
Feb. 29	8,892.38	5,430	+340
Mar. 31	8,895.06	5,910	+480
Apr. 30	8,911.13	9,210	+3,300
May 31	8,926.22	13,190	+3,980
June 30	8,926.26	13,200	+10
July 31	8,923.74	12,470	-730
Aug. 31	8,910.24	9,000	-3,470
Sept. 30	8,897.75	6,400	-2,600
WTR YR 1992	-	-	+1,940

09126000 CIMARRON RIVER NEAR CIMARRON, CO

LOCATION.--Lat 38°15'36", long 107°32'43", in NW¼NE¼ sec.8, T.46 N., R.6 W., Gunnison County, Hydrologic Unit 14020002, 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.

DRAINAGE AREA.--66.6 mi^2.

PERIOD OF RECORD.--October 1954 to current year. Prior to October 1965, published as Cimarron Creek near Cimarron. Statistical summary computed for 1971 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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.

REMARKS.--Estimated daily discharges: Nov. 19 to Apr. 17. Records good except for estimated daily discharges, which are poor. Diversion upstream from station through Owl Creek ditch into Uncompahgre River basin. Flow regulated by Silver Jack Dam, 2.1 mi upstream since Dec. 23, 1970, total capacity, 13,520 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	27	15	9.7	9.7	12	16	25	316	255	127	102
2	36	27	15	9.3	9.9	13	16	25	294	210	127	100
3	36	29	14	8.8	10	13	16	23	304	197	119	111
4	36	24	14	8.9	10	14	16	22	350	190	114	118
5	36	17	14	9.6	10	14	17	22	480	197	114	121
6	36	18	15	9.8	10	14	18	32	491	207	115	120
7	36	19	15	9.5	10	14	18	52	492	204	115	101
8	36	18	15	9.3	10	13	18	51	434	203	113	85
9	36	18	15	9.1	11	13	18	161	361	209	111	84
10	36	18	16	9.0	10	13	18	295	380	179	100	84
11	36	19	15	9.0	9.9	13	18	228	452	147	91	84
12	36	18	16	9.4	9.8	13	18	222	459	171	91	83
13	36	19	14	9.4	9.9	14	18	229	502	181	91	83
14	36	18	13	9.1	9.9	14	19	262	461	152	91	84
15	36	18	12	9.0	10	14	20	284	405	122	91	86
16	36	18	12	8.9	10	14	20	293	345	122	91	84
17	36	18	13	9.0	11	14	19	356	280	119	92	84
18	36	18	13	9.5	11	15	21	375	320	119	93	84
19	36	17	14	9.3	11	14	18	425	387	121	93	84
20	36	16	13	9.4	10	14	17	486	375	121	93	85
21	36	16	13	9.7	11	14	17	500	361	120	91	52
22	36	16	12	10	12	14	17	430	389	120	91	23
23	36	15	12	10	12	13	17	373	390	122	91	22
24	37	15	12	10	11	13	18	416	368	125	92	22
25	37	15	11	11	11	13	20	346	353	127	94	22
26	37	15	11	11	12	13	21	409	329	126	93	22
27	37	16	10	11	11	14	22	543	272	127	93	22
28	32	16	10	10	12	14	24	512	248	127	93	22
29	27	16	10	9.8	12	15	25	447	270	126	93	22
30	27	15	10	9.6	---	16	26	403	259	128	93	22
31	27	---	10	9.6	---	16	---	354	---	127	100	---
TOTAL	1089	549	404	296.7	307.1	427	566	8601	11127	4801	3096	2118
MEAN	35.1	18.3	13.0	9.57	10.6	13.8	18.9	277	371	155	99.9	70.6
MAX	37	29	16	11	12	16	26	543	502	255	127	121
MIN	27	15	10	8.8	9.7	12	16	22	248	119	91	22
AC-FT	2160	1090	801	589	609	847	1120	17060	22070	9520	6140	4200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	52.2	23.9	17.1	15.3	15.1	16.5	24.3	155	423	217	113	71.0
MAX	135	46.9	31.7	30.0	29.4	35.3	46.5	421	799	605	239	116
(WY)	1983	1986	1974	1974	1986	1986	1987	1984	1984	1983	1983	1984
MIN	20.2	8.18	6.79	2.36	3.03	4.45	8.46	54.0	114	89.0	73.9	32.2
(WY)	1991	1990	1978	1971	1971	1971	1977	1990	1977	1977	1981	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	35429.4		33381.8			
ANNUAL MEAN	97.1		91.2		[a]95.4	
HIGHEST ANNUAL MEAN					180	1984
LOWEST ANNUAL MEAN					40.2	1977
HIGHEST DAILY MEAN	639	Jun 9	543	May 27	1290	Jun 10 1973
LOWEST DAILY MEAN	[b]7.6	Feb 19	8.8	Jan 3	[c,d].00	Dec 24 1970
ANNUAL SEVEN-DAY MINIMUM	7.7	Feb 23	9.1	Jan 10	.00	Dec 24 1970
INSTANTANEOUS PEAK FLOW			570	May 27	[e]1560	Jun 10 1973
INSTANTANEOUS PEAK STAGE			4.42	May 27	[f]6.05	Jun 10 1973
ANNUAL RUNOFF (AC-FT)	70270		66210		69110	
10 PERCENT EXCEEDS	335		323		249	
50 PERCENT EXCEEDS	19		22		31	
90 PERCENT EXCEEDS	8.2		10		10	

a-Average discharge for 16 years (water years 1955-70), 88.6 ft^3/s; 64190 acre-ft/yr, prior to completion of Silver Jack Dam.
b-Also occurred Feb 20, 25-28.
c-Also occurred Dec 25-31, 1970, and Jan 1-9, 1971. Result of storage in Silver Jack Dam.
d-Minimum daily discharge prior to construction of Silver Jack Dam, 8.0 ft^3/s, Dec 27, 28, 1962, and Jan 13, 1963.
e-Maximum discharge and stage for period of record, 1790 ft^3/s, Jun 28, 1957, gage height, 8.32 ft, site and datum then in use.
f-Maximum gage height for statistical period, 6.16 ft, Jun 25, 1971.

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. Statistical summary computed for 1911 to current year.

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 with satellite telemetry. 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.--No estimated daily discharges. 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 measurements 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	1280	1310	1250	916	797	544	373	893	883	830	844
2	1360	1280	1310	1240	916	794	543	366	892	886	844	777
3	1390	1290	1320	1260	922	790	544	366	887	887	825	724
4	1270	1280	1320	1250	921	749	544	365	889	882	930	706
5	968	1280	1320	1260	856	729	543	364	888	883	850	714
6	796	1290	1320	1250	766	792	540	357	890	863	852	711
7	306	1290	1310	1240	766	796	538	355	902	832	834	710
8	306	1290	1320	1240	768	796	540	344	912	823	844	706
9	303	1290	1310	1230	772	796	540	337	908	807	847	672
10	305	1290	1310	1230	772	795	542	330	911	826	844	634
11	340	1290	1290	1240	775	795	544	709	910	829	860	629
12	1380	1280	1300	1240	778	796	542	1500	909	840	871	623
13	1490	1280	1300	1240	778	796	544	2280	901	933	843	625
14	1490	1290	1300	916	781	796	551	2960	907	1020	840	580
15	1420	1290	1290	863	790	796	546	3070	895	1010	878	553
16	711	1290	1290	871	790	796	544	2900	904	942	867	543
17	732	1280	1290	880	792	796	544	2600	910	838	877	537
18	824	1230	1290	879	790	796	544	2300	893	839	900	582
19	1140	939	1290	883	740	806	543	1960	888	838	848	621
20	1140	597	1290	886	784	791	540	1700	880	839	859	613
21	1020	631	1280	883	790	792	540	1470	884	845	873	613
22	636	1240	1280	890	790	796	536	1270	875	846	857	611
23	632	1230	1280	892	795	582	470	1030	848	847	857	612
24	639	1230	1280	891	796	564	474	913	880	845	852	609
25	733	1270	1280	895	796	564	448	891	881	840	860	612
26	1260	1310	1280	895	796	567	448	877	875	845	854	602
27	1260	1310	1270	898	796	556	406	872	884	836	817	594
28	1330	1320	1270	903	796	544	332	862	891	848	829	596
29	1280	1320	1230	904	796	544	364	883	890	842	827	592
30	1290	1320	1210	904	---	544	380	889	873	826	825	609
31	1270	---	1230	916	---	544	---	895	---	841	831	---
TOTAL	30361	36807	39970	32219	23324	22395	15258	36388	26750	26761	26425	19154
MEAN	979	1227	1289	1039	804	722	509	1174	892	863	852	638
MAX	1490	1320	1320	1260	922	806	551	3070	912	1020	930	844
MIN	303	597	1210	863	740	544	332	330	848	807	817	537
AC-FT	60220	73010	79280	63910	46260	44420	30260	72180	53060	53080	52410	37990
a	32900	0	0	0	0	0	19070	55470	58760	68010	70500	61710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

MEAN	524	726	766	762	758	831	1294	3251	4173	1491	648	459
MAX	2114	1888	2165	2732	3153	3278	3282	8611	11670	8468	2237	2447
(WY)	1912	1971	1987	1974	1971	1971	1930	1928	1957	1957	1957	1929
MIN	17.0	116	141	143	155	248	177	216	123	61.1	34.4	8.37
(WY)	1935	1935	1966	1966	1966	1966	1954	1967	1954	1940	1924	1937

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	427788		335812			
ANNUAL MEAN	1172		918		1307	
HIGHEST ANNUAL MEAN					2936	1984
LOWEST ANNUAL MEAN					261	1967
HIGHEST DAILY MEAN	4360	Jun 21	3070	May 15	18600	Jun 15 1921
LOWEST DAILY MEAN	303	Oct 9	303	Oct 9	[b].00	Sep 11 1915
ANNUAL SEVEN-DAY MINIMUM	409	Mar 26	350	May 4	.30	Oct 26 1950
INSTANTANEOUS PEAK FLOW			3100	May 14	[c]19000	Jun 15 1921
INSTANTANEOUS PEAK STAGE			5.91	May 14	15.80	Jun 15 1921
ANNUAL RUNOFF (AC-FT)	848500		666100		946900	
10 PERCENT EXCEEDS	2210		1290		3160	
50 PERCENT EXCEEDS	1070		856		564	
90 PERCENT EXCEEDS	616		543		178	

a-Diversion, in acre-feet, through Gunnison Tunnel, provided by Uncompahgre Valley Water Users Association.
b-Also occurred Sep 26, 1936, Oct 8, 1949, Sep 5, 6, 15, 16, 1950.
c-Present datum, from rating curve extended above 14000 ft³/s.

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 mi^2.

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 with satellite telemetry. 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. 23, 24, Dec. 1, 3-7, 9, Dec. 10 to Jan. 29, Feb. 1-7, 17-20, 22, 24, Feb. 26 to Mar. 1, Mar. 4-9, 11, and Mar. 12. Records fair 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	8.6	7.9	8.4	6.4	14	50	401	232	43	8.9	29
2	5.6	9.2	8.9	7.6	6.4	14	55	393	201	40	7.6	28
3	5.3	8.0	9.1	7.6	6.6	16	59	378	181	38	6.5	28
4	5.0	10	9.1	8.8	6.6	16	70	364	174	35	6.7	27
5	5.0	9.1	9.5	8.8	6.0	13	85	351	191	34	9.9	27
6	5.1	9.4	9.5	8.4	6.0	13	98	347	195	31	10	28
7	5.2	11	9.5	8.6	6.2	13	109	348	161	29	9.9	17
8	5.3	10	9.0	8.4	6.4	14	124	280	142	32	8.8	17
9	5.4	10	9.0	8.0	6.4	13	140	311	116	29	8.2	12
10	5.4	11	8.6	7.8	6.6	14	158	311	98	27	8.3	15
11	5.7	11	8.9	8.0	6.8	14	181	229	90	27	7.3	11
12	5.8	11	9.0	8.6	6.7	15	202	186	88	27	7.7	15
13	5.8	9.9	8.4	8.4	6.8	17	216	187	89	34	9.7	16
14	5.9	10	7.2	8.4	7.0	17	245	223	82	26	11	9.4
15	5.3	11	7.6	8.2	6.8	19	272	235	74	23	11	12
16	5.0	11	7.8	7.4	7.2	20	286	220	64	23	12	13
17	5.7	10	8.0	8.4	7.2	21	245	222	53	23	13	11
18	7.0	11	8.4	8.6	7.2	21	293	219	48	22	11	11
19	7.1	10	9.2	7.8	6.6	20	225	210	56	20	9.7	12
20	7.2	11	9.2	8.0	7.0	20	174	212	56	17	10	15
21	7.2	11	8.2	8.4	7.9	19	146	236	52	17	9.5	15
22	7.6	9.8	8.6	8.4	7.4	20	138	234	46	16	12	16
23	8.1	9.0	8.2	8.4	7.5	19	135	174	43	15	14	16
24	10	9.6	7.6	8.8	7.0	19	140	157	41	15	15	16
25	11	9.9	7.6	8.6	8.6	19	161	159	37	14	16	18
26	9.7	9.1	8.0	9.0	9.2	23	194	166	33	13	23	17
27	9.5	8.8	7.8	8.4	9.8	26	253	323	33	13	19	14
28	10	9.1	7.8	7.0	12	31	343	358	29	12	20	14
29	9.5	9.0	8.4	6.8	13	31	365	312	32	11	23	14
30	9.5	8.9	8.2	6.4	---	38	427	269	42	11	28	12
31	9.1	---	8.2	6.2	---	48	---	247	---	9.9	25	---
TOTAL	215.5	296.4	262.4	250.6	215.3	617	5589	8262	2779	726.9	391.7	505.4
MEAN	6.95	9.88	8.46	8.08	7.42	19.9	186	267	92.6	23.4	12.6	16.8
MAX	11	11	9.5	9.0	13	48	427	401	232	43	28	29
MIN	5.0	8.0	7.2	6.2	6.0	13	50	157	29	9.9	6.5	9.4
AC-FT	427	588	520	497	427	1220	11090	16390	5510	1440	777	1000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1992, BY WATER YEAR (WY)

MEAN	10.9	9.54	7.75	7.05	7.84	14.9	79.7	192	122	29.7	11.8	10.5
MAX	35.2	29.9	20.5	18.0	21.5	58.3	192	401	496	122	34.0	23.3
(WY)	1942	1987	1987	1937	1987	1986	1962	1984	1957	1957	1957	1965
MIN	4.76	4.85	4.32	4.14	4.73	5.97	23.5	23.1	19.5	7.33	3.43	3.66
(WY)	1965	1977	1977	1977	1951	1954	1944	1977	1977	1963	1972	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1936 - 1992	
ANNUAL TOTAL	14083.5		20111.2			
ANNUAL MEAN	38.6		54.9		42.1	
HIGHEST ANNUAL MEAN					89.0	1957
LOWEST ANNUAL MEAN					10.5	1977
HIGHEST DAILY MEAN	359	May 11	427	Apr 30	1060	May 28 1979
LOWEST DAILY MEAN	4.9	Sep 4	[a]5.0	Oct 4	1.7	Aug 20 1987
ANNUAL SEVEN-DAY MINIMUM	5.2	Oct 3	5.2	Oct 3	2.1	Jul 27 1963
INSTANTANEOUS PEAK FLOW			460	Apr 30	[b]1410	May 15 1984
INSTANTANEOUS PEAK STAGE			3.13	Apr 30	8.28	May 15 1984
ANNUAL RUNOFF (AC-FT)	27930		39890		30500	
10 PERCENT EXCEEDS	112		211		120	
50 PERCENT EXCEEDS	9.4		12		11	
90 PERCENT EXCEEDS	6.8		6.8		5.5	

a-Also occurred Oct 5 and 16.
b-May have been higher during period of indefinite stage-discharge relationship, May 16-21, 1984.

09131495 PAONIA RESERVOIR NEAR BARDINE, CO

LOCATION.--Lat 38°56'39", long 107°21'06", in NE¼ sec.8, T.13 S., R.89 W., Gunnison County, Hydrologic Unit 14020004, in gate house of Paonia Dam on Muddy Creek, 16 mi east of Paonia.

DRAINAGE AREA.--246 mi².

PERIOD OF RECORD.--December 1961 to current year. Monthend active contents provided by U.S. Bureau of Reclamation from December 1961 to September 1987.

GAGE.--Water-stage recorder with satellite telemetry. 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 December 1961; dam completed January 1962. Capacity 20,950 acre-ft, 1966 survey, between elevation 6,290.0 ft streambed at dam, and 6,447.5 ft, crest of spillway. Dead storage below elevation 6,358.0 ft, 2,440 acre-ft. Inactive storage below elevation 6360.0 ft, 2,620 acre-ft. Figures published prior to 1988 water year are active contents; figures given beginning 1988 water year are live contents.

COOPERATION.--Capacity tables provided by U.S. Bureau of Reclamation.

REVISIONS.--Monthend elevation in feet NGVD and contents, at 2400, for water years 1988-91, were published in error. The correct figures are being published herewith.

EXTREMES FOR WATER YEAR 1988.--Maximum contents, 17,140 acre-ft, July 7, elevation, 6,448.82 ft; minimum contents, 1,378 acre-ft, Sept. 10-12, elevation, 6,380.71 ft.

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

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,368.91	527	--
Oct. 31	6,385.39	1,877	+1,350
Nov. 30	6,392.67	2,901	+1,024
Dec. 31	6,397.75	3,728	+827
CAL YR 1987	-	-	-1,747
Jan. 31	6,401.60	4,409	+681
Feb. 29	6,404.25	4,917	+508
Mar. 31	6,389.60	2,437	-2,480
Apr. 30	6,386.43	2,005	-432
May 31	6,447.40	16,670	+14,665
June 30	6,447.81	16,810	+140
July 31	6,434.20	12,530	-4,280
Aug. 31	6,395.61	3,371	-9,159
Sept. 30	6,386.92	2,068	-1,303
WTR YR 1988	-	-	+1,541

EXTREMES FOR WATER YEAR 1989.--Maximum contents, 16,930 acre-ft, May 29-31, elevation, 6,448.18 ft; minimum contents, 453 acre-ft, Sept. 13, elevation, 6,367.55 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1988 TO SEPTEMBER 1989

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,386.92	2,068	--
Oct. 31	6,389.26	2,388	+320
Nov. 30	6,392.03	2,801	+413
Dec. 31	6,393.72	3,066	+265
CAL YR 1988	-	-	-662
Jan. 31	6,395.57	3,364	+298
Feb. 28	6,397.96	3,764	+400
Mar. 31	6,386.61	2,028	+1,736
Apr. 30	6,397.37	3,664	+1,636
May 31	6,448.18	16,930	+13,266
June 30	6,447.88	16,830	-100
July 31	6,431.98	11,870	-4,960
Aug. 31	6,402.00	4,483	-7,387
Sept. 30	6,370.99	645	-3,838
WTR YR 1989	-	-	-1,423

09131495 PAONIA RESERVOIR NEAR BARDINE, CO--Continued

EXTREMES FOR WATER YEAR 1990.--Maximum contents, 16,880 acre-ft, June 6, 7, elevation, 6,448.04 ft; minimum contents, 433 acre-ft, Sept. 4, 5, elevation, 6,367.17 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1989 TO SEPTEMBER 1990

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,370.99	645	--
Oct. 31	6,379.57	1,275	+630
Nov. 30	6,392.03	2,801	+1,526
Dec. 31	6,383.26	1,633	-1,168
CAL YR 1989	-	-	-1,424
Jan. 31	6,390.55	2,577	+944
Feb. 28	6,396.82	3,571	+994
Mar. 31	6,410.22	6,188	+2,617
Apr. 30	6,443.57	15,420	+9,232
May 31	6,447.67	16,760	+1,340
June 30	6,447.71	16,770	+10
July 31	6,429.67	11,200	-5,570
Aug. 31	6,380.99	1,403	-9,797
Sept. 30	6,374.45	871	-532
WTR YR 1990	-	-	+226

EXTREMES FOR WATER YEAR 1991.--Maximum contents, 17,180 acre-ft, June 26, elevation, 6,448.94 ft; minimum contents, 776 acre-ft, May 1, 2, elevation, 6,373.06 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,374.45	871	--
Oct. 31	6,386.75	2,046	+1,175
Nov. 30	6,393.49	3,029	+983
Dec. 31	6,398.03	3,776	+747
CAL YR 1990	-	-	+2,143
Jan. 31	6,401.97	4,477	+701
Feb. 28	6,405.69	5,207	+730
Mar. 31	6,410.08	6,156	+949
Apr. 30	6,376.77	1,044	-5,112
May 31	6,418.52	8,183	+7,139
June 30	6,447.89	16,830	+8,647
July 31	6,444.13	15,600	-1,230
Aug. 31	6,418.32	8,133	-7,467
Sept. 30	6,379.99	1,312	-6,821
WTR YR 1991	-	-	+441

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,080 acre-ft, May 28 elevation, 6,448.62 ft; minimum contents, 522 acre-ft, October 4, elevation, 6,368.83 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,379.99	1,312	--
Oct. 31	6,379.13	1,237	-75
Nov. 30	6,388.14	2,230	+993
Dec. 31	6,391.77	2,762	+532
CAL YR 1991	-	-	-1,014
Jan. 31	6,394.13	3,131	+369
Feb. 29	6,396.71	3,553	+422
Mar. 31	6,403.25	4,721	+1,168
Apr. 30	6,399.30	3,996	-725
May 31	6,448.25	16,950	+12,954
June 30	6,447.78	16,800	-150
July 31	6,443.44	15,380	-1,420
Aug. 31	6,424.08	9,639	-5,741
Sept. 30	6,388.23	2,243	-7,396
WTR YR 1992	-	-	+931

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 with satellite telemetry. 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: Nov. 21, 22, 24-26, and Dec. 2 to Feb. 25. Records good except for estimated daily discharges, which are poor. 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. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185	73	72	65	59	69	292	1540	1170	421	222	209
2	183	77	64	58	60	70	302	1370	1050	363	226	209
3	176	63	66	57	60	70	315	1250	1020	314	228	197
4	113	96	66	68	58	75	354	1250	1090	282	230	192
5	74	82	70	69	55	74	383	1250	1210	288	232	194
6	74	80	70	65	54	78	459	1240	1250	277	229	213
7	72	87	70	67	57	80	555	1200	1140	272	233	228
8	72	86	77	65	61	82	589	1220	1010	381	216	224
9	72	82	77	60	59	80	645	1290	924	432	202	224
10	70	82	72	59	60	75	700	1200	924	317	220	224
11	69	89	76	63	59	75	761	975	1000	277	250	220
12	69	87	70	66	60	79	777	921	1040	264	228	220
13	69	77	66	64	60	85	990	942	1040	297	224	220
14	69	82	60	65	63	92	1210	1050	997	274	220	220
15	69	88	58	61	62	98	1230	1090	914	243	216	220
16	69	81	60	58	61	99	1200	1080	794	231	213	220
17	67	79	62	62	61	102	1110	1280	661	220	238	220
18	67	79	67	64	61	102	1230	1350	668	207	230	220
19	67	76	73	56	56	94	1060	1380	731	208	219	220
20	67	66	72	58	63	86	935	1480	752	210	213	233
21	69	76	63	61	69	88	711	1690	752	224	212	241
22	68	70	66	61	67	88	624	1530	721	229	221	226
23	67	57	61	62	68	90	610	1370	652	234	257	224
24	83	63	57	65	66	90	615	1340	650	244	250	219
25	94	81	58	64	67	87	702	1300	680	293	221	216
26	88	80	60	67	60	91	786	1390	699	282	275	210
27	82	78	58	64	58	103	916	2170	597	255	216	207
28	84	75	58	59	60	195	1150	1990	528	233	210	206
29	79	75	64	57	66	268	1330	1610	500	224	209	208
30	77	75	62	57	---	280	1470	1410	472	224	216	209
31	75	---	63	58	---	282	---	1270	---	220	210	---
TOTAL	2639	2342	2038	1925	1770	3327	24011	41428	25636	8440	6986	6493
MEAN	85.1	78.1	65.7	62.1	61.0	107	800	1336	855	272	225	216
MAX	185	96	77	69	69	282	1470	2170	1250	432	275	241
MIN	67	57	57	56	54	69	292	921	472	207	202	192
AC-FT	5230	4650	4040	3820	3510	6600	47630	82170	50850	16740	13860	12880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1992, BY WATER YEAR (WY)

MEAN	116	91.6	77.0	65.5	68.9	141	722	1898	1460	434	191	147
MAX	466	318	271	166	180	721	1736	3993	4095	1817	438	319
(WY)	1987	1987	1966	1966	1986	1986	1986	1984	1957	1957	1957	1986
MIN	47.9	35.2	33.1	29.6	30.4	40.2	166	314	179	64.6	48.1	47.6
(WY)	1957	1990	1978	1990	1978	1964	1977	1977	1934	1934	1977	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1934 - 1992	
ANNUAL TOTAL	144942		127035			
ANNUAL MEAN	397		347		452	
HIGHEST ANNUAL MEAN					829	1984
LOWEST ANNUAL MEAN					114	1977
HIGHEST DAILY MEAN	3090	May 21	2170	May 27	7080	May 24 1984
LOWEST DAILY MEAN	37	Feb 15	54	Feb 6	17	Nov 10 1950
ANNUAL SEVEN-DAY MINIMUM	39	Feb 10	58	Feb 1	25	Feb 17 1978
INSTANTANEOUS PEAK FLOW			2290	May 27	9220	May 24 1984
INSTANTANEOUS PEAK STAGE			4.85	May 27	[a]8.20	May 24 1984
ANNUAL RUNOFF (AC-FT)	287500		252000		327500	
10 PERCENT EXCEEDS	1350		1120		1490	
50 PERCENT EXCEEDS	169		199		128	
90 PERCENT EXCEEDS	46		61		52	

a-From outside high-water mark.

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 0.25 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, at datum 2.0 ft, lower.

REMARKS.--Estimated daily discharges: Nov. 3, 19, 20, 22-24, 30, Dec. 1-4, 12-14, 22, 23, 25, 27-30, Jan. 9, 18-22, Feb. 2, 5-7, 18-20, 24, and Feb. 27. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	5.1	3.5	3.1	3.4	2.6	15	55	107	49	16	16
2	3.1	5.6	3.3	2.9	3.2	2.6	14	52	94	46	16	14
3	3.2	5.0	3.3	2.9	2.6	3.3	14	51	87	42	16	14
4	3.2	5.6	3.3	3.1	2.6	3.1	15	57	81	38	15	13
5	3.2	4.3	3.4	3.0	2.5	5.0	18	60	83	39	16	9.0
6	3.3	4.2	3.2	2.9	2.5	5.9	19	64	82	37	16	7.2
7	3.3	4.5	3.3	3.1	2.5	4.9	19	75	72	34	19	7.1
8	3.3	3.5	3.2	3.1	2.4	5.0	19	84	66	36	22	7.2
9	3.3	3.4	3.2	3.0	2.2	4.0	20	99	60	33	21	6.3
10	3.2	3.7	3.2	3.2	2.3	3.1	21	109	56	32	21	5.7
11	3.1	3.9	3.2	3.1	2.3	2.8	22	104	54	32	20	5.4
12	1.9	3.3	3.4	3.0	2.2	3.6	24	102	53	31	20	4.4
13	1.8	2.9	4.3	3.0	2.1	4.4	24	100	53	31	20	4.2
14	1.8	3.3	3.3	2.9	2.6	5.2	27	102	52	30	18	4.1
15	1.9	3.9	3.0	3.0	2.1	5.3	29	104	50	30	17	4.4
16	2.4	3.5	3.3	3.1	2.5	5.5	32	102	47	28	17	4.3
17	2.4	3.3	3.4	3.2	2.3	4.9	27	102	45	25	16	4.1
18	2.4	3.7	3.3	3.3	2.3	4.2	33	102	43	22	14	4.0
19	2.3	3.7	3.5	3.1	2.2	3.2	26	100	41	21	12	4.3
20	2.3	3.5	3.2	3.1	2.3	3.0	22	104	41	21	11	5.2
21	2.3	4.0	3.2	3.3	2.2	3.5	20	111	41	21	7.2	5.0
22	2.3	3.9	3.2	3.3	2.4	5.5	20	111	45	21	11	5.2
23	2.3	3.5	3.2	3.6	2.1	5.1	20	99	55	22	19	5.0
24	4.6	3.7	3.3	3.1	2.0	4.2	20	96	58	21	18	4.8
25	6.8	4.1	3.3	3.0	2.0	4.4	22	95	54	23	18	4.6
26	5.5	3.7	3.4	2.9	2.5	5.6	24	98	56	22	19	4.7
27	5.2	3.6	3.3	3.0	2.5	7.0	28	125	56	21	16	4.7
28	5.9	3.6	3.3	3.1	2.3	19	34	124	54	21	15	4.6
29	4.7	3.6	3.4	3.2	2.4	17	44	119	50	22	15	4.6
30	4.9	3.7	3.3	3.0	---	12	53	117	49	19	16	4.6
31	4.4	---	3.7	2.9	---	13	---	121	---	18	16	---
TOTAL	103.8	117.3	103.4	95.5	69.5	177.9	725	2944	1785	888	513.2	191.7
MEAN	3.35	3.91	3.34	3.08	2.40	5.74	24.2	95.0	59.5	28.6	16.6	6.39
MAX	6.8	5.6	4.3	3.6	3.4	19	53	125	107	49	22	16
MIN	1.8	2.9	3.0	2.9	2.0	2.6	14	51	41	18	7.2	4.0
AC-FT	206	233	205	189	138	353	1440	5840	3540	1760	1020	380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1992, BY WATER YEAR (WY)

MEAN	6.15	5.65	4.70	3.63	4.09	6.83	30.4	94.1	68.7	25.4	14.1	7.30
MAX	16.6	12.9	9.08	5.80	8.62	19.2	89.6	152	126	39.6	23.5	18.2
(WY)	1942	1987	1987	1942	1986	1986	1942	1942	1986	1986	1986	1986
MIN	3.35	2.50	1.78	1.71	2.40	3.32	7.18	23.6	25.2	11.6	4.49	3.57
(WY)	1992	1941	1990	1990	1992	1991	1990	1990	1990	1939	1990	1946

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1937 - 1992	
ANNUAL TOTAL	6540.5		7714.3			
ANNUAL MEAN	17.9		21.1		22.7	
HIGHEST ANNUAL MEAN					40.0	1986
LOWEST ANNUAL MEAN					7.97	1990
HIGHEST DAILY MEAN	124	May 31	125	May 27	306	May 16 1937
LOWEST DAILY MEAN	[a]1.8	Oct 13	[a]1.8	Oct 13	1.0	Nov 14 1936
ANNUAL SEVEN-DAY MINIMUM	2.1	Oct 12	2.1	Oct 12	1.4	Jan 16 1990
INSTANTANEOUS PEAK FLOW			151	May 28	[b]356	Jul 10 1936
INSTANTANEOUS PEAK STAGE			2.48	May 28	3.00	Jul 10 1936
ANNUAL RUNOFF (AC-FT)	12970		15300		16430	
10 PERCENT EXCEEDS	54		59		69	
50 PERCENT EXCEEDS	4.7		5.1		7.0	
90 PERCENT EXCEEDS	2.5		2.6		3.0	

a-Also occurred Oct 14.
b-Maximum discharge observed, site and datum then in use.

09135900 LEROUX CREEK AT HOTCHKISS, CO

LOCATION.--Lat 38°47'53", long 107°43'53", in NW¼NE¼ sec.36, T.14 S., R.93 W., Delta County, Hydrologic Unit 14020004, on left bank at upstream side of culvert, 0.3 mi west of Hotchkiss city limits, and 0.5 mi upstream from mouth.

DRAINAGE AREA.--66.7 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,315 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 29 to Mar. 5, May 7 to June 11. Records fair except for estimated daily discharges, which are poor. Natural flow of stream is affected by diversions upstream from station for irrigation and by return flow from irrigated area upstream from station. Mostly return flow after June.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	9.4	8.9	6.7	5.8	9.4	32	6.0	6.3	8.7	8.4
2	13	12	11	8.6	6.7	5.6	13	20	6.0	6.3	8.3	8.5
3	14	12	9.5	8.3	6.7	5.8	14	16	6.4	6.8	6.1	8.7
4	15	12	9.7	8.4	6.6	5.6	23	12	6.4	6.7	4.1	8.3
5	12	12	9.5	8.3	6.5	5.4	25	12	6.7	6.6	4.2	8.5
6	9.6	12	9.3	7.9	6.5	5.0	28	9.8	6.4	6.8	6.9	8.4
7	11	12	9.3	8.2	6.6	4.8	36	6.0	6.2	7.3	9.9	8.9
8	10	12	9.3	7.9	6.7	4.8	41	5.5	6.2	7.5	9.3	7.6
9	9.9	12	9.3	7.4	6.6	4.9	52	6.0	6.2	6.8	9.3	5.9
10	9.8	12	9.2	7.3	6.6	5.0	78	6.5	6.2	6.0	9.5	6.9
11	9.4	12	9.4	7.4	6.6	5.0	97	7.0	6.3	5.6	8.5	8.8
12	9.0	12	9.6	7.5	6.6	4.9	121	7.5	5.8	5.0	9.0	9.3
13	9.2	12	9.3	7.4	6.6	5.0	124	8.3	5.7	4.1	8.8	9.2
14	9.2	12	9.2	7.4	6.6	4.9	150	8.1	5.9	4.2	8.0	9.1
15	9.1	12	9.3	7.4	6.5	4.9	120	7.9	6.1	5.2	7.5	9.5
16	12	12	9.4	7.0	6.4	5.1	121	7.9	5.0	6.7	7.4	10
17	15	12	9.4	7.0	6.4	4.9	86	8.1	4.9	7.1	6.1	10
18	15	13	9.2	7.0	6.4	5.0	55	8.3	5.0	7.1	5.5	10
19	14	12	9.7	7.0	7.1	5.2	21	8.3	5.5	7.5	5.6	11
20	14	11	9.7	7.0	7.1	5.3	16	8.2	6.5	7.4	7.0	12
21	14	11	9.5	7.2	7.0	5.6	18	8.4	6.3	7.1	8.7	9.3
22	14	11	11	7.0	6.3	6.1	21	8.4	6.4	6.9	9.0	7.6
23	14	10	9.2	6.9	6.1	5.9	16	8.0	6.3	5.4	9.5	8.7
24	15	11	9.1	7.0	5.9	5.6	14	8.0	5.3	3.9	9.4	10
25	15	10	8.8	6.9	5.7	5.0	16	8.0	5.0	4.5	8.6	10
26	13	10	8.8	6.9	5.7	4.9	27	8.2	5.1	5.9	8.3	10
27	13	10	8.8	6.8	5.7	6.8	45	8.4	5.2	7.5	7.9	10
28	14	10	8.7	6.9	5.8	12	61	10	5.2	7.6	8.2	10
29	13	10	8.9	6.9	5.6	9.3	58	7.2	5.8	7.6	8.3	11
30	13	9.8	8.9	6.9	---	8.8	55	6.0	6.0	8.3	8.2	12
31	12	---	9.0	6.8	---	9.6	---	6.0	---	9.5	7.6	---
TOTAL	382.2	342.8	290.4	229.5	186.3	182.5	1561.4	292.0	176.0	201.2	243.4	277.6
MEAN	12.3	11.4	9.37	7.40	6.42	5.89	52.0	9.42	5.87	6.49	7.85	9.25
MAX	15	13	11	8.9	7.1	12	150	32	6.7	9.5	9.9	12
MIN	9.0	9.8	8.7	6.8	5.6	4.8	9.4	5.5	4.9	3.9	4.1	5.9
AC-FT	758	680	576	455	370	362	3100	579	349	399	483	551

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	20.9	16.3	12.7	10.5	10.1	11.3	48.4	108	76.0	5.55	6.13	9.45
MAX	84.2	51.6	25.2	21.2	28.3	47.7	165	328	290	19.3	9.11	35.9
(WY)	1987	1987	1987	1987	1987	1986	1987	1984	1983	1983	1983	1982
MIN	1.95	2.85	3.35	2.77	2.80	2.74	2.44	.96	.89	.85	1.32	1.10
(WY)	1978	1978	1978	1978	1978	1990	1990	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	4100.3		4365.3			
ANNUAL MEAN	11.2		11.9		28.3	
HIGHEST ANNUAL MEAN					55.1	1984
LOWEST ANNUAL MEAN					4.95	1977
HIGHEST DAILY MEAN	192	May 19	150	Apr 14	1110	Jun 7 1984
LOWEST DAILY MEAN	1.2	Apr 14	3.9	Jul 24	.55	Jul 10 1977
ANNUAL SEVEN-DAY MINIMUM	1.6	Apr 9	4.9	Mar 6	.58	Jul 4 1977
INSTANTANEOUS PEAK FLOW			217	Apr 14	1880	Jun 7 1984
INSTANTANEOUS PEAK STAGE			4.74	Apr 14	11.82	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	8130		8660		20530	
10 PERCENT EXCEEDS	13		14		61	
50 PERCENT EXCEEDS	5.6		8.3		8.4	
90 PERCENT EXCEEDS	3.7		5.5		3.0	

09135900 LEROUX CREEK AT HOTCHKISS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	CADMIUM DIS-SOLVED (UG/L AS CD)
NOV									
05...	1445	12	1230	8.3	11.5	--	49	33	<1
MAR									
17...	1400	4.7	1280	8.4	12.0	9.5	25	K17	<1
JUN									
16...	1740	4.9	1530	8.4	15.5	8.3	120	81	<1
AUG									
11...	1545	8.6	1390	8.2	18.5	8.3	160	K77	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV									
05...	<1	170	<1	40	30	<0.1	10	[a]<0.2	<10
MAR									
17...	1	210	<1	40	30	<0.1	12	[a]<0.2	<10
JUN									
16...	<1	120	<1	30	20	<0.1	21	[a]<0.2	<10
AUG									
11...	<1	200	<1	50	30	<0.1	12	[a]<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
03...	1535	15	1010	15.5
NOV				
07...	1435	12	900	13.0
DEC				
12...	1505	8.8	1310	8.5
JAN				
29...	1415	7.1	1380	6.5
MAR				
05...	1425	5.6	1310	8.0
APR				
09...	1525	36	458	11.5
MAY				
07...	1515	5.7	1010	18.0
JUN				
11...	1525	6.1	1460	18.5
JUL				
09...	1515	6.2	1420	21.0

a-Analysis based on preliminary method.
K Based on non-ideal colony count.

09143000 SURFACE CREEK NEAR CEDAREDGE, 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 with satellite telemetry. Elevation of gage is 8,261 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29, Nov. 1, 3, Nov. 6 to Mar. 12, and Mar. 20 to Apr. 9. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	8.1	3.3	3.5	3.3	4.3	9.2	144	92	56	45	33
2	26	7.8	2.3	2.8	3.3	4.0	9.6	127	81	57	43	49
3	26	7.1	2.5	2.7	3.4	4.2	10	115	75	49	39	49
4	23	8.1	2.7	3.8	3.3	4.4	16	113	72	47	40	41
5	21	6.7	3.1	3.9	2.9	4.5	32	103	79	46	79	41
6	21	6.2	3.3	3.6	2.9	4.5	32	96	76	50	85	40
7	11	5.7	3.5	3.7	3.1	4.7	34	98	73	51	99	21
8	9.3	4.5	4.2	3.5	3.6	4.6	36	124	69	84	96	19
9	12	4.5	4.2	3.2	3.3	4.6	38	139	66	82	93	18
10	12	4.6	3.7	2.9	3.3	4.4	40	107	64	70	43	19
11	10	4.6	4.1	3.1	3.2	4.7	46	90	63	69	41	21
12	10	4.4	3.7	3.6	3.3	7.0	54	87	67	70	40	22
13	10	4.3	3.5	3.4	3.2	38	57	82	63	73	40	22
14	9.8	4.7	2.3	3.5	3.4	40	69	78	59	72	42	20
15	9.8	5.1	2.6	3.2	3.5	40	60	80	58	58	41	21
16	11	4.7	2.8	2.2	3.5	41	56	80	55	55	41	23
17	11	4.4	3.0	3.1	3.5	42	47	81	57	31	36	23
18	12	4.7	3.5	3.3	3.5	43	59	83	54	28	35	13
19	12	4.5	4.2	2.5	3.0	44	39	81	50	28	45	13
20	12	3.6	4.1	2.7	3.4	17	33	84	49	32	46	14
21	11	4.6	3.2	3.0	4.2	6.5	39	86	47	32	56	13
22	11	4.0	3.5	3.0	4.1	6.4	46	77	44	45	58	7.6
23	10	2.5	3.2	3.0	4.3	6.8	40	74	42	44	62	7.4
24	12	3.0	2.7	3.3	4.2	6.6	54	74	78	48	45	7.0
25	13	5.1	2.8	3.2	4.5	6.6	75	89	78	48	39	6.8
26	12	5.0	3.0	3.7	4.3	6.6	94	127	75	46	45	6.7
27	12	4.8	2.8	3.5	4.8	6.8	122	195	74	31	43	6.9
28	9.1	4.1	2.8	3.3	5.1	8.8	142	176	71	29	31	7.4
29	12	4.2	3.4	3.2	4.2	8.2	148	140	31	49	31	7.4
30	8.7	4.3	3.2	3.2	---	8.4	153	120	29	48	32	32
31	8.3	---	3.3	3.2	---	8.8	---	102	---	43	34	---
TOTAL	415.0	149.9	100.5	99.8	105.6	441.4	1689.8	3252	1891	1571	1545	624.2
MEAN	13.4	5.00	3.24	3.22	3.64	14.2	56.3	105	63.0	50.7	49.8	20.8
MAX	27	8.1	4.2	3.9	5.1	44	153	195	92	84	99	49
MIN	8.3	2.5	2.3	2.2	2.9	4.0	9.2	74	29	28	31	6.7
AC-FT	823	297	199	198	209	876	3350	6450	3750	3120	3060	1240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

MEAN	17.1	7.91	5.57	5.19	5.21	6.82	34.6	125	135	75.5	54.8	33.6
MAX	58.5	35.2	16.7	14.7	12.5	15.2	89.5	258	343	191	93.4	65.5
(WY)	1942	1942	1987	1987	1987	1972	1943	1952	1983	1983	1983	1983
MIN	6.25	1.64	1.26	.92	1.11	1.57	9.13	29.2	16.0	12.2	15.9	11.0
(WY)	1978	1990	1977	1977	1977	1977	1964	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1939 - 1992	
ANNUAL TOTAL	12935.7		11885.2			
ANNUAL MEAN	35.4		32.5		42.5	
HIGHEST ANNUAL MEAN					75.7	1983
LOWEST ANNUAL MEAN					10.6	1977
HIGHEST DAILY MEAN	196	Jun 14	195	May 27	480	Jun 26 1983
LOWEST DAILY MEAN	[a]2.3	Dec 2	2.2	Jan 16	.80	Jan 15 1977
ANNUAL SEVEN-DAY MINIMUM	3.0	Dec 1	2.8	Jan 16	.89	Jan 9 1977
INSTANTANEOUS PEAK FLOW			[b]210	Apr 30	[c]824	Jun 7 1984
INSTANTANEOUS PEAK STAGE			[b]2.40	Apr 30	[d]3.67	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	25660		23570		30760	
10 PERCENT EXCEEDS	95		81		113	
50 PERCENT EXCEEDS	11		13		16	
90 PERCENT EXCEEDS	3.6		3.2		3.8	

a-Also occurred Dec 14.
b-Also occurred May 27.
c-From rating curve extended above 310 ft³/s.
d-Maximum gage height, 5.10 ft, Apr 13, 1958, ice jam.

09143500 SURFACE CREEK AT CEDAREDGE, 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 Cedaredge, 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.--WRD CO-83-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, 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: Dec. 1 to Feb. 14. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.5	3.3	3.6	3.6	4.2	5.9	66	46	25	18	21
2	9.6	5.4	2.6	3.3	3.7	3.8	7.8	64	44	29	17	17
3	9.3	5.3	2.7	3.3	3.7	4.3	9.1	72	50	26	20	13
4	8.2	7.5	2.7	3.9	3.5	3.9	15	77	50	24	21	6.7
5	5.1	5.7	2.9	4.0	3.3	3.7	19	72	54	24	26	4.2
6	4.8	5.5	2.9	3.9	3.3	3.7	23	64	48	27	28	4.2
7	6.2	5.7	2.9	4.0	3.5	3.4	30	65	45	27	35	5.5
8	7.0	5.6	3.3	3.9	3.7	3.8	36	82	44	39	33	5.3
9	7.5	4.8	3.3	3.8	3.5	4.0	46	77	44	36	31	5.8
10	6.9	4.5	3.0	3.7	3.5	3.8	48	54	45	32	20	4.8
11	7.4	4.5	3.2	3.9	3.4	3.8	49	62	46	32	19	5.0
12	7.5	4.2	3.0	4.2	3.5	3.8	56	58	50	33	17	4.6
13	7.6	4.2	2.7	4.1	3.4	3.6	48	52	44	26	17	4.4
14	6.9	5.1	2.1	4.1	3.6	4.0	56	49	40	21	22	3.3
15	6.4	5.1	2.3	4.0	3.2	4.7	45	50	31	16	24	4.1
16	7.8	5.0	2.4	3.6	3.1	4.4	42	51	27	14	24	4.4
17	8.0	4.4	2.5	4.1	3.2	4.8	32	55	31	12	23	3.4
18	8.3	4.5	2.7	4.2	5.4	4.2	43	55	31	11	21	5.1
19	7.6	4.2	3.4	3.9	5.3	3.5	34	54	27	10	25	5.6
20	7.6	4.4	3.4	4.1	4.8	3.2	33	58	26	11	26	6.8
21	8.1	5.7	3.0	4.3	3.2	3.6	35	59	28	11	31	8.3
22	8.1	4.6	3.2	4.3	2.9	3.9	45	54	27	15	34	4.8
23	7.5	4.2	3.1	4.3	3.1	3.9	39	54	25	18	36	3.8
24	9.8	5.0	2.9	4.5	4.0	3.7	48	55	30	21	33	3.8
25	12	4.8	3.0	4.5	3.6	3.4	65	62	27	21	30	3.2
26	11	4.5	3.2	4.7	3.7	4.1	78	66	28	21	32	2.8
27	11	4.3	3.1	4.6	3.8	4.6	89	108	28	16	30	2.8
28	8.2	4.2	3.1	4.4	3.8	5.4	89	81	26	15	25	3.8
29	6.2	4.1	3.5	4.3	4.1	4.9	81	51	13	20	23	3.7
30	6.4	4.0	3.4	4.3	---	4.7	76	44	10	20	24	4.8
31	5.5	---	3.5	3.9	---	5.0	---	43	---	17	23	---
TOTAL	243.5	148.5	92.3	125.7	106.4	125.8	1322.8	1914	1065	670	788	176.0
MEAN	7.85	4.95	2.98	4.05	3.67	4.06	44.1	61.7	35.5	21.6	25.4	5.87
MAX	12	7.5	3.5	4.7	5.4	5.4	89	108	54	39	36	21
MIN	4.8	4.0	2.1	3.3	2.9	3.2	5.9	43	10	10	17	2.8
AC-FT	483	295	183	249	211	250	2620	3800	2110	1330	1560	349

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1992, BY WATER YEAR (WY)

MEAN	10.3	5.27	3.39	3.17	3.28	4.60	34.2	108	81.6	35.1	22.4	14.9
MAX	49.3	27.3	15.0	14.0	12.8	21.3	83.7	302	313	112	39.3	29.9
(WY)	1942	1942	1926	1987	1987	1986	1942	1920	1983	1983	1975	1982
MIN	2.00	.95	.50	.40	.40	.65	1.00	28.4	8.83	5.95	8.77	3.37
(WY)	1919	1922	1934	1940	1940	1954	1920	1977	1977	1977	1977	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1918 - 1992	
ANNUAL TOTAL	7770.8		6778.0			
ANNUAL MEAN	21.3		18.5		27.3	
HIGHEST ANNUAL MEAN					62.5	1983
LOWEST ANNUAL MEAN					7.87	1977
HIGHEST DAILY MEAN	123	May 18	108	May 27	640	May 30 1920
LOWEST DAILY MEAN	2.1	Dec 14	2.1	Dec 14	[a].00	Sep 25 1939
ANNUAL SEVEN-DAY MINIMUM	2.5	Dec 12	2.5	Dec 12	.11	Mar 12 1954
INSTANTANEOUS PEAK FLOW			133	May 27	[b]1190	May 13 1941
INSTANTANEOUS PEAK STAGE			1.89	May 27	2.50	May 13 1941
ANNUAL RUNOFF (AC-FT)	15410		13440		19800	
10 PERCENT EXCEEDS	62		50		73	
50 PERCENT EXCEEDS	7.8		6.7		9.3	
90 PERCENT EXCEEDS	3.1		3.3		2.0	

a-Practically no flow at times during some winters.
b-From rating curve extended above 640 ft³/s.

09144250 GUNNISON RIVER AT DELTA, CO

LOCATION.--Lat 38°45'01", long 108°04'06", in SE¼NE¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank near upstream side of U.S. Highway 50 bridge at north edge of Delta.

DRAINAGE AREA.--5,628 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1976 to current year. Gage-height records collected at this site 1912-77 (flood seasons only) are in reports of the National Weather Service.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,919.97 ft, National Weather Service Datum (levels by National Weather Service). Prior to May 1976 nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Apr. 15-21. Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, and many diversions for irrigation. Auxiliary gage established 0.7 mi downstream to collect streamflow data during bridge construction at principal site, June 27,1991 to September 30,1992.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height observed, 13.5 ft, June 6, 1957, from National Weather Service wire-weight gage at present datum, (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	1560	1540	1430	1010	885	1120	2710	2930	1180	974	1080
2	1510	1610	1480	1400	1010	869	1130	2430	2630	1140	973	1070
3	1530	1580	1480	1400	1020	858	1150	2090	2480	1130	962	984
4	1580	1560	1460	1390	1020	932	1180	1930	2440	1090	1020	966
5	1150	1590	1490	1410	964	983	1220	1910	2550	1130	963	968
6	1090	1570	1520	1410	877	981	1370	1760	2610	1100	1010	962
7	732	1570	1530	1430	872	964	1470	1780	2510	1030	1110	954
8	573	1570	1530	1410	886	940	1510	1920	2290	1090	1060	952
9	541	1580	1540	1360	886	950	1720	2050	2150	1360	1050	923
10	525	1560	1520	1370	894	950	1820	2420	2070	1200	1010	848
11	532	1570	1550	1370	928	916	1870	1860	2080	1130	998	830
12	900	1560	1540	1370	945	913	1960	2430	2160	1140	1080	839
13	1660	1550	1500	1380	968	914	2130	3210	2090	1180	1080	859
14	1670	1530	1440	1220	985	919	2260	4120	2040	1390	1030	860
15	1710	1550	1430	970	981	933	2900	4420	1890	1290	1040	796
16	1200	1650	1430	940	945	949	2870	4260	1730	1240	1030	835
17	900	1590	1440	996	917	952	2800	4130	1580	1060	1070	826
18	917	1590	1440	1020	882	958	2700	3920	1480	986	1090	820
19	1160	1600	1490	978	876	957	2900	3660	1480	988	1070	907
20	1320	1100	1480	970	843	947	2450	3480	1500	989	993	974
21	1340	816	1480	965	915	901	1900	3610	1480	961	980	1010
22	1020	856	1460	1000	915	884	1510	3440	1500	942	1010	982
23	850	1460	1470	1030	899	963	1430	2940	1390	977	1130	960
24	878	1370	1410	1020	881	947	1290	2730	1350	1070	1280	965
25	980	1360	1420	1010	869	814	1390	2680	1550	1140	1290	950
26	1340	1520	1420	1000	865	789	1550	2740	1540	1160	1300	956
27	1580	1570	1430	1000	865	772	1670	4050	1450	1120	1240	944
28	1640	1570	1410	998	871	793	1880	4290	1390	1040	1110	932
29	1680	1580	1410	998	881	952	2220	3660	1330	1010	1130	926
30	1610	1560	1350	1000	---	1350	2480	3240	1230	998	1090	931
31	1590	---	1370	1010	---	1150	---	3030	---	990	1080	---
TOTAL	37208	44702	45460	36255	26670	28985	55850	92900	56900	34251	33253	27809
MEAN	1200	1490	1466	1170	920	935	1862	2997	1897	1105	1073	927
MAX	1710	1650	1550	1430	1020	1350	2900	4420	2930	1390	1300	1080
MIN	525	816	1350	940	843	772	1120	1760	1230	942	962	796
AC-FT	73800	88670	90170	71910	52900	57490	110800	184300	112900	67940	65960	55160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	1385	1565	1685	1772	1864	1969	2462	4276	3957	1978	1124	1178
MAX	2833	3156	3103	3349	3381	3696	6641	11090	13520	6506	2752	2496
(WY)	1987	1987	1987	1985	1985	1985	1985	1984	1984	1984	1984	1986
MIN	398	467	440	480	491	506	366	411	331	275	269	335
(WY)	1978	1978	1978	1990	1990	1990	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	582157		520243			
ANNUAL MEAN	1595		1421		2129	
HIGHEST ANNUAL MEAN					4670	1984
LOWEST ANNUAL MEAN					601	1990
HIGHEST DAILY MEAN	5710	May 22	4420	May 15	20300	Jun 7 1984
LOWEST DAILY MEAN	445	Jan 1	525	Oct 10	208	Aug 11 1977
ANNUAL SEVEN-DAY MINIMUM	470	Jan 1	699	Oct 6	215	Aug 10 1977
INSTANTANEOUS PEAK FLOW			4660	May 27	25500	Jun 7 1984
INSTANTANEOUS PEAK STAGE			4.68	May 27	13.15	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	1155000		1032000		1543000	
10 PERCENT EXCEEDS	4100		2420		3990	
50 PERCENT EXCEEDS	1170		1210		1570	
90 PERCENT EXCEEDS	556		885		480	

09144250 GUNNISON RIVER AT DELTA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
NOV										
07...	1140	1570	627	8.4	9.0	--	K13	K8	260	67
MAR										
19...	1145	960	632	8.7	6.0	13.2	K4	K2	240	58
JUN										
18...	1405	1520	--	--	18.0	7.6	27	K8	250	63
AUG										
13...	1355	1080	821	8.3	19.0	8.3	220	K54	350	90

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
NOV										
07...	23	35	0.9	2.8	130	230	6.1	0.3	12	454
MAR										
19...	22	33	0.9	3.0	127	190	6.8	0.3	12	401
JUN										
18...	22	30	0.8	2.5	113	190	17	0.3	13	406
AUG										
13...	30	44	1.0	3.8	146	270	6.8	0.3	13	545

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	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)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
NOV										
07...	0.62	1930	--	<0.01	0.31	<0.01	--	0.2	0.02	0.01
MAR										
19...	0.55	1040	0.10	0.01	0.11	0.01	--	<0.2	0.03	0.01
JUN										
18...	0.55	1660	0.11	0.01	0.12	<0.01	--	0.2	0.04	0.03
AUG										
13...	0.74	1590	0.33	0.02	0.35	0.04	0.46	0.5	0.15	0.03

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
07...	<1	<1	320	<1	50	13	<0.1	3	[a]<0.2	10
MAR										
19...	<1	1	--	<1	--	24	<0.1	4	[a]<0.2	3
JUN										
18...	<1	2	720	<1	40	13	<0.1	3	[a]<0.2	<3
AUG										
13...	<1	1	2700	<1	120	19	<0.1	5	[a]<0.2	<3

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09144250 GUNNISON RIVER AT DELTA, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
09...	1315	557	1160	13.0
NOV				
06...	1115	1510	692	8.0
DEC				
05...	1135	1390	--	3.5
JAN				
22...	1425	1190	--	1.0
MAR				
02...	1048	936	657	5.5
APR				
21...	1035	1830	490	8.0
MAY				
01...	1045	2090	423	11.5
12...	1120	2430	509	12.0
15...	1130	4470	345	12.0
19...	1513	3540	--	9.5
27...	1015	4320	--	14.5
JUN				
16...	1230	1770	634	15.0
JUL				
22...	1300	918	778	17.5
AUG				
24...	1342	1220	994	15.0
SEP				
10...	1500	791	929	16.5

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 mi^2.

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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. 14 to Feb. 6, Feb. 13, 14, and Feb. 17. Records good except for estimated daily discharges, which are poor. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	64	57	39	39	56	77	348	538	475	190	135
2	71	63	51	33	40	58	72	344	480	397	177	122
3	69	58	53	32	41	61	70	324	469	382	172	117
4	64	60	53	35	41	58	72	288	490	382	164	117
5	63	64	52	37	42	52	76	328	594	396	159	110
6	64	66	53	38	43	52	75	350	584	409	164	101
7	62	67	54	38	44	59	91	363	574	407	168	94
8	61	64	54	40	45	61	101	365	504	422	176	91
9	60	63	53	43	45	57	125	375	439	417	158	89
10	59	63	53	44	45	54	150	328	464	384	145	88
11	59	67	54	36	46	53	153	254	517	338	151	85
12	59	63	54	38	46	54	153	241	562	372	145	84
13	60	58	51	39	45	59	165	265	684	381	134	83
14	59	58	48	39	46	64	178	323	628	348	129	80
15	57	66	40	37	46	67	165	343	553	307	124	86
16	56	69	41	35	46	68	147	320	483	294	129	79
17	55	66	42	38	45	69	140	330	416	267	130	77
18	55	66	44	38	44	65	183	360	458	258	121	72
19	55	62	45	37	42	63	146	369	535	237	115	75
20	55	56	45	35	44	64	121	469	574	232	111	83
21	56	64	42	36	45	63	111	487	585	220	110	80
22	56	64	44	36	45	64	113	413	599	208	120	77
23	58	57	42	37	46	66	104	377	580	274	138	76
24	68	55	41	37	45	65	107	432	542	371	244	72
25	65	58	41	39	47	66	130	404	538	650	206	68
26	63	60	41	40	47	68	152	485	527	409	212	70
27	62	59	41	39	47	75	195	648	485	333	172	70
28	65	61	41	37	50	85	257	564	433	287	156	71
29	61	63	39	38	53	75	408	471	467	257	147	72
30	62	60	41	38	---	82	329	517	475	242	134	72
31	60	---	40	39	---	73	---	481	---	223	137	---
TOTAL	1892	1864	1450	1167	1300	1976	4366	11966	15777	10579	4738	2596
MEAN	61.0	62.1	46.8	37.6	44.8	63.7	146	386	526	341	153	86.5
MAX	73	69	57	44	53	85	408	648	684	650	244	135
MIN	55	55	39	32	39	52	70	241	416	208	110	68
AC-FT	3750	3700	2880	2310	2580	3920	8660	23730	31290	20980	9400	5150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1992, BY WATER YEAR (WY)

MEAN	87.1	67.3	51.3	43.5	44.4	58.2	112	319	587	336	156	105
MAX	153	94.4	67.3	52.9	59.9	81.0	188	765	914	848	301	250
(WY)	1985	1971	1971	1971	1963	1974	1985	1984	1984	1983	1982	1970
MIN	57.6	48.8	35.8	33.1	32.0	40.5	67.5	122	168	88.5	73.3	52.9
(WY)	1979	1990	1977	1977	1990	1964	1973	1977	1977	1977	1977	1959

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1959 - 1992	
ANNUAL TOTAL	57608		59671			
ANNUAL MEAN	158		163		164	
HIGHEST ANNUAL MEAN					270	1984
LOWEST ANNUAL MEAN					72.6	1977
HIGHEST DAILY MEAN	839	Jun 9	684	Jun 13	1740	Jun 24 1983
LOWEST DAILY MEAN	39	Dec 29	32	Jan 3	26	Jan 13 1963
ANNUAL SEVEN-DAY MINIMUM	41	Dec 25	36	Jan 1	30	Feb 13 1990
INSTANTANEOUS PEAK FLOW			1060	Jul 25	[a]2100	Jun 24 1983
INSTANTANEOUS PEAK STAGE			4.53	Jul 25	5.73	Jun 24 1983
ANNUAL RUNOFF (AC-FT)	114300		118400		119100	
10 PERCENT EXCEEDS	450		460		426	
50 PERCENT EXCEEDS	68		72		78	
90 PERCENT EXCEEDS	48		41		42	

a-From rating curve extended above 1800 ft^3/s.

09147000 DALLAS CREEK NEAR RIDGWAY, CO

LOCATION.--Lat 38°10'40", long 107°45'28", on line between sec.4 and 5, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 25 ft downstream from county road bridge, 1.5 mi upstream from mouth, and 1.5 mi northwest of Ridgway.

DRAINAGE AREA.--97.2 mi^2.

PERIOD OF RECORD.--March 1922 to October 1927, October 1955 to September 1971, October 1979 to current year.

REVISED RECORDS.--WSP 1924: 1960. WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 6,980 ft above National Geodetic Vertical Datum of 1929, from topographic map. Mar. 1, 1922 to Oct. 31, 1927, nonrecording gage at different datum.

REMARKS.--Estimated daily discharges: Dec. 2 to Feb. 21. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 4,500 acres upstream from and 700 acres downstream from station. One small ditch imports water from Leopard Creek (Dolores River basin) to drainage upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	18	19	13	14	19	25	21	193	78	65	46
2	9.5	19	18	12	15	21	25	15	93	63	57	41
3	9.5	28	17	12	15	24	25	9.2	72	53	54	40
4	10	23	17	13	15	23	29	6.4	70	53	49	39
5	10	21	17	14	15	20	32	2.8	83	61	45	39
6	9.7	23	17	14	16	20	33	.85	94	65	54	37
7	9.8	25	17	14	16	20	46	.41	90	71	56	35
8	9.6	22	16	15	16	22	55	.61	78	104	57	32
9	9.5	21	14	16	16	19	61	1.2	63	118	58	27
10	9.7	21	13	15	16	16	74	5.6	55	108	48	22
11	9.7	23	13	13	16	19	81	5.4	62	97	44	21
12	9.1	21	13	14	16	20	90	2.7	68	93	43	22
13	8.2	18	13	14	16	23	76	2.7	77	110	41	22
14	8.6	19	13	14	16	29	96	2.2	69	93	39	24
15	9.3	22	13	13	16	31	69	1.2	52	83	38	26
16	7.9	22	13	13	16	29	72	2.0	44	84	44	26
17	6.9	22	13	14	16	28	67	2.8	31	74	44	26
18	6.9	22	13	14	15	25	95	1.8	33	74	42	27
19	7.2	20	13	13	15	22	74	1.7	37	68	40	27
20	8.0	19	12	13	16	20	55	7.6	48	61	37	31
21	7.2	24	13	13	16	21	47	24	62	64	40	30
22	5.5	21	13	13	16	21	42	17	71	67	45	28
23	5.4	17	13	13	18	22	31	9.2	72	78	56	28
24	8.4	30	14	14	16	18	29	38	66	102	68	27
25	8.0	24	14	14	16	18	32	30	76	162	61	27
26	9.7	22	15	14	17	20	28	54	78	115	58	27
27	10	21	15	13	17	23	28	106	75	92	52	27
28	13	22	15	14	18	32	33	88	68	83	47	27
29	9.6	23	14	14	19	25	25	80	72	77	43	26
30	15	21	15	14	---	25	22	176	76	72	41	22
31	18	---	14	14	---	22	---	150	---	73	46	---
TOTAL	289.9	654	449	423	465	697	1497	865.37	2128	2596	1512	879
MEAN	9.35	21.8	14.5	13.6	16.0	22.5	49.9	27.9	70.9	83.7	48.8	29.3
MAX	18	30	19	16	19	32	96	176	193	162	68	46
MIN	5.4	17	12	12	14	16	22	.41	31	53	37	21
AC-FT	575	1300	891	839	922	1380	2970	1720	4220	5150	3000	1740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	24.2	24.6	20.4	18.0	19.2	25.0	60.0	52.3	62.2	76.2	59.9	38.3
MAX	65.1	39.1	33.9	32.0	32.0	59.4	183	249	171	230	141	117
(WY)	1985	1926	1924	1924	1924	1985	1985	1984	1984	1983	1983	1927
MIN	2.07	14.4	13.8	9.61	12.0	14.8	4.13	.67	2.45	16.7	6.25	2.58
(WY)	1957	1957	1960	1980	1968	1980	1990	1981	1989	1959	1956	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	10515.2		12455.27			
ANNUAL MEAN	28.8		34.0		39.8	
HIGHEST ANNUAL MEAN					86.4	1984
LOWEST ANNUAL MEAN					13.8	1990
HIGHEST DAILY MEAN	119	Apr 21	193	Jun 1	740	May 3 1924
LOWEST DAILY MEAN	2.0	May 31	.41	May 7	.21	Jun 19 1981
ANNUAL SEVEN-DAY MINIMUM	2.3	May 29	2.1	May 13	.38	May 11 1981
INSTANTANEOUS PEAK FLOW			340	May 31	[a]1120	Aug 15 1923
INSTANTANEOUS PEAK STAGE			4.88	May 31	[b]4.40	Aug 15 1923
ANNUAL RUNOFF (AC-FT)	20860		24710		28850	
10 PERCENT EXCEEDS	57		76		92	
50 PERCENT EXCEEDS	21		22		24	
90 PERCENT EXCEEDS	9.6		9.6		11	

a-Maximum discharge observed, datum then in use, from rating curve extended above 160 ft^3/s.
b-Maximum gage height, 6.13 ft, Jul 21, 1983.

09147022 RIDGWAY RESERVOIR NEAR RIDGWAY, CO

LOCATION.--Lat 38°14'14", long 107°45'27", in NW¼SW¼ sec.16, T.46 N., R.8 W., Ouray County, Hydrologic Unit 14020006, in concrete gate house at base of Ridgway Reservoir on Uncompagre River, 0.5 mi upstream from Fisher Creek, and 5.3 mi north of Ridgway.

DRAINAGE AREA.--265 mi².

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings published are to datum.

REMARKS.--Reservoir is formed by an earthfill dam. Dam completed March 22, 1988. Capacity 84,590 acre-ft between 6,680.0 ft, streambed at dam axis and 6,871.3 ft, maximum water surface. Dead storage below elevation 6,720.0 ft, 1,430 acre-ft. Figures given are live contents.

COOPERATION.--Capacity tables provided by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 84,900 acre-ft, June 11, 1990, elevation, 6,872.93 ft; minimum contents, 55,330 acre-ft, May 8, 1991, elevation, 6,841.80 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 83,490 acre-ft, July 27, elevation, 6,871.61 ft: minimum contents, 59,110 acre-ft, May 11, elevation, 6,846.27 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400 WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	6,858.18	69,960	--
Oct. 31	6,856.19	68,080	-1,880
Nov. 30	6,855.92	67,820	-260
Dec. 31	6,853.99	66,020	-1,800
CAL YR 1991	-	-	-7,800
Jan. 31	6,855.28	67,220	+1,200
Feb. 29	6,856.47	68,340	+1,120
Mar. 31	6,857.97	69,760	+1,420
Apr. 30	6,847.77	60,410	-9,350
May 31	6,857.15	68,980	+8,570
June 30	6,869.48	81,230	+12,250
July 31	6,870.53	82,340	+1,110
Aug. 31	6,860.19	71,900	-10,440
Sept. 30	6,858.31	70,090	-1,810
WTR YR 1992	-	-	+130

09147025 UNCOMPAHGRE RIVER BELOW RIDGWAY RESERVOIR, CO

LOCATION.--Lat 38°14'17", long 107°45'31", in NE1/4SE1/4 sec.17, T.46 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 1,600 ft upstream from Fisher Creek, 800 ft downstream from Ridgway Reservoir gate house, and 5.4 mi north of Ridgway.

DRAINAGE AREA.--265 mi^2.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,650 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 22-26. Records good except for estimated daily discharges, which are poor. Diversions for irrigation by means of numerous canals downstream from station. Flow regulated by Ridgway Reservoir, capacity 84,591 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	98	91	91	38	50	132	436	216	509	626	265
2	150	97	90	59	39	51	177	438	232	513	629	265
3	102	96	91	39	39	49	202	435	256	500	635	264
4	102	95	92	39	39	55	201	422	278	503	646	260
5	100	103	93	40	39	59	201	404	285	507	645	254
6	102	98	91	39	39	59	212	403	293	436	649	251
7	103	100	90	40	39	57	237	415	296	335	662	250
8	102	102	91	40	39	57	269	420	299	350	660	245
9	105	102	89	39	39	57	288	406	313	364	651	189
10	103	103	89	39	39	58	317	396	339	384	660	148
11	103	102	89	39	39	58	331	279	339	400	657	149
12	103	98	88	40	39	59	324	206	343	397	653	149
13	103	99	88	40	40	58	344	195	348	425	638	148
14	105	96	90	39	40	58	373	192	352	443	627	178
15	104	95	90	39	40	59	406	191	376	440	627	210
16	104	95	90	39	40	82	434	189	431	436	622	183
17	101	95	90	39	41	95	478	193	478	384	594	179
18	98	96	90	39	41	94	491	193	443	361	577	152
19	99	96	92	39	41	94	496	197	421	370	582	136
20	98	96	91	39	41	94	496	201	418	349	563	137
21	98	98	92	39	41	95	503	201	430	304	546	132
22	95	98	90	39	41	93	526	200	470	294	546	133
23	93	96	89	39	41	93	512	199	506	307	534	141
24	94	93	90	39	41	93	507	199	523	338	412	145
25	102	80	90	39	41	107	511	199	516	391	323	140
26	103	76	91	38	43	117	518	201	521	500	260	135
27	103	88	91	37	47	116	508	203	518	636	274	136
28	101	92	90	38	51	116	491	209	515	632	275	134
29	98	93	90	37	51	118	470	207	513	595	271	129
30	96	92	90	38	---	127	444	208	507	601	268	118
31	97	---	91	39	---	132	---	210	---	618	266	---
TOTAL	3307	2868	2799	1279	1188	2510	11399	8447	11775	13622	16578	5355
MEAN	107	95.6	90.3	41.3	41.0	81.0	380	272	392	439	535	178
MAX	240	103	93	91	51	132	526	438	523	636	662	265
MIN	93	76	88	37	38	49	132	189	216	294	260	118
AC-FT	6560	5690	5550	2540	2360	4980	22610	16750	23360	27020	32880	10620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

MEAN	77.2	77.7	74.8	54.0	54.3	68.3	233	242	340	334	312	154
MAX	107	95.6	94.8	76.2	77.4	81.0	381	327	530	439	535	238
(WY)	1992	1992	1991	1991	1991	1992	1991	1991	1990	1992	1992	1991
MIN	55.4	43.1	41.9	41.3	40.5	39.3	36.8	159	199	186	188	98.5
(WY)	1991	1990	1990	1992	1990	1990	1990	1989	1989	1989	1989	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1989 - 1992	
ANNUAL TOTAL	71612		81127			
ANNUAL MEAN	196		222		169	
HIGHEST ANNUAL MEAN					222	1992
LOWEST ANNUAL MEAN					117	1989
HIGHEST DAILY MEAN	544	Jul 2	662	Aug 7	911	Jun 12 1990
LOWEST DAILY MEAN	70	Mar 7	[a]37	Jan 27	[b]34	Apr 21 1990
ANNUAL SEVEN-DAY MINIMUM	73	Mar 6	38	Jan 26	34	Apr 21 1990
INSTANTANEOUS PEAK FLOW			723	Jul 27	1160	Jun 13 1990
INSTANTANEOUS PEAK STAGE			3.08	Jul 27	3.56	Jun 13 1990
ANNUAL RUNOFF (AC-FT)	142000		160900		122400	
10 PERCENT EXCEEDS	391		513		388	
50 PERCENT EXCEEDS	106		132		95	
90 PERCENT EXCEEDS	76		40		41	

a-Also occurred Jan 29.
b-Also occurred Apr 22-24, 1990.

09147500 UNCOMPAHGRE RIVER AT COLONA, CO

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 75 ft downstream from county highway crossing, 0.2 mi north of Colona, and 1.0 mi upstream from Beaton Creek.

DRAINAGE AREA.--448 mi².

WATER-DISCHARGE RECORDS

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. Statistical summary computed for 1987 to current year.

REVISED RECORDS.--WSP 1313: 1904. WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,318.80 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Sept. 30, 1949.

REMARKS.--Estimated daily discharges: Oct. 2-16, Jan. 15-25, and June 24-28. Records good except for estimated daily discharges, which are poor. Flow regulated by Ridgway Reservoir, 7.7 mi upstream since 1986, total capacity, 84,590 acre-ft. Diversions upstream from station for irrigation of about 2,600 acres downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	209	106	105	102	57	68	201	686	452	644	437	243
2	110	108	103	91	58	66	246	678	418	601	435	236
3	86	102	105	58	52	67	287	644	422	597	428	231
4	84	110	105	60	51	73	306	607	454	600	420	226
5	80	117	107	55	50	75	318	630	519	613	418	229
6	83	112	109	52	54	73	330	629	515	549	424	229
7	84	114	110	49	55	74	386	651	523	483	433	232
8	84	115	111	48	51	76	414	703	484	486	430	232
9	82	115	110	54	51	82	463	697	467	485	426	182
10	81	120	110	59	51	81	510	652	500	479	427	125
11	83	124	110	58	50	78	536	463	548	491	429	122
12	84	120	109	56	51	80	542	358	570	503	432	126
13	84	114	106	49	52	84	549	362	641	477	434	125
14	83	112	103	52	52	91	611	374	624	461	446	123
15	85	113	104	46	52	93	634	377	600	444	421	134
16	82	113	104	44	53	114	637	375	640	444	425	130
17	80	113	106	47	53	139	694	390	637	403	412	129
18	79	115	106	52	55	134	742	392	621	373	385	113
19	79	110	106	57	51	126	678	394	616	367	381	99
20	80	109	106	55	51	124	634	439	626	346	380	104
21	79	114	106	60	52	128	612	460	631	325	377	109
22	82	108	104	58	50	124	623	415	664	312	380	99
23	87	104	104	55	50	124	598	398	695	322	380	99
24	94	104	103	57	49	124	612	436	733	374	367	105
25	99	98	103	56	49	135	636	400	740	481	303	104
26	103	65	102	53	51	153	650	460	720	438	271	101
27	108	106	102	55	54	161	683	636	700	513	254	99
28	108	108	102	55	61	170	714	554	655	512	248	101
29	100	110	102	55	66	162	710	452	674	466	239	97
30	106	107	102	58	---	182	690	452	657	456	238	100
31	105	---	102	58	---	206	---	424	---	447	239	---
TOTAL	2873	3286	3267	1764	1532	3467	16246	15588	17746	14492	11719	4384
MEAN	92.7	110	105	56.9	52.8	112	542	503	592	467	378	146
MAX	209	124	111	102	66	206	742	703	740	644	446	243
MIN	79	65	102	44	49	66	201	358	418	312	238	97
AC-FT	5700	6520	6480	3500	3040	6880	32220	30920	35200	28740	23240	8700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

MEAN	124	97.5	91.1	78.2	76.5	96.8	292	446	495	334	269	160
MAX	224	125	105	97.8	101	116	542	926	697	467	480	391
(WY)	1988	1988	1992	1988	1987	1987	1992	1987	1990	1992	1987	1987
MIN	51.6	50.2	53.0	51.4	51.0	58.2	62.6	160	229	207	135	52.3
(WY)	1990	1990	1990	1990	1990	1990	1990	1988	1989	1988	1988	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1987 - 1992	
ANNUAL TOTAL	94315		96364			
ANNUAL MEAN	258		263		[a]214	
HIGHEST ANNUAL MEAN					327	1987
LOWEST ANNUAL MEAN					129	1989
HIGHEST DAILY MEAN	814	May 21	742	Apr 18	1630	May 17 1987
LOWEST DAILY MEAN	65	Nov 26	44	Jan 16	[b]25	Apr 28 1990
ANNUAL SEVEN-DAY MINIMUM	80	Oct 16	49	Jan 12	29	Sep 24 1989
INSTANTANEOUS PEAK FLOW			827	Apr 29	[c]1740	Jun 11 1990
INSTANTANEOUS PEAK STAGE			3.73	Apr 29	[d]4.48	Jun 11 1990
ANNUAL RUNOFF (AC-FT)	187100		191100		154900	
10 PERCENT EXCEEDS	622		627		512	
50 PERCENT EXCEEDS	124		124		111	
90 PERCENT EXCEEDS	87		55		54	

a-Average discharge for 76 years (water years 1904-05, 1913-86), 271 ft3/s, 196300 acre-ft/yr, prior to completion of Ridgway Reservoir.
b-Minimum daily discharge for period of record, 12 ft³/s, Sep 19, 1956, and May 7, 1967.
c-Maximum daily discharge for period of record, 4080 ft³/s, Jun 13, 14, 1921.
d-Maximum gage height for statistical period, 4.49 ft, May 16, 1987.

09147500 UNCOMPAHGRE RIVER AT COLONA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 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											
07...	0745	113	586	8.4	8.0	--	K19	K14	280	88	15
FEB											
19...	1000	54	765	8.2	0.0	--	--	--	320	100	17
MAR											
19...	0830	126	684	8.3	3.0	11.2	K3	<1	310	96	17
JUN											
18...	0730	680	504	8.6	6.5	9.5	21	25	210	67	11
AUG											
13...	0830	430	485	8.2	12.0	8.6	34	K11	220	70	11

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)
NOV											
07...	20	0.5	2.1	131	220	4.2	0.4	10	438	0.60	134
FEB											
19...	26	0.6	2.5	143	240	5.6	0.4	11	489	0.66	71.1
MAR											
19...	27	0.7	2.8	132	250	6.0	0.4	11	489	0.67	166
JUN											
18...	16	0.5	1.8	97	150	3.9	0.3	10	318	0.43	584
AUG											
13...	13	0.4	1.7	99	130	2.5	0.3	8.7	297	0.40	344

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV										
07...	<1.0	2	210	<1	40	13	<0.1	1	[a]<0.2	11
MAR										
19...	<1.0	2	470	<1	50	18	<0.1	2	[a]<0.2	5
JUN										
18...	<1.0	4	1200	<1	80	8	<0.1	<1	[a]<0.2	5
AUG										
13...	<1.0	3	200	<1	40	8	<0.1	<1	[a]<0.2	3

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
21...	1205	81	644	10.5
DEC				
05...	1615	117	660	6.5
JAN				
09...	1440	76	683	0.5
APR				
13...	1320	518	559	7.0
MAY				
13...	1610	354	463	13.0
JUN				
17...	1600	618	527	13.0
JUL				
21...	0800	343	502	11.0
AUG				
26...	0935	264	533	11.5

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09149500 UNCOMPAHGRE RIVER AT DELTA, CO

LOCATION.--Lat 38°44'31", long 108°04'49", in SW¼SW¼ sec.13, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020006, on right bank 525 ft downstream from 5th Street Bridge at west edge of Delta and 1.1 mi upstream from mouth.

DRAINAGE AREA.--1,115 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1903 to October 1931 (no winter records in most years), September 1938 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Delta" 1907-24. Statistical summary computed for 1939 to current year.

REVISED RECORDS.--WSP 1243: 1904. WDR CO-88-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,926.49 ft above National Geodetic Vertical Datum of 1929. Feb. 18, 1960, to Mar. 26, 1963, water-stage recorder at site 750 ft upstream at datum 3.43 ft, higher. Mar. 27, 1963, to May 12, 1965, water-stage recorder at site 1,050 ft upstream at datum 6.08 ft, higher. See WSP 1733 or 1924 for history of changes prior to Feb. 18, 1960.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by water diverted from Gunnison River, see record of diversion through Gunnison tunnel published with station 09128000, and other adjacent basins, diversions for irrigation of about 90,000 acres above station, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	568	210	236	228	141	124	360	303	953	307	389	382
2	557	224	225	194	137	128	339	320	884	269	376	360
3	464	222	232	167	134	132	399	308	832	264	354	319
4	416	221	232	163	129	134	405	238	817	266	307	335
5	431	218	240	159	127	206	415	204	788	273	299	339
6	441	235	225	170	110	272	405	192	777	259	347	347
7	483	226	219	156	106	202	379	221	737	191	458	354
8	329	230	223	152	111	179	418	705	676	289	404	342
9	244	245	217	134	116	167	475	626	582	353	411	331
10	230	244	212	136	129	157	468	731	497	297	371	281
11	225	264	229	144	135	144	501	573	465	323	337	249
12	227	256	225	151	139	143	524	343	477	425	340	230
13	233	262	211	149	146	141	528	327	483	475	338	259
14	231	244	189	135	155	141	460	317	477	446	353	261
15	232	294	192	131	154	147	592	302	427	417	328	349
16	228	307	208	110	143	150	678	268	379	408	323	495
17	244	269	229	121	130	166	661	238	396	364	314	482
18	236	276	243	117	122	207	608	233	352	316	287	477
19	237	276	254	105	114	197	659	226	293	301	265	423
20	248	251	244	103	117	179	521	239	275	283	260	449
21	256	253	230	112	123	170	372	440	301	238	258	458
22	322	248	225	121	126	167	272	446	299	187	283	459
23	380	233	219	134	125	164	181	406	300	283	459	431
24	505	224	204	128	118	173	157	478	325	580	575	442
25	650	252	204	146	119	281	201	533	391	654	604	456
26	713	227	208	135	112	264	214	547	370	694	701	455
27	701	218	210	130	110	179	235	761	360	628	641	473
28	719	241	213	137	113	257	264	969	330	599	533	463
29	413	252	212	137	121	352	266	781	356	490	462	456
30	193	247	213	143	---	321	281	801	328	470	439	443
31	195	---	215	145	---	349	---	822	---	422	400	---
TOTAL	11551	7369	6838	4393	3662	5993	12238	13898	14927	11771	12216	11600
MEAN	373	246	221	142	126	193	408	448	498	380	394	387
MAX	719	307	254	228	155	352	678	969	953	694	701	495
MIN	193	210	189	103	106	124	157	192	275	187	258	230
AC-FT	22910	14620	13560	8710	7260	11890	24270	27570	29610	23350	24230	23010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1992, BY WATER YEAR (WY)

MEAN	391	243	156	130	126	152	308	503	572	324	284	369
MAX	831	373	221	220	208	305	1107	2542	1763	1170	808	944
(WY)	1942	1959	1992	1982	1948	1985	1985	1984	1984	1983	1943	1961
MIN	131	125	111	70.9	66.5	80.7	78.6	125	136	112	93.7	123
(WY)	1978	1950	1943	1943	1943	1951	1967	1954	1954	1955	1956	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1939 - 1992	
ANNUAL TOTAL	91000		116456			
ANNUAL MEAN	249		318		297	
HIGHEST ANNUAL MEAN					688	1984
LOWEST ANNUAL MEAN					155	1951
HIGHEST DAILY MEAN	719	Oct 28	969	May 28	4520	May 15 1984
LOWEST DAILY MEAN	116	Mar 26	103	Jan 20	[a]20	Dec 26 1962
ANNUAL SEVEN-DAY MINIMUM	124	Mar 20	113	Jan 16	42	Mar 14 1959
INSTANTANEOUS PEAK FLOW			1040	May 28	[b]5800	May 15 1984
INSTANTANEOUS PEAK STAGE			4.61	May 28	8.85	May 15 1984
ANNUAL RUNOFF (AC-FT)	180500		231000		215100	
10 PERCENT EXCEEDS	394		569		598	
50 PERCENT EXCEEDS	223		265		194	
90 PERCENT EXCEEDS	143		134		105	

a-Minimum daily discharge for period of record, no flow at times in 1908. Minimum daily determined since beginning of diversion through Gunnison tunnel, 7.0 ft³/s, Jul 10-15, 17, 21, 24-28, 1910.
b-From rating curve extended above 3400 ft³/s.

09149500 UNCOMPAHGRE RIVER AT DELTA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1958 to September 1980, October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 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...	0930	254	1510	8.4	9.0	10.1	--	--	660	180	50
NOV											
07...	1010	221	1720	8.3	9.0	--	K380	280	830	220	68
13...	1200	260	1630	8.3	7.0	11.4	--	--	740	200	58
DEC											
12...	0850	229	1730	8.2	3.0	11.3	--	--	720	190	60
JAN											
14...	1200	118	1970	8.4	0.0	13.4	--	--	850	220	73
FEB											
19...	0840	124	2090	8.3	1.0	--	--	--	890	220	83
MAR											
19...	1040	192	1580	8.4	6.5	10.9	450	120	690	180	59
27...	1245	183	1490	8.3	11.0	9.2	--	--	580	150	51
APR											
22...	1130	315	1050	8.3	11.0	9.6	--	--	460	130	33
MAY											
12...	1130	380	1150	8.2	14.0	8.5	--	--	500	140	36
JUN											
10...	1200	525	1120	8.3	16.0	8.1	--	--	460	130	34
18...	1055	415	1230	8.5	15.0	8.6	K230	350	520	150	36
AUG											
13...	1055	351	1430	8.3	17.0	8.1	930	530	640	180	46

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											
21...	92	2	3.6	211	650	4.8	0.6	15	1130	1.54	778
NOV											
07...	130	2	4.4	216	750	18	0.7	16	1340	1.82	798
13...	110	2	4.1	214	700	13	0.6	14	1240	1.69	871
DEC											
12...	120	2	4.3	224	770	20	0.6	12	1320	1.80	819
JAN											
14...	140	2	4.2	247	880	19	0.9	14	1510	2.06	483
FEB											
19...	170	2	4.7	259	900	33	0.7	13	1590	2.17	534
MAR											
19...	120	2	4.6	218	740	15	0.5	13	1260	1.72	655
27...	110	2	4.2	188	590	15	0.3	12	1050	1.43	521
APR											
22...	62	1	3.2	148	400	10	0.5	12	748	1.02	636
MAY											
12...	69	1	3.6	162	370	12	0.5	15	750	1.02	770
JUN											
10...	64	1	3.1	168	410	12	0.5	15	777	1.06	1100
18...	67	1	3.3	180	470	9.7	0.5	15	859	1.17	963
AUG											
13...	84	1	3.5	213	550	11	0.6	16	1020	1.39	966

K-Based on non-ideal colony count.

09149500 UNCOMPAHGRE RIVER AT DELTA, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)
NOV 07...	3.19	0.01	3.20	<0.01	--	0.40	0.05	0.02
MAR 19...	2.26	0.04	2.30	0.05	0.45	0.50	0.12	0.06
JUN 18...	2.06	0.04	2.10	0.04	0.36	0.40	0.07	0.10
AUG 13...	2.98	0.02	3.00	0.02	0.48	0.50	0.19	0.02

DATE	CADMIUM DISSOLVED (UG/L AS CD)	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
NOV 07...	<1.0	1	40	<1	70	50	<0.1	21	[a]<0.2	<3
MAR 19...	<1.0	5	--	<1	--	150	<0.1	15	[a]<0.2	20
JUN 18...	<1.0	2	14000	<1	220	26	<0.1	11	[a]<0.2	<3
AUG 13...	<1.0	2	3600	<1	170	28	<0.1	11	[a]<0.2	<3

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 09...	1035	265	1640	10.5
NOV 06...	0915	239	2020	7.0
DEC 05...	1045	214	--	1.0
MAR 02...	1345	131	1870	11.0
APR 21...	0850	405	994	7.0
JUN 04...	1210	881	995	16.0
16...	1010	402	1210	14.0
JUL 22...	1100	194	1650	17.0
AUG 25...	0940	564	1430	14.0

a-Analysis based on preliminary method.

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO

LOCATION.--Lat 38°59'00", long 108°27'00", in NE¼SW¼ of sec.14, T.2 S., R.1 E., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 180 ft upstream from bridge on State Highway 141, 0.4 mi downstream from Whitewater Creek, 0.5 mi south of Whitewater, and 8 mi southeast of Grand Junction.

DRAINAGE AREA.--7,928 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1894 to December 1895 (gage heights only), October 1896 to September 1899, October 1901 to October 1906, October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Whitewater" 1901-6.

REVISED RECORDS.--WSP 509: Drainage area at former site. WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,628.12 ft above National Geodetic Vertical Datum of 1929. See WSP 1733 or 1924 for history of changes prior to October 1959.

REMARKS.--Estimated daily discharges: Dec. 16-20, Jan. 3 to Feb. 13, Aug. 25 to Sept. 4, and Sept. 13-30. Records good except for estimated daily discharges, which are poor. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2430	2140	2010	1900	1400	1170	1850	3980	4590	1790	1610	1700
2	2440	2170	1960	1850	1300	1180	1850	3860	4340	1690	1560	1800
3	2390	2140	1950	1900	1300	1180	1940	3480	3980	1670	1540	1800
4	2310	2100	1950	1900	1300	1240	2050	3190	3830	1640	1460	1750
5	2150	2150	1950	1900	1300	1480	2240	3040	3830	1650	1510	1730
6	1880	2170	1980	1950	1200	1510	2360	2830	3920	1670	1500	1720
7	1810	2150	1990	2000	1150	1430	2510	2890	3800	1500	1770	1730
8	1370	2120	2000	1900	1200	1360	2580	3450	3530	1500	1720	1720
9	1110	2130	2020	1900	1200	1340	2800	3610	3290	1940	1660	1650
10	1040	2110	2010	1950	1200	1330	3000	4180	3060	1870	1630	1560
11	1020	2100	2040	2000	1200	1280	3260	3610	2950	1760	1510	1470
12	1020	2110	2070	2000	1250	1250	3350	3260	3010	1830	1550	1430
13	2070	2080	2040	2000	1300	1250	3470	3920	2960	2000	1580	1600
14	2280	2070	1930	1700	1320	1260	3640	4810	2910	2110	1580	1600
15	2290	2350	1900	1300	1330	1290	4150	5410	2790	2090	1610	1500
16	2190	2390	1900	1300	1270	1330	4160	5350	2500	2010	1610	1500
17	1540	2190	2000	1300	1210	1330	4010	5090	2370	1920	1630	1500
18	1550	2180	2000	1400	1170	1380	3920	4980	2160	1690	1620	1400
19	1630	2230	2100	1400	1140	1390	4120	4690	2070	1620	1680	1500
20	1940	1800	2000	1400	1100	1330	3460	4460	2060	1630	1550	1700
21	1980	1410	1960	1300	1130	1240	2970	4680	2060	1580	1530	1600
22	1880	1420	1950	1400	1200	1240	2530	4840	2070	1470	1530	1500
23	1600	2010	1960	1400	1180	1300	2350	4240	2030	1460	1860	1500
24	1720	1910	1890	1400	1160	1160	2140	3920	1980	1980	2200	1500
25	1990	1950	1850	1350	1130	1220	2200	4140	2130	2120	2300	1400
26	2310	2070	1840	1300	1120	1190	2430	4070	2240	2310	2300	1500
27	2720	2020	1910	1300	1110	1170	2680	5050	2150	2200	2200	1500
28	2700	2050	1920	1300	1110	1510	2940	6360	2070	1990	2000	1450
29	2730	2050	1910	1300	1150	2000	3360	5450	2000	1880	1800	1400
30	2210	2040	1830	1400	---	1770	3680	4780	1910	1750	1800	1400
31	2160	---	1840	1400	---	1760	---	4660	---	1680	1800	---
TOTAL	60460	61810	60660	49800	35130	41870	88000	132280	84590	56000	53200	47110
MEAN	1950	2060	1957	1606	1211	1351	2933	4267	2820	1806	1716	1570
MAX	2730	2390	2100	2000	1400	2000	4160	6360	4590	2310	2300	1800
MIN	1020	1410	1830	1300	1100	1160	1850	2830	1910	1460	1460	1400
AC-FT	119900	122600	120300	98780	69680	83050	174500	262400	167800	111100	105500	93440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1897 - 1992, BY WATER YEAR (WY)

MEAN	1390	1395	1301	1232	1241	1384	3083	7526	7197	2467	1330	1293
MAX	3479	3303	3225	3515	3844	3887	9184	18870	19630	11700	3639	4959
(WY)	1987	1987	1987	1974	1974	1971	1942	1920	1957	1957	1957	1929
MIN	268	497	500	500	500	500	580	698	577	165	153	267
(WY)	1935	1899	1899	1899	1899	1903	1977	1977	1934	1934	1934	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1897 - 1992	
ANNUAL TOTAL	804790		770910			
ANNUAL MEAN	2205		2106		2572	
HIGHEST ANNUAL MEAN					5187	1984
LOWEST ANNUAL MEAN					838	1934
HIGHEST DAILY MEAN	7250	May 22	[a]6360	May 28	35200	May 23 1920
LOWEST DAILY MEAN	940	Jan 22	[a]1020	Oct 11	106	Jul 20 1934
ANNUAL SEVEN-DAY MINIMUM	993	Jan 20	1140	Feb 24	116	Jul 14 1934
INSTANTANEOUS PEAK FLOW			6640	May 28	[b]35700	May 23 1920
INSTANTANEOUS PEAK STAGE			6.60	May 28	14.95	May 23 1920
ANNUAL RUNOFF (AC-FT)	1596000		1529000		1864000	
10 PERCENT EXCEEDS	4930		3620		6210	
50 PERCENT EXCEEDS	1870		1900		1290	
90 PERCENT EXCEEDS	1030		1260		688	

a-Also occurred Oct 12.
b-Site and datum then in use, from rating curve extended above 22000 ft³/s.

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; November 1991 water-quality monitor with satellite telemetry.

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, 1,330 microsiemens March 29; minimum, 429 microsiemens May 2.
WATER TEMPERATURES: Maximum, 23.0°C August 9; minimum, 0.0°C on many days in December.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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 TOTAL (MG/L AS CACO3)
NOV										
13...	1200	2100	837	8.7	7.0	10	11.3	K3	52	360
DEC										
03...	1120	2000	797	8.5	2.0	--	11.1	--	--	340
JAN										
16...	1100	1300	855	8.2	0.5	--	--	--	--	350
FEB										
26...	1245	1130	881	8.4	5.0	5.5	11.3	K10	50	360
MAR										
18...	0945	1390	894	8.4	8.0	--	9.4	--	--	360
APR										
21...	1220	2950	538	8.1	9.0	85	9.3	140	680	220
JUN										
24...	1230	1910	826	8.4	19.0	17	9.8	67	97	360
AUG										
19...	1300	1720	1030	8.3	19.0	32	7.8	150	65	450

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-[a] BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-[b] BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-[c] LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)
NOV									
13...	93	30	49	1	3.0	143	18	147	340
DEC									
03...	87	29	51	1	3.0	--	--	--	270
JAN									
16...	89	31	50	1	2.9	--	--	--	290
FEB									
26...	88	34	58	1	3.1	160	12	151	310
MAR									
18...	89	33	57	1	3.5	--	--	--	320
APR									
21...	58	18	29	0.9	2.3	127	--	104	170
JUN									
24...	98	28	44	1	2.7	131	10	123	280
AUG									
19...	120	36	57	1	3.5	183	10	166	400

a-Field dissolved bicarbonate, determined by incremental titration method.
b-Field dissolved carbonate, determined by incremental titration method.
c-Field total dissolved alkalinity, determined by incemental titration method.
K-Based on non-ideal colony count.

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
NOV									
13...	9.1	0.4	11	536	628	0.73	3040	<0.01	0.02
DEC									
03...	7.0	0.3	12	--	549	0.75	2960	--	--
JAN									
16...	10	0.4	13	--	582	0.79	2040	--	--
FEB									
26...	11	0.3	12	627	610	0.85	1910	0.01	<0.01
MAR									
18...	9.1	0.3	11	--	617	0.84	2320	--	--
APR									
21...	5.9	0.2	13	366	361	0.50	2920	0.06	<0.01
JUN									
24...	6.8	0.3	13	581	552	0.79	3000	0.02	0.01
AUG									
19...	11	0.5	15	760	750	1.03	3530	0.02	<0.01

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
NOV									
13...	0.66	0.65	<0.01	0.02	0.40	0.04	0.02	<0.01	<0.01
DEC									
03...	--	0.73	--	--	--	--	--	--	--
JAN									
16...	--	0.84	--	--	--	--	--	--	--
FEB									
26...	0.65	0.62	0.03	0.03	0.30	0.02	0.03	0.01	<0.01
MAR									
18...	--	0.62	--	--	--	--	--	--	--
APR									
21...	0.37	0.35	0.07	0.03	0.40	0.09	0.02	0.02	0.02
JUN									
24...	0.66	0.84	<0.01	<0.01	0.40	0.08	0.02	0.01	<0.01
AUG									
19...	1.20	1.20	0.03	<0.01	0.40	0.10	<0.01	0.03	0.01

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	BORON, DISSOLVED (UG/L AS B)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)
NOV							
13...	30	42	110	<3	28	50	10
FEB							
26...	--	--	70	--	--	--	--
APR							
21...	100	66	50	<3	79	30	14
JUN							
24...	30	66	--	<3	50	49	13
AUG							
19...	30	84	--	<3	13	61	8

DATE	MOLYBDENUM, DISSOLVED (UG/L AS MO)	NICKEL, DISSOLVED (UG/L AS NI)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	STRONTIUM, DISSOLVED (UG/L AS SR)	VANADIUM, DISSOLVED (UG/L AS V)
NOV						
13...	<10	1	5	<1.0	950	<6
FEB						
26...	--	--	5	--	--	--
APR						
21...	<10	1	3	<1.0	560	<6
JUN						
24...	<10	1	6	<1.0	970	<6
AUG						
19...	<10	1	7	<1.0	1200	<6

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS AND CROSS SECTION PROFILES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	STREAM WIDTH (FT)	SPECIFIC CONDUCTANCE (US/CM)	PH WATER WHOLE FIELD (STANDARD UNITS)	TEMPERATURE WATER (DEG C)
OCT						
31...	1100	--	--	888	--	4.0
NOV						
01...	0931	--	--	959	--	5.0
DEC						
04...	1155	--	--	761	--	2.0
FEB						
14...	0940	--	--	1180	--	4.5
21...	1345	--	--	940	--	6.0
26...	1120	20.0	165	896	8.4	5.0
26...	1125	75.0	165	894	8.4	5.0
26...	1130	100	165	897	8.4	5.0
26...	1135	145	165	886	8.4	5.0
APR						
08...	0955	--	--	674	--	11.5
09...	1145	--	--	645	--	12.0
27...	1102	--	--	581	--	13.5
MAY						
19...	1015	--	--	465	--	14.0
JUN						
10...	0940	--	--	732	--	16.5
24...	0935	15.0	165	827	8.4	20.0
24...	0940	85.0	165	825	8.5	20.0
24...	0945	115	165	826	8.5	20.0
24...	0950	155	165	829	8.5	20.0
JUL						
22...	0920	--	--	1060	--	19.0
SEP						
04...	0845	--	--	1140	--	16.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
13...	1200	2100	42	238	82
FEB					
26...	1245	1130	26	79	83
APR					
21...	1220	2950	284	2260	81
JUN					
24...	1230	1910	79	407	85
AUG					
19...	1300	1720	128	594	93

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	788	908	777	742	864	861	849	444	684	851	993	1010
2	779	916	764	743	868	854	847	440	702	826	1020	1030
3	773	919	753	741	873	857	831	471	716	812	1030	1050
4	776	891	758	739	884	854	806	503	717	805	1040	1100
5	761	888	759	732	895	900	775	526	705	824	1030	1130
6	856	881	762	735	901	1140	739	523	688	847	1030	1130
7	894	880	762	739	903	1220	711	536	670	858	1040	1130
8	969	862	759	743	907	1090	673	568	689	873	1070	1110
9	1130	851	764	743	905	1000	641	619	715	895	1070	1100
10	1200	838	763	745	910	969	612	620	729	909	1050	1100
11	1240	834	762	747	931	949	587	635	723	907	1040	1120
12	1240	828	764	747	975	929	554	669	691	922	1030	1140
13	1080	818	772	749	1030	920	532	594	666	937	1030	1150
14	760	816	766	751	1080	893	500	520	651	954	1010	1150
15	753	832	750	752	1120	880	478	465	656	947	1010	1140
16	745	942	738	763	1150	872	475	456	671	933	1000	1170
17	846	949	738	774	1100	862	488	458	693	937	1000	1220
18	995	885	735	779	1030	872	499	462	719	963	1010	1180
19	972	929	733	782	978	848	484	473	745	982	1000	1160
20	885	965	737	787	941	835	518	500	757	1000	982	1140
21	834	1070	744	807	938	823	549	523	753	1020	989	1150
22	834	1150	743	825	923	824	582	567	762	1020	991	1170
23	918	1010	741	840	958	870	611	590	770	1020	989	1160
24	999	830	743	849	955	926	619	625	792	1030	1020	1160
25	1000	836	733	853	930	1020	635	648	915	1050	1030	1150
26	1050	836	727	854	905	972	608	670	978	1040	1030	1140
27	899	788	733	854	881	913	578	652	969	1010	1020	1120
28	799	786	738	854	870	921	545	607	967	992	1000	1110
29	812	792	737	855	864	1120	495	592	940	993	993	1110
30	835	789	732	857	---	1110	458	622	890	994	993	1100
31	872	---	736	860	---	915	---	661	---	979	1000	---
MEAN	913	884	749	785	947	936	609	556	757	940	1020	1130

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.4	14.0	6.1	4.5	2.4	1.1	2.2	1.2	.8	.2	7.4	6.2
2	16.1	13.6	6.2	4.8	2.2	1.5	1.6	.3	1.7	.4	8.2	6.3
3	15.5	13.2	4.8	3.2	2.5	.9	.3	.1	2.3	1.0	8.7	7.1
4	14.1	12.1	5.3	3.1	2.8	1.2	.3	.1	3.0	1.0	8.2	7.0
5	13.2	10.8	7.3	4.8	3.0	1.1	1.5	.1	3.5	1.5	7.2	6.3
6	13.1	10.0	8.2	6.7	3.4	1.4	1.7	.5	3.2	1.5	7.9	5.3
7	13.4	10.3	9.6	7.7	3.5	1.6	2.4	1.0	2.9	1.5	8.7	5.8
8	13.9	11.0	9.7	8.1	4.0	2.3	2.8	1.4	3.0	2.4	8.5	7.1
9	14.7	12.0	8.9	7.2	4.2	2.4	2.3	.7	4.1	2.7	7.8	6.4
10	14.9	12.3	9.4	7.8	3.7	2.3	.7	.1	5.1	3.5	7.3	4.9
11	14.8	12.3	10.4	8.6	3.5	2.4	.2	.1	5.3	4.1	8.3	5.2
12	14.3	12.3	9.8	8.0	3.5	2.9	.2	.1	5.8	4.2	8.9	6.2
13	14.0	11.8	8.5	6.8	4.2	2.6	.2	.1	5.4	4.7	9.5	6.8
14	13.4	11.0	7.0	5.9	3.0	1.0	.5	.1	5.0	4.2	9.8	7.5
15	13.4	10.7	7.1	6.2	1.4	.0	.8	.1	5.6	3.7	10.1	7.7
16	13.4	10.9	7.6	6.6	1.0	.0	.3	.1	5.4	4.4	10.3	7.7
17	13.7	10.6	7.1	6.2	.5	.0	.2	.1	4.8	3.2	9.6	8.2
18	13.7	11.2	7.1	6.2	1.2	.0	.2	.1	4.8	3.0	9.7	7.7
19	12.8	10.8	6.2	4.7	2.7	1.0	.3	.1	4.7	2.8	9.3	7.0
20	12.9	10.3	5.5	4.0	4.1	2.2	.3	.1	4.7	3.3	8.9	6.6
21	12.7	10.2	5.1	4.2	4.4	3.1	.3	.1	6.4	4.4	8.7	7.2
22	12.0	10.0	4.6	3.5	3.1	1.9	.2	.1	5.9	5.4	8.7	7.3
23	12.4	10.2	3.7	2.2	2.7	1.4	.2	.1	6.0	4.5	8.7	7.4
24	12.0	10.6	3.9	2.4	2.4	1.1	.3	.1	6.0	3.4	9.4	7.1
25	10.9	9.7	4.7	3.0	1.4	.2	.2	.1	6.2	4.5	10.7	7.4
26	10.8	9.2	5.6	4.2	.5	.0	.3	.1	6.6	4.4	11.1	8.8
27	11.5	9.6	5.9	4.3	.2	.0	.3	.1	7.1	4.7	10.8	9.5
28	10.5	6.9	6.2	4.8	.2	.0	.3	.1	7.5	5.1	10.8	8.9
29	6.9	5.2	5.4	4.1	.2	.0	.3	.1	7.8	5.6	10.2	8.5
30	5.5	4.4	4.1	2.4	1.1	.2	.4	.1	---	---	11.3	7.9
31	5.1	3.2	---	---	1.8	.7	.6	.2	---	---	11.7	9.4
MONTH	16.4	3.2	10.4	2.2	4.4	.0	2.8	.1	7.8	.2	11.7	4.9
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.0	10.1	14.2	13.4	14.7	12.6	20.3	17.6	22.0	17.8	18.3	15.7
2	12.7	9.9	14.3	12.6	16.5	14.1	19.7	16.4	22.6	18.5	19.3	15.8
3	12.8	9.5	15.2	13.1	17.2	15.5	20.8	16.5	22.2	18.9	18.5	16.2
4	13.2	10.0	15.7	13.6	17.8	16.1	21.6	17.4	21.4	19.0	17.7	16.1
5	13.1	10.7	16.3	13.9	17.8	16.5	21.7	18.0	19.9	17.9	17.7	14.8
6	13.7	11.0	16.3	14.6	16.6	15.4	22.7	18.4	19.7	17.9	16.9	14.9
7	13.4	11.2	16.1	14.3	16.3	14.8	21.2	18.9	20.5	18.1	18.0	14.8
8	13.3	10.9	15.8	14.0	17.1	15.1	19.7	18.0	22.0	19.1	18.4	15.1
9	13.1	10.9	14.5	12.7	17.4	14.8	20.2	16.8	23.0	19.3	18.9	15.5
10	13.3	10.9	12.7	11.0	18.4	15.7	21.2	17.9	22.3	20.0	19.1	15.6
11	13.4	11.7	14.3	11.7	18.1	16.5	20.4	18.3	22.3	19.1	18.5	15.7
12	13.1	11.7	15.4	12.9	18.3	16.3	19.7	17.6	21.6	18.3	18.9	16.3
13	12.3	10.9	14.9	13.3	19.0	16.6	20.2	17.1	21.7	18.2	19.5	16.7
14	12.5	10.6	15.3	13.7	18.6	16.6	20.8	16.7	22.0	18.5	18.3	16.8
15	12.0	10.6	14.2	13.4	17.9	15.7	19.5	17.6	22.6	18.8	18.2	16.6
16	11.0	9.9	14.5	12.8	17.1	15.4	20.5	16.8	22.3	19.4	18.8	16.3
17	11.6	10.4	14.9	13.2	17.1	14.1	21.9	17.7	21.9	19.2	18.8	16.3
18	11.6	10.4	15.1	13.5	19.5	15.2	21.6	18.7	22.5	19.2	18.1	16.4
19	10.6	9.0	14.4	12.9	20.9	16.8	21.0	17.4	22.6	18.9	17.6	16.0
20	10.6	8.8	14.7	13.7	21.2	17.3	21.0	17.8	22.1	18.5	17.7	15.2
21	11.1	8.7	14.7	12.9	20.7	17.6	21.6	17.5	20.9	19.4	17.8	15.6
22	12.7	10.2	15.0	13.3	21.5	17.7	20.5	18.6	20.0	18.2	17.7	14.8
23	13.1	11.3	16.2	13.6	21.5	18.1	19.7	17.6	18.2	16.4	18.1	15.0
24	13.7	10.7	16.1	14.8	21.9	18.9	19.1	17.3	17.5	15.6	17.8	15.2
25	14.3	11.1	16.4	14.2	20.2	17.7	19.7	16.5	16.6	15.4	16.8	14.7
26	14.7	11.7	16.5	15.1	19.3	17.5	21.2	17.9	17.0	14.4	15.5	12.8
27	15.3	12.4	16.5	15.0	21.1	17.0	21.6	18.3	17.5	14.6	15.1	12.3
28	15.8	13.2	15.3	14.2	21.1	17.6	21.6	18.3	18.1	14.7	15.4	12.3
29	15.4	13.7	14.6	14.0	21.1	17.9	21.3	18.6	18.3	15.1	15.8	12.7
30	15.1	13.8	15.4	13.7	21.2	17.9	21.1	17.4	18.4	15.4	16.0	13.0
31	---	---	15.3	13.6	---	---	21.6	17.7	18.0	16.7	---	---
MONTH	15.8	8.7	16.5	11.0	21.9	12.6	22.7	16.4	23.0	14.4	19.5	12.3

09153290 REED WASH NEAR MACK, CO

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.

DRAINAGE AREA.--15.7 mi^2.

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,505 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 18-24, and Feb. 7-18. Records good except for estimated daily discharges, which are poor. Flow is mostly return flow and waste water from irrigated lands under Government Highline and Grand Valley Canals. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	25	8.5	5.7	3.5	3.5	3.2	42	47	48	69	68
2	69	21	8.4	5.7	3.6	3.5	3.2	47	46	52	54	63
3	66	19	8.4	5.6	3.5	3.5	3.2	50	43	50	55	63
4	69	17	8.4	5.4	3.6	3.5	3.1	46	35	52	60	67
5	65	16	8.3	5.1	3.5	3.5	3.1	48	38	60	60	72
6	58	16	8.3	5.4	3.4	3.5	3.1	47	42	51	63	73
7	60	15	8.5	5.4	3.4	3.4	25	43	47	48	72	79
8	57	15	8.4	5.2	3.3	3.5	65	42	46	50	74	73
9	59	14	8.3	4.8	3.2	3.4	62	65	45	47	68	68
10	52	14	8.4	4.8	3.2	3.4	70	32	46	53	67	68
11	54	13	8.6	4.8	3.1	3.5	72	31	52	59	66	76
12	52	13	8.5	4.8	3.0	3.4	61	55	52	70	63	75
13	52	13	8.2	4.6	3.1	3.4	56	50	46	63	67	74
14	62	13	8.1	4.6	3.1	3.4	40	35	47	71	72	70
15	62	13	8.1	4.6	3.1	3.4	38	34	53	70	73	63
16	63	12	8.2	4.9	3.2	3.4	51	40	47	70	86	53
17	65	11	8.1	4.8	3.4	3.4	44	37	48	70	93	57
18	66	12	8.2	4.2	3.5	3.4	46	30	51	68	81	58
19	63	11	8.4	4.0	3.5	3.3	42	29	49	70	80	58
20	61	11	8.0	3.9	3.5	3.4	42	30	52	68	79	63
21	59	11	7.8	3.9	3.5	3.4	38	41	51	63	71	66
22	54	11	7.5	3.8	3.5	3.4	47	30	54	67	85	67
23	53	9.8	7.1	3.7	3.5	3.4	45	36	53	66	92	66
24	71	9.8	7.2	3.7	3.5	3.4	45	49	53	73	84	72
25	75	9.5	7.0	3.7	3.5	3.3	35	49	50	73	75	61
26	61	9.0	6.7	3.7	3.5	3.3	32	52	48	55	82	56
27	59	8.9	6.4	3.7	3.5	3.3	31	61	49	57	80	68
28	65	9.0	6.3	3.7	3.5	3.6	38	47	45	58	67	72
29	59	9.2	6.2	3.7	3.5	3.3	39	46	46	64	63	70
30	64	8.7	6.1	3.6	---	3.2	36	44	47	68	67	63
31	54	---	5.9	3.6	---	3.2	---	47	---	60	66	---
TOTAL	1901	389.9	240.5	139.1	98.2	105.5	1118.9	1335	1428	1894	2234	2002
MEAN	61.3	13.0	7.76	4.49	3.39	3.40	37.3	43.1	47.6	61.1	72.1	66.7
MAX	75	25	8.6	5.7	3.6	3.6	72	65	54	73	93	79
MIN	52	8.7	5.9	3.6	3.0	3.2	3.1	29	35	47	54	53
AC-FT	3770	773	477	276	195	209	2220	2650	2830	3760	4430	3970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	78.7	19.4	14.4	6.16	4.60	8.16	45.9	70.3	68.9	73.9	78.3	80.2
MAX	99.4	34.4	29.0	15.3	6.67	26.8	65.3	112	95.9	98.1	96.3	115
(WY)	1977	1985	1989	1986	1976	1981	1986	1980	1978	1981	1978	1978
MIN	61.3	11.5	6.63	3.41	3.29	2.85	18.5	43.1	47.6	58.4	60.0	61.1
(WY)	1992	1976	1977	1982	1983	1983	1979	1992	1992	1991	1991	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	13462.0		12886.1			
ANNUAL MEAN	36.9		35.2		46.0	
HIGHEST ANNUAL MEAN					54.0	1978
LOWEST ANNUAL MEAN					35.2	1992
HIGHEST DAILY MEAN	107	Sep 8	93	Aug 17	150	May 12 1980
LOWEST DAILY MEAN	[a]2.4	Apr 8	3.0	Feb 12	2.0	Jan 31 1979
ANNUAL SEVEN-DAY MINIMUM	2.5	Apr 3	3.1	Feb 9	2.5	Jan 22 1982
INSTANTANEOUS PEAK FLOW			170	May 12	[b]390	Jul 23 1983
INSTANTANEOUS PEAK STAGE			5.11	May 12	[c]6.21	Sep 8 1991
ANNUAL RUNOFF (AC-FT)	26700		25560		33310	
10 PERCENT EXCEEDS	66		70		89	
50 PERCENT EXCEEDS	52		42		57	
90 PERCENT EXCEEDS	3.7		3.4		4.1	

a-Also occurred Apr 9.
b-Gage height unknown.
c-Maximum recorded gage height.

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE

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, 1.5 mi upstream from Colorado-Utah State line, and 12 mi southwest of Mack.

DRAINAGE AREA.--17,843 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,325 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 1951, to October 1979, water-stage recorder at site 5.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 14-21, and Jan. 24 to Feb. 3. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation. (Records include all return flow from irrigated areas).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4410	4870	3990	3450	2750	2930	3590	7690	11200	5370	3270	3780
2	4260	4540	3820	3550	2700	2940	3680	8530	10400	5000	3160	3790
3	4170	4500	3510	3380	2800	2980	3810	8260	9430	4750	3100	3860
4	4020	4200	3750	3200	2960	2990	3750	7810	8750	4530	3030	3840
5	3940	4290	3750	3350	2930	3330	3830	7590	8400	4210	3040	3830
6	3610	4490	3820	3520	3090	3590	3940	7440	8680	4160	3110	3710
7	3540	4690	3890	3580	2900	3350	3730	7340	8820	4070	3470	3690
8	3290	4770	3870	3570	2840	3220	4120	8140	8460	3960	3730	3600
9	2950	4700	3900	3500	2940	3160	4630	9430	7970	4420	3740	3480
10	2780	4580	3980	3370	3030	3130	4750	10500	7510	5400	3690	3320
11	2740	4520	3900	3330	3180	3060	4880	9860	7360	4650	3450	3140
12	2710	4550	3910	3260	3220	2960	5340	8160	7410	4580	3360	3030
13	2940	4690	3970	3270	3280	2930	5640	8190	7600	5000	3430	2970
14	3790	4490	3830	3150	3390	2950	6230	8880	7770	4890	3430	3030
15	3800	4710	3650	3150	3340	2960	6390	9940	7890	4720	3350	3170
16	3890	5050	3400	3050	3250	3060	6880	10300	7550	4470	3260	3280
17	3500	4600	3430	2850	3090	3160	6870	10300	7010	4250	3310	3480
18	3250	4460	3610	2650	2990	3100	6640	10200	6410	3810	3440	3480
19	3340	4630	3710	2650	2910	3110	7000	10300	5850	3480	3470	3470
20	3580	4340	3830	2650	2850	2980	6550	10500	6030	3410	3310	3710
21	3770	3540	3880	2700	2820	2820	5570	11500	6320	3440	3200	4150
22	3860	3500	3800	2720	3040	2930	4750	12700	6400	3430	3180	3780
23	3640	3820	3630	2810	3050	3000	4230	11900	6270	3410	3360	3630
24	4260	4010	3520	2750	2980	3020	4060	10900	5950	3680	3950	3520
25	5040	3770	3400	2750	2930	2930	3940	10700	5950	4310	4330	3450
26	4800	3990	3320	2750	2880	2890	4040	11100	6420	4510	4490	3360
27	4760	4150	3250	2750	2880	2880	4270	12300	6530	4440	4830	3370
28	5250	4070	3290	2750	2880	3260	4600	15800	6470	4170	4490	3380
29	5170	4060	3300	2800	2910	3760	5410	14400	5980	3840	4130	3350
30	4760	4060	3380	2750	---	3770	6520	12700	5660	3590	3960	3260
31	4680	---	3360	2750	---	3640	---	11800	---	3360	3810	---
TOTAL	120500	130640	113650	94760	86810	96790	149640	315160	222450	131310	110880	104910
MEAN	3887	4355	3666	3057	2993	3122	4988	10170	7415	4236	3577	3497
MAX	5250	5050	3990	3580	3390	3770	7000	15800	11200	5400	4830	4150
MIN	2710	3500	3250	2650	2700	2820	3590	7340	5660	3360	3030	2970
AC-FT	239000	259100	225400	188000	172200	192000	296800	625100	441200	260500	219900	208100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

MEAN	3865	3947	3567	3355	3443	3784	5836	13910	17190	7538	3746	3519
MAX	7672	6925	5993	6129	5996	7486	15600	37960	43830	29590	10190	6767
(WY)	1987	1987	1986	1985	1985	1986	1985	1984	1957	1957	1983	1984
MIN	1916	2363	2048	1871	1815	1984	1631	2283	2688	1662	1350	1361
(WY)	1957	1978	1964	1964	1964	1964	1977	1977	1977	1977	1977	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	1876230		1677500			
ANNUAL MEAN	5140		4583		6144	
HIGHEST ANNUAL MEAN					13470	1984
LOWEST ANNUAL MEAN					2559	1977
HIGHEST DAILY MEAN	19200	Jun 16	15800	May 28	68300	May 27 1984
LOWEST DAILY MEAN	1740	Jan 1	2650	[a]Jan 18	960	Sep 7 1956
ANNUAL SEVEN-DAY MINIMUM	2010	Jan 1	2700	Jan 18	1110	Sep 2 1956
INSTANTANEOUS PEAK FLOW			16500	May 28	[b]69800	May 27 1984
INSTANTANEOUS PEAK STAGE			6.24	May 28	[b]16.12	May 27 1984
ANNUAL RUNOFF (AC-FT)	3722000		3327000		4451000	
10 PERCENT EXCEEDS	12000		7830		13700	
50 PERCENT EXCEEDS	3830		3770		3870	
90 PERCENT EXCEEDS	2580		2930		2210	

a-Also occurred Jan 19, 20.
b-From high-water mark.

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. Daily water temperature data are good. Daily specific conductance data are good. Interuptions in data are due to instrument malfunctions.

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, 1,460 microsiemens Oct. 12 and 13; minimum recorded, 500 microsiemens May 22 and 29, may have been lower during the runoff period of missing record.
WATER TEMPERATURE: Maximum, 24.8°C Aug. 9; minimum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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 TOTAL (MG/L AS CACO3)
OCT										
16...	1235	3910	1130	8.6	13.0	--	10.0	--	--	380
NOV										
13...	1300	4650	1120	8.6	7.5	42	10.0	28	100	370
DEC										
03...	1115	3600	1120	8.6	0.5	--	12.1	--	--	370
JAN										
15...	0930	3150	1110	8.1	0.0	--	12.1	--	--	330
FEB										
26...	1115	2880	1170	8.8	5.5	33	11.1	K5	99	350
MAR										
19...	1045	3190	1100	8.5	9.0	--	9.7	--	--	330
APR										
22...	1245	4970	702	8.2	12.0	91	9.2	210	370	240
MAY										
21...	1215	11300	569	8.2	15.0	110	8.1	K570	2000	200
JUN										
24...	1320	6020	794	8.7	21.0	28	7.5	K4	410	300
JUL										
21...	1445	3440	1200	8.6	22.0	--	7.8	--	--	420
AUG										
19...	1010	3340	1210	8.2	22.0	150	6.8	230	990	450
SEP										
17...	1500	3490	1290	8.5	20.0	--	9.8	--	--	460

K-Based on non-ideal colony count

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE --Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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-[a] BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-[b] BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-[c] LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
OCT										
16...	100	31	85	2	3.5	--	--	--	151	360
NOV										
13...	97	30	93	2	3.7	164	13	157	161	310
DEC										
03...	97	32	94	2	3.4	--	--	--	158	290
JAN										
15...	87	28	98	2	3.4	--	--	--	161	260
FEB										
26...	89	31	110	3	3.8	178	6	155	158	240
MAR										
19...	85	28	100	2	4.2	--	--	--	156	270
APR										
22...	65	20	52	1	2.6	140	--	115	115	180
MAY										
21...	54	15	37	1	2.1	120	--	100	102	120
JUN										
24...	82	22	56	1	2.4	120	21	130	124	220
JUL										
21...	110	35	90	2	3.5	--	--	--	166	350
AUG										
19...	120	35	93	2	4.4	220	--	180	167	360
SEP										
17...	120	38	99	2	4.2	--	--	--	154	390

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
OCT									
16...	84	0.4	7.5	--	762	1.04	8040	--	--
NOV									
13...	98	0.4	8.8	718	738	0.98	9010	0.01	0.02
DEC									
03...	75	0.4	10	--	699	0.95	6800	--	--
JAN									
15...	100	0.4	11	--	688	0.94	5850	--	--
FEB									
26...	100	0.4	9.7	801	680	1.09	6230	0.02	<0.01
MAR									
19...	100	0.4	9.6	--	693	0.94	5970	--	--
APR									
22...	46	0.3	11	470	448	0.64	6310	0.06	<0.01
MAY									
21...	34	0.3	10	348	333	0.47	10600	0.01	<0.01
JUN									
24...	49	0.1	7.3	517	521	0.70	8400	0.02	0.01
JUL									
21...	81	0.2	9.9	--	779	1.06	7230	--	--
AUG									
19...	84	0.5	11	834	822	1.13	7520	0.02	0.02
SEP									
17...	79	0.3	8.9	--	832	1.13	7840	--	--

a-Field dissolved bicarbonate, determined by incremental titration method.
b-Field dissolved carbonate, determined by incremental titration method.
c-Field total dissolved alkalinity, determined by incremental titration method.

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
NOV									
13...	0.47	0.48	0.02	0.02	0.40	0.11	0.01	0.02	<0.01
FEB									
26...	0.60	0.61	0.04	0.04	0.50	0.10	0.03	0.03	0.03
APR									
22...	0.43	0.44	0.08	0.07	0.40	0.06	0.05	0.14	0.03
MAY									
21...	0.38	0.37	0.03	0.03	0.50	0.12	0.03	0.01	0.02
JUN									
24...	0.36	0.36	<0.01	<0.01	0.40	0.14	<0.01	0.03	<0.01
AUG									
19...	0.97	0.96	0.03	<0.01	1.0	0.38	<0.01	0.02	0.02

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	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)
NOV							
13...	<10	78	80	<3	5	41	7
JUN							
24...	<10	52	--	<3	11	32	1
AUG							
19...	<10	88	--	<3	<3	52	<1

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)	NICKEL, DIS-SOLVED (UG/L AS NI)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	VANA-DIUM, DIS-SOLVED (UG/L AS V)
NOV						
13...	<10	1	5	<1.0	1000	<6
JUN						
24...	<10	<1	4	<1.0	800	<6
AUG						
19...	<10	1	7	<1.0	1300	<6

MISCELLANEOUS FIELD MEASUREMENTS AND CROSS SECTION PROFILES, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SAMPLE LOC-ATION, CROSS SECTION (FT FM L BANK)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	SEDI-MENT, SUS-PENDED (MG/L)
FEB							
26...	1145	290	1160	8.8	5.5	11.2	77
26...	1146	350	1170	8.8	5.5	11.1	75
26...	1147	420	1170	8.8	5.5	11.2	76
26...	1148	490	1170	8.8	5.5	11.2	62
AUG							
19...	1100	290	1200	8.2	22.0	6.8	566
19...	1101	390	1200	8.2	22.0	6.8	574
19...	1102	450	1200	8.2	22.0	6.8	605
19...	1103	490	1200	8.2	22.0	6.8	586

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV					
13...	1300	4650	238	2990	82
FEB					
26...	1115	2880	70	544	--
APR					
22...	1245	4970	273	3660	83
MAY					
21...	1215	11300	764	23300	61
JUN					
24...	1320	6020	124	2020	81
AUG					
19...	1010	3340	592	5340	98

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	1110	1080	1090	---	1120	1060	---	642	872	---	1230
2	1080	1130	1080	1070	---	1120	1020	---	680	886	---	1220
3	1060	1100	1100	1060	---	1120	1030	---	705	910	---	1220
4	1090	1150	1070	1040	---	1120	1000	---	728	940	---	1220
5	1110	1130	1100	1020	---	1110	984	---	735	981	---	1220
6	1130	1140	1100	1060	---	1090	957	---	728	1020	---	1230
7	1190	1160	1090	1070	---	1160	952	---	706	1040	---	1240
8	1230	1150	1070	1040	1110	1250	922	---	697	1050	---	1230
9	1250	1120	1060	1010	1120	1210	896	---	715	1040	---	1240
10	1330	1100	1060	1000	1120	1170	848	---	730	1000	---	1240
11	1400	1110	1050	995	1110	1140	811	---	749	981	---	1250
12	1430	1110	1040	961	1110	1120	784	---	747	1020	---	1280
13	1430	1100	1040	917	1120	1120	744	---	747	1050	---	1300
14	1360	1100	1070	913	1170	1170	705	---	723	989	---	1310
15	1100	1100	1030	921	1190	1120	665	---	705	1020	---	1310
16	1100	1080	1040	963	1170	1120	638	---	701	1040	---	1290
17	1120	1130	1060	1030	1240	1120	625	---	712	1080	---	1280
18	1160	1140	1090	1040	1230	1100	640	---	751	1120	---	1310
19	1220	1120	1090	987	1210	1090	637	---	803	1170	---	1310
20	1200	1140	1070	973	1190	1090	632	---	827	1210	1250	1290
21	1140	1200	1070	978	1180	1080	679	---	800	1220	1270	1290
22	1080	1230	1030	982	1180	1060	---	537	764	1220	1240	1280
23	1080	1270	1020	982	1170	1060	---	538	774	1220	1250	1290
24	1180	1220	1030	975	1160	1090	---	565	805	1190	1240	1300
25	1160	1120	1050	---	1160	1100	---	609	824	---	1230	1300
26	1130	1130	1060	---	1180	1130	---	626	822	---	1210	1290
27	1020	1140	1060	---	1150	1130	---	613	801	---	1160	1290
28	1050	1110	1070	---	1130	1120	---	575	786	---	1180	1280
29	1100	1090	1090	---	1120	1080	---	542	811	---	1160	1280
30	1100	1090	1090	---	---	1150	---	559	843	---	1190	1290
31	1130	---	1100	---	---	1170	---	607	---	---	1200	---
MEAN	1170	1130	1070	---	---	1120	---	---	752	---	---	1270

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	17.7	15.7	4.6	3.9	2.5	1.1	.9	.5	.0	.0	8.3	6.6
2	17.2	15.4	5.4	4.5	1.1	.4	.8	.1	.1	.0	9.0	6.5
3	16.4	15.0	4.5	3.0	1.3	.1	.3	.0	.5	.0	9.2	7.5
4	15.6	13.8	3.8	2.5	1.4	.2	.0	.0	1.1	.0	8.5	7.9
5	14.5	12.8	5.2	3.6	1.4	.3	.3	.0	1.2	.0	7.9	7.0
6	14.1	11.9	6.7	5.3	1.6	.4	.8	.0	1.1	.0	8.3	6.5
7	14.0	11.9	8.2	6.5	1.7	.6	1.5	.6	1.3	.0	8.8	6.9
8	14.3	12.3	8.1	7.0	2.4	1.4	1.1	.0	1.9	1.0	8.9	7.9
9	15.0	12.6	8.3	7.0	2.3	1.1	.9	.1	2.4	1.4	9.0	7.5
10	15.1	12.9	8.4	7.9	2.3	1.2	.1	.0	3.4	2.0	8.6	6.8
11	15.2	12.8	9.1	7.7	2.7	2.0	.0	.0	3.8	2.8	8.8	6.6
12	14.8	12.9	8.6	7.6	2.7	2.1	.0	.0	4.5	3.1	9.6	7.1
13	14.9	12.9	8.1	7.1	2.6	2.0	.0	.0	4.1	3.5	10.5	8.0
14	14.3	12.7	7.3	6.3	2.3	1.4	.0	.0	4.4	3.5	11.1	8.5
15	14.1	12.2	6.5	6.2	1.5	.4	.0	.0	5.1	4.0	11.4	9.1
16	14.0	12.0	6.9	6.3	.5	.0	.0	.0	4.2	3.6	11.3	9.1
17	13.7	11.9	6.7	6.0	.1	.0	.0	.0	4.9	3.1	10.5	8.8
18	13.9	12.0	6.6	5.8	.4	.0	.0	.0	5.1	3.4	10.4	8.5
19	13.4	12.1	5.9	4.9	1.0	.0	.0	.0	5.0	3.2	10.5	8.6
20	13.3	11.6	5.3	4.3	1.6	.9	.0	.0	5.1	3.5	9.5	8.0
21	12.7	11.3	4.7	3.9	2.3	1.2	.0	.0	6.7	4.6	9.4	7.9
22	12.6	10.9	4.5	3.8	2.0	1.5	.0	.0	6.3	5.3	10.4	8.2
23	12.0	11.4	3.7	2.9	1.8	1.1	.0	.0	6.4	5.0	10.0	8.5
24	11.4	10.5	3.0	2.3	1.4	.8	.0	.0	6.1	4.3	10.0	7.9
25	11.1	10.0	3.8	2.8	1.0	.5	.0	.0	6.9	4.7	10.7	8.4
26	10.7	9.6	4.1	3.0	.6	.2	.0	.0	7.2	4.9	11.7	8.7
27	10.5	9.0	4.4	3.4	.1	.0	.0	.0	7.6	5.1	11.1	10.0
28	8.9	8.0	4.3	3.5	.0	.0	.0	.0	8.1	5.6	11.5	9.6
29	7.9	5.8	4.3	3.9	.0	.0	.0	.0	8.5	6.3	12.2	10.3
30	5.8	4.8	3.8	2.6	.3	.0	.0	.0	---	---	12.2	10.5
31	4.7	3.5	---	---	.9	.1	.0	.0	---	---	12.5	10.6
MONTH	17.7	3.5	9.1	2.3	2.7	.0	1.5	.0	8.5	.0	12.5	6.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	13.7	11.5	---	---	16.4	14.0	20.1	18.8	23.7	21.1	19.9	17.6
2	13.7	11.8	---	---	17.5	14.7	20.2	17.6	24.4	21.9	21.0	18.5
3	13.5	11.5	---	---	17.7	16.3	20.9	18.5	24.4	22.6	20.0	18.6
4	14.4	12.0	---	---	18.7	16.7	22.2	19.9	24.0	22.4	19.0	17.5
5	14.5	12.4	---	---	18.3	17.2	22.8	20.3	23.6	22.0	18.9	16.1
6	14.6	13.0	---	---	18.6	16.3	23.4	21.5	22.4	21.2	18.9	17.2
7	14.4	12.9	---	---	17.8	15.4	22.5	20.3	23.3	20.5	19.1	16.6
8	14.2	12.2	---	---	17.4	16.3	21.0	19.6	23.9	21.5	19.0	17.3
9	14.4	12.5	---	---	18.7	17.0	21.6	19.3	24.8	21.8	19.6	17.2
10	14.8	13.1	---	---	19.8	17.8	21.6	20.4	24.5	22.8	20.3	17.5
11	15.3	12.9	---	---	19.6	18.3	21.4	19.7	23.8	22.4	19.7	17.7
12	14.9	13.7	---	---	19.6	17.3	21.0	19.7	24.1	22.2	19.5	17.9
13	14.6	13.5	---	---	19.0	17.8	21.6	19.2	23.6	22.0	19.7	17.8
14	14.4	12.8	---	---	18.8	17.6	22.5	20.6	23.5	21.3	20.0	17.5
15	13.5	12.8	---	---	17.9	16.1	21.8	20.5	24.2	22.0	19.8	17.2
16	13.4	11.9	---	---	17.7	16.2	22.1	19.5	24.4	22.5	20.2	17.6
17	12.8	11.4	---	---	18.2	15.4	23.4	20.6	23.6	22.3	20.2	18.6
18	12.6	11.1	---	---	19.3	17.1	23.6	21.2	23.7	21.3	19.1	18.0
19	12.3	10.2	---	---	20.6	18.4	23.4	20.9	24.0	21.9	19.0	17.6
20	12.1	10.5	---	---	21.5	19.2	22.8	20.7	23.6	20.4	19.0	17.3
21	12.5	10.7	---	---	21.8	20.3	22.6	20.5	23.6	21.8	18.7	17.1
22	---	---	16.2	14.7	21.7	20.2	22.7	21.3	22.5	20.7	18.3	16.6
23	---	---	17.2	14.4	22.4	20.4	22.6	20.9	20.4	17.4	18.7	16.6
24	---	---	16.8	15.5	22.0	20.5	21.6	20.4	19.2	18.1	18.7	17.1
25	---	---	17.9	15.4	21.9	20.5	22.2	19.6	19.6	17.6	18.1	16.7
26	---	---	17.8	16.2	20.9	19.3	22.7	20.4	19.0	17.3	16.7	14.8
27	---	---	17.6	15.6	20.3	18.3	23.2	20.8	18.6	16.4	16.3	14.2
28	---	---	16.8	15.0	21.1	19.3	23.7	21.4	19.0	16.6	16.3	14.2
29	---	---	16.2	14.2	21.3	20.1	22.5	21.6	19.8	17.4	16.5	14.3
30	---	---	16.7	14.3	20.9	19.5	23.2	20.1	20.4	17.5	16.7	14.5
31	---	---	16.3	14.4	---	---	23.7	21.1	19.6	18.8	---	---
MONTH	---	---	---	---	22.4	14.0	23.7	17.6	24.8	16.4	21.0	14.2

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 mi^2.

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

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,422.23 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 23 to Feb. 9, Feb. 13, 14, and Feb. 16 to Mar. 24. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1885 occurred Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	22	26	22	16	18	34	535	400	193	66	50
2	41	20	26	18	16	19	34	514	396	163	61	46
3	39	22	20	16	16	20	40	461	410	143	59	41
4	37	22	22	18	16	19	50	409	435	137	60	39
5	35	24	20	20	16	18	53	433	546	135	56	37
6	34	24	26	20	16	19	60	475	542	135	57	34
7	33	22	28	20	16	20	70	475	505	135	71	32
8	32	22	28	19	17	22	85	472	445	125	66	31
9	32	22	26	16	17	20	107	478	393	120	55	30
10	31	24	28	17	17	19	134	415	404	113	65	29
11	31	22	28	19	16	20	159	357	427	115	55	28
12	30	20	30	20	16	22	194	381	475	142	53	28
13	29	19	28	19	15	24	223	458	492	127	55	28
14	28	20	24	19	15	28	227	505	449	103	63	27
15	28	20	22	16	16	32	203	508	401	95	52	47
16	27	22	24	15	15	34	173	490	351	92	48	40
17	27	24	24	16	14	32	170	472	326	83	45	34
18	27	26	24	17	12	30	187	452	335	86	42	32
19	27	22	24	16	10	28	155	446	358	90	40	72
20	25	22	24	15	11	26	133	657	363	84	38	63
21	27	24	24	15	11	28	133	686	350	75	38	51
22	26	26	24	15	11	30	147	555	329	73	53	43
23	24	26	22	14	11	30	134	511	302	88	78	40
24	24	20	18	15	11	28	151	567	296	143	136	38
25	22	26	19	15	12	27	204	562	278	255	107	34
26	22	30	20	16	12	29	243	617	269	161	89	33
27	22	30	20	16	12	32	310	696	243	120	68	32
28	22	30	20	16	14	32	386	624	219	97	59	30
29	22	28	20	16	16	30	468	541	222	86	53	30
30	20	28	22	16	---	32	503	464	208	76	49	29
31	20	---	22	16	---	33	---	413	---	70	49	---
TOTAL	888	709	733	528	413	801	5170	15629	11169	3660	1886	1128
MEAN	28.6	23.6	23.6	17.0	14.2	25.8	172	504	372	118	60.8	37.6
MAX	44	30	30	22	17	34	503	696	546	255	136	72
MIN	20	19	18	14	10	18	34	357	208	70	38	27
AC-FT	1760	1410	1450	1050	819	1590	10250	31000	22150	7260	3740	2240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1992, BY WATER YEAR (WY)

MEAN	45.4	30.1	22.3	19.3	18.8	30.5	129	454	559	168	81.3	62.2
MAX	133	65.9	42.6	37.7	33.7	72.2	242	1015	1288	646	255	224
(WY)	1973	1987	1958	1958	1984	1972	1962	1958	1957	1957	1957	1982
MIN	14.5	12.1	7.81	7.74	8.18	11.0	42.9	98.9	70.7	37.1	31.0	17.1
(WY)	1957	1957	1990	1990	1961	1964	1975	1977	1977	1959	1972	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1952 - 1992	
ANNUAL TOTAL	38463.5		42714			
ANNUAL MEAN	105		117		135	
HIGHEST ANNUAL MEAN					230	1957
LOWEST ANNUAL MEAN					40.1	1977
HIGHEST DAILY MEAN	658	May 21	696	May 27	1810	Jun 10 1952
LOWEST DAILY MEAN	8.0	Jan 31	10	Feb 19	4.8	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	8.6	Jan 26	11	Feb 18	6.3	Dec 11 1989
INSTANTANEOUS PEAK FLOW			866	May 20	[a]2170	May 24 1984
INSTANTANEOUS PEAK STAGE			4.63	May 20	[b]5.95	May 24 1984
ANNUAL RUNOFF (AC-FT)	76290		84720		97960	
10 PERCENT EXCEEDS	374		429		400	
50 PERCENT EXCEEDS	39		32		40	
90 PERCENT EXCEEDS	12		16		15	

a-From rating curve extended above 1620 ft^3/s.
b-Maximum gage height, 6.15 ft, Jun 10, 1952.

09166500 DOLORES RIVER AT DOLORES, CO

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 with satellite telemetry. 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: Nov. 18, 21, 22, Nov. 24 to Dec. 2, Dec. 4-13, and Dec. 15 to Mar. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, that of Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	62	75	65	50	85	225	2110	1410	429	210	168
2	95	81	75	65	50	90	221	2080	1330	374	194	166
3	89	52	75	65	50	90	249	1930	1290	339	186	152
4	84	67	75	65	48	85	321	1570	1250	327	181	141
5	80	74	70	65	46	80	379	1570	1530	326	186	135
6	75	76	65	65	46	85	429	1650	1590	329	184	128
7	72	71	65	65	48	90	491	1710	1450	317	226	121
8	71	67	65	60	50	97	569	1800	1270	310	249	114
9	69	66	65	55	50	88	675	1940	1150	308	211	110
10	69	69	70	50	50	74	773	1960	1060	289	195	108
11	65	74	70	55	50	69	877	1560	1120	272	192	106
12	64	71	70	55	48	83	1020	1500	1160	341	213	102
13	63	60	70	50	46	92	1170	1600	1280	360	210	103
14	62	65	64	48	46	108	1540	1740	1180	302	203	101
15	60	113	60	46	46	125	1350	1750	1060	255	196	112
16	59	86	65	44	46	136	1110	1700	930	242	180	104
17	58	87	70	46	46	145	998	1600	806	225	173	87
18	58	85	70	48	40	134	1090	1580	786	216	165	76
19	56	83	65	46	38	113	878	1500	800	243	157	143
20	55	61	65	42	42	105	738	1920	765	240	146	213
21	55	65	65	42	50	124	716	2120	752	216	143	174
22	56	70	70	42	55	123	800	1970	716	204	151	139
23	57	74	65	40	60	123	720	1700	656	239	233	120
24	64	75	60	40	60	117	786	1960	593	308	271	111
25	70	80	65	42	55	117	983	2030	605	466	344	103
26	67	85	60	44	55	136	1090	2130	564	425	276	90
27	64	80	60	44	60	150	1320	2210	509	341	227	87
28	78	75	65	46	65	181	1620	2220	470	283	194	81
29	62	70	70	48	75	182	1940	1960	484	255	179	79
30	67	70	65	48	---	200	2060	1770	454	241	168	76
31	60	---	65	50	---	221	---	1520	---	224	165	---
TOTAL	2106	2214	2079	1586	1471	3648	27138	56360	29020	9246	6208	3550
MEAN	67.9	73.8	67.1	51.2	50.7	118	905	1818	967	298	200	118
MAX	102	113	75	65	75	221	2060	2220	1590	466	344	213
MIN	55	52	60	40	38	69	221	1500	454	204	143	76
AC-FT	4180	4390	4120	3150	2920	7240	53830	111800	57560	18340	12310	7040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1992, BY WATER YEAR (WY)

MEAN	136	84.7	59.1	52.7	56.7	122	755	1730	1368	412	237	182
MAX	1247	453	199	151	140	436	1955	3625	3470	1490	637	1354
(WY)	1942	1942	1987	1987	1987	1989	1942	1922	1957	1957	1957	1927
MIN	26.0	20.0	19.8	19.3	20.0	25.0	158	235	108	55.4	29.0	33.5
(WY)	1902	1902	1990	1990	1902	1899	1977	1977	1934	1934	1900	1899

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1896 - 1992	
ANNUAL TOTAL	126248		144626			
ANNUAL MEAN	346		395		434	
HIGHEST ANNUAL MEAN					790	1942
LOWEST ANNUAL MEAN					87.0	1977
HIGHEST DAILY MEAN	1960	May 11	2220	May 28	6950	May 5 1922
LOWEST DAILY MEAN	50	Jan 30	38	Feb 19	8.0	Aug 16 1896
ANNUAL SEVEN-DAY MINIMUM	54	Jan 28	42	Jan 20	12	Aug 10 1896
INSTANTANEOUS PEAK FLOW			2710	May 27	[a]10000	Oct 5 1911
INSTANTANEOUS PEAK STAGE			5.25	May 27	10.20	Oct 5 1911
ANNUAL RUNOFF (AC-FT)	250400		286900		314400	
10 PERCENT EXCEEDS	1150		1500		1390	
50 PERCENT EXCEEDS	104		112		121	
90 PERCENT EXCEEDS	57		50		40	

a-Site and datum then in use, from rating curve extended above 2800 ft³/s.

09166950 LOST CANYON CREEK NEAR DOLORES, CO

LOCATION.--Lat 37°26'46", long 108°28'07", in SE¼SE¼ sec.23, T.37N., R.15W., Montezuma County, Hydrologic Unit 14030002, on right bank 3 mi upstream from mouth and 2.5 mi southeast of Dolores.

DRAINAGE AREA.--71.3 mi².

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,030 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 18-20, 22, Nov. 26 to Dec. 9, Dec. 11-13, Dec. 20 to Mar. 1, Mar. 5-7, and Mar. 10-17. Records good except for estimated daily discharges which are poor. Several small storage reservoirs and diversions for irrigation of about 4,700 acres in the San Juan River basin and one diversion for irrigation of about 10 acres in Lost Canyon in the Dolores River basin. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.1	.80	.95	3.0	71	195	46	1.5	.31	.00
2	.00	.00	1.1	.60	1.1	3.3	59	166	39	.96	.40	.00
3	.00	.00	1.0	.65	1.3	3.8	62	137	34	.94	.37	.00
4	.00	.00	1.0	.70	1.5	4.2	77	143	30	.54	.20	.00
5	.00	.00	.95	.70	1.2	5.0	86	122	27	.41	.12	.00
6	.00	.00	.90	.70	1.0	7.0	86	128	25	.36	.33	.00
7	.00	.00	.85	.70	1.0	8.0	89	137	8.8	.54	.36	.00
8	.00	.00	.85	.70	1.0	8.4	115	138	3.8	.60	.25	.00
9	.00	.00	.90	.70	1.0	7.7	149	261	3.4	.77	.23	.00
10	.00	.00	1.0	.65	1.1	7.0	178	263	2.8	1.2	.15	.00
11	.00	.00	1.0	.65	1.4	7.0	190	145	2.2	2.2	.16	.01
12	.00	.00	.95	.65	2.0	7.5	224	115	1.6	3.3	.22	.01
13	.00	.00	.95	.70	2.6	8.5	248	106	1.3	2.4	.27	.04
14	.00	.00	.93	.70	3.6	10	350	97	1.3	1.7	.22	.10
15	.00	.00	.64	.65	2.6	15	250	104	1.2	1.7	.22	.10
16	.00	1.5	.55	.55	2.2	18	184	90	1.7	1.6	.17	.08
17	.00	1.2	.47	.65	1.7	17	157	67	1.3	1.2	.06	.07
18	.00	1.1	.51	.75	1.2	15	214	60	1.3	1.0	.03	.06
19	.00	1.0	.82	.75	1.1	10	149	47	1.1	.61	.02	.60
20	.00	.95	.90	.75	1.6	10	116	58	.67	.27	.01	1.0
21	.00	1.1	.90	.75	3.4	12	115	147	.79	.29	.01	.78
22	.00	1.1	.95	.75	3.4	12	136	108	.78	.08	.00	.56
23	.00	1.1	.90	.75	3.2	16	121	75	.46	.14	.01	.45
24	.00	1.1	.85	.70	3.0	16	144	125	.93	.43	.01	.42
25	.00	1.1	.80	.70	2.8	18	182	127	1.1	.30	.00	.31
26	.00	1.1	.80	.70	2.6	24	170	168	1.4	.25	.00	.21
27	.00	1.1	.80	.70	2.4	33	203	235	1.2	.28	.00	.19
28	.00	1.1	.80	.70	2.4	52	228	152	.85	.31	.00	.12
29	.00	1.1	.80	.75	2.6	55	231	68	1.4	.50	.00	.07
30	.00	1.1	.90	.80	---	61	217	81	1.5	.30	.00	.03
31	.00	---	.90	.85	---	72	---	54	---	.32	.00	---
TOTAL	0.00	16.75	26.77	21.85	56.95	546.4	4801	3919	243.88	27.00	4.13	5.21
MEAN	.000	.56	.86	.70	1.96	17.6	160	126	8.13	.87	.13	.17
MAX	.00	1.5	1.1	.85	3.6	72	350	263	46	3.3	.40	1.0
MIN	.00	.00	.47	.55	.95	3.0	59	47	.46	.08	.00	.00
AC-FT	.00	33	53	43	113	1080	9520	7770	484	54	8.2	10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

MEAN	3.37	7.63	3.01	1.62	2.16	30.6	135	98.0	3.99	.27	.29	1.46
MAX	17.7	45.2	14.8	5.00	5.11	65.7	265	226	10.2	.87	1.62	5.16
(WY)	1987	1987	1987	1987	1987	1985	1987	1984	1984	1992	1988	1988
MIN	.000	.000	.000	.000	.000	.87	.86	3.32	.005	.003	.000	.000
(WY)	1990	1990	1990	1990	1990	1990	1990	1990	1990	1989	1990	1984

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	5161.20		9668.94			
ANNUAL MEAN	14.1		26.4		23.2	
HIGHEST ANNUAL MEAN					46.4	1987
LOWEST ANNUAL MEAN					.43	1990
HIGHEST DAILY MEAN	282	Apr 8	350	Apr 14	555	Apr 2 1986
LOWEST DAILY MEAN	[a].00	Jul 15	[a].00	Oct 1	[a].00	Aug 30 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 20	.00	Oct 1	.00	Aug 30 1984
INSTANTANEOUS PEAK FLOW			411	Apr 14	744	Apr 2 1986
INSTANTANEOUS PEAK STAGE			5.83	Apr 14	7.23	Apr 2 1986
ANNUAL RUNOFF (AC-FT)	10240		19180		16820	
10 PERCENT EXCEEDS	43		121		77	
50 PERCENT EXCEEDS	.90		.93		1.0	
90 PERCENT EXCEEDS	.00		.00		.00	

a-No flow many days each year.

09169500 DOLORES RIVER AT BEDROCK, CO

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.

DRAINAGE AREA.--2,024 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1917 to September 1922 (monthly discharge only for some periods, published in WSP 1313), August 1971 to current year. Statistical summary computed for 1985 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,940 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 1, 1971, nonrecording gage at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-29, Nov. 27 to Dec. 23, Dec. 25 to Jan. 23, 27-29, 31, Feb. 1, 3-5, 8-11, Feb. 20 to Mar. 10, and Apr. 2 to May 1. Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 5,000 acres upstream from station, and about 74,760 acres in the San Juan River basin. Flow regulated since Mar. 19, 1984, by McPhee Reservoir, capacity 381,000 acre-ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 6, 1970, reached a stage of 7.15 ft, present datum, from floodmarks (discharge not determined).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	50	37	35	38	55	246	1100	1730	89	57	62
2	26	46	32	35	38	58	250	1240	1410	89	56	62
3	26	38	36	36	38	60	250	1250	1190	90	55	62
4	26	39	37	36	38	63	320	1270	1100	89	55	62
5	26	39	39	36	39	65	400	1260	1070	88	56	62
6	26	41	39	36	40	67	550	1190	1160	84	58	61
7	28	41	39	36	41	70	770	1060	1380	84	69	60
8	29	40	39	36	46	75	840	1030	1430	85	179	59
9	30	40	39	36	50	70	860	1050	1250	92	104	59
10	30	41	39	36	55	66	860	1040	1010	95	64	58
11	30	41	39	36	60	65	810	1040	865	96	61	57
12	30	41	39	36	67	59	750	1100	718	115	58	57
13	29	40	39	36	73	55	690	945	723	355	57	57
14	29	41	36	35	93	54	650	941	794	167	77	54
15	30	50	36	34	108	56	620	951	920	116	74	55
16	31	157	36	33	85	60	610	1050	699	100	58	63
17	31	129	37	32	67	67	850	1290	388	82	52	68
18	31	79	37	30	55	77	1010	1290	380	73	52	62
19	31	59	37	31	53	85	970	1160	258	71	52	59
20	32	53	37	31	50	82	940	951	202	66	49	64
21	32	51	37	32	55	76	920	850	169	65	48	71
22	32	46	36	33	55	76	900	1050	125	63	47	66
23	35	44	35	33	57	76	890	1490	117	62	52	64
24	37	42	36	35	57	75	880	1670	111	69	78	62
25	39	38	35	30	57	77	880	2120	114	307	72	59
26	40	37	35	31	53	75	870	2350	108	140	83	56
27	40	38	35	32	53	79	870	2600	106	84	66	55
28	40	38	35	35	55	115	870	3090	102	70	57	56
29	43	38	35	37	55	145	890	3010	99	64	56	57
30	50	38	35	39	---	178	930	2340	93	61	55	57
31	51	---	35	38	---	208	---	2020	---	60	62	---
TOTAL	1015	1515	1138	1067	1631	2489	22146	44798	19821	3171	2019	1806
MEAN	32.7	50.5	36.7	34.4	56.2	80.3	738	1445	661	102	65.1	60.2
MAX	51	157	39	39	108	208	1010	3090	1730	355	179	71
MIN	25	37	32	30	38	54	246	850	93	60	47	54
AC-FT	2010	3010	2260	2120	3240	4940	43930	88860	39310	6290	4000	3580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	104	120	92.4	87.3	99.9	286	1021	1090	637	133	97.4	93.2
MAX	257	399	254	198	181	774	2371	2060	1542	337	242	171
(WY)	1987	1987	1987	1985	1987	1985	1985	1987	1985	1986	1987	1986
MIN	32.7	34.3	29.7	31.6	45.4	45.2	27.6	29.8	16.4	48.0	43.8	51.1
(WY)	1992	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	35120		102616			
ANNUAL MEAN	96.2		280		[a]322	
HIGHEST ANNUAL MEAN					641	1987
LOWEST ANNUAL MEAN					53.5	1990
HIGHEST DAILY MEAN	[b]913	May 22	3090	May 28	4690	May 5 1986
LOWEST DAILY MEAN	24	Sep 28	25	Oct 1	[c]4.0	Jun 21 1990
ANNUAL SEVEN-DAY MINIMUM	25	Sep 26	26	Oct 1	8.6	Jun 15 1990
INSTANTANEOUS PEAK FLOW			3340	May 26	[d]5230	May 5 1986
INSTANTANEOUS PEAK STAGE			8.28	May 26	9.12	May 5 1986
ANNUAL RUNOFF (AC-FT)	69660		203500		233100	
10 PERCENT EXCEEDS	151		1010		1060	
50 PERCENT EXCEEDS	51		60		85	
90 PERCENT EXCEEDS	31		35		35	

a-Average discharge for 17 years (water years 1918-22, 1972-83), 497 ft³/s; 360100 acre-ft/yr, prior to completion of McPhee Reservoir.
b-Also occurred May 23.
c-Minimum daily discharge for period of record, no flow, Sep 13, 1974, Aug 15-18, 1978.
d-Maximum discharge and stage for period of record, 9280 ft³/s, Apr 30, 1973, gage height, 12.09 ft, from floodmarks.

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. Specific conductance record is fair. Water temperature record is good.

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, 3,590 microsiemens July 14; minimum recorded, 295 microsiemens May 30 and June 8.
WATER TEMPERATURES: Maximum recorded, 28.2°C August 15; minimum recorded, 0.0°C many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
OCT										
30...	1200	50	703	8.5	3.5	170	48	13	76	3
NOV										
18...	1520	73	1720	8.4	7.0	790	250	41	130	2
DEC										
04...	1545	39	1060	8.3	0.0	260	68	22	130	4
JAN										
13...	1230	41	1060	8.4	0.0	220	57	19	130	4
MAR										
10...	1425	66	1400	8.3	10.0	520	140	41	130	2
23...	1230	76	1110	8.3	9.5	350	87	32	120	3
APR										
20...	1235	987	398	8.2	10.5	160	47	11	19	0.6
MAY										
05...	1315	1250	355	8.6	13.5	130	39	8.6	14	0.5
28...	1015	3100	444	7.8	10.5	190	56	11	18	0.6
JUN										
17...	1345	392	420	8.4	17.0	150	46	9.0	27	1
JUL										
22...	1345	62	894	8.4	21.0	270	76	19	80	2
AUG										
26...	1000	76	544	8.2	16.5	170	47	12	45	2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)
OCT									
30...	3.8	128	69	130	0.3	2.8	420	0.57	56.7
NOV									
18...	6.1	122	850	84	0.4	4.2	1440	1.96	284
DEC									
04...	4.7	157	150	170	0.2	4.3	643	0.87	67.7
JAN									
13...	4.9	163	110	200	0.2	4.7	624	0.85	69.0
MAR									
10...	5.5	139	560	91	0.2	4.4	1060	1.44	188
23...	4.4	142	290	110	0.7	4.2	733	1.0	151
APR									
20...	2.4	103	95	13	<0.1	5.2	254	0.35	678
MAY									
05...	2.2	109	54	11	0.2	3.6	198	0.27	668
28...	2.5	114	110	12	0.2	4.7	283	0.38	2370
JUN									
17...	2.3	115	53	36	0.2	4.9	247	0.34	262
JUL									
22...	4.7	126	190	99	<0.1	3.1	547	0.74	91.6
AUG									
26...	4.5	128	57	72	0.2	4.8	319	0.43	65.5

09169500 DOLORES RIVER AT BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE (MICROSEIMENS/CM @ 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	566	722	841	726	1080	---	---	321	708	1030	775
2	---	629	753	861	722	1080	---	382	327	693	934	684
3	---	661	784	934	710	1070	754	361	334	695	865	627
4	---	674	992	878	692	1220	639	357	344	687	848	595
5	---	678	1020	841	701	1230	549	351	337	668	794	590
6	---	638	984	841	749	1240	537	348	330	661	738	587
7	---	601	945	903	767	1200	564	360	318	655	875	580
8	---	592	810	804	748	1180	562	361	308	657	888	615
9	---	595	755	835	677	1410	641	389	309	652	1010	587
10	---	586	760	895	718	1520	632	388	329	612	1180	577
11	---	623	774	967	709	1630	549	379	343	622	1250	577
12	---	620	764	928	698	1680	---	356	363	630	1250	571
13	---	681	687	882	717	1600	---	363	373	464	1180	569
14	---	691	748	942	794	1570	---	363	372	2440	926	581
15	---	683	771	786	966	1540	---	356	353	2860	623	587
16	---	537	916	945	1670	1490	---	352	362	2490	634	591
17	---	---	875	967	1650	1590	---	339	414	1820	831	550
18	---	---	805	1030	1380	1600	---	333	451	1350	2060	564
19	---	1520	839	928	1330	1540	---	331	483	1100	1110	578
20	---	1110	780	936	1270	1310	---	336	531	981	823	636
21	---	952	737	951	1140	1190	---	355	579	950	768	612
22	---	914	736	857	1060	1220	---	360	673	928	711	531
23	---	980	744	868	986	1170	---	351	703	897	728	535
24	---	983	793	819	960	---	---	448	729	877	770	545
25	---	872	882	772	1010	---	---	380	767	685	573	553
26	---	894	859	741	1250	---	---	435	805	1850	587	719
27	---	846	884	767	1350	---	---	359	740	2520	1400	869
28	---	737	842	743	1220	---	---	381	729	2490	1440	773
29	---	790	871	759	1190	---	---	322	715	2440	1080	678
30	---	766	1000	742	---	---	---	312	715	2030	735	604
31	646	---	861	735	---	---	---	313	---	1160	740	---
MEAN	---	---	829	861	985	---	---	---	482	1230	948	615

09169500 DOLORES RIVER AT BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.1	13.6	---	---	4.0	1.2	.9	.1	.6	.0	9.5	4.5
2	20.1	13.9	6.4	1.2	2.6	.2	.7	.0	.6	.1	10.5	5.4
3	20.1	13.3	6.5	3.6	1.8	.1	.3	.1	.6	.1	11.1	6.8
4	18.5	12.1	5.5	.2	1.1	.1	.3	.1	.6	.1	9.3	7.5
5	17.0	10.2	6.9	1.5	.8	.1	.4	.1	.7	.1	10.1	6.9
6	16.6	9.8	8.1	2.3	1.0	.1	.7	.1	.7	.1	10.6	5.3
7	16.6	10.2	8.5	3.5	.8	.1	.6	.2	.6	.1	11.4	5.3
8	17.1	11.4	10.7	5.1	1.2	.1	.6	.1	.5	.2	9.0	6.7
9	17.5	11.7	10.1	4.1	1.0	.1	.5	.1	.6	.2	9.4	5.5
10	17.6	11.7	9.4	5.0	.5	.1	.5	.0	.8	.2	12.8	3.9
11	17.6	11.5	9.9	7.9	.5	.2	.4	.0	.6	.2	11.3	4.5
12	17.5	11.5	11.8	7.6	.6	.1	.5	.0	1.7	.3	12.3	5.0
13	16.8	11.2	11.3	5.9	.8	.1	.5	.0	1.5	.5	13.3	5.6
14	16.8	10.6	9.4	4.4	.6	.1	.5	.1	3.6	.2	13.8	6.3
15	16.6	10.7	8.2	4.4	.7	.1	.6	.0	2.4	.2	13.5	6.7
16	16.5	10.4	6.8	6.1	.6	.1	.5	.0	2.5	.2	13.3	6.7
17	16.2	10.3	6.7	5.3	.5	.1	.5	.0	4.2	.1	11.3	6.9
18	16.2	10.2	7.2	4.7	.5	.1	.5	.0	3.1	.1	10.6	6.1
19	16.1	9.9	7.2	3.0	.4	.2	.5	.0	3.6	.1	10.4	5.1
20	15.5	10.5	7.1	3.0	.5	.2	.4	.0	5.1	.1	11.8	5.4
21	15.5	9.6	5.3	.9	.6	.2	.5	.0	6.3	.6	9.6	6.9
22	14.0	8.8	5.5	2.1	.8	.2	.5	.0	4.4	.2	11.0	7.1
23	12.6	10.2	5.3	1.9	.9	.2	.5	.0	8.1	2.2	10.7	7.4
24	13.4	10.4	3.7	.1	1.0	.1	.6	.0	7.7	1.0	12.4	6.3
25	13.2	9.7	1.8	.1	.5	.1	.5	.0	8.5	2.1	13.2	7.2
26	12.2	8.0	3.9	.2	.5	.1	.6	.0	8.5	1.8	13.0	9.0
27	12.1	9.2	3.7	.2	.5	.1	.6	.0	9.4	2.2	11.1	9.6
28	9.8	7.1	4.6	.3	.6	.1	.6	.0	10.2	2.8	13.0	8.9
29	7.2	4.5	4.8	1.5	.6	.1	.6	.0	10.4	3.5	12.9	8.5
30	5.9	3.3	4.8	2.8	.4	.1	.6	.0	---	---	12.9	8.9
31	---	---	---	---	.8	.2	.6	.0	---	---	12.4	9.1
MONTH	---	---	---	---	4.0	.1	.9	.0	10.4	.0	13.8	3.9

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.1	9.8	15.5	13.5	13.7	11.1	22.1	18.2	27.7	20.1	22.7	16.0
2	14.9	9.2	14.1	12.5	15.0	11.9	24.5	16.7	26.6	20.9	23.1	16.8
3	15.6	9.5	14.0	12.5	15.4	13.8	24.8	17.9	26.8	20.5	23.1	17.3
4	16.0	10.4	14.7	12.3	17.5	13.5	25.5	19.2	26.0	22.1	20.7	17.4
5	15.2	11.5	14.6	12.7	17.6	14.6	26.4	19.6	25.7	22.1	21.8	14.4
6	14.7	11.4	13.0	11.7	17.6	14.3	27.5	20.9	23.6	21.9	22.3	15.8
7	12.1	11.4	14.5	11.9	15.7	13.7	24.1	22.0	25.7	20.5	22.6	16.1
8	12.0	11.4	15.1	12.5	14.8	13.8	22.7	20.8	24.7	20.9	22.9	16.4
9	11.5	11.3	12.7	11.0	15.3	13.3	26.2	20.0	26.1	20.8	23.0	16.4
10	11.6	11.1	13.0	10.2	17.2	12.9	24.1	20.9	25.1	22.6	23.2	16.4
11	12.1	11.4	13.9	10.0	18.5	14.5	23.8	20.3	23.9	21.4	22.5	16.7
12	12.4	12.0	14.5	12.1	20.2	15.5	23.4	20.3	25.9	19.2	21.1	16.9
13	12.4	12.1	16.3	13.1	20.2	16.6	23.2	19.3	26.3	20.9	22.4	12.8
14	12.5	12.2	16.6	12.9	18.4	16.0	24.6	19.7	26.3	20.9	21.9	16.8
15	12.8	12.4	15.9	13.0	17.8	14.2	23.0	19.9	28.2	21.4	21.1	17.7
16	12.9	12.6	16.3	13.0	17.4	13.7	25.0	17.9	28.1	22.6	23.3	17.1
17	12.8	12.4	14.4	12.8	22.9	13.8	26.4	20.0	27.0	22.2	23.6	17.8
18	12.8	12.0	14.8	13.2	21.5	15.6	25.3	20.3	27.2	20.7	20.7	17.3
19	12.1	11.1	15.2	13.7	23.1	17.1	25.5	20.3	26.9	20.8	20.4	16.5
20	11.3	10.6	15.4	13.7	24.2	17.8	25.6	20.3	25.9	20.0	21.3	15.5
21	10.9	10.2	15.7	13.1	25.4	18.7	25.7	20.0	25.6	21.6	21.2	15.0
22	11.4	10.7	14.1	11.9	26.2	19.5	23.7	19.8	23.5	20.3	21.8	15.5
23	11.5	11.0	13.2	11.9	26.9	20.1	23.3	20.2	20.7	18.8	22.7	16.0
24	11.5	10.9	12.7	11.1	25.6	21.2	22.1	19.5	22.1	18.4	21.4	16.6
25	11.9	11.1	13.8	11.3	23.0	20.3	23.9	18.8	21.0	17.7	20.8	15.6
26	12.7	11.3	13.1	11.3	22.9	18.6	24.6	20.0	23.0	16.6	19.1	12.2
27	13.3	11.8	13.3	11.1	24.7	18.1	24.3	20.0	21.7	15.3	19.1	12.3
28	14.0	12.3	12.5	10.7	25.8	19.6	24.0	20.7	22.3	14.9	19.4	12.8
29	14.6	13.0	11.2	9.6	25.3	20.7	25.3	21.2	20.7	16.2	19.6	13.0
30	14.9	13.4	11.5	8.8	24.0	19.0	26.5	20.3	21.7	16.8	19.8	13.3
31	---	---	12.7	10.3	---	---	26.9	20.1	20.7	17.4	---	---
MONTH	16.0	9.2	16.6	8.8	26.9	11.1	27.5	16.7	28.2	14.9	23.6	12.2

09170800 WEST PARADOX CREEK ABOVE BEDROCK, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°19'54", long 108°53'59", in NE¼NW¼ sec.18, T.47 N, R.18 W, Montrose County. Site is 1000 ft downstream from former surface water station, 1.3 mi northwest of Bedrock, and 2.6 mi upstream from mouth.

DRAINAGE AREA.-- 53.3 mi^2

PERIOD OF RECORD.--Chemical analyses: August 1987 to current year.

REMARKS.--Natural flow affected by water imported from Rock Creek through Buckeye Reservoir. Diversion for irrigation of about 2,500 acres.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
NOV									
18...	1700	1240	8.4	6.5	660	130	81	40	0.7
DEC									
04...	1400	1240	8.3	1.0	590	120	70	39	0.7
JAN									
13...	1115	1280	8.2	0.0	660	130	81	44	0.7
MAR									
10...	1645	1290	8.5	10.0	710	140	88	46	0.8
23...	1100	1320	8.6	9.0	770	150	95	42	0.7
APR									
20...	1130	1530	8.3	10.0	870	190	96	48	0.7
MAY									
28...	0950	590	8.0	15.0	290	69	29	14	0.4

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
NOV								
18...	4.2	238	430	37	0.4	11	876	1.19
DEC								
04...	3.3	212	370	37	0.3	10	777	1.06
JAN								
13...	3.6	254	440	36	0.4	12	899	1.22
MAR								
10...	3.9	220	560	39	0.3	10	1020	1.39
23...	3.6	217	540	41	0.4	10	1010	1.38
APR								
20...	3.8	202	730	42	0.9	10	1240	1.69
MAY								
28...	2.6	133	170	12	0.3	9.4	386	0.53

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.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1971 to current year. Statistical summary computed for 1985 to current year.

REVISED RECORDS.--WDR CO-90-2: 1989.

GAGE.--Water-stage recorder with satellite telemetry. 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. 27 to Dec. 1, Dec. 3, 6-15, 17-24, Dec. 26 to Jan. 2, Jan. 4-10, 12, 13, 15, 16, 19, 20, 22-28, Feb. 3-5, 8, 9, and Aug. 28 to Sept. 10. 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.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	46	38	36	43	60	267	1020	1730	91	61	64
2	27	42	33	36	45	62	262	1250	1450	91	59	64
3	27	39	37	38	45	64	246	1260	1200	94	58	64
4	27	37	38	37	45	67	303	1260	1080	96	57	64
5	27	40	38	37	45	71	456	1260	1060	92	60	64
6	27	41	40	37	47	71	591	1180	1110	91	59	62
7	29	43	40	37	46	76	828	1060	1340	89	79	60
8	31	42	40	37	48	80	911	1060	1430	91	137	60
9	31	42	40	37	55	73	891	1110	1260	99	129	60
10	32	43	40	37	58	73	903	1130	982	102	73	58
11	32	43	40	38	64	70	872	1130	832	102	65	58
12	31	43	40	38	68	65	816	1240	687	108	65	58
13	30	42	40	38	74	60	736	1040	670	317	61	58
14	30	42	37	37	107	59	695	1040	701	204	73	55
15	31	61	37	36	150	56	666	1050	832	136	82	57
16	32	137	37	34	99	60	615	1110	711	112	63	65
17	32	154	37	34	71	66	848	1330	392	91	54	68
18	32	86	38	31	61	74	1110	1320	374	77	50	66
19	32	65	38	32	51	85	1050	1240	295	73	53	60
20	33	57	38	32	54	83	995	1020	217	68	48	65
21	33	55	38	34	57	77	955	928	195	65	47	70
22	33	52	37	34	57	73	935	1070	134	64	45	74
23	35	48	37	35	61	78	925	1470	120	64	48	68
24	37	45	36	33	61	78	925	1690	114	63	67	63
25	40	46	36	31	60	79	906	2000	111	256	76	60
26	40	40	36	33	56	78	888	2220	113	157	78	58
27	39	40	36	36	57	79	888	2540	105	95	74	58
28	40	40	36	39	58	114	891	3040	105	76	60	58
29	40	40	36	41	58	151	897	3090	101	69	58	59
30	48	40	36	41	---	194	906	2390	96	65	56	60
31	48	---	36	41	---	224	---	2000	---	64	62	---
TOTAL	1033	1591	1166	1117	1801	2600	23177	45548	19547	3262	2057	1858
MEAN	33.3	53.0	37.6	36.0	62.1	83.9	773	1469	652	105	66.4	61.9
MAX	48	154	40	41	150	224	1110	3090	1730	317	137	74
MIN	27	37	33	31	43	56	246	928	96	63	45	55
AC-FT	2050	3160	2310	2220	3570	5160	45970	90340	38770	6470	4080	3690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	115	131	98.6	95.9	112	302	1085	1109	654	139	103	102
MAX	269	430	262	208	207	811	2552	2095	1576	369	274	203
(WY)	1987	1987	1987	1985	1987	1985	1985	1987	1985	1986	1987	1986
MIN	33.3	38.8	33.1	34.5	48.2	46.6	27.3	30.4	16.0	44.9	44.7	53.0
(WY)	1992	1991	1991	1991	1991	1990	1990	1990	1990	1990	1990	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	34438		104757			
ANNUAL MEAN	94.4		286		[a]337	
HIGHEST ANNUAL MEAN					676	1987
LOWEST ANNUAL MEAN					55.3	1990
HIGHEST DAILY MEAN	864	May 25	3090	May 29	4550	May 6 1986
LOWEST DAILY MEAN	26	Sep 29	[b]27	Oct 1	[c]7.1	Jun 21 1990
ANNUAL SEVEN-DAY MINIMUM	27	Sep 27	27	Oct 1	10	Jun 16 1990
INSTANTANEOUS PEAK FLOW			3290	May 27	[d]5260	May 6 1986
INSTANTANEOUS PEAK STAGE			8.92	May 27	10.82	May 6 1986
ANNUAL RUNOFF (AC-FT)	68310		207800		244200	
10 PERCENT EXCEEDS	151		1050		1100	
50 PERCENT EXCEEDS	51		63		95	
90 PERCENT EXCEEDS	34		36		37	

a-Average discharge for 12 years (water years 1972-83), 502 ft³/s; 363700 acre-ft/yr, prior to completion of McPhee Reservoir.
b-Also occurred Oct 2-6.
c-Minimum daily discharge for period of record, 0.12 ft³/s, Jul 17, 18, 1977.
d-Maximum discharge and stage for period of record, 9500 ft³/s, Apr 30, 1973, gage height, 12.88 ft, from flood-marks.

09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1987 to current year.
WATER TEMPERATURE: December 1987 to current year.

INSTRUMENTATION.--Water-quality monitor since December 1987.

REMARKS.--Daily maximum and minimum specific conductance data available in district office. Interuptions in daily record are the result of severe probe fouling or instrument malfunctions. Specific conductance record is fair to poor. Water temperature record is fair.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 57,700 microsiemens June 22, 1990 (may have been greater June 19-22 when probe was out of water); minimum, 350 microsiemens May 9 and 10, 1988, and May 28, 1991.
WATER TEMPERATURES: Maximum, 33.3°C, July 1, 1990; minimum, 0.0°C, many days during winters.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 30,800 microsiemens, Jan. 14 (may have been greater Dec. 4 to Jan. 13 when recorded data was lost); minimum 359 microsiemens, May 30.
WATER TEMPERATURES: Maximum, 29.6°C , Aug. 15; minimum, 0.0°C, many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT										
30...	1610	48	2810	8.3	6.0	250	58	25	490	14
NOV										
18...	1345	86	2580	8.0	6.5	920	270	60	320	5
DEC										
04...	1215	20	20300	8.0	0.0	980	180	130	4300	60
JAN										
13...	1400	38	12600	8.0	0.0	590	110	77	2500	45
MAR										
10...	1330	76	5770	8.1	10.0	770	180	79	1100	17
23...	1400	77	5160	8.3	10.0	460	100	51	960	19
APR										
20...	1615	998	474	8.2	11.5	170	47	12	30	1
MAY										
05...	1645	1260	387	8.3	15.0	130	39	8.7	20	0.8
28...	1500	3210	468	7.9	12.0	180	55	11	24	0.8
JUN										
18...	0830	379	830	8.5	18.0	180	52	12	100	3
JUL										
23...	0930	63	3630	8.2	19.5	360	91	33	640	15
AUG										
26...	1425	80	1830	8.2	20.5	200	53	17	280	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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT									
30...	22	134	140	900	1.4	2.9	1720	2.34	223
NOV									
18...	13	153	870	310	0.4	3.9	1940	2.64	450
DEC									
04...	170	178	510	6600	1.4	4.9	12000	16.3	648
JAN									
13...	120	178	290	4200	1.0	5.4	7410	10.1	760
MAR									
10...	50	150	780	1500	0.4	4.7	3780	5.15	776
23...	53	148	400	1500	0.7	4.4	3160	4.29	657
APR									
20...	3.3	103	90	30	<0.1	5.3	279	0.38	753
MAY									
05...	2.7	108	57	23	0.1	3.8	219	0.30	745
28...	3.3	126	100	25	0.2	4.7	299	0.41	2590
JUN									
18...	5.8	120	71	150	0.2	4.3	467	0.64	478
JUL									
23...	31	121	240	1100	0.4	3.1	2210	3.01	376
AUG									
26...	16	128	79	460	0.2	2.3	984	1.34	213

09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2700	5550	---	10400	7970	1480	401	376	2980	3030	2670
2	---	3070	9620	---	10200	7570	1370	391	385	2890	3040	2590
3	---	3160	6770	---	8920	7630	1320	400	400	2770	2920	2500
4	---	3370	---	---	7580	7270	1420	428	415	2600	2840	2520
5	---	3300	---	---	7840	6770	1520	413	424	2610	2660	2460
6	---	3290	---	---	9470	6440	1580	409	421	2580	2710	2550
7	---	2890	---	---	10100	6310	1420	407	406	2480	1930	2550
8	---	2820	---	---	8520	5560	1240	400	396	2350	1590	2600
9	---	2930	---	---	5470	6070	1080	396	395	2100	1200	2630
10	---	3030	---	---	6510	5650	1040	404	409	1840	1380	2590
11	---	2860	---	---	6070	5550	921	399	429	1850	1620	2590
12	---	2820	---	---	5260	6600	769	398	462	1720	1840	2610
13	---	3020	---	---	4710	7330	720	407	483	924	2000	2660
14	---	3210	---	18300	3730	7460	714	400	493	1110	2220	2760
15	---	2570	---	11100	3370	6910	697	392	475	2140	1840	2690
16	---	1210	---	15400	4360	5530	678	388	479	2440	2600	2320
17	---	1380	---	18100	3120	4650	703	385	612	2680	3200	2170
18	---	2460	---	20500	4710	3770	606	391	763	2880	4240	2170
19	---	3030	---	12200	7280	3070	---	404	1030	3000	3810	2650
20	---	3180	---	13200	8180	3940	---	413	1430	3310	3700	2530
21	---	3290	---	11500	9240	4340	410	414	1550	3410	3980	2240
22	---	3520	---	11000	8540	4460	416	413	2440	3610	4020	1820
23	---	3940	---	13300	7060	4420	415	407	2700	3710	3680	2150
24	---	5050	---	13400	6830	4320	410	415	2710	3430	3110	2480
25	---	4880	---	12400	6950	4040	406	414	2660	1380	1880	2610
26	---	6130	---	10900	8800	3940	403	427	2500	1150	1960	2610
27	---	5440	---	10000	9180	3790	402	434	2690	2530	2230	2950
28	---	5150	---	9630	8750	2700	402	450	2670	2710	4130	2780
29	---	5910	---	10600	8630	1850	402	403	2770	2670	3630	2690
30	---	6040	---	10700	---	1640	401	373	2940	3200	3520	2620
31	2480	---	---	10800	---	1550	---	376	---	3200	2820	---
MEAN	---	3520	---	---	7230	5130	---	405	1210	2520	2750	2530

09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	22.3	10.8	8.1	1.0	3.8	.0	---	---	4.3	.0	10.1	3.8
2	22.3	10.8	6.9	1.9	2.1	.0	---	---	4.7	.0	10.5	4.3
3	21.2	10.0	6.7	.0	---	---	---	---	5.0	.0	11.8	5.7
4	17.7	8.8	8.8	1.3	---	---	---	---	5.4	.0	9.3	6.7
5	18.3	6.6	10.2	2.4	---	---	---	---	4.7	.0	10.1	6.2
6	19.1	6.7	9.9	3.4	---	---	---	---	3.9	.0	11.1	4.1
7	19.3	7.3	12.3	4.7	---	---	---	---	3.2	.0	12.2	4.2
8	19.7	8.6	11.1	3.3	---	---	---	---	3.3	.0	9.0	6.4
9	19.7	9.0	11.6	4.4	---	---	---	---	3.9	.0	10.1	4.7
10	20.2	8.8	10.6	7.7	---	---	---	---	3.9	.0	11.2	3.8
11	20.1	8.5	12.8	6.7	---	---	---	---	3.1	.0	12.0	3.3
12	17.3	8.7	11.5	4.4	---	---	---	---	5.7	.1	12.9	3.9
13	18.3	8.1	10.2	2.9	---	---	---	---	1.8	.7	14.2	4.4
14	18.3	7.6	7.7	3.6	---	---	1.4	.0	4.6	.0	14.6	5.2
15	19.0	8.0	6.5	4.6	---	---	1.5	.0	3.1	.0	14.0	5.5
16	18.3	7.7	6.6	4.6	---	---	.3	.0	2.9	.0	13.7	5.3
17	18.3	7.8	7.5	4.3	---	---	.2	.0	5.8	.0	11.6	5.2
18	17.8	7.8	6.9	4.5	---	---	.1	.0	5.8	.0	12.4	4.5
19	16.9	7.6	6.6	2.2	---	---	.2	.0	7.1	.0	10.3	3.8
20	17.0	8.8	5.7	.6	---	---	.5	.0	6.9	.0	12.5	4.1
21	15.5	7.2	5.7	2.2	---	---	1.3	.0	8.3	1.9	9.6	5.7
22	14.3	6.6	4.7	1.2	---	---	1.0	.0	5.7	1.7	12.0	6.4
23	14.9	9.1	3.8	.0	---	---	1.4	.0	7.3	1.5	11.8	6.7
24	14.7	9.3	4.1	.0	---	---	1.0	.0	8.6	.6	14.7	5.2
25	12.5	9.0	5.3	.0	---	---	.0	.0	8.6	1.9	15.4	5.4
26	13.2	6.2	4.4	.0	---	---	1.9	.0	9.7	1.3	13.4	7.2
27	11.0	8.4	5.4	.0	---	---	3.5	.0	10.6	1.9	11.0	8.5
28	8.4	4.6	5.3	1.5	---	---	3.5	.0	11.5	2.5	13.6	8.4
29	5.2	2.4	3.9	1.9	---	---	3.5	.0	11.3	2.9	13.8	8.0
30	7.6	1.9	3.3	.0	---	---	3.9	.0	---	---	14.0	8.0
31	7.4	.1	---	---	---	---	4.2	.0	---	---	13.4	8.9
MONTH	22.3	.1	12.8	.0	---	---	---	---	11.5	.0	15.4	3.3

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	14.7	9.1	16.4	12.6	13.8	11.2	22.5	16.5	28.9	17.6	24.4	14.3
2	14.8	8.5	15.0	11.9	15.2	11.9	26.6	15.1	29.5	18.6	24.7	14.7
3	15.6	8.8	14.2	12.2	16.4	13.1	26.3	15.8	27.8	18.3	24.8	15.0
4	15.8	9.5	14.2	12.1	17.6	13.0	26.5	17.4	26.2	19.5	19.5	15.6
5	15.4	10.8	14.5	12.4	17.8	14.4	26.9	17.4	27.9	20.1	23.8	12.1
6	15.0	10.8	13.2	12.1	17.8	13.9	27.9	18.7	25.3	19.9	23.0	13.2
7	13.8	10.1	14.0	11.3	16.2	13.2	23.9	19.5	29.2	18.6	23.4	13.6
8	13.9	9.8	15.4	12.2	15.4	13.6	22.8	19.6	26.4	19.5	23.1	13.5
9	13.8	9.6	13.1	11.2	16.3	13.0	28.7	18.5	29.2	19.7	23.8	13.6
10	14.2	9.9	13.1	10.2	17.4	12.7	24.9	18.9	26.7	20.7	25.2	13.4
11	15.5	11.0	13.5	10.3	18.2	13.9	25.1	19.0	25.0	19.9	23.4	13.8
12	14.3	11.8	13.8	11.7	20.1	15.1	24.0	19.2	28.9	18.2	20.4	14.2
13	14.5	11.2	15.4	12.5	20.4	16.2	24.3	19.2	27.9	18.5	22.8	15.8
14	15.3	12.1	16.2	12.7	19.2	15.7	26.6	18.6	29.1	18.3	22.3	14.6
15	15.9	12.4	15.7	12.6	17.8	14.2	23.9	18.4	29.6	19.6	21.8	16.1
16	14.2	12.4	15.9	12.6	17.2	13.8	26.8	16.8	29.1	20.3	23.9	15.4
17	14.7	11.7	14.5	12.9	20.5	13.3	28.0	18.3	27.4	20.7	24.2	15.5
18	13.0	10.8	14.7	12.9	21.9	15.1	26.0	18.5	28.0	18.2	21.0	15.4
19	---	---	14.7	13.3	23.9	16.2	27.4	18.3	28.9	18.5	21.2	15.4
20	---	---	14.5	13.7	25.2	16.5	26.4	18.4	27.4	17.3	21.7	13.9
21	12.0	8.7	15.2	13.1	26.3	17.6	25.6	18.1	27.2	19.7	22.9	13.2
22	13.2	10.0	14.5	12.2	28.1	17.9	24.7	17.8	22.1	18.8	23.6	13.5
23	13.1	10.0	13.6	11.9	28.8	17.9	23.7	18.4	21.1	17.4	24.2	13.7
24	13.5	9.2	12.8	11.6	27.1	19.1	22.8	17.8	24.2	17.2	22.1	14.2
25	14.2	9.8	13.0	11.2	23.0	18.0	24.6	18.6	21.2	15.9	21.7	14.0
26	15.1	10.2	12.9	12.1	23.2	17.0	27.0	19.6	23.7	14.9	21.0	9.9
27	15.3	11.0	12.8	11.9	25.9	16.2	27.8	17.9	24.6	13.4	21.2	9.7
28	16.2	11.6	12.7	11.1	29.2	17.9	27.4	17.6	25.0	12.2	21.5	10.3
29	16.6	12.4	11.1	9.7	25.6	18.3	25.4	18.5	22.3	13.9	21.5	10.6
30	16.9	12.7	11.3	8.6	24.7	17.3	28.6	17.3	23.5	14.6	21.7	10.7
31	---	---	12.9	10.0	---	---	28.1	17.7	20.8	16.1	---	---
MONTH	---	---	16.4	8.6	29.2	11.2	28.7	15.1	29.6	12.2	25.2	9.7

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 mi^2.

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 with satellite telemetry. Elevation 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. Oct. 22, 1958 to Mar. 4, 1986, gage located 0.8 mi upstream from present site, at different datum. Mar. 5, 1986, gage moved to present site, at present datum.

REMARKS.--Estimated daily discharges: Nov. 18, 19, 21, 22, 24-26, 29, Dec. 1, Dec. 4 to Feb. 13, and Feb. 18 to Mar. 4. 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 the City of Telluride, Public Service of Colorado, Pacific Light and Power Company, and Tri State Power Company, combined capacity, 5,040 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	69	55	50	48	50	90	479	665	592	224	150
2	78	76	45	50	48	50	97	494	588	455	210	142
3	87	54	50	50	48	55	103	496	580	451	204	133
4	74	73	55	50	46	55	123	455	633	471	192	126
5	81	77	55	50	46	55	141	493	782	497	169	126
6	75	65	55	50	44	55	155	513	770	543	201	121
7	76	74	50	48	46	57	191	510	768	537	233	106
8	68	64	48	46	50	62	237	522	707	529	238	101
9	72	72	50	46	50	58	284	601	637	525	210	100
10	64	70	55	46	48	49	336	565	631	472	207	100
11	77	77	55	46	46	58	369	473	677	430	203	104
12	65	63	55	46	46	69	426	449	736	529	208	88
13	76	55	55	46	46	74	420	492	828	496	198	85
14	70	68	50	46	49	77	509	545	811	418	203	84
15	65	71	46	46	43	79	413	550	751	369	186	118
16	77	78	50	46	46	79	362	517	675	335	179	114
17	65	66	55	46	48	81	338	516	587	288	178	114
18	65	65	55	46	46	78	432	536	661	308	169	106
19	75	60	55	46	42	77	315	518	741	285	158	118
20	70	50	55	46	44	75	250	688	780	288	145	140
21	66	60	50	46	46	77	251	736	778	286	134	141
22	63	60	55	46	48	74	253	644	765	267	131	129
23	73	49	50	46	46	74	232	576	723	303	193	125
24	75	65	48	46	48	73	232	673	703	399	222	118
25	81	65	50	44	46	78	250	663	673	632	226	114
26	73	70	48	44	46	80	260	770	671	475	217	105
27	67	63	46	46	46	81	306	893	605	356	192	101
28	77	58	48	48	48	86	367	825	552	298	176	98
29	63	57	50	48	48	85	430	677	636	276	158	97
30	80	57	50	50	---	88	466	660	619	260	148	94
31	71	---	50	48	---	88	---	628	---	242	144	---
TOTAL	2262	1951	1594	1458	1352	2177	8638	18157	20733	12612	5856	3398
MEAN	73.0	65.0	51.4	47.0	46.6	70.2	288	586	691	407	189	113
MAX	93	78	55	50	50	88	509	893	828	632	238	150
MIN	63	49	45	44	42	49	90	449	552	242	131	84
AC-FT	4490	3870	3160	2890	2680	4320	17130	36010	41120	25020	11620	6740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1992, BY WATER YEAR (WY)

MEAN	110	83.1	68.0	62.2	61.8	73.9	231	561	785	442	212	138
MAX	399	138	104	92.1	94.2	129	593	1515	1528	1197	484	342
(WY)	1912	1985	1987	1943	1987	1971	1942	1958	1983	1983	1983	1970
MIN	50.9	51.4	40.8	38.3	37.1	46.4	79.6	136	186	104	83.4	63.8
(WY)	1957	1990	1977	1977	1990	1980	1951	1977	1934	1977	1972	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1911 - 1992	
ANNUAL TOTAL	72975		80188			
ANNUAL MEAN	200		219		234	
HIGHEST ANNUAL MEAN					414	1983
LOWEST ANNUAL MEAN					88.8	1977
HIGHEST DAILY MEAN	895	Jun 14	893	May 27	2740	Jun 21 1983
LOWEST DAILY MEAN	45	Dec 2	42	Feb 19	26	Jan 5 1960
ANNUAL SEVEN-DAY MINIMUM	49	Dec 23	45	Feb 15	31	Dec 25 1976
INSTANTANEOUS PEAK FLOW			956	May 27	[a]10000	Sep 5 1909
INSTANTANEOUS PEAK STAGE			[b]4.16	May 27		
ANNUAL RUNOFF (AC-FT)	144700		159100		169600	
10 PERCENT EXCEEDS	545		622		636	
50 PERCENT EXCEEDS	87		88		104	
90 PERCENT EXCEEDS	55		46		55	

a-Result of failure of Trout and Middle Reservoir Dams.
b-Maximum gage height, 5.28 ft, Jan 21, backwater from ice.

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 mi^2.

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: Nov. 19, 22, 23, Nov. 25 to Dec. 3, Dec. 5-14, 16-24, Dec. 26 to Jan. 2, Jan. 4 to Mar. 11, Aug. 22, Sept. 10-17, and Sept. 19. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 6, 1970, reached a stage of 12.6 ft, from floodmarks, discharge, 8,910 ft^3/s, by slope-area measurement at site 5.5 mi, downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	87	87	65	75	70	75	323	1040	1060	523	170	87
2	102	88	65	75	70	75	381	998	888	422	150	96
3	87	90	65	73	70	80	434	950	776	361	132	87
4	88	71	71	75	70	85	638	867	767	362	123	74
5	77	92	70	75	70	85	819	844	877	382	109	66
6	88	92	70	75	65	85	933	852	961	424	103	64
7	81	88	70	70	65	90	1150	864	901	435	156	59
8	81	102	65	70	70	95	1240	892	828	437	170	47
9	72	92	65	65	75	90	1290	996	775	479	157	39
10	86	107	65	65	70	85	1320	1130	699	431	132	32
11	74	101	70	70	70	80	1380	850	718	363	129	32
12	83	109	70	75	70	83	1430	707	745	443	131	30
13	72	93	70	75	65	98	1360	697	856	484	123	28
14	81	88	70	75	70	103	1480	718	844	398	120	26
15	74	167	65	75	65	87	1500	745	775	328	112	36
16	72	191	70	75	65	74	1270	691	674	324	91	36
17	81	104	75	75	70	77	1130	655	566	262	88	36
18	72	81	75	75	70	81	1250	630	579	243	87	36
19	72	80	75	75	65	74	1090	624	665	233	83	34
20	79	73	75	70	65	108	781	709	799	221	76	59
21	74	72	75	70	70	120	675	992	751	220	60	78
22	74	70	80	70	70	127	648	881	746	213	50	72
23	74	70	75	70	70	129	613	804	698	242	115	59
24	98	74	75	70	70	129	547	953	678	319	163	57
25	98	65	77	65	70	127	575	1070	649	534	192	51
26	96	65	75	65	70	140	594	1090	654	519	190	49
27	87	60	70	70	70	174	670	1420	586	353	170	47
28	98	60	70	70	70	229	820	1430	507	275	141	47
29	108	60	75	75	70	240	940	1160	522	236	121	45
30	96	65	75	75	---	258	1010	1160	563	211	101	41
31	100	---	75	70	---	273	---	1060	---	190	91	---
TOTAL	2612	2657	2208	2228	2000	3656	28291	28479	22107	10867	3836	1550
MEAN	84.3	88.6	71.2	71.9	69.0	118	943	919	737	351	124	51.7
MAX	108	191	80	75	75	273	1500	1430	1060	534	192	96
MIN	72	60	65	65	65	74	323	624	507	190	50	26
AC-FT	5180	5270	4380	4420	3970	7250	56120	56490	43850	21550	7610	3070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	137	118	94.3	86.9	108	179	843	1167	1014	449	189	126
MAX	333	385	188	139	225	459	2154	3420	2361	1306	603	416
(WY)	1987	1987	1987	1985	1958	1960	1985	1984	1957	1957	1983	1982
MIN	30.6	60.9	49.6	49.9	54.1	66.8	110	86.6	177	103	44.3	16.8
(WY)	1957	1956	1977	1977	1990	1977	1977	1977	1977	1959	1990	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	99283		110491			
ANNUAL MEAN	272		302		377	
HIGHEST ANNUAL MEAN					758	1984
LOWEST ANNUAL MEAN					89.3	1977
HIGHEST DAILY MEAN	1800	Apr 8	1500	Apr 15	5440	May 16 1984
LOWEST DAILY MEAN	[a]49	Aug 26	26	Sep 14	9.4	Aug 10 1977
ANNUAL SEVEN-DAY MINIMUM	51	Aug 30	31	Sep 10	14	Aug 8 1977
INSTANTANEOUS PEAK FLOW			1970	Apr 10	[b]8050	May 10 1983
INSTANTANEOUS PEAK STAGE			5.72	Apr 10	10.14	May 10 1983
ANNUAL RUNOFF (AC-FT)	196900		219200		272800	
10 PERCENT EXCEEDS	844		878		1060	
50 PERCENT EXCEEDS	100		90		134	
90 PERCENT EXCEEDS	66		65		57	

a-Also occurred Aug 31 and Sep 3.
b-From rating curve extended above 4100 ft^3/s.

09237450 YAMPA RIVER ABOVE STAGECOACH RESERVOIR, CO

LOCATION.--Lat 40°16'09", long 106°52'49", in SW¼SW¼ sec.36, T.4 N., R.85 W., Routt County, Hydrologic Unit 14050001, on left bank 1.4 mi downstream from Jack Creek and 4.0 mi east of Oak Creek, CO.

DRAINAGE AREA.--257 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,240 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 2-7, Nov. 22 to Mar. 19, and Mar. 27 to Apr. 5. 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).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	56	38	40	38	36	66	65	94	63	62	41
2	31	55	40	40	36	35	65	61	79	69	61	40
3	32	55	40	40	38	35	67	55	78	80	60	33
4	33	55	40	40	38	35	72	54	71	73	60	31
5	34	55	40	40	34	34	82	58	73	62	54	30
6	34	55	40	40	34	34	82	48	71	58	61	29
7	34	55	40	38	36	35	84	46	75	57	70	29
8	37	54	38	40	38	34	78	45	77	68	65	25
9	37	47	38	36	36	34	77	40	81	74	64	23
10	38	48	38	36	36	34	75	42	75	64	60	24
11	39	50	38	38	36	34	74	34	70	67	58	21
12	38	42	38	38	36	34	71	33	74	88	51	23
13	37	42	38	38	34	36	71	36	75	96	49	23
14	37	41	38	38	34	36	73	37	69	83	48	22
15	37	42	38	36	32	34	77	45	63	88	47	23
16	37	40	38	36	32	36	67	43	62	110	47	27
17	37	39	37	38	34	36	63	39	68	80	52	31
18	38	41	40	38	34	37	71	39	61	74	47	34
19	37	36	40	36	32	38	72	43	57	77	42	34
20	38	47	40	36	34	39	67	49	53	107	40	39
21	38	46	40	38	36	37	64	62	51	95	40	38
22	34	45	38	38	34	37	64	59	50	84	45	37
23	36	44	40	38	34	37	72	56	52	92	42	39
24	43	43	38	38	34	37	71	62	47	102	42	40
25	45	42	39	38	36	38	61	57	66	114	41	44
26	46	41	40	38	36	43	59	67	88	91	42	42
27	49	40	40	38	36	44	59	115	86	80	37	42
28	48	40	40	39	36	48	61	102	80	72	35	37
29	48	40	40	38	35	52	67	85	67	70	34	36
30	49	40	40	36	---	58	68	86	65	72	33	32
31	52	---	40	38	---	62	---	98	---	68	39	---
TOTAL	1207	1376	1212	1179	1019	1199	2100	1761	2078	2478	1528	969
MEAN	38.9	45.9	39.1	38.0	35.1	38.7	70.0	56.8	69.3	79.9	49.3	32.3
MAX	52	56	40	40	38	62	84	115	94	114	70	44
MIN	31	36	37	36	32	34	59	33	47	57	33	21
AC-FT	2390	2730	2400	2340	2020	2380	4170	3490	4120	4920	3030	1920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

MEAN	41.1	46.0	37.2	31.7	34.4	54.9	92.2	65.2	78.8	91.2	63.6	37.4
MAX	48.0	48.1	44.7	38.0	38.0	79.7	136	97.0	111	118	77.8	45.5
(WY)	1989	1989	1989	1992	1989	1989	1989	1991	1991	1991	1989	1991
MIN	38.3	41.8	29.2	21.4	29.4	38.7	49.7	38.5	52.3	79.9	49.3	31.2
(WY)	1990	1990	1990	1990	1991	1992	1990	1990	1990	1992	1992	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1989 - 1992	
ANNUAL TOTAL	23856		18106			
ANNUAL MEAN	65.4		49.5		56.2	
HIGHEST ANNUAL MEAN					65.4	1989
LOWEST ANNUAL MEAN					44.8	1990
HIGHEST DAILY MEAN	218	Apr 7	115	May 27	232	Apr 8 1989
LOWEST DAILY MEAN	[a]28	Jan 18	21	Sep 11	[b]14	Jan 24 1990
ANNUAL SEVEN-DAY MINIMUM	28	Jan 17	23	Sep 9	15	Jan 22 1990
INSTANTANEOUS PEAK FLOW			136	Jul 20	277	Apr 7 1991
INSTANTANEOUS PEAK STAGE			3.22	Jul 20	3.58	Apr 7 1991
ANNUAL RUNOFF (AC-FT)	47320		35910		40730	
10 PERCENT EXCEEDS	117		75		94	
50 PERCENT EXCEEDS	48		40		45	
90 PERCENT EXCEEDS	29		34		30	

a-Also occurred Jan 19-23, Feb 15, 16, 19, 20.
b-Also occurred Jan 25-26.

09237450 YAMPA RIVER ABOVE STAGECOACH RESERVOIR, CO--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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 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)
OCT											
08...	1400	37	428	8.5	11.0	4.6	10.0	0.9	2.2	<2	K13
MAR											
12...	1320	34	418	7.7	1.0	--	10.9	2.6	5.9	--	--
APR											
16...	1600	66	448	8.1	8.5	10	9.1	2.0	4.2	K10	K17
MAY											
19...	1530	46	490	8.4	19.5	7.2	8.8	1.6	4.3	K27	K17
JUN											
23...	1610	50	505	8.5	23.0	6.0	7.8	1.8	4.1	<1	K28
JUL											
27...	1610	81	468	8.7	20.0	8.1	8.4	1.4	3.1	35	80
AUG											
26...	1630	43	432	8.8	17.0	8.5	8.7	1.5	4.0	K24	36
SEP											
24...	1245	41	410	8.5	12.5	5.0	9.3	1.4	3.0	K4	20

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT							
08...	210	54	19	12	0.4	2.2	197
MAR							
12...	210	54	19	13	0.4	3.4	179
AUG							
26...	210	53	20	11	0.3	2.0	189

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT							
08...	58	2.9	<0.1	20	286	0.39	28.8
MAR							
12...	53	5.1	0.2	19	275	0.37	25.2
AUG							
26...	53	3.6	0.2	21	277	0.38	31.9

K-Based on non-ideal colony count.

09237450 YAMPA RIVER ABOVE STAGECOACH RESERVOIR, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	RESIDUE TOTAL AT 105 DEG. C, SUS-PENDED (MG/L)	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 08...	5	<0.01	<0.01	<0.05	<0.05	<0.01	0.01	--
MAR 12...	10	<0.01	<0.01	0.10	0.12	0.03	0.05	0.47
APR 16...	55	--	<0.01	--	<0.05	--	<0.01	--
MAY 19...	24	--	<0.01	--	<0.05	--	0.04	--
JUN 23...	18	--	<0.01	--	<0.05	--	0.04	--
JUL 27...	22	--	<0.01	--	<0.05	--	0.03	--
AUG 26...	30	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01	--
SEP 24...	8	--	<0.01	--	<0.05	--	0.01	--

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)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT 08...	0.19	<0.20	0.20	0.04	0.03	<0.01	<0.01
MAR 12...	0.35	0.50	0.40	0.12	0.01	0.03	0.02
APR 16...	--	--	0.30	--	<0.01	--	<0.01
MAY 19...	0.36	--	0.40	--	0.06	--	0.03
JUN 23...	0.36	--	0.40	--	0.02	--	0.04
JUL 27...	0.27	--	0.30	--	0.03	--	0.03
AUG 26...	--	0.30	<0.20	0.06	0.02	0.04	0.02
SEP 24...	0.19	--	0.20	--	0.03	--	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)
OCT 08...	190	<1	2	<100	<10	<1	<1	<1	3	340
MAR 12...	640	<1	1	<100	<10	<1	1	1	2	1400
AUG 26...	210	<1	1	<100	<10	<1	<1	<1	2	580

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)
OCT 08...	1	10	30	<0.1	2	<1	<1	<1	310	10
MAR 12...	<1	10	100	<0.1	1	2	<1	<1	340	<10
AUG 26...	1	10	50	<0.1	1	2	<1	<1	310	20

09237450 YAMPA RIVER ABOVE STAGECOACH RESERVOIR, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT				
09...	0750	36	446	4.5
NOV				
19...	0910	40	425	0.0
DEC				
12...	0905	38	432	0.0
JAN				
28...	1015	39	382	0.0
MAR				
11...	1040	34	480	0.0
APR				
14...	0920	69	465	7.0
MAY				
18...	1100	40	510	14.0
28...	1335	103	496	11.0
JUN				
01...	1310	101	508	13.0
11...	1110	71	535	13.5
JUL				
06...	1215	59	520	19.5
13...	1000	101	545	12.5
21...	1215	93	515	16.0
AUG				
05...	1515	56	484	18.5
28...	0840	36	470	8.0
SEP				
30...	0830	32	447	6.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT				
08...	1400	37	20	2.0
MAR				
12...	1320	34	43	3.9
APR				
14...	0920	69	40	7.4
16...	1600	66	29	5.2
MAY				
19...	1530	46	29	3.6
JUN				
23...	1610	50	33	4.4
JUL				
27...	1610	81	42	9.3
AUG				
26...	1630	43	23	2.7
SEP				
24...	1245	41	10	1.2

09237500 YAMPA RIVER BELOW STAGECOACH RESERVOIR, 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 downstream from Morrison Creek and 6.5 mi east of Oak Creek, Co.

DRAINAGE AREA.--278 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. Prior to October 1990, published as Yampa River near Oak Creek. Statistical summary computed for 1989 to current year.

REVISED RECORDS.--WDR CO-89-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. 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 0.5 mi upstream, at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated since Dec. 20 1988, by Stagecoach Reservoir (capacity 33,275 acre-ft), 0.3 mi upstream. 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).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	44	61	58	47	40	45	44	54	53	61	76
2	64	67	66	54	47	44	46	41	52	54	65	74
3	48	62	68	56	47	44	46	40	53	57	77	74
4	55	66	69	59	47	50	42	45	60	54	76	76
5	49	71	69	50	47	45	52	46	58	54	71	62
6	67	71	66	51	48	45	50	44	59	59	71	62
7	64	71	65	69	47	42	45	46	50	56	70	79
8	68	69	63	71	47	46	45	47	50	66	59	66
9	71	64	76	59	47	48	46	42	50	59	60	73
10	68	63	67	53	46	44	46	41	52	60	69	76
11	82	66	67	52	46	44	43	45	52	59	68	64
12	25	75	65	48	54	44	43	45	51	55	63	62
13	26	67	68	50	47	46	46	45	49	57	67	62
14	41	67	64	52	46	42	47	45	49	56	69	64
15	50	68	60	52	47	41	46	45	54	52	58	68
16	63	65	65	51	58	46	45	40	56	56	58	70
17	64	62	69	50	47	46	48	40	57	55	72	63
18	64	67	76	50	48	46	51	44	58	51	60	75
19	56	70	67	45	47	45	43	53	60	50	59	59
20	57	53	58	48	47	46	45	47	54	61	64	59
21	67	70	50	49	48	41	44	48	55	61	69	66
22	66	66	50	49	43	41	46	49	63	50	58	60
23	72	65	56	48	42	47	45	46	60	52	58	61
24	64	63	57	49	45	45	46	45	58	63	75	61
25	63	67	64	49	45	47	42	50	54	77	82	61
26	54	70	65	49	47	46	41	50	51	77	78	60
27	51	70	58	49	49	46	45	47	43	73	77	60
28	61	86	58	47	45	42	45	47	44	78	76	58
29	68	75	54	47	41	42	45	52	49	78	62	61
30	82	67	56	48	---	46	43	49	52	76	62	61
31	63	---	59	47	---	46	---	49	---	76	74	---
TOTAL	1857	2007	1956	1609	1362	1383	1362	1417	1607	1885	2088	1973
MEAN	59.9	66.9	63.1	51.9	47.0	44.6	45.4	45.7	53.6	60.8	67.4	65.8
MAX	82	86	76	71	58	50	52	53	63	78	82	79
MIN	25	44	50	45	41	40	41	40	43	50	58	58
AC-FT	3680	3980	3880	3190	2700	2740	2700	2810	3190	3740	4140	3910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1992, BY WATER YEAR (WY)

MEAN	44.2	51.3	49.1	48.1	44.5	39.6	44.8	53.0	58.2	65.4	55.8	49.9
MAX	59.9	66.9	63.1	59.7	53.2	54.5	55.1	110	121	132	84.1	65.8
(WY)	1992	1992	1992	1991	1990	1990	1991	1991	1991	1991	1991	1992
MIN	25.8	37.3	38.7	37.2	30.0	18.0	32.3	12.4	12.8	22.3	34.4	31.8
(WY)	1991	1991	1989	1989	1989	1989	1989	1989	1989	1989	1989	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1989 - 1992	
ANNUAL TOTAL	27365		20506			
ANNUAL MEAN	75.0		56.0		[a]50.4	
HIGHEST ANNUAL MEAN					68.3	1991
LOWEST ANNUAL MEAN					32.1	1989
HIGHEST DAILY MEAN	251	Jul 27	86	Nov 28	[b]251	Jul 27 1991
LOWEST DAILY MEAN	21	Sep 25	25	Oct 12	[c,d]9.4	Jun 1 1989
ANNUAL SEVEN-DAY MINIMUM	39	Mar 18	43	Apr 27	10	May 29 1989
INSTANTANEOUS PEAK FLOW			174	Oct 23	[e]257	Jul 26 1991
INSTANTANEOUS PEAK STAGE			2.64	Oct 23	[f]2.92	Jul 26 1991
ANNUAL RUNOFF (AC-FT)	54280		40670		36490	
10 PERCENT EXCEEDS	128		71		76	
50 PERCENT EXCEEDS	65		54		46	
90 PERCENT EXCEEDS	42		44		22	

a-Average discharge for 25 years (water years 1940-44, 1957-72, 1985-88), 89.4 ft³/s; 64770 acre-ft/yr, prior to completion of Stagecoach Reservoir.
b-Maximum daily discharge for period of record, 1020 ft³/s, Apr 16, 1962.
c-Also occurred Jun 2, 3.
d-Minimum daily discharge for period of record, 8.9 ft³/s, May 22, 1963.
e-Maximum discharge and stage for period of record, 1400 ft³/s, Apr 16, 1962, gage height, 7.56, from rating curve extended above 570 ft³/s, site and datum then in use.
f-Maximum gage height, 8.08 ft, Mar 8, 1987, backwater from ice.

09237500 YAMPA RIVER BELOW STAGECOACH RESERVOIR, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: May 1985 to September 1988.

INSTRUMENTATION.--Automatic pumping sediment sampler May 1985 to September 1988.

REMARKS.--Prior to October 1990, published as Yampa River near Oak Creek. This station is part of a hydrologic investigation of the new reservoir.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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 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)
OCT											
08...	1515	76	430	8.6	13.5	2.7	9.1	2.3	5.3	<1	K1
MAR											
12...	1435	48	455	7.9	4.0	--	9.5	1.1	2.6	--	--
APR											
16...	1510	48	428	7.7	5.0	1.7	8.8	2.1	4.6	<1	<1
MAY											
19...	1445	49	439	7.9	8.0	1.1	7.6	1.4	3.3	<1	<1
JUN											
23...	1500	58	442	8.3	14.5	1.5	8.7	1.8	4.3	<1	K5
JUL											
27...	1455	59	450	8.2	15.0	1.0	8.2	1.4	3.9	<1	51
AUG											
26...	1545	90	460	8.2	17.0	1.0	7.0	1.4	3.5	K1	K6
SEP											
24...	1330	60	455	8.5	14.5	1.5	8.4	1.6	4.1	<1	K6

DATE	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
OCT							
08...	220	55	19	12	0.4	2.6	196
MAR							
12...	230	58	20	12	0.3	2.8	198
AUG							
26...	220	57	20	12	0.3	2.8	198

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT							
08...	58	2.9	0.1	6.9	274	0.37	56.1
MAR							
12...	51	3.9	0.2	7.5	275	0.37	35.6
AUG							
26...	57	4.3	0.3	14	286	0.39	69.7

K-Based on non-ideal colony count.

09237500 YAMPA RIVER BELOW STAGECOACH RESERVOIR, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	NITROGEN, NITRATE TOTAL (MG/L AS N)	NITROGEN, NITRATE DISSOLVED (MG/L AS N)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)
OCT 08...	--	--	<0.01	<0.01	<0.05	<0.05	<0.01	<0.01
MAR 12...	0.04	0.04	0.02	0.02	0.06	0.06	0.02	0.03
APR 16...	--	--	--	<0.01	--	<0.05	--	0.05
MAY 19...	--	--	--	<0.01	--	<0.05	--	0.01
JUN 23...	--	--	--	<0.01	--	<0.05	--	0.08
JUL 27...	--	--	--	<0.01	--	<0.05	--	0.13
AUG 26...	--	--	<0.01	<0.01	<0.05	<0.05	0.07	0.08
SEP 24...	--	--	--	<0.01	--	<0.05	--	0.03

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
OCT 08...	--	--	0.70	0.40	0.10	0.02	<0.01	<0.01
MAR 12...	0.28	0.27	0.30	0.30	0.05	0.02	0.03	0.03
APR 16...	--	0.45	--	0.50	--	0.02	--	0.02
MAY 19...	--	0.39	--	0.40	--	0.04	--	0.02
JUN 23...	--	0.22	--	0.30	--	0.02	--	0.04
JUL 27...	--	0.37	--	0.50	--	0.08	--	0.06
AUG 26...	0.43	0.32	0.50	0.40	0.05	0.03	0.04	0.03
SEP 24...	--	0.37	--	0.40	--	0.04	--	0.04

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR)	COBALT, TOTAL RECOVERABLE (UG/L AS CO)	COPPER, TOTAL RECOVERABLE (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
OCT 08...	40	<1	<1	<100	<10	<1	<1	1	3	20
MAR 12...	20	1	1	<100	<10	<1	<1	<1	3	30
AUG 26...	30	<1	1	<100	<10	<1	<1	<1	1	30

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI)	SELENIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOVERABLE (UG/L AS AG)	STRONTIUM, TOTAL RECOVERABLE (UG/L AS SR)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN)
OCT 08...	<1	10	100	<0.1	1	1	<1	<1	330	<10
MAR 12...	<1	10	40	<0.1	1	2	<1	<1	360	<10
AUG 26...	<1	10	50	<0.1	1	1	<1	<1	330	<10

09237500 YAMPA RIVER BELOW STAGECOACH RESERVOIR, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT				
09...	0855	73	449	12.5
NOV				
19...	1005	73	457	5.5
JAN				
28...	1300	46	470	3.5
MAR				
11...	1145	47	465	4.0
APR				
14...	1030	48	445	4.5
MAY				
18...	1155	48	460	7.5
JUN				
11...	1330	52	453	14.5
JUL				
06...	1450	59	461	18.0
AUG				
05...	1400	78	470	19.0
28...	0945	82	474	17.0
SEP				
30...	0930	61	475	12.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
OCT				
08...	1515	76	6	1.3
MAR				
12...	1435	48	2	0.27
APR				
14...	1100	48	2	0.27
16...	1510	48	4	0.51
MAY				
19...	1445	49	6	0.78
JUN				
23...	1500	58	6	0.86
JUL				
27...	1455	59	3	0.45
AUG				
26...	1545	90	2	0.56
SEP				
24...	1330	60	4	0.67

09238705 LONG LAKE INLET NEAR BUFFALO PASS, CO

LOCATION.--Lat 40°28'25", Long 106°40'46", in SE¼NW¼ sec.23, T.6 N., R.83 W., Routt County, Hydrologic Unit 14050001, on right 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 current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,875 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.09	.04	.07	.05	.04	.06	.08	1.5	5.3	1.3	.22	.15
2	.08	.05	.07	.05	.04	.06	.08	1.5	13	2.9	.23	.12
3	.08	.05	.07	.05	.04	.06	.08	1.4	19	1.8	.21	.09
4	.09	.05	.07	.05	.04	.06	.10	1.4	16	1.0	.22	.27
5	.09	.05	.07	.05	.04	.06	.11	1.4	20	.64	.21	.62
6	.08	.06	.06	.05	.04	.06	.12	1.5	16	.55	.26	.16
7	.08	.07	.07	.05	.04	.06	.10	1.7	15	1.2	.22	.11
8	.08	.09	.06	.05	.04	.06	.13	1.7	11	1.6	.17	.09
9	.07	.08	.06	.04	.04	.06	.18	1.8	9.3	.94	.14	.09
10	.07	.08	.06	.04	.04	.06	.20	1.5	9.3	.55	.13	.09
11	.07	.08	.06	.04	.04	.06	.22	1.0	8.2	1.1	.15	.08
12	.07	.07	.06	.04	.05	.06	.36	1.3	8.6	4.5	.13	.08
13	.07	.06	.06	.05	.05	.06	.50	2.0	7.7	2.2	.11	.07
14	.07	.06	.06	.05	.05	.06	.54	3.0	6.2	1.0	.11	.07
15	.07	.06	.06	.05	.05	.06	.46	2.6	4.8	1.1	.10	.10
16	.06	.06	.06	.05	.05	.06	.46	2.8	4.8	1.2	.10	.09
17	.05	.06	.06	.05	.05	.06	.35	2.9	7.3	1.4	.14	.32
18	.05	.06	.06	.04	.05	.06	.37	3.0	3.9	.50	.10	.17
19	.05	.06	.06	.04	.05	.06	.31	3.5	3.3	.38	.07	.12
20	.05	.06	.06	.04	.05	.06	.25	5.4	3.3	.76	.08	.09
21	.04	.07	.06	.04	.06	.07	.22	21	3.0	.53	.08	.10
22	.02	.08	.06	.04	.05	.07	.25	22	2.6	.34	.11	.09
23	.03	.07	.06	.04	.05	.07	.23	25	2.3	1.3	.17	.08
24	.05	.06	.06	.04	.06	.07	.19	23	2.4	2.1	.11	.07
25	.04	.06	.06	.04	.06	.07	.20	20	3.4	1.2	.17	.16
26	.05	.06	.06	.04	.06	.07	.27	27	3.1	.68	.21	.24
27	.05	.07	.06	.04	.06	.07	.45	47	2.4	.34	.11	.21
28	.05	.07	.06	.04	.06	.07	.84	15	2.1	.28	.09	.10
29	.04	.07	.06	.03	.06	.07	1.1	10	1.6	.26	.09	.12
30	.04	.07	.05	.03	---	.07	1.7	9.6	1.3	.24	.08	.08
31	.04	---	.05	.04	---	.07	---	6.4	---	.23	.09	---
TOTAL	1.87	1.93	1.90	1.35	1.41	1.97	10.45	268.9	216.2	34.12	4.41	4.23
MEAN	.060	.064	.061	.044	.049	.064	.35	8.67	7.21	1.10	.14	.14
MAX	.09	.09	.07	.05	.06	.07	1.7	47	20	4.5	.26	.62
MIN	.02	.04	.05	.03	.04	.06	.08	1.0	1.3	.23	.07	.07
AC-FT	3.7	3.8	3.8	2.7	2.8	3.9	21	533	429	68	8.7	8.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

MEAN	.14	.094	.086	.059	.061	.052	.53	4.57	10.1	.90	.13	.11
MAX	.36	.15	.21	.13	.10	.11	1.37	8.67	19.3	1.38	.19	.15
(WY)	1987	1987	1987	1987	1987	1989	1987	1992	1988	1990	1987	1991
MIN	.060	.044	.026	.016	.010	.014	.048	.83	3.13	.41	.072	.053
(WY)	1992	1990	1990	1990	1990	1990	1988	1988	1987	1987	1988	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1987 - 1992	
ANNUAL TOTAL	411.76		548.74			
ANNUAL MEAN	1.13		1.50		1.40	
HIGHEST ANNUAL MEAN					1.77	1988
LOWEST ANNUAL MEAN					1.12	1989
HIGHEST DAILY MEAN	28	Jun 12	47	May 27	47	May 27 1992
LOWEST DAILY MEAN	.02	Oct 22	.02	Oct 22	[a].00	Jan 24 1988
ANNUAL SEVEN-DAY MINIMUM	.03	Mar 13	.04	Jan 24	.00	Jan 23 1988
INSTANTANEOUS PEAK FLOW			83	May 26	83	May 26 1992
INSTANTANEOUS PEAK STAGE			[b]2.87	May 21	[c]2.52	May 26 1992
ANNUAL RUNOFF (AC-FT)	817		1090		1010	
10 PERCENT EXCEEDS	3.5		3.0		3.9	
50 PERCENT EXCEEDS	.07		.08		.09	
90 PERCENT EXCEEDS	.05		.04		.04	

a-Also occurred Jan 25-29, Mar 14-19, 26-30, 1988.
b-Maximum gage height, 2.87 ft, May 21, backwater from ice.
c-Maximum gage height, 2.99 ft, Jun 16, 1988.

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.6 N., R.83 W., 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: Oct. 29 to Apr. 20, and May 16-17. Records good except for estimated daily discharges, which are poor. Flow regulated by Long Lake Reservoir, capacity 397 acre-ft, 0.1 mi upstream. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.18	6.8	1.4	.50	.04
2	.00	.00	.00	.00	.00	.00	.00	.20	8.3	1.7	.48	.05
3	.00	.00	.00	.00	.00	.00	.00	.22	14	2.2	.43	.04
4	.00	.00	.00	.00	.00	.00	.00	.26	16	1.7	.39	.07
5	.00	.00	.00	.00	.00	.00	.00	.29	16	1.2	.36	.21
6	.00	.00	.00	.00	.00	.00	.00	.32	15	1.0	.32	.24
7	.00	.00	.00	.00	.00	.00	.00	.34	15	.83	.33	.22
8	.00	.00	.00	.00	.00	.00	.00	.37	13	1.1	.29	.17
9	.00	.00	.00	.00	.00	.00	.00	.39	10	1.0	.27	.25
10	.00	.00	.00	.00	.00	.00	.00	.43	9.4	.85	.23	.27
11	.00	.00	.00	.00	.00	.00	.00	.43	9.0	.85	.21	.07
12	.00	.00	.00	.00	.00	.00	.00	.44	8.7	2.0	.18	.06
13	.00	.00	.00	.00	.00	.00	.00	.51	8.3	3.7	.13	.07
14	.00	.00	.00	.00	.00	.00	.00	.66	7.5	2.3	.10	.04
15	.00	.00	.00	.00	.00	.00	.00	1.5	6.3	1.7	.08	.10
16	.00	.00	.00	.00	.00	.00	.00	1.8	5.6	1.6	.07	.06
17	.00	.00	.00	.00	.00	.00	.00	2.5	6.7	1.6	.07	.15
18	.00	.00	.00	.00	.00	.00	.00	1.2	6.3	1.4	.06	.12
19	.00	.00	.00	.00	.00	.00	.00	2.5	4.8	1.1	.05	.21
20	.00	.00	.00	.00	.00	.00	.00	12	4.3	1.0	.04	.08
21	.00	.00	.00	.00	.00	.00	.06	25	4.0	1.0	.03	.09
22	.00	.00	.00	.00	.00	.00	.05	25	3.8	.87	.03	.19
23	.00	.00	.00	.00	.00	.00	.06	28	3.5	.82	.05	.11
24	.00	.00	.00	.00	.00	.00	.06	25	3.0	1.2	.05	.12
25	.00	.00	.00	.00	.00	.00	.07	23	3.0	1.4	.06	.09
26	.00	.00	.00	.00	.00	.00	.09	23	3.9	1.2	.07	.06
27	.00	.00	.00	.00	.00	.00	.09	52	3.2	1.0	.06	.05
28	.00	.00	.00	.00	.00	.00	.11	24	2.7	.82	.05	.05
29	.00	.00	.00	.00	.00	.00	.13	14	2.3	.72	.16	.05
30	.00	.00	.00	.00	---	.00	.16	11	1.8	.64	.05	.03
31	.00	---	.00	.00	---	.00	---	9.5	---	.58	.03	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.88	286.04	222.2	40.48	5.23	3.36
MEAN	.000	.000	.000	.000	.000	.000	.029	9.23	7.41	1.31	.17	.11
MAX	.00	.00	.00	.00	.00	.00	.16	52	16	3.7	.50	.27
MIN	.00	.00	.00	.00	.00	.00	.00	.18	1.8	.58	.03	.03
AC-FT	.00	.00	.00	.00	.00	.00	1.7	567	441	80	10	6.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

MEAN	.021	.036	.056	.037	.039	.026	.098	3.30	15.2	1.72	.066	.028
MAX	.061	.14	.34	.26	.29	.18	.68	9.23	31.2	5.26	.23	.11
(WY)	1985	1986	1986	1986	1986	1986	1986	1992	1986	1986	1985	1992
MIN	.000	.000	.000	.000	.000	.000	.000	.000	4.30	.069	.000	.000
(WY)	1988	1988	1988	1985	1985	1985	1988	1988	1987	1987	1987	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	588.38		558.19			
ANNUAL MEAN	1.61		1.53		1.71	
HIGHEST ANNUAL MEAN					3.69	1986
LOWEST ANNUAL MEAN					.85	1987
HIGHEST DAILY MEAN	43	Jun 14	52	May 27	52	May 27 1992
LOWEST DAILY MEAN	[a].00	Jan 1	[a].00	Oct 1	[a].00	Jan 1 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jan 1 1985
INSTANTANEOUS PEAK FLOW			61	May 27	[b]81	Jun 14 1991
INSTANTANEOUS PEAK STAGE			[c]2.02	May 27	[d]2.34	Jun 14 1991
ANNUAL RUNOFF (AC-FT)	1170		1110		1240	
10 PERCENT EXCEEDS	3.0		3.6		3.8	
50 PERCENT EXCEEDS	.01		.00		.02	
90 PERCENT EXCEEDS	.00		.00		.00	

a-No flow many days each year.
b-From rating curve extended above 33 ft³s.
c-Maximum gage height, 2.67 ft, May 17, backwater from ice.
d-Maximum gage height, 5.70 ft, May 30, 1991, backwater from ice.

09238750 MIDDLE FORK FISH CREEK NEAR BUFFALO PASS, CO

LOCATION.--Lat 40°26'54", Long 106°41'30", in NE¼SE¼ sec.10, T.6 N., R.83 W., Routt County, Hydrologic Unit 14050001, 30 ft downstream from culvert on Forest Service Road 310, on right bank 0.25 mi above Fish Creek Reservoir, and 7.5 mi east of Steamboat Springs.

DRAINAGE AREA.--1.37 mi².

PERIOD OF RECORD.--August 31, 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,955 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6 to Dec. 20, May 3, and June 25 to Aug. 5. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.29	.32	.32	.28	.25	.24	.32	7.9	14	2.5	.80	1.2
2	.27	.33	.32	.28	.25	.24	.33	11	23	4.5	.74	.93
3	.26	.32	.32	.27	.25	.24	.35	15	32	3.5	.66	.40
4	.25	.29	.30	.27	.25	.24	.46	22	32	2.2	.55	.86
5	.24	.30	.30	.27	.26	.24	.61	20	32	1.9	.48	2.2
6	.24	.32	.30	.27	.25	.24	.66	17	29	1.6	.59	.65
7	.24	.30	.30	.26	.25	.24	.57	16	29	2.5	.46	.43
8	.24	.30	.30	.26	.24	.24	.55	19	20	3.2	.44	.31
9	.23	.30	.30	.26	.24	.24	.70	21	18	2.3	.38	.26
10	.23	.30	.30	.26	.24	.24	.85	17	17	1.6	.45	.24
11	.23	.32	.30	.26	.23	.25	.86	9.7	15	1.9	.51	.24
12	.22	.32	.30	.26	.23	.24	1.1	10	15	3.8	.46	.25
13	.22	.30	.30	.26	.23	.25	1.9	15	14	2.6	.47	.22
14	.21	.30	.30	.26	.23	.26	2.2	25	11	2.2	.44	.22
15	.22	.30	.30	.26	.23	.26	1.9	25	8.6	1.7	.43	.31
16	.21	.30	.32	.26	.23	.26	2.0	23	8.3	2.0	.46	.38
17	.19	.30	.32	.26	.23	.26	1.7	25	12	2.5	.88	1.1
18	.20	.30	.32	.26	.23	.26	1.7	26	7.5	2.1	.57	.63
19	.20	.32	.32	.25	.23	.26	1.6	30	6.4	1.8	.38	.45
20	.21	.32	.32	.25	.23	.27	1.4	34	6.0	2.2	.30	.41
21	.21	.30	.33	.26	.24	.28	1.3	37	5.4	2.0	.33	.44
22	.20	.32	.33	.25	.24	.27	1.4	36	4.9	1.6	.50	.29
23	.22	.32	.32	.25	.24	.26	1.3	37	4.6	3.0	.86	.25
24	.27	.32	.33	.25	.24	.27	1.2	34	4.3	3.2	.56	.23
25	.29	.32	.32	.25	.24	.27	1.2	33	4.1	2.0	.48	.72
26	.33	.32	.31	.25	.24	.28	1.5	43	4.5	1.7	.52	.80
27	.30	.32	.31	.26	.24	.28	2.2	56	4.0	1.5	.49	.45
28	.34	.32	.30	.26	.24	.28	3.9	30	3.5	1.3	.43	.29
29	.31	.32	.29	.26	.24	.28	5.0	24	3.0	1.1	.41	.23
30	.31	.32	.29	.26	---	.30	6.3	22	2.6	1.0	.39	.21
31	.31	---	.29	.25	---	.34	---	16	---	.90	.38	---
TOTAL	7.69	9.34	9.58	8.06	6.94	8.08	47.06	756.6	390.7	67.90	15.80	15.60
MEAN	.25	.31	.31	.26	.24	.26	1.57	24.4	13.0	2.19	.51	.52
MAX	.34	.33	.33	.28	.26	.34	6.3	56	32	4.5	.88	2.2
MIN	.19	.29	.29	.25	.23	.24	.32	7.9	2.6	.90	.30	.21
AC-FT	15	19	19	16	14	16	93	1500	775	135	31	31

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	.56	.42	.30	.21	.18	.23	1.96	13.5	26.7	2.32	.46	.38
MAX	1.38	.73	.45	.43	.45	.47	8.56	24.4	42.1	5.07	.80	.58
(WY)	1987	1987	1987	1987	1987	1985	1987	1992	1991	1986	1985	1985
MIN	.17	.20	.19	.084	.054	.075	.26	4.03	6.42	.80	.23	.18
(WY)	1989	1989	1989	1986	1988	1989	1986	1988	1987	1987	1988	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	1710.03		1343.35			
ANNUAL MEAN	4.69		3.67		3.93	
HIGHEST ANNUAL MEAN					4.94	1986
LOWEST ANNUAL MEAN					2.95	1987
HIGHEST DAILY MEAN	97	Jun 14	56	May 27	[a]97	Jun 14 1991
LOWEST DAILY MEAN	.13	Feb 24	.19	Oct 17	[b].00	Feb 17 1988
ANNUAL SEVEN-DAY MINIMUM	.14	Feb 18	.20	Oct 16	.01	Feb 16 1988
INSTANTANEOUS PEAK FLOW			70	May 26	178	Jun 15 1991
INSTANTANEOUS PEAK STAGE			[c]2.85	May 26	[d]3.09	Jun 15 1991
ANNUAL RUNOFF (AC-FT)	3390		2660		2850	
10 PERCENT EXCEEDS	14		15		14	
50 PERCENT EXCEEDS	.32		.32		.36	
90 PERCENT EXCEEDS	.15		.24		.15	

a-From rating curve extended above 60 ft³/s.
b-Also occurred Feb 18-20, 1988.
c-Maximum gage height, 4.50 ft, May 3, 1992, backwater from ice.
d-Maximum gage height, 4.50 ft, May 3, 1992, backwater from ice.

09238770 GRANITE CREEK NEAR BUFFALO PASS, CO

LOCATION.--Lat 40°29'35", Long 106°41'31", NE¼NE¼ sec.15, T.6 N., R.83 W., Routt County, Hydrologic Unit 14050001, on left bank 0.1 mi upstream from Fish Creek Reservoir and 7.5 mi east of Steamboat Springs.

DRAINAGE AREA.--2.82 mi^2.

PERIOD OF RECORD.--August 31, 1984 to current year.

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: Nov. 4-14, Apr. 29 to May 10, and May 20-29. Records fair except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.61	.61	.65	.51	.48	.46	.96	7.0	20	5.1	1.3	2.0
2	.61	.58	.68	.51	.46	.46	.96	7.5	31	15	1.3	2.0
3	.61	.61	.65	.58	.46	.48	.96	8.0	42	7.8	1.2	1.1
4	.58	.60	.65	.55	.46	.48	1.2	8.5	42	4.5	1.2	2.2
5	.58	.60	.61	.51	.43	.51	1.5	9.0	42	3.5	1.1	5.5
6	.58	.60	.61	.51	.46	.51	1.4	9.5	39	3.1	1.3	1.7
7	.55	.60	.58	.51	.46	.51	1.3	10	40	5.7	1.2	1.4
8	.55	.62	.55	.68	.43	.55	1.3	10	35	7.2	.94	1.1
9	.55	.62	.61	.51	.43	.55	1.4	11	31	4.0	.84	1.0
10	.55	.62	.58	.48	.43	.55	1.6	11	29	3.0	.77	.96
11	.55	.64	.61	.48	.43	.58	1.7	11	27	4.4	.77	.94
12	.55	.64	.58	.48	.43	.61	1.7	10	27	16	.73	.93
13	.55	.64	.61	.46	.43	.58	1.8	25	25	10	.62	.94
14	.51	.65	.61	.48	.43	.61	2.1	34	21	4.2	.64	.85
15	.55	.65	.61	.55	.43	.61	2.3	37	17	5.4	.61	.98
16	.51	.61	.58	.46	.43	.68	2.8	37	18	5.4	.56	1.0
17	.55	.58	.61	.48	.40	.65	2.9	47	24	7.9	.87	2.6
18	.51	.65	.58	.46	.40	.65	2.8	42	15	3.5	.78	1.7
19	.48	.61	.58	.46	.43	.68	2.5	44	12	3.0	.59	1.2
20	.51	.61	.58	.48	.43	.72	2.3	44	12	4.0	.57	1.1
21	.55	.65	.58	.46	.40	.68	2.0	40	11	3.4	.65	1.2
22	.55	.61	.55	.48	.40	.76	1.7	38	10	2.5	.79	.98
23	.55	.58	.58	.48	.43	.72	1.5	37	9.5	8.5	1.3	.90
24	.58	.61	.61	.51	.40	.76	1.5	36	9.0	9.6	1.0	.83
25	.61	.65	.76	.48	.40	.80	1.5	35	11	4.7	.95	1.5
26	.65	.65	.76	.46	.40	.80	1.5	34	11	2.9	1.2	1.5
27	.65	.68	.72	.46	.40	.84	1.8	32	9.2	2.2	.84	1.2
28	.61	.65	.68	.46	.43	.84	5.0	30	8.0	1.8	.83	.96
29	.55	.61	.61	.46	.46	.88	6.0	30	6.6	1.7	.85	.88
30	.55	.61	.51	.46	---	.92	6.5	33	5.3	1.6	.88	.86
31	.68	---	.51	.65	---	1.1	---	24	---	1.4	.94	---
TOTAL	17.57	18.64	18.99	15.50	12.46	20.53	64.48	791.5	639.6	163.0	28.12	42.01
MEAN	.57	.62	.61	.50	.43	.66	2.15	25.5	21.3	5.26	.91	1.40
MAX	.68	.68	.76	.68	.48	1.1	6.5	47	42	16	1.3	5.5
MIN	.48	.58	.51	.46	.40	.46	.96	7.0	5.3	1.4	.56	.83
AC-FT	35	37	38	31	25	41	128	1570	1270	323	56	83

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	1.17	.87	.61	.42	.42	.54	2.63	20.3	45.3	6.12	1.30	1.01
MAX	2.50	1.47	1.15	.65	.63	1.16	10.2	34.3	71.4	15.2	2.50	1.43
(WY)	1987	1987	1986	1986	1986	1986	1987	1989	1988	1986	1985	1985
MIN	.42	.39	.21	.20	.18	.19	.33	2.40	17.2	2.17	.75	.55
(WY)	1989	1991	1991	1985	1991	1991	1991	1991	1987	1987	1988	1987

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	1945.94		1832.40			
ANNUAL MEAN	5.33		5.01		6.70	
HIGHEST ANNUAL MEAN					8.21	1986
LOWEST ANNUAL MEAN					5.01	1992
HIGHEST DAILY MEAN	72	Jun 14	47 [b]	May 17	[a]126	Jun 11 1990
LOWEST DAILY MEAN	.15	Feb 25	.40 [b]	Feb 17	.13	Mar 21 1988
ANNUAL SEVEN-DAY MINIMUM	.17	Feb 21	.40	Feb 21	.14	Mar 18 1988
INSTANTANEOUS PEAK FLOW			63	Jun 3		
INSTANTANEOUS PEAK STAGE			3.51	Jun 3		
ANNUAL RUNOFF (AC-FT)	3860		3630		4860	
10 PERCENT EXCEEDS	9.5		16		24	
50 PERCENT EXCEEDS	.61		.76		.80	
90 PERCENT EXCEEDS	.18		.46		.27	

a-Maximum daily discharge.
b-Also occurred Feb 18, 21, 22, 24-27.

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.6 N., R.83 W., 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 17-18. Records excellent except for periods of flow, which are good. Flow regulated by Fish Creek Reservoir, capacity, 1,840 acre-ft.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	59	3.4	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	51	4.4	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	87	14	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	80	8.3	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	76	4.2	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	76	2.1	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	68	1.0	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	64	5.2	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	53	4.8	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	51	2.3	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	58	1.1	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	48	3.1	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	65	3.3	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	39	4.6	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.76	34	5.0	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	25	25	3.6	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	35	27	4.4	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	55	33	3.0	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	75	25	1.2	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	75	20	.54	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	84	18	.48	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	84	16	.17	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	95	14	.08	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	89	12	2.6	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	86	11	5.2	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	84	14	2.8	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	108	11	.84	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	95	11	.27	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	66	8.9	.05	.00	.00
30	.00	.00	.00	.00	---	.00	.00	57	5.8	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	54	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1167.76	1160.7	92.03	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	37.7	38.7	2.97	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	108	87	14	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	5.8	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	2320	2300	183	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	.12	.068	.002	.000	.000	.000	.013	16.6	68.2	7.02	.099	.000
MAX	.96	.54	.015	.000	.000	.000	.10	40.3	95.8	21.0	.68	.000
(WY)	1985	1985	1985	1985	1985	1985	1985	1987	1990	1986	1985	1985
MIN	.000	.000	.000	.000	.000	.000	.000	.000	27.5	1.24	.000	.000
(WY)	1986	1986	1986	1985	1985	1985	1986	1988	1987	1987	1987	1985

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	2692.94		2420.49			
ANNUAL MEAN	7.38		6.61		7.63	
HIGHEST ANNUAL MEAN					9.94	1986
LOWEST ANNUAL MEAN					5.79	1987
HIGHEST DAILY MEAN	153	Jun 15	108	May 27	166	Jun 11 1990
LOWEST DAILY MEAN	[a].00	Jan 1	[a].00	Oct 1	[b].00	Dec 6 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Dec 6 1984
INSTANTANEOUS PEAK FLOW			128	May 28	195	Jun 16 1991
INSTANTANEOUS PEAK STAGE			[c]1.71	May 28	[d]1.88	Jun 16 1991
ANNUAL RUNOFF (AC-FT)	5340		4800		5530	
10 PERCENT EXCEEDS	12		19		20	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

a-No flow most of time.
b-No flow many days most years.
c-Maximum gage height, 3.66 ft, May 18, backwater from ice.
d-Maximum gage height, 5.23, May 30, 1991, ice jam.

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.--Estimated daily discharges: Oct. 1-8 and Dec. 31 to Jan. 28. Records good except for estimated discharges, which are poor. 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. Several measurements of specific conductance and water temperature were obtained and are published elswhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	5.7	5.3	4.0	4.4	5.2	17	166	176	29	5.6	28
2	4.2	4.8	5.4	4.0	4.4	5.2	19	161	183	47	5.4	27
3	4.3	4.5	6.1	4.0	4.8	6.1	18	165	252	45	5.3	25
4	4.3	5.1	6.4	4.1	4.9	6.3	21	168	256	33	5.3	25
5	4.3	5.3	6.1	4.1	4.7	5.9	26	173	261	25	4.3	35
6	4.4	5.2	5.7	4.1	4.9	6.1	26	173	243	20	4.9	27
7	4.5	5.3	5.5	4.1	5.0	6.4	26	197	248	21	5.6	24
8	4.5	5.7	5.2	4.2	5.0	6.3	26	205	225	32	5.0	23
9	4.7	5.4	5.4	4.2	4.8	6.8	31	247	196	26	4.5	22
10	4.1	6.7	5.4	4.2	4.7	6.7	37	191	188	21	4.1	27
11	4.1	6.4	5.4	4.2	4.6	6.0	39	138	176	18	4.5	35
12	3.5	5.2	5.4	4.2	5.6	6.1	46	151	173	53	7.5	34
13	3.1	5.8	5.1	4.2	5.4	6.7	52	177	165	55	7.5	34
14	3.2	5.6	5.3	4.2	4.7	7.3	62	232	144	33	5.3	31
15	2.8	5.4	4.9	4.2	4.9	8.5	61	241	123	26	4.7	29
16	3.2	5.8	4.8	4.2	4.8	11	58	241	108	29	3.9	31
17	2.8	5.8	4.9	4.1	5.2	11	52	320	121	29	11	23
18	3.2	5.5	4.8	4.1	4.9	11	54	421	108	21	18	12
19	3.4	5.9	5.2	4.1	4.7	10	44	376	93	16	16	4.0
20	3.4	5.9	5.5	4.1	4.6	9.8	39	411	87	16	15	3.9
21	3.3	5.4	5.1	4.0	4.8	9.8	36	447	79	17	15	3.4
22	3.4	6.6	5.0	4.0	4.7	9.7	37	430	71	13	16	2.8
23	3.6	6.2	4.5	4.0	4.3	8.9	36	442	63	18	20	2.1
24	4.8	6.5	4.0	4.0	4.3	9.4	34	411	58	31	19	1.9
25	4.6	6.2	3.7	4.0	4.6	9.0	35	400	57	28	21	4.5
26	5.5	6.4	3.9	4.0	4.2	8.4	38	416	60	21	31	7.5
27	5.7	6.1	3.5	4.0	4.7	8.3	46	615	50	16	31	8.2
28	4.4	6.6	3.6	3.9	4.8	10	76	456	45	12	29	4.4
29	4.2	6.6	3.9	3.9	5.1	11	89	312	40	11	28	2.4
30	5.0	5.8	3.8	3.9	---	13	144	270	33	9.0	27	1.8
31	5.0	---	4.0	4.1	---	17	---	223	---	6.9	27	---
TOTAL	125.7	173.4	152.8	126.4	138.5	262.9	1325	8976	4082	777.9	407.4	538.9
MEAN	4.05	5.78	4.93	4.08	4.78	8.48	44.2	290	136	25.1	13.1	18.0
MAX	5.7	6.7	6.4	4.2	5.6	17	144	615	261	55	31	35
MIN	2.8	4.5	3.5	3.9	4.2	5.2	17	138	33	6.9	3.9	1.8
AC-FT	249	344	303	251	275	521	2630	17800	8100	1540	808	1070
a	159	142	185	206	186	204	145	203	255	293	311	214

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1992, BY WATER YEAR (WY)

MEAN	10.9	10.2	7.66	6.25	5.86	8.88	37.4	210	375	77.7	9.49	7.35
MAX	27.7	19.5	12.0	10.7	9.37	16.1	59.0	358	570	263	19.5	18.0
(WY)	1983	1983	1970	1970	1970	1986	1987	1969	1984	1983	1983	1992
MIN	2.60	3.07	2.55	2.46	3.42	5.02	8.21	85.5	124	9.82	1.39	2.62
(WY)	1989	1989	1989	1989	1989	1984	1983	1983	1987	1987	1972	1983

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1967 - 1992	
ANNUAL TOTAL	20172.6		17086.9			
ANNUAL MEAN	55.3		46.7			
HIGHEST ANNUAL MEAN					98.6	1984
LOWEST ANNUAL MEAN					41.6	1989
HIGHEST DAILY MEAN	633	Jun 14	615	May 27	814	Jun 21 1968
LOWEST DAILY MEAN	2.8[b]	Oct 15	1.8	Sep 30	.01	Aug 7 1972
ANNUAL SEVEN-DAY MINIMUM	3.1	Oct 13	3.1	Oct 13	.11	Aug 7 1972
INSTANTANEOUS PEAK FLOW			673	May 27	1110	Jun 20 1968
INSTANTANEOUS PEAK STAGE			2.59	May 27	3.14	Jun 20 1968
ANNUAL RUNOFF (AC-FT)	40010		33890			
10 PERCENT EXCEEDS	223		173		234	
50 PERCENT EXCEEDS	6.1		6.6		9.8	
90 PERCENT EXCEEDS	4.2		4.0		4.0	

a-Diversions, in acre-feet, by Mount Werner Water and Sanitation District, and City of Steamboat Springs.
b-Also occurred Oct 17.

09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO

LOCATION.--Lat 40°29'01", long 106°49'54", in NW1/4NE1/4 sec.17, T.6 N., R.84 W., Routt County, Hydrologic Unit 14050001, on left bank 30 ft upstream from Fifth Street Bridge in Steamboat Springs and 0.6 mi upstream from Soda Creek.

DRAINAGE AREA.--604 mi^2.

WATER-DISCHARGE RECORDS

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 with satellite telemetry. 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 on right bank, 60 ft downstream, at datum 0.44 ft, higher. Sept. 11, 1934, to Aug. 17, 1988, water-stage recorder on right bank, 60 ft downstream, at present datum.

REMARKS.--Estimated daily discharges: Dec. 12 to Mar. 2, May 17-18, and July 19-21. 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 in Stillwater, Yampa, Yamcola, Stagecoach, and Catamount Reservoirs, (total capacity 56,895 acre-ft).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	129	82	96	98	115	189	1090	1100	172	122	126
2	104	145	87	99	98	121	175	1150	982	204	111	138
3	105	144	94	99	98	122	162	1150	995	217	106	138
4	92	146	87	99	99	123	172	1150	1010	183	111	133
5	88	146	95	99	97	121	175	1190	962	160	111	148
6	86	157	100	99	97	119	173	1180	894	160	110	133
7	96	156	109	98	96	120	166	1320	842	160	116	120
8	95	151	96	97	96	119	167	1380	833	160	118	120
9	98	152	90	97	97	116	178	1480	737	157	110	111
10	102	155	87	94	97	119	186	1390	683	148	102	114
11	104	154	98	99	97	119	193	1090	635	154	104	124
12	99	148	97	100	96	120	210	1120	617	289	108	129
13	74	146	95	99	96	122	238	1200	575	291	109	121
14	62	144	97	96	98	128	277	1280	513	227	104	110
15	67	141	96	95	97	134	467	1450	446	183	103	110
16	81	113	95	96	94	141	528	1430	391	217	96	117
17	116	109	95	96	98	147	501	1460	436	202	97	123
18	109	111	95	96	96	147	534	1520	423	166	107	123
19	105	86	96	96	96	146	518	1580	353	142	101	110
20	107	83	96	98	97	141	442	1630	303	150	93	104
21	108	89	99	99	101	139	379	1790	279	156	91	101
22	112	88	93	99	102	139	364	1760	256	152	109	100
23	127	86	97	98	103	143	416	1720	239	153	115	94
24	135	86	97	97	103	143	399	1550	223	192	119	91
25	136	88	98	95	106	150	364	1480	210	257	118	97
26	133	89	99	95	105	156	364	1450	269	212	138	102
27	131	90	99	95	108	152	414	2130	259	176	137	105
28	131	90	98	96	110	179	558	2070	234	150	129	98
29	129	88	95	98	114	204	742	1660	215	138	122	94
30	125	83	93	98	---	211	916	1420	186	138	116	92
31	123	---	94	99	---	210	---	1280	---	130	111	---
TOTAL	3277	3593	2949	3017	2890	4366	10567	44550	16100	5596	3444	3426
MEAN	106	120	95.1	97.3	99.7	141	352	1437	537	181	111	114
MAX	136	157	109	100	114	211	916	2130	1100	291	138	148
MIN	62	83	82	94	94	115	162	1090	186	130	91	91
AC-FT	6500	7130	5850	5980	5730	8660	20960	88360	31930	11100	6830	6800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1992, BY WATER YEAR (WY)

MEAN	134	125	103	98.3	101	166	662	1730	1804	362	152	106
MAX	357	195	161	160	165	433	1675	3350	3771	1684	387	238
(WY)	1962	1947	1938	1938	1921	1910	1962	1984	1917	1957	1984	1961
MIN	49.6	69.3	56.6	45.0	50.0	73.5	270	702	141	16.2	40.5	19.5
(WY)	1935	1978	1916	1916	1916	1964	1944	1977	1934	1934	1931	1944

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1910 - 1992	
ANNUAL TOTAL	145494		103775			
ANNUAL MEAN	399		284		463	
HIGHEST ANNUAL MEAN					821	1984
LOWEST ANNUAL MEAN					169	1977
HIGHEST DAILY MEAN	2860	Jun 7	2130	May 27	5870	Jun 14 1921
LOWEST DAILY MEAN	51	Sep 28	62	Oct 14	[a]4.0	Sep 8 1934
ANNUAL SEVEN-DAY MINIMUM	76	Sep 25	84	Oct 10	4.9	Sep 9 1944
INSTANTANEOUS PEAK FLOW			2340	May 27	[b]6820	Jun 14 1921
INSTANTANEOUS PEAK STAGE			5.43	May 27	[c]7.08	Jun 14 1921
ANNUAL RUNOFF (AC-FT)	288600		205800		335300	
10 PERCENT EXCEEDS	1240		930		1500	
50 PERCENT EXCEEDS	122		121		135	
90 PERCENT EXCEEDS	88		95		74	

a-Also occurred Sep 10-13, 1944.
b-Present datum, from rating curve extended above 4800 ft^3/s.
c-Maximum gage height, 7.12 ft, Jun 25, 1984.

09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC										
17...	1230	95	342	8.4	0.0	8.1	K3	<3	160	41
MAR										
27...	1110	153	281	8.6	5.0	11.6	K11	27	120	33
JUN										
10...	0900	683	65	8.3	9.0	8.8	K14	K5	27	7.8
AUG										
26...	0900	134	216	8.3	12.0	8.9	31	K10	90	24

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC										
17...	13	11	0.4	2.1	144	41	5.3	<0.1	6.7	206
MAR										
27...	9.8	9.9	0.4	2.2	106	33	5.9	<0.1	8.5	166
JUN										
10...	1.9	2.6	0.2	0.6	26	5.4	0.2	<0.1	7.3	41
AUG										
26...	7.4	7.0	0.3	1.5	87	21	1.6	0.1	5.2	120

DATE	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, 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)	CADMIUM DIS-SOLVED (UG/L AS CD)
DEC										
17...	0.28	53.0	0.01	<0.05	0.02	0.28	0.30	0.02	0.01	<1
MAR										
27...	0.23	68.6	0.01	<0.05	0.01	0.39	0.40	0.05	<0.01	<1
JUN										
10...	0.06	76.4	<0.01	<0.05	0.02	0.18	0.20	0.02	0.01	<1
AUG										
26...	0.16	43.4	<0.01	<0.05	0.02	0.18	0.20	0.02	<0.01	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC									
17...	3	210	<1	60	34	<0.1	<1	--	8
MAR									
27...	2	620	1	150	130	--	<1	--	5
JUN									
10...	2	280	<1	20	14	<0.1	<1	[a]<0.2	8
AUG									
26...	<1	310	<1	30	16	<0.1	<1	[a]<0.2	6

a-Analyais based on preliminary method.
K-Based on non-ideal colony count.

09239500 YAMPA RIVER AT STEAMBOAT SPRINGS, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
08...	1510	94	327	13.5
NOV				
20...	1415	104	302	1.5
MAR				
12...	1040	121	326	2.5
APR				
15...	1320	480	203	8.0
MAY				
29...	1340	1540	61	10.5
JUN				
16...	1510	406	78	11.5
JUL				
08...	1300	166	143	17.5
AUG				
10...	1120	103	248	21.0
28...	1120	129	230	14.0
SEP				
30...	1215	92	298	13.5

09240900 ELK RIVER ABOVE CLARK, CO

LOCATION.--Lat 40°44'38", long 106°51'13", in SW¼SE¼ sec.13, T.9 N., R.85 W., Routt County, Hydrologic Unit 14050001, on right bank 0.4 mi upstream from Willow Creek, 1.8 mi downstream from Coulton Creek, and 3.3 mi northeast of Clark.

DRAINAGE AREA.--122 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 7,525 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-9, Nov. 2-8, 23-25, Nov. 30 to Dec. 18, Jan. 9-12, Jan. 16, Feb. 23, 24, Feb. 27, 28, and Aug. 19 to Sept. 1. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

REVISIONS.--The table published in the report for water year 1991 was in error. Published herewith is the correct table for water year 1991. These figures supersede those published in the report for 1991.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1990 TO SEPTEMBER 1991
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	65	43	37	39	34	41	86	1140	437	127	47
2	43	65	42	40	37	36	46	109	1330	391	101	47
3	44	59	45	40	36	36	55	123	907	359	92	47
4	46	48	46	38	35	36	55	123	1010	344	83	47
5	44	62	46	40	34	36	74	120	1060	321	80	46
6	44	52	45	36	34	36	84	125	1060	295	82	46
7	68	50	44	36	34	36	99	161	1020	284	83	69
8	65	45	43	36	34	36	103	211	1090	265	73	80
9	55	43	42	36	34	29	94	337	1130	296	73	68
10	55	40	41	36	34	37	84	419	1030	273	67	63
11	63	40	40	36	34	38	70	474	1030	266	60	73
12	51	40	40	37	34	37	61	444	1080	239	59	74
13	55	36	39	37	34	36	54	405	1060	223	55	72
14	52	40	41	37	34	35	51	495	1420	215	60	61
15	57	42	47	37	34	34	58	520	1280	203	57	61
16	65	45	45	37	34	33	65	405	1110	196	54	55
17	70	49	44	37	34	34	78	446	1010	180	52	55
18	58	50	44	37	34	34	86	650	956	160	53	53
19	75	52	44	37	34	33	82	815	915	154	54	51
20	71	52	40	37	36	31	84	821	1020	161	51	48
21	56	45	46	37	36	37	86	910	888	145	47	47
22	57	50	46	38	34	47	88	1220	795	137	48	44
23	61	50	44	39	35	47	100	1040	713	136	48	44
24	58	50	43	40	31	44	109	847	640	134	48	44
25	58	50	35	36	34	41	124	847	590	148	48	57
26	61	50	37	36	32	39	115	1130	539	148	47	53
27	62	47	39	37	35	38	97	1080	471	135	48	49
28	62	46	37	36	29	37	89	1050	458	125	47	44
29	65	44	37	34	---	40	89	909	462	119	48	43
30	66	44	38	47	---	35	88	846	469	114	48	43
31	65	---	38	43	---	36	---	791	---	109	47	---
TOTAL	1797	1451	1301	1167	959	1138	2409	17959	27683	6712	1940	1631
MEAN	58.0	48.4	42.0	37.6	34.2	36.7	80.3	579	923	217	62.6	54.4
MAX	75	65	47	47	39	47	124	1220	1420	437	127	80
MIN	43	36	35	34	29	29	41	86	458	109	47	43
AC-FT	3560	2880	2580	2310	1900	2260	4780	35620	54910	13310	3850	3240

CAL YR 1990 TOTAL 73025 MEAN 200 MAX 1800 MIN 27 AC-FT 144800
WTR YR 1991 TOTAL 66147 MEAN 181 MAX 1420 MIN 29 AC-FT 131200

09240900 ELK RIVER ABOVE CLARK, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	38	40	38	31	32	38	517	473	253	105	72
2	43	36	40	34	31	33	48	484	439	294	106	83
3	43	37	40	34	31	33	38	444	467	281	102	62
4	43	38	40	34	30	33	44	478	510	231	108	55
5	43	39	40	34	29	33	65	504	546	215	98	74
6	44	40	40	33	29	32	70	527	530	210	97	71
7	44	42	41	32	29	32	72	580	545	234	98	61
8	44	42	41	32	30	32	74	573	547	262	86	54
9	45	42	41	32	31	30	80	867	479	207	90	50
10	45	42	41	32	33	30	101	661	482	186	87	47
11	40	42	42	33	30	33	111	531	516	172	102	47
12	38	45	42	33	30	32	123	573	518	278	120	45
13	37	44	42	33	30	33	161	599	546	299	114	46
14	36	43	42	33	30	39	174	640	519	210	112	43
15	37	37	42	36	31	40	183	699	469	184	112	47
16	36	35	40	36	31	37	174	691	430	183	110	48
17	35	35	40	36	31	35	169	692	428	188	118	52
18	36	34	40	34	31	35	178	733	428	164	106	62
19	35	35	38	34	31	35	150	759	400	153	104	49
20	35	47	36	34	31	35	140	775	402	154	100	45
21	33	40	35	34	31	34	132	841	405	142	95	49
22	32	37	35	33	31	31	147	897	407	130	90	44
23	32	38	35	32	30	33	142	851	402	135	87	43
24	32	40	35	32	30	33	127	820	390	139	85	44
25	32	40	35	32	34	35	136	812	401	131	83	53
26	32	41	35	32	33	40	155	813	389	152	81	58
27	32	40	35	31	33	40	200	1050	345	127	79	59
28	32	40	35	31	32	39	296	763	320	119	77	53
29	32	40	40	31	32	37	394	607	305	115	75	45
30	32	40	43	31	---	37	472	536	279	116	73	44
31	34	---	39	31	---	38	---	511	---	112	72	---
TOTAL	1157	1189	1210	1027	896	1071	4394	20828	13317	5776	2972	1605
MEAN	37.3	39.6	39.0	33.1	30.9	34.5	146	672	444	186	95.9	53.5
MAX	45	47	43	38	34	40	472	1050	547	299	120	83
MIN	32	34	35	31	29	30	38	444	279	112	72	43
AC-FT	2290	2360	2400	2040	1780	2120	8720	41310	26410	11460	5890	3180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1992, BY WATER YEAR (WY)

MEAN	44.3	40.4	38.8	34.5	32.9	39.1	137	596	866	224	79.9	55.0
MAX	58.0	51.0	42.0	37.6	35.0	47.5	198	717	1153	299	95.9	68.5
(WY)	1991	1990	1991	1991	1988	1989	1989	1988	1988	1990	1992	1988
MIN	31.1	23.9	36.6	32.7	30.8	34.5	80.3	433	444	184	62.6	48.0
(WY)	1988	1988	1989	1990	1989	1992	1991	1990	1992	1989	1991	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1988 - 1992	
ANNUAL TOTAL	65154		55442			
ANNUAL MEAN	179		151		182	
HIGHEST ANNUAL MEAN					213	1988
LOWEST ANNUAL MEAN					151	1992
HIGHEST DAILY MEAN	1420	Jun 14	1050	May 27	1900	May 18 1988
LOWEST DAILY MEAN	[a]29	Feb 28	[b]29	Feb 5	[c]17	Nov 9 1987
ANNUAL SEVEN-DAY MINIMUM	32	Oct 22	30	Feb 2	18	Nov 9 1987
INSTANTANEOUS PEAK FLOW			1210	May 26	2320	May 18 1988
INSTANTANEOUS PEAK STAGE			4.76	May 26	6.03	May 18 1988
ANNUAL RUNOFF (AC-FT)	129200		110000		132200	
10 PERCENT EXCEEDS	675		506		582	
50 PERCENT EXCEEDS	45		44		49	
90 PERCENT EXCEEDS	34		32		32	

a-Also occurred Mar 9.
b-Also occurred Feb 6, 7.
c-Also occurred Nov 10, 13, 1987.

09242500 ELK RIVER NEAR MILNER, CO

LOCATION.--Lat 40°30'53", long 106°57'12", in NW¼NW¼ sec.5, T.6 N., R.85 W., Routt County, Hydrologic Unit 14050001, on left bank 30 ft downstream from bridge on County Road 44, 3.2 mi east of Milner, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--415 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1904 to September 1906, October 1910 to September 1927, (published as " near Trull"). April 1990 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,590 ft above National Geodetic Vertical Datum of 1929, from topographic map. May 1904 to September 1909, nonrecording gage, at different datum, October, 1910 to September, 1927, water-stage recorder at different datum..

REMARKS.--Estimated daily discharges: Nov. 21 to Mar. 19. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 6,500 acres upstream from and about 1,000 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	78	50	51	52	60	136	1140	984	338	159	76
2	63	76	51	51	52	60	149	1130	826	375	156	91
3	62	59	51	52	52	60	136	1010	884	433	153	78
4	60	82	51	51	51	60	158	1010	985	345	145	71
5	57	119	50	51	50	60	200	1030	1030	297	123	92
6	58	116	49	51	48	60	219	997	992	278	117	105
7	60	101	44	52	48	58	218	1110	989	271	118	93
8	80	91	46	51	50	60	210	1100	1030	427	166	84
9	91	83	49	51	52	58	254	1510	859	334	171	185
10	96	90	49	51	54	56	317	1420	842	290	162	108
11	94	90	50	52	54	56	341	1020	883	260	154	89
12	93	74	51	51	54	56	354	922	895	402	150	294
13	90	74	51	51	56	58	451	1060	985	554	137	307
14	86	74	48	51	56	58	475	1080	931	363	132	282
15	88	78	47	51	56	60	554	1140	789	291	133	267
16	85	71	50	51	58	60	492	1220	684	322	135	255
17	74	69	51	51	58	70	466	1190	658	339	143	264
18	71	68	51	51	58	70	526	1250	641	293	142	328
19	74	71	51	51	58	80	461	1310	635	250	134	315
20	81	61	51	52	58	96	405	1420	665	258	122	320
21	85	58	51	52	58	90	358	1530	670	237	116	323
22	84	55	51	52	58	91	374	1450	715	202	119	321
23	85	53	51	52	58	94	450	1350	695	194	133	281
24	93	51	51	52	58	106	415	1320	627	213	162	97
25	102	51	51	52	58	107	434	1290	606	217	131	77
26	104	51	51	52	58	114	444	1280	636	236	96	79
27	109	50	51	52	58	131	510	1840	524	194	92	79
28	112	50	51	52	60	151	663	1570	499	163	83	76
29	100	50	51	52	60	145	822	1210	453	147	79	70
30	95	50	52	52	---	141	978	1060	402	144	77	65
31	91	---	51	52	---	145	---	1070	---	133	73	---
TOTAL	2601	2144	1553	1596	1601	2571	11970	38039	23014	8800	4013	5172
MEAN	83.9	71.5	50.1	51.5	55.2	82.9	399	1227	767	284	129	172
MAX	112	119	52	52	60	151	978	1840	1030	554	171	328
MIN	57	50	44	51	48	56	136	922	402	133	73	65
AC-FT	5160	4250	3080	3170	3180	5100	23740	75450	45650	17450	7960	10260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1992, BY WATER YEAR (WY)

MEAN	148	114	93.0	90.8	93.4	181	744	2099	2214	661	167	105
MAX	424	234	125	120	145	320	1214	3977	3824	1940	445	173
(WY)	1919	1919	1926	1921	1921	1916	1919	1920	1917	1917	1912	1916
MIN	67.4	58.0	50.1	51.5	45.9	52.0	379	940	767	203	77.3	53.2
(WY)	1920	1991	1992	1992	1991	1991	1991	1990	1992	1910	1924	1919

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1905 - 1992	
ANNUAL TOTAL	132663		103074			
ANNUAL MEAN	363		282		568	
HIGHEST ANNUAL MEAN					886	1917
LOWEST ANNUAL MEAN					282	1992
HIGHEST DAILY MEAN	2590	Jun 2	1840	May 27	5350	Jun 15 1921
LOWEST DAILY MEAN	32	Sep 6	44	Dec 7	[a]26	Aug 29 1990
ANNUAL SEVEN-DAY MINIMUM	38	Sep 1	48	Dec 5	30	Aug 28 1990
INSTANTANEOUS PEAK FLOW			1920	May 27	[b]5530	Jun 15 1921
INSTANTANEOUS PEAK STAGE			4.86	May 27	6.35	Jun 15 1921
ANNUAL RUNOFF (AC-FT)	263100		204400		411700	
10 PERCENT EXCEEDS	1580		984		1900	
50 PERCENT EXCEEDS	81		94		140	
90 PERCENT EXCEEDS	47		51		75	

a-Also occurred Aug 30, 1990, but a lesser discharge may have occurred during periods of no gage-height record prior to Sep 20, 1919.
b-Site and datum then in use.

09242500 ELK RIVER NEAR MILNER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1975 to September 1976 and April 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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										
16...	1320	429	100	8.0	7.5	10.2	44	13	2.8	2.6
MAY										
19...	1150	1160	41	8.2	8.5	9.6	18	5.5	1.1	1.3
JUN										
23...	1250	602	50	7.7	14.5	8.4	22	6.7	1.3	1.6
AUG										
26...	1800	90	110	8.8	17.5	8.1	46	14	2.6	3.0

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)
APR									
16...	0.2	0.90	37	9.6	1.8	0.3	8.7	62	0.08
MAY									
19...	0.1	0.50	18	3.2	0.3	0.2	5.6	28	0.04
JUN									
23...	0.1	0.60	22	3.4	0.3	0.2	5.4	33	0.04
AUG									
26...	0.2	1.1	45	8.2	1.4	0.2	3.6	65	0.09

DATE	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, 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)
APR									
16...	71.7	0.01	0.07	0.01	0.29	0.3	0.01	<0.01	7.8
MAY									
19...	89.2	<0.01	<0.05	0.02	0.18	0.2	0.03	<0.01	4.9
JUN									
23...	53.1	<0.01	<0.05	0.02	--	<0.2	<0.01	<0.01	3.5
AUG									
26...	15.7	<0.01	<0.05	<0.01	--	<0.2	0.02	0.02	2.9

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										
19...	210	<1	<1	<100	<10	<1	18	<1	1	350
AUG										
26...	30	<1	<1	<100	<10	<1	<1	<1	2	210

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)
MAY										
19...	<1	<10	90	<0.1	<1	<1	<1	<1	30	<10
AUG										
26...	1	<10	10	<0.1	<1	<1	<1	<1	60	70

09242500 ELK RIVER NEAR MILNER, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
09...	1445	97	120	12.0
NOV				
19...	1355	61	145	2.0
DEC				
12...	1245	52	141	0.0
JAN				
28...	1505	52	145	0.0
MAR				
27...	1135	130	238	6.5
APR				
15...	0920	584	99	4.5
MAY				
15...	1225	1160	52	10.0
JUN				
16...	1350	679	51	5.0
JUL				
07...	1310	280	73	14.0
AUG				
10...	1510	159	97	21.5
28...	1250	84	113	15.5
SEP				
30...	1420	64	132	16.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
APR				
16...	1320	429	20	23
MAY				
19...	1150	1160	17	54
JUN				
23...	1250	602	8	12
AUG				
26...	1800	90	4	1.0

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 14050001, on left bank 1.1 mi upstream from mouth of Foidel Creek and 13.5 mi northwest of Oak Creek.

DRAINAGE AREA.--23.5 mi².

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: Oct. 1-10, Nov. 6-8, 20-30, Dec. 2, and Dec. 9 to Mar. 22. Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.25	.43	.34	.38	.50	1.4	4.2	1.8	.36	.23	.00
2	.02	.25	.43	.34	.38	.60	1.7	3.9	1.3	.63	.19	.00
3	.02	.39	.43	.34	.38	.70	1.5	3.8	1.1	1.1	.17	.00
4	.02	.68	.27	.34	.38	.80	1.8	3.4	1.1	.90	.17	.01
5	.02	.69	.29	.34	.38	.90	2.0	3.2	1.0	.83	.16	.02
6	.02	.68	.31	.34	.38	1.0	2.2	3.2	1.1	.66	.14	.02
7	.02	.68	.30	.34	.38	1.2	1.9	2.9	.88	.54	.16	.01
8	.02	.68	.30	.34	.38	1.4	1.8	2.8	.87	.80	.18	.00
9	.02	.69	.30	.36	.38	1.6	2.1	3.2	.83	.74	.15	.00
10	.02	.54	.30	.36	.38	1.8	2.5	2.9	.78	.52	.14	.00
11	.03	.58	.30	.36	.40	2.0	3.1	2.3	.87	.46	.13	.00
12	.06	.49	.30	.36	.40	2.2	3.6	1.9	.88	.74	.14	.00
13	.05	.39	.30	.36	.40	2.4	2.9	1.9	1.2	1.2	.09	.00
14	.05	.39	.30	.36	.40	2.5	3.3	1.5	1.2	.76	.10	.00
15	.11	.33	.30	.36	.40	2.0	4.4	1.6	1.2	1.2	.07	.00
16	.08	.37	.30	.36	.42	1.5	3.9	1.6	1.4	.71	.06	.00
17	.06	.27	.30	.36	.42	1.5	3.4	1.4	1.3	.63	.07	.00
18	.06	.56	.30	.36	.42	1.0	4.7	1.3	1.3	.44	.07	.00
19	.06	.48	.30	.36	.42	.60	5.3	1.3	1.1	.35	.05	.00
20	.06	.50	.30	.36	.42	.60	4.8	1.4	.73	.32	.03	.00
21	.07	.50	.32	.38	.44	.50	4.1	1.7	.68	.30	.01	.00
22	.07	.50	.32	.38	.44	.50	3.8	1.7	.56	.28	.00	.00
23	.09	.50	.32	.38	.44	.47	6.1	1.6	.43	.25	.01	.00
24	.15	.50	.32	.38	.46	.52	6.3	2.4	.34	.30	.03	.00
25	.25	.50	.32	.38	.46	.62	5.6	2.3	.28	.54	.04	.00
26	.27	.50	.32	.38	.48	.74	5.1	2.4	.49	.51	.04	.00
27	.23	.50	.32	.38	.48	.99	5.1	4.0	.60	.32	.04	.00
28	.24	.50	.32	.38	.48	1.5	4.7	3.7	.72	.26	.02	.00
29	.30	.50	.32	.38	.48	2.2	4.9	3.1	.70	.30	.00	.00
30	.20	.45	.32	.38	---	1.8	4.8	2.0	.47	.31	.00	.00
31	.20	---	.34	.38	---	1.7	---	2.0	---	.27	.00	---
TOTAL	2.89	14.84	9.90	11.22	12.06	38.34	108.8	76.6	27.21	17.53	2.69	0.06
MEAN	.093	.49	.32	.36	.42	1.24	3.63	2.47	.91	.57	.087	.002
MAX	.30	.69	.43	.38	.48	2.5	6.3	4.2	1.8	1.2	.23	.02
MIN	.02	.25	.27	.34	.38	.47	1.4	1.3	.28	.25	.00	.00
AC-FT	5.7	29	20	22	24	76	216	152	54	35	5.3	.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	.42	.65	.59	.55	.79	2.02	11.6	23.1	5.10	1.59	.62	.30
MAX	1.36	1.98	1.83	1.85	2.46	7.90	36.3	98.2	26.1	5.89	3.42	1.21
(WY)	1986	1985	1985	1985	1986	1986	1985	1984	1984	1984	1984	1985
MIN	.000	.000	.000	.000	.000	.67	1.01	1.00	.49	.092	.000	.000
(WY)	1978	1978	1978	1977	1978	1991	1977	1981	1990	1989	1977	1976

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	936.58		322.14			
ANNUAL MEAN	2.57		.88		3.96	
HIGHEST ANNUAL MEAN					13.2	1984
LOWEST ANNUAL MEAN					.50	1977
HIGHEST DAILY MEAN	38	May 12	6.3	Apr 24	297	May 14 1984
LOWEST DAILY MEAN	a		a		a	
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 1	.00	Sep 8	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			8.2	Apr 24	b329	May 14 1984
INSTANTANEOUS PEAK STAGE			1.80	Apr 24	4.08	May 14 1984
ANNUAL RUNOFF (AC-FT)	1860		639		2870	
10 PERCENT EXCEEDS	8.7		2.4		9.7	
50 PERCENT EXCEEDS	.40		.39		.74	
90 PERCENT EXCEEDS	.05		.02		.00	

a-No flow many days most years.
b-From rating curve extended above 77 ft³/s.

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. 1-9, Nov. 14 to Mar. 31, May 27 to June 15, and Aug. 28 to Sept. 1. Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.13	.24	.30	.32	.38	4.9	1.3	1.2	.75	.92	.04
2	.00	.12	.24	.30	.32	.40	3.4	1.2	1.2	.80	.90	.02
3	.00	.12	.24	.30	.32	.40	3.9	1.2	1.1	.77	.90	.01
4	.00	.12	.24	.30	.32	.40	4.5	1.5	1.1	.75	.92	.00
5	.00	.15	.24	.30	.32	.40	3.7	1.8	1.1	.75	.81	.02
6	.00	.23	.26	.30	.32	.42	2.9	1.6	1.1	.71	.85	.02
7	.00	.24	.26	.30	.32	.44	4.0	1.5	1.1	.76	.87	.01
8	.00	.22	.26	.30	.32	.46	4.8	1.5	1.0	.78	.82	.01
9	.00	.22	.26	.30	.32	.48	3.6	1.5	1.0	.77	.82	.01
10	.00	.24	.26	.30	.32	.50	3.3	1.5	1.0	.76	.81	.02
11	.00	.22	.26	.30	.32	.52	2.7	1.5	1.0	.79	.75	.03
12	.12	.26	.26	.30	.32	.54	2.0	1.4	1.0	.93	.68	.00
13	.21	.26	.26	.30	.34	.56	1.8	1.5	1.0	.91	.67	.01
14	.25	.24	.26	.30	.34	.60	1.8	1.4	1.0	.89	.63	.01
15	.28	.22	.28	.30	.34	.60	2.0	1.4	1.0	.93	.58	.00
16	.31	.22	.28	.30	.34	.70	1.8	1.3	.99	.91	.49	.01
17	.33	.22	.28	.30	.34	.80	1.7	1.3	.82	.90	.48	.06
18	.36	.22	.28	.30	.34	.80	1.6	1.3	.82	.89	.43	.06
19	.36	.22	.28	.30	.36	.90	1.7	1.3	.79	.89	.35	.04
20	.39	.22	.28	.30	.36	.90	1.8	1.3	.76	.91	.31	.07
21	.42	.24	.28	.30	.36	1.0	1.5	1.5	.76	.91	.31	.07
22	.42	.24	.28	.30	.36	1.1	1.3	1.6	.75	.91	.28	.07
23	.39	.24	.28	.30	.36	1.2	2.8	1.5	.72	.92	.28	.06
24	.45	.24	.28	.30	.36	1.3	2.6	1.6	.72	.98	.26	.56
25	.42	.24	.28	.30	.36	1.4	1.9	1.5	.73	1.1	.25	2.2
26	.37	.24	.28	.30	.36	1.5	1.6	1.5	.76	1.0	.24	2.0
27	.28	.24	.28	.30	.36	1.5	1.4	1.4	.76	.98	.24	1.8
28	.23	.24	.28	.30	.38	2.8	1.4	1.3	.77	.97	.09	1.6
29	.17	.24	.28	.30	.38	3.3	1.4	1.2	.76	.97	.07	1.5
30	.16	.24	.30	.30	---	3.6	1.3	1.2	.74	.95	.06	1.4
31	.15	---	.30	.30	---	4.7	---	1.2	---	.92	.06	---
TOTAL	6.07	6.49	8.34	9.30	9.88	34.60	75.1	43.8	27.55	27.16	16.13	11.71
MEAN	.20	.22	.27	.30	.34	1.12	2.50	1.41	.92	.88	.52	.39
MAX	.45	.26	.30	.30	.38	4.7	4.9	1.8	1.2	1.1	.92	2.2
MIN	.00	.12	.24	.30	.32	.38	1.3	1.2	.72	.71	.06	.00
AC-FT	12	13	17	18	20	69	149	87	55	54	32	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	.48	.46	.35	.36	.80	1.86	5.98	3.91	1.16	.60	.32	.22
MAX	3.37	2.24	1.11	1.13	6.34	7.90	14.7	13.0	3.37	1.86	1.43	.80
(WY)	1986	1986	1986	1986	1986	1986	1985	1985	1985	1985	1985	1986
MIN	.000	.000	.000	.000	.000	.000	.11	.077	.024	.000	.000	.000
(WY)	1976	1976	1976	1976	1977	1978	1977	1977	1977	1977	1976	1976

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	501.09		276.13			
ANNUAL MEAN	1.37		.75		1.37	
HIGHEST ANNUAL MEAN					3.69	1986
LOWEST ANNUAL MEAN					.022	1977
HIGHEST DAILY MEAN	11	Jun 15	4.9	Apr 1	33	Apr 22 1980
LOWEST DAILY MEAN	[a].00	Aug 30	[b].00	Oct 1	[c].00	Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 30	.00	Oct 1	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			11	Apr 7	55	Apr 21 1980
INSTANTANEOUS PEAK STAGE			2.09	Apr 7	3.38	Apr 21 1980
ANNUAL RUNOFF (AC-FT)	994		548		995	
10 PERCENT EXCEEDS	4.1		1.5		3.7	
50 PERCENT EXCEEDS	.45		.38		.44	
90 PERCENT EXCEEDS	.00		.07		.00	

a-Also occurred Aug 31 to Sep 30.
b-Also occurred Oct 2-11, 1975.
c-No flow many days most years.

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 September 1988.
WATER TEMPERATURES: May 1976 to September 1981, April 1982 to September 1983. March 1986 to September 1988.

INSTRUMENTATION.--Water-quality monitor May 1976 to September 1981, April 1982 to September 1983. March 1986 to September 1988.

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, 3,080 microsiemens Dec. 16, 1987; 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 OUTSIDE PERIOD OF DAILY RECORD.--A specific conductance of 3,140 microsiemens, was measured Dec. 12, 1989.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
JAN										
29...	1020	0.30	3160	8.2	0.0	2100	410	250	66	0.6
MAR										
31...	0940	3.7	1830	8.0	3.0	1000	210	120	51	0.7
MAY										
21...	1210	1.4	2870	8.1	17.0	1700	330	210	61	0.6
AUG										
11...	1300	0.72	2890	7.7	17.0	1900	320	270	63	0.6

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)
JAN									
29...	6.5	437	1600	10	0.2	9.8	2610	3.56	2.12
MAR									
31...	5.9	241	770	12	0.1	7.1	1320	1.80	13.2
MAY									
21...	6.5	310	1400	13	0.2	8.2	2210	3.01	8.61
AUG									
11...	5.2	178	1700	7.7	0.1	1.5	2470	3.36	4.81

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	STREAM WIDTH (FT)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)
NOV						
20...	1200	0.22	3.00	3140	--	1.0
MAR						
27...	1410	1.5	3.60	2540	--	3.5
APR						
14...	1205	1.4	3.60	2460	7.9	7.0
JUN						
15...	1520	1.1	3.30	2930	--	23.0
JUL						
13...	1325	0.90	3.60	2920	--	21.0
SEP						
01...	1030	0.02	1.40	3000	--	12.0

09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO

LOCATION.--Lat 40°23'25", long 106°59'39", in SE1/4SE1/4 sec.14, T.5 N., R.86 W., Routt County, Hydrologic Unit 14050001, on left bank 1.0 mi upstream from mouth and 13.6 mi northwest of Oak Creek.

DRAINAGE AREA.--17.5 mi^2.

PERIOD OF RECORD.--October 1975 to September 1981, June 1982 to current year.

REVISED RECORDS.--WDR CO-78-3: 1976 (M), 1976.

GAGE.--Water-stage recorder. Elevation of gage is 6,730 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Feb. 19, 1992, at site 600 ft downstream, at same datum.

REMARKS.--Estimated daily discharges: Nov. 6-20, Dec. 27 to Jan. 20, Feb. 6-19, Feb. 23 to Mar. 4, Aug. 18 to Sept. 1. Records fair Oct. 1 to Nov. 5, Nov. 21 to Dec. 26, and Jan. 21 to Feb 5; records good Feb. 20-22, Mar. 5 to Aug. 17 and Sept. 2-30; except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.36	.41	.60	.60	2.1	6.0	2.4	2.4	.63	.52	.02
2	.00	.36	.36	.60	.58	2.1	5.0	2.4	2.0	.83	.50	.09
3	.00	.36	.29	.60	.55	2.1	4.5	2.3	1.8	.94	.47	.11
4	.00	.35	.29	.60	.56	2.1	5.1	2.3	1.8	.79	.50	.09
5	.00	.37	.31	.60	.63	2.2	4.9	2.5	1.9	.69	.50	.07
6	.00	.40	.48	.60	.66	2.3	4.5	2.6	1.7	.62	.54	.09
7	.00	.40	.56	.60	.60	2.4	3.8	2.5	1.7	.61	.66	.08
8	.00	.40	.36	.60	.62	2.6	5.1	2.4	1.6	.80	.60	.02
9	.00	.40	.36	.60	.65	2.6	4.8	2.7	1.6	.79	.53	.00
10	.00	.40	.36	.60	.68	2.7	4.4	2.7	1.5	.70	.46	.00
11	.00	.40	.36	.60	.70	3.0	4.2	2.5	1.4	.65	.43	.00
12	.00	.40	.39	.60	.72	3.2	3.6	2.4	1.4	.94	.38	.00
13	.00	.40	.43	.60	.76	2.9	3.2	2.4	1.4	1.2	.33	.00
14	.00	.40	.39	.60	.88	2.9	3.1	2.4	1.3	.98	.31	.00
15	.00	.40	.40	.60	1.0	3.4	3.3	2.3	1.3	1.3	.32	.00
16	.00	.40	.40	.60	1.2	3.6	3.1	2.3	1.3	1.5	.31	.00
17	.00	.40	.36	.60	1.6	9.2	3.0	2.2	1.3	.95	.37	.00
18	.13	.40	.33	.60	1.8	6.4	3.4	2.2	.99	.79	.35	.05
19	.31	.40	.33	.60	2.4	5.4	4.0	2.2	.93	.72	.31	.11
20	.48	.42	.34	.60	2.3	3.8	3.9	2.2	.87	.79	.29	.12
21	.55	.29	.39	.61	2.2	3.9	3.6	2.1	.84	.76	.27	.08
22	.55	.42	.43	.61	2.2	4.0	3.2	2.2	.79	.69	.25	.09
23	.55	.38	.43	.64	2.1	4.8	4.2	2.0	.74	.71	.22	.11
24	.60	.67	.44	.64	2.1	4.1	5.1	1.9	.72	.82	.20	.10
25	.70	.49	.60	.63	2.1	4.3	3.9	1.8	.85	1.0	.18	.20
26	.73	.51	.62	.60	2.1	4.5	3.2	1.8	.97	.95	.15	1.2
27	.69	.52	.60	.60	2.1	5.4	2.9	2.6	1.1	.76	.13	1.5
28	.69	.55	.60	.60	2.1	6.3	2.9	2.9	.99	.68	.11	1.4
29	.56	.54	.60	.60	2.1	6.2	2.8	2.7	.88	.67	.09	1.2
30	.51	.45	.60	.60	---	6.3	2.6	2.3	.71	.67	.06	1.1
31	.43	---	.60	.60	---	6.2	---	2.4	---	.59	.03	---
TOTAL	7.48	12.64	13.42	18.73	38.59	123.0	117.3	72.6	38.78	25.52	10.37	7.83
MEAN	.24	.42	.43	.60	1.33	3.97	3.91	2.34	1.29	.82	.33	.26
MAX	.73	.67	.62	.64	2.4	9.2	6.0	2.9	2.4	1.5	.66	1.5
MIN	.00	.29	.29	.60	.55	2.1	2.6	1.8	.71	.59	.03	.00
AC-FT	15	25	27	37	77	244	233	144	77	51	21	16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	.77	1.01	.94	.95	1.57	5.20	14.1	8.36	2.69	1.40	.69	.41
MAX	4.05	5.03	5.96	6.01	10.4	17.0	33.6	34.9	10.8	3.68	2.84	1.77
(WY)	1986	1986	1986	1986	1986	1986	1985	1984	1984	1984	1983	1984
MIN	.000	.000	.000	.000	.000	.39	.41	.043	.000	.000	.000	.000
(WY)	1976	1977	1976	1977	1978	1977	1977	1977	1977	1976	1976	1976

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	842.49		486.26			
ANNUAL MEAN	2.31		1.33		3.17	
HIGHEST ANNUAL MEAN					7.63	1986
LOWEST ANNUAL MEAN					.070	1977
HIGHEST DAILY MEAN	19	Apr 4	9.2	Mar 17	79	Apr 25 1984
LOWEST DAILY MEAN	[a].00	Sep 5	[a].00	Oct 1	[b].00	Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 27	.00	Oct 1	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			19	Mar 17	90	Apr 22 1980
INSTANTANEOUS PEAK STAGE			4.51	Mar 17	5.18	Apr 22 1980
ANNUAL RUNOFF (AC-FT)	1670		964		2290	
10 PERCENT EXCEEDS	7.1		3.3		8.0	
50 PERCENT EXCEEDS	.70		.64		.87	
90 PERCENT EXCEEDS	.03		.09		.00	

a-No flow many days.
b-No flow many days, most years.

09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO--Continued

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 and 1989 are available in district office.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.02	.03	.00	.12	.00	.00	.00	.00	.00	.09
2	.00	.07	.00	.02	.00	.08	.00	.00	.00	.18	.05	.00
3	.00	.00	.13	.01	.00	.02	.00	.00	.00	.00	.00	.04
4	.00	.00	.02	.00	.00	.03	.00	.00	.00	.00	.00	.00
5	.00	.00	.01	.04	.00	.01	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.05	.00
7	.00	.00	.00	.10	.11	.00	.00	.00	.00	.14	.04	.00
8	.00	.00	.13	.26	.01	.00	.00	.15	.00	.00	.00	.00
9	.00	.05	.03	.26	.00	.00	.00	.18	.00	.03	.00	.00
10	.00	.05	.07	.10	.09	.00	.00	.00	.00	.00	.00	.00
11	.05	.00	.05	.13	.02	.00	.00	.00	.00	.21	.00	.00
12	.00	.00	.00	.12	.25	.00	.00	.04	.00	.51	.00	.00
13	.00	.00	.07	.13	.00	.00	.00	.13	.00	.04	.00	.00
14	.11	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.06
15	.00	.00	.00	.33	.09	.00	.03	.00	.00	1.02	.00	.19
16	.00	.00	.00	.12	.02	.00	.00	.00	.00	.00	.01	.00
17	.00	.00	.00	.02	.13	.11	.15	.00	.05	.00	.10	.13
18	.00	.07	.00	.02	.00	.08	.23	.00	.00	.00	.10	.00
19	.00	.05	.05	.00	.04	.00	.05	.00	.00	.00	.00	.00
20	.14	.00	.02	.16	.02	.00	.00	.15	.00	.00	.00	.05
21	.03	.12	.00	.16	.00	.00	.00	.05	.00	.00	.00	.05
22	.05	.17	.00	.36	.00	.04	.30	.00	.00	.00	.00	.00
23	.00	.11	.00	.13	.00	.04	.14	.09	.00	.00	.00	.00
24	.00	.00	.00	.02	.00	.00	.00	.00	.02	.00	.11	.10
25	.00	.22	.00	.02	.00	.00	.00	.00	.05	.19	.06	.10
26	.00	.07	.00	.01	.00	.03	.03	.57	.17	.00	.00	.00
27	.00	.05	.00	.00	.00	.00	.00	.53	.00	.20	.08	.00
28	.07	.00	.00	.00	.00	.00	.00	.20	.00	.26	.00	.00
29	.09	.00	.00	.00	.04	.00	.00	.25	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.54	1.13	0.60	2.56	0.82	0.56	1.08	2.34	0.29	2.78	0.60	0.81

WTR YR 1992 TOTAL 14.11

09245000 ELKHEAD CREEK NEAR ELKHEAD, CO

LOCATION.--Lat 40°40'11", long 107°17'04", in NW¼NE¼ 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: Oct. 23 to Mar. 20. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.1	1.8	1.9	2.2	4.4	24	155	64	7.0	1.7	.91
2	2.7	2.2	1.9	1.8	2.2	4.3	28	134	58	6.7	1.5	1.3
3	2.3	2.3	2.2	1.8	2.3	4.8	33	115	49	7.0	1.3	1.5
4	2.2	2.2	2.2	1.8	2.4	4.9	51	102	43	6.6	1.1	1.5
5	2.2	2.3	2.1	1.9	2.5	4.9	71	93	39	5.9	1.1	1.7
6	2.2	2.4	2.1	1.9	2.6	4.8	83	88	37	5.1	1.1	1.8
7	2.3	2.4	2.2	2.0	2.9	5.0	81	87	31	4.6	1.3	1.8
8	2.4	2.1	2.2	2.1	2.9	4.8	86	85	30	4.9	1.4	1.5
9	2.4	1.9	2.1	2.1	2.9	5.2	101	158	29	5.1	1.4	1.3
10	2.4	2.0	2.1	2.0	2.9	5.0	120	184	29	4.8	1.2	1.1
11	2.4	2.2	2.0	2.0	2.8	5.2	127	131	27	4.4	1.1	.74
12	2.5	1.9	2.0	2.0	2.9	5.4	130	100	23	4.9	.91	.47
13	2.4	1.7	1.9	1.9	2.8	6.2	134	93	20	7.6	.81	.30
14	2.5	1.8	1.9	1.9	3.2	6.8	136	89	17	8.0	.72	.21
15	2.4	1.7	1.9	2.0	3.7	6.8	150	84	16	6.9	.48	.18
16	2.4	1.6	2.0	2.0	3.5	6.8	133	78	15	6.2	.35	.15
17	2.4	1.7	2.0	2.0	3.4	6.6	124	72	17	5.7	.33	.17
18	2.4	1.8	2.0	1.9	3.3	6.8	154	65	18	5.2	.27	.25
19	2.4	1.8	2.0	2.0	3.2	6.6	116	58	16	4.5	.24	.26
20	2.5	1.7	1.9	2.0	3.1	6.6	100	58	14	4.1	.42	.16
21	2.5	1.8	1.9	2.1	3.1	6.7	96	57	12	3.9	.45	.15
22	2.5	1.8	1.8	2.1	3.1	6.6	122	53	11	3.5	.38	.13
23	2.4	1.9	1.8	2.1	3.0	6.7	148	48	9.7	3.0	.66	.15
24	2.4	2.0	1.7	2.2	3.2	7.1	123	52	9.3	3.0	1.3	.15
25	2.4	1.9	1.7	2.2	3.0	6.9	109	48	8.6	3.2	1.8	.20
26	2.4	1.8	1.7	2.2	3.3	7.0	113	42	9.0	3.6	1.9	.62
27	2.3	1.7	1.7	2.2	3.2	9.0	126	55	9.1	3.9	1.7	.72
28	2.3	1.6	1.7	2.2	3.5	12	151	64	9.2	3.5	1.4	.82
29	2.4	1.6	1.9	2.2	4.0	13	154	63	8.9	2.8	1.1	.98
30	2.2	1.6	1.9	2.2	---	15	157	61	7.9	2.3	.92	1.2
31	2.2	---	2.0	2.2	---	19	---	61	---	2.0	.78	---
TOTAL	74.3	57.5	60.3	62.9	87.1	220.9	3281	2633	686.7	149.9	31.12	22.42
MEAN	2.40	1.92	1.95	2.03	3.00	7.13	109	84.9	22.9	4.84	1.00	.75
MAX	2.9	2.4	2.2	2.2	4.0	19	157	184	64	8.0	1.9	1.8
MIN	2.2	1.6	1.7	1.8	2.2	4.3	24	42	7.9	2.0	.24	.13
AC-FT	147	114	120	125	173	438	6510	5220	1360	297	62	44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1992, BY WATER YEAR (WY)

MEAN	6.45	6.75	5.87	5.25	5.58	10.9	114	355	116	14.0	4.51	3.68
MAX	25.6	21.9	14.8	13.3	13.4	40.8	316	830	357	50.0	14.4	15.5
(WY)	1987	1987	1987	1987	1974	1986	1962	1984	1957	1957	1984	1984
MIN	1.71	1.45	1.95	1.78	2.20	3.50	16.0	64.4	11.3	.94	.30	.22
(WY)	1978	1961	1992	1977	1959	1955	1970	1977	1977	1977	1961	1955

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1953 - 1992	
ANNUAL TOTAL	13817.9		7367.14			
ANNUAL MEAN	37.9		20.1		54.6	
HIGHEST ANNUAL MEAN					113	1984
LOWEST ANNUAL MEAN					16.6	1977
HIGHEST DAILY MEAN	569	May 10	184	May 10	1890	May 15 1984
LOWEST DAILY MEAN	[a]1.1	Sep 5	.13	Sep 22	[b].00	Sep 1 1954
ANNUAL SEVEN-DAY MINIMUM	1.3	Aug 31	.17	Sep 19	.00	Sep 12 1955
INSTANTANEOUS PEAK FLOW			224	May 9	[c]2850	May 20 1984
INSTANTANEOUS PEAK STAGE			3.96	May 9	7.58	May 20 1984
ANNUAL RUNOFF (AC-FT)	27410		14610		39560	
10 PERCENT EXCEEDS	130		85		172	
50 PERCENT EXCEEDS	3.0		2.4		6.6	
90 PERCENT EXCEEDS	1.8		1.1		2.2	

a-Also occurred Sep 6.
b-Also occurred Sep 12-19, 24, 1955, Aug 27-29, 1961, Aug 14-19, 1977.
c-From rating curve extended above 1500 ft³/s, on basis of slope-area determination of peak flow.

09247600 YAMPA RIVER BELOW CRAIG, CO

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.

DRAINAGE AREA.--1,750 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1975 to September 1980 (discharge measurements only), October 1984 to current year.

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: Oct. 31 to Nov. 1, Dec. 5 to Mar. 4, Mar. 28 to Apr. 28. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation, Colorado Ute Power Plants at Hayden and Craig, transbasin diversions, storage reservoirs, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	230	204	200	240	350	750	3270	2760	645	274	140
2	175	201	134	210	230	330	720	3370	2370	584	278	134
3	164	156	128	220	230	340	680	3140	2300	685	268	153
4	159	205	163	220	230	360	640	3060	2300	700	245	165
5	155	283	170	210	240	371	700	3010	2240	600	233	167
6	147	305	180	210	240	504	800	2860	2250	507	234	183
7	132	393	180	220	260	444	850	3100	2040	458	228	207
8	150	365	170	220	250	429	860	3180	2180	483	228	190
9	163	320	160	220	250	431	830	4090	1890	619	249	164
10	177	323	150	220	250	390	900	4270	1740	503	250	194
11	176	329	160	220	250	378	1050	3100	1730	462	220	195
12	161	322	160	240	270	395	1160	2800	1680	452	203	140
13	184	292	160	230	270	424	1250	2970	1710	849	196	317
14	177	286	160	260	310	477	1440	3140	1620	928	187	372
15	148	292	170	250	310	554	1540	3200	1450	673	175	363
16	141	287	170	230	280	616	1890	3160	1220	646	175	345
17	169	251	160	250	280	644	1800	3170	1140	661	177	333
18	183	257	180	260	260	631	1740	3350	1190	648	170	381
19	191	253	180	230	270	587	1980	3280	1080	520	198	433
20	185	194	190	250	280	529	1800	3440	1020	459	188	442
21	182	188	200	230	300	481	1550	3700	1010	457	166	440
22	196	195	210	240	340	473	1370	3700	995	430	163	421
23	211	187	220	240	320	489	1460	3610	972	403	165	437
24	234	200	200	230	350	507	1720	3370	924	483	199	411
25	250	217	180	220	260	545	1590	3200	836	504	228	224
26	270	228	190	230	330	572	1440	3410	872	565	207	161
27	274	242	170	240	310	603	1460	3970	913	536	177	164
28	260	223	190	240	340	690	1700	4700	842	428	174	183
29	258	241	180	240	300	710	2350	3870	789	353	151	166
30	263	212	180	240	---	790	2760	3140	705	311	138	148
31	240	---	200	230	---	750	---	2970	---	305	139	---
TOTAL	5909	7677	5449	7150	8050	15794	40780	104600	44768	16857	6283	7773
MEAN	191	256	176	231	278	509	1359	3374	1492	544	203	259
MAX	274	393	220	260	350	790	2760	4700	2760	928	278	442
MIN	132	156	128	200	230	330	640	2800	705	305	138	134
AC-FT	11720	15230	10810	14180	15970	31330	80890	207500	88800	33440	12460	15420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1992, BY WATER YEAR (WY)

MEAN	331	318	235	215	301	762	2477	4260	3423	729	229	197
MAX	607	505	407	336	841	1718	4835	7524	6274	1769	399	384
(WY)	1987	1985	1985	1985	1986	1986	1985	1985	1986	1986	1986	1986
MIN	144	167	146	114	111	229	1346	2172	1370	233	85.4	97.9
(WY)	1990	1989	1988	1989	1989	1988	1991	1990	1987	1989	1990	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1985 - 1992	
ANNUAL TOTAL	395050		271090			
ANNUAL MEAN	1082		741		1124	
HIGHEST ANNUAL MEAN					1910	1986
LOWEST ANNUAL MEAN					734	1989
HIGHEST DAILY MEAN	7080	May 23	4700	May 28	9830	May 6 1985
LOWEST DAILY MEAN	37	Sep 6	128	Dec 3	1.3	Sep 1 1988
ANNUAL SEVEN-DAY MINIMUM	78	Sep 2	146	Aug 29	13	Aug 31 1988
INSTANTANEOUS PEAK FLOW			5020	May 28	10300	May 6 1985
INSTANTANEOUS PEAK STAGE			7.10	May 28	9.68	May 6 1985
ANNUAL RUNOFF (AC-FT)	783600		537700		814300	
10 PERCENT EXCEEDS	4590		2300		3570	
50 PERCENT EXCEEDS	264		292		350	
90 PERCENT EXCEEDS	157		166		142	

09247600 YAMPA RIVER BELOW CRAIG, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1975 to September 1980. October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
DEC										
17...	1530	175	443	8.5	0.0	11.5	K1	K3	160	42
MAR										
27...	1300	606	715	8.8	7.0	11.6	K3	K3	250	51
JUN										
10...	1150	1950	143	8.0	14.0	8.0	K16	K4	50	13
AUG										
26...	1037	207	294	8.6	14.5	8.4	28	K12	100	26

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
DEC									
17...	14	28	1	2.5	144	82	14	<0.1	6.9
MAR									
27...	29	54	1	2.7	131	210	14	<0.1	5.0
JUN									
10...	4.3	8.1	0.5	0.90	44	22	3.2	<0.1	6.9
AUG									
26...	8.9	20	0.9	2.2	96	43	9.4	0.3	3.4

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)
DEC									
17...	276	0.38	130	0.02	0.23	<0.01	0.30	0.05	0.05
MAR									
27...	444	0.60	727	0.02	1.1	0.01	0.30	0.02	0.02
JUN									
10...	85	0.12	447	<0.01	<0.05	0.02	0.20	0.03	0.03
AUG									
26...	171	0.23	95.5	<0.01	<0.05	0.02	0.30	0.20	0.03

DATE	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
DEC										
17...	<1	3	210	<1	30	22	<0.1	<1	--	14
MAR										
27...	<1	3	500	<1	70	42	<0.1	13	--	5
JUN										
10...	<1	2	310	<1	30	12	<0.1	<1	[a]<0.2	5
AUG										
26...	<1	1	230	<1	40	18	<0.1	<1	[a]<0.2	22

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09247600 YAMPA RIVER BELOW CRAIG, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
01...	1305	132	471	15.5
NOV				
13...	1245	267	391	4.0
FEB				
25...	1502	246	432	0.0
MAR				
26...	1106	585	732	7.5
MAY				
04...	1420	3100	132	13.5
27...	1000	3450	131	10.5
JUN				
26...	0946	797	156	18.5
JUL				
20...	0812	436	244	18.5
AUG				
05...	0830	229	288	19.0
11...	1150	206	274	22.0
19...	1135	203	265	18.0
25...	1037	242	286	17.5
SEP				
04...	1100	161	320	16.5
08...	0730	192	323	13.0

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, 6.1 mi north-northeast of Hamilton, and 8 mi south-southwest of Craig.

DRAINAGE AREA.--419 mi².

WATER-DISCHARGE RECORDS

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: Oct. 24-29, Nov. 3, 5-22, 25-29, Dec. 4-24, Jan. 12-23, and Feb. 2-4. Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	49	34	43	45	58	112	1240	387	74	51	40
2	37	47	30	45	46	62	117	1130	322	75	48	42
3	37	49	33	45	46	68	116	1010	315	90	49	40
4	39	49	39	45	47	74	114	941	309	88	50	36
5	38	47	42	45	47	72	129	872	278	75	42	38
6	36	47	44	45	44	80	139	690	270	65	50	41
7	36	46	45	47	42	85	146	601	259	61	56	37
8	38	45	45	47	40	112	157	594	251	75	53	33
9	39	44	45	48	39	99	163	793	222	86	51	33
10	38	44	45	48	39	88	184	729	225	85	45	32
11	37	43	43	57	39	75	209	510	199	68	42	30
12	37	43	40	55	41	72	242	521	207	91	39	30
13	38	43	37	53	42	82	267	520	187	203	35	29
14	37	42	34	52	44	89	307	559	173	135	31	29
15	37	44	30	51	48	94	352	537	158	108	31	30
16	37	44	30	50	48	98	426	514	151	101	31	31
17	39	44	33	50	45	104	404	464	153	85	33	35
18	39	45	36	48	42	107	413	446	139	72	35	37
19	39	45	38	50	42	106	499	439	119	66	27	39
20	39	46	40	51	42	97	431	467	107	66	26	38
21	39	47	41	51	42	88	380	586	104	74	26	39
22	40	48	43	52	46	87	360	537	99	66	29	37
23	40	49	43	53	49	88	414	517	92	61	38	35
24	41	50	44	54	48	86	440	534	87	64	46	33
25	42	50	44	47	48	88	414	473	89	96	45	35
26	43	51	43	48	47	88	420	467	97	97	44	39
27	43	51	42	48	48	86	483	763	102	71	42	39
28	42	52	41	47	51	91	670	627	102	61	37	35
29	41	52	40	46	53	98	919	525	95	58	36	34
30	40	52	39	46	---	106	1090	426	85	58	34	32
31	45	---	41	46	---	107	---	393	---	54	37	---
TOTAL	1213	1408	1224	1513	1300	2735	10517	19425	5383	2529	1239	1058
MEAN	39.1	46.9	39.5	48.8	44.8	88.2	351	627	179	81.6	40.0	35.3
MAX	45	52	45	57	53	112	1090	1240	387	203	56	42
MIN	36	42	30	43	39	58	112	393	85	54	26	29
AC-FT	2410	2790	2430	3000	2580	5420	20860	38530	10680	5020	2460	2100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

MEAN	73.1	71.7	61.6	56.8	61.0	98.9	359	1021	630	164	77.5	55.8
MAX	140	117	106	79.5	108	165	680	2228	1720	494	220	113
(WY)	1985	1985	1985	1985	1986	1986	1985	1984	1984	1984	1984	1984
MIN	38.3	42.3	39.2	37.9	40.8	70.3	170	396	179	61.5	32.0	27.1
(WY)	1990	1990	1990	1991	1991	1991	1991	1990	1992	1989	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	65896		49544			
ANNUAL MEAN	181		135		200	
HIGHEST ANNUAL MEAN					357	1985
LOWEST ANNUAL MEAN					116	1990
HIGHEST DAILY MEAN	1620	May 20	1240	May 1	3980	May 16 1984
LOWEST DAILY MEAN	[a]30	Dec 2	[b]26	Aug 20	[c]14	Sep 15 1990
ANNUAL SEVEN-DAY MINIMUM	34	Dec 13	30	Aug 16	18	Sep 11 1990
INSTANTANEOUS PEAK FLOW			1360	May 1	4750	May 16 1984
INSTANTANEOUS PEAK STAGE			5.95	May 1	9.96	May 16 1984
ANNUAL RUNOFF (AC-FT)	130700		98270		145000	
10 PERCENT EXCEEDS	709		427		639	
50 PERCENT EXCEEDS	52		49		81	
90 PERCENT EXCEEDS	37		36		39	

a-Also occurred Dec 15 and 16.
b-Also occurred Aug 21.
c-Also occurred Sep 16, 1990.

09249750 WILLIAMS FORK AT MOUTH NEAR HAMILTON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1975 to September 1980, December 1985 to September 1992 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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									
20...	1555	45	561	8.7	1.0	7.5	230	51	26
MAY									
23...	1100	609	230	8.4	14.0	8.5	97	25	8.5
SEP									
08...	1020	30	516	8.5	11.5	8.6	220	49	24

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									
20...	35	1.0	1.8	196	120	5.7	0.2	12	369
MAY									
23...	8.2	0.4	1.1	90	24	2.1	<0.1	11	134
SEP									
08...	27	0.8	1.8	192	82	5.3	0.2	12	316

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-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
NOV								
20...	0.50	44.5	<0.01	<0.05	<0.01	<0.20	<0.01	<0.01
MAY								
23...	0.18	220	0.01	<0.05	0.08	<0.20	<0.01	<0.01
SEP								
08...	0.43	25.7	<0.01	<0.05	<0.01	0.20	0.02	<0.01

DATE	ANTI-MONY, TOTAL (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)	SELE-NIUM, TOTAL (UG/L AS SE)
SEP				
08...	<1	1	<0.1	<1

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
01...	1007	40	533	12.0
FEB				
24...	1613	46	534	0.0
APR				
07...	1103	146	554	8.5
MAY				
08...	1225	618	230	11.0
JUN				
17...	1128	151	371	15.0
JUL				
27...	0845	70	491	17.5
AUG				
05...	1047	37	515	18.5
11...	0945	38	504	18.5
19...	0930	23	587	17.0
25...	0825	42	556	13.0
SEP				
04...	0855	31	513	14.0
24...	0750	29	557	13.0

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., Moffat County, Hydrologic Unit 14050002, on left bank about 30 ft upstream from confluence of Taylor Creek, about 200 ft upstream from Moffat County Road 17, and 2.4 mi north of Axial.

DRAINAGE AREA.--20.0 mi^2.

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. 27, 28, Dec. 2-7, 16, 21, 22, 26, 28-30, Jan. 24, Feb. 15-19, 22, 24, Feb. 26 to Mar. 1, Mar. 3-7, and Mar. 30 to Apr. 6. Records fair except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.63	1.2	.89	.36	1.1	1.3	2.8	3.0	2.6	.70	.94	.54
2	.58	1.1	.80	.32	1.0	1.3	2.7	2.8	2.3	.75	.97	.47
3	.56	1.3	.76	.36	.80	1.3	2.4	3.0	2.3	.75	.97	.38
4	.53	1.6	.74	.39	.85	1.2	2.1	2.7	2.3	.61	.88	.39
5	.61	1.8	.72	.33	1.0	1.2	1.8	2.8	2.1	.50	.83	.48
6	.61	1.6	.70	.41	.98	1.3	1.6	2.9	2.0	.56	.98	.39
7	.68	1.2	.65	.44	1.0	1.4	1.6	2.5	2.0	.75	.90	.33
8	.73	1.3	.60	.44	1.0	1.5	1.3	2.9	2.0	.98	.86	.28
9	.60	1.7	.80	.43	1.0	2.0	1.4	3.3	1.8	.86	.93	.26
10	.70	1.3	.76	.41	1.1	2.7	1.4	3.9	1.7	.68	.90	.23
11	.78	1.4	.60	.44	1.2	2.7	1.5	3.1	1.6	.80	.89	.20
12	.78	1.3	.64	.42	1.3	2.7	1.7	2.5	1.4	1.3	.83	.18
13	.73	1.3	.57	.44	1.4	3.0	1.9	2.7	1.4	1.2	.80	.19
14	.77	1.8	.39	.48	1.3	3.0	2.1	2.7	1.3	.87	.84	.17
15	.75	1.3	.44	.44	1.3	3.1	2.4	2.7	1.3	.78	.87	.26
16	.81	1.2	.36	.54	1.3	4.0	2.7	2.8	1.3	.73	.94	.27
17	.73	1.4	.29	.63	1.2	2.5	2.7	2.4	1.3	.73	1.0	.36
18	.74	1.3	.33	.60	1.2	2.3	3.0	2.7	1.2	.68	.91	.35
19	.87	1.0	.34	.52	1.2	2.4	3.3	2.3	.95	.69	.78	.45
20	.90	1.1	.42	.53	1.3	2.9	3.2	2.5	.83	.75	.64	.45
21	.91	1.3	.50	.60	1.2	3.0	3.1	2.7	.82	.65	.65	.36
22	.79	1.0	.55	.67	1.3	3.2	3.2	2.6	.84	.60	.73	.32
23	.91	1.1	.67	.48	1.3	2.9	3.9	2.5	.87	.62	.84	.29
24	1.3	1.2	.51	.50	1.3	2.9	3.5	2.4	.90	.98	.78	.30
25	1.1	1.5	.67	.52	1.2	3.0	3.4	2.5	.94	1.4	.72	.46
26	.93	1.5	.66	.59	1.2	3.1	3.4	2.2	.95	1.0	.76	.37
27	.96	1.4	.65	.67	1.1	3.4	3.4	2.6	.91	.73	.59	.37
28	1.2	1.3	.60	.75	1.2	3.3	3.4	2.6	.93	.80	.49	.36
29	1.2	1.3	.50	.68	1.2	3.2	3.3	2.5	.81	.99	.46	.36
30	1.1	1.1	.40	.75	---	3.0	3.0	2.5	.70	1.1	.45	.42
31	1.1	---	.41	.88	---	2.9	---	2.5	---	1.0	.47	---
TOTAL	25.59	39.9	17.92	16.02	33.53	77.7	77.2	83.8	42.35	25.54	24.60	10.24
MEAN	.83	1.33	.58	.52	1.16	2.51	2.57	2.70	1.41	.82	.79	.34
MAX	1.3	1.8	.89	.88	1.4	4.0	3.9	3.9	2.6	1.4	1.0	.54
MIN	.53	1.0	.29	.32	.80	1.2	1.3	2.2	.70	.50	.45	.17
AC-FT	51	79	36	32	67	154	153	166	84	51	49	20

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1992, BY WATER YEAR (WY)

MEAN	1.58	1.50	1.14	1.16	1.71	2.74	9.85	20.2	8.08	3.04	1.67	1.30
MAX	4.14	2.66	2.19	3.13	5.20	6.44	34.5	84.0	45.1	14.0	5.18	3.17
(WY)	1985	1987	1986	1985	1985	1986	1985	1984	1984	1984	1984	1984
MIN	.67	.53	.34	.29	.71	.61	1.27	1.10	.24	.12	.32	.34
(WY)	1982	1982	1991	1991	1990	1990	1990	1990	1989	1989	1990	1992

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1981 - 1992	
ANNUAL TOTAL	455.08		474.39			
ANNUAL MEAN	1.25		1.30		4.51	
HIGHEST ANNUAL MEAN					14.8	1984
LOWEST ANNUAL MEAN					.81	1990
HIGHEST DAILY MEAN	5.8	May 10	4.0	Mar 16	262	May 14 1984
LOWEST DAILY MEAN	[a].20	Jan 30	.17	Sep 14	[b].00	Jun 5 1989
ANNUAL SEVEN-DAY MINIMUM	.21	Jan 29	.21	Sep 9	.01	Jul 3 1989
INSTANTANEOUS PEAK FLOW			13	Mar 16	[c]352	May 14 1984
INSTANTANEOUS PEAK STAGE			[d]2.66	Mar 16	8.71	May 14 1984
ANNUAL RUNOFF (AC-FT)	903		941		3270	
10 PERCENT EXCEEDS	3.0		2.8		8.1	
50 PERCENT EXCEEDS	.90		.98		1.4	
90 PERCENT EXCEEDS	.36		.41		.45	

a-Also occurred Jan 31, Feb 4 and 6.
b-No flow, Jul 4-9, Aug 2 and 3, 1989.
c-On basis of indirect measurement of peak flow.
d-Maximum gage height 2.85 ft, Nov 28, backwater from ice.

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.

REVISED RECORDS.--WDR CO-87-2: 1986 (M).

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. 1 to Sept. 30. Records fair except for days with flow, which are poor. No diversions upstream from station. Low dam to prevent erosion, 75 ft upstream. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.11	.00	.00	.00	.00	.00	.00
6	.00	.01	.00	.00	.00	.12	.00	.00	.00	.00	.00	.00
7	.00	.01	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.02	.00	.05	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.02	.00	.01	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.03	.00	.00	.00	.04	.00	.00
13	.00	.00	.00	.00	.00	.03	.00	.00	.00	.04	.00	.00
14	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
15	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00
24	.06	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.02	.00	.00	.00	.00	.00	.01	.00	.00
26	.00	.01	.00	.02	.00	.00	.00	.01	.00	.00	.00	.00
27	.00	.04	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00
28	.00	.01	.00	.00	.09	.00	.00	.04	.00	.00	.00	.00
29	.00	.00	.00	.00	.03	.00	.00	.04	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.02	---	.00	.00	---
TOTAL	0.06	0.10	0.00	0.05	0.12	0.58	0.23	0.21	0.00	0.09	0.00	0.00
MEAN	.002	.003	.000	.002	.004	.019	.008	.007	.000	.003	.000	.000
MAX	.06	.04	.00	.02	.09	.12	.07	.05	.00	.04	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.1	.2	.00	.1	.2	1.2	.5	.4	.00	.2	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 1992, BY WATER YEAR (WY)

MEAN	.15	.089	.041	.042	.17	.16	.98	2.56	1.30	.40	.17	.13
MAX	.69	.36	.24	.22	1.29	.69	8.17	17.3	10.8	2.85	1.33	.77
(WY)	1986	1985	1981	1985	1980	1987	1985	1984	1984	1984	1984	1984
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1978	1977	1977	1977	1978	1978	1978	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1977 - 1992	
ANNUAL TOTAL	6.84		1.44			
ANNUAL MEAN	.019		.004		.52	
HIGHEST ANNUAL MEAN					2.99	1984
LOWEST ANNUAL MEAN					.000	1978
HIGHEST DAILY MEAN	1.6	Jun 15	.12	Mar 6	38[b]	May 14 1984
LOWEST DAILY MEAN	.00[a]	Jan 1	.00[a]	Oct 1	.00[b]	Oct 23 1976
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Nov 1 1976
INSTANTANEOUS PEAK FLOW			.55	Feb 28	41[c]	May 15 1984
INSTANTANEOUS PEAK STAGE			1.81	Feb 28	3.33	May 15 1984
ANNUAL RUNOFF (AC-FT)	14		2.9		375	
10 PERCENT EXCEEDS	.00		.01		.90	
50 PERCENT EXCEEDS	.00		.00		.01	
90 PERCENT EXCEEDS	.00		.00		.00	

a-No flow many days.
b-No flow many days most years.
c-Present datum.

09251000 YAMPA RIVER NEAR MAYBELL, CO

LOCATION.--Lat 40°30'10", long 108°01'45", in NW1/4 sec.2, T.6 N., R.95 W., Moffat County, Hydrologic Unit 14050002, on left bank at downstream side of bridge on U.S. Highway 40, 2.0 mi downstream from Lay Creek, and 3.0 mi east of Maybell.

DRAINAGE AREA.--3,410 mi^2, 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 with satellite telemetry. 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: Dec. 3 to Mar. 6, and July 29 to Aug. 7. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	163	314	264	255	299	384	790	3780	3350	623	300	140
2	162	254	217	260	292	380	758	4180	2990	569	300	147
3	206	243	209	268	288	400	713	4020	2570	532	290	132
4	210	257	226	267	283	411	673	3730	2530	628	265	139
5	204	286	197	266	298	421	731	3610	2640	575	250	154
6	207	352	224	264	300	482	841	3550	2570	485	250	157
7	200	385	220	273	316	548	894	3420	2490	417	245	163
8	194	448	210	277	309	579	909	3670	2340	409	235	194
9	186	424	197	278	309	592	877	3900	2410	455	232	170
10	204	387	191	276	307	552	947	5230	2060	548	277	149
11	211	383	196	275	308	534	1110	4730	1910	468	270	140
12	225	381	200	296	331	613	1230	3490	1910	438	243	173
13	204	379	204	293	340	535	1330	3290	1830	529	198	119
14	214	350	205	328	369	493	1530	3460	1850	998	185	214
15	219	354	210	310	369	559	1640	3670	1720	842	182	311
16	211	355	209	292	350	619	2010	3730	1510	705	161	308
17	174	352	197	306	345	684	1920	3680	1300	639	171	288
18	187	335	225	304	327	711	1850	3690	1240	612	166	286
19	207	327	223	292	340	693	2110	3780	1250	581	170	337
20	220	318	236	296	346	644	1920	3740	1100	477	180	382
21	220	273	250	290	373	579	1650	4040	1060	426	162	385
22	219	252	262	295	399	549	1450	4440	1020	416	158	387
23	236	231	277	285	378	534	1550	4250	991	409	141	380
24	252	215	257	279	413	552	1830	4140	915	431	152	381
25	266	280	230	273	373	564	1690	3870	864	498	181	374
26	294	281	228	291	383	600	1530	3680	797	564	216	254
27	307	314	212	301	362	612	1550	4150	865	591	208	225
28	327	306	219	295	400	648	1810	5660	850	538	178	220
29	321	299	224	301	345	747	2510	5300	796	430	170	237
30	302	206	220	299	---	833	3180	4140	688	350	148	221
31	295	---	233	289	---	799	---	3510	---	340	129	---
TOTAL	7047	9541	6872	8874	9852	17851	43533	123530	50416	16523	6413	7167
MEAN	227	318	222	286	340	576	1451	3985	1681	533	207	239
MAX	327	448	277	328	413	833	3180	5660	3350	998	300	387
MIN	162	206	191	255	283	380	673	3290	688	340	129	119
AC-FT	13980	18920	13630	17600	19540	35410	86350	245000	100000	32770	12720	14220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1992, BY WATER YEAR (WY)

MEAN	347	350	295	272	331	689	2606	6206	5490	1383	385	240
MAX	1001	729	624	610	1071	2063	6496	14000	12810	5819	1052	972
(WY)	1962	1987	1948	1948	1986	1986	1962	1984	1917	1957	1957	1929
MIN	117	184	137	115	160	221	735	1850	548	20.4	26.5	27.8
(WY)	1964	1977	1964	1934	1964	1964	1944	1977	1934	1934	1934	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1916 - 1992	
ANNUAL TOTAL	438426		307619			
ANNUAL MEAN	1201		840		1551	
HIGHEST ANNUAL MEAN					3025	1984
LOWEST ANNUAL MEAN					477	1977
HIGHEST DAILY MEAN	8440	May 23	5660	May 28	24400	May 17 1984
LOWEST DAILY MEAN	61	Sep 7	119	Sep 13	[a]2.0	Jul 17 1934
ANNUAL SEVEN-DAY MINIMUM	91	Sep 3	141	Aug 30	3.0	Jul 30 1934
INSTANTANEOUS PEAK FLOW			5900	May 28	25100	May 17 1984
INSTANTANEOUS PEAK STAGE			6.51	May 28	12.42	May 17 1984
ANNUAL RUNOFF (AC-FT)	869600		610200		1124000	
10 PERCENT EXCEEDS	5280		2570		5280	
50 PERCENT EXCEEDS	318		345		400	
90 PERCENT EXCEEDS	196		195		175	

a-Also occurred Jul 18, 19, 1934.

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. Daily records are good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1260 microsiemens Nov. 17, 1985; minimum, 87 microsiemens June 9-10, 1990.
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: Maximum, 800 microsiemens March 24, 140 microsiemens several days in May.
WATER TEMPERATURES: Maximum, 26.1°C August 14; minimum, freezing point on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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 TOTAL (MG/L AS CACO3)
DEC										
04...	1700	226	633	8.3	0.0	4.0	11.8	K3	K4	230
MAR										
17...	1200	681	694	9.1	6.0	0.3	12.5	K2	96	260
JUN										
12...	1305	2060	200	8.3	19.0	4.5	7.7	K6	57	76
SEP										
01...	1400	146	439	8.7	20.0	2.6	9.0	3	110	140

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-[a] BONATE WATER DIS IT FIELD MG/L AS HCO3	CAR-[b] BONATE WATER DIS IT FIELD MG/L AS CO3	ALKA-[c] LINITY WAT DIS TOT IT FIELD MG/L AS CACO3	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)
DEC										
04...	50	25	48	1	2.5	127	10	122	--	150
MAR										
17...	52	31	55	1	3.4	164	41	202	--	200
JUN										
12...	19	6.8	11	0.6	1.1	59	--	48	--	34
SEP										
01...	32	15	35	1	2.2	--	--	--	130	82

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
DEC									
04...	24	0.3	6.0	451	379	0.61	275	<0.01	<0.01
MAR									
17...	16	0.2	3.6	458	486	0.62	842	0.01	0.01
JUN									
12...	3.5	0.1	7.5	116	112	0.16	646	<0.01	<0.01
SEP									
01...	18	0.3	1.6	259	265	0.35	102	<0.01	<0.01

K-Based on non-ideal colony count
a-Field dissolved bicarbonate, determined by incremental titration method.
b-Field dissolved carbonate, determined by incremental titration method.
c-Field total dssolved alkalinity, determined by incremental titration method.

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
DEC 04...	<0.05	<0.05	<0.01	<0.01	<0.20	0.03	0.01	0.01	<0.01
MAR 17...	0.52	0.51	<0.01	<0.01	0.30	0.03	<0.01	0.01	<0.01
JUN 12...	<0.05	<0.05	0.03	<0.01	<0.20	0.03	0.02	0.02	<0.01
SEP 01...	<0.05	<0.05	0.03	0.02	0.20	0.03	0.02	0.02	0.01

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)	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)
DEC 04...	40	54	<3	54	30	17	<10	<1	<1	<1.0	400	<6
MAR 17...	<10	50	<3	6	32	22	<10	1	5	<1.0	450	<6
JUN 12...	<10	27	<3	64	9	6	<10	<1	<1	<1.0	130	<6
SEP 01...	40	42	<3	33	20	6	<10	2	<1	<1.0	280	<6

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 03...	1135	206	580	15.0	MAY 07...	1210	3430	168	15.0
MAR 12...	0835	541	710	2.5	JUL 06...	1320	491	275	22.0
APR 04...	1405	689	572	12.0	AUG 04...	0835	270	409	19.0

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT					
07...	1845	200	15	8.2	--
13...	1730	200	15	8.0	--
20...	1100	219	15	8.6	--
27...	1325	307	31	26	--
NOV					
03...	1345	266	18	13	--
10...	1230	372	18	18	--
17...	1445	350	7	6.7	--
24...	1500	179	13	6.3	--
DEC					
01...	1450	219	24	14	--
04...	1700	226	32	20	84
15...	1425	210	39	22	--
25...	1230	230	19	12	--
29...	1645	224	10	5.9	--
JAN					
05...	1445	266	5	3.3	--
12...	1420	296	5	4.1	--
18...	1525	304	4	3.6	--
25...	1430	273	11	7.8	--
FEB					
09...	1145	309	4	3.3	--
23...	1320	378	80	81	--
MAR					
01...	1730	384	76	79	--
07...	1500	591	65	104	--
12...	0835	541	26	38	--
14...	1650	574	16	24	--
22...	1415	574	13	20	--
29...	1030	772	23	48	--
APR					
05...	1620	772	47	98	--
12...	1215	1270	176	602	--
19...	1150	2250	321	1950	--
26...	1155	1530	127	524	--
MAY					
04...	1815	3700	468	4670	--
14...	1815	3430	243	2250	--
20...	1825	3540	128	1220	--
25...	1415	3700	172	1720	--
30...	1545	3940	221	2350	--
JUN					
07...	1830	2360	75	479	--
12...	1305	2060	63	351	55
14...	1030	1970	58	308	--
21...	1055	1080	28	82	--
28...	1715	834	20	45	--
JUL					
05...	1100	563	19	29	--
12...	1100	444	15	19	--
19...	1745	563	50	76	--
26...	0945	499	54	72	--
AUG					
09...	1230	226	23	14	--
16...	1415	148	17	6.6	--
25...	1830	185	19	9.5	--
29...	1500	170	20	9.3	--
SEP					
01...	1400	146	6	2.2	--
07...	1715	161	28	12	--
15...	1830	299	27	22	--

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	562	497	616	564	544	634	647	---	174	259	---	446
2	570	497	614	553	549	---	617	---	182	266	---	460
3	569	549	606	544	551	---	599	---	183	269	---	479
4	562	562	603	536	550	---	586	---	176	275	---	472
5	542	537	630	528	549	---	---	---	167	272	400	470
6	524	553	664	527	550	---	---	---	161	263	402	487
7	516	536	691	525	550	---	549	---	166	270	405	473
8	516	545	678	525	550	---	529	---	184	279	402	452
9	518	527	634	526	549	---	520	---	182	291	423	453
10	518	504	622	529	552	---	516	---	188	300	450	453
11	521	495	602	530	549	---	507	---	197	288	449	451
12	524	496	591	530	545	---	488	---	198	284	436	445
13	523	499	583	534	548	703	469	---	201	291	438	449
14	519	498	577	535	578	702	453	176	177	322	441	447
15	512	492	580	539	584	699	435	174	181	300	424	424
16	517	492	574	534	604	697	416	170	178	299	427	375
17	510	505	569	539	615	696	407	163	184	344	429	341
18	511	517	572	533	617	693	417	158	197	330	427	330
19	516	508	572	534	570	691	425	152	216	338	425	328
20	527	518	558	536	588	682	429	151	218	---	421	328
21	524	525	548	540	566	690	456	149	223	---	416	330
22	516	533	539	542	573	692	462	152	221	---	418	334
23	506	542	529	545	611	719	471	151	224	---	414	326
24	507	572	529	549	640	772	482	152	219	---	413	324
25	545	571	536	552	650	775	506	155	216	---	415	343
26	521	567	541	548	634	776	508	157	220	---	424	347
27	528	590	560	541	640	763	496	161	227	---	425	350
28	507	589	569	539	626	757	463	161	230	---	429	372
29	498	---	577	538	637	738	421	155	238	---	428	402
30	489	---	575	541	---	722	383	163	250	---	434	435
31	479	---	572	546	---	690	---	177	---	---	441	---
MEAN	522	---	587	538	582	---	---	---	199	---	---	404

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.1	13.0	.7	.0	.0	.0	.0	.0	.0	.0	---	---
2	17.5	12.3	.6	.0	.0	.0	.0	.0	.0	.0	---	---
3	16.0	11.9	.1	.0	.0	.0	.0	.0	.0	.0	---	---
4	14.0	10.3	.6	.0	.0	.0	.0	.0	.0	.0	---	---
5	13.1	8.6	1.7	.0	.0	.0	.0	.0	.0	.0	---	---
6	13.1	8.2	2.3	.1	.0	.0	.0	.0	.0	.0	---	---
7	13.4	8.7	4.3	2.0	.0	.0	.0	.0	.0	.0	---	---
8	14.1	9.7	4.4	2.5	.0	.0	.0	.0	.0	.0	---	---
9	14.7	9.4	5.8	3.4	.0	.0	.0	.0	.0	.0	---	---
10	14.1	9.6	5.8	5.2	.0	.0	.0	.0	.0	.0	---	---
11	14.4	9.7	6.2	4.0	.0	.0	.0	.0	.0	.0	---	---
12	13.6	9.8	5.2	3.0	.0	.0	.0	.0	.0	.0	3.3	1.4
13	13.7	9.3	4.9	2.9	.0	.0	.0	.0	.0	.0	5.5	2.3
14	12.9	8.8	4.4	3.2	.0	.0	.0	.0	.0	.0	6.6	3.8
15	13.7	9.2	4.0	3.0	.0	.0	.0	.0	.0	.0	7.4	4.7
16	13.6	9.4	3.2	1.4	.0	.0	.0	.0	.0	.0	7.1	4.5
17	13.5	8.9	2.6	.6	.0	.0	.0	.0	.0	.0	6.4	4.4
18	13.2	9.0	2.6	1.4	.0	.0	.0	.0	.0	.0	6.1	4.6
19	12.7	9.4	3.0	.7	.0	.0	.0	.0	.0	.0	5.3	3.8
20	12.7	8.6	1.8	.0	.0	.0	.0	.0	.0	.0	4.9	2.1
21	11.9	8.0	1.4	.2	.0	.0	.0	.0	.0	.0	5.8	3.2
22	11.7	7.5	1.4	.0	.0	.0	.0	.0	.0	.0	7.1	3.5
23	10.1	7.6	.7	.0	.0	.0	.0	.0	.0	.0	7.1	5.1
24	8.9	6.4	.7	.0	.0	.0	.0	.0	.0	.0	8.0	5.7
25	9.0	6.6	.9	.0	.0	.0	.0	.0	.0	.0	8.7	5.5
26	9.2	6.1	1.7	.0	.0	.0	.0	.0	.0	.0	9.3	6.0
27	9.7	7.1	2.2	.1	.0	.0	.0	.0	.0	.0	9.2	7.1
28	7.2	2.4	1.5	.3	.0	.0	.0	.0	.0	.0	10.2	7.3
29	2.7	.6	.5	.0	.0	.0	.0	.0	.0	.0	10.5	7.2
30	2.1	.0	.4	.0	.0	.0	.0	.0	---	---	10.8	7.5
31	1.4	.0	---	---	.0	.0	.0	.0	---	---	10.7	8.0
MONTH	18.1	.0	6.2	.0	.0	.0	.0	.0	.0	.0	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.0	6.3	14.5	12.1	13.9	10.7	18.7	16.2	---	---	20.0	15.6
2	10.8	7.4	14.0	11.5	15.4	11.7	18.4	15.4	---	---	21.0	14.7
3	11.7	7.8	13.8	11.2	17.1	14.3	20.1	15.1	---	---	21.0	14.9
4	12.1	8.8	14.2	11.4	16.1	14.6	21.0	17.2	---	---	18.9	15.1
5	12.3	9.5	14.6	11.7	16.6	13.4	21.1	17.4	24.5	18.9	18.9	13.8
6	12.0	9.0	14.8	12.1	16.9	14.0	22.3	18.5	22.3	19.7	16.5	13.6
7	12.2	8.8	15.1	12.5	16.6	14.6	20.8	17.8	24.4	18.8	18.7	13.0
8	12.0	8.8	14.9	12.4	16.4	14.2	20.5	17.0	24.5	19.6	17.3	12.7
9	12.7	9.1	13.9	10.6	17.7	13.9	21.3	17.2	25.4	19.7	18.5	12.2
10	12.9	10.2	10.8	9.6	18.9	14.6	20.3	17.9	25.5	20.2	19.2	13.1
11	13.4	10.2	11.7	8.8	18.9	16.9	20.9	17.9	26.0	20.5	19.3	13.1
12	12.9	11.1	13.5	11.0	19.5	15.9	19.4	17.6	25.6	20.1	16.3	14.1
13	12.6	9.7	14.4	12.2	18.8	16.0	20.9	16.8	25.8	19.7	18.4	12.4
14	12.0	10.8	15.0	12.5	18.3	16.2	21.9	18.1	26.1	19.8	17.4	11.7
15	11.4	9.8	14.8	12.9	17.3	14.5	21.0	18.8	26.0	19.3	18.0	14.5
16	11.4	9.5	15.3	12.9	16.2	14.6	22.2	17.9	25.0	20.7	18.9	15.1
17	11.1	9.1	15.1	12.6	17.7	14.2	22.2	18.3	25.0	20.1	17.8	15.1
18	10.2	8.4	14.7	12.9	19.8	15.2	23.8	19.5	25.3	18.9	18.6	14.4
19	9.0	7.4	14.8	12.9	20.5	16.2	23.1	20.4	25.2	18.4	17.4	15.6
20	9.7	7.2	15.0	13.6	21.7	17.4	21.8	19.5	24.4	19.0	17.5	14.4
21	11.0	7.6	14.4	13.1	22.0	17.5	22.4	18.9	22.8	18.4	18.1	14.8
22	11.4	9.7	14.5	12.6	22.2	17.6	21.0	18.1	22.0	18.0	17.6	14.4
23	11.3	8.9	15.4	13.3	23.8	19.0	19.8	18.4	19.3	16.7	18.1	14.7
24	11.3	8.3	16.1	14.0	22.9	20.0	20.3	17.6	20.2	16.3	17.7	14.9
25	12.3	8.4	16.0	14.1	22.1	19.0	22.4	18.0	20.1	15.5	16.7	13.4
26	14.1	10.4	16.0	14.4	20.8	18.1	23.0	18.9	19.7	14.4	16.0	11.4
27	15.4	11.8	14.5	12.5	19.9	16.9	---	---	19.5	13.5	16.4	11.4
28	16.5	13.3	12.5	11.5	22.6	18.2	---	---	19.9	13.7	16.8	11.7
29	16.2	13.8	12.4	11.4	21.7	19.0	---	---	20.7	14.3	16.7	11.8
30	15.7	13.5	12.3	11.0	19.9	17.4	---	---	21.3	15.6	17.0	11.8
31	---	---	12.6	11.2	---	---	---	---	20.1	16.3	---	---
MONTH	16.5	6.3	16.1	8.8	23.8	10.7	---	---	---	---	21.0	11.4

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 with satellite telemetry. Datum of gage is 6,831.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 30 to Mar. 16. Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 2,000 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 9	1745	*942	*5.76	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	27	20	21	25	29	84	654	482	91	33	23
2	24	23	22	22	25	30	86	593	413	109	32	28
3	24	25	23	21	25	31	90	535	380	130	32	25
4	24	30	25	23	23	31	112	526	352	96	33	22
5	24	37	26	25	23	32	129	507	372	81	33	24
6	24	39	28	28	22	33	130	486	390	74	34	25
7	24	40	27	28	22	35	124	504	382	75	35	24
8	24	41	26	29	24	37	139	524	384	118	32	24
9	25	35	25	26	25	40	182	887	297	88	30	23
10	25	33	25	23	26	44	216	729	281	81	29	21
11	25	31	24	20	25	43	237	576	276	73	28	21
12	24	29	22	21	25	45	268	532	262	113	27	20
13	24	28	24	21	24	47	303	522	224	197	24	20
14	23	27	25	21	23	49	307	514	194	96	23	19
15	23	28	26	19	25	52	312	509	176	75	23	19
16	23	26	27	21	23	54	282	499	168	75	22	19
17	23	25	24	21	22	55	290	480	224	97	24	21
18	23	27	23	20	21	52	353	470	190	73	24	25
19	23	22	24	19	23	48	266	465	174	62	22	24
20	23	24	23	19	24	45	231	469	161	63	21	23
21	23	25	21	19	26	44	209	548	149	70	19	23
22	23	21	21	21	25	44	233	510	136	61	18	21
23	24	19	20	23	24	44	244	441	126	56	24	20
24	27	22	19	26	23	46	207	404	126	55	32	20
25	27	24	18	29	24	43	206	379	124	55	27	27
26	31	26	18	25	26	45	241	415	159	66	25	33
27	32	27	19	24	27	55	324	795	145	57	23	32
28	31	25	22	25	27	61	441	732	125	51	21	30
29	23	22	23	25	28	62	536	558	110	43	20	27
30	25	20	22	25	---	68	639	500	98	37	19	25
31	28	---	20	26	---	81	---	507	---	35	19	---
TOTAL	774	828	712	716	705	1425	7421	16770	7080	2453	808	708
MEAN	25.0	27.6	23.0	23.1	24.3	46.0	247	541	236	79.1	26.1	23.6
MAX	32	41	28	29	28	81	639	887	482	197	35	33
MIN	23	19	18	19	21	29	84	379	98	35	18	19
AC-FT	1540	1640	1410	1420	1400	2830	14720	33260	14040	4870	1600	1400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1992, BY WATER YEAR (WY)

MEAN	37.9	35.2	31.7	31.3	32.4	49.0	263	1070	948	160	38.2	28.3
MAX	91.8	77.8	59.4	74.5	59.5	139	842	2122	2231	519	97.3	79.9
(WY)	1962	1962	1983	1983	1962	1989	1974	1984	1983	1983	1945	1984
MIN	17.6	18.4	14.8	16.3	20.4	23.8	77.6	405	178	33.4	17.0	11.0
(WY)	1953	1959	1977	1945	1945	1977	1973	1977	1987	1977	1954	1944

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1944 - 1992	
ANNUAL TOTAL	53256		40400		--	
ANNUAL MEAN	146		110		228	
HIGHEST ANNUAL MEAN	--		--		423	1984
LOWEST ANNUAL MEAN	--		--		86.6	1977
HIGHEST DAILY MEAN	1260	May 19	887	May 9	3960	May 24 1984
LOWEST DAILY MEAN	15	Sep 5	18	Dec 25,26,Aug 22	4.2	Sep 9 1988
ANNUAL SEVEN-DAY MINIMUM	16	Aug 31	19	Dec 21	6.2	Sep 4 1988
INSTANTANEOUS PEAK FLOW	--		942	May 9	4780[a]	May 23 1984
INSTANTANEOUS PEAK STAGE	--		5.76	May 9	8.95	Apr 25 1974
ANNUAL RUNOFF (AC-FT)	105600		80130		164900	
10 PERCENT EXCEEDS	534		386		820	
50 PERCENT EXCEEDS	29		28		40	
90 PERCENT EXCEEDS	21		21		20	

a-Gage height, 8.78 ft.

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: Oct. 29 to Nov. 4, Nov. 17-21, Nov. 30 to Mar. 1, Apr. 4-7, and June 2-4. Records fair except those for August and those for estimated daily discharges, which are poor. Diversions for irrigation of about 500 acres upstream from station.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 430 ft³/s, and maximum (*):

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 9	1900	*757	*7.27	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	13	11	4.9	4.8	26	56	191	103	7.2	2.8	3.8
2	12	12	10	4.8	4.9	28	58	166	90	10	2.0	5.6
3	12	11	12	4.7	5.0	30	55	135	80	16	1.9	5.9
4	11	15	12	4.6	4.9	31	78	127	70	15	2.9	5.2
5	12	19	13	4.5	4.8	25	82	125	62	11	3.4	5.5
6	12	22	12	5.0	4.7	25	70	119	57	8.2	3.6	5.6
7	12	19	11	5.4	4.8	27	64	131	50	8.2	4.5	5.3
8	12	14	10	5.2	5.4	28	56	135	50	14	5.3	4.7
9	12	17	9.4	4.8	5.8	24	68	505	49	15	5.4	3.6
10	12	17	8.8	4.6	7.0	27	87	399	41	14	5.5	3.0
11	12	18	8.6	4.5	8.4	40	91	204	33	11	4.9	2.6
12	13	14	8.4	4.4	9.8	46	95	154	31	18	4.2	2.2
13	13	14	8.6	4.3	11	52	124	154	28	44	4.4	2.1
14	13	14	8.8	4.3	12	71	126	154	26	26	4.4	2.4
15	13	14	9.2	4.2	13	74	148	126	23	15	1.8	2.1
16	13	14	9.0	4.2	14	57	111	116	20	13	1.5	2.0
17	12	9.8	8.8	4.1	15	55	99	103	24	11	3.4	2.3
18	12	11	8.4	4.1	16	42	144	95	25	11	3.7	6.0
19	12	11	8.2	4.0	16	39	97	94	17	9.4	3.7	6.0
20	12	8.8	8.0	3.9	17	34	81	108	14	7.7	2.2	4.8
21	13	13	7.6	3.8	18	39	70	133	12	7.2	1.9	4.3
22	13	14	7.6	3.8	19	38	96	111	11	7.1	1.8	4.2
23	14	12	7.4	3.9	18	41	103	96	9.3	6.3	3.3	4.0
24	16	12	7.4	4.0	17	46	81	100	8.7	7.4	6.1	3.8
25	16	15	7.2	4.1	16	42	73	88	8.9	7.6	7.3	7.0
26	18	15	6.6	4.2	17	44	80	82	11	6.8	6.8	14
27	18	16	6.2	4.3	18	50	99	137	12	11	7.7	14
28	19	15	5.8	4.4	20	54	134	167	12	7.4	5.8	14
29	12	14	5.4	4.6	23	55	147	113	11	5.2	4.9	13
30	13	13	5.2	4.7	---	60	169	92	9.0	4.1	3.6	12
31	12	---	5.0	4.8	---	63	---	88	---	3.6	3.5	---
TOTAL	408	426.6	266.6	137.1	350.3	1313	2842	4548	997.9	358.4	124.2	171.0
MEAN	13.2	14.2	8.60	4.42	12.1	42.4	94.7	147	33.3	11.6	4.01	5.70
MAX	19	22	13	5.4	23	74	169	505	103	44	7.7	14
MIN	11	8.8	5.0	3.8	4.7	24	55	82	8.7	3.6	1.5	2.0
AC-FT	809	846	529	272	695	2600	5640	9020	1980	711	246	339

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1992, BY WATER YEAR (WY)

MEAN	19.8	19.0	17.2	16.8	18.3	27.4	118	368	249	37.8	9.90	11.4
MAX	62.4	49.2	44.1	36.9	46.5	79.2	323	801	630	189	38.4	55.0
(WY)	1986	1985	1985	1985	1986	1986	1985	1984	1983	1983	1945	1984
MIN	7.29	7.73	7.30	4.42	9.82	12.6	25.2	45.7	23.6	1.27	1.93	3.20
(WY)	1934	1934	1932	1992	1981	1965	1933	1934	1977	1977	1960	1960

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1932 - 1992	
ANNUAL TOTAL	18117.4		11943.1		--	
ANNUAL MEAN	49.6		32.6		76.2	
HIGHEST ANNUAL MEAN	--		--		157	1984
LOWEST ANNUAL MEAN	--		--		20.5	1934
HIGHEST DAILY MEAN	470	May 11	505	May 9	1500	May 16 1984
LOWEST DAILY MEAN	3.1	Aug 26	1.5	Aug 16	.00[a]	Several days, 1934, 1936, 1954, 1977
ANNUAL SEVEN-DAY MINIMUM	3.3	Sep 1	2.2	Sep 11	.00	Aug 2 1934
INSTANTANEOUS PEAK FLOW	--		757	May 9	2250[a]	May 16 1984
INSTANTANEOUS PEAK STAGE	--		7.27	May 9	11.78[b]	May 16 1984
ANNUAL RUNOFF (AC-FT)	35940		23690		55180	
10 PERCENT EXCEEDS	186		98		249	
50 PERCENT EXCEEDS	16		12		19	
90 PERCENT EXCEEDS	5.4		4.1		7.0	

a-From rating curve extended above 1,000 ft³/s.
b-From floodmark.

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY

LOCATION.--Lat 41°01'42", long 107°32'55", in SE1/4 NW1/4 sec.8, T.12 N., R.90 W., Carbon County, Hydrologic Unit 14050003, on left bank 200 ft upstream from highway bridge, 1,000 ft upstream from Willow Creek, and 0.8 mi west of Dixon.

DRAINAGE AREA.--988 mi^2.

PERIOD OF RECORD.--May 1910 to September 1923, March 1938 to current year. No winter records since 1971. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1920(M). WDR WY-85-1: 1984(M).

GAGE.--Water-stage recorder. Datum of gage is 6,331.22 ft above National Geodetic Vertical Datum of 1929. May 27, 1910, to Sept. 30, 1923, nonrecording gage on highway bridge 200 ft downstream at datum 2.98 ft higher; Mar. 15, 1938, to Sept. 30, 1957, water-stage recorder at site 225 ft downstream at datum 2.98 ft higher; Oct. 1, 1957, to June 6, 1968, at site 850 ft downstream at present datum; and June 7 to Sept. 30, 1968, at site 225 ft downstream at present datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 9,500 acres upstream from station. One diversion upstream from station for irrigation of about 3,000 acres downstream. Transbasin diversions upstream from station. National Weather Service satellite telemeter at station. Results of discharge measurement, in cubic feet per second, made during the period when station was not in operation, is given below:

Mar. 25 . . . 156

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

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 9	2280	*2,590	*7.17	No peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.56	---	---	---	---	---	332	1620	1260	2.1	.55	.57
2	.65	---	---	---	---	---	334	1480	962	3.0	.49	.51
3	.65	---	---	---	---	---	331	1310	785	20	.48	.40
4	.64	---	---	---	---	---	400	1170	685	11	.50	.30
5	.54	---	---	---	---	---	472	1080	606	3.0	.47	.33
6	.56	---	---	---	---	---	503	1030	627	2.5	.30	.23
7	.58	---	---	---	---	---	449	1070	543	2.6	.31	.29
8	.59	---	---	---	---	---	413	1120	555	8.3	.23	.33
9	.65	---	---	---	---	---	525	1880	415	10	.23	.30
10	.65	---	---	---	---	---	694	2110	368	3.7	.19	.20
11	.65	---	---	---	---	---	744	1450	294	2.5	.20	.11
12	.63	---	---	---	---	---	815	1150	286	14	.10	.06
13	.49	---	---	---	---	---	1040	1080	219	159	.11	.06
14	.53	---	---	---	---	---	1020	1090	168	114	.04	.07
15	.62	---	---	---	---	---	1190	1040	133	38	.02	.11
16	.60	---	---	---	---	---	985	1020	114	13	.02	.02
17	.56	---	---	---	---	---	901	955	130	21	.10	.00
18	.58	---	---	---	---	---	1210	912	139	31	.12	.25
19	.62	---	---	---	---	---	986	909	96	7.8	.02	1.9
20	.65	---	---	---	---	---	791	943	80	3.8	.12	13
21	.63	---	---	---	---	---	638	1150	65	4.3	.23	29
22	.53	---	---	---	---	---	697	1260	41	7.5	.31	30
23	.71	---	---	---	---	---	776	1020	13	1.9	.64	30
24	.74	---	---	---	---	---	662	895	8.3	1.1	.76	26
25	3.6	---	---	---	---	---	587	788	7.1	.94	.60	39
26	9.7	---	---	---	---	---	639	723	65	.97	.54	84
27	17	---	---	---	---	---	798	1730	72	.85	.54	105
28	26	---	---	---	---	---	1060	2070	47	.86	.55	77
29	16	---	---	---	---	---	1270	1570	17	.77	.51	65
30	6.2	---	---	---	---	---	1440	1320	4.1	.63	.44	61
31	3.4	---	---	---	---	---	---	1210	---	.58	.42	---
TOTAL	96.51	---	---	---	---	---	22702	38155	8804.5	490.70	10.14	565.04
MEAN	3.11	---	---	---	---	---	757	1231	293	15.8	.33	18.8
MAX	26	---	---	---	---	---	1440	2110	1260	159	.76	105
MIN	.49	---	---	---	---	---	331	723	4.1	.58	.02	.00
AC-FT	191	---	---	---	---	---	45030	75680	17460	973	20	1120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1971, BY WATER YEAR (WY)

MEAN	79.5	94.3	88.8	85.4	101	215	879	2559	1827	175	27.6	27.5
MAX	282	245	160	130	433	744	1991	5698	4035	1160	198	105
(WY)	1917	1921	1921	1917	1962	1919	1962	1920	1917	1917	1916	1965
MIN	6.18	36.3	45.0	37.1	47.8	82.8	298	1065	217	5.17	1.58	.78
(WY)	1961	1956	1923	1963	1967	1965	1961	1954	1954	1966	1966	1962

SUMMARY STATISTICS	FOR 1992 WATER YEAR*		WATER YEARS 1911 - 1971	
ANNUAL MEAN	--		514	
HIGHEST ANNUAL MEAN	--		930	1920
LOWEST ANNUAL MEAN	--		212	1961
HIGHEST DAILY MEAN	2110	May 10	8960	May 23 1920
LOWEST DAILY MEAN	.00	Sep 17	.00[a]	Several days, 1977,1981,1992
ANNUAL SEVEN-DAY MINIMUM	--		.35	Sep 3 1969
INSTANTANEOUS PEAK FLOW	2590	May 9	13000[a,b]	May 16 1984
INSTANTANEOUS PEAK STAGE	7.17	May 9	13.56[b,c]	May 16 1984
ANNUAL RUNOFF (AC-FT)	--		372600	
10 PERCENT EXCEEDS	--		1850	
50 PERCENT EXCEEDS	--		100	
90 PERCENT EXCEEDS	--		8.0	

*-During period of operation.
a-For period of record through 1992.
b-From rating curve extended above 10000 ft^3/s, some increase in peak caused by dam failure.
c-From floodmark.

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, Colorado, 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 mi^2, 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. 30 to May 7. Records fair except those 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.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 70 ft^3/s and maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)	Date	Time	Discharge (ft^3/s)	Gage height (ft)
May 9	2030	*134	*4.15	July 11	1800	126	4.09
May 21	1600	105	3.92				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.1	1.8	1.0	1.3	2.7	5.0	30	19	5.0	1.7	.92
2	1.2	1.1	1.7	1.0	1.2	2.8	5.5	20	13	5.1	1.7	1.2
3	1.0	1.0	1.8	.90	1.4	2.9	6.0	16	13	3.3	1.8	.93
4	1.1	1.5	2.1	.95	1.3	3.0	6.5	13	16	2.7	2.2	.76
5	1.2	1.8	1.8	1.0	1.3	2.6	7.0	12	14	2.6	1.8	1.5
6	1.2	2.0	1.7	1.1	1.3	2.7	6.5	12	16	3.5	1.7	1.4
7	1.2	1.6	1.8	1.2	1.2	2.9	6.0	13	12	4.6	1.9	1.3
8	1.2	1.6	1.9	1.1	1.3	3.0	7.0	23	12	3.0	1.7	1.3
9	1.2	1.6	1.9	1.0	1.4	2.8	9.0	81	10	2.7	1.6	1.2
10	1.2	1.5	1.8	1.0	1.7	2.5	11	66	8.6	4.0	1.5	1.3
11	1.1	1.4	1.7	1.0	1.6	3.0	15	29	8.0	30	1.5	1.3
12	1.1	1.4	1.7	.97	1.6	4.0	20	23	8.0	19	1.4	1.2
13	1.1	1.4	1.6	.95	1.5	5.0	23	24	7.8	5.4	1.3	1.3
14	1.1	1.4	1.7	.92	1.7	5.6	22	31	7.1	4.1	1.3	1.3
15	1.1	1.5	1.8	.80	1.9	5.8	25	33	9.4	4.1	1.3	1.3
16	1.1	1.7	1.9	.90	2.0	5.6	22	35	11	4.1	1.3	1.3
17	.92	1.3	1.8	.88	1.9	5.0	20	31	12	4.1	1.6	1.5
18	.93	1.6	1.7	.88	1.8	4.0	25	31	11	3.1	1.5	2.0
19	.94	1.5	1.8	.84	2.0	3.0	20	36	13	2.7	1.4	1.2
20	.94	1.2	1.7	.80	2.1	2.5	15	52	12	2.7	1.3	.81
21	.93	2.0	1.6	.78	2.4	3.0	11	74	11	2.6	1.2	.83
22	.90	1.9	1.6	.90	2.5	2.8	12	65	17	2.3	1.3	1.1
23	1.1	1.8	1.5	1.0	2.3	3.3	13	46	16	2.1	2.2	1.3
24	1.4	1.7	1.6	1.1	2.1	3.6	11	41	15	2.7	2.8	1.3
25	1.3	1.8	1.5	1.2	2.0	3.3	10	40	17	2.5	1.8	2.1
26	1.5	2.2	1.3	1.1	2.1	3.7	12	38	18	2.2	1.7	2.2
27	1.4	2.1	1.2	1.1	2.2	4.0	15	42	16	2.0	1.5	2.1
28	1.4	2.0	1.3	1.2	2.4	4.3	20	61	12	1.8	1.4	1.2
29	1.3	1.9	1.3	1.2	2.6	4.7	23	47	10	1.8	1.3	.60
30	1.2	1.9	1.2	1.3	---	5.0	27	29	5.2	1.8	1.3	.48
31	1.1	---	1.0	1.3	---	5.5	---	23	---	1.8	.98	---
TOTAL	35.86	48.5	50.8	31.37	52.1	114.6	430.5	1117	370.1	139.4	48.98	38.23
MEAN	1.16	1.62	1.64	1.01	1.80	3.70	14.3	36.0	12.3	4.50	1.58	1.27
MAX	1.5	2.2	2.1	1.3	2.6	5.8	27	81	19	30	2.8	2.2
MIN	.90	1.0	1.0	.78	1.2	2.5	5.0	12	5.2	1.8	.98	.48
AC-FT	71	96	101	62	103	227	854	2220	734	276	97	76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1992, BY WATER YEAR (WY)

MEAN	3.17	2.65	2.42	2.50	2.73	5.63	20.2	32.9	34.2	10.1	3.22	2.44
MAX	8.67	6.35	5.94	8.02	5.70	21.4	68.0	114	75.0	38.1	6.52	8.39
(WY)	1984	1985	1985	1983	1985	1986	1985	1984	1984	1983	1983	1984
MIN	1.16	1.10	.83	.39	.51	1.74	4.98	7.21	5.43	1.73	.16	.15
(WY)	1992	1963	1977	1977	1977	1964	1977	1977	1977	1987	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1954 - 1992	
ANNUAL TOTAL	2200.76		2477.44		--	
ANNUAL MEAN	6.03		6.77		10.2	
HIGHEST ANNUAL MEAN	--		--		24.6	1984
LOWEST ANNUAL MEAN	--		--		2.61	1977
HIGHEST DAILY MEAN	51	Jun 2	81	May 9	280	May 10 1984
LOWEST DAILY MEAN	.90	Oct 22	.48	Sep 30	.00	Several days, 1955, 1977, 1982, 1990
ANNUAL SEVEN-DAY MINIMUM	.95	Oct 16	.84	Jan 15	.00	Jul 31 1977
INSTANTANEOUS PEAK FLOW	--		134	May 9	476[a]	May 10 1984
INSTANTANEOUS PEAK STAGE	--		4.15	May 9	7.08[b]	Apr 18 1984
ANNUAL RUNOFF (AC-FT)	4370		4910		7380	
10 PERCENT EXCEEDS	19		20		31	
50 PERCENT EXCEEDS	1.9		1.8		3.2	
90 PERCENT EXCEEDS	1.2		1.0		1.4	

a-Gage height, 6.02 ft, from rating curve extended above 160 ft^3/s.
b-Backwater from ice.

09259050 LITTLE SNAKE RIVER BELOW BAGGS, WY

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.--Water years 1981 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)
MAY											
14...	1340	1120	400	12.0	57	16	4.1	6.2	0.4	1.3	52
JUN											
18...	1000	183	244	15.0	100	28	8.1	17	0.7	1.4	110
SEP											
02...	1210	0.05	698	20.0	190	33	25	83	3	4.9	190
23...	1120	37	400	17.0	150	38	14	27	1	2.9	170

DATE	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAY											
14...	24	1.4	0.2	12	96	0.13	291	<0.1	0.04	62	187
JUN											
18...	33	2.4	0.2	15	171	0.23	84.5	<0.1	<0.03	12	5.9
SEP											
02...	160	19	0.6	1.6	441	0.60	0.06	<0.1	<0.03	65	0.01
23...	39	6.1	0.4	12	241	0.33	24.1	<0.1	<0.03	--	--

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. Monthlydischarge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1713: 1959.

GAGE.--Water-stage recorder with satellite telemetry. 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. 1 to Mar. 11, July 5-7, 9, 10, and July 29 to Aug. 3. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 21,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	90	55	40	50	75	344	924	1070	122	20	2.4
2	19	45	35	25	55	90	359	1110	1030	101	20	.62
3	16	85	45	45	55	90	396	1140	968	92	15	.27
4	15	80	50	40	50	115	380	1050	780	51	5.5	.70
5	15	60	40	50	50	110	380	908	676	30	5.6	2.7
6	14	70	60	45	50	115	402	782	604	30	6.3	3.2
7	15	75	45	55	55	120	454	720	562	60	4.1	2.6
8	14	95	45	50	60	160	485	677	575	222	3.3	1.1
9	14	110	50	55	60	175	450	740	532	60	6.4	.20
10	15	110	60	50	55	220	407	834	531	35	5.5	.20
11	16	100	65	50	55	400	456	1800	475	40	4.2	.20
12	17	100	55	45	50	316	574	1370	409	108	4.1	.20
13	16	95	60	55	70	341	607	1010	362	134	3.6	.20
14	15	90	55	50	60	414	671	880	336	61	3.3	.20
15	16	95	55	50	80	466	818	840	309	65	.92	.20
16	16	85	55	35	75	449	840	836	277	222	13	.20
17	15	90	45	55	75	479	924	779	254	173	9.4	.20
18	16	90	55	55	70	466	790	765	236	120	2.8	.20
19	16	85	40	50	70	459	776	741	210	93	.36	.20
20	17	85	40	55	75	448	983	723	235	84	23	.21
21	18	75	35	55	75	385	774	727	225	73	19	.05
22	19	70	25	50	90	321	674	781	177	78	16	.07
23	18	40	20	50	95	285	588	995	159	91	19	.11
24	18	55	15	50	85	270	604	946	137	72	18	.11
25	18	55	20	50	90	248	644	789	122	55	14	.11
26	19	70	35	50	90	257	586	688	105	74	11	.11
27	18	75	40	55	90	284	512	712	125	55	14	.11
28	29	75	55	60	85	267	534	825	249	46	4.6	2.5
29	32	75	45	65	100	255	608	1710	202	25	5.0	20
30	26	80	40	55	---	313	785	1500	150	30	5.1	14
31	25	---	40	50	---	356	---	1190	---	20	2.1	---
TOTAL	556	2405	1380	1545	2020	8749	17805	29492	12082	2522	284.18	53.17
MEAN	17.9	80.2	44.5	49.8	69.7	282	593	951	403	81.4	9.17	1.77
MAX	32	110	65	65	100	479	983	1800	1070	222	23	20
MIN	14	40	15	25	50	75	344	677	105	20	.36	.05
AC-FT	1100	4770	2740	3060	4010	17350	35320	58500	23960	5000	564	105

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1992, BY WATER YEAR (WY)

MEAN	112	118	97.8	88.5	121	371	1098	2558	1870	292	68.7	54.0
MAX	385	363	244	205	595	1260	3259	5967	4601	1330	534	314
(WY)	1926	1928	1928	1932	1986	1962	1952	1984	1983	1983	1941	1965
MIN	.000	.000	25.0	16.0	18.0	80.5	320	477	36.7	.29	.000	.000
(WY)	1935	1935	1931	1933	1933	1964	1961	1934	1934	1934	1924	1934

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1922 - 1992	
ANNUAL TOTAL	118870		78893.35			
ANNUAL MEAN	326		216		572	
HIGHEST ANNUAL MEAN					1252	1984
LOWEST ANNUAL MEAN					110	1934
HIGHEST DAILY MEAN	2640	May 12	1800	May 11	13400	May 18 1984
LOWEST DAILY MEAN	14	Sep 5	.05	Sep 21	[a].00	Jul 30 1924
ANNUAL SEVEN-DAY MINIMUM	15	Oct 4	.10	Sep 21	.00	Jul 30 1924
INSTANTANEOUS PEAK FLOW			1990	May 11	16700	May 18 1984
INSTANTANEOUS PEAK STAGE			3.87	May 11	[b]9.85	May 18 1984
ANNUAL RUNOFF (AC-FT)	235800		156500		414200	
10 PERCENT EXCEEDS	1170		740		1950	
50 PERCENT EXCEEDS	73		60		125	
90 PERCENT EXCEEDS	19		4.1		11	

a-Also no flow, Jul 31 to Sep 11 and Sep 13-20, 1924.
b-Maximum gage height, 11.10 ft, Feb 13, 1962, backwater from ice.

09260050 YAMPA RIVER AT DEERLODGE PARK, CO

LOCATION.--Lat 40°27'06", long 108°31'28", in SE1/4SW1/4 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 mi^2, approximately.

PERIOD OF RECORD.--August 1975 and January 1978 (discharge measurements only), April 1982 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1, 2, 28, 29, Nov. 2 to Mar. 10, Aug. 10 to Sept. 8. Records fair 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	341	260	275	340	420	1100	4130	4280	895	393	195
2	200	360	299	280	355	475	1110	4830	3990	790	369	185
3	188	340	260	305	350	470	1100	5010	3600	729	325	185
4	214	325	260	310	340	515	1050	4680	3200	666	293	180
5	230	320	265	320	335	520	1010	4270	3140	740	311	185
6	220	355	260	310	350	535	1110	4030	3050	648	291	225
7	223	425	270	320	355	600	1220	3840	3030	560	292	220
8	217	480	265	325	375	710	1320	3860	2850	627	281	210
9	209	560	260	330	370	755	1330	4160	2840	608	303	384
10	195	535	255	330	365	815	1260	4730	2650	570	320	321
11	213	490	255	325	360	955	1320	6240	2390	663	345	287
12	217	485	250	320	360	888	1560	5170	2200	594	350	262
13	231	475	260	350	400	878	1750	4230	2160	688	305	317
14	215	470	260	345	400	936	1820	4110	2080	696	265	275
15	217	445	260	380	450	1020	2090	4250	2030	1200	250	315
16	229	440	265	345	445	1070	2640	4430	1870	1040	245	503
17	225	445	255	350	425	1160	3040	4390	1670	954	235	483
18	201	440	250	360	415	1220	2810	4400	1500	849	225	402
19	196	420	265	355	400	1210	2740	4550	1470	875	200	396
20	221	410	265	345	415	1180	3130	4540	1440	792	205	441
21	241	395	270	350	420	1040	2710	4740	1370	747	230	495
22	244	345	275	340	465	904	2340	5150	1320	623	235	482
23	252	290	280	345	490	820	2140	5480	1240	609	230	484
24	293	290	290	335	465	785	2280	5480	1220	578	185	497
25	297	270	280	330	500	772	2510	5270	1150	568	205	542
26	327	350	265	325	465	787	2250	4940	1080	608	255	508
27	345	355	270	345	475	844	2050	4840	1050	697	240	397
28	415	390	265	360	445	860	2120	5610	1300	763	245	336
29	425	380	265	360	500	900	2590	6920	1240	701	205	310
30	341	380	265	355	---	1050	3460	6140	1100	546	220	332
31	287	---	260	350	---	1150	---	4860	---	430	200	---
TOTAL	7733	12006	8224	10375	11830	26244	58960	149280	63510	22054	8253	10354
MEAN	249	400	265	335	408	847	1965	4815	2117	711	266	345
MAX	425	560	299	380	500	1220	3460	6920	4280	1200	393	542
MIN	188	270	250	275	335	420	1010	3840	1050	430	185	180
AC-FT	15340	23810	16310	20580	23460	52050	116900	296100	126000	43740	16370	20540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

MEAN	613	640	465	413	598	1426	4050	8308	7332	1931	570	360
MAX	1084	1127	832	660	1811	3200	8211	18330	16120	5890	1537	928
(WY)	1987	1986	1985	1986	1986	1986	1985	1984	1984	1983	1984	1984
MIN	133	189	236	210	223	653	1965	3120	2117	313	125	101
(WY)	1990	1990	1990	1989	1989	1988	1992	1990	1992	1989	1990	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1983 - 1992	
ANNUAL TOTAL	535871		388823			
ANNUAL MEAN	1468		1062		2228	
HIGHEST ANNUAL MEAN					4286	1984
LOWEST ANNUAL MEAN					1062	1992
HIGHEST DAILY MEAN	9200	Jun 4	6920	May 29	32300	May 18 1984
LOWEST DAILY MEAN	130	Sep 7	180	Sep 4	29	Sep 11 1989
ANNUAL SEVEN-DAY MINIMUM	172	Sep 3	193	Aug 30	36	Sep 5 1989
INSTANTANEOUS PEAK FLOW			7120	May 29	33200	May 18 1984
INSTANTANEOUS PEAK STAGE			[a]7.85	May 29	19.13	May 18 1984
ANNUAL RUNOFF (AC-FT)	1063000		771200		1614000	
10 PERCENT EXCEEDS	6160		3160		6520	
50 PERCENT EXCEEDS	435		425		700	
90 PERCENT EXCEEDS	230		230		219	

a-A higher stage may have occurred during ice affected periods, or period of no gage gage-height record.

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.--259 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-89-2: 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. 5-11, 16-20, 22-29, and Jan. 12 to Feb. 13. Records good except 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	170	146	162	140	144	158	772	499	211	192	162
2	170	172	170	155	140	144	160	702	452	225	190	162
3	169	159	180	148	135	144	164	657	463	210	186	156
4	169	191	170	143	140	145	176	640	456	195	185	158
5	167	187	168	137	140	144	186	629	451	190	183	163
6	170	189	168	136	140	144	188	616	436	186	194	157
7	170	194	174	141	140	143	192	585	426	198	194	163
8	168	185	178	136	140	144	205	578	402	221	191	149
9	168	185	180	130	140	143	221	793	372	227	183	149
10	167	189	180	125	140	143	238	633	369	203	181	149
11	165	189	180	123	150	141	266	558	361	206	178	151
12	165	182	179	130	155	141	307	563	370	305	175	152
13	166	181	178	130	150	143	356	548	354	315	172	149
14	166	183	161	130	153	145	370	551	344	229	167	151
15	167	185	164	130	144	146	377	548	342	215	165	150
16	168	182	170	135	140	148	351	547	334	215	164	152
17	166	180	170	135	141	148	342	541	328	214	168	154
18	166	188	170	135	139	148	381	540	306	211	164	157
19	168	183	170	140	136	147	311	536	295	209	162	159
20	168	171	170	140	146	144	276	561	286	211	157	162
21	168	185	172	140	146	145	259	600	277	211	157	163
22	167	179	180	132	144	145	285	573	263	206	161	158
23	170	169	180	134	145	146	278	584	258	202	171	154
24	183	179	172	136	140	147	267	575	253	210	168	153
25	181	182	182	140	142	145	295	555	253	216	161	158
26	179	184	182	140	140	146	352	589	255	211	165	154
27	179	182	182	135	141	148	455	725	249	207	158	152
28	186	181	180	135	143	155	590	645	250	202	155	151
29	168	180	180	135	144	155	684	571	232	204	157	150
30	176	171	181	140	---	155	771	549	216	200	157	150
31	160	---	171	140	---	157	---	538	---	194	159	---
TOTAL	5271	5437	5388	4248	4134	4533	9461	18602	10152	6659	5320	4648
MEAN	170	181	174	137	143	146	315	600	338	215	172	155
MAX	186	194	182	162	155	157	771	793	499	315	194	163
MIN	160	159	146	123	135	141	158	536	216	186	155	149
AC-FT	10460	10780	10690	8430	8200	8990	18770	36900	20140	13210	10550	9220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1992, BY WATER YEAR (WY)

MEAN	199	184	169	162	156	160	278	772	849	394	245	206
MAX	323	273	257	234	240	237	584	1749	1618	1131	447	357
(WY)	1985	1985	1985	1985	1985	1985	1985	1985	1984	1957	1984	1984
MIN	122	112	122	118	116	125	168	282	217	116	127	114
(WY)	1978	1978	1964	1964	1977	1973	1920	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1910 - 1992	
ANNUAL TOTAL	101990		83853			
ANNUAL MEAN	279		229		315	
HIGHEST ANNUAL MEAN					523	1984
LOWEST ANNUAL MEAN					157	1977
HIGHEST DAILY MEAN	1250	May 20	793	May 9	3150	May 30 1912
LOWEST DAILY MEAN	123	Mar 9	123	Jan 11	90	Feb 21 1955
ANNUAL SEVEN-DAY MINIMUM	128	Mar 7	128	Jan 9	106	Jul 26 1977
INSTANTANEOUS PEAK FLOW			1040	Apr 30	3550	May 24 1984
INSTANTANEOUS PEAK STAGE			[a]5.25	Apr 30	[b]6.76	May 24 1984
ANNUAL RUNOFF (AC-FT)	202300		166300		228200	
10 PERCENT EXCEEDS	784		458		720	
50 PERCENT EXCEEDS	182		171		196	
90 PERCENT EXCEEDS	131		140		140	

a-Maximum gage height, 6.76 ft, Jan 22, backwater from ice.
b-Maximum gage height, 7.22 ft, Jan 9, 1961, backwater from ice.

09303000 NORTH FORK WHITE RIVER AT BUFORD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to September 1992, (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MAR												
10...	1200	131	367	8.2	2.0	10.0	<1	K3	180	56	10	3.1
JUN												
17...	1145	337	250	8.1	9.0	8.8	93	32	120	37	6.8	2.5

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)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)
MAR												
10...	0.1	1.1	94	94	<0.1	0.1	20	<0.01	0.06	0.02	<0.2	<0.01
JUN												
17...	0.1	0.9	78	44	<0.1	0.1	16	<0.01	<0.05	0.03	<0.2	0.02

DATE	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR											
10...	0.01	<1	1	90	<1	<10	<10	<0.1	<1	[a]<0.2	<10
JUN											
17...	0.01	<1	5	140	1	10	4	<0.1	<1	[a]<0.2	12

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV				
05...	1138	176	319	2.5
DEC				
31...	1001	173	349	0.0
FEB				
25...	1309	140	350	4.0
APR				
29...	1516	604	210	12.0
MAY				
19...	0944	532	199	7.5
JUN				
03...	0710	464	223	12.5
JUL				
01...	0900	219	305	10.0
28...	0924	209	316	11.5
AUG				
10...	1419	178	317	17.5
SEP				
08...	1025	151	347	8.5

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09303300 SOUTH FORK WHITE RIVER AT BUDGE'S RESORT, CO

LOCATION.--Lat 39°50'36", long 107°20'03", in NW¼NW¼ 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 mi^2.

PERIOD OF RECORD.--July 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 discharges: Oct. 27 to Apr. 6. Records good except for estimated daily discharges, which are poor. No diversion upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	50	39	42	38	40	43	141	154	71	50	53
2	50	47	38	39	38	38	44	140	151	72	49	49
3	50	44	37	40	37	36	42	138	192	69	49	47
4	50	49	36	43	37	37	45	144	209	66	49	52
5	50	49	38	44	35	37	47	150	216	63	50	50
6	49	50	39	45	34	39	49	157	209	62	54	47
7	52	52	42	45	36	40	52	169	193	65	58	46
8	50	51	44	44	38	41	53	178	160	71	55	46
9	50	49	45	42	39	41	55	194	163	77	52	45
10	50	49	46	41	39	40	60	171	174	67	54	45
11	49	50	47	41	37	38	64	152	175	65	53	45
12	49	49	46	42	37	37	69	154	176	73	51	45
13	49	47	45	42	37	37	74	151	176	89	48	44
14	49	49	44	42	37	38	73	154	156	69	47	45
15	49	50	42	39	39	39	72	163	135	66	47	46
16	48	48	41	38	40	40	69	181	120	65	47	48
17	48	47	40	39	40	42	70	201	112	61	48	55
18	48	46	41	40	39	43	73	225	108	59	52	49
19	48	45	41	39	36	42	65	255	106	59	48	50
20	49	45	43	38	39	40	60	281	102	66	47	49
21	49	44	43	38	40	39	59	303	95	63	46	48
22	49	42	41	39	41	41	59	300	90	57	46	47
23	51	39	39	39	40	42	57	284	88	56	47	46
24	54	40	37	40	40	41	56	274	85	60	53	47
25	53	49	36	41	40	40	58	321	84	69	48	48
26	52	47	36	42	41	41	65	321	84	67	49	46
27	52	46	37	41	41	43	76	295	80	59	48	46
28	50	45	38	40	41	45	91	239	78	56	46	45
29	50	42	41	39	41	44	107	212	72	54	46	45
30	50	41	42	38	---	43	128	197	71	55	46	45
31	51	---	43	38	---	42	---	176	---	50	48	---
TOTAL	1548	1401	1267	1260	1117	1246	1935	6421	4014	2001	1531	1419
MEAN	49.9	46.7	40.9	40.6	38.5	40.2	64.5	207	134	64.5	49.4	47.3
MAX	54	52	47	45	41	45	128	321	216	89	58	55
MIN	48	39	36	38	34	36	42	138	71	50	46	44
AC-FT	3070	2780	2510	2500	2220	2470	3840	12740	7960	3970	3040	2810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

MEAN	57.9	54.1	50.1	47.8	45.7	46.0	62.7	194	415	146	70.0	58.7
MAX	101	81.8	71.7	69.8	63.6	67.8	91.6	327	1047	348	125	104
(WY)	1985	1985	1987	1986	1985	1986	1989	1978	1978	1983	1984	1984
MIN	45.0	42.7	40.9	36.0	33.0	31.0	42.5	84.5	68.3	50.2	40.0	26.4
(WY)	1977	1978	1992	1980	1981	1981	1991	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1975 - 1992	
ANNUAL TOTAL	31467		25160			
ANNUAL MEAN	86.2		68.7		103	
HIGHEST ANNUAL MEAN					172	1978
LOWEST ANNUAL MEAN					49.4	1977
HIGHEST DAILY MEAN	645	Jun 15	321	May 25	2020	Jun 25 1983
LOWEST DAILY MEAN	[a]36	Dec 4	34	Feb 6	[b]21	Sep 29 1977
ANNUAL SEVEN-DAY MINIMUM	38	Dec 22	36	Feb 1	22	Sep 24 1977
INSTANTANEOUS PEAK FLOW			388	May 25	[c]2750	Jun 25 1983
INSTANTANEOUS PEAK STAGE			4.55	May 25	6.57	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	62410		49900		74510	
10 PERCENT EXCEEDS	207		154		210	
50 PERCENT EXCEEDS	49		48		57	
90 PERCENT EXCEEDS	41		39		40	

a-Also occurred Dec 25 and 26.
b-Also occurred Sep 30, 1977.
c-From rating curve extended above 850 ft^3/s.

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.

PERIOD OF RECORD.--May 1976 to current year. Water-quality data available October 1983 to September 1989.

REVISED RECORDS.--WDR CO-79-3: 1976 (M), 1977, 1978 (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. 3 to Jan. 11, Jan. 17, Jan. 19 to Feb. 5, Feb. 24-28, May 22 to June 1, and July 29 to Aug. 17. Records fair except for estimated daily discharges, which are poor. No regulation or diversions upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	67	66	66	52	60	58	313	450	135	88	72
2	83	71	66	64	54	59	59	322	413	138	86	73
3	82	66	60	66	54	59	59	336	454	130	86	68
4	81	78	59	69	51	59	63	361	472	124	92	69
5	81	74	57	71	48	58	64	379	476	120	90	76
6	82	74	57	69	46	56	66	411	470	116	96	70
7	82	76	60	68	46	58	68	466	444	119	96	67
8	82	68	64	65	47	59	71	508	394	133	94	65
9	81	72	62	61	51	57	78	562	371	141	92	64
10	80	68	62	61	53	60	88	484	385	121	90	63
11	80	68	67	58	59	60	96	421	384	115	90	62
12	80	66	62	58	62	59	107	451	383	126	88	62
13	80	62	61	47	62	58	119	473	372	162	86	62
14	79	64	58	46	63	57	120	502	343	126	86	62
15	80	70	58	48	63	58	122	511	301	117	86	63
16	79	68	60	56	62	58	117	563	264	113	84	67
17	79	64	64	53	69	59	116	612	246	108	79	72
18	78	68	68	53	64	59	128	669	230	106	73	78
19	78	64	70	54	63	58	110	728	220	106	70	69
20	79	70	69	54	66	55	101	791	209	113	68	73
21	78	70	66	56	63	57	96	796	195	110	68	71
22	78	66	68	55	63	57	102	740	187	102	68	67
23	78	68	66	53	59	58	95	700	180	101	80	65
24	91	68	64	52	62	58	92	660	174	101	76	64
25	88	68	64	53	60	56	98	660	174	108	73	67
26	86	66	63	54	62	55	107	680	174	109	75	66
27	87	66	66	52	62	57	128	680	165	97	71	64
28	89	66	66	50	62	59	166	600	157	96	67	63
29	89	63	70	50	61	57	204	560	145	94	65	63
30	75	68	70	50	---	57	260	520	139	93	65	62
31	75	---	70	50	---	57	---	480	---	90	66	---
TOTAL	2524	2047	1983	1762	1689	1796	3158	16939	8971	3570	2494	2009
MEAN	81.4	68.2	64.0	56.8	58.2	57.9	105	546	299	115	80.5	67.0
MAX	91	78	70	71	69	60	260	796	476	162	96	78
MIN	75	62	57	46	46	55	58	313	139	90	65	62
AC-FT	5010	4060	3930	3490	3350	3560	6260	33600	17790	7080	4950	3980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1992, BY WATER YEAR (WY)

MEAN	96.3	83.8	76.0	70.2	68.7	70.2	119	463	846	259	115	94.8
MAX	172	131	113	101	106	116	221	704	1536	575	218	161
(WY)	1985	1985	1985	1986	1985	1985	1985	1985	1978	1983	1984	1984
MIN	58.6	48.4	52.1	45.8	40.0	43.7	75.5	231	202	68.8	58.8	60.5
(WY)	1978	1978	1981	1980	1980	1980	1991	1983	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1976 - 1992	
ANNUAL TOTAL	62544		48942			
ANNUAL MEAN	171		134		198	
HIGHEST ANNUAL MEAN					301	1984
LOWEST ANNUAL MEAN					97.0	1977
HIGHEST DAILY MEAN	1250	Jun 10	796	May 21	2660	Jun 15 1978
LOWEST DAILY MEAN	51	Feb 27	[a]46	Jan 14	[b]40	Feb 1 1980
ANNUAL SEVEN-DAY MINIMUM	55	Feb 26	49	Feb 4	40	Feb 1 1980
INSTANTANEOUS PEAK FLOW			[c]885	May 20	3770	Jun 22 1983
INSTANTANEOUS PEAK STAGE			4.44	May 20	6.18	Jun 22 1983
ANNUAL RUNOFF (AC-FT)	124100		97080		143700	
10 PERCENT EXCEEDS	514		383		530	
50 PERCENT EXCEEDS	79		70		91	
90 PERCENT EXCEEDS	60		57		59	

a-Also occurred Feb 6 and 7.
b-Also occurred Feb 2 to Mar 10, 1980, Dec 30, 1980, and Jan 10, 15, 1981.
c-May have been higher during period of no gage-height record, May 22 to Jun 1.

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.

PERIOD OF RECORD.--August 1903 to October 1906, June 1910 to December 1915, October 1942 to September 1947, April 1967 to September 1992 (discontinued). 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. 24, Jan. 17-27, and Feb. 8 to Mar. 8. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 600 acres upstream from station with return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	103	100	85	75	86	99	377	494	170	113	105
2	104	108	100	80	75	84	101	390	450	172	110	107
3	103	117	90	84	76	84	103	398	445	164	110	100
4	102	133	89	89	75	86	108	417	451	156	112	101
5	102	118	87	90	72	85	109	454	455	150	110	109
6	103	118	87	89	72	83	112	462	459	146	120	103
7	103	111	92	90	73	82	114	501	436	148	121	100
8	102	111	98	86	73	86	116	543	401	165	117	97
9	101	110	90	82	74	83	120	595	367	178	112	96
10	100	110	92	82	76	83	129	652	380	153	113	95
11	100	107	102	88	78	85	142	525	377	146	112	94
12	100	106	93	86	80	86	152	476	377	156	107	93
13	100	114	90	85	82	87	172	518	364	196	107	93
14	99	118	84	85	84	87	175	557	344	166	105	92
15	99	107	85	82	84	88	179	577	310	149	104	94
16	99	104	88	75	80	89	175	605	276	146	103	95
17	98	101	93	75	86	91	169	660	262	139	109	101
18	98	104	98	75	86	91	189	711	245	135	103	110
19	98	99	104	74	84	90	171	772	238	131	98	101
20	98	110	97	75	110	88	158	839	233	139	99	106
21	98	110	89	76	85	90	150	922	229	145	97	104
22	97	102	91	74	80	91	156	923	220	129	98	100
23	103	107	88	71	82	93	151	857	212	126	109	97
24	109	109	86	70	78	93	144	787	207	129	109	95
25	106	107	86	71	86	93	149	764	208	146	104	98
26	104	103	83	71	78	93	159	809	210	146	106	98
27	107	103	86	72	90	96	180	797	194	129	101	95
28	107	103	86	73	88	101	226	752	191	122	100	94
29	101	99	90	73	88	98	265	651	184	121	100	92
30	100	106	90	74	---	98	307	585	176	121	99	92
31	87	---	89	75	---	99	---	522	---	113	100	---
TOTAL	3134	3258	2823	2457	2350	2769	4680	19398	9395	4532	3308	2957
MEAN	101	109	91.1	79.3	81.0	89.3	156	626	313	146	107	98.6
MAX	109	133	104	90	110	101	307	923	494	196	121	110
MIN	87	99	83	70	72	82	99	377	176	113	97	92
AC-FT	6220	6460	5600	4870	4660	5490	9280	38480	18630	8990	6560	5870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 1992, BY WATER YEAR (WY)

MEAN	131	116	104	100	100	103	156	596	1095	337	163	135
MAX	240	180	160	150	150	156	251	1076	2049	842	290	278
(WY)	1904	1985	1985	1985	1985	1986	1904	1969	1978	1983	1906	1906
MIN	93.1	84.2	76.8	78.3	78.5	72.7	89.5	313	215	95.7	83.1	85.6
(WY)	1968	1968	1968	1977	1968	1968	1968	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1904 - 1992	
ANNUAL TOTAL	82770		61061			
ANNUAL MEAN	227		167		262	
HIGHEST ANNUAL MEAN					388	1984
LOWEST ANNUAL MEAN					121	1977
HIGHEST DAILY MEAN	1520	Jun 15	923	May 22	3300	Jun 24 1983
LOWEST DAILY MEAN	72	Mar 9	70	Jan 24	[a]57	Mar 1 1990
ANNUAL SEVEN-DAY MINIMUM	83	Mar 3	72	Jan 23	69	Mar 14 1968
INSTANTANEOUS PEAK FLOW			985	May 21	[b]3620	Jun 24 1983
INSTANTANEOUS PEAK STAGE			4.78	May 21	[c]7.73	Jun 24 1983
ANNUAL RUNOFF (AC-FT)	164200		121100		190100	
10 PERCENT EXCEEDS	581		399		665	
50 PERCENT EXCEEDS	110		103		126	
90 PERCENT EXCEEDS	90		82		89	

a-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.
b-Site and datum then in use.
c-Maximum gage height 8.2 ft, Jun 17, 1906, site and datum then in use.

09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO

LOCATION.--Lat 39°58'28", long 107°37'30", in NW1/4NE1/4 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 mi^2.

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: Oct. 31, Nov. 2-4, Nov. 25 to Feb. 13, Mar. 10, and Apr. 27 to May 22. Records good except for estimated daily discharges, which are poor. Diversions upstream for irrigation of about 1,100 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	114	100	90	78	82	81	390	532	154	118	100
2	96	110	90	85	78	80	82	400	495	156	115	108
3	96	120	89	86	78	78	85	410	519	144	115	101
4	98	125	87	92	76	81	88	425	523	133	120	100
5	102	115	89	92	74	79	90	470	507	124	116	111
6	102	115	90	92	74	76	95	470	515	119	125	107
7	101	118	98	92	75	75	96	500	494	118	127	102
8	100	106	100	88	75	77	97	540	455	137	125	100
9	98	113	94	84	77	75	99	590	410	151	124	99
10	98	106	94	84	78	72	109	650	418	132	123	100
11	98	106	104	90	80	72	125	520	418	148	122	98
12	98	104	94	88	82	73	134	470	418	161	121	89
13	93	92	94	88	84	75	160	515	396	190	120	93
14	92	94	86	88	89	77	166	550	373	173	120	92
15	89	107	87	85	90	77	182	570	337	153	120	92
16	88	100	90	78	86	78	179	600	302	150	117	95
17	88	95	95	78	91	77	169	650	286	143	98	99
18	88	96	100	78	91	80	190	700	263	137	96	113
19	88	96	106	76	89	77	173	770	253	135	96	101
20	88	91	99	78	109	73	157	830	244	137	94	106
21	87	109	92	78	92	75	145	915	229	147	95	106
22	88	103	94	76	87	75	149	850	219	135	98	104
23	94	92	90	74	88	77	143	779	212	132	106	95
24	104	80	88	72	85	77	133	738	200	139	113	85
25	99	107	88	72	92	75	139	735	202	152	108	86
26	96	104	85	72	78	75	149	746	206	150	100	86
27	98	103	88	74	94	80	180	743	189	137	91	86
28	104	103	88	76	88	83	235	696	183	131	90	82
29	89	100	92	76	84	82	280	630	175	131	92	77
30	96	100	92	76	---	82	320	606	160	130	93	75
31	100	---	95	76	---	82	---	574	---	120	95	---
TOTAL	2955	3124	2878	2534	2442	2397	4430	19032	10133	4399	3393	2888
MEAN	95.3	104	92.8	81.7	84.2	77.3	148	614	338	142	109	96.3
MAX	104	125	106	92	109	83	320	915	532	190	127	113
MIN	87	80	85	72	74	72	81	390	160	118	90	75
AC-FT	5860	6200	5710	5030	4840	4750	8790	37750	20100	8730	6730	5730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1992, BY WATER YEAR (WY)

MEAN	130	119	111	105	106	107	159	617	1015	305	161	131
MAX	240	209	170	150	150	167	287	1072	1889	1119	276	215
(WY)	1985	1985	1921	1987	1984	1986	1962	1969	1978	1957	1920	1984
MIN	90.1	84.9	79.0	70.4	77.7	77.3	104	328	194	92.2	88.9	85.0
(WY)	1978	1991	1967	1981	1991	1992	1968	1957	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1919 - 1992	
ANNUAL TOTAL	76326		60605			
ANNUAL MEAN	209		166		256	
HIGHEST ANNUAL MEAN					363	1985
LOWEST ANNUAL MEAN					129	1977
HIGHEST DAILY MEAN	1270	Jun 10	915	May 21	2970	Jun 25 1983
LOWEST DAILY MEAN	61	Jan 18	[a]72	Jan 24	47	Jan 15 1981
ANNUAL SEVEN-DAY MINIMUM	65	Feb 2	74	Jan 22	62	Jan 10 1981
INSTANTANEOUS PEAK FLOW			[b]915	May 21	[c]3150	Jun 26 1983
INSTANTANEOUS PEAK STAGE			[d]6.25	Jan 3	[e]6.27	Jun 26 1983
ANNUAL RUNOFF (AC-FT)	151400		120200		185200	
10 PERCENT EXCEEDS	579		420		620	
50 PERCENT EXCEEDS	106		99		129	
90 PERCENT EXCEEDS	80		77		91	

b-Maximum daily discharge, estimated.
c-Present site and datum.
d-Backwater from ice.
e-Maximum gage height, 7.07 ft, Jun 30, 1957, site and datum then in use.

09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1984 to September 1992, (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)
MAR												
10...	1015	48	292	8.4	1.5	10.5	<1	K5	150	44	9.8	2.3
JUN												
17...	0845	293	254	8.5	7.5	8.8	K4	K8	120	37	7.8	1.6

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)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)
MAR												
10...	0.1	0.9	117	37	<0.1	0.1	17	<0.01	<0.05	0.01	<0.2	<0.01
JUN												
17...	0.1	0.8	108	23	<0.1	0.1	12	<0.01	0.05	0.05	<0.2	0.01

DATE	PHOS-PHORUS ORTHO TOTAL (MG/L AS P)	CADMIUM DIS-SOLVED (UG/L AS CD)	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR											
10...	<0.01	<1.0	1	100	<1	10	<10	<0.1	<1	[a]<0.2	<10
JUN											
17...	0.02	<1.0	1	90	<1	<10	3	<0.1	<1	[a]<0.2	4

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV				
05...	1500	114	255	2.5
DEC				
31...	1045	99	278	0.0
FEB				
25...	1115	85	261	2.0
APR				
27...	1205	160	256	11.0
MAY				
29...	0905	632	204	7.0
JUN				
01...	0945	537	224	6.0
JUL				
10...	0825	130	297	10.5
17...	1145	142	294	14.5
AUG				
05...	1420	115	295	17.5
SEP				
08...	0945	99	320	9.5

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

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 15 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: Oct. 31 to Nov. 19, Nov. 22, 23, Nov. 28 to Dec. 6, Dec. 9, 10, Dec. 13 to Jan. 4, and Jan. 13 to Mar. 10. Record good except for estimated daily discharge, which are poor. Diversion upstream from station for irrigation of about 8,000 acres upstream from station, and about 4,000 acres downstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	305	240	210	280	230	329	1160	828	190	264	72
2	228	315	205	230	275	235	333	1090	686	201	270	76
3	226	330	245	210	295	250	336	1050	652	217	260	71
4	230	335	245	210	280	265	356	1050	678	270	238	67
5	271	335	285	258	260	250	372	1020	648	227	234	76
6	270	345	310	254	235	265	380	977	627	229	259	66
7	265	378	325	272	225	285	386	1000	604	256	266	66
8	258	330	329	246	220	255	400	972	589	322	245	60
9	259	335	300	240	215	250	425	1250	531	392	222	68
10	259	330	305	239	210	257	448	1280	519	351	196	85
11	258	330	321	247	205	275	488	1010	511	340	197	92
12	255	290	333	243	205	280	540	961	517	450	187	84
13	253	290	295	295	205	288	630	983	470	590	172	77
14	253	295	270	260	205	298	654	976	454	465	165	74
15	253	300	230	255	210	304	683	932	425	414	156	72
16	251	305	250	245	205	310	655	983	400	407	156	81
17	255	310	240	260	205	309	641	988	404	430	213	96
18	256	310	240	290	205	311	730	1040	350	351	284	107
19	256	307	260	285	200	301	644	1110	324	355	163	120
20	257	324	275	280	195	287	576	1120	309	345	103	156
21	260	307	270	280	205	287	533	1320	291	401	140	159
22	245	300	245	280	210	290	557	1290	275	326	143	151
23	247	280	215	275	215	291	545	1230	253	328	110	139
24	301	285	220	260	210	297	499	1200	228	372	114	126
25	323	327	205	275	210	290	514	1140	225	449	100	129
26	323	331	190	260	210	290	567	1140	244	421	86	126
27	323	325	215	270	210	295	650	1220	242	401	77	125
28	326	305	240	260	215	317	830	1120	236	339	70	132
29	287	295	195	255	220	318	976	1020	225	336	66	130
30	291	240	200	260	---	314	1090	979	206	339	64	130
31	290	---	205	295	---	327	---	919	---	300	67	---
TOTAL	8266	9394	7903	7999	6440	8821	16767	33530	12951	10814	5287	3013
MEAN	267	313	255	258	222	285	559	1082	432	349	171	100
MAX	326	378	333	295	295	327	1090	1320	828	590	284	159
MIN	226	240	190	210	195	230	329	919	206	190	64	60
AC-FT	16400	18630	15680	15870	12770	17500	33260	66510	25690	21450	10490	5980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

MEAN	353	337	303	288	281	299	512	1489	1736	558	299	261
MAX	585	488	424	404	387	448	1034	2785	3526	1511	759	547
(WY)	1985	1987	1986	1986	1986	1986	1985	1985	1984	1983	1984	1984
MIN	141	229	184	181	208	225	319	397	194	29.3	73.2	71.7
(WY)	1978	1978	1977	1977	1978	1977	1991	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1962 - 1992	
ANNUAL TOTAL	163430		131185			
ANNUAL MEAN	448		358		560	
HIGHEST ANNUAL MEAN					966	1984
LOWEST ANNUAL MEAN					208	1977
HIGHEST DAILY MEAN	2250	Jun 15	1320	May 21	5360	Jun 26 1983
LOWEST DAILY MEAN	129	Sep 4	60	Sep 8	[a]6.5	Jul 19 1977
ANNUAL SEVEN-DAY MINIMUM	149	Aug 30	68	Sep 3	8.8	Jul 16 1977
INSTANTANEOUS PEAK FLOW			1480	May 9	5740	Jun 26 1983
INSTANTANEOUS PEAK STAGE			3.86	May 9	7.07	Jun 26 1983
ANNUAL RUNOFF (AC-FT)	324200		260200		405700	
10 PERCENT EXCEEDS	1150		699		1350	
50 PERCENT EXCEEDS	285		280		325	
90 PERCENT EXCEEDS	219		137		215	

a-Also occurred Jul 20, 21, 1977.

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 1992, (discontinued).

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.--Unpublished daily maximum and minimum specific conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 511 microsiemens Dec. 24, 1981; minimum 152 microsiemens June 14, 1980.
WATER TEMPERATURES: Maximum, 22.0°C July 8, 1981; minimum, 0.0°C on many days during winter months.

EXTREME OUTSIDE PERIOD OF DAILY RECORD.--A specific conductance of 544 microsiemens was measured Sept. 5, 1990.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	OXYGEN, DIS-SOLVED (MG/L)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)
MAR										
10...	1415	229	--	8.5	5.0	10.0	--	--	210	66
JUN										
17...	1300	416	333	8.1	13.0	8.7	K26	K14	160	49
SEP										
14...	1515	76	470	8.2	16.5	9.5	K15	K4	230	70

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
MAR										
10...	12	4.2	0.1	1.0	115	110	2.7	0.2	17	282
JUN										
17...	9.0	3.8	0.1	0.9	109	57	1.4	0.1	14	201
SEP										
14...	13	8.4	0.2	1.3	132	93	5.3	0.2	16	286

DATE	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, AMMONIA 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)	CADMIUM DIS-SOLVED (UG/L AS CD)
MAR									
10...	0.38	174	<0.01	<0.05	0.02	<0.20	<0.01	<0.01	<1
JUN									
17...	0.27	225	<0.01	<0.05	0.04	<0.20	<0.01	0.01	<1
SEP									
14...	0.39	58.8	<0.01	<0.05	0.02	<0.20	0.02	<0.01	<1

DATE	COPPER, DIS-SOLVED (UG/L AS CU)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)	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)	SELE-NIUM, DIS-SOLVED (UG/L AS SE)	SILVER, DIS-SOLVED (UG/L AS AG)	ZINC, DIS-SOLVED (UG/L AS ZN)
MAR									
10...	<1	50	<1	10	<10	<0.1	<1	a<0.2	<10
JUN									
17...	2	150	<1	10	6	<0.1	<1	a<0.2	14
SEP									
14...	2	70	<1	20	<1	<0.1	<1	a<0.2	<3

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09304200 WHITE RIVER ABOVE COAL CREEK NEAR MEEKER, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
01...	1710	233	406	14.0
NOV				
19...	1545	307	385	2.0
DEC				
27...	1605	214	230	0.0
FEB				
03...	1700	297	396	0.5
MAR				
04...	1305	271	409	4.0
MAY				
05...	1320	986	252	10.5
JUN				
08...	0815	631	289	8.5
JUL				
08...	1300	309	382	14.5
AUG				
04...	1320	231	404	19.0
SEP				
23...	1520	141	441	16.5

09304500 WHITE RIVER NEAR MEEKER, CO

LOCATION.--Lat 40°02'01", long 107°51'42", in NE1/4 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 mi^2.

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 with satellite telemetry. 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: Nov. 12-19, Dec. 2-6, and Dec. 14 to Feb. 2. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	329	254	222	300	246	339	1050	932	309	301	175
2	284	339	215	243	295	252	342	1010	786	329	298	182
3	279	355	255	225	320	259	346	952	780	339	283	175
4	279	358	255	220	305	266	366	1010	807	384	284	174
5	306	360	295	268	282	281	378	1100	776	369	287	184
6	301	371	325	274	255	296	387	1040	762	361	297	175
7	299	403	336	311	244	310	394	1070	737	381	318	162
8	289	357	334	290	240	318	408	1050	716	444	307	156
9	286	358	316	280	234	316	430	1440	658	513	293	155
10	287	355	319	265	227	307	450	1440	656	451	268	169
11	288	357	331	280	222	297	484	1100	647	443	275	176
12	285	310	324	319	220	293	528	1040	666	596	268	170
13	279	313	303	320	220	294	618	1080	618	671	252	171
14	281	317	285	280	221	303	647	1070	596	524	243	166
15	282	321	245	275	224	314	687	1030	567	482	238	169
16	282	326	265	265	222	325	660	1100	532	516	238	186
17	279	330	250	280	220	333	638	1120	540	492	282	190
18	279	334	250	313	220	331	728	1200	498	427	349	201
19	279	331	275	306	217	320	655	1280	468	424	251	218
20	278	348	290	300	214	311	584	1300	434	439	187	260
21	274	346	280	305	221	301	539	1520	416	449	215	257
22	275	312	255	305	227	297	559	1420	411	384	234	247
23	285	285	230	295	230	296	565	1370	400	394	189	228
24	341	351	235	280	229	298	514	1320	373	429	191	212
25	350	339	215	295	227	300	516	1260	351	492	178	215
26	348	335	200	280	228	298	562	1280	375	451	168	210
27	344	331	195	290	225	301	626	1440	368	415	162	207
28	359	327	250	280	229	309	806	1320	361	398	160	211
29	318	318	200	275	237	331	964	1190	349	384	160	211
30	340	261	210	280	---	328	1030	1150	319	374	159	208
31	310	---	220	319	---	333	---	1060	---	330	168	---
TOTAL	9257	10077	8212	8740	6955	9364	16750	36812	16899	13394	7503	5820
MEAN	299	336	265	282	240	302	558	1187	563	432	242	194
MAX	359	403	336	320	320	333	1030	1520	932	671	349	260
MIN	274	261	195	220	214	246	339	952	319	309	159	155
AC-FT	18360	19990	16290	17340	13800	18570	33220	73020	33520	26570	14880	11540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1992, BY WATER YEAR (WY)

MEAN	390	368	332	312	307	340	548	1548	1895	676	390	358
MAX	652	648	460	410	420	522	1094	2829	4091	2524	866	716
(WY)	1985	1929	1929	1929	1930	1986	1962	1985	1921	1957	1984	1929
MIN	215	255	233	225	232	261	313	499	264	116	149	156
(WY)	1978	1978	1978	1981	1935	1935	1944	1977	1934	1977	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1910 - 1992	
ANNUAL TOTAL	186770		149783			
ANNUAL MEAN	512		409		623	
HIGHEST ANNUAL MEAN					1044	1984
LOWEST ANNUAL MEAN					274	1977
HIGHEST DAILY MEAN	2400	Jun 15	1520	May 21	6320	May 25 1984
LOWEST DAILY MEAN	174	Sep 4	155	Sep 9	78	Jul 16 1977
ANNUAL SEVEN-DAY MINIMUM	190	Sep 1	165	Aug 26	86	Jul 13 1977
INSTANTANEOUS PEAK FLOW			1690	May 9	6950	May 25 1984
INSTANTANEOUS PEAK STAGE			4.05	May 9	[a]6.12	May 25 1984
ANNUAL RUNOFF (AC-FT)	370500		297100		451100	
10 PERCENT EXCEEDS	1340		792		1460	
50 PERCENT EXCEEDS	325		310		370	
90 PERCENT EXCEEDS	261		211		270	

a-Maximum gage height, 7.60 ft, Jun 16, 1921, present datum.

09304800 WHITE RIVER BELOW MEEKER, CO

LOCATION.--Lat 40°00'48", long 108°05'33", in SW¼NE¼ sec.31, T.1 N., R.95 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank 30 ft downstream from county bridge, 4.5 mi downstream from Strawberry Creek, and 10 mi west of Meeker.

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: Dec. 8-15, Dec. 22 to Jan. 5, and Jan. 13 to Feb. 27. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	381	303	285	335	392	316	1310	1200	366	352	260
2	330	397	273	290	320	405	312	1290	1010	386	335	242
3	318	385	300	295	325	425	316	1210	973	462	317	205
4	313	384	302	290	330	420	333	1210	996	523	300	200
5	357	437	329	295	310	489	352	1180	961	480	310	242
6	344	459	350	304	290	489	359	1100	917	459	332	244
7	341	513	362	318	280	492	362	1150	885	469	375	243
8	325	427	360	325	280	469	375	1150	879	584	358	232
9	321	423	345	314	275	412	401	1620	793	706	339	213
10	321	420	340	296	275	368	426	1710	776	608	301	214
11	330	412	340	294	270	338	461	1290	767	556	304	227
12	328	381	345	324	265	347	512	1190	808	792	293	222
13	324	365	335	330	270	360	611	1250	748	1030	270	230
14	321	381	315	310	275	380	653	1230	728	726	253	229
15	326	416	274	300	275	386	702	1200	690	627	249	217
16	320	383	296	295	280	402	677	1250	651	650	251	229
17	301	373	275	310	285	399	649	1250	671	609	304	260
18	284	396	276	320	290	376	741	1340	613	494	375	279
19	286	384	304	330	290	353	696	1400	566	506	295	319
20	291	325	320	320	280	324	606	1430	527	496	219	392
21	288	403	308	320	290	299	545	1750	515	545	219	361
22	284	384	300	325	310	308	535	1660	509	440	279	330
23	316	333	290	310	320	312	565	1660	473	459	247	308
24	412	326	280	300	310	318	530	1630	446	554	257	281
25	434	403	275	310	310	326	493	1560	429	653	238	275
26	421	390	270	310	315	311	522	1660	479	580	229	275
27	396	384	270	320	320	300	570	1840	478	508	223	271
28	420	378	275	310	322	306	799	1680	461	474	225	281
29	374	367	280	300	350	332	991	1530	429	461	223	272
30	398	335	275	315	---	337	1160	1460	379	438	228	271
31	365	---	280	330	---	319	---	1350	---	396	248	---
TOTAL	10521	11745	9447	9595	8647	11494	16570	43540	20757	17037	8748	7824
MEAN	339	391	305	310	298	371	552	1405	692	550	282	261
MAX	434	513	362	330	350	492	1160	1840	1200	1030	375	392
MIN	284	325	270	285	265	299	312	1100	379	366	219	200
AC-FT	20870	23300	18740	19030	17150	22800	32870	86360	41170	33790	17350	15520

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1992, BY WATER YEAR (WY)

MEAN	451	411	368	336	336	388	594	1546	1873	731	425	389
MAX	793	637	536	493	457	586	1141	2979	3904	1960	837	712
(WY)	1985	1985	1985	1986	1986	1986	1985	1985	1983	1983	1984	1984
MIN	260	282	266	230	251	285	393	374	283	147	172	213
(WY)	1978	1978	1964	1976	1977	1981	1977	1977	1977	1977	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1962 - 1992	
ANNUAL TOTAL	206933		175925			
ANNUAL MEAN	567		481		655	
HIGHEST ANNUAL MEAN					1069	1985
LOWEST ANNUAL MEAN					290	1977
HIGHEST DAILY MEAN	2580	Jun 15	1840	May 27	6060	Jun 26 1983
LOWEST DAILY MEAN	195	Sep 5	200	Sep 4	85	Jun 28 1977
ANNUAL SEVEN-DAY MINIMUM	221	Sep 1	222	Sep 9	90	Jun 25 1977
INSTANTANEOUS PEAK FLOW			2060	May 27	6590	Jun 26 1983
INSTANTANEOUS PEAK STAGE			[a]2.73	May 27	4.97	Jun 26 1983
ANNUAL RUNOFF (AC-FT)	410500		348900		474200	
10 PERCENT EXCEEDS	1520		992		1470	
50 PERCENT EXCEEDS	362		344		410	
90 PERCENT EXCEEDS	250		270		280	

a-Maximum gage height, 2.80 ft, May 10, backwater from ice.

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 microsiemens Aug. 30, 1981; minimum, 221 microsiemens 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 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	E. COLI WATER WHOLE TOTAL UREASE (COL / 100 ML)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)
MAR										
11...	1415	379	667	8.5	7.5	10.9	<1	<1	300	80
JUN										
16...	1500	665	546	8.4	13.0	9.7	82	K22	250	67
SEP										
15...	1500	221	713	8.2	17.5	8.2	K3	<1	320	83

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
MAR										
11...	25	23	0.6	1.7	152	180	11	0.1	16	428
JUN										
16...	19	17	0.5	1.3	165	110	5.5	0.2	15	334
SEP										
15...	27	28	0.7	1.8	196	180	12	0.3	15	465

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, ORGANIC TOTAL (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	CADMIUM DISSOLVED (UG/L AS CD)
MAR										
11...	0.58	438	<0.01	0.24	0.03	0.17	0.20	0.03	0.02	<1
JUN										
16...	0.45	600	<0.01	<0.05	0.05	0.15	0.20	<0.01	0.02	<1
SEP										
15...	0.63	277	<0.01	<0.05	0.02	0.38	0.40	0.03	0.02	<1

DATE	COPPER, DISSOLVED (UG/L AS CU)	IRON, TOTAL RECOVERABLE (UG/L AS FE)	LEAD, DISSOLVED (UG/L AS PB)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY DISSOLVED (UG/L AS HG)	SELENIUM, DISSOLVED (UG/L AS SE)	SILVER, DISSOLVED (UG/L AS AG)	ZINC, DISSOLVED (UG/L AS ZN)
MAR									
11...	<1	550	<1	60	30	<0.1	<1	[a]<0.2	<10
JUN									
16...	1	330	<1	30	15	<0.1	1	[a]<0.2	4
SEP									
15...	1	140	<1	30	17	<0.1	<1	[a]<0.2	<3

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09304800 WHITE RIVER BELOW MEEKER, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV				
07...	1045	538	667	6.5
JAN				
08...	1040	327	--	0.0
FEB				
27...	0810	322	546	0.5
APR				
01...	1535	324	560	11.0
MAY				
06...	0840	1170	334	10.5
JUN				
03...	0905	946	464	12.5
JUL				
09...	0850	733	595	14.0
AUG				
13...	1635	272	604	22.5

09306007 PICEANCE CREEK BELOW RIO BLANCO, CO

LOCATION.--Lat 39°49'34", long 108°10'57", in SE1/4SE1/4 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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,366 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 26 to Nov. 15, Nov. 29 to Dec. 7, Dec. 14-19, and Dec. 23 to Feb. 9. Records good except for estimated daily discharges, which are poor. Several diversions upstream from station for irrigation of hay meadows.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	7.0	7.0	5.4	4.7	3.2	16	12	7.6	9.6	7.2	8.4
2	3.7	9.0	7.0	5.5	4.7	4.7	8.4	11	7.9	9.9	11	8.6
3	1.4	15	6.9	5.4	4.5	3.3	8.0	7.9	14	8.5	11	8.8
4	2.5	11	6.6	5.4	4.5	2.8	5.8	7.5	16	7.3	11	9.1
5	1.5	8.2	6.5	5.5	4.5	4.1	6.4	4.9	13	4.8	11	8.1
6	2.5	12	6.6	5.5	4.4	3.7	5.9	1.5	14	7.3	11	7.2
7	2.3	11	6.6	5.6	4.3	2.1	6.2	.36	16	13	9.5	7.1
8	2.2	10	6.5	5.6	4.5	1.4	6.2	.08	14	14	9.4	3.7
9	1.5	9.4	6.1	5.5	4.4	1.1	6.2	.33	9.8	14	13	1.2
10	1.6	8.9	6.0	5.4	4.7	.93	6.4	.10	8.1	14	12	2.2
11	1.8	8.6	5.8	5.2	5.4	.60	3.8	.09	7.8	15	11	2.1
12	3.1	8.1	5.5	5.0	5.6	.48	4.1	.08	8.0	18	9.8	1.6
13	4.1	7.7	5.4	4.8	3.9	.48	4.1	.08	11	17	8.6	2.8
14	3.3	7.7	5.7	4.9	3.4	.23	4.0	.21	12	9.4	8.1	2.8
15	2.3	8.3	5.5	4.7	2.7	.61	4.0	4.6	11	2.6	7.0	3.8
16	1.7	8.2	5.4	4.6	2.1	.28	4.7	7.4	12	.83	6.7	4.8
17	3.5	7.8	5.3	4.5	2.3	1.4	4.6	3.9	8.1	.90	7.1	5.6
18	3.7	7.5	5.5	5.0	3.0	2.5	7.2	8.2	14	.71	6.9	6.7
19	3.0	7.2	5.7	5.2	4.0	1.7	9.7	9.0	15	.56	6.7	6.0
20	4.8	6.8	5.4	4.6	.99	2.0	13	7.3	15	.13	5.9	5.8
21	2.2	7.1	5.5	4.2	2.4	2.3	13	9.3	9.5	.06	5.2	5.6
22	3.5	7.2	5.7	4.7	4.2	2.2	18	15	7.8	.06	4.6	5.7
23	3.7	7.1	5.9	5.0	3.6	1.3	20	30	7.5	.06	5.4	6.4
24	6.7	6.4	5.7	5.0	3.4	1.6	19	34	9.2	.06	4.9	9.9
25	5.0	7.0	5.7	5.0	2.2	2.7	14	29	14	.07	4.0	9.9
26	3.9	6.7	5.6	5.0	6.9	2.1	9.5	18	17	.06	4.6	5.8
27	4.1	6.9	5.4	4.9	6.9	1.3	7.3	11	14	.08	4.9	2.5
28	4.5	9.2	5.4	4.8	6.2	1.7	11	8.3	12	.47	4.8	3.2
29	4.7	8.3	5.3	4.9	6.3	22	14	9.5	12	1.2	5.5	4.0
30	5.2	7.1	5.2	4.8	---	9.7	14	7.1	12	1.9	7.3	4.8
31	5.7	---	5.3	4.7	---	7.3	---	9.4	---	1.5	8.8	---
TOTAL	104.6	252.4	181.7	156.3	120.69	91.81	274.5	267.13	349.3	173.05	243.9	164.2
MEAN	3.37	8.41	5.86	5.04	4.16	2.96	9.15	8.62	11.6	5.58	7.87	5.47
MAX	6.7	15	7.0	5.6	6.9	22	20	34	17	18	13	9.9
MIN	1.4	6.4	5.2	4.2	.99	.23	3.8	.08	7.5	.06	4.0	1.2
AC-FT	207	501	360	310	239	182	544	530	693	343	484	326

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

MEAN	9.41	10.7	9.61	8.92	9.42	16.0	39.6	63.0	27.3	16.4	15.8	9.86
MAX	23.2	25.4	24.0	27.0	37.2	73.4	165	230	126	68.5	49.8	28.4
(WY)	1985	1986	1986	1986	1986	1986	1985	1983	1983	1984	1984	1984
MIN	2.42	2.78	3.63	2.83	3.21	2.96	2.21	3.79	3.92	4.25	2.40	2.34
(WY)	1978	1991	1991	1991	1991	1992	1977	1990	1989	1982	1977	1977

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1975 - 1992	
ANNUAL TOTAL	2371.13		2379.58			
ANNUAL MEAN	6.50		6.50		19.7	
HIGHEST ANNUAL MEAN					55.0	1984
LOWEST ANNUAL MEAN					5.02	1977
HIGHEST DAILY MEAN	50	Apr 6	34	May 24	410	May 15 1984
LOWEST DAILY MEAN	.62	Apr 28	[a].06	Jul 21	[b].06	Jul 21 1992
ANNUAL SEVEN-DAY MINIMUM	1.8	May 5	.06	Jul 21	.06	Jul 21 1992
INSTANTANEOUS PEAK FLOW			49	Mar 29	[c]520	Jul 19 1977
INSTANTANEOUS PEAK STAGE			[d]2.87	Mar 29	[e]7.01	Jul 19 1977
ANNUAL RUNOFF (AC-FT)	4700		4720		14290	
10 PERCENT EXCEEDS	11		12		40	
50 PERCENT EXCEEDS	5.7		5.6		9.6	
90 PERCENT EXCEEDS	2.5		1.4		3.4	

a-Also occurred Jan 25, 26 and Mar 10 and 11.
b-Maximum daily discharge, estimated.
c-Present site and datum.
d-Backwater from ice.
e-Maximum gage height, 7.07 ft, Jun 30, 1957, site and datum then in use.

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 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)
NOV									
14...	1410	7.7	1280	8.1	6.5	10.1	450	88	55
MAR									
04...	0930	1.6	1210	8.2	5.0	9.9	430	84	52
JUN									
02...	1200	11	1380	8.3	14.0	9.3	460	89	57
SEP									
16...	1030	4.8	1370	8.3	12.5	9.8	450	85	57

DATE	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)
NOV									
14...	140	3	2.7	414	330	25	0.9	13	908
MAR									
04...	110	2	3.7	411	240	21	0.7	13	776
JUN									
02...	130	3	3.6	445	260	28	0.7	16	855
SEP									
16...	140	3	3.2	432	270	26	0.8	15	858

DATE	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)
NOV									
14...	1.23	18.9	<0.01	0.61	0.05	0.35	0.40	0.03	<0.01
MAR									
04...	1.05	3.35	0.01	0.50	0.12	0.48	0.60	0.08	0.06
JUN									
02...	1.16	25.4	<0.01	0.44	0.03	0.47	0.50	0.05	0.03
SEP									
16...	1.17	11.1	<0.01	0.06	0.04	0.66	0.70	0.02	<0.01

09306007 PICEANCE CREEK BELOW RIO BLANCO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	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)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
14...	1	120	200	<1	16	17	140	5	<1	1800	6
MAR											
04...	2	110	160	<1	20	17	140	4	2	1700	11
JUN											
02...	--	--	210	--	--	--	--	--	--	1800	--
SEP											
16...	--	--	240	--	--	--	--	--	--	1900	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
DEC				
18...	1435	5.5	1270	4.0
JAN				
08...	1335	5.5	--	0.0
FEB				
26...	1135	5.9	1250	3.0
APR				
02...	1500	10	1140	13.0
MAY				
05...	1100	7.6	1330	12.0
JUL				
07...	1305	11	1260	12.0
AUG				
14...	1130	8.0	1240	15.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR				
04...	0930	1.6	139	0.60
APR				
02...	1500	10	309	8.3
JUN				
02...	1200	11	189	5.6
SEP				
16...	1030	4.8	51	0.66

09306022 STEWART GULCH ABOVE WEST FORK NEAR RIO BLANCO, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°49'09", long 108°11'08", in SE1/4NE1/4 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 mi^2.

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 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
MAR 04...	1050	2.3	8.2	8.0	10.3	530	92	73	120	2

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)
MAR 04...	1.5	406	380	12	0.2	16	949	1.29	5.94

DATE	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	STRONTIUM, DISSOLVED (UG/L AS SR)
MAR 04...	<0.01	1.70	0.09	0.61	0.70	0.10	<0.01	80	2800

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
NOV 19...	1000	1.7	1410	8.6	6.5	12.7

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
MAR 04...	1050	2.3	51	0.32

09306042 PICEANCE CREEK TRIBUTARY NEAR RIO BLANCO, CO

LOCATION.--Lat 39°50'01", long 108°13'12", in SE¼NE¼ sec.36, T.2 S., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 600 ft upstream from mouth and 16.2 mi west of Rio Blanco.

DRAINAGE AREA.--1.06 mi².

PERIOD OF RECORD.--April 1974 to August 1984, May 1985 to September 1992 (discontinued).

REVISED RECORDS.--WDR CO-79-3: 1977 (M). WDR CO-86-2: 1984-85 (M).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,335 ft above National Geodetic Vertical Datum of 1929, from topographic map. Nov. 10, 1980 to June 10, 1981 at datum 0.21 ft, lower.

REMARKS.--Estimated daily discharges: Dec. 19 to Jan. 15, Feb. 9, and Sept. 4-18. Records fair except for estimated daily discharges, which are poor. Most flow this year due to runoff from summer thunderstorms.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.01	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
24	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.16	0.00	0.12	0.00	0.00
MEAN	.001	.000	.000	.000	.000	.000	.000	.005	.000	.004	.000	.000
MAX	.01	.00	.00	.00	.00	.00	.00	.14	.00	.11	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.04	.00	.00	.00	.00	.00	.00	.3	.00	.2	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1992, BY WATER YEAR (WY)

MEAN	.25	.31	.29	.30	.30	.20	.21	.24	.22	.34	.34	.26
MAX	1.64	2.61	2.51	2.52	2.05	1.57	1.59	1.97	1.13	1.29	1.31	1.42
(WY)	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1981	1980
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
(WY)	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975	1975

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1975 - 1992	
ANNUAL TOTAL	0.88		0.30			
ANNUAL MEAN	.002		.001			
HIGHEST ANNUAL MEAN					1.71	1981
LOWEST ANNUAL MEAN					.000	1975
HIGHEST DAILY MEAN	.35	Jun 16	.14	May 25	[a]12	Sep 3 1977
LOWEST DAILY MEAN	[a].00	Jan 1	[a].00	Oct 1	[b].00	Oct 1 1974
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Oct 1 1974
INSTANTANEOUS PEAK FLOW			9.9	May 25	[c]506	Aug 1 1984
INSTANTANEOUS PEAK STAGE			2.00	May 25	6.38	Aug 1 1984
ANNUAL RUNOFF (AC-FT)	1.7		.6			
10 PERCENT EXCEEDS	.00		.00		.75	
50 PERCENT EXCEEDS	.00		.00		.05	
90 PERCENT EXCEEDS	.00		.00		.00	

a-Many days.
b-No flow many days each year.
c-On basis of slope-area measurement of peak flow.

09306058 WILLOW CREEK NEAR RIO BLANCO, CO

WATER-QUALITY RECORDS

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 mi^2.

PERIOD OF RECORD.--April 1974 to September 1985, October 1986 to current year.

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, 0.0oC 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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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											
19...	1200	0.38	1440	8.1	5.5	11.4	540	96	73	120	2
MAR											
04...	1210	0.99	1440	8.0	5.0	11.0	560	95	77	120	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)
NOV										
19...	1.5	421	370	17	0.4	15	950	1.29	0.97	<0.01
MAR										
04...	1.6	436	360	16	0.3	16	952	1.29	2.54	<0.01

DATE	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. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	BORON, DIS-SOLVED (UG/L AS B)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV										
19...	0.29	0.02	--	<0.20	<0.01	<0.01	130	3400	--	--
MAR										
04...	0.27	0.05	0.15	0.20	0.01	<0.01	120	3400	17	0.05

09306061 PICEANCE CREEK ABOVE HUNTER CREEK NEAR RIO BLANCO, CO

WATER-QUALITY RECORDS

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 feet downstream from private bridge, 0.4 mi upstream from Hunter Creek, and 18.7 mi west of Rio Blanco.

DRAINAGE AREA.--309 mi²

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 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
NOV											
19...	1337	14	1500	8.6	5.5	9.6	490	84	68	150	3
MAR											
04...	1515	12	1390	8.1	6.0	10.9	490	85	67	130	3

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
NOV										
19...	2.7	467	350	20	0.8	15	981	1.33	36.5	<0.01
MAR										
04...	3.1	435	330	18	0.6	15	916	1.25	30.2	0.01

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN,AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	BORON, DISSOLVED (UG/L AS B)	STRONTIUM, DISSOLVED (UG/L AS SR)	SEDIMENT, SUSPENDED (MG/L)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY)
NOV										
19...	1.70	0.01	--	<0.20	<0.01	0.02	180	2300	--	--
MAR										
04...	0.76	0.09	0.31	0.40	0.04	0.03	140	2500	252	8.3

09306200 PICEANCE CREEK BELOW RYAN GULCH, NEAR RIO BLANCO, CO

LOCATION.--Lat 39°5'16", long 108°7'49", in SE¼NE¼, 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: Nov. 30 to Dec. 6, Dec. 14-18, Dec. 24 to Feb. 6, and Feb. 20-23. Records fair execpt for estimated daily discharges, which are poor. Diversions for irrigation upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	16	11	16	15	22	25	11	9.3	11	8.9	20
2	5.2	16	13	16	15	21	23	11	6.9	11	9.8	21
3	5.2	31	19	16	15	22	18	12	7.7	12	12	18
4	5.4	25	20	16	15	21	17	12	12	11	16	11
5	5.7	19	25	16	16	27	17	10	13	9.8	14	11
6	5.5	32	18	16	17	26	17	9.9	12	8.3	14	7.6
7	6.9	32	17	16	18	23	16	9.9	14	9.6	13	6.6
8	6.6	28	17	16	15	22	13	9.3	14	12	16	7.5
9	6.3	26	16	16	14	22	9.7	9.3	11	12	14	5.8
10	5.5	26	17	15	15	21	9.1	8.8	11	10	24	7.3
11	6.6	25	16	15	16	20	7.6	5.4	9.4	10	19	5.0
12	5.9	24	15	15	17	19	6.8	3.9	9.2	15	21	4.9
13	6.0	23	16	14	17	19	7.1	3.8	8.5	15	21	5.3
14	7.3	23	15	15	18	19	7.0	3.3	8.5	12	20	6.0
15	5.6	24	14	16	18	19	3.1	3.7	7.7	41	19	5.9
16	4.8	23	14	16	17	18	3.3	5.0	7.4	28	19	5.8
17	5.6	22	14	15	17	19	4.0	5.0	7.0	11	20	7.8
18	6.9	22	15	15	16	21	5.4	4.3	6.2	8.5	18	9.7
19	6.6	21	14	15	16	21	6.3	3.3	6.8	7.4	18	11
20	6.7	20	14	15	16	21	5.5	2.9	6.3	7.3	19	12
21	6.7	21	14	14	17	22	7.4	2.3	7.6	7.1	19	9.4
22	6.4	20	14	15	17	22	12	1.4	8.2	5.8	19	7.8
23	6.6	20	13	14	18	22	15	19	6.8	5.7	20	9.0
24	9.3	19	14	16	18	22	16	15	7.2	5.8	20	13
25	9.0	19	14	16	18	22	14	17	9.3	6.8	19	14
26	9.0	19	15	16	18	21	13	14	10	6.7	19	12
27	8.4	19	15	16	19	20	13	6.8	8.5	6.1	16	8.4
28	10	20	15	15	20	20	13	4.0	8.1	6.0	13	7.3
29	12	19	15	15	22	28	14	7.3	9.3	6.9	14	6.4
30	12	14	15	15	---	25	12	7.5	9.5	7.7	14	7.3
31	15	---	15	15	---	23	---	8.0	---	8.7	16	---
TOTAL	223.0	668	479	477	490	670	350.3	246.1	272.4	335.2	524.7	283.8
MEAN	7.19	22.3	15.5	15.4	16.9	21.6	11.7	7.94	9.08	10.8	16.9	9.46
MAX	15	32	25	16	22	28	25	19	14	41	24	21
MIN	4.3	14	11	14	14	18	3.1	1.4	6.2	5.7	8.9	4.9
AC-FT	442	1320	950	946	972	1330	695	488	540	665	1040	563

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	22.1	26.5	24.5	22.1	25.1	34.1	42.7	60.6	29.8	23.1	30.5	21.2
MAX	69.9	58.4	60.9	55.5	61.0	112	228	326	166	98.7	95.6	65.2
(WY)	1986	1986	1984	1984	1986	1986	1986	1985	1983	1984	1984	1984
MIN	2.75	7.98	8.10	8.90	13.3	11.5	2.94	3.65	3.51	3.95	5.63	3.94
(WY)	1965	1968	1968	1979	1965	1972	1967	1967	1967	1967	1972	1981

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	5341.5		5019.5			
ANNUAL MEAN	14.6		13.7		30.2	
HIGHEST ANNUAL MEAN					96.5	1985
LOWEST ANNUAL MEAN					8.30	1967
HIGHEST DAILY MEAN	48	Apr 7	41	Jul 15	534	May 5 1985
LOWEST DAILY MEAN	2.0	May 22	1.4	May 22	.15	Jun 7 1981
ANNUAL SEVEN-DAY MINIMUM	3.8	May 18	3.5	May 16	.96	Apr 27 1966
INSTANTANEOUS PEAK FLOW			159	Jul 15	550	May 5 1985
INSTANTANEOUS PEAK STAGE			[a]5.87	Jul 15	[b]7.70	May 5 1985
ANNUAL RUNOFF (AC-FT)	10590		9960		21910	
10 PERCENT EXCEEDS	22		22		59	
50 PERCENT EXCEEDS	15		14		20	
90 PERCENT EXCEEDS	6.1		5.9		6.2	

a-Maximum gage height, 7.16 ft, Jan 23, backwater from ice.
b-Maximum gage height, 7.81 ft, May 28, 1983.

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. Daily specific conductance records rated good except for the winter period which are poor. Daily water temperature records rated good except for mid-August to mid-September which are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum 2,920 microsiemens July 18, 1981; minimum, 450 microsiemens July 15, 1992.
WATER TEMPERATURES: Maximum 28.0°C Sept. 4, 1990, 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, and several days in September 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: Maximum 2,430 microsiemens Oct. 1; minimum, 450 microsiemens July 15.
WATER TEMPERATURES: Maximum 25.5°C May 22; minimum, 0.0°C many days during the winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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									
06...	1345	28	1680	8.4	6.5	10.1	550	87	81
MAR									
05...	1130	24	1450	8.1	4.5	9.9	500	80	71
JUN									
03...	1515	8.5	2100	8.3	20.0	9.9	590	76	96
SEP									
16...	1315	5.6	2180	8.2	17.0	10.0	660	83	110

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									
06...	180	3	3.8	532	470	26	0.8	16	1190
MAR									
05...	140	3	3.6	449	360	19	0.5	16	965
JUN									
03...	290	5	3.7	647	450	32	1.0	17	1360
SEP									
16...	280	5	3.9	669	510	31	0.6	18	1440

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. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
NOV									
06...	1.62	89.0	0.01	0.55	0.22	0.38	0.60	0.02	0.03
MAR									
05...	1.31	62.5	0.01	0.54	0.14	0.46	0.60	0.06	0.04
JUN									
03...	1.85	31.2	<0.01	0.06	0.02	0.48	0.50	0.08	0.06
SEP									
16...	1.96	21.8	<0.01	<0.05	0.03	0.47	0.50	0.07	0.06

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	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)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
06...	2	120	200	<1	14	15	210	6	2	2900	17
MAR											
05...	2	80	140	<1	29	14	65	4	2	2700	5
JUN											
03...	--	--	310	--	--	--	--	--	--	3400	--
SEP											
16...	--	--	330	--	--	--	--	--	--	3800	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
DEC					MAY				
18...	1435	5.5	1270	4.0	05...	1100	7.6	1330	12.0
JAN					JUL				
08...	1335	5.5	--	0.0	07...	1305	11	1260	12.0
FEB					AUG				
26...	1135	5.9	1250	3.0	14...	1130	8.0	1240	15.5
APR									
02...	1300	24	1420	13.0					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					JUN				
05...	1130	24	655	42	03...	1515	8.5	163	3.7
APR					SEP				
02...	1300	24	648	41	16...	1315	5.6	141	2.1

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2380	1790	1480	1590	1460	1350	1380	1790	1920	1810	1430	1590
2	2330	1790	1480	1590	1480	1480	1390	---	2040	1810	1330	1540
3	2320	1740	1480	1600	1490	1390	1510	---	2070	1800	1460	1540
4	2280	1550	1460	1580	1490	1470	1510	---	1900	1820	1700	1640
5	2250	1520	1450	1530	1510	1440	1530	---	1890	1850	1870	1670
6	2260	1620	1430	1530	1560	1470	1550	1830	1930	1910	1520	1750
7	2170	1680	1440	1450	1530	1540	1560	1840	1870	1910	1460	1820
8	2150	1680	1460	1430	1510	1570	1610	1770	1860	1850	1290	1840
9	2170	1650	1480	1450	1510	1570	1670	1810	1940	1840	1140	1890
10	2200	1600	1480	1470	1480	1600	1670	1870	1970	1890	1150	1930
11	2150	1590	1500	1490	1580	1600	1750	1920	1980	1930	---	1960
12	2190	1600	1510	1480	1750	1600	1790	2000	1980	1840	---	1990
13	2180	1590	1520	1480	1560	1600	1810	1990	1990	1690	---	2030
14	2070	1590	1530	1470	1510	1600	1790	2000	1980	1840	1580	2030
15	2120	1560	1530	1470	1480	1580	1900	1990	2010	1530	1570	2040
16	2210	1570	1540	1490	1480	1570	1930	1930	2030	1300	1570	2050
17	2160	1560	1540	1500	1510	1550	1980	1930	2040	1670	1550	1980
18	2060	1570	1540	1500	1530	1340	1930	1940	2070	1730	1570	1910
19	2030	1580	1540	1470	1550	1210	2010	1970	2020	1700	1570	1860
20	2000	1570	1550	1450	1550	1470	1990	1970	2010	1660	1550	1830
21	1980	1560	1560	1450	1570	1490	1940	2000	1950	1650	1550	1890
22	1960	1550	1540	1450	1480	1490	1780	2070	1890	1680	1560	1910
23	1950	1520	1510	1450	1450	1480	1740	1600	1950	1670	1540	1890
24	1990	1490	1490	1430	1470	1450	1740	1570	1960	1610	1540	1780
25	2000	1470	1520	1410	1530	1380	1800	1570	1900	1550	1540	1730
26	1960	1480	1570	1410	1560	1280	1820	1650	1830	1540	1550	1720
27	1960	1470	1600	1420	1510	1220	1810	1860	1900	1530	1550	1790
28	1880	1490	1570	1440	1430	1280	1800	2120	1940	1440	1610	1880
29	1910	1480	1550	1520	1380	1150	1780	1900	1900	1430	1640	2050
30	1870	1470	1580	1540	---	918	1800	1860	1810	1350	1640	2030
31	1900	---	1580	1460	---	1290	---	1940	---	1340	1630	---
MEAN	2100	1580	1520	1480	1510	1430	1740	---	1950	1680	---	1850

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	18.2	8.9	4.1	2.0	.1	.0	.0	.0	.0	.0	6.8	2.0
2	17.3	8.5	1.8	.5	.0	.0	.0	.0	.0	.0	10.2	3.3
3	16.1	8.1	.8	.0	.0	.0	.0	.0	.0	.0	7.1	3.0
4	14.7	7.0	4.5	.0	.0	.0	.0	.0	1.0	.0	5.9	3.8
5	14.4	5.3	7.5	3.0	.0	.0	.0	.0	1.3	.0	5.5	2.2
6	14.8	5.4	7.0	6.4	1.0	.0	.0	.0	1.4	.0	9.5	2.0
7	14.5	6.0	9.0	5.4	2.5	.0	.0	.0	2.0	.0	10.1	2.8
8	14.4	7.1	7.5	3.7	3.6	1.9	.0	.0	4.5	1.5	7.1	3.2
9	15.1	6.4	8.5	4.6	3.4	.9	.0	.0	3.8	2.2	8.0	.8
10	15.1	5.8	8.4	7.0	1.7	.0	.0	.0	5.0	1.4	9.0	.3
11	15.0	6.1	8.3	6.1	2.6	1.7	.0	.0	5.8	2.5	10.1	1.6
12	13.5	6.2	6.7	3.3	2.3	.7	.0	.0	6.7	2.3	11.2	2.0
13	14.7	6.7	5.9	3.2	1.6	.0	.0	.0	4.1	2.0	11.6	2.5
14	13.9	5.5	5.5	3.3	1.0	.0	.0	.0	5.7	2.0	9.7	3.0
15	15.1	6.2	5.6	4.7	.0	.0	.0	.0	5.4	1.3	11.5	2.7
16	14.4	5.7	5.0	4.1	.0	.0	.0	.0	3.4	.9	11.7	3.1
17	14.5	6.3	5.1	3.5	.0	.0	.0	.0	4.7	.0	9.4	2.7
18	13.9	6.5	5.1	3.9	2.3	.0	.0	.0	4.6	.0	9.7	3.2
19	11.0	5.8	3.9	2.3	3.9	.9	.0	.0	4.9	.0	7.2	2.0
20	12.6	5.2	3.5	1.0	3.7	2.6	.0	.0	5.5	.7	9.1	.3
21	12.0	4.9	3.7	2.7	3.7	2.0	.0	.0	8.4	2.6	7.6	2.7
22	12.0	4.8	3.2	1.0	2.1	.6	.0	.0	5.5	2.2	11.6	2.3
23	9.2	6.0	2.0	.4	1.3	.0	.0	.0	5.2	1.8	8.5	4.4
24	10.3	4.8	2.9	.8	.0	.0	.0	.0	5.7	.0	11.2	3.9
25	9.2	5.3	4.5	2.5	.0	.0	.0	.0	6.7	2.2	12.1	4.8
26	10.6	5.3	4.4	3.2	.0	.0	.0	.0	7.2	.0	11.9	3.9
27	10.4	6.0	4.8	3.0	.0	.0	.0	.0	8.4	.6	9.0	5.5
28	5.8	1.5	4.7	2.9	.0	.0	.0	.0	9.2	1.3	13.7	6.2
29	3.3	.2	2.9	1.1	.0	.0	.0	.0	8.8	1.8	9.9	4.0
30	3.2	.5	1.1	.0	.0	.0	.0	.0	---	---	11.0	3.5
31	3.2	.2	---	---	.0	.0	.0	.0	---	---	13.0	4.2
MONTH	18.2	.2	9.0	.0	3.9	.0	.0	.0	9.2	.0	13.7	.3
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.9	3.3	14.9	9.0	20.8	8.3	18.1	11.0	18.9	14.2	15.4	11.6
2	12.7	.0	---	---	22.2	7.7	18.2	11.0	19.1	14.7	16.7	10.5
3	15.2	3.4	---	---	20.4	10.4	20.6	10.0	17.8	15.1	14.8	11.3
4	11.8	5.1	---	---	15.8	9.4	20.5	11.4	16.8	14.4	14.1	11.4
5	12.8	4.3	---	---	19.9	9.5	20.3	11.5	16.2	14.1	15.7	9.5
6	12.5	4.9	16.5	6.6	18.0	7.6	21.6	12.6	16.3	14.4	15.7	10.0
7	15.5	4.1	19.7	7.1	16.5	10.2	15.6	12.4	17.1	14.1	18.2	9.5
8	14.8	4.3	20.3	7.4	16.2	8.8	16.4	11.3	16.8	14.5	17.4	10.2
9	13.1	5.1	14.0	8.6	19.6	8.9	21.7	11.0	17.7	13.4	19.1	9.9
10	14.1	6.2	19.4	6.6	19.8	9.7	19.2	12.4	17.4	14.9	17.4	9.5
11	16.8	8.1	20.1	6.2	16.4	10.3	18.6	12.0	---	---	17.4	9.7
12	15.9	7.3	16.7	9.7	21.5	9.0	17.6	12.7	---	---	15.2	11.1
13	14.0	6.2	16.9	7.3	20.1	9.2	21.7	12.3	---	---	18.9	10.1
14	14.3	8.7	21.5	8.0	19.2	8.7	21.2	12.6	19.6	13.7	17.0	9.5
15	13.6	7.7	20.4	7.6	19.6	8.9	17.7	9.4	20.4	13.9	17.7	12.1
16	11.3	7.1	22.9	7.6	14.5	8.4	18.6	10.5	20.9	15.1	18.1	11.3
17	12.0	6.6	20.4	7.6	21.1	8.0	20.8	12.9	21.6	15.0	16.9	11.9
18	11.8	5.9	22.8	7.2	22.5	9.2	21.3	13.7	20.8	14.2	18.2	10.2
19	11.5	6.2	23.2	8.9	22.8	9.7	18.8	14.5	20.8	13.8	15.1	11.8
20	12.6	5.8	20.5	11.7	22.8	10.0	17.4	13.6	19.9	13.5	17.1	10.9
21	12.9	5.9	18.4	10.9	20.3	10.5	19.2	13.4	19.4	14.3	19.0	10.9
22	11.6	7.7	25.5	10.1	22.9	10.1	17.7	13.8	18.2	14.8	19.1	9.4
23	12.6	7.9	21.7	10.5	22.3	12.0	18.2	13.9	15.7	12.9	19.0	9.8
24	12.8	7.1	25.1	10.8	18.8	11.9	17.4	14.1	16.8	13.1	16.2	10.4
25	13.6	7.1	23.1	11.6	18.8	12.2	19.1	14.2	16.8	12.0	15.4	10.1
26	14.5	7.6	20.4	11.2	16.8	11.8	20.6	13.9	17.1	11.0	14.0	6.9
27	14.7	8.8	19.9	10.7	21.2	10.7	20.5	14.6	16.9	9.4	15.7	6.9
28	15.7	8.9	21.3	10.1	23.9	12.9	19.1	14.7	17.7	9.8	16.1	7.1
29	15.8	9.2	18.5	9.6	20.5	12.6	19.1	14.0	16.1	11.4	16.6	7.3
30	15.9	9.9	17.7	8.7	19.8	11.1	19.9	14.1	17.0	12.3	16.3	7.1
31	---	---	19.2	8.1	---	---	19.4	14.5	15.9	13.0	---	---
MONTH	16.8	.0	---	---	23.9	7.6	21.7	9.4	---	---	19.1	6.9

09306222 PICEANCE CREEK AT WHITE RIVER, CO

LOCATION.--Lat 40°05'14", long 108°14'34", in SW¼NE¼ sec.2, T.1 N., R.97 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 0.9 mi downstream from county highway bridge, 1.0 mi southwest of White River City, 0.15 mi upstream from mouth, 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: Dec. 2-7, 11-13, and Dec. 18 to Feb. 24. Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 5,500 acres upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	19	11	22	20	32	30	13	2.8	1.2	12	11
2	4.8	26	12	23	19	29	31	12	2.5	1.2	13	9.2
3	4.1	47	14	22	18	30	26	12	2.2	1.2	14	8.3
4	3.6	66	16	22	19	29	24	14	2.3	1.2	16	7.0
5	3.6	44	17	21	20	37	23	15	2.7	1.4	19	6.6
6	3.3	33	19	20	21	36	22	14	2.3	1.7	19	6.1
7	2.2	37	22	22	23	31	21	14	3.1	1.7	20	6.1
8	2.3	37	18	24	21	30	16	13	3.9	2.1	18	6.1
9	2.3	31	15	24	20	28	13	15	3.8	2.2	19	6.1
10	2.5	31	15	25	20	27	11	14	3.0	2.4	18	5.6
11	2.4	28	14	24	20	27	10	10	2.5	5.2	29	5.5
12	2.2	26	13	23	21	26	9.1	7.9	2.5	9.3	25	5.4
13	2.4	25	12	22	22	25	9.4	7.4	2.2	10	25	5.0
14	2.5	26	11	21	23	25	8.4	7.2	2.1	11	24	4.9
15	2.9	29	11	21	23	25	8.8	7.3	2.3	9.6	23	5.0
16	2.9	26	12	22	23	25	9.2	7.0	2.3	62	23	5.1
17	2.7	24	11	21	22	24	8.0	7.3	2.3	20	24	5.5
18	2.7	25	12	20	21	26	9.0	6.8	1.2	15	22	5.4
19	2.5	24	13	20	20	27	8.7	6.2	1.0	12	21	5.6
20	2.6	23	13	20	21	27	8.2	3.1	1.2	11	20	6.5
21	2.7	23	12	20	21	28	7.9	3.4	1.1	13	20	5.6
22	3.1	23	12	19	22	29	9.2	2.8	1.0	10	19	5.6
23	3.1	19	11	18	23	28	14	2.7	.97	9.9	21	5.6
24	4.4	22	11	19	23	29	15	4.1	.86	17	22	5.7
25	4.0	20	10	20	24	30	13	3.3	.84	28	22	6.8
26	5.3	20	12	21	24	29	12	4.4	1.2	15	21	6.9
27	5.6	20	14	22	27	27	13	5.0	1.6	12	19	6.4
28	7.5	20	16	22	28	27	13	4.0	1.4	11	16	5.0
29	13	20	19	21	31	29	13	3.3	1.2	11	15	3.7
30	16	17	19	21	---	34	14	3.0	1.2	11	13	5.3
31	13	---	20	20	---	30	---	2.9	---	10	12	---
TOTAL	137.8	831	437	662	640	886	429.9	245.1	59.57	329.3	604	182.6
MEAN	4.45	27.7	14.1	21.4	22.1	28.6	14.3	7.91	1.99	10.6	19.5	6.09
MAX	16	66	22	25	31	37	31	15	3.9	62	29	11
MIN	2.2	17	10	18	18	24	7.9	2.7	.84	1.2	12	3.7
AC-FT	273	1650	867	1310	1270	1760	853	486	118	653	1200	362

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1992, BY WATER YEAR (WY)

MEAN	28.9	34.0	29.5	26.9	31.0	46.6	56.1	72.2	36.7	28.3	34.0	24.7
MAX	86.1	76.9	72.0	64.9	86.6	123	245	343	247	125	109	75.4
(WY)	1986	1986	1986	1986	1986	1986	1986	1985	1983	1984	1984	1984
MIN	1.60	10.1	13.5	11.4	16.3	17.2	3.54	2.27	1.64	1.56	1.67	2.03
(WY)	1965	1965	1991	1973	1973	1972	1972	1972	1966	1972	1990	1966

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1965 - 1992	
ANNUAL TOTAL	4980.92		5444.27			
ANNUAL MEAN	13.6		14.9		37.5	
HIGHEST ANNUAL MEAN					109	1985
LOWEST ANNUAL MEAN					12.5	1990
HIGHEST DAILY MEAN	66	Nov 4	66	Nov 4	525	May 28 1983
LOWEST DAILY MEAN	.75	May 23	.84	Jun 25	[a].50	Jul 21 1966
ANNUAL SEVEN-DAY MINIMUM	1.1	Jun 28	1.0	Jun 19	.84	Jul 30 1971
INSTANTANEOUS PEAK FLOW			191	Nov 3	[c]628	Sep 7 1978
INSTANTANEOUS PEAK STAGE			[b]3.71	Nov 3	7.04	Sep 7 1978
ANNUAL RUNOFF (AC-FT)	9880		10800		27130	
10 PERCENT EXCEEDS	26		27		77	
50 PERCENT EXCEEDS	14		14		25	
90 PERCENT EXCEEDS	1.5		2.4		3.7	

a-Also occurred Jul 22, 1966.
b-Maximum gage height, 4.71 ft, Feb 9, backwater from ice.
c-On basis of slope-area measurement of peak flow.

09306222 PICEANCE CREEK AT WHITE RIVER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1970 to July 1986, March 1987, March 1990 to current year.

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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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										
07...	1630	39	2350	8.8	9.0	--	610	78	100	350
MAR										
03...	1520	32	1990	8.3	7.0	9.5	500	75	75	280
JUN										
03...	1230	2.2	4430	8.8	21.5	9.1	470	31	94	990
SEP										
17...	1150	5.3	3520	8.6	15.5	9.3	510	39	100	710

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)
NOV									
07...	6	3.9	732	540	54	1.2	16	1590	2.16
MAR									
03...	5	4.7	679	390	42	0.9	15	1300	1.76
JUN									
03...	20	5.0	1830	500	180	2.7	6.3	2910	3.96
SEP									
17...	14	4.6	1350	500	110	1.6	9.1	2290	3.11

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA 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-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
NOV									
07...	166	0.02	0.38	0.22	0.48	0.70	0.05	0.05	7.0
MAR									
03...	112	0.02	0.56	0.18	0.52	0.70	0.09	0.04	7.2
JUN									
03...	17.3	--	--	--	--	--	--	--	--
SEP									
17...	32.5	--	--	--	--	--	--	--	--

09306222 PICEANCE CREEK AT WHITE RIVER, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	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)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
07...	3	200	290	<1	10	20	90	7	2	3200	10
MAR											
03...	3	120	230	<1	460	29	51	5	3	2700	18
JUN											
03...	--	--	750	--	--	--	--	--	--	2300	--
SEP											
17...	--	--	570	--	--	--	--	--	--	2400	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
FEB					JUL				
26...	0845	22	2390	0.0	08...	1610	2.0	3900	20.0
APR					AUG				
01...	1355	28	1920	13.0	13...	1520	25	2090	25.0
MAY									
07...	1240	12	2800	16.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					JUN				
03...	1520	32	1530	132	03...	1230	2.2	147	0.87
APR					SEP				
01...	1355	28	811	61	17...	1150	5.3	140	2.0

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 6,580 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No diversions upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.31	.27	.28	.32	.32	.51	.27	.16	.12	.10	.24	.38
2	.31	.27	.28	.32	.32	.64	.26	.15	.11	.10	.24	.38
3	.31	.28	.28	.32	.32	.44	.26	.15	.09	.10	.23	.38
4	.31	.28	.28	.32	.32	.45	.26	.16	.09	.10	.23	.43
5	.32	.29	.28	.32	.32	.56	.25	.16	.09	.11	.24	.42
6	.31	.29	.28	.33	.32	.45	.24	.17	.09	.11	.26	.39
7	.32	.29	.28	.32	.32	.42	.24	.17	.09	.11	.24	.39
8	.33	.33	.28	.33	.32	.36	.24	.16	.10	.11	.24	.38
9	.33	.36	.28	.33	.33	.35	.24	.17	.09	.12	.23	.38
10	.33	.36	.28	.33	.34	.32	.23	.17	.09	.12	.23	.38
11	.33	.33	.28	.33	.34	.32	.23	.17	.09	.12	.23	.37
12	.33	.32	.28	.34	.34	.32	.23	.16	.09	.14	.23	.37
13	.33	.32	.28	.34	.34	.32	.22	.15	.09	.13	.22	.38
14	.33	.37	.26	.33	.34	.32	.22	.15	.09	.12	.21	.37
15	.33	.31	.23	.32	.34	.32	.22	.15	.09	.11	.21	.38
16	.32	.33	.24	.30	.34	.32	.21	.15	.09	.10	.21	.38
17	.32	.34	.23	.30	.34	.32	.22	.15	.09	.10	1.9	.38
18	.32	.30	.23	.30	.34	.31	.23	.14	.09	.09	.37	.37
19	.32	.29	.25	.31	.34	.29	.23	.14	.09	.09	.36	.43
20	.32	.29	.25	.31	.35	.30	.22	.15	.09	.09	.35	.46
21	.32	.30	.25	.30	.37	.30	.23	.15	.09	.09	.35	.40
22	.32	.29	.25	.31	.39	.31	.22	.14	.09	.09	.36	.38
23	.35	.28	.25	.32	.38	.29	.20	.14	.09	.23	.38	.37
24	.36	.28	.25	.32	.36	.28	.20	.14	.10	.22	.36	.37
25	.34	.29	.27	.32	.36	.28	.20	.15	.09	1.0	.38	.38
26	.33	.30	.30	.32	.35	.28	.20	.14	.10	.32	.42	.39
27	.32	.30	.32	.32	.37	.27	.17	.13	.10	.25	.38	.39
28	.30	.30	.32	.32	.43	.26	.17	.13	.10	.25	.37	.39
29	.30	.29	.32	.32	.55	.26	.17	.13	.10	.25	.37	.39
30	.30	.28	.32	.32	---	.26	.17	.14	.10	.24	.36	.39
31	.29	---	.32	.32	---	.26	---	.13	---	.24	.37	---
TOTAL	9.96	9.13	8.50	9.91	10.20	10.69	6.65	4.65	2.82	5.35	10.77	11.65
MEAN	.32	.30	.27	.32	.35	.34	.22	.15	.09	.17	.35	.39
MAX	.36	.37	.32	.34	.55	.64	.27	.17	.12	1.0	1.9	.46
MIN	.29	.27	.23	.30	.32	.26	.17	.13	.09	.09	.21	.37
AC-FT	20	18	17	20	20	21	13	9.2	5.6	11	21	23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1992, BY WATER YEAR (WY)

MEAN	1.15	.92	.85	.83	.90	1.30	2.71	7.71	4.78	2.10	1.62	1.39
MAX	2.88	1.99	2.07	2.40	2.22	4.62	12.8	41.7	33.4	8.98	5.56	3.39
(WY)	1979	1984	1979	1979	1979	1979	1985	1984	1983	1984	1984	1978
MIN	.30	.28	.27	.30	.32	.31	.22	.15	.09	.17	.29	.32
(WY)	1991	1978	1992	1977	1977	1977	1992	1992	1992	1992	1977	1991

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1974 - 1992	
ANNUAL TOTAL	119.81		100.28			
ANNUAL MEAN	.33		.27		2.27	
HIGHEST ANNUAL MEAN					7.75	1984
LOWEST ANNUAL MEAN					.27	1992
HIGHEST DAILY MEAN	.86	Mar 4	1.9	Aug 17	207[c]	Jun 1 1983
LOWEST DAILY MEAN	.23[a]	Dec 15	.09[b]	Jun 3	.06[c]	Apr 10 1974
ANNUAL SEVEN-DAY MINIMUM	.24	Dec 15	.09	Jun 9	.07	Apr 10 1974
INSTANTANEOUS PEAK FLOW			53	Aug 17	1780[d]	Aug 18 1984
INSTANTANEOUS PEAK STAGE			2.93	Aug 17	6.12	Aug 18 1984
ANNUAL RUNOFF (AC-FT)	238		199		1640	
10 PERCENT EXCEEDS	.39		.38		4.2	
50 PERCENT EXCEEDS	.31		.29		.89	
90 PERCENT EXCEEDS	.28		.10		.31	

a-Also occurred Dec 17 and 18.
b-Also occurred Jun 4-7, 9-23, 25, and Jul 18-22.
c-Also occurred Apr 11-14, 1974.
d-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.

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 September 1989.
WATER TEMPERATURE: January 1975 to September 1989.
SUSPENDED-SEDIMENT DISCHARGE: October 1974 to September 1985.

INSTRUMENTATION.--Water-quality monitor October 1974 to August 1989. 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.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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										
14...	0930	0.30	1600	8.2	8.0	9.6	630	110	85	140
MAR										
05...	0930	0.38	1560	7.7	7.0	8.8	620	110	83	130
JUN										
02...	1415	0.11	1610	8.0	16.0	7.3	610	110	81	130

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)
NOV									
14...	2	1.5	477	410	14	0.3	22	1070	1.46
MAR									
05...	2	1.4	466	410	17	0.3	22	1060	1.44
JUN									
02...	2	1.1	477	370	20	0.4	22	1020	1.39

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA 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-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
NOV									
14...	0.87	<0.01	0.30	0.06	0.34	0.40	0.02	0.01	5.6
MAR									
05...	1.08	<0.01	0.21	0.06	0.24	0.30	0.02	0.02	8.5
JUN									
02...	0.30	--	--	--	--	--	--	--	--

09306242 CORRAL GULCH NEAR RANGELY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	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)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
14...	4	63	130	<1	11	28	33	23	<1	2800	7
MAR											
05...	4	59	120	<1	26	25	60	21	2	2700	8
JUN											
02...	--	--	140	--	--	--	--	--	--	2700	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
JAN					JUL				
06...	1335	0.34	1610	8.0	03...	1600	0.11	1600	16.0
FEB					AUG				
26...	1430	0.34	1500	9.5	13...	1100	0.23	1590	16.5
MAY					SEP				
05...	1300	0.16	1600	15.5	17...	1400	0.37	1550	13.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					JUN				
05...	0930	0.38	7	0.01	02...	1415	0.11	12	0.00

09306255 YELLOW CREEK NEAR WHITE RIVER, CO

LOCATION.--Lat 40°10'07", long 108°24'02", in NE¼SW¼ sec.4, T.2 N., R.98 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 160 ft downstream from bridge on State Highway 64, 0.3 mi upstream from mouth, and 10.0 mi northwest of White River City.

DRAINAGE AREA.--262 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to September 1982, May 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 5,535 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29 to Nov. 6, Dec. 2 to Feb. 26, and Mar. 8 to Apr. 2. Records fair except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 300 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.0	2.5	2.1	2.3	4.4	2.6	2.1	1.8	1.1	1.5	1.4
2	1.7	1.8	2.4	2.1	2.3	3.6	2.5	2.1	1.7	1.1	1.4	1.3
3	1.7	1.8	2.4	2.1	2.3	3.4	2.4	2.0	1.7	1.2	1.4	1.3
4	1.7	2.0	2.3	2.2	2.3	3.6	2.4	2.0	1.7	1.1	1.4	1.4
5	1.8	2.4	2.3	2.2	2.3	5.3	2.4	2.0	1.8	1.0	1.3	1.5
6	1.8	2.6	2.3	2.3	2.3	3.7	2.3	2.0	1.7	1.0	1.6	1.4
7	1.8	2.6	2.2	2.3	2.4	3.1	2.3	2.0	1.7	1.1	1.5	1.4
8	1.8	2.4	2.1	2.3	2.5	3.0	2.3	2.1	1.8	1.2	1.4	1.4
9	1.8	2.4	2.2	2.2	2.6	2.9	2.3	2.6	1.7	1.3	1.4	1.4
10	1.8	2.6	2.2	2.2	2.7	2.8	2.3	2.4	1.7	1.2	1.3	1.4
11	1.8	2.4	2.2	2.3	2.7	2.7	2.3	2.1	2.2	1.2	1.3	1.4
12	1.8	2.6	2.2	2.3	2.8	2.5	2.2	2.1	1.7	1.6	1.2	1.4
13	1.8	2.5	2.1	2.2	2.8	2.6	2.2	2.1	1.6	1.8	1.2	1.5
14	1.8	2.7	2.0	2.1	2.9	2.6	2.6	2.0	1.5	1.4	1.2	1.5
15	1.8	3.2	1.9	2.0	2.9	2.6	2.7	2.0	1.5	1.3	1.2	1.4
16	1.8	2.7	1.8	1.9	2.9	2.6	2.6	1.9	1.5	1.3	1.2	1.4
17	1.8	2.6	1.8	1.8	3.0	2.6	2.4	1.9	1.6	1.3	1.3	1.6
18	1.8	3.0	1.8	1.9	3.0	2.6	2.6	1.9	1.5	1.2	1.3	1.7
19	1.8	2.9	1.7	2.0	3.0	2.5	2.5	1.8	1.4	1.2	1.2	3.3
20	1.8	2.9	1.8	2.1	3.1	2.4	2.4	2.0	1.3	1.3	1.1	3.4
21	1.8	2.7	1.8	2.1	3.2	2.5	2.3	2.2	1.3	1.3	1.1	2.1
22	1.8	2.8	1.9	2.2	3.4	2.6	2.7	2.0	1.3	1.2	1.2	1.9
23	2.1	2.7	1.9	2.0	3.7	2.6	2.5	2.0	1.2	1.2	1.3	1.9
24	2.3	3.3	1.9	2.0	3.6	2.6	2.4	1.9	1.2	15	1.3	1.9
25	2.1	3.2	1.9	2.1	3.5	2.5	2.3	1.8	1.3	10	1.3	1.9
26	2.0	3.1	1.8	2.2	3.5	2.6	2.3	2.1	1.3	5.6	1.4	1.9
27	2.0	3.2	1.9	2.2	3.8	2.7	2.2	2.2	1.4	1.9	1.3	1.9
28	2.3	3.1	1.9	2.3	4.1	2.7	2.2	1.9	1.3	1.8	1.3	2.1
29	2.0	3.2	2.0	2.3	4.5	2.6	2.2	1.8	1.2	1.8	1.3	2.1
30	1.9	2.5	2.1	2.3	---	2.6	2.1	1.8	1.1	1.7	1.3	2.2
31	1.9	---	2.1	2.3	---	2.5	---	1.8	---	1.5	1.3	---
TOTAL	57.8	79.9	63.4	66.6	86.4	90.0	71.5	62.6	45.7	67.9	40.5	52.4
MEAN	1.86	2.66	2.05	2.15	2.98	2.90	2.38	2.02	1.52	2.19	1.31	1.75
MAX	2.3	3.3	2.5	2.3	4.5	5.3	2.7	2.6	2.2	15	1.6	3.4
MIN	1.7	1.8	1.7	1.8	2.3	2.4	2.1	1.8	1.1	1.0	1.1	1.3
AC-FT	115	158	126	132	171	179	142	124	91	135	80	104

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1992, BY WATER YEAR (WY)

MEAN	1.81	2.18	1.84	1.78	3.79	3.44	2.54	4.35	3.25	2.98	1.95	2.88
MAX	5.30	5.94	4.76	4.63	12.7	8.39	5.24	24.1	19.9	18.5	6.16	17.1
(WY)	1989	1989	1989	1990	1980	1989	1989	1985	1985	1985	1988	1978
MIN	.50	.78	.15	.008	.22	1.64	1.37	1.03	.68	.34	.30	.80
(WY)	1979	1978	1979	1979	1979	1982	1978	1978	1977	1976	1978	1976

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1973 - 1992	
ANNUAL TOTAL	926.7		784.7			
ANNUAL MEAN	2.54		2.14		2.28	
HIGHEST ANNUAL MEAN					4.80	1989
LOWEST ANNUAL MEAN					1.28	1977
HIGHEST DAILY MEAN	5.6	Mar 1	15	Jul 24	500	Sep 7 1978
LOWEST DAILY MEAN	1.1	Jul 16	[a]1.0	Jul 5	[b].00	Sep 11 1978
ANNUAL SEVEN-DAY MINIMUM	1.3	Jul 12	1.1	Jun 30	.00	Dec 15 1978
INSTANTANEOUS PEAK FLOW			100	Jul 24	[c]6800	Sep 7 1978
INSTANTANEOUS PEAK STAGE			6.66	Jul 24	12.97	Sep 7 1978
ANNUAL RUNOFF (AC-FT)	1840		1560		1660	
10 PERCENT EXCEEDS	3.4		2.9		4.7	
50 PERCENT EXCEEDS	2.4		2.0		1.8	
90 PERCENT EXCEEDS	1.7		1.3		.70	

a-Also occurred Jul 6.
b-Also occurred Sep 12-16, 1978, and Dec 15, 1978 to Jan 14, 1979.
c-On basis of contracted-opening, and flow-over-road measurement of peak flow.

09306255 YELLOW CREEK NEAR WHITE RIVER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1974 to September 1982, March 1988 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1975 to September 1982.
WATER TEMPERATURE: April 1975 to September 1982.
SUSPENDED-SEDIMENT DISCHARGE: April 1974 to September 1982.

INSTRUMENTATION.--Automatic pumping sediment sampler April 1974 to September 1982. Water-quality monitor April 1975 to September 1982.

REMARKS.--Unpublished maximum and minimum specific conductance data for the period of daily record are available in the district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum 5,790 microsiemens Sept. 17, 1978; minimum, 457 microsiemens July 21, 1979.
WATER TEMPERATURES: Maximum 35.0°C July 25, 1978; minimum, 0.0°C on many days during the winter period.
SEDIMENT CONCENTRATIONS: Maximum daily, 24,000 mg/L Sept. 07, 1978; minimum daily, no flow several days during Sept. 1978, many days during 1979.
SEDIMENT LOADS: Maximum daily, 290,000 tons Sept. 07, 1978; minimum daily, no flow several days during Sept. 1978, many days during 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	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										
13...	1456	3.0	3600	8.4	6.0	8.1	940	61	190	630
MAR										
03...	1300	3.0	3570	8.7	7.0	10.2	930	73	180	590
JUN										
05...	0945	1.8	3880	8.6	13.5	12.5	790	33	170	700
SEP										
17...	0900	1.7	3830	8.4	13.0	8.3	790	33	170	700

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)
NOV										
13...	9	3.7	1110	920	78	1.4	10	2570	3.50	21.0
MAR										
03...	8	3.9	1070	960	84	1.1	16	2560	3.48	20.7
JUN										
05...	11	3.1	1190	880	120	1.6	1.7	2630	3.57	12.8
SEP										
17...	11	5.2	1260	840	110	1.3	4.1	2620	3.57	12.2

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. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
NOV									
13...	1.68	0.02	1.70	0.06	0.44	0.50	0.01	0.01	9.0
MAR									
03...	1.38	0.02	1.40	0.21	0.49	0.70	0.11	0.10	8.7

09306255 YELLOW CREEK NEAR WHITE RIVER, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, DIS-SOLVED (UG/L AS BA)	BORON, DIS-SOLVED (UG/L AS B)	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)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, DIS-SOLVED (UG/L AS ZN)
NOV											
13...	5	200	570	<1	<10	90	20	32	1	4100	20
MAR											
03...	6	200	450	<1	20	80	80	37	3	4200	10
JUN											
05...	--	--	630	--	--	--	--	--	--	4700	--
SEP											
17...	--	--	630	--	--	--	--	--	--	4900	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
JAN					JUN				
07...	1205	2.3	--	1.0	04...	1045	1.6	3900	14.5
FEB					JUL				
25...	1350	3.5	2880	5.0	08...	1440	1.2	3900	21.0
APR					AUG				
01...	1145	2.6	3580	10.5	12...	1530	1.2	3810	23.5
MAY									
06...	1210	2.0	3790	18.0					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR					JUN				
03...	1300	3.0	1290	10	05...	0945	1.8	234	1.1
APR					SEP				
01...	1145	2.6	429	3.0	17...	0900	1.7	174	0.81

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 5 ft upstream from bridge on County Road 73, 0.5 mi dowmstream from Boise Creek, and 6.4 mi east of Rangely.

DRAINAGE AREA.--2,530 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,395 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29 to Nov. 8, Nov. 20, 21, 23-25, and Dec. 5 to Mar. 11. Records good except Mar. 31 to June 5, which are fair and estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 31,500 acres.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	378	425	378	290	340	330	432	1350	1080	477	344	265
2	371	410	316	290	340	330	432	1340	916	468	335	261
3	363	415	355	280	330	320	434	1180	872	505	326	240
4	354	410	394	290	320	340	440	1190	876	589	307	227
5	380	450	370	310	320	350	456	1190	889	547	312	236
6	391	500	390	330	320	360	467	1120	888	464	312	251
7	387	580	410	360	320	360	470	1100	871	448	350	252
8	375	530	420	380	320	370	473	1100	861	518	362	243
9	363	492	400	350	330	370	479	1280	800	602	351	232
10	363	487	410	340	310	380	492	1650	772	584	323	226
11	369	475	420	330	310	390	521	1350	764	550	316	226
12	374	452	415	370	310	411	583	1140	775	611	317	231
13	374	440	400	360	320	442	662	1150	762	801	305	229
14	368	438	370	310	310	469	760	1130	738	678	287	230
15	371	473	330	340	320	471	818	1100	710	606	283	221
16	363	463	340	330	320	487	865	1100	696	599	272	216
17	357	441	310	340	320	481	845	1090	686	600	286	237
18	336	449	315	340	315	465	882	1130	676	499	324	247
19	333	463	330	350	310	434	900	1210	630	466	336	285
20	339	375	340	350	310	402	818	1220	611	461	273	341
21	340	420	330	350	320	401	748	1350	589	517	246	341
22	335	466	320	350	330	427	725	1470	587	443	279	309
23	352	370	300	330	330	419	800	1380	564	424	282	296
24	440	360	280	320	320	441	716	1400	546	572	277	282
25	498	400	260	330	320	439	677	1320	516	762	273	271
26	487	454	250	340	320	420	713	1350	555	568	263	274
27	465	449	240	340	320	416	775	1470	574	495	254	273
28	465	443	250	330	320	430	900	1440	599	448	252	275
29	440	436	260	330	320	454	1100	1290	581	426	247	277
30	420	415	260	330	---	449	1240	1240	518	419	248	275
31	400	---	270	340	---	438	---	1140	---	404	250	---
TOTAL	11951	13381	10433	10330	9295	12696	20623	38970	21502	16551	9192	7769
MEAN	386	446	337	333	321	410	687	1257	717	534	297	259
MAX	498	580	420	380	340	487	1240	1650	1080	801	362	341
MIN	333	360	240	280	310	320	432	1090	516	404	246	216
AC-FT	23700	26540	20690	20490	18440	25180	40910	77300	42650	32830	18230	15410

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1992, BY WATER YEAR (WY)

MEAN	568	539	470	408	407	563	864	1876	2153	966	567	464
MAX	858	710	663	572	531	752	1511	3434	4572	2020	1117	849
(WY)	1985	1986	1986	1986	1986	1986	1985	1984	1984	1983	1984	1984
MIN	364	362	301	260	268	355	440	566	717	359	202	237
(WY)	1990	1991	1991	1991	1991	1991	1990	1990	1992	1989	1990	1990

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1983 - 1992	
ANNUAL TOTAL	209788		182693			
ANNUAL MEAN	575		499		821	
HIGHEST ANNUAL MEAN					1345	1984
LOWEST ANNUAL MEAN					428	1990
HIGHEST DAILY MEAN	2250	Jun 15	1650	May 10	6170	May 26 1984
LOWEST DAILY MEAN	227	Sep 5	216	Sep 16	126	Sep 7 1989
ANNUAL SEVEN-DAY MINIMUM	244	Jan 29	226	Sep 10	157	Aug 11 1990
INSTANTANEOUS PEAK FLOW			1760	May 10	6440	Jun 7 1984
INSTANTANEOUS PEAK STAGE			5.08	May 10	8.45	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	416100		362400		595100	
10 PERCENT EXCEEDS	1470		900		1640	
50 PERCENT EXCEEDS	397		400		542	
90 PERCENT EXCEEDS	260		273		320	

09306290 WHITE RIVER BELOW BOISE CREEK NEAR RANGELY, CO--Continued

WATER-QUALITY RECORDS

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)
MAR										
11...	1145	391	934	8.5	6.5	10.2	340	78	35	75
JUN										
16...	1145	624	589	8.4	15.5	8.1	260	69	21	28
AUG										
12...	1230	337	713	8.4	23.0	10.7	280	64	29	50
SEP										
15...	1145	228	800	8.4	17.0	8.2	310	74	30	50

DATE	SODIUM ADSORPTION RATIO	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
MAR									
11...	2	2.3	223	250	20	0.2	15	610	0.83
JUN									
16...	0.8	1.6	177	120	9.5	<0.1	14	370	0.50
AUG									
12...	1	1.7	186	180	15	0.3	8.3	460	0.63
SEP									
15...	1	1.9	204	190	16	0.4	14	500	0.68

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	NITROGEN, NITRITE TOTAL (MG/L AS N)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA TOTAL (MG/L AS N)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N)	NITROGEN, ORGANIC DISSOLVED (MG/L AS N)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N)
MAR									
11...	644	--	<0.01	--	0.14	--	0.04	0.26	--
JUN									
16...	624	<0.01	<0.01	<0.05	<0.05	0.04	0.02	--	0.20
AUG									
12...	418	--	<0.01	--	<0.05	--	0.01	0.29	--
SEP									
15...	308	<0.01	<0.01	<0.05	<0.05	0.03	0.03	0.27	0.30

DATE	NITROGEN, AMMONIA + ORGANIC DIS. (MG/L AS N)	PHOSPHORUS TOTAL (MG/L AS P)	PHOSPHORUS DISSOLVED (MG/L AS P)	PHOSPHORUS ORTHO TOTAL (MG/L AS P)	PHOSPHORUS ORTHO, DISSOLVED (MG/L AS P)	PHOSPHORUS HYDRO. + ORTHO DIS. (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DISSOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)
MAR									
11...	0.30	--	0.03	--	0.02	0.02	--	5.3	--
JUN									
16...	<0.20	0.01	--	0.03	--	--	3.7	3.3	<0.01
AUG									
12...	0.30	--	<0.01	--	<0.01	0.01	--	4.0	--
SEP									
15...	0.30	0.010	<0.01	<0.01	<0.01	<0.01	3.5	3.2	<0.01

DATE	ALUMINUM, TOTAL RECOVERABLE (UG/L AS AL)	ALUMINUM, DISSOLVED (UG/L AS AL)	ANTIMONY, TOTAL (UG/L AS SB)	ANTIMONY, DISSOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DISSOLVED (UG/L AS AS)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA)	BARIUM, DISSOLVED (UG/L AS BA)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE)	BERYLLIUM, DISSOLVED (UG/L AS BE)
JUN										
16...	190	20	<1	<1	1	<1	<100	70	<10	<0.5
SEP										
15...	150	20	<1	<1	<1	1	<100	48	<10	<0.5

09306290 WHITE RIVER BELOW BOISE CREEK NEAR RANGELY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	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)	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)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE)
MAR										
11...	60	--	--	--	--	--	--	--	--	--
JUN										
16...	40	<1	<1	<1	<1	<1	<1	2	2	290
AUG										
12...	70	--	--	--	--	--	--	--	--	--
SEP										
15...	110	<1	<1	<1	<1	<1	<1	5	4	200

DATE	IRON, DIS-SOLVED (UG/L AS FE)	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)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO)
MAR										
11...	9	--	--	--	--	--	--	--	--	--
JUN										
16...	42	2	<1	10	30	10	<0.1	<0.1	1	1
AUG										
12...	10	--	--	--	--	--	--	--	--	--
SEP										
15...	11	1	<1	20	20	6	<0.1	<0.1	2	2

DATE	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)	STRON-TIUM, TOTAL RECOV-ERABLE (UG/L AS SR)	STRON-TIUM, DIS-SOLVED (UG/L AS SR)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN)	ZINC, DIS-SOLVED (UG/L AS ZN)
JUN										
16...	5	2	1	<1	<1	<1.0	640	640	<10	6
SEP										
15...	1	2	1	<1	<1	<1.0	930	870	<10	<3

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV				
13...	1230	405	737	9.0
MAR				
31...	1600	411	790	12.0
MAY				
06...	1700	1180	401	15.5
JUN				
05...	1400	860	489	17.0
JUL				
08...	1230	548	590	18.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
NOV				
13...	1230	405	101	110
MAR				
11...	1145	391	283	299
31...	1600	411	200	222
MAY				
06...	1700	1180	460	1460
JUN				
05...	1400	860	138	320
16...	1145	624	93	157
JUL				
08...	1230	548	66	98
AUG				
12...	1230	337	85	77
SEP				
15...	1145	228	59	36

09339900 EAST FORK SAN JUAN RIVER ABOVE SAND CREEK, NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°23'23", long 106°50'26", in NE1/4 sec.4, T.36 N., R.1 E., 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 mi^2.

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: Oct. 27-29, Nov. 1-12, 14-28, and Nov. 30 to Mar. 19. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1885 occurred Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	16	16	13	10	16	38	396	239	143	51	72
2	31	16	15	11	10	18	39	375	214	124	47	64
3	29	15	12	9.5	10	18	44	360	230	111	44	60
4	28	16	14	11	9.5	18	51	326	246	108	46	54
5	27	17	16	12	9.0	17	53	310	318	109	42	48
6	25	20	16	12	9.0	18	55	310	310	108	51	44
7	24	22	16	12	9.5	19	62	310	306	104	54	42
8	23	23	17	11	10	20	75	306	310	97	47	39
9	22	23	16	10	10	19	93	315	290	95	42	38
10	22	23	16	10	10	17	126	285	274	88	38	35
11	21	23	17	11	10	18	148	251	282	86	37	33
12	21	23	17	11	9.5	20	163	242	298	90	46	32
13	20	24	17	11	9.0	22	209	273	320	93	48	30
14	20	24	15	10	9.5	26	275	297	310	79	44	29
15	19	24	12	9.5	9.5	30	247	306	290	71	44	49
16	19	24	13	9.0	9.5	32	185	315	262	64	46	36
17	19	22	14	9.0	8.5	30	169	330	230	62	43	35
18	18	20	15	9.5	7.0	28	172	354	226	57	38	32
19	18	18	15	9.0	7.5	26	146	365	246	59	36	132
20	18	15	15	8.5	8.5	25	128	433	254	56	35	73
21	17	14	15	8.5	11	24	118	455	258	55	33	61
22	17	14	15	9.0	11	27	117	410	258	50	36	54
23	18	14	14	8.5	11	26	111	361	231	59	81	50
24	19	13	13	8.5	11	25	128	365	222	86	314	46
25	19	15	11	8.5	11	26	162	355	206	107	255	43
26	18	17	12	9.0	12	29	201	350	194	118	186	40
27	17	18	12	9.0	11	31	251	384	190	91	141	38
28	17	18	12	9.5	12	32	314	370	172	78	110	36
29	17	18	13	9.5	13	32	369	331	163	68	92	35
30	17	17	13	9.5	---	37	390	306	160	61	82	35
31	16	---	14	9.5	---	39	---	271	---	56	77	---
TOTAL	649	566	448	308.0	288.5	765	4639	10417	7509	2633	2286	1415
MEAN	20.9	18.9	14.5	9.94	9.95	24.7	155	336	250	84.9	73.7	47.2
MAX	33	24	17	13	13	39	390	455	320	143	314	132
MIN	16	13	11	8.5	7.0	16	38	242	160	50	33	29
AC-FT	1290	1120	889	611	572	1520	9200	20660	14890	5220	4530	2810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1992, BY WATER YEAR (WY)

MEAN	35.6	22.6	14.2	11.9	12.6	25.2	106	296	334	115	53.5	43.0
MAX	107	74.9	30.3	21.7	23.6	62.9	248	520	788	395	143	207
(WY)	1987	1987	1987	1973	1986	1986	1985	1984	1957	1957	1957	1970
MIN	8.39	8.31	4.68	5.00	5.66	8.86	29.2	70.4	60.2	23.9	15.6	10.6
(WY)	1957	1961	1959	1959	1990	1977	1977	1977	1977	1959	1972	1978

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1957 - 1992	
ANNUAL TOTAL	37918.5		31923.5			
ANNUAL MEAN	104		87.2		89.3	
HIGHEST ANNUAL MEAN					155	1985
LOWEST ANNUAL MEAN					31.5	1977
HIGHEST DAILY MEAN	545	May 21	455	May 21	1150	Sep 14 1970
LOWEST DAILY MEAN	9.5	Jan 30	7.0	Feb 18	3.4	Dec 26 1958
ANNUAL SEVEN-DAY MINIMUM	10	Jan 26	8.6	Feb 14	3.7	Dec 13 1958
INSTANTANEOUS PEAK FLOW			728	Aug 24	[a]2260	Sep 14 1970
INSTANTANEOUS PEAK STAGE			4.85	Aug 24	6.75	Sep 14 1970
ANNUAL RUNOFF (AC-FT)	75210		63320		64670	
10 PERCENT EXCEEDS	371		297		268	
50 PERCENT EXCEEDS	36		32		29	
90 PERCENT EXCEEDS	13		10		9.5	

a-From rating curve extended above 460 ft^3/s, on basis of slope-area measurement at gage height, 6.13 ft.

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 with satellite telemetry. 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.--Estimated daily discharges: Oct. 1-9, Jan. 30 to Feb. 5, Feb. 8, 9, 12, 13, 15, 21, and Feb. 23. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of large areas upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	130	90	92	82	60	109	418	1890	1130	578	175	283
2	140	92	91	62	60	115	317	1800	1050	469	154	240
3	120	68	69	54	60	119	313	1690	1110	393	158	228
4	110	91	74	71	60	111	373	1470	1180	363	142	194
5	100	100	100	78	55	106	367	1370	1470	357	142	170
6	95	106	90	77	55	108	367	1370	1480	337	137	160
7	90	120	92	75	59	122	451	1420	1450	318	173	150
8	90	116	106	69	60	128	510	1350	1430	298	161	134
9	85	115	94	56	60	113	621	1410	1250	274	134	118
10	96	125	93	61	62	101	741	1360	1160	249	121	113
11	92	135	102	69	60	109	850	1110	1160	252	144	109
12	87	113	105	74	58	120	919	1060	1240	321	121	103
13	87	107	106	63	55	142	1090	1140	1390	347	149	98
14	87	119	85	67	59	167	1450	1300	1350	304	137	94
15	87	155	69	57	57	194	1320	1350	1250	248	138	144
16	85	159	76	51	58	192	1010	1380	1090	222	121	127
17	83	134	90	57	50	180	867	1460	951	200	138	118
18	81	127	88	60	40	170	855	1570	937	181	116	105
19	78	118	87	56	42	149	741	1670	1010	183	99	608
20	75	105	87	51	55	145	615	2040	1040	192	92	373
21	75	121	84	53	65	150	548	2330	1070	174	88	274
22	75	129	87	50	66	164	562	1990	1060	154	92	225
23	74	85	78	49	65	164	507	1680	926	141	289	203
24	75	68	59	51	69	153	617	1790	875	292	1460	182
25	80	96	62	53	75	158	807	1650	847	415	1150	169
26	79	109	69	54	68	173	948	1700	815	458	824	155
27	77	110	69	56	67	188	1110	1890	775	344	619	148
28	86	115	69	57	79	237	1350	1830	694	295	471	139
29	73	108	76	59	92	240	1650	1600	665	247	382	128
30	78	98	80	60	---	264	1820	1450	636	213	324	127
31	81	---	86	60	---	353	---	1260	---	183	310	---
TOTAL	2751	3334	2615	1892	1771	4944	24114	48380	32491	9002	8761	5419
MEAN	88.7	111	84.4	61.0	61.1	159	804	1561	1083	290	283	181
MAX	140	159	106	82	92	353	1820	2330	1480	578	1460	608
MIN	73	68	59	49	40	101	313	1060	636	141	88	94
AC-FT	5460	6610	5190	3750	3510	9810	47830	95960	64450	17860	17380	10750

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1992, BY WATER YEAR (WY)

MEAN	147	92.4	63.7	55.2	61.0	137	566	1278	1338	392	173	145
MAX	937	399	160	107	134	442	1210	2665	3066	1515	638	859
(WY)	1942	1987	1987	1986	1986	1986	1985	1941	1957	1941	1957	1970
MIN	23.3	33.6	27.5	26.8	29.2	50.3	141	253	163	62.8	28.9	18.8
(WY)	1957	1956	1990	1990	1964	1964	1977	1977	1977	1959	1972	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1936 - 1992	
ANNUAL TOTAL	146768		145474			
ANNUAL MEAN	402		397		371	
HIGHEST ANNUAL MEAN					730	1941
LOWEST ANNUAL MEAN					115	1977
HIGHEST DAILY MEAN	2180	May 21	2330	May 21	4640	May 13 1941
LOWEST DAILY MEAN	48	Jan 31	40	Feb 18	[a]9.7	Oct 5 1956
ANNUAL SEVEN-DAY MINIMUM	53	Jan 25	52	Jan 20	12	Sep 19 1956
INSTANTANEOUS PEAK FLOW			3500	Aug 24	25000	Oct 5 1911
INSTANTANEOUS PEAK STAGE			6.28	Aug 24	[b]17.80	Oct 5 1911
ANNUAL RUNOFF (AC-FT)	291100		288500		268900	
10 PERCENT EXCEEDS	1280		1350		1160	
50 PERCENT EXCEEDS	143		137		107	
90 PERCENT EXCEEDS	69		60		42	

a-Also occurred Oct 6, 1956.
b-From floodmarks.

09343300 RIO BLANCO BELOW BLANCO DIVERSION DAM, NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°12'13", long 106°48'38", in NE¼NW¼ 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.

DRAINAGE AREA.--69.1 mi^2.

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

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,858.04 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Oct. 1-4, Nov. 3, 4, 19-28, Dec. 3 to Jan. 1, Jan. 3 to Feb. 8, Feb. 13, Feb. 16-18, July 16-23, and Aug. 25 to Sept. 4. Records good except for estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

COOPERATION.--Records collected by U.S. Bureau of Reclamation, computed by Colorado Division of Water Resources, and reviewed by Geological Survey.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	26	29	18	20	30	20	51	134	138	42	70
2	26	26	26	18	20	30	20	44	148	120	39	60
3	26	22	24	16	22	29	22	42	144	115	35	50
4	24	22	24	16	22	28	26	42	162	114	35	45
5	23	37	24	18	22	27	26	42	189	119	33	40
6	23	61	24	18	20	26	25	42	186	113	67	36
7	23	61	26	18	20	28	23	42	278	102	60	34
8	22	52	26	18	20	30	23	41	384	98	49	31
9	22	52	26	16	20	27	26	42	303	95	38	29
10	21	60	26	14	20	25	29	42	262	85	33	28
11	21	57	26	14	20	26	25	43	286	84	34	27
12	20	46	28	16	20	29	24	45	330	109	132	26
13	20	42	24	14	20	34	27	52	341	130	68	25
14	19	44	24	14	19	41	24	58	315	96	51	24
15	19	48	20	14	20	44	24	57	280	79	61	29
16	18	46	18	14	16	42	25	59	232	75	57	26
17	18	40	20	14	16	40	26	65	200	70	45	24
18	18	36	20	14	16	37	26	70	214	70	39	22
19	18	34	22	14	17	33	25	59	241	65	34	84
20	18	30	22	14	20	31	24	122	243	65	31	43
21	18	30	22	14	20	33	25	128	250	65	29	32
22	17	32	20	14	20	35	25	98	235	60	54	28
23	18	26	20	14	21	32	25	83	205	60	162	25
24	19	28	18	14	19	31	25	110	235	60	755	23
25	20	28	18	14	20	33	26	89	160	138	250	21
26	19	30	18	16	20	37	26	107	109	150	200	19
27	20	30	18	16	21	38	27	136	94	95	150	18
28	22	30	18	18	23	40	37	153	79	75	120	18
29	22	31	18	20	28	39	37	162	103	61	100	18
30	23	30	18	20	---	29	45	164	142	51	90	17
31	26	---	18	20	---	26	---	165	---	46	80	---
TOTAL	651	1137	685	492	582	1010	788	2455	6484	2803	2973	972
MEAN	21.0	37.9	22.1	15.9	20.1	32.6	26.3	79.2	216	90.4	95.9	32.4
MAX	28	61	29	20	28	44	45	165	384	150	755	84
MIN	17	22	18	14	16	25	20	41	79	46	29	17
AC-FT	1290	2260	1360	976	1150	2000	1560	4870	12860	5560	5900	1930

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	41.6	31.1	20.2	16.7	18.3	35.7	48.0	110	119	59.0	34.9	37.4
MAX	145	98.3	35.6	26.4	28.1	103	200	340	654	202	98.4	161
(WY)	1987	1987	1987	1986	1991	1989	1989	1984	1985	1986	1982	1982
MIN	17.9	13.5	8.52	7.58	10.0	17.5	20.4	40.5	18.9	19.7	15.0	15.8
(WY)	1980	1990	1990	1990	1990	1981	1974	1990	1977	1972	1972	1974

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	14381		21032			
ANNUAL MEAN	39.4		57.5		48.7	
HIGHEST ANNUAL MEAN					135	1985
LOWEST ANNUAL MEAN					19.5	1977
HIGHEST DAILY MEAN	227	Apr 5	755	Aug 24	1330	Jun 8 1985
LOWEST DAILY MEAN	17	Oct 22	[a]14	Jan 10	1.0	Jan 28 1981
ANNUAL SEVEN-DAY MINIMUM	18	Oct 16	14	Jan 13	6.8	Dec 31 1989
INSTANTANEOUS PEAK FLOW			3130	Aug 24	3130	Aug 24 1992
INSTANTANEOUS PEAK STAGE			5.14	Aug 24	5.14	Aug 24 1992
ANNUAL RUNOFF (AC-FT)	28520		41720		35260	
10 PERCENT EXCEEDS	75		138		98	
50 PERCENT EXCEEDS	30		29		22	
90 PERCENT EXCEEDS	20		18		14	

a-Also occurred Jan 11 and Jan 13-25.

09344000 NAVAJO RIVER AT BANDED PEAK RANCH, NEAR CHROMO, CO

LOCATION (REVISED).--Lat 37°05'07", long 106°41'20", in SE¼NW¼ 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 Cutthroat Creek, 2.8 mi downstream from East Fork, and 11.2 mi northeast of Chromo.

DRAINAGE AREA.--69.8 mi^2.

PERIOD OF RECORD.--October 1936 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,939.3 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Oct. 1, 1949, at datum 3.00 ft, higher. Oct. 1, 1949 to Oct. 7, 1952, at site 40 ft upstream, at same datum. Oct. 8, 1952 to Aug. 31, 1957, at about the same site, at same datum. Sept. 20, 1957 to Sept. 30, 1974, station moved below bridge, at datum 0.4 ft, lower. Nov. 1, 1974 to present, at site 50 ft downstream, at datum 0.9 ft, lower.

REMARKS.--Estimated daily discharges: Nov. 20, 24, Nov. 29 to Jan. 7, Jan. 9 to Feb. 1, Feb. 6, 7, 16-20, 22, and Feb. 24-29. Records fair except for estimated daily discharges, which are poor. 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	27	30	30	30	33	50	348	276	204	71	69
2	40	30	28	30	31	34	50	345	258	167	69	67
3	40	30	28	24	31	35	60	338	275	147	65	60
4	39	29	28	26	30	34	74	318	308	143	62	52
5	38	33	30	28	30	33	76	296	429	142	58	50
6	37	37	30	30	30	33	82	297	481	144	70	52
7	37	41	30	30	30	33	101	301	453	141	76	50
8	34	40	30	30	30	35	107	303	423	134	70	49
9	35	40	30	28	29	33	113	302	344	131	64	48
10	35	42	30	26	29	32	127	296	315	129	63	47
11	34	44	30	28	29	32	150	247	331	137	58	45
12	34	39	32	30	29	34	188	229	393	145	81	44
13	34	38	30	30	30	37	234	250	432	148	83	43
14	33	40	30	28	29	39	300	284	416	129	62	43
15	32	43	28	28	29	41	282	295	380	111	68	46
16	31	42	28	26	26	40	245	300	319	100	67	47
17	31	39	30	26	26	40	219	309	264	93	62	44
18	31	38	30	26	26	40	216	320	278	88	57	39
19	31	35	32	26	26	37	193	378	320	86	53	52
20	31	35	32	26	28	37	170	628	353	77	53	49
21	31	35	32	26	30	39	158	684	378	78	53	43
22	31	37	30	26	30	40	159	541	358	73	51	43
23	31	31	30	26	31	38	153	445	316	67	90	43
24	31	30	30	26	28	38	168	482	307	66	537	42
25	31	30	30	26	28	40	206	412	293	101	264	40
26	31	29	30	28	28	42	235	411	294	154	192	39
27	32	30	30	28	30	44	255	511	268	121	144	39
28	32	34	30	30	30	44	308	470	238	103	117	38
29	30	32	30	32	30	45	309	404	228	89	102	38
30	30	30	30	32	---	47	339	358	221	78	89	37
31	28	---	30	32	---	50	---	306	---	75	80	---
TOTAL	1037	1060	928	868	843	1179	5327	11408	9949	3601	3031	1398
MEAN	33.5	35.3	29.9	28.0	29.1	38.0	178	368	332	116	97.8	46.6
MAX	42	44	32	32	31	50	339	684	481	204	537	69
MIN	28	27	28	24	26	32	50	229	221	66	51	37
AC-FT	2060	2100	1840	1720	1670	2340	10570	22630	19730	7140	6010	2770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1992, BY WATER YEAR (WY)

MEAN	50.4	37.6	30.5	28.1	29.1	42.5	138	327	370	135	68.3	52.6
MAX	188	106	62.2	54.0	45.0	104	303	741	768	432	170	185
(WY)	1942	1987	1942	1942	1942	1989	1985	1941	1973	1941	1957	1970
MIN	21.4	17.8	18.2	17.4	16.4	23.7	58.1	113	60.6	40.4	25.7	20.6
(WY)	1956	1956	1955	1960	1949	1964	1977	1977	1977	1977	1950	1953

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1937 - 1992	
ANNUAL TOTAL	42205		40629			
ANNUAL MEAN	116		111		109	
HIGHEST ANNUAL MEAN					195	1941
LOWEST ANNUAL MEAN					44.8	1977
HIGHEST DAILY MEAN	668	Jun 14	684	May 21	1180[b]	May 13 1941
LOWEST DAILY MEAN	22[a]	Jan 23	24	Jan 3	8.4[b]	Sep 29 1960
ANNUAL SEVEN-DAY MINIMUM	23	Jan 22	26	Jan 16	12	Feb 5 1949
INSTANTANEOUS PEAK FLOW			1430	Aug 24	1480[c]	Jun 9 1980
INSTANTANEOUS PEAK STAGE			3.61	Aug 24	4.55[d]	Jun 9 1980
ANNUAL RUNOFF (AC-FT)	83710		80590		78970	
10 PERCENT EXCEEDS	344		311		300	
50 PERCENT EXCEEDS	46		42		44	
90 PERCENT EXCEEDS	30		29		24	

a-Also occurred Jan 24.
b-Result of temporary blockage by channel alteration upstream.
c-From rating curve extended above 840 ft^3/s, on basis of float-area measurement at gage height, 4.44 ft.
d-Maximum gage height, 7.02 ft, May 13, 1941, present datum.

09344400 NAVAJO RIVER BELOW OSO DIVERSION DAM, NEAR CHROMO, CO

LOCATION.--Lat 37°01'49", long 106°44'14", 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, 5.8 mi east of Chromo, and 6.1 mi upstream from Little Navajo River.

DRAINAGE AREA.--100.5 mi².

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

GAGE.--Water-stage recorder with satellite telemetry, and Parshall flume. Datum of gage is 7,665.30 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Bureau of Reclamation). Prior to Sept. 5, 1979, at same site, at different datum.

REMARKS.--Estimated daily discharges: Nov. 24-27, Dec. 4, 7-9, and Dec. 14 to Feb. 28. Records good except for estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

COOPERATION.--Records collected by U.S. Bureau of Reclamation, computed by Colorado Division of Water Resources, and reviewed by Geological Survey.

CORRECTIONS.--The average discharge figures published in the reports for water years 1988-91, are in error. The correct figures are: 1988, 65.7 ft³/s; 47,600 acre-ft/yr; 1989, 68.8 ft³/s; 49,850 acre-ft/yr; 1990, 67.5 ft³/s; 48,900 acre-ft/yr; 1991, 67.0 ft³/s; 48,540 acre-ft/yr. These figures supersede those previously published.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	31	50	44	36	38	42	90	192	161	58	58
2	44	34	48	44	38	38	42	90	193	117	58	58
3	45	33	43	36	38	35	42	89	198	88	58	59
4	44	33	44	34	36	39	42	89	203	83	58	60
5	43	41	51	38	36	42	41	90	209	84	55	65
6	43	43	49	38	36	41	41	92	241	81	71	66
7	42	50	48	38	36	42	42	90	245	76	70	63
8	44	52	48	34	36	46	40	88	274	77	57	68
9	40	51	48	30	34	44	38	88	322	89	58	59
10	40	57	51	26	36	40	39	90	348	80	58	57
11	37	57	56	28	36	42	38	90	361	90	58	54
12	35	50	55	30	38	44	38	90	421	101	69	52
13	43	50	51	28	38	48	54	89	443	135	60	51
14	41	56	48	28	38	56	39	89	430	113	58	50
15	47	69	46	28	36	61	41	89	392	91	58	54
16	38	60	44	28	34	61	38	89	306	72	58	56
17	38	54	44	28	32	59	38	88	218	59	58	52
18	37	52	46	30	30	52	37	88	226	58	57	48
19	37	48	48	30	30	37	37	88	271	60	56	59
20	36	43	48	30	32	38	39	267	295	58	44	60
21	36	47	48	30	34	40	40	260	319	58	41	54
22	36	48	46	30	34	40	40	94	302	58	45	53
23	37	35	46	30	34	39	40	104	253	58	85	52
24	35	34	44	30	30	38	40	131	239	57	554	50
25	36	36	44	30	30	38	40	109	219	70	251	47
26	36	38	44	32	30	42	39	147	220	110	137	45
27	37	40	44	32	32	39	39	229	197	75	88	43
28	36	50	44	34	32	40	39	226	171	58	64	42
29	29	52	42	34	34	41	48	181	165	57	58	42
30	36	51	44	34	---	41	76	193	167	57	58	42
31	33	---	44	36	---	42	---	193	---	58	58	---
TOTAL	1195	1395	1456	1002	996	1343	1249	3830	8040	2489	2616	1619
MEAN	38.5	46.5	47.0	32.3	34.3	43.3	41.6	124	268	80.3	84.4	54.0
MAX	47	69	56	44	38	61	76	267	443	161	554	68
MIN	29	31	42	26	30	35	37	88	165	57	41	42
AC-FT	2370	2770	2890	1990	1980	2660	2480	7600	15950	4940	5190	3210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	55.4	47.3	39.0	35.5	36.6	56.2	52.3	133	140	80.8	62.6	58.7
MAX	161	132	71.9	51.3	52.7	135	117	271	720	219	124	146
(WY)	1987	1987	1987	1985	1986	1989	1986	1984	1985	1985	1982	1982
MIN	26.3	27.4	21.3	19.8	24.4	32.0	37.5	87.8	44.7	40.2	28.1	28.4
(WY)	1981	1990	1977	1990	1990	1977	1973	1988	1977	1972	1972	1978

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	21026		27230			
ANNUAL MEAN	57.6		74.4		67.3	
HIGHEST ANNUAL MEAN					158	1985
LOWEST ANNUAL MEAN					41.5	1977
HIGHEST DAILY MEAN	217	Aug 5	554	Aug 24	1160	Jun 9 1985
LOWEST DAILY MEAN	[a]24	Jan 23	26	Jan 10	[b]10	Oct 10 1981
ANNUAL SEVEN-DAY MINIMUM	25	Jan 22	28	Jan 10	13	Oct 7 1980
INSTANTANEOUS PEAK FLOW			1280	Aug 24	1330	May 24 1984
INSTANTANEOUS PEAK STAGE			4.88	Aug 24	4.92	May 24 1984
ANNUAL RUNOFF (AC-FT)	41710		54010		48780	
10 PERCENT EXCEEDS	90		174		111	
50 PERCENT EXCEEDS	51		48		48	
90 PERCENT EXCEEDS	35		34		30	

a-Also occurred Jan 24.
b-Also occurred Oct 11, 1981.

09345200 LITTLE NAVAJO RIVER BELOW LITTLE OSO DIVERSION DAM, NEAR CHROMO, CO

LOCATION.--Lat 37°04'32", long 106°48'38", in SW¼ sec.23, T.33 N., R.1 E., Archuleta County, Hydrologic Unit 14080101, on right bank at Little Oso Diversion Dam, 3.5 mi northeast of Chromo, and 4.0 mi upstream from confluence with Navajo River.

DRAINAGE AREA.--14.2 mi^2.

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

GAGE.--Water-stage recorder. Datum of gage is 7,756.10 ft above National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Flows controlled by diversion dam upstream.

COOPERATION.--Records collected and computed by U.S. Bureau of Reclamation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.9	3.0	2.2	2.5	3.5	7.8	12	16	11	5.4	6.5
2	2.9	2.8	3.2	2.2	2.6	3.9	5.8	6.3	27	10	4.9	6.5
3	2.9	2.4	3.2	2.2	2.6	3.9	6.1	5.1	28	10	7.2	5.2
4	2.8	2.6	3.0	2.2	2.4	3.5	6.0	6.1	28	9.6	4.8	4.9
5	2.8	2.8	3.0	2.2	2.4	3.5	5.8	6.3	28	8.6	4.8	4.6
6	2.8	3.3	3.0	2.2	2.2	3.5	5.1	6.3	28	8.2	4.8	4.4
7	2.6	4.4	3.0	2.2	2.2	4.1	6.0	6.9	30	7.6	6.1	4.1
8	2.6	4.4	3.0	2.2	2.2	4.4	6.0	6.3	30	7.6	6.5	3.9
9	2.5	4.1	3.0	2.2	2.2	3.8	7.6	6.5	39	7.4	4.8	3.9
10	2.5	4.8	3.0	2.1	2.2	3.6	8.0	26	42	7.4	4.4	3.8
11	2.4	4.8	3.0	2.1	2.2	3.6	8.6	26	39	8.8	4.9	3.5
12	2.1	3.5	3.5	2.2	2.2	4.1	15	26	38	9.9	4.3	3.3
13	2.1	3.3	3.6	2.2	2.2	5.2	12	26	39	10	4.1	3.3
14	2.1	3.9	3.5	2.2	2.2	6.7	6.5	26	34	8.6	3.8	3.3
15	2.1	4.3	3.3	2.2	2.2	6.9	5.2	26	30	7.4	3.9	3.6
16	2.0	3.8	3.3	2.1	2.2	6.9	5.6	26	29	6.9	3.9	3.8
17	2.0	3.9	3.5	2.1	2.2	7.0	6.1	26	26	6.5	3.8	3.5
18	1.2	3.2	3.5	2.1	2.1	6.7	6.1	26	24	6.1	3.3	3.3
19	1.9	2.9	3.5	2.1	2.1	5.8	6.1	26	23	6.0	3.2	4.9
20	2.1	3.5	3.6	2.1	2.1	6.0	6.9	26	22	5.8	3.2	4.4
21	2.1	3.8	3.5	2.0	2.4	6.5	6.5	25	22	5.8	4.1	3.9
22	1.2	3.5	3.3	2.0	2.5	6.5	6.1	26	21	5.2	3.5	3.5
23	1.2	2.5	3.3	2.0	2.5	6.9	6.3	26	20	5.1	8.6	3.3
24	2.2	3.0	3.2	2.0	2.4	7.2	6.3	26	19	5.6	9.4	3.2
25	2.4	3.2	3.2	2.0	2.4	8.6	6.0	26	17	9.2	7.4	3.0
26	2.4	3.0	3.1	2.0	2.4	8.1	6.0	25	16	14	7.4	2.9
27	2.2	3.0	2.9	2.0	2.4	7.2	5.1	26	15	9.0	9.2	2.9
28	2.6	3.0	2.8	2.0	2.5	8.8	10	26	14	7.2	8.4	2.9
29	2.6	3.2	2.8	2.1	2.9	8.4	14	26	13	6.3	7.2	2.8
30	2.1	3.2	2.8	2.2	---	8.2	10	28	12	5.6	6.5	2.8
31	2.9	---	2.9	2.4	---	7.6	---	24	---	5.6	6.3	---
TOTAL	71.2	103.0	98.5	66.0	67.6	180.6	218.6	631.8	769	242.0	170.1	115.9
MEAN	2.30	3.43	3.18	2.13	2.33	5.83	7.29	20.4	25.6	7.81	5.49	3.86
MAX	2.9	4.8	3.6	2.4	2.9	8.8	15	28	42	14	9.4	6.5
MIN	1.2	2.4	2.8	2.0	2.1	3.5	5.1	5.1	12	5.1	3.2	2.8
AC-FT	141	204	195	131	134	358	434	1250	1530	480	337	230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	7.05	5.50	2.85	2.50	2.56	8.30	12.9	24.7	18.6	7.31	4.12	4.04
MAX	49.9	46.4	8.82	5.82	6.53	32.0	45.7	66.3	29.3	17.1	9.25	17.3
(WY)	1987	1987	1987	1987	1986	1985	1989	1973	1983	1983	1986	1982
MIN	1.47	1.00	.47	1.02	1.03	1.95	4.19	4.86	1.87	.87	.47	1.02
(WY)	1976	1990	1990	1990	1990	1977	1976	1977	1977	1984	1972	1972

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	2776.9		2734.3			
ANNUAL MEAN	7.61		7.47		8.45	
HIGHEST ANNUAL MEAN					18.6	1987
LOWEST ANNUAL MEAN					2.34	1977
HIGHEST DAILY MEAN	32	Apr 4	42	Jun 10	202	May 18 1973
LOWEST DAILY MEAN	[a]1.2	Oct 18	[a]1.2	Oct 18	[b].00	Apr 14 1974
ANNUAL SEVEN-DAY MINIMUM	1.7	Oct 17	1.7	Oct 17	.02	Jul 21 1984
INSTANTANEOUS PEAK FLOW			[c]42	Jun 10	[d]235	May 30 1979
ANNUAL RUNOFF (AC-FT)	5510		5420		6120	
10 PERCENT EXCEEDS	27		25		27	
50 PERCENT EXCEEDS	3.9		3.9		3.6	
90 PERCENT EXCEEDS	2.4		2.2		1.4	

a-Also occurred Oct 22 and 23.
b-Also occurred Oct 21, 1988.
c-Maximum daily discharge.
d-Gage height not determined.

09346000 NAVAJO RIVER AT EDITH, CO

LOCATION.--Lat 37°00'10", long 106°54'25", in NW¼NW¼ sec.24, T.32 N., R.1 W., Archuleta County, Hydrologic Unit 14080101, on right bank 290 ft downstream from highway bridge, 0.2 mi southeast of Edith, 0.5 mi upstream from Colorado-New Mexico State line, and 1.3 mi upstream from Coyote Creek.

DRAINAGE AREA.--172 mi².

PERIOD OF RECORD.--Streamflow records, September 1912 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313. Water-quality data available, November 1970 to September 1974. Sediment data available April 1973 to September 1974. Statistical summary computed for 1971 to current year.

REVISED RECORDS.--WSP 1243: 1943, 1945. WSP 1633: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,033.00 ft above National Geodetic Vertical Datum of 1929 (levels by U. S. Bureau of Reclamation). Prior to Jan. 1, 1929, nonrecording gage at site 240 ft upstream, at different datum. June 2, 1935, to June 27, 1941, water-stage recorder at sites 200 and 240 ft upstream, at datum 2.0 ft, higher. June 28, 1941, to June 20, 1961, at site 50 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 24, 25, Nov. 28 to Dec. 3, Dec. 8-11, 15-29, Jan 1 to Feb. 25, Mar. 9-12, 18, 22, and Mar. 23. Records good except those for flows over 250 ft³/s, which are fair, and those for estimated daily discharges, which are poor. Diversions for irrigation of about 1,700 acres upstream from station. Highwater diversions upstream from station into Heron Reservoir through Azotea tunnel began in March 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, exceeded all other observed floods at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	40	42	44	34	52	192	155	228	159	65	67
2	40	37	38	38	34	55	142	138	224	130	61	62
3	44	35	34	32	34	58	126	129	227	84	60	61
4	44	40	44	38	34	55	129	126	231	77	57	61
5	44	44	49	42	32	60	120	126	231	81	60	65
6	46	49	49	42	32	57	114	120	252	79	68	65
7	46	53	45	40	32	66	129	120	245	75	81	61
8	45	58	48	38	34	75	129	123	276	68	65	65
9	39	57	48	32	34	65	126	135	292	79	63	61
10	44	65	50	36	36	60	123	170	327	75	61	57
11	45	75	55	38	34	70	118	145	328	97	65	54
12	34	60	58	40	32	75	126	135	364	97	65	53
13	49	54	55	36	32	84	150	126	404	143	73	47
14	46	55	49	36	32	105	147	126	401	118	65	44
15	53	88	40	32	32	107	144	126	361	95	66	47
16	40	87	44	30	32	107	120	120	286	79	66	52
17	40	69	46	32	30	110	103	113	222	65	66	45
18	40	65	50	32	26	90	95	108	217	63	58	44
19	38	57	50	30	24	73	85	103	248	60	57	55
20	37	52	50	30	30	83	79	198	259	57	49	68
21	38	55	48	30	40	89	77	301	280	56	45	62
22	40	58	48	30	40	100	75	134	280	52	52	54
23	40	43	42	30	44	95	75	144	249	63	94	49
24	39	34	36	30	42	103	77	179	231	66	685	50
25	40	40	38	30	42	115	79	166	223	80	348	49
26	40	44	40	32	40	117	77	280	224	104	168	48
27	42	46	40	32	39	115	79	262	207	87	109	47
28	44	46	40	34	42	135	83	262	183	69	82	47
29	38	46	44	34	46	126	92	221	162	67	72	46
30	46	44	48	34	---	141	128	248	162	60	70	46
31	41	---	50	34	---	163	---	242	---	63	68	---
TOTAL	1306	1596	1418	1068	1015	2806	3339	5081	7824	2548	3064	1632
MEAN	42.1	53.2	45.7	34.5	35.0	90.5	111	164	261	82.2	98.8	54.4
MAX	53	88	58	44	46	163	192	301	404	159	685	68
MIN	34	34	34	30	24	52	75	103	162	52	45	44
AC-FT	2590	3170	2810	2120	2010	5570	6620	10080	15520	5050	6080	3240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	65.5	55.3	41.0	35.9	40.3	89.2	124	174	150	85.7	67.9	64.1
MAX	204	179	81.7	59.5	71.5	214	248	419	648	222	139	165
(WY)	1987	1987	1987	1985	1986	1985	1986	1973	1985	1986	1982	1982
MIN	33.4	29.8	18.1	17.8	21.6	31.1	38.3	78.9	42.7	37.5	26.4	26.9
(WY)	1979	1977	1977	1977	1977	1977	1977	1977	1977	1972	1972	1978

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	26576		32697			
ANNUAL MEAN	72.8		89.3		[a]82.9	
HIGHEST ANNUAL MEAN					184	1985
LOWEST ANNUAL MEAN					39.4	1977
HIGHEST DAILY MEAN	309	Apr 5	685	Aug 24	[b]1250	Jun 9 1985
LOWEST DAILY MEAN	28	Jan 31	24	Feb 19	[c]8.0	Aug 7 1977
ANNUAL SEVEN-DAY MINIMUM	30	Jan 25	29	Feb 14	12	Aug 5 1977
INSTANTANEOUS PEAK FLOW			1570	Aug 24	[d,e]1570	Aug 24 1992
INSTANTANEOUS PEAK STAGE			5.36	Aug 24	[f]5.36	Aug 24 1992
ANNUAL RUNOFF (AC-FT)	52710		64850		60080	
10 PERCENT EXCEEDS	118		201		170	
50 PERCENT EXCEEDS	60		60		56	
90 PERCENT EXCEEDS	38		34		30	

a-Average discharge for 58 years (water years 1913-70), 155 ft³/s, 112300 acre-ft/yr, prior to diversions through Azotea tunnel.
b-Maximum daily discharge for period of record, 2830 ft³/s, Jun 15, 1921.
c-Also occurred Sep 25, 1953.
d-From rating curve extended above 960 ft³/s.
e-Maximum discharge and stage for period of record, 2840 ft³/s, Apr 23, 1942, gage height, 6.55 ft, from rating curve extended above 1100 ft³/s.
f-Maximum gage height for statistical period, 5.76 ft, Dec 4, 1978, backwater from ice.

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 mi^2, 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. Statistical summary computed for 1971 to current year.

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: Oct. 1-15, Nov. 23 to Feb. 29, May 6-8, May 17 to June 3, and June 21-25. 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 measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	220	164	260	260	210	414	1770	1910	1600	967	325	562
2	220	167	240	210	210	477	1200	1980	1600	849	291	487
3	210	164	220	180	210	519	961	1920	1600	729	277	442
4	190	146	250	220	210	476	1030	1800	1630	663	250	409
5	180	169	290	240	210	450	993	1710	1760	654	258	368
6	170	197	270	240	200	464	904	1700	1880	638	241	345
7	170	232	290	230	200	550	964	1800	1870	584	367	328
8	160	249	310	220	210	597	1020	1800	2050	556	321	301
9	160	245	280	190	220	412	1090	1710	1960	521	282	279
10	160	254	290	200	230	359	1180	1820	1870	493	255	254
11	160	319	300	220	220	375	1280	1540	1740	485	254	243
12	150	286	310	230	210	433	1320	1290	1810	574	267	229
13	150	238	300	210	200	569	1540	1350	1950	739	343	213
14	150	229	240	220	210	707	1810	1600	1920	758	296	190
15	150	357	220	190	210	773	1740	1700	1850	528	277	198
16	150	503	240	180	210	735	1470	1710	1710	415	268	268
17	142	363	270	180	200	710	1220	1700	1510	366	276	239
18	141	326	270	190	160	671	1160	1700	1420	345	263	217
19	137	278	270	190	170	482	1060	1700	1510	321	222	504
20	134	238	270	180	200	439	923	2000	1540	330	205	697
21	130	217	270	180	230	532	841	2400	1600	286	188	480
22	130	249	260	180	250	597	839	2300	1500	290	184	387
23	133	210	240	180	250	676	818	2000	1400	255	458	341
24	135	210	210	180	260	623	830	2000	1300	376	1700	311
25	137	250	200	180	270	677	962	2200	1300	519	3620	286
26	140	260	220	190	270	756	1090	2300	1200	808	1490	257
27	140	270	220	200	270	766	1200	2500	1140	689	1080	241
28	152	270	220	200	320	978	1520	2600	1050	510	844	237
29	164	270	240	210	360	957	1780	2400	976	428	709	225
30	155	270	260	210	---	974	1840	2100	992	371	624	215
31	177	---	270	210	---	1220	---	1800	---	331	567	---
TOTAL	4897	7600	8000	6300	6580	19368	36355	59040	47238	16378	17002	9753
MEAN	158	253	258	203	227	625	1212	1905	1575	528	548	325
MAX	220	503	310	260	360	1220	1840	2600	2050	967	3620	697
MIN	130	146	200	180	160	359	818	1290	976	255	184	190
AC-FT	9710	15070	15870	12500	13050	38420	72110	117100	93700	32490	33720	19350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1992, BY WATER YEAR (WY)

MEAN	329	249	171	154	189	562	1143	1756	1837	646	319	278
MAX	932	983	406	296	481	1319	2524	3195	4080	1677	708	880
(WY)	1987	1987	1987	1987	1986	1985	1979	1973	1985	1979	1982	1982
MIN	106	104	72.9	74.7	85.0	134	233	395	251	132	69.0	61.2
(WY)	1979	1990	1990	1990	1990	1977	1977	1977	1977	1972	1972	1978

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1971 - 1992	
ANNUAL TOTAL	226751		238511			
ANNUAL MEAN	621		652		[a]637	
HIGHEST ANNUAL MEAN					1201	1985
LOWEST ANNUAL MEAN					200	1977
HIGHEST DAILY MEAN	2650	Apr 7	3620	Aug 25	[b]6700	Mar 12 1985
LOWEST DAILY MEAN	[c]130	Oct 21	[c]130	Oct 21	[d]28	Sep 14 1974
ANNUAL SEVEN-DAY MINIMUM	134	Oct 19	134	Oct 19	39	Sep 14 1978
INSTANTANEOUS PEAK FLOW			6380	Aug 25	[e]7690	Oct 20 1972
INSTANTANEOUS PEAK STAGE			[f]6.94	Aug 25	[g]7.12	Oct 20 1972
ANNUAL RUNOFF (AC-FT)	449800		473100		461300	
10 PERCENT EXCEEDS	1660		1720		1700	
50 PERCENT EXCEEDS	322		310		289	
90 PERCENT EXCEEDS	170		180		110	

a-Average discharge for 9 years (water years 1962-70), 632 ft^3/s; 457900 acre-ft/yr, prior to completion of Azotea tunnel.
b-Also maximum daily discharge for period of record.
c-Also occurred Oct 22.
d-Minimum daily discharge for period of record, about 5 ft^3/s, Dec 10, 1961, result of freezeup.
e-Maximum discharge and stage for period of record, 9730 ft^3/s, Sep 6, 1970, gage height, 8.34 ft, from rating curve extended above 6000 ft^3/s, on basis of slope-area measurement of peak flow.
f-Maximum gage height, 8.60 ft, Dec 4, backwater from ice.
g-Maximum gage height for statistical period, and period of record, 9.55 ft, Dec 28, 1984, backwater from ice.

09349800 PIEDRA RIVER NEAR ARBOLES, CO

LOCATION.--Lat 37°05'18", long 107°23'50", in NE1/4SW1/4 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 mi^2.

PERIOD OF RECORD.--Streamflow records, August 1962 to current year. Gage operated 1895-99 and 1910-27 at site 7.5 mi downstream at elevation 6,000 ft. Low-flow records probably not equivalent. Water-quality data available, November 1972 to August 1973, December 1988 to May 1989.

GAGE.--Water-stage recorder. Datum of gage is 6,147.52 ft above National Geodetic Vertical Datum of 1929, Colorado State Highway Department benchmark.

REMARKS.--Estimated daily discharges: Oct. 1-15, Nov. 18, 19, Dec. 2-13, Dec. 16 to Jan. 9, Jan. 12-14, 17-31, Feb. 4-6, and Feb. 11-20. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 2,800 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred Sept. 5 or 6, 1909, and Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	140	93	113	120	91	214	1060	1890	1160	426	194	294
2	140	91	100	100	97	244	884	1810	982	397	175	253
3	120	83	80	90	102	293	840	1720	958	381	165	230
4	110	71	85	110	100	285	989	1560	947	345	159	201
5	100	90	100	120	100	265	1040	1460	1120	328	187	184
6	100	99	100	120	95	264	941	1400	1200	295	166	170
7	95	108	100	110	95	289	1210	1390	1210	275	177	156
8	95	111	100	110	104	315	1230	1350	1180	257	280	148
9	90	111	100	110	108	266	1380	1330	1080	225	228	142
10	100	111	100	93	111	238	1420	1430	985	220	192	134
11	90	131	110	108	110	246	1510	1240	948	217	194	121
12	85	123	130	110	110	256	1530	1160	973	250	186	111
13	90	109	130	100	110	294	1630	1130	1080	280	178	107
14	90	113	119	100	110	367	2030	1190	1080	275	169	104
15	85	164	93	97	110	419	2010	1200	1020	225	178	108
16	84	200	95	95	110	430	1640	1200	912	205	162	141
17	81	169	100	95	100	425	1420	1220	805	181	180	123
18	77	140	105	95	90	410	1370	1270	758	169	160	111
19	77	130	110	95	100	335	1250	1270	757	168	147	334
20	75	124	110	90	120	345	1060	1450	761	177	139	351
21	75	111	105	95	146	358	950	1880	783	160	126	247
22	75	136	100	90	158	393	939	1680	772	159	118	207
23	75	105	100	85	162	451	889	1530	699	148	139	178
24	77	79	90	85	144	415	938	1680	663	183	508	165
25	82	95	100	90	138	430	1120	1690	667	348	911	154
26	84	106	110	95	139	491	1220	1660	628	444	596	148
27	82	106	110	95	145	564	1340	1670	570	335	454	139
28	86	113	110	100	159	709	1520	1600	517	257	380	131
29	86	121	120	100	184	712	1740	1470	482	223	340	123
30	91	121	130	100	---	749	1810	1450	456	219	301	121
31	89	---	130	100	---	926	---	1320	---	195	281	---
TOTAL	2826	3464	3285	3103	3448	12398	38910	45300	26153	7967	7770	5136
MEAN	91.2	115	106	100	119	400	1297	1461	872	257	251	171
MAX	140	200	130	120	184	926	2030	1890	1210	444	911	351
MIN	75	71	80	85	90	214	840	1130	456	148	118	104
AC-FT	5610	6870	6520	6150	6840	24590	77180	89850	51870	15800	15410	10190

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

MEAN	182	127	92.4	76.0	92.5	292	901	1302	1058	349	210	209
MAX	618	517	257	153	244	706	2126	2926	2526	1133	551	943
(WY)	1973	1987	1987	1987	1986	1989	1979	1979	1979	1975	1968	1970
MIN	51.2	48.4	31.2	31.2	34.7	47.4	125	168	121	69.8	37.0	35.3
(WY)	1979	1968	1990	1990	1964	1964	1977	1977	1977	1972	1972	1978

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1963 - 1992	
ANNUAL TOTAL	140981		159760			
ANNUAL MEAN	386		437		408	
HIGHEST ANNUAL MEAN					822	1979
LOWEST ANNUAL MEAN					94.0	1977
HIGHEST DAILY MEAN	2540	Apr 7	2030	Apr 14	5360	Sep 6 1970
LOWEST DAILY MEAN	65	Jan 31	71	Nov 4	19	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	69	Jan 25	76	Oct 18	26	Dec 11 1989
INSTANTANEOUS PEAK FLOW			2310	Apr 15	[a]8370	Sep 6 1970
INSTANTANEOUS PEAK STAGE			4.03	Apr 15	[b]6.38	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	279600		316900		295700	
10 PERCENT EXCEEDS	1090		1280		1180	
50 PERCENT EXCEEDS	174		169		152	
90 PERCENT EXCEEDS	80		91		53	

a-From rating curve extended above 4400 ft^3/s, on basis of slope-area measurement of peak flow.
b-Gage height, 6.38 ft, recorded, 7.55 ft from floodmarks.

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 mi^2.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,906.08 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 21, 22, 24-26, Dec. 1, 4, 5, 15-17, 23-26, 29, 31, and Jan. 3 to June 1. Records good except for estimated daily discharges, which are poor. No diversion upstream from station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods occurred in October 1911 and June 1927.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	32	34	24	24	26	55	390	340	297	125	150
2	56	32	29	24	24	26	58	380	344	233	115	134
3	52	28	31	24	24	30	64	360	356	216	107	120
4	51	33	32	24	24	30	70	340	409	220	109	107
5	49	34	34	24	22	30	76	340	486	236	105	100
6	48	36	36	24	22	30	84	350	466	264	120	90
7	46	37	36	24	22	30	90	360	452	250	133	84
8	44	36	36	22	24	30	100	360	399	270	115	77
9	43	37	35	22	26	32	120	360	351	246	105	72
10	42	39	35	22	26	32	140	320	379	213	98	69
11	40	38	36	22	24	30	150	290	423	224	100	65
12	39	35	34	22	24	34	170	280	472	330	107	62
13	39	33	32	22	24	38	200	290	519	281	98	58
14	38	36	30	22	24	44	220	330	474	221	92	57
15	36	34	26	22	24	46	210	350	411	196	84	62
16	36	42	30	20	24	46	190	340	363	176	80	58
17	35	47	32	22	24	44	180	350	338	157	80	56
18	34	47	32	22	24	44	180	350	385	150	74	56
19	33	42	32	22	22	42	160	390	423	147	69	132
20	32	39	31	20	19	44	150	440	424	139	65	117
21	32	38	30	20	22	46	150	520	431	134	69	102
22	31	34	29	20	24	46	140	470	417	134	96	94
23	30	31	28	20	24	44	140	410	398	137	130	90
24	31	28	24	20	26	40	140	430	398	212	450	82
25	32	34	24	22	26	40	150	470	380	576	401	76
26	31	38	24	22	24	40	160	510	362	386	382	69
27	31	41	24	22	24	44	190	540	350	277	298	64
28	31	39	24	24	24	46	250	540	338	213	233	60
29	27	39	24	26	24	48	340	500	350	177	197	57
30	29	37	25	26	---	50	370	420	344	157	169	57
31	33	---	24	26	---	52	---	370	---	137	157	---
TOTAL	1189	1096	933	698	689	1204	4697	12150	11982	7006	4563	2477
MEAN	38.4	36.5	30.1	22.5	23.8	38.8	157	392	399	226	147	82.6
MAX	58	47	36	26	26	52	370	540	519	576	450	150
MIN	27	28	24	20	19	26	55	280	338	134	65	56
AC-FT	2360	2170	1850	1380	1370	2390	9320	24100	23770	13900	9050	4910

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1992, BY WATER YEAR (WY)

MEAN	81.6	44.7	27.4	20.8	19.5	32.4	113	395	525	246	132	118
MAX	280	104	52.0	42.5	44.5	80.8	226	623	927	548	233	455
(WY)	1973	1987	1986	1986	1986	1989	1989	1984	1980	1965	1968	1970
MIN	22.3	16.7	9.89	9.51	8.42	9.11	40.3	138	152	80.5	45.4	25.1
(WY)	1979	1976	1977	1977	1977	1977	1964	1977	1977	1972	1978	1978

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1963 - 1992	
ANNUAL TOTAL	44764		48684			
ANNUAL MEAN	123		133		147	
HIGHEST ANNUAL MEAN					226	1973
LOWEST ANNUAL MEAN					63.3	1977
HIGHEST DAILY MEAN	703	Sep 6	576	Jul 25	3020	Sep 6 1970
LOWEST DAILY MEAN	18	Feb 20	19	Feb 20	6.7	Dec 28 1976
ANNUAL SEVEN-DAY MINIMUM	19	Feb 19	21	Jan 18	7.4	Dec 23 1976
INSTANTANEOUS PEAK FLOW			840	Jul 25	[a]7050	Sep 6 1970
INSTANTANEOUS PEAK STAGE			2.65	Jul 25	[b]6.51	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	88790		96560		106300	
10 PERCENT EXCEEDS	417		380		417	
50 PERCENT EXCEEDS	52		56		62	
90 PERCENT EXCEEDS	20		24		17	

a-From rating curve extended above 1400 ft^3/s, on basis of slope-area measurement of peak flow.
b-Gage height, 6.51 ft, from water-stage recorder, 6.76 ft, from floodmarks.

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 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH WATER WHOLE FIELD (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 TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
09...	1230	35	112	7.8	0.0	1.1	11.3	<1	<1	37	11	2.3
MAR												
16...	1100	31	92	7.7	1.5	0.9	10.0	<1	<1	39	12	2.3
JUN												
02...	1130	328	80	7.9	6.0	0.7	9.5	<1	<1	31	9.4	1.8
JUL												
20...	1300	134	52	7.5	9.0	0.4	8.4	K1	K3	20	6.0	1.2

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	BICAR-BONATE[A] WATER DIS IT FIELD MG/L AS HCO3	CAR-BONATE[B] WATER DIS IT FIELD MG/L AS CO3	ALKA-LINITY[C] WAT DIS TOT IT FIELD MG/L AS CACO3	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)
DEC												
09...	1.7	0.1	0.7	38	0	32	8.3	3.2	0.3	3.9	56	51
MAR												
16...	1.3	0.1	0.5	39	0	32	7.8	<0.1	0.3	4.3	42	--
JUN												
02...	0.8	0.1	0.5	32	0	26	5.5	<0.1	0.2	3.2	39	--
JUL												
20...	0.6	0.1	0.5	20	0	16	4.8	0.3	0.2	2.8	25	27

DATE	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)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
DEC												
09...	0.08	5.22	<0.01	<0.01	0.15	0.15	0.01	0.02	<0.2	<0.01	<0.01	<0.01
MAR												
16...	--	--	<0.01	<0.01	0.11	0.10	<0.01	0.01	<0.2	<0.01	<0.01	<0.01
JUN												
02...	--	--	<0.01	<0.01	0.10	0.10	0.02	0.02	<0.2	0.02	0.02	<0.01
JUL												
20...	0.03	9.04	<0.01	<0.01	0.06	0.07	0.02	0.02	<0.2	<0.01	<0.01	<0.01

DATE	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	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)	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)
DEC												
09...	30	12	<3	8	<4	2	<10	<1	<1	<1	34	<6
MAR												
16...	40	14	<3	18	<4	1	<10	<1	<1	<1	32	<6
JUN												
02...	70	7	<3	16	<4	13	<10	1	<1	<1	22	<6
JUL												
20...	40	9	<3	7	<4	4	<10	1	<1	<1	19	<6

A-Field dissolved bicarbonate, determined by incremental titration method.
B-Field dissolved carbonate, determined by incremental titration method.
C-Field total dissolved alkalinity, determined by incremental titration method.
K-Based on non-ideal colony count.

09352900 VALLECITO CREEK NEAR BAYFIELD, CO--Continued

RADIOCHEMICAL ANALYSIS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

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 NATURAL DIS-SOLVED (UG/L AS U)
MAR									
16...	1100	1.0	<0.6	1.4	<0.6	1.1	<0.6	0.06	0.49
JUN									
02...	1130	0.9	<0.6	<0.6	<0.6	<0.6	<0.6	0.05	0.41

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
29...	1350	24	90	1.0

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
DEC				
09...	1230	35	0	0.04
MAR				
16...	1100	31	2	0.17
JUN				
02...	1130	328	5	4.3
JUL				
20...	1300	134	2	0.62

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 with satellite telemetry. 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, 125,640 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 and provide hydroelectric power.

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, 122,680 acre-ft, June 26, elevation, 7,663.91 ft; minimum, 61,040 acre-ft, Oct. 27, elevation, 7,638.37 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0900, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7,644.61	74,580	-
Oct. 31	7,638.43	61,160	-13,420
Nov. 30	7,639.73	63,890	+2,730
Dec. 31	7,641.38	67,430	+3,540
CAL YR 1991	-	-	-8,600
Jan. 31	7,642.31	69,460	+2,030
Feb. 29	7,643.00	70,970	+1,510
Mar. 31	7,644.54	74,420	+3,450
Apr. 30	7,649.48	85,910	+11,490
May 31	7,662.22	118,140	+32,230
June 30	7,663.78	122,330	+4,190
July 31	7,657.76	106,470	-15,860
Aug. 31	7,650.42	88,170	-18,300
Sept. 30	7,642.85	70,640	-17,530
WTR YR 1992	-	-	-3,940

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, 0.5 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, January 1988 to September 1991.

GAGE.--Water-stage recorder. Elevation of gage is 6,143.59 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 29 to Feb. 20, Apr. 16-29, and June 11 to July 16. 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on Oct. 5, 1911 has not yet been exceeded.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	120	140	55	65	213	369	197	586	340	248	206
2	127	110	120	50	65	220	314	258	615	340	238	194
3	142	110	100	48	65	391	280	238	557	340	251	195
4	133	100	95	46	70	340	279	203	521	340	207	189
5	155	110	95	45	70	293	279	206	496	340	203	182
6	153	120	95	48	70	260	301	168	514	340	199	192
7	145	130	95	55	65	235	489	145	502	340	209	182
8	145	140	95	55	70	234	508	143	578	330	206	164
9	140	140	90	55	75	186	531	136	702	330	206	153
10	150	140	65	55	75	159	550	308	703	330	196	170
11	140	160	55	55	80	148	556	264	700	330	171	173
12	116	150	50	60	80	145	568	235	700	330	182	176
13	120	140	50	60	80	152	580	189	700	300	179	169
14	122	150	50	55	80	176	609	173	700	250	205	167
15	120	200	50	60	80	185	621	155	700	230	196	176
16	125	240	50	65	80	173	500	138	460	240	195	212
17	120	220	55	65	75	158	430	135	400	258	206	199
18	115	180	55	65	70	155	400	128	400	248	199	196
19	103	160	55	65	75	139	360	125	400	207	199	451
20	105	150	60	65	90	130	310	157	320	216	192	411
21	120	150	55	65	110	132	280	257	300	203	200	276
22	127	160	50	65	128	142	270	231	300	209	173	249
23	123	130	50	65	147	150	270	241	340	199	249	248
24	113	100	50	65	152	140	300	466	340	277	566	227
25	130	110	50	65	143	135	380	399	340	433	401	215
26	78	130	50	65	145	142	440	564	340	377	301	216
27	83	130	55	65	143	150	470	568	340	297	218	220
28	122	140	60	65	169	191	430	533	340	252	199	203
29	110	150	65	65	195	195	360	550	340	241	190	175
30	110	150	65	70	---	185	245	585	340	234	199	179
31	110	---	60	65	---	233	---	586	---	231	206	---
TOTAL	3830	4320	2130	1847	2812	5887	12279	8681	14574	8932	6989	6365
MEAN	124	144	68.7	59.6	97.0	190	409	280	486	288	225	212
MAX	155	240	140	70	195	391	621	586	703	433	566	451
MIN	78	100	50	45	65	130	245	125	300	199	171	153
AC-FT	7600	8570	4220	3660	5580	11680	24360	17220	28910	17720	13860	12620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

MEAN	198	142	105	76.3	93.2	188	346	451	493	309	215	207
MAX	672	709	396	182	203	494	1339	1719	1555	1381	878	706
(WY)	1987	1987	1983	1985	1958	1973	1979	1958	1979	1957	1957	1970
MIN	47.9	32.1	33.8	33.9	38.6	45.1	22.8	44.3	74.5	81.6	80.4	58.3
(WY)	1978	1960	1964	1978	1978	1977	1951	1951	1977	1959	1977	1951

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	67543		78646			
ANNUAL MEAN	185		215		240	
HIGHEST ANNUAL MEAN					582	1973
LOWEST ANNUAL MEAN					77.4	1959
HIGHEST DAILY MEAN	752	Apr 7	703	Jun 10	4560	Jul 27 1957
LOWEST DAILY MEAN	50	Dec 12	45	Jan 5	6.1	May 1 1977
ANNUAL SEVEN-DAY MINIMUM	51	Dec 11	50	Jan 1	8.3	Apr 30 1977
INSTANTANEOUS PEAK FLOW			845	Aug 24	[a]6400	Jul 27 1957
INSTANTANEOUS PEAK STAGE			5.33	Aug 24	[b]8.95	Jul 27 1957
ANNUAL RUNOFF (AC-FT)	134000		156000		173500	
10 PERCENT EXCEEDS	318		443		513	
50 PERCENT EXCEEDS	167		175		131	
90 PERCENT EXCEEDS	90		65		50	

a-From rating curve extended above 5100 ft³/s.
b-Maximum gage height, 9.00 ft, backwater from ice, sometime during period, Dec 23, 1990 to Jan 17, 1991.

09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE¼SW¼ 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, January 1988 to September 1991.

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: Oct. 15-29, Nov. 24-26, Dec. 2-26, and Dec. 29 to Feb. 9. Records good except those for flows above 100 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	11	9.1	6.0	7.0	29	51	24	66	55	73	65
2	37	12	8.0	4.6	8.0	30	34	31	59	57	75	59
3	36	33	7.5	5.0	10	52	18	35	61	59	75	59
4	37	10	7.5	5.5	15	42	16	31	62	59	72	57
5	37	10	8.0	6.0	12	28	14	30	65	60	72	59
6	38	10	8.0	7.0	9.5	21	13	31	85	61	70	61
7	38	8.6	7.5	7.5	8.5	15	14	35	75	55	68	59
8	38	7.8	8.0	6.0	9.5	16	14	37	98	55	61	61
9	38	7.4	7.5	5.5	20	14	15	39	80	55	61	53
10	38	8.2	7.5	5.5	36	13	15	114	71	57	60	51
11	42	14	8.0	6.0	48	11	15	45	65	64	66	50
12	44	9.2	10	6.0	48	9.3	15	35	60	97	66	53
13	42	7.8	9.0	5.0	52	9.5	15	44	62	78	68	55
14	40	16	7.5	4.8	123	11	16	43	59	68	64	59
15	38	97	7.0	4.4	46	11	17	46	61	59	70	65
16	37	82	7.0	3.8	22	10	17	54	58	60	73	63
17	36	39	7.0	4.6	19	8.6	42	55	56	61	75	58
18	35	38	7.0	5.5	19	8.6	19	57	59	64	66	57
19	34	24	7.0	5.5	18	7.4	17	55	56	62	58	160
20	34	16	7.5	5.5	16	6.2	15	61	56	59	61	113
21	33	13	7.0	5.5	25	6.6	15	81	50	57	66	67
22	30	12	6.2	5.5	31	6.9	14	80	55	56	72	52
23	26	9.6	6.2	5.5	35	7.7	8.3	86	59	57	99	49
24	25	9.5	6.2	5.5	33	8.2	7.0	181	57	64	236	47
25	23	9.5	6.2	5.0	25	8.2	7.7	157	61	183	102	45
26	8.5	9.5	6.2	5.0	24	8.2	7.8	178	62	121	80	46
27	9.0	9.5	6.2	5.0	24	9.0	14	78	55	96	65	49
28	9.0	9.5	6.2	5.0	30	20	21	67	59	74	63	48
29	9.0	10	6.2	5.5	32	14	19	61	61	76	60	44
30	9.5	9.5	6.5	6.0	---	11	20	66	55	77	61	41
31	11	---	7.0	6.5	---	25	---	64	---	73	66	---
TOTAL	947.0	562.6	225.7	169.7	805.5	477.4	525.8	2001	1888	2179	2324	1805
MEAN	30.5	18.8	7.28	5.47	27.8	15.4	17.5	64.5	62.9	70.3	75.0	60.2
MAX	44	97	10	7.5	123	52	51	181	98	183	236	160
MIN	8.5	7.4	6.2	3.8	7.0	6.2	7.0	24	50	55	58	41
AC-FT	1880	1120	448	337	1600	947	1040	3970	3740	4320	4610	3580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

MEAN	35.4	10.7	5.47	4.53	10.1	17.8	13.9	39.1	57.1	65.9	65.5	58.8
MAX	87.9	29.6	20.4	19.3	54.8	89.7	41.1	64.5	79.3	90.1	105	92.0
(WY)	1973	1956	1985	1980	1980	1979	1979	1992	1986	1987	1987	1983
MIN	5.25	3.68	1.74	2.04	2.55	3.03	3.77	15.7	24.4	21.2	32.1	26.5
(WY)	1978	1978	1960	1973	1960	1972	1978	1978	1977	1977	1977	1951

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	12549.8		13910.7			
ANNUAL MEAN	34.4		38.0		32.5	
HIGHEST ANNUAL MEAN					47.7	1987
LOWEST ANNUAL MEAN					15.6	1977
HIGHEST DAILY MEAN	172	May 22	236	Aug 24	778	Sep 6 1970
LOWEST DAILY MEAN	3.4	Feb 2	3.8	Jan 16	.60	Nov 27 1959
ANNUAL SEVEN-DAY MINIMUM	3.6	Jan 21	4.8	Jan 13	1.0	Dec 7 1959
INSTANTANEOUS PEAK FLOW			419	May 26	[a]1980	Sep 6 1970
INSTANTANEOUS PEAK STAGE			2.54	May 26	[b]4.62	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	24890		27590		23520	
10 PERCENT EXCEEDS	76		72		71	
50 PERCENT EXCEEDS	24		34		23	
90 PERCENT EXCEEDS	4.6		6.2		3.2	

a-From rating curve extended above 160 ft³/s, on basis of field estimate of peak flow.
b-Maximum gage height, 5.98 ft, Mar 9, 1960, backwater from ice

09358000 ANIMAS RIVER AT SILVERTON, CO

LOCATION.--Lat 37°48'40", long 107°39'31", in SE^1/4NW^1/4 sec.17, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on right bank at southeast end of 14th Street, 800 feet upstream from Cement Creek, in the city of Silverton.

DRAINAGE AREA.--70.6 mi^2 (revised).

PERIOD OF RECORD.--June to October 1903 (staff gage) Monthly discharge only. Published in WSP 1313. October 1991 to September 1992.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,290 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-22, and Nov. 29 to Mar. 25. Records good except for estimated daily discharges, which are poor. No diversions upstream for irrigation in Animas River drainage. Natural regulation by many lakes upstream from station. Mineral Point Ditch exports 100 to 400 acre feet of water per year from headwaters of Animas River to Uncompahgre River drainage. City of Silverton diverts some water from Boulder Creek (tributary) for municipal use. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1884, was probably that of October 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	27	23	12	14	19	19	236	290	325	106	79
2	44	27	22	13	14	20	20	236	289	262	99	73
3	41	27	22	14	15	19	21	231	290	242	94	67
4	40	27	22	14	15	18	23	218	321	244	92	62
5	38	27	22	14	15	18	25	257	403	257	89	59
6	38	28	22	14	15	19	27	284	380	270	100	58
7	37	28	23	15	16	19	30	286	384	260	100	57
8	37	27	23	16	16	18	32	269	341	251	97	56
9	37	27	22	16	16	18	37	275	305	247	90	54
10	35	28	21	14	16	17	42	215	360	220	87	55
11	35	27	21	14	15	17	57	176	416	200	85	55
12	34	26	21	14	15	18	76	175	500	222	82	53
13	33	26	20	14	16	20	86	199	575	202	79	52
14	33	27	18	13	16	21	85	237	531	173	74	52
15	32	28	17	14	16	21	77	273	442	165	70	59
16	31	27	17	14	15	21	70	293	367	153	71	56
17	31	27	18	14	15	19	69	324	313	143	70	56
18	31	27	18	13	15	19	77	334	378	139	66	54
19	30	27	18	13	15	18	68	352	448	127	62	63
20	30	26	18	13	15	19	59	467	495	119	60	59
21	30	27	17	13	15	19	57	450	526	117	59	56
22	30	28	17	13	15	19	60	371	512	116	64	54
23	30	28	17	14	16	18	56	351	486	151	68	51
24	31	28	17	14	16	17	57	375	463	174	117	50
25	31	27	17	14	16	17	66	359	421	344	102	50
26	30	27	16	14	17	17	77	430	407	230	103	49
27	30	27	16	14	18	18	98	463	372	183	94	47
28	29	25	16	13	18	18	134	370	346	155	90	47
29	26	27	16	13	19	18	174	327	370	139	86	46
30	29	26	15	14	---	19	213	311	358	126	83	46
31	27	---	14	14	---	19	---	285	---	116	82	---
TOTAL	1036	811	586	428	455	577	1992	9429	12089	6072	2621	1675
MEAN	33.4	27.0	18.9	13.8	15.7	18.6	66.4	304	403	196	84.5	55.8
MAX	46	28	23	16	19	21	213	467	575	344	117	79
MIN	26	25	14	12	14	17	19	175	289	116	59	46
AC-FT	2050	1610	1160	849	902	1140	3950	18700	23980	12040	5200	3320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	33.4	27.0	18.9	13.8	15.7	18.6	66.4	304	403	196	84.5	55.8
MAX	33.4	27.0	18.9	13.8	15.7	18.6	66.4	304	403	196	84.5	55.8
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	33.4	27.0	18.9	13.8	15.7	18.6	66.4	304	403	196	84.5	55.8
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS FOR 1992 WATER YEAR

ANNUAL TOTAL	37771	
ANNUAL MEAN	103	
HIGHEST DAILY MEAN	[a]575	Jun 13
LOWEST DAILY MEAN	12	Jan 1
ANNUAL SEVEN-DAY MINIMUM	13	Jan 16
INSTANTANEOUS PEAK FLOW	[b]716	Jun 12
INSTANTANEOUS PEAK STAGE	3.02	Jun 12
ANNUAL RUNOFF (AC-FT)	74920	
10 PERCENT EXCEEDS	329	
50 PERCENT EXCEEDS	37	
90 PERCENT EXCEEDS	15	

a-Maximum daily discharge during period Jun to Oct, 1903, 990 ft^3/s, Jun 17, 1903.
b-Maximum discharge and stage during period Jun to Oct, 1903, 1250 ft^3/s, Jun 17, 1903, gage height, 4.9 ft, from graph based on gage readings.

09358550 CEMENT CREEK AT SILVERTON, CO

LOCATION.--Lat 37°49'11", long 107°39'47", in SW¼SW¼ sec.8, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on left bank, at abandoned railroad, crossing Cement Creek, 0.1 mile north of Silverton, and 0.8 mile upstream from mouth.

DRAINAGE AREA.--20.1 mi^2.

PERIOD OF RECORD.--October 1991 to September 1992.

GAGE.--Water-stage recorder. Elevation of gage is 9,380 ft. above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-4, Nov. 13, 14, 22-24, Dec. 4-10, and Dec. 13 to Mar. 24. Records good except for estimated daily discharges, which are poor. Natural regulation by many lakes upstream from station. Diversions for mining operations upstream from station, however, these diversions are returned to the creek. Mine drainage contributes considerable amounts of water to the creek. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred October 5, 1911. A more recent flood occurred June 6, 1978, when Lake Emma (6.5 mi northeast of Silverton) was undermined by mining operations, and released a large quantity of water into the headwaters of Cement Creek. Discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	13	13	8.5	9.0	13	14	95	91	67	25	23
2	15	13	12	7.5	9.5	14	14	89	88	59	24	23
3	15	13	12	8.0	9.5	14	15	81	88	57	23	22
4	14	13	12	8.5	9.5	13	17	77	98	56	23	22
5	14	13	12	8.5	9.5	12	18	88	119	58	22	22
6	14	14	12	9.0	10	12	20	90	112	59	23	22
7	14	14	12	9.0	10	13	23	89	106	58	25	22
8	14	14	12	9.5	11	13	29	86	93	56	23	21
9	14	13	12	10	11	12	34	87	83	57	20	22
10	14	14	12	9.5	10	12	38	68	90	53	20	22
11	14	14	12	8.5	10	12	40	57	97	50	20	21
12	14	13	11	8.5	10	13	45	59	107	53	19	21
13	14	13	11	8.5	10	14	44	71	123	48	19	20
14	15	13	10	8.5	10	15	41	84	119	44	18	20
15	15	14	9.5	8.5	11	15	36	90	106	44	18	23
16	15	14	9.5	8.5	10	16	32	94	91	42	19	20
17	15	14	10	8.5	10	15	33	98	83	40	18	19
18	14	14	10	8.5	10	14	35	98	92	39	19	19
19	14	13	10	8.5	9.5	14	28	104	103	38	18	22
20	13	13	10	8.5	9.5	14	26	131	109	36	16	22
21	13	13	10	8.5	10	14	26	128	110	33	17	20
22	13	13	10	8.5	10	14	25	110	106	31	22	19
23	13	13	10	8.5	10	14	23	104	98	39	20	19
24	13	13	10	8.5	10	14	26	107	90	42	45	19
25	14	13	10	9.0	11	14	32	101	85	77	35	19
26	14	13	9.5	9.0	11	14	41	113	81	48	33	18
27	14	13	9.0	8.5	11	14	52	125	72	40	30	18
28	14	13	9.0	8.5	12	14	70	110	69	36	27	18
29	13	13	9.0	8.5	12	14	84	96	72	34	25	18
30	14	13	9.0	8.5	---	14	95	95	72	30	24	18
31	13	---	9.0	8.5	---	14	---	86	---	27	24	---
TOTAL	434	399	328.5	267.5	296.0	424	1056	2911	2853	1451	714	614
MEAN	14.0	13.3	10.6	8.63	10.2	13.7	35.2	93.9	95.1	46.8	23.0	20.5
MAX	15	14	13	10	12	16	95	131	123	77	45	23
MIN	13	13	9.0	7.5	9.0	12	14	57	69	27	16	18
MED	14	13	10	8.5	10	14	32	94	92	44	22	20
AC-FT	861	791	652	531	587	841	2090	5770	5660	2880	1420	1220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	14.0	13.3	10.6	8.63	10.2	13.7	35.2	93.9	95.1	46.8	23.0	20.5
MAX	14.0	13.3	10.6	8.63	10.2	13.7	35.2	93.9	95.1	46.8	23.0	20.5
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	14.0	13.3	10.6	8.63	10.2	13.7	35.2	93.9	95.1	46.8	23.0	20.5
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS FOR 1992 WATER YEAR

ANNUAL TOTAL	11748.0	
ANNUAL MEAN	32.1	
HIGHEST DAILY MEAN	131	May 20
LOWEST DAILY MEAN	7.5	Jan 2
ANNUAL SEVEN-DAY MINIMUM	8.4	Dec 30
INSTANTANEOUS PEAK FLOW	141	May 20
INSTANTANEOUS PEAK STAGE	[a]2.02	May 20
ANNUAL RUNOFF (AC-FT)	23300	
10 PERCENT EXCEEDS	90	
50 PERCENT EXCEEDS	15	
90 PERCENT EXCEEDS	9.5	

a-Maximum gage height, 2.03 ft, Jul 25.

09359010 MINERAL CREEK AT SILVERTON, CO

LOCATION.--Lat 37°48'10", long 107°40'20", in NW1/4NE1/4 sec.19, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on right bank at southwest end of Greene Street at abandoned bridge crossing Mineral Creek, 300 feet downstream from U. S. Highway 550, crossing Mineral Creek, 1,400 feet upstream from mouth, and 0.5 mile southwest of Silverton.

DRAINAGE AREA.--52.5 mi^2.

PERIOD OF RECORD.--October 1991 to September 1992.

GAGE.--Water-stage recorder. Datum of gage is 9,245.982 ft above National Geodetic Vertical Datum of 1929, from San Juan County bench mark.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 4, Nov. 13, and Nov. 19 to Mar. 26. Records good except for estimated daily discharges, which are poor. Natural regulation by many lakes upstream from station. Diversions upstream from Mineral Creek drainage to Uncompahgre River drainage consists of 100 to 200 acre-feet per year through Red Mountain Ditch and 400 to 500 acre-feet per year through Carbon Lake Ditch. City of Silverton diverts some water from Bear Creek (tributary) for municipal use. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known occurred October 5, 1911. An indirect determination of peak flow for flood of September 5, 1970, was run in very close proximity to present site, discharge, 3,070 ft^3/s, gage height not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	25	22	13	13	18	18	200	193	261	94	86
2	38	24	22	12	14	19	19	199	189	199	87	78
3	35	24	22	13	14	19	20	187	191	202	84	72
4	34	24	21	13	14	18	23	172	236	210	82	67
5	32	24	21	14	14	17	24	202	354	223	78	63
6	32	25	22	14	15	17	26	217	348	249	85	59
7	31	26	22	14	15	18	31	217	342	232	82	55
8	31	26	22	15	15	19	38	217	276	228	81	53
9	30	25	22	16	15	18	48	240	234	233	81	50
10	30	25	21	15	15	17	60	181	257	191	86	48
11	29	25	21	14	15	17	69	145	302	178	96	47
12	29	25	20	13	15	17	81	146	361	223	89	46
13	28	24	19	13	15	18	86	177	439	185	78	44
14	28	24	17	13	15	20	85	220	411	152	75	44
15	27	25	16	13	15	20	75	245	345	143	68	60
16	26	27	16	13	14	21	65	250	285	127	66	54
17	26	26	17	13	14	20	64	285	262	121	66	52
18	25	26	17	13	14	19	70	305	330	115	62	49
19	25	25	17	13	14	19	59	310	399	107	58	66
20	25	23	17	13	14	19	52	435	438	106	54	67
21	25	24	17	13	14	19	49	378	418	105	54	62
22	25	24	17	13	15	19	49	279	406	110	84	60
23	25	24	16	13	15	19	46	254	379	181	104	56
24	26	24	16	13	15	18	50	261	378	208	162	54
25	26	24	16	14	15	17	62	253	358	439	149	52
26	25	24	16	13	15	17	77	307	344	225	156	49
27	26	25	15	13	16	18	97	358	299	165	134	48
28	25	25	15	13	16	18	131	288	290	138	117	47
29	24	25	15	13	17	18	162	232	324	124	105	45
30	24	24	15	13	---	18	189	210	315	111	94	44
31	25	---	14	13	---	19	---	186	---	102	89	---
TOTAL	876	741	566	414	427	570	1925	7556	9703	5593	2800	1677
MEAN	28.3	24.7	18.3	13.4	14.7	18.4	64.2	244	323	180	90.3	55.9
MAX	39	27	22	16	17	21	189	435	439	439	162	86
MIN	24	23	14	12	13	17	18	145	189	102	54	44
MED	26	25	17	13	15	18	59	232	336	181	84	53
AC-FT	1740	1470	1120	821	847	1130	3820	14990	19250	11090	5550	3330

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	28.3	24.7	18.3	13.4	14.7	18.4	64.2	244	323	180	90.3	55.9
MAX	28.3	24.7	18.3	13.4	14.7	18.4	64.2	244	323	180	90.3	55.9
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	28.3	24.7	18.3	13.4	14.7	18.4	64.2	244	323	180	90.3	55.9
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS FOR 1992 WATER YEAR

ANNUAL TOTAL	32848	
ANNUAL MEAN	89.7	
HIGHEST DAILY MEAN	[a]439	Jun 13
LOWEST DAILY MEAN	12	Jan 2
ANNUAL SEVEN-DAY MINIMUM	13	Jan 12
INSTANTANEOUS PEAK FLOW	777	Jul 25
INSTANTANEOUS PEAK STAGE	2.56	Jul 25
ANNUAL RUNOFF (AC-FT)	65150	
10 PERCENT EXCEEDS	258	
50 PERCENT EXCEEDS	31	
90 PERCENT EXCEEDS	14	

a-Also occurred Jul 25.

09359020 ANIMAS RIVER BELOW SILVERTON, CO

LOCATION.--Lat 37°47'25", long 107°40'01", in SW¼SW¼ sec.20, T.41 N., R.7 W., San Juan County, Hydrologic Unit 14080104, on right bank 500 feet upstream from Durango-Silverton Railroad, crossing Animas River, 0.7 mile downstream from Mineral Creek, and 1.1 miles south of Silverton.

DRAINAGE AREA.--146 mi^2.

PERIOD OF RECORD.--October 1991 to September 1992.

GAGE.--Water-stage recorder. Elevation of gage is 9,200 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3, 4, and Nov. 20 to Mar. 25. Records good except for estimated daily discharges, which are poor. Natural regulation by many lakes upstream from station. Diversions from Animas River and Mineral Creek drainages through Red Mountain, Carbon Lake and Mineral Point ditches amount to 600 to 1,100 acre-feet per year. City of Silverton diverts some water for municipal use from Bear Creek and Boulder Creek, both tributaries upstream. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known occurred October 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	73	60	38	42	58	64	546	616	683	220	205
2	101	73	60	35	42	60	64	537	607	542	205	191
3	100	70	60	38	43	60	68	513	613	519	197	176
4	98	72	60	40	44	54	75	483	705	531	194	165
5	93	75	60	42	44	52	80	558	938	561	187	157
6	90	73	60	42	44	56	86	602	901	599	205	148
7	89	75	62	43	46	60	97	607	877	564	205	141
8	88	72	62	45	47	60	113	595	761	557	199	135
9	87	71	60	47	47	56	132	622	667	563	191	130
10	86	73	60	42	47	52	154	490	751	491	191	126
11	84	72	60	40	46	52	179	398	861	454	202	120
12	83	69	60	40	46	56	214	404	1000	526	190	117
13	82	68	56	40	46	60	226	483	1160	461	176	114
14	81	68	50	40	47	64	224	575	1080	388	168	114
15	80	74	46	38	47	66	203	628	939	364	155	141
16	78	72	47	40	47	68	181	641	796	322	155	126
17	77	72	48	40	45	66	181	707	721	304	153	121
18	76	72	50	40	44	62	197	747	866	295	142	117
19	75	75	50	39	44	60	171	771	1000	273	134	146
20	75	67	50	38	44	62	153	994	1060	263	128	145
21	75	72	49	39	46	62	147	939	1060	259	128	137
22	74	70	49	39	46	62	152	786	1020	260	166	129
23	74	68	48	39	46	62	142	728	965	372	186	126
24	76	66	49	39	46	60	150	764	955	430	339	121
25	76	66	48	41	46	58	176	735	905	857	301	118
26	75	70	46	41	48	58	209	865	868	500	319	112
27	75	70	44	40	50	59	261	1000	773	383	283	110
28	75	72	44	40	52	59	349	825	741	320	258	106
29	69	72	44	40	54	61	443	704	795	286	238	105
30	72	66	45	40	---	62	512	660	778	260	220	102
31	73	---	42	40	---	63	---	603	---	239	211	---
TOTAL	2541	2128	1629	1245	1336	1850	5403	20510	25779	13426	6246	4001
MEAN	82.0	70.9	52.5	40.2	46.1	59.7	180	662	859	433	201	133
MAX	104	75	62	47	54	68	512	1000	1160	857	339	205
MIN	69	66	42	35	42	52	64	398	607	239	128	102
MED	78	72	50	40	46	60	162	628	867	430	194	126
AC-FT	5040	4220	3230	2470	2650	3670	10720	40680	51130	26630	12390	7940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1992, BY WATER YEAR (WY)

MEAN	82.0	70.9	52.5	40.2	46.1	59.7	180	662	859	433	201	133
MAX	82.0	70.9	52.5	40.2	46.1	59.7	180	662	859	433	201	133
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992
MIN	82.0	70.9	52.5	40.2	46.1	59.7	180	662	859	433	201	133
(WY)	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992	1992

SUMMARY STATISTICS FOR 1992 WATER YEAR

ANNUAL TOTAL	86094	
ANNUAL MEAN	235	
HIGHEST DAILY MEAN	1160	Jun 13
LOWEST DAILY MEAN	35	Jan 2
ANNUAL SEVEN-DAY MINIMUM	39	Jan 18
INSTANTANEOUS PEAK FLOW	1320	Jun 12
INSTANTANEOUS PEAK STAGE	3.82	Jun 12
ANNUAL RUNOFF (AC-FT)	170800	
10 PERCENT EXCEEDS	723	
50 PERCENT EXCEEDS	89	
90 PERCENT EXCEEDS	44	

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 with satellite telemetry. 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. 19, 20, Jan. 2-5, 9, 10, and Jan. 13-24. Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 4,000 acres upstream from station. Natural regulation by many lakes and regulation for power upstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, that of Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	390	262	243	196	184	192	374	2610	2090	1420	605	637
2	398	250	243	195	183	194	380	2550	2070	1190	557	608
3	328	232	243	195	185	229	417	2430	2010	1060	515	563
4	303	226	249	195	176	222	466	2140	1980	1030	509	524
5	294	248	221	195	170	217	518	2200	2410	1030	509	493
6	277	258	215	194	170	203	550	2320	2570	1070	488	465
7	271	243	192	187	163	211	596	2390	2490	1060	571	441
8	260	270	187	178	192	221	664	2340	2200	1010	555	420
9	256	250	209	170	194	230	792	2360	1970	1030	526	393
10	280	249	222	170	198	226	898	2290	1920	996	503	372
11	251	231	221	168	179	206	1040	1890	2110	909	496	364
12	243	242	230	172	176	239	1160	1720	2210	1010	527	354
13	245	222	216	170	170	260	1330	1860	2590	1080	492	345
14	251	226	208	170	178	301	1500	2110	2550	962	465	335
15	238	298	172	170	168	325	1480	2230	2300	835	438	339
16	243	283	203	160	180	338	1320	2140	2010	812	411	378
17	225	250	218	170	180	326	1200	2170	1720	742	400	355
18	251	250	219	170	177	314	1230	2270	1760	699	383	343
19	224	252	210	170	153	290	1170	2170	1980	647	368	423
20	213	228	200	160	153	302	1030	2720	2110	615	353	542
21	209	235	199	160	172	314	960	3320	2160	626	340	494
22	204	258	217	160	185	337	957	2770	2100	620	329	423
23	224	237	209	160	173	326	911	2450	2000	636	404	390
24	212	246	186	160	191	285	894	2680	1830	821	596	372
25	221	260	196	168	186	272	1010	2810	1850	1430	1230	378
26	217	275	178	166	170	278	1150	3020	1740	1500	1110	368
27	209	239	176	171	175	290	1350	3500	1650	1100	1000	358
28	238	230	182	176	179	313	1730	3470	1440	865	867	350
29	271	224	209	182	177	314	2190	2950	1510	760	769	341
30	256	241	196	205	---	323	2380	2520	1480	689	701	338
31	280	---	207	201	---	349	---	2250	---	633	651	---
TOTAL	7982	7415	6476	5464	5137	8447	31647	76650	60810	28887	17668	12506
MEAN	257	247	209	176	177	272	1055	2473	2027	932	570	417
MAX	398	298	249	205	198	349	2380	3500	2590	1500	1230	637
MIN	204	222	172	160	153	192	374	1720	1440	615	329	335
AC-FT	15830	14710	12850	10840	10190	16750	62770	152000	120600	57300	35040	24810

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1992, BY WATER YEAR (WY)

MEAN	413	286	221	202	205	290	845	2293	2878	1205	578	454
MAX	1866	814	412	326	352	844	1818	4791	5846	3003	1500	1709
(WY)	1942	1942	1942	1973	1920	1916	1985	1920	1917	1975	1929	1970
MIN	162	158	129	103	110	133	246	474	395	211	179	161
(WY)	1957	1935	1990	1933	1933	1990	1977	1977	1934	1934	1900	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1898 - 1992	
ANNUAL TOTAL	255742		269089			
ANNUAL MEAN	701		735		821	
HIGHEST ANNUAL MEAN					1366	1917
LOWEST ANNUAL MEAN					302	1977
HIGHEST DAILY MEAN	3220	May 21	3500	May 27	10700	Jun 19 1949
LOWEST DAILY MEAN	172	Dec 15	[a]153	Feb 19	94	Mar 2 1913
ANNUAL SEVEN-DAY MINIMUM	189	Dec 24	162	Jan 20	100	Dec 19 1917
INSTANTANEOUS PEAK FLOW			3690	May 27	[b]25000	Oct 5 1911
INSTANTANEOUS PEAK STAGE			5.27	May 27	11.0	Oct 5 1911
ANNUAL RUNOFF (AC-FT)	507300		533700		595000	
10 PERCENT EXCEEDS	2150		2150		2230	
50 PERCENT EXCEEDS	312		338		340	
90 PERCENT EXCEEDS	210		177		180	

a-Also occurred Feb 20.
b-Present site and datum, from rating curve extended above 13000 ft³/s.

09362800 LEMON RESERVOIR NEAR DURANGO, CO

LOCATION.--Lat 37°22'57", long 107°39'44", in SE¼SW¼ sec.17, T.36 N., R.7 W., LaPlata County, Hydrologic Unit 14080104, in gatehouse at Lemon Dam on Florida River, 2.3 mi upstream from True Creek, and 15 mi northeast of Durango.

DRAINAGE AREA.--68.3 mi².

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder with satellite telemetry. 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. Dam was completed in 1963. Capacity, 40,100 acre-ft, between elevations 7,948.00 ft, sill of outlet gate, and 8,148.00 ft, normal reservoir water surface elevation. Dead storage below elevation 8,005.00 ft, 354 acre-ft. Figures given are total contents.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents, 40,040 acre-ft, June 25, elevation, 8,147.83 ft; minimum contents, 21,970 acre-ft, Sept. 30, elevation, 8,114.47 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	8,124.01	26,550	-
Oct. 31	8,120.29	24,700	-1,850
Nov. 30	8,121.33	25,210	+510
Dec. 31	8,122.13	25,600	+390
CAL YR 1991			+1,190
Jan. 31	8,122.45	25,760	+160
Feb. 29	8,122.71	25,900	+140
Mar. 31	8,123.74	26,420	+520
Apr. 30	8,135.42	32,700	+6,280
May 31	8,146.37	39,140	+6,440
June 30	8,147.09	39,580	+440
July 31	8,135.25	32,600	-6,980
Aug. 31	8,124.43	26,770	-5,830
Sept. 30	8,114.34	21,910	-4,860
WTR YR 1992			-4,640

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 mi^2, 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.--Water-discharge 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). Satellite telemeter at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	461	343	346	e290	e274	337	856	3230	2810	1550	668	696
2	462	344	340	e290	e277	347	744	3080	2750	1340	628	678
3	400	320	337	e300	e279	542	655	2900	2640	1160	580	638
4	372	292	353	e320	e280	498	687	2500	2560	1100	560	600
5	362	328	e310	e330	e282	483	736	2500	3000	1080	562	565
6	348	342	e300	e320	e245	471	773	2740	3400	1110	568	539
7	335	308	e285	e300	244	430	828	3070	3330	1080	632	509
8	326	356	e280	e275	269	461	925	2990	2990	1040	642	475
9	317	325	e326	e260	283	394	1100	2990	2650	1050	615	453
10	349	335	e340	e245	297	381	1250	3070	2430	1030	580	428
11	319	322	e400	e276	301	348	1450	2430	2660	950	609	418
12	352	301	e410	e275	292	377	1590	2190	2820	1060	598	410
13	336	306	e370	e275	290	421	1800	2240	3380	1180	564	402
14	325	302	e350	e280	319	477	2060	2480	3430	1020	539	394
15	302	608	e300	e280	291	504	2090	2600	3070	883	523	393
16	303	593	e275	e280	278	509	1870	2490	2600	853	493	443
17	288	445	e310	e290	278	496	1660	2490	2130	792	488	422
18	322	418	e380	e300	257	470	1660	2580	2090	738	462	409
19	304	385	e370	e300	250	432	1600	2470	2360	706	433	719
20	286	341	e360	e290	236	430	1390	3050	2570	673	410	762
21	277	328	e340	e290	266	445	1250	4090	2640	671	398	623
22	280	362	e320	e280	293	475	1230	3400	2490	657	387	529
23	297	339	e310	e276	300	484	1190	2840	2340	670	435	490
24	284	370	e300	e275	309	437	1150	3410	2110	844	716	466
25	280	350	e290	e267	298	414	1270	3690	2100	1480	1380	454
26	277	380	e310	e270	284	416	1470	3850	1970	1870	1230	448
27	264	351	e275	e269	281	444	1720	4590	1850	1290	1140	428
28	281	327	e275	e280	304	521	2150	4800	1630	989	969	425
29	330	318	e275	e285	313	505	2690	4020	1650	837	846	415
30	334	336	e290	e305	---	496	2980	3560	1630	764	768	401
31	357	---	e300	e295	---	628	---	3090	---	684	727	---
TOTAL	10130	10775	10027	8868	8170	14073	42824	95430	76080	31151	20150	15032
MEAN	327	359	323	286	282	454	1427	3078	2536	1005	650	501
MAX	462	608	410	330	319	628	2980	4800	3430	1870	1380	762
MIN	264	292	275	245	236	337	655	2190	1630	657	387	393
AC-FT	20090	21370	19890	17590	16210	27910	84940	189300	150900	61790	39970	29820

e-Estimated

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1992, BY WATER YEAR (WY)

MEAN	582	446	339	301	315	527	1269	2625	2870	1206	690	668
MAX	1132	956	555	362	467	831	2191	4037	4737	1947	1120	1087
(WY)	1987	1987	1987	1987	1987	1989	1985	1984	1985	1986	1984	1986
MIN	327	243	200	190	182	176	407	1486	1239	597	472	281
(WY)	1992	1990	1990	1990	1990	1990	1990	1988	1989	1989	1990	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1984 - 1992	
ANNUAL TOTAL	282314		342710			
ANNUAL MEAN	773		936		988	
HIGHEST ANNUAL MEAN					1361	1985
LOWEST ANNUAL MEAN					611	1990
HIGHEST DAILY MEAN	3110	Jun 9	4800	May 28	7710	Jun 9 1985
LOWEST DAILY MEAN	225	Feb 6	236	Feb 20	144	Mar 17 1990
ANNUAL SEVEN-DAY MINIMUM	231	Feb 5	265	Feb 15	146	Mar 15 1990
INSTANTANEOUS PEAK FLOW			5220	May 27	13100	Jun 19 1949
INSTANTANEOUS PEAK STAGE			8.64	May 27	11.45	Jun 19 1949
INSTANTANEOUS LOW FLOW					63	Jan 21 1935
ANNUAL RUNOFF (AC-FT)	560000		679800		715700	
10 PERCENT EXCEEDS	2080		2610		2430	
50 PERCENT EXCEEDS	437		453		552	
90 PERCENT EXCEEDS	272		280		276	

09365500 LA PLATA RIVER AT HESPERUS, CO

LOCATION.--Lat 37°17'23", long 108°02'24", in NE1/4SW1/4 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 mi^2, 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 with satellite telemetry. 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. 3, 19, 20, 22-24, Dec. 1-10, 13-17, 19-21, Dec. 23 to Feb. 2, Feb. 4-7, Feb. 9, 14-20, and Feb. 22-29. Records good except for estimated daily discharges, which are poor. 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood observed occurred Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	7.4	9.0	7.5	7.5	8.4	28	259	145	39	14	22
2	13	7.4	7.0	7.0	7.5	8.7	28	238	151	33	12	19
3	13	7.0	7.0	7.0	7.6	9.4	31	218	163	31	11	17
4	12	6.5	7.5	8.0	7.5	9.0	35	175	165	30	12	16
5	12	6.6	8.0	8.0	7.5	9.6	38	147	270	30	16	15
6	12	6.8	8.0	8.0	8.0	9.6	44	163	263	29	19	14
7	11	6.9	8.0	8.0	8.0	9.8	56	178	217	30	25	13
8	9.6	7.1	8.0	8.0	8.3	11	77	181	179	29	21	13
9	9.2	7.2	8.0	7.0	8.5	11	104	203	136	29	18	13
10	8.9	7.6	8.0	6.5	8.5	12	127	173	133	26	18	12
11	9.1	8.0	8.9	6.5	8.5	12	147	136	136	30	18	12
12	8.8	8.0	8.4	7.0	8.1	12	157	134	148	36	22	11
13	7.5	8.0	8.0	7.0	8.4	12	163	169	155	35	19	11
14	7.3	9.1	7.0	7.0	8.0	12	175	201	136	26	17	11
15	8.5	11	7.0	6.0	8.0	12	152	203	123	22	19	11
16	9.7	9.3	7.0	6.5	8.0	13	134	187	110	20	23	11
17	9.4	10	8.0	7.0	8.0	14	119	190	95	17	18	11
18	9.3	9.7	8.8	7.0	7.0	15	121	186	88	16	15	11
19	9.2	8.5	10	7.0	8.0	17	108	188	88	16	13	55
20	9.0	7.5	9.0	7.0	8.0	18	99	290	86	16	12	39
21	8.8	8.0	8.5	7.0	8.3	18	98	337	85	14	12	31
22	8.7	7.5	8.5	7.0	8.0	19	104	242	82	15	15	27
23	8.7	6.5	8.0	7.0	8.0	20	101	217	69	17	24	23
24	9.1	7.0	8.0	7.0	8.0	20	109	309	59	19	54	20
25	9.0	7.0	8.0	7.0	8.0	21	134	305	67	42	51	18
26	8.8	7.4	8.0	7.0	8.0	22	147	334	54	30	53	17
27	8.5	7.9	7.0	7.0	8.0	23	172	379	48	24	38	15
28	9.0	8.3	7.0	7.5	8.5	24	215	330	47	21	30	16
29	8.0	9.1	8.0	7.5	8.5	25	250	239	47	18	25	15
30	7.5	9.7	7.5	7.5	---	26	255	181	43	16	22	14
31	7.4	---	7.0	7.5	---	28	---	153	---	15	21	---
TOTAL	298.0	238.0	246.1	222.0	232.2	481.5	3528	6845	3588	771	687	533
MEAN	9.61	7.93	7.94	7.16	8.01	15.5	118	221	120	24.9	22.2	17.8
MAX	16	11	10	8.0	8.5	28	255	379	270	42	54	55
MIN	7.3	6.5	7.0	6.0	7.0	8.4	28	134	43	14	11	11
AC-FT	591	472	488	440	461	955	7000	13580	7120	1530	1360	1060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1992, BY WATER YEAR (WY)

MEAN	15.4	10.6	8.27	7.06	7.44	14.8	83.4	172	133	38.2	23.6	20.3
MAX	148	54.3	20.4	15.0	18.0	50.7	203	384	421	154	75.4	124
(WY)	1942	1942	1987	1926	1971	1989	1924	1941	1980	1957	1957	1927
MIN	3.27	3.11	2.94	2.65	3.06	3.83	8.40	19.8	15.6	8.80	6.58	3.73
(WY)	1957	1938	1938	1938	1990	1977	1977	1977	1934	1939	1939	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1918 - 1992	
ANNUAL TOTAL	13308.4		17669.8			
ANNUAL MEAN	36.5		48.3		44.6	
HIGHEST ANNUAL MEAN					90.5	1941
LOWEST ANNUAL MEAN					9.94	1977
HIGHEST DAILY MEAN	216	May 19	379	May 27	934	Jun 28 1927
LOWEST DAILY MEAN	[a]6.0	Jan 21	6.0	Jan 15	1.0	Feb 22 1939
ANNUAL SEVEN-DAY MINIMUM	6.0	Jan 21	6.6	Jan 10	1.9	Oct 13 1917
INSTANTANEOUS PEAK FLOW			398	May 21	[b]1880	Sep 22 1941
INSTANTANEOUS PEAK STAGE			3.50	May 21	[c]4.30	Sep 22 1941
INSTANTANEOUS LOW FLOW					[d].00	Oct 24 1966
ANNUAL RUNOFF (AC-FT)	26400		35050		32300	
10 PERCENT EXCEEDS	104		164		127	
50 PERCENT EXCEEDS	13		13		13	
90 PERCENT EXCEEDS	7.0		7.0		5.0	

a-Also occurred Jan 22-27 and Jan 30.
b-Present datum, from rating curve extended above 620 ft^3/s, on basis of slope-area measurement of peak flow.
c-Maximum gage height, 5.13 ft, Sep 6, 1970.
d-No flow part of this day, caused by filling of pond upstream.

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 36°59'59", 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, 0.5 mi downstream from Johnny Pond Arroyo, and 4.9 mi north of La Plata, NM.

DRAINAGE AREA.--331 mi^2.

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 with satellite telemetry. 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: Nov. 23, 24, Dec. 2-11, 15-17, Dec. 23 to Feb. 2, and Feb. 17-19. Records good except for estimated daily discharges, which are poor. 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	5.9	9.8	7.0	14	17	131	137	142	25	4.3	10
2	6.6	5.4	8.0	7.0	14	18	112	107	128	30	4.3	9.7
3	5.5	6.1	8.0	7.0	17	25	85	90	129	26	4.2	7.9
4	5.7	5.7	8.5	8.0	14	27	96	74	123	21	4.1	5.8
5	5.3	5.6	9.0	7.0	13	27	93	70	158	19	3.9	4.6
6	5.4	5.8	10	8.0	13	27	107	57	204	18	3.3	4.0
7	5.7	5.7	10	8.0	12	28	110	64	166	18	3.0	3.4
8	5.2	5.6	10	7.5	13	35	127	60	145	21	2.5	3.0
9	6.0	5.7	10	7.0	14	32	147	71	117	20	1.9	2.8
10	4.1	6.0	10	7.0	14	29	168	119	84	19	1.6	2.0
11	4.1	5.1	10	7.5	15	27	159	68	75	21	1.1	2.1
12	3.8	4.7	11	7.5	15	27	195	52	69	50	2.0	2.0
13	4.1	4.9	9.9	7.0	17	29	203	60	73	55	1.7	1.6
14	4.6	6.6	9.2	7.0	19	36	223	74	63	31	1.6	.94
15	4.4	20	9.0	5.0	15	44	198	77	56	20	1.6	.88
16	3.8	22	10	6.0	15	45	152	68	45	17	2.0	2.0
17	4.5	15	9.0	7.0	12	47	103	69	35	12	1.5	1.6
18	4.2	13	9.7	7.0	12	44	92	61	43	9.0	1.2	1.3
19	4.1	11	12	7.0	13	38	81	69	44	9.8	1.2	8.0
20	4.1	9.4	11	7.0	13	35	67	107	51	11	1.1	23
21	4.2	8.9	10	7.0	14	41	59	226	64	12	.56	24
22	4.3	8.9	11	7.0	15	43	59	163	60	10	.81	17
23	4.4	8.0	10	7.0	15	48	57	107	56	9.3	2.2	13
24	4.5	8.0	10	7.5	14	38	54	192	53	15	7.5	10
25	4.6	8.5	10	8.0	14	42	59	206	66	36	6.7	9.6
26	4.7	8.3	9.0	9.0	14	47	61	268	52	38	16	9.5
27	4.8	8.5	8.0	10	14	55	65	329	39	17	21	9.8
28	5.3	8.6	8.0	11	14	67	79	353	31	12	16	7.9
29	5.4	9.2	9.0	11	15	79	114	266	23	9.7	13	7.3
30	6.0	9.2	9.0	12	---	72	131	221	21	6.6	11	7.6
31	6.6	---	8.0	13	---	108	---	172	---	5.4	9.7	---
TOTAL	152.3	255.3	296.1	244.0	413	1277	3387	4057	2415	623.8	152.57	212.32
MEAN	4.91	8.51	9.55	7.87	14.2	41.2	113	131	80.5	20.1	4.92	7.08
MAX	6.6	22	12	13	19	108	223	353	204	55	21	24
MIN	3.8	4.7	8.0	5.0	12	17	54	52	21	5.4	.56	.88
AC-FT	302	506	587	484	819	2530	6720	8050	4790	1240	303	421

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1992, BY WATER YEAR (WY)

MEAN	14.2	11.9	12.1	11.5	16.8	34.3	108	111	66.7	20.1	12.0	11.4
MAX	260	99.2	53.9	38.3	53.9	106	363	506	306	99.4	65.1	126
(WY)	1942	1942	1987	1942	1924	1987	1980	1941	1957	1957	1957	1927
MIN	.097	.98	1.24	.80	2.96	.63	3.06	5.32	1.94	.019	.006	.000
(WY)	1935	1940	1978	1930	1977	1977	1977	1977	1924	1922	1922	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1921 - 1992	
ANNUAL TOTAL	7786.81		13485.39			
ANNUAL MEAN	21.3		36.8		35.8	
HIGHEST ANNUAL MEAN					109	1973
LOWEST ANNUAL MEAN					4.44	1977
HIGHEST DAILY MEAN	144	Apr 7	353	May 28	1120	May 4 1941
LOWEST DAILY MEAN	.94	Sep 3	.56	Aug 21	[a].00	Jul 3 1922
ANNUAL SEVEN-DAY MINIMUM	1.1	Aug 28	1.2	Aug 16	.00	Jul 3 1922
INSTANTANEOUS PEAK FLOW			404	May 27	[b]4750	Aug 24 1927
INSTANTANEOUS PEAK STAGE			4.94	May 27	11.36	Aug 24 1927
ANNUAL RUNOFF (AC-FT)	15450		26750		25920	
10 PERCENT EXCEEDS	63		107		86	
50 PERCENT EXCEEDS	12		12		12	
90 PERCENT EXCEEDS	3.0		4.1		1.6	

a-No flow at times in many years.
b-Present datum, from rating curve extended above 750 ft^3/s, on basis of slope-area measurement of peak flow.

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 mi^2.

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 September 1986. 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. Datum 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: Oct. 1-11, 16-24, Nov. 22, 23, Nov. 25 to Feb. 4, Feb. 8, 9, 11-16, Mar. 4, Mar. 5, Apr. 7-14, 21, 27, May 13-22, and June 11 to July 10. Records good except those 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. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	18	20	12	18	61	164	313	256	7.0	12	35
2	13	17	18	10	20	68	152	291	219	7.0	12	31
3	12	17	13	12	24	97	102	251	200	7.0	13	28
4	11	15	15	13	28	130	101	221	189	7.0	12	26
5	10	15	16	13	33	120	107	170	187	7.0	22	26
6	9.5	17	16	13	23	122	108	135	222	7.0	17	23
7	9.0	18	15	13	19	96	120	146	194	7.0	17	22
8	9.0	17	15	12	19	100	140	174	175	7.0	22	20
9	9.0	14	16	12	20	84	160	304	192	7.0	24	19
10	9.0	10	17	11	24	63	180	539	130	7.0	17	16
11	8.5	14	17	11	26	54	200	325	95	7.9	16	14
12	8.3	18	17	12	28	49	230	230	75	31	13	13
13	8.0	17	17	13	26	52	260	210	60	84	13	12
14	8.0	17	17	13	26	61	280	240	65	50	15	11
15	7.3	55	16	12	26	66	261	260	70	30	12	11
16	7.5	101	16	11	26	66	197	270	55	21	12	15
17	8.5	46	17	12	25	61	166	280	38	17	11	13
18	9.0	42	17	13	24	56	154	300	28	14	11	11
19	9.5	38	16	14	22	46	143	320	22	12	11	86
20	10	30	16	14	28	38	138	360	17	10	11	202
21	10	28	16	14	34	37	120	420	14	8.0	9.5	107
22	10	25	17	14	50	44	98	400	10	6.6	9.1	63
23	9.5	22	15	14	57	62	99	323	9.0	7.9	10	48
24	8.5	14	14	14	54	64	99	401	8.5	13	23	37
25	10	20	13	14	48	58	108	421	8.5	25	52	32
26	15	22	14	14	44	56	135	479	8.5	51	57	29
27	13	22	14	14	35	60	170	604	8.0	38	48	27
28	16	22	14	14	40	81	202	547	7.5	24	35	25
29	21	22	15	15	50	128	291	400	7.5	20	30	24
30	19	22	15	15	---	101	316	351	7.0	16	28	23
31	19	---	14	16	---	110	---	303	---	14	28	---
TOTAL	339.1	755	488	404	897	2291	5001	9988	2577.5	570.4	622.6	1049
MEAN	10.9	25.2	15.7	13.0	30.9	73.9	167	322	85.9	18.4	20.1	35.0
MAX	21	101	20	16	57	130	316	604	256	84	57	202
MIN	7.3	10	13	10	18	37	98	135	7.0	6.6	9.1	11
AC-FT	673	1500	968	801	1780	4540	9920	19810	5110	1130	1230	2080

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1992, BY WATER YEAR (WY)

MEAN	26.6	19.4	14.3	13.3	24.6	55.8	128	177	84.0	29.6	29.6	26.6
MAX	459	113	45.5	45.6	91.0	131	330	642	395	185	364	137
(WY)	1942	1987	1942	1942	1932	1922	1980	1922	1957	1921	1921	1970
MIN	.11	1.00	.39	.31	7.24	5.26	.15	.000	.000	.000	.000	.000
(WY)	1978	1935	1960	1960	1977	1977	1977	1959	1951	1939	1922	1922

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1921 - 1992	
ANNUAL TOTAL	8768.49		24982.6			
ANNUAL MEAN	24.0		68.3		51.6	
HIGHEST ANNUAL MEAN					138	1973
LOWEST ANNUAL MEAN					4.28	1959
HIGHEST DAILY MEAN	492	Sep 11	604	May 27	3050	Oct 14 1941
LOWEST DAILY MEAN	.10	Sep 1	6.6	Jul 22	[a].00	Jul 12 1922
ANNUAL SEVEN-DAY MINIMUM	.20	Aug 14	7.0	Jun 30	.00	Jul 12 1922
INSTANTANEOUS PEAK FLOW			817	May 24	[b]5300	Oct 14 1941
INSTANTANEOUS PEAK STAGE			4.57	May 24	[c]7.30	Oct 14 1941
ANNUAL RUNOFF (AC-FT)	17390		49550		37350	
10 PERCENT EXCEEDS	62		204		144	
50 PERCENT EXCEEDS	13		22		15	
90 PERCENT EXCEEDS	2.7		9.4		.10	

a-No flow at times in most years.
b-Present site and datum, from rating curve extended above 200 ft^3/s, on basis of slope-area measurement of peak flow.
c-Maximum gage height, 8.50 ft, Sep 6, 1970.

09371002 NAVAJO WASH NEAR TOWAOC, CO

LOCATION.--Lat 37°12'03", long 108°41'50", in SW¼SE¼ sec.9, T.33½N., R.17 W., 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.

DRAINAGE AREA.--26.3 mi^2.

PERIOD OF RECORD.--October 1986 to September 1988, April 1989 to current year.

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. 7-24, Nov. 24 to Mar. 9, and Sept. 10-30. Records poor. At the present time, there is no definition at the upper end of the rating and the instantaneous peak discharge cannot be accurately determined. Only the maximum daily discharge will be published for this station. Flow regulated by Montezuma Valley Irrigation District through a series of canals and ditches from Dolores Project. Most of the water is return flow. Diversions from Dolores River basin to San Juan River basin for irrigation of about 2,450 acres upstream from station. No diversions upstream for irrigation downstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.5	3.2	1.7	2.4	2.9	5.0	19	19	11	5.9	20
2	15	10	3.1	1.6	2.8	3.0	3.9	17	18	11	5.4	19
3	15	11	2.8	1.8	3.0	3.2	2.6	15	15	8.5	4.6	16
4	8.0	11	2.6	2.0	3.4	4.0	1.8	16	15	7.5	2.8	10
5	13	12	2.6	2.0	3.9	4.0	3.2	15	14	14	3.7	8.5
6	11	12	2.5	1.9	3.0	4.0	5.5	12	14	14	6.4	8.0
7	10	12	2.3	1.9	2.7	3.7	7.2	12	16	11	9.1	7.1
8	9.0	12	2.4	1.8	2.7	3.5	8.4	17	17	11	9.4	3.8
9	8.0	12	2.6	1.8	2.7	4.0	8.8	20	17	13	6.7	5.1
10	8.5	7.6	2.6	1.7	3.0	3.1	9.2	32	16	11	7.3	6.0
11	8.5	8.5	2.7	1.7	3.6	2.5	10	15	17	15	7.0	6.5
12	9.0	8.5	2.7	1.9	4.6	2.2	10	19	17	34	5.6	7.0
13	9.5	9.5	2.7	2.0	5.5	1.9	9.2	20	16	33	5.0	7.5
14	10	10	2.6	1.9	7.0	1.8	9.8	20	13	24	3.6	8.0
15	9.0	39	2.5	1.7	8.0	1.6	10	22	12	19	1.7	9.0
16	8.0	44	2.5	1.7	5.0	1.4	14	19	9.5	21	.75	9.0
17	7.5	28	2.6	1.9	3.5	1.5	17	21	9.4	22	.45	8.5
18	8.5	39	2.6	2.1	3.0	1.5	17	20	6.3	20	2.9	10
19	9.5	33	2.6	2.2	2.8	3.3	17	22	9.4	24	2.3	17
20	10	19	2.5	2.1	3.0	5.0	18	29	11	27	1.3	25
21	10	15	2.4	2.1	3.3	6.4	21	41	9.0	24	.33	17
22	10	14	2.5	2.1	4.0	6.8	26	48	6.9	19	2.0	12
23	10	9.6	2.4	2.1	4.6	6.4	18	36	11	16	5.1	10
24	10	7.0	2.2	2.1	4.0	6.2	15	44	17	23	8.9	9.0
25	7.6	3.6	2.0	2.1	3.2	4.6	15	35	9.7	28	3.2	8.5
26	6.3	3.2	2.2	2.0	3.0	7.1	15	42	9.4	19	4.3	8.5
27	5.5	3.2	2.2	2.0	2.8	7.0	15	22	7.5	15	2.8	8.5
28	8.4	3.0	2.2	2.0	2.8	8.4	11	23	7.7	9.1	1.7	8.5
29	9.5	2.8	2.2	2.0	2.8	4.8	9.7	18	7.7	7.8	2.5	8.5
30	8.5	3.0	2.6	2.1	---	2.0	21	21	10	5.0	3.4	8.5
31	9.0	---	2.4	2.2	---	3.9	---	19	---	4.4	11	---
TOTAL	294.8	412.0	78.0	60.2	106.1	121.7	354.3	731	377.5	521.3	137.13	310.0
MEAN	9.51	13.7	2.52	1.94	3.66	3.93	11.8	23.6	12.6	16.8	4.42	10.3
MAX	15	44	3.2	2.2	8.0	8.4	26	48	19	34	11	25
MIN	5.5	2.8	2.0	1.6	2.4	1.4	1.8	12	6.3	4.4	.33	3.8
AC-FT	585	817	155	119	210	241	703	1450	749	1030	272	615

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1992, BY WATER YEAR (WY)

MEAN	12.0	9.95	2.24	1.21	2.37	3.19	8.47	14.9	13.2	12.7	13.1	15.1
MAX	20.3	15.4	5.25	1.94	3.66	3.93	11.8	23.6	18.2	16.8	18.9	22.7
(WY)	1988	1988	1987	1992	1992	1992	1992	1992	1987	1992	1991	1987
MIN	3.22	1.07	.73	.61	1.08	1.25	4.43	11.3	7.80	8.36	4.42	6.42
(WY)	1990	1990	1990	1990	1991	1990	1991	1989	1990	1989	1992	1989

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1987 - 1992	
ANNUAL TOTAL	3412.18		3504.03			
ANNUAL MEAN	9.35		9.57		9.42	
HIGHEST ANNUAL MEAN					11.2	1987
LOWEST ANNUAL MEAN					6.19	1990
HIGHEST DAILY MEAN	44	Nov 16	48	May 22	60	Nov 6 1987
LOWEST DAILY MEAN	.65	Apr 9	.33	Aug 21	[a].33	Aug 21 1992
ANNUAL SEVEN-DAY MINIMUM	.67	Apr 7	1.4	Aug 15	.55	Jan 20 1990
INSTANTANEOUS PEAK FLOW			[b]		[c]366	Jul 31 1989
INSTANTANEOUS PEAK STAGE			[d]3.18	Nov 15	5.63	Jul 31 1989
ANNUAL RUNOFF (AC-FT)	6770		6950		6820	
10 PERCENT EXCEEDS	19		20		20	
50 PERCENT EXCEEDS	9.2		8.0		8.5	
90 PERCENT EXCEEDS	.97		2.0		.96	

a-May have been less during period of no gage-height record, Oct 1 to Apr 30, 1989.
b-See REMARKS.
c-On basis of slope-conveyance computation of peak flow.
d-Backwater from beaver dam.

09371500 McELMO CREEK NEAR CORTEZ, CO

LOCATION.--Lat 37°19'23", long 108°40'22", in SE¼NW¼ sec.1, T.35 N., R.17 W., Montezuma County, Hydrologic Unit 14080202, on left bank 150 ft downstream from mouth of Mud Creek, and 4 mi southwest of Cortez.

DRAINAGE AREA.--230 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1926 to September 1929, April 1940 to September 1945, October 1950 to September 1954 (monthly discharge only for some periods, published in WSP 1313), January 1982 to current year.

REVISED RECORDS.--WSP 1313: 1927, 1927 (M).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,700 ft above National Geodetic Vertical Datum of 1929, by topographic map and 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.

REMARKS.--Estimated daily discharges: Nov. 25 to Dec. 1, Dec. 4-16, 19-28, Jan. 1 to Feb. 4, and Sept. 25-29. Records good except for those above 275 ft³/s, which are fair, and estimated daily discharges, which are poor. Diversions for irrigation of about 200 acres upstream from station. Flow is mainly return flows from irrigated lands for Montezuma Irrigation District (water imported from Dolores River basin).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	54	50	32	42	56	78	42	115	52	65	145
2	47	55	49	25	48	55	64	42	100	50	65	100
3	49	50	47	28	55	81	48	45	97	52	65	94
4	53	49	44	32	65	75	43	55	93	51	59	94
5	52	52	42	32	57	77	39	58	91	50	63	100
6	50	56	40	30	51	72	37	55	89	45	84	99
7	52	53	38	30	45	57	35	65	72	42	98	94
8	54	50	38	30	46	68	33	67	75	52	84	81
9	52	50	40	30	48	84	33	83	91	65	74	79
10	52	49	42	28	54	60	32	194	91	60	67	87
11	52	49	42	28	73	50	32	133	85	97	66	81
12	52	49	42	28	104	45	30	78	80	232	66	81
13	51	47	42	32	105	42	27	72	74	258	66	86
14	51	48	40	32	173	41	28	63	75	151	56	91
15	51	172	38	30	113	43	28	59	68	126	60	110
16	52	181	38	26	72	43	26	57	70	116	68	112
17	59	107	41	30	54	40	26	50	65	108	77	106
18	64	124	41	34	54	39	26	50	65	100	73	108
19	60	114	40	34	46	38	26	56	65	103	66	318
20	65	73	40	34	48	36	28	86	74	102	66	333
21	69	68	40	34	72	37	29	129	74	87	68	192
22	59	64	40	34	101	51	28	168	70	81	91	147
23	55	56	38	34	81	55	28	185	56	127	145	125
24	62	54	36	34	61	49	29	317	56	180	228	114
25	61	54	34	34	51	40	30	312	55	116	169	100
26	55	54	34	32	49	36	30	219	64	109	148	94
27	52	54	34	32	46	35	30	238	57	82	121	94
28	81	50	36	34	49	94	39	142	54	68	109	98
29	70	48	39	34	52	85	44	118	55	66	106	96
30	64	50	41	36	---	56	44	135	54	66	107	92
31	60	---	41	38	---	53	---	133	---	64	107	---
TOTAL	1753	2034	1247	981	1915	1693	1050	3506	2230	2958	2787	3551
MEAN	56.5	67.8	40.2	31.6	66.0	54.6	35.0	113	74.3	95.4	89.9	118
MAX	81	181	50	38	173	94	78	317	115	258	228	333
MIN	47	47	34	25	42	35	26	42	54	42	56	79
AC-FT	3480	4030	2470	1950	3800	3360	2080	6950	4420	5870	5530	7040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1992, BY WATER YEAR (WY)

MEAN	54.4	48.1	33.7	29.1	42.8	49.4	42.5	66.3	77.7	76.5	75.4	78.3
MAX	135	95.2	55.7	52.4	71.2	111	93.2	166	186	136	172	205
(WY)	1942	1988	1985	1942	1941	1983	1941	1943	1927	1929	1929	1927
MIN	12.0	18.0	16.4	19.5	19.5	16.7	12.0	22.2	32.4	7.05	11.8	2.57
(WY)	1951	1951	1929	1990	1951	1951	1951	1990	1954	1951	1928	1928

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1927 - 1992	
ANNUAL TOTAL	17054		25705			
ANNUAL MEAN	46.7		70.2		56.5	
HIGHEST ANNUAL MEAN					81.7	1941
LOWEST ANNUAL MEAN					19.1	1951
HIGHEST DAILY MEAN	216	Sep 5	333	Sep 20	1480	Sep 9 1927
LOWEST DAILY MEAN	13	Apr 24	25	Jan 2	[a]2.0	Nov 30 1927
ANNUAL SEVEN-DAY MINIMUM	16	Apr 19	27	Apr 13	2.0	Sep 16 1928
INSTANTANEOUS PEAK FLOW			540	May 24	[b]5560	Sep 9 1927
INSTANTANEOUS PEAK STAGE			5.05	May 24	[c]6.45	Sep 9 1927
ANNUAL RUNOFF (AC-FT)	33830		50990		40910	
10 PERCENT EXCEEDS	69		115		102	
50 PERCENT EXCEEDS	46		55		46	
90 PERCENT EXCEEDS	22		32		18	

a-Also occurred Aug 21, Sep 4-7, 17-22, and Sep 24-29, 1928.
b-From rating curve extended above 240 ft³/s, on basis of slope-area measurement of peak flow at gage height, 5.72 ft, site and datum then in use.
c-Maximum gage height, 7.20 ft, Sep 4, 1991.

09371500 McELMO CREEK NEAR CORTEZ, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Jan. 1, 1982 to current year. Water-quality analysis since August 1987.

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 records are poor, stream is not well mixed at location of monitor probes. Readings at the probe location may not represent mean cross-section characteristics. Daily maximum and minimum specific conductance data available in district office. Interruptions in the daily record are the result of instrument malfunctions.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum 5,020 microsiemens April 16, 1990; minimum, 720 microsiemens May 17, 1991.
WATER TEMPERATURES: Maximum 26.5°C July 18,19 1985, July 1, 1990; minimum, 0.0°C many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 3,740 microsiemens March 28; minimum, 1,080 microsiemens July 24.
WATER TEMPERATURES: Maximum 24.6°C July 15; minimum 0.0°C, many days during November through February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT										
23...	1100	54	1820	8.4	8.5	990	230	100	93	1
DEC										
16...	1230	37	2600	8.4	0.0	1700	360	200	180	2
FEB										
06...	1200	48	2550	8.3	0.0	1500	310	180	200	2
MAR										
09...	1415	79	2610	8.3	7.5	1600	320	200	190	2
APR										
10...	1315	31	3200	8.3	13.0	1600	330	200	230	2
17...	0950	26	3290	8.3	10.5	1600	310	200	250	3
MAY										
19...	1320	61	1720	8.3	18.0	850	190	92	88	1
27...	1300	309	2200	8.4	15.5	990	230	100	120	2
JUN										
16...	1315	77	1490	8.4	16.5	800	190	79	72	1
JUL										
15...	1420	122	1430	8.5	19.5	730	170	73	61	1
SEP										
08...	1350	85	1560	8.5	15.5	850	210	78	60	0.9

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)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT									
23...	3.9	234	680	20	1.0	9.2	1280	1.74	188
DEC									
16...	4.7	248	1700	41	0.4	11	2650	3.60	264
FEB									
06...	7.1	289	1600	39	0.4	11	2520	3.43	327
MAR									
09...	6.3	268	1700	41	0.3	9.0	2630	3.57	560
APR									
10...	4.8	227	1800	48	0.5	7.2	2760	3.75	231
17...	5.0	220	1800	49	0.4	4.6	2750	3.74	193
MAY									
19...	4.5	230	720	20	0.2	10	1260	1.72	208
27...	7.4	194	990	28	0.6	9.8	1600	2.18	1340
JUN									
16...	3.5	213	670	18	0.3	9.4	1170	1.59	243
JUL									
15...	4.5	221	540	20	0.3	11	1010	1.38	333
SEP									
08...	3.4	217	650	16	0.3	10	1160	1.57	266

09371500 McELMO CREEK NEAR CORTEZ, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1430	2230	2340	2930	---	---	3340	2190	1830	1480	1390	---
2	1440	2250	2330	2940	---	---	3190	1940	1780	1450	1390	---
3	1400	2240	2470	3020	---	---	3270	1880	1790	1450	1400	---
4	1410	2220	2840	2910	---	---	3260	1980	1800	1480	1420	---
5	1500	2200	2910	2870	---	---	3260	1820	1790	1520	1360	---
6	1540	2150	3000	2870	---	---	3260	1750	1760	1550	1370	---
7	1580	2190	3100	2890	---	3030	3290	1880	1790	1590	1420	---
8	1560	2200	3100	2890	---	3050	3290	1930	1800	1610	1390	---
9	1570	2170	2880	2830	---	3080	3280	1810	1790	1560	1350	1580
10	1640	2230	2610	2710	---	3080	3310	2150	1690	1570	1290	1540
11	1720	2270	2510	2810	---	3060	3230	1690	1640	1670	1270	1570
12	1760	2260	2640	2630	---	3110	3310	1670	1610	1760	1260	1550
13	1950	2310	2690	2590	---	3120	3370	1650	1640	1620	1330	1540
14	1940	2300	2710	2760	---	3120	3390	1620	1600	1500	1300	1510
15	1940	2450	2800	---	---	3250	3400	1710	1600	1470	1300	1480
16	1990	2480	2850	---	---	3340	3330	1730	1600	1460	1320	1470
17	1970	2560	2870	---	---	3120	3360	1760	1630	1460	1330	1430
18	2020	2690	2920	---	---	3150	3320	1760	1670	1460	1350	1430
19	2160	2630	3010	---	---	3150	3290	1690	1700	1420	1300	1610
20	1920	2400	3060	---	---	3160	3090	1730	1520	1490	1310	1530
21	1620	2610	2990	---	---	3190	2950	1690	1500	1490	1310	1470
22	1750	2720	3010	---	---	3230	3060	1630	1510	1480	1300	1430
23	1900	2660	3040	---	---	3270	3070	1600	1470	1360	1290	1440
24	2050	2420	2960	---	---	3190	2960	1660	1440	1250	---	1480
25	2080	2400	2960	---	---	3190	2870	1640	1490	1320	---	1500
26	2060	2450	2950	---	---	3200	2920	1900	1460	1370	---	1500
27	2050	2440	2930	---	---	3240	2840	2030	1480	1430	---	1530
28	2190	2470	2930	---	---	3510	2670	1990	1480	1410	---	1530
29	2070	2430	2920	---	---	3180	2370	1990	1470	1380	---	1510
30	2090	2370	2880	---	---	3160	2150	1980	1540	1400	---	1570
31	2200	---	2890	---	---	3300	---	1840	---	1400	---	---
MEAN	1820	2380	2840	---	---	---	3120	1820	1630	1480	---	---

09371500 McELMO CREEK NEAR CORTEZ, CO--Continued

TEMPERATURE WATER (DEG. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	10.6	4.5	.7	1.5	.0	.2	.0	---	---	---	---
2	15.2	10.4	4.5	1.9	.2	.0	.0	.0	---	---	---	---
3	14.4	9.6	2.2	.0	.0	.0	.0	.0	---	---	---	---
4	13.0	8.8	4.0	.6	.0	.0	.0	.0	---	---	---	---
5	12.0	6.9	5.8	1.6	.0	.0	.0	.0	---	---	---	---
6	12.1	6.9	7.1	3.0	.0	.0	.0	.0	---	---	---	---
7	12.4	7.2	7.8	3.7	.6	.0	.0	.0	---	---	9.4	4.0
8	13.0	7.9	7.0	2.9	.0	.0	.0	.0	---	---	7.6	5.1
9	13.0	8.4	8.0	4.1	.0	.0	.0	.0	---	---	8.0	4.2
10	13.4	8.3	7.3	6.5	.4	.0	.0	.0	---	---	8.1	2.6
11	13.1	8.5	9.0	5.7	1.5	.4	.0	.0	---	---	8.7	2.8
12	12.3	8.3	8.0	4.8	2.1	.3	.0	.0	---	---	9.9	3.2
13	12.6	8.3	6.5	3.0	1.1	.0	.0	.0	---	---	10.5	3.9
14	12.3	7.7	6.7	4.1	.0	.0	.0	.0	---	---	10.8	4.3
15	12.7	8.0	6.3	2.4	.0	.0	.0	.0	---	---	10.7	4.7
16	12.4	7.5	2.8	1.5	.5	.0	---	---	---	---	10.7	4.7
17	11.9	7.4	4.8	2.5	1.3	.0	---	---	---	---	9.2	5.3
18	12.0	7.5	4.3	2.6	1.5	.0	---	---	---	---	8.1	4.3
19	11.5	7.4	3.1	1.2	2.0	.4	---	---	---	---	9.9	2.9
20	11.0	8.0	2.5	.0	1.0	.0	---	---	---	---	10.4	2.9
21	11.7	7.9	3.3	.7	.9	.0	---	---	---	---	7.6	4.3
22	10.7	8.0	2.4	.6	2.0	.3	---	---	---	---	8.5	5.2
23	10.7	8.2	.7	.0	.5	.0	---	---	---	---	9.8	5.4
24	10.8	8.8	.6	.0	.0	.0	---	---	---	---	10.7	6.2
25	10.4	7.9	3.1	.2	.0	.0	---	---	---	---	12.0	4.9
26	9.8	6.4	2.8	.3	.0	.0	---	---	---	---	12.2	5.8
27	8.1	6.7	3.6	.5	.0	.0	---	---	---	---	9.6	7.2
28	6.7	3.9	4.4	1.9	1.2	.0	---	---	---	---	8.7	6.1
29	3.9	2.5	3.6	1.9	1.1	.0	---	---	---	---	10.0	5.8
30	4.1	2.7	2.1	.6	.6	.0	---	---	---	---	9.3	6.9
31	3.9	1.0	---	---	1.5	.0	---	---	---	---	9.3	6.9
MONTH	15.5	1.0	9.0	.0	2.1	.0	---	---	---	---	---	---
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.7	7.2	18.8	11.4	18.7	13.5	20.4	14.8	23.1	17.2	18.1	12.2
2	12.1	5.9	17.7	10.7	19.4	12.7	21.2	13.5	21.8	16.8	18.0	13.6
3	14.1	6.7	17.3	11.9	19.1	14.2	21.9	13.7	22.8	16.7	17.3	14.1
4	15.1	7.9	17.8	11.7	20.7	14.3	22.5	16.0	23.0	17.7	17.4	13.8
5	16.1	9.2	17.9	11.2	21.7	16.2	23.4	15.3	22.2	18.7	17.3	12.2
6	16.0	8.8	16.7	13.2	21.1	15.8	24.1	16.6	20.8	18.2	17.9	12.6
7	16.5	8.7	16.3	12.2	20.0	14.7	20.4	17.1	21.9	17.3	18.1	12.7
8	16.8	8.7	17.9	12.3	17.3	14.7	21.5	16.3	23.0	18.1	18.4	12.5
9	16.5	8.6	16.0	12.5	18.5	12.7	22.6	16.9	22.9	17.7	18.3	12.6
10	16.5	8.9	15.2	10.2	20.4	13.7	21.3	17.4	23.9	19.1	18.4	12.8
11	17.7	9.0	17.3	10.6	21.6	15.4	21.9	18.1	22.0	18.5	18.2	13.2
12	17.2	9.9	19.0	12.7	21.9	15.1	19.7	17.4	22.7	17.1	17.6	13.6
13	15.3	9.1	19.6	12.5	21.3	14.7	20.7	16.3	23.1	17.5	17.8	14.0
14	15.6	10.8	19.7	12.3	20.1	14.1	21.1	16.1	23.2	17.8	17.4	13.6
15	16.6	10.7	19.6	12.6	19.7	12.8	24.6	16.7	23.0	17.9	18.5	14.7
16	16.9	9.4	20.3	12.7	19.3	13.2	21.8	16.4	21.9	17.7	19.0	15.4
17	17.3	9.6	20.2	12.7	19.2	12.1	22.5	16.8	22.2	17.7	18.7	14.5
18	14.0	9.6	20.6	13.6	21.3	13.1	21.0	16.7	21.6	16.4	16.2	13.6
19	12.0	6.8	19.9	14.4	21.9	14.2	22.4	16.3	22.0	16.5	15.6	14.1
20	13.2	5.3	17.5	14.4	21.8	14.9	21.8	17.5	22.1	15.9	15.8	13.0
21	15.1	6.4	16.6	13.1	22.0	14.9	22.7	17.5	22.4	18.0	16.2	12.5
22	16.7	9.6	16.2	11.9	22.0	14.9	22.2	17.6	20.1	17.7	16.7	12.7
23	16.6	8.8	16.2	12.8	22.5	15.6	21.0	17.6	17.7	16.5	17.2	13.0
24	17.7	8.6	16.4	13.1	23.5	16.3	18.2	16.8	17.6	15.3	16.9	13.1
25	16.9	9.3	15.7	12.4	22.0	16.6	20.7	16.7	17.5	14.6	16.7	13.8
26	18.5	9.1	18.2	13.0	21.2	15.1	22.4	17.2	18.2	13.9	14.7	10.5
27	18.9	10.5	18.3	14.2	21.6	15.6	22.5	16.5	17.5	12.9	14.6	9.9
28	19.7	10.8	17.9	13.4	22.9	15.5	22.0	16.7	18.0	12.7	14.8	10.2
29	19.5	11.8	16.3	13.8	22.1	15.9	23.1	16.9	17.2	13.6	15.5	10.9
30	17.9	11.7	16.3	12.1	22.0	15.7	22.2	17.2	18.6	14.0	15.6	11.1
31	---	---	18.5	12.7	---	---	22.5	16.6	18.1	15.1	---	---
MONTH	19.7	5.3	20.6	10.2	23.5	12.1	24.6	13.5	23.9	12.7	19.0	9.9

09371520 McELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°19'36", long 108°42'00", in NE¼NE¼ sec.3, T.35 N, R.17 W, Montezuma County, Hydrologic Unit 14080202, on left bank adjacent to abandoned gravel pit 1.5 mi downstream from Mud Creek, 1.9 mi upstream from Trail Canyon, and 5.5 mi south of Cortez.

PERIOD OF RECORD.--October 1990 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1990 to current year.
WATER TEMPERATURES: October 1990 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1990.

REMARKS.--Daily maximum and minimum specific conductance data available in district office. Interruptions in the daily record were due to malfunctions of the instrument. Daily records are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded (more than 20 percent missing record), 3,710 microsiemens, Mar. 28, 1992; minimum recorded, 1,030 microseimens, May 25, 1992.
WATER TEMPERATURE: Maximum recorded, 25.1°C, July 6, 1991, but may have been higher during instrument malfunction July 3, 4 and Aug. 8-14.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum recorded (more than 20 percent missing record), 3,710 microsiemens, Mar. 28; minimum recorded, 1,030 microseimens, May 25.
WATER TEMPERATURES: Maximum recorded, 24.2°C, July 6 and August 10; minimum, not determined.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	HARDNESS TOTAL (MG/L AS CACO3)	CALCIUM DISSOLVED (MG/L AS CA)	MAGNESIUM, DISSOLVED (MG/L AS MG)	SODIUM, DISSOLVED (MG/L AS NA)	SODIUM ADSORPTION RATIO
OCT									
23...	1400	1850	8.4	10.0	990	230	100	91	1
MAR									
09...	1145	3000	8.4	6.0	1600	330	200	200	2
MAY									
19...	1200	1750	8.3	18.0	880	200	93	91	1
JUN									
16...	1230	1490	8.4	15.5	790	190	77	69	1

DATE	POTASSIUM, DISSOLVED (MG/L AS K)	ALKALINITY LAB (MG/L AS CACO3)	SULFATE DISSOLVED (MG/L AS SO4)	CHLORIDE, DISSOLVED (MG/L AS CL)	FLUORIDE, DISSOLVED (MG/L AS F)	SILICA, DISSOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L)	SOLIDS, DISSOLVED (TONS PER AC-FT)
OCT								
23...	3.8	215	920	21	0.4	9.1	1500	2.05
MAR								
09...	4.0	263	1600	40	0.4	8.7	2540	3.46
MAY								
19...	4.7	230	730	23	0.3	10	1290	1.75
JUN								
16...	3.2	217	660	17	0.3	9.2	1160	1.57

09371520 McELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEC. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1340	---	---	---	---	2390	3270	1830	1350	1320	1610	1550
2	1370	---	---	---	---	2410	3070	2030	1380	1320	1780	1520
3	1430	---	---	---	---	2510	3180	1530	1410	1320	1590	1520
4	1560	---	---	---	---	2490	3210	1570	1450	1350	1610	1520
5	1590	---	---	---	---	2650	3280	1530	1570	1390	1580	1530
6	1680	---	---	---	---	2780	3250	1420	1440	1420	1540	1520
7	1670	---	---	---	---	2920	3280	1380	1460	1480	1580	1540
8	1710	---	---	---	---	2990	3290	1400	1510	1490	1520	---
9	1630	---	---	---	---	3080	3280	1400	1500	1450	1560	---
10	1590	---	---	---	---	3140	3270	1620	1470	1450	1470	1410
11	1610	---	---	---	---	3130	3200	1510	1460	1530	1470	1230
12	1620	---	---	---	---	3180	3170	1540	1450	1680	1470	1230
13	1680	---	---	---	---	3180	3160	1550	1480	1570	1570	1260
14	1710	---	---	---	---	3180	3130	1570	1500	1450	1570	1260
15	1710	---	---	---	---	3230	3140	1440	1520	---	1550	1180
16	1760	---	---	---	---	3370	3270	1430	1540	---	1500	1170
17	1790	---	---	---	---	3190	3330	1480	1580	---	1430	1170
18	1780	---	---	---	---	3210	3270	1560	1610	1470	1330	1170
19	1770	---	---	---	---	3230	3210	1740	1590	1400	1300	1240
20	1800	---	---	---	---	3260	3090	1780	1250	1460	1290	1190
21	1750	---	---	---	2780	3270	2890	1530	1070	1490	1320	1200
22	1850	---	---	---	2360	3280	2900	1190	1070	1500	1290	1200
23	---	---	---	---	2270	3360	2980	1150	1100	1450	1270	1230
24	---	---	---	---	2290	3290	2900	1130	1120	1460	1280	1250
25	---	---	---	---	2410	3290	2850	1120	1170	1580	1260	1300
26	---	---	---	---	2410	3330	3020	1310	1190	1500	1300	1330
27	---	---	---	---	2440	3380	2820	1340	1200	1480	1470	1410
28	---	---	---	---	2410	3460	2650	1360	1220	1530	1420	1470
29	---	---	---	---	2390	3190	2180	1360	1240	1560	1390	1530
30	---	---	---	---	---	3120	1860	1390	1280	1600	1400	1570
31	---	---	---	---	---	3160	---	1360	---	1640	1430	---
MEAN	---	---	---	---	---	3090	3050	1470	1370	---	1460	---

09371520 McELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO--Continued

TEMPERATURE, WATER (DEC. C), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	11.1	---	---	---	---	---	---	---	---	8.0	3.7
2	15.7	10.9	---	---	---	---	---	---	---	---	8.7	5.2
3	14.9	10.1	---	---	---	---	---	---	---	---	8.2	5.6
4	13.4	9.4	---	---	---	---	---	---	---	---	8.3	5.6
5	12.3	7.4	---	---	---	---	---	---	---	---	7.4	5.4
6	12.6	7.5	---	---	---	---	---	---	---	---	8.6	4.0
7	12.9	7.8	---	---	---	---	---	---	---	---	9.7	4.3
8	13.4	8.4	---	---	---	---	---	---	---	---	7.9	5.4
9	13.4	8.9	---	---	---	---	---	---	---	---	6.7	4.5
10	13.8	8.8	---	---	---	---	---	---	---	---	8.3	2.9
11	13.6	9.0	---	---	---	---	---	---	---	---	9.1	3.2
12	12.9	8.8	---	---	---	---	---	---	---	---	10.2	3.5
13	13.1	8.6	---	---	---	---	---	---	---	---	11.0	4.3
14	12.7	8.1	---	---	---	---	---	---	---	---	11.1	4.7
15	13.1	8.4	---	---	---	---	---	---	---	---	11.4	5.1
16	12.8	7.9	---	---	---	---	---	---	---	---	11.3	5.0
17	12.1	7.8	---	---	---	---	---	---	---	---	9.7	5.7
18	12.2	7.9	---	---	---	---	---	---	---	---	9.9	4.5
19	11.8	7.8	---	---	---	---	---	---	---	---	10.2	3.2
20	11.1	8.3	---	---	---	---	---	---	---	---	11.0	3.3
21	11.7	8.2	---	---	---	---	---	---	6.2	1.9	8.1	4.6
22	11.1	8.3	---	---	---	---	---	---	4.9	1.7	8.7	5.7
23	---	---	---	---	---	---	---	---	5.9	2.7	10.4	5.9
24	---	---	---	---	---	---	---	---	5.4	1.1	11.6	6.7
25	---	---	---	---	---	---	---	---	6.1	1.9	12.7	5.4
26	---	---	---	---	---	---	---	---	6.4	1.6	13.1	6.3
27	---	---	---	---	---	---	---	---	7.2	1.8	10.5	7.8
28	---	---	---	---	---	---	---	---	7.7	2.4	9.1	6.7
29	---	---	---	---	---	---	---	---	7.9	2.8	10.4	6.3
30	---	---	---	---	---	---	---	---	---	---	10.1	7.4
31	---	---	---	---	---	---	---	---	---	---	9.8	7.4
MONTH	---	---	---	---	---	---	---	---	---	---	13.1	2.9

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.3	7.8	19.2	11.7	18.7	13.7	21.3	15.1	23.5	17.6	18.0	12.9
2	12.7	6.1	18.1	11.0	19.4	13.1	21.1	13.7	22.2	17.3	18.6	14.3
3	14.4	7.0	18.0	12.1	18.9	14.5	22.1	13.8	22.7	17.2	18.0	14.7
4	15.1	8.1	17.4	11.8	20.7	14.5	22.9	16.1	22.9	18.1	18.1	14.4
5	16.6	9.4	18.0	11.2	21.8	16.4	23.8	15.5	22.7	19.1	17.8	12.9
6	16.7	9.2	16.8	13.3	21.3	16.2	24.2	16.7	20.8	18.5	18.2	13.3
7	17.3	9.0	17.0	12.3	19.9	14.8	20.8	17.2	22.3	17.6	18.4	13.4
8	17.5	9.0	17.7	12.5	17.5	14.9	21.8	16.4	23.2	18.4	18.6	13.3
9	17.1	8.9	16.1	12.4	19.0	12.8	22.7	16.9	23.3	18.1	18.6	13.5
10	16.8	9.6	14.8	10.2	20.3	13.9	21.4	17.4	24.2	19.4	18.8	13.5
11	17.9	9.2	17.0	10.9	21.8	15.6	22.3	18.1	22.3	18.9	18.8	13.8
12	17.8	10.2	19.2	12.9	22.0	15.4	19.8	17.4	23.1	17.6	18.4	14.2
13	16.1	9.5	19.7	12.8	21.5	14.9	20.5	16.5	23.3	17.9	18.3	14.6
14	15.0	11.0	19.5	12.7	20.4	14.4	21.1	16.3	23.5	18.1	17.9	14.3
15	17.4	10.9	19.9	12.9	19.9	13.1	---	---	23.9	18.2	19.0	15.3
16	16.9	9.7	20.3	13.0	19.2	13.4	---	---	22.4	18.1	19.5	16.0
17	17.9	9.9	19.7	13.0	19.2	12.4	---	---	22.7	18.0	19.0	15.0
18	14.0	9.7	19.7	13.8	21.5	13.3	21.4	17.2	21.8	16.9	16.7	14.3
19	12.6	6.9	20.8	14.7	22.2	14.4	22.7	16.8	22.1	16.8	15.9	14.8
20	15.3	5.7	17.4	14.4	22.0	15.1	22.3	18.0	22.5	16.3	16.1	13.8
21	16.0	6.6	17.1	13.2	22.1	15.1	22.9	18.0	23.1	18.2	16.6	13.3
22	17.4	9.8	16.5	12.0	22.5	15.1	22.5	18.1	20.4	18.0	17.1	13.4
23	17.4	9.2	16.1	12.9	22.8	15.8	21.6	18.2	18.0	16.9	17.6	13.7
24	18.5	9.0	16.1	12.9	23.4	16.6	19.0	17.2	18.0	15.9	17.6	13.7
25	17.3	9.7	15.4	12.5	21.9	16.7	21.3	17.2	18.0	15.2	17.2	14.2
26	19.2	9.4	17.6	12.9	21.8	15.3	22.6	17.8	18.7	14.5	15.1	11.3
27	19.7	10.7	17.7	14.6	21.5	15.8	22.8	17.1	18.1	13.4	15.2	10.8
28	19.9	11.1	17.6	13.7	23.0	15.5	22.4	17.2	18.6	13.3	15.4	11.0
29	19.8	12.0	16.5	14.1	22.3	16.1	23.3	17.4	17.8	14.2	16.0	11.6
30	18.2	12.1	16.0	12.4	22.4	15.8	22.2	17.6	19.0	14.7	16.0	11.9
31	---	---	18.4	12.9	---	---	23.0	16.9	18.6	15.7	---	---
MONTH	19.9	5.7	20.8	10.2	23.4	12.4	---	---	24.2	13.3	19.5	10.8

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 mi^2.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Streamflow records, March 1951 to current year. Water-quality data available, November 1977 to September 1981, and August 1987 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: Nov. 27 to Dec. 1, Dec. 4-9, 11-13, 15, 19-28, and Jan. 1-12. Records good except for those above 200 ft^3/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).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	81	60	38	51	62	70	23	130	37	67	112
2	40	81	61	30	57	63	86	23	116	35	67	89
3	42	78	52	34	71	68	62	21	106	34	67	78
4	44	72	50	38	81	92	52	22	102	39	62	78
5	49	70	50	36	65	78	46	31	96	40	59	78
6	50	74	48	38	58	89	43	33	92	36	66	84
7	50	76	44	38	56	75	40	37	81	30	84	83
8	50	68	44	36	56	71	40	44	72	28	84	71
9	51	65	48	36	56	92	40	50	79	40	72	64
10	53	65	53	34	66	78	39	169	90	43	67	67
11	54	64	50	34	73	64	39	115	91	137	59	74
12	60	67	50	34	103	56	36	75	81	206	62	84
13	62	65	50	40	122	53	33	59	73	236	61	83
14	52	65	52	40	177	52	32	53	78	161	55	97
15	47	164	46	37	132	51	31	46	67	115	53	113
16	43	289	50	32	104	53	33	46	66	108	59	102
17	51	150	49	37	71	49	30	40	65	96	58	100
18	56	138	50	44	64	49	27	34	62	89	53	102
19	60	155	50	44	61	46	28	38	58	92	57	218
20	60	101	50	43	62	44	27	197	60	84	57	324
21	62	86	48	43	67	40	21	142	63	72	63	246
22	62	80	50	43	100	48	18	169	67	64	74	157
23	61	73	46	42	91	62	17	165	59	78	105	132
24	51	65	44	43	78	61	17	212	49	150	162	113
25	62	68	40	42	64	52	13	305	44	163	178	104
26	52	68	42	42	62	45	13	255	49	115	123	99
27	54	60	42	40	59	42	3.6	348	44	90	108	99
28	95	60	42	42	59	70	4.5	179	46	69	89	102
29	102	55	47	42	60	99	7.4	133	38	68	78	102
30	91	60	50	44	---	75	14	154	35	64	84	99
31	89	---	50	44	---	67	---	145	---	67	84	---
TOTAL	1795	2663	1508	1210	2226	1946	962.5	3363	2159	2686	2417	3354
MEAN	57.9	88.8	48.6	39.0	76.8	62.8	32.1	108	72.0	86.6	78.0	112
MAX	102	289	61	44	177	99	86	348	130	236	178	324
MIN	40	55	40	30	51	40	3.6	21	35	28	53	64
AC-FT	3560	5280	2990	2400	4420	3860	1910	6670	4280	5330	4790	6650

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1992, BY WATER YEAR (WY)

MEAN	53.7	48.6	39.2	32.8	46.4	57.8	41.8	47.7	54.3	51.2	60.0	54.0
MAX	161	122	95.4	68.4	141	197	148	108	105	132	160	226
(WY)	1973	1988	1966	1969	1980	1973	1973	1992	1969	1957	1967	1986
MIN	1.84	14.0	13.5	16.1	17.9	15.7	2.23	6.79	2.60	1.19	2.69	.43
(WY)	1957	1957	1978	1978	1964	1951	1977	1977	1977	1951	1972	1956

SUMMARY STATISTICS	FOR 1991 CALENDAR YEAR		FOR 1992 WATER YEAR		WATER YEARS 1951 - 1992	
ANNUAL TOTAL	16915.8		26289.5			
ANNUAL MEAN	46.3		71.8		49.5	
HIGHEST ANNUAL MEAN					94.6	1973
LOWEST ANNUAL MEAN					16.2	1977
HIGHEST DAILY MEAN	317	Sep 5	348	May 27	1200	Aug 7 1967
LOWEST DAILY MEAN	2.2	May 3	3.6	Apr 27	[a].08	Sep 9 1977
ANNUAL SEVEN-DAY MINIMUM	3.2	May 1	10	Apr 24	.14	Sep 21 1956
INSTANTANEOUS PEAK FLOW			1200	May 27	[b]3040	Aug 7 1967
INSTANTANEOUS PEAK STAGE			6.37	May 27	[c,d]7.58	Aug 7 1967
ANNUAL RUNOFF (AC-FT)	33550		52150		35830	
10 PERCENT EXCEEDS	76		118		93	
50 PERCENT EXCEEDS	40		61		36	
90 PERCENT EXCEEDS	15		36		11	

a-Also occurred Sep 10, 1977.
b-From rating curve extended above 2100 ft^3/s.
c-From floodmarks in gage well.
d-Maximum gage height, 8.13 ft, Sep 6, 1970.

09372000 MCELMO CREEK NEAR COLORADO-UTAH STATE LINE CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1977 to September 1981, August 1987 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)	HARD-NESS TOTAL (MG/L AS CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
OCT										
24...	1100	52	2000	8.2	10.0	1200	250	130	120	2
DEC										
17...	1130	51	2590	8.3	1.5	1700	350	200	200	2
FEB										
04...	1430	85	2430	8.3	3.0	1500	290	180	190	2
MAR										
09...	1045	97	2580	8.4	6.0	1500	300	190	200	2
APR										
10...	1115	38	3100	8.3	12.0	1500	300	190	220	2
17...	0805	33	3030	8.4	11.5	1500	280	190	230	3
MAY										
19...	1100	40	2120	8.3	19.5	1200	240	140	150	2
28...	1200	196	1990	8.3	18.0	940	210	100	110	2
JUN										
16...	1030	69	1670	8.4	16.5	890	200	94	99	1
JUL										
15...	1115	127	1600	8.3	18.0	860	200	87	82	1
AUG										
04...	1345	61	1710	8.7	23.0	940	210	100	100	1
SEP										
08...	1120	73	1840	8.2	15.0	990	230	100	99	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, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT									
24...	6.1	278	1000	42	0.6	9.6	1720	2.35	242
DEC									
17...	5.5	259	1700	46	0.4	11	2670	3.63	367
FEB									
04...	7.1	179	1500	43	0.4	9.1	2330	3.16	534
MAR									
09...	5.7	255	1500	41	0.4	8.7	2400	3.26	628
APR									
10...	4.9	147	1700	47	0.4	4.8	2560	3.48	262
17...	4.7	198	1700	46	0.5	3.5	2570	3.50	229
MAY									
19...	6.1	287	1000	25	0.2	12	1750	2.37	189
28...	6.4	217	880	23	0.5	11	1470	2.00	778
JUN									
16...	4.0	222	810	23	0.3	9.8	1370	1.87	256
JUL									
15...	5.5	226	750	23	<0.1	11	1290	1.76	444
AUG									
04...	4.4	241	880	25	0.3	12	1480	2.01	243
SEP									
08...	4.3	246	830	22	0.4	11	1440	1.96	285

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

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.

TO PLATTE RIVER BASIN

09010000 Grand River Ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.
REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09010000	0	0	0	0	0	0	91	5,030	9,070	5,320	1,420	425

Water year 1992, 21,360

09013000 Alva B. Adams Tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09013000	7,580	28,400	26,930	26,910	21,200	14,650	5,840	18,170	15,710	11,550	12,880	8,460

Water year 1992, 198,300

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.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09021500	0	0	0	0	0	0	0	108	418	335	118	30

Water year 1992, 1,010

09050590 Harold D. Roberts Tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte, River) in SW¼SW¼ sec.4, T.7 S., R.74 W., in Platte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09050590	4,310	8,670	6,190	5,980	5,740	4,570	150	2,830	14,930	16,840	10,690	4,640

Water year 1992, 85,530

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

TO ARKANSAS RIVER BASIN

09042000 Hoosier Pass Tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in $SE^1/4$ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in $SW^1/4NE^1/4$ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in $SW^1/4SW^1/4$ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

REVISIONS (WATER YEARS).--WDR CO-86-1, WDR CO-86-2: 1984, 1985.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09042000	14	0	0	0	0	0	76	2,330	3,690	3,410	1,970	165

Water year 1992, 11,650

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.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09063700	2,970	4,580	0	0	0	5,900	4,930	0	0	0	2,680	5,840

Water year 1992, 26,910

09077160 Charles H. Bousted Tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19" and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09077160	196	160	160	160	172	174	378	21,670	23,840	8,990	910	262

Water year 1992, 57,060

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.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09077500	39	0	0	0	0	0	0	2,160	1,930	889	170	24

Water year 1992, 5,210

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

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 1992

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	1965-92	a	3.9

*Also a crest-stage partial-record station.
a-Not determined.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are 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 crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Maximum discharge at crest-stage partial-record stations

Station name and number	Location and drainage area	Period of record	Water year 1992 maximum			Period of record maximum		
			Date	Gage height (ft)	Discharge (ft^3/s)	Date	Gage height (ft)	Discharge (ft^3/s)
			PINEY RIVER BASIN					
*Moniger Creek near Minturn, CO 09058900	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. Drainage area is 0.76 mi^2.	1965-92	a	1.45	3.9	5/21/89	2.05	29
			COLORADO RIVER BASIN					
Sweetwater Creek at mouth near Dotsero, CO 09061450	Lat 39°43'20", long, 107°02'22", in $NW^1/4NE^1/4$ sec.9, T.4 S., R.86 W., Eagle County, 5.3 mi north of Dotsero, Drainage area is 105 mi^2.	1979-92	a	8.05	84	7/12/76	18.60	7,390
Mamm Creek near Silt, CO 09091100	Lat 39°43'54", long 107°42'48", in $NW^1/4NW^1/4$ sec.18, T.6 S. R.92 W., Garfield County, 3.3 mi southeast of Silt, Drainage area is 63.3 mi^2.	1979-92	a	10.94	167	6/ 6/84	11.92	430
			GUNNISON RIVER BASIN					
Dry Creek near Olathe, CO 09149450	Lat 39°33'19", long 108°02'43", $SW^1/4NE^1/4$ sec.36, T.50 N., R.11 W., Montrose County, 4.9 mi southwest of Olathe. Drainage area is 102 mi^2.	1979-92	a	3.35	240	7/27/82	5.50	1,040
			SAN JUAN RIVER BASIN					
Junction Creek near Durango CO 09361400	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, Drainage area is 26.3 mi^2.	1959-65, 1973, 1979-92	5-27-92	3.07	212	a1980	3.64	600

* Also a low-flow partial-record station.
a Not determined.

401751107062000 UPPER FOIDEL CREEK PRECIPITATION GAGE, NEAR OAK CREEK, CO

LOCATION.--Lat 40°17'51", long 107°06'20", in SE¼SE¼ sec.24, T.5 N., R.87 W., Routt County, Hydrologic Unit 14050001, and 8.7 mi northwest of Oak Creek.

METEOROLOGICAL DATA

SITE.--Altitude is 8,050 ft above National Geodetic Vertical Datum of 1929, from topographic map.

SNOW-COURSE DATA, WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992

Date	Depth (inches)	Water Content (inches)	Density (percent)
Mar. 13	39.7	9.05	22.8

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. This gage was removed by coal company in October and was replaced on June 11, 1992.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1991 TO SEPTEMBER 1992
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.33	.00	.10
2	---	---	---	---	---	---	---	---	---	.00	.02	.00
3	---	---	---	---	---	---	---	---	---	.00	.00	.06
4	---	---	---	---	---	---	---	---	---	.00	.00	.00
5	---	---	---	---	---	---	---	---	---	.00	.00	.00
6	---	---	---	---	---	---	---	---	---	.00	.07	.00
7	---	---	---	---	---	---	---	---	---	.17	.09	.00
8	---	---	---	---	---	---	---	---	---	.00	.00	.00
9	---	---	---	---	---	---	---	---	---	.00	.02	.00
10	---	---	---	---	---	---	---	---	---	.00	.00	.00
11	---	---	---	---	---	---	---	---	.00	.33	.00	.00
12	---	---	---	---	---	---	---	---	.00	.59	.00	.00
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.00	.00	.00	.08
15	---	---	---	---	---	---	---	---	.00	.22	.00	.25
16	---	---	---	---	---	---	---	---	.10	.00	.03	.00
17	---	---	---	---	---	---	---	---	.00	.00	.10	.18
18	---	---	---	---	---	---	---	---	.00	.00	.14	.00
19	---	---	---	---	---	---	---	---	.00	.00	.00	.00
20	---	---	---	---	---	---	---	---	.00	.00	.00	.10
21	---	---	---	---	---	---	---	---	.00	.00	.00	.12
22	---	---	---	---	---	---	---	---	.00	.00	.00	.00
23	---	---	---	---	---	---	---	---	.00	.00	.00	.00
24	---	---	---	---	---	---	---	---	.00	.15	.16	.08
25	---	---	---	---	---	---	---	---	.17	.54	.10	.12
26	---	---	---	---	---	---	---	---	.26	.00	.00	.00
27	---	---	---	---	---	---	---	---	.17	.00	.10	.00
28	---	---	---	---	---	---	---	---	.00	.00	.00	.00
29	---	---	---	---	---	---	---	---	.00	.00	.00	.00
30	---	---	---	---	---	---	---	---	.00	.00	.00	.00
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	2.33	0.83	1.09

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09010500 COLORADO RIVER BELOW BAKER GULCH, NEAR GRAND LAKE, CO (LAT 40 19 33N LONG 105 51 22W)				
OCT 1991				
03...	1110	19.1	78	6.5
NOV				
25...	1350	11.3	78	0.0
JAN 1992				
06...	1300	8.06	78	0.0
MAR				
26...	1100	5.10	78	0.0
APR 1992				
29...	1630	134	58	9.5
MAY				
27...	1430	276	52	5.5
JUN				
17...	1200	138	50	5.0
JUL				
09...	1130	74.6	60	10.5
09019500 COLORADO RIVER NEAR GRANBY, CO (LAT 40 07 15N LONG 105 54 00W)				
OCT 1991				
03...	1200	M21.0	69	8.5
APR 1992				
28...	1015	23.9	--	6.5
MAY				
28...	0800	M57.0	80	7.0
JUN 1992				
17...	1010	M51.4	74	8.5
JUL				
09...	0730	M45.8	71	9.0
09...	1000	M49.2	71	9.0
09022000 FRASER RIVER AT UPPER STATION NEAR WINTER PARK, CO (LAT 39 50 45N LONG 105 45 05W)				
OCT 1991				
01...	0830	6.49	75	3.0
NOV				
19...	1010	2.91	82	0.0
JAN 1992				
06...	0915	2.35	85	0.0
08...	1030	2.69	33	0.0
FEB				
18...	1015	1.70	90	0.0
MAR				
23...	1445	2.05	155	1.5
APR				
27...	1305	5.62	142	5.5
MAY 1992				
26...	1050	53.8	52	3.5
JUN				
15...	1000	49.2	44	3.5
JUL				
07...	1100	22.5	52	6.5
AUG				
10...	1100	10.8	68	7.5
SEP				
28...	1310	5.01	78	6.0
09024000 FRASER RIVER NEAR WINTER PARK, CO (LAT 39 54 00N LONG 105 46 34W)				
OCT 1991				
01...	0930	19.6	69	5.5
NOV				
19...	1200	7.21	90	0.5
JAN 1992				
08...	1300	4.18	--	0.0
FEB				
18...	1255	5.56	119	0.5
MAR				
24...	1015	5.83	145	2.0
APR				
27...	1515	14.5	131	7.0
MAY 1992				
26...	1400	14.6	69	9.5
JUN				
15...	1245	66.3	50	7.0
JUL				
07...	1330	35.5	54	8.5
AUG				
10...	1500	8.94	84	14.0
SEP				
28...	1715	19.3	73	7.0
09025000 VASQUEZ CREEK AT WINTER PARK, CO (LAT 39 55 13N LONG 105 47 05W)				
OCT 1991				
02...	0920	9.53	47	3.5
NOV				
19...	1350	5.69	27	0.0
JAN 1992				
13...	1000	4.12	50	0.0
FEB				
19...	1500	5.99	52	0.0
MAR				
23...	1650	6.57	55	0.0
APR 1992				
27...	1735	9.11	59	5.5
MAY				
13...	1545	9.86	49	7.0
JUN				
16...	0715	56.1	32	2.5
JUL				
07...	1500	12.0	37	10.5
SEP				
29...	0810	9.84	45	2.5
09025400 ELK CREEK NEAR FRASER, CO (LAT 39 55 09N LONG 105 49 31W)				
OCT 1991				
01...	1410	0.97	50	11.0
NOV				
20...	1540	0.27	52	0.0
JAN 1992				
14...	1030	0.38	53	0.0
FEB				
21...	1030	0.26	59	0.0
MAR				
24...	1245	0.29	59	1.0
APR 1992				
30...	0800	3.59	40	0.5
MAY				
28...	1320	8.04	39	6.5
JUN				
16...	1050	7.21	35	6.5
SEP				
30...	1400	0.97	52	10.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09026500 ST. LOUIS CREEK NEAR FRASER, CO (LAT 39 54 36N LONG 105 52 40W)									
OCT 1991					MAY 1992				
02...	1205	18.3	79	4.5	13...	1400	14.3	84	7.5
NOV					JUN				
20...	0930	4.92	23	0.0	16...	1230	82.8	59	5.0
JAN 1992					JUL				
14...	1230	4.92	85	0.0	08...	0700	48.1	61	6.5
FEB					AUG				
20...	1520	4.41	55	0.5	11...	1500	17.4	70	11.0
MAR					SEP				
24...	1545	4.45	94	0.5	30...	1005	13.6	76	2.5
APR									
30...	0955	9.86	93	2.0					
09032000 RANCH CREEK NEAR FRASER, CO (LAT 39 57 00N LONG 105 45 54W)									
OCT 1991					MAY 1992				
02...	1005	4.87	47	4.5	28...	1030	13.1	42	4.0
NOV					JUN				
20...	1420	3.74	51	0.0	16...	0845	87.6	29	2.5
JAN 1992					JUL				
13...	1300	1.92	53	0.0	08...	1515	24.2	32	8.5
FEB					AUG				
20...	0930	2.33	55	0.0	11...	1100	4.92	43	8.5
MAR					SEP				
27...	1045	2.04	95	0.5	29...	1405	8.80	44	6.0
APR									
28...	0800	7.11	49	1.0					
09032100 CABIN CREEK NEAR FRASER, CO (LAT 39 59 09N LONG 105 44 40W)									
OCT 1991					JUN 1992				
01...	1216	2.68	45	6.5	15...	1545	35.9	30	9.5
NOV					JUL				
25...	1300	2.26	45	0.0	08...	1330	13.2	45	9.5
JAN 1992					AUG				
10...	1230	1.46	--	0.0	11...	0850	4.58	46	6.0
FEB					SEP				
06...	1230	1.36	--	0.0	29...	1115	3.05	47	3.5
MAY									
05...	1100	0.28	28	4.0					
09034250 COLORADO RIVER AT WINDY GAP, NEAR GRANBY, CO (LAT 40 06 30N LONG 106 00 13W)									
OCT 1991					APR 1992				
31...	1015	110	145	2.0	17...	0950	365	133	4.0
NOV					MAY				
21...	1400	89.3	143	1.5	05...	0850	134	100	9.0
DEC					JUN				
06...	0925	73.2	137	0.0	01...	1545	235	138	10.0
JAN 1992					JUL				
16...	1430	73.6	133	1.0	09...	1425	331	134	14.0
FEB					AUG				
27...	1400	75.4	130	0.0	13...	0845	119	145	14.0
MAR					SEP				
26...	1645	95.2	157	2.0	04...	0930	113	137	10.5
09034900 BOBTAIL CREEK NEAR JONES PASS, CO (LAT 39 45 37N LONG 105 54 21W)									
OCT 1991					JUN 1992				
17...	1205	1.66	65	3.5	10...	1450	32.3	38	8.0
DEC					JUL				
19...	1115	0.96	67	0.0	16...	1445	17.3	46	11.5
MAR 1992					SEP				
03...	1200	0.65	68	0.0	01...	1445	7.90	56	4.5
APR									
01...	1130	0.67	74	0.0					
30...	1520	6.56	47	0.0					
09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO (LAT 39 46 44N LONG 105 55 40W)									
OCT 1991					JUN 1992				
17...	1030	5.62	63	2.0	10...	1155	71.7	39	5.0
17...	1030	5.62	63	2.0	JUL				
DEC					16...	1115	40.6	48	6.0
19...	1250	4.21	40	0.5	SEP				
MAR 1992					01...	1200	14.5	62	4.5
03...	1215	3.16	70	0.5					
APR									
01...	1245	2.93	73	0.5					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO (LAT 39 47 22N LONG 106 01 18W)									
OCT 1991					MAY 1992				
24...	1035	10.3	67	1.0	20...	1245	124	40	4.0
NOV					JUN				
06...	1015	12.8	66	0.0	09...	1220	104	45	5.0
DEC					JUL				
10...	1430	10.7	68	0.0	22...	1430	47.3	52	10.5
JAN 1992					AUG				
29...	1400	8.56	72	0.0	12...	1455	26.0	60	12.0
MAR					SEP				
12...	1215	7.31	71	0.5	02...	1345	26.7	60	7.5
APR									
28...	1350	23.4	--	7.0					
09035800 DARLING CREEK NEAR LEAL, CO (LAT 39 48 17N LONG 106 01 11W)									
OCT 1991					MAY 1992				
24...	1400	4.10	76	1.0	20...	1020	24.7	53	3.0
NOV					JUN				
06...	1345	3.86	75	0.0	09...	1000	25.0	56	3.0
DEC					JUL				
10...	1130	4.62	77	0.0	22...	1050	11.2	60	7.0
JAN 1992					AUG				
30...	1000	1.93	80	0.0	12...	1240	6.49	70	8.5
MAR					SEP				
12...	1210	2.70	83	0.0	04...	1015	4.96	73	5.5
APR									
16...	1450	3.18	75	1.5					
09035900 SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO (LAT 39 47 44N LONG 106 01 49W)									
OCT 1991					MAY 1992				
24...	1130	9.96	87	1.0	20...	1350	81.8	57	5.0
NOV					JUN				
06...	1155	11.1	84	0.0	09...	1410	78.0	58	8.0
DEC					JUL				
10...	1635	13.9	91	0.0	22...	1525	28.6	70	10.0
JAN 1992					AUG				
29...	1112	7.38	94	0.0	13...	1540	18.4	79	11.5
MAR					SEP				
12...	1350	8.05	91	0.0	02...	1600	20.4	78	8.5
APR									
15...	1615	14.4	86	4.5					
09036000 WILLIAMS FORK NEAR LEAL, CO (LAT 39 49 53N LONG 106 03 15W)									
OCT 1991					MAY 1992				
24...	1530	29.7	80	4.0	20...	1625	273	55	8.0
NOV					JUN				
06...	1550	34.7	78	1.0	10...	1330	278	57	9.0
DEC					JUL				
11...	0925	24.3	82	1.0	22...	1725	114	62	11.5
JAN 1992					AUG				
29...	1600	18.9	86	1.0	13...	1410	64.1	73	13.5
MAR					SEP				
12...	1415	19.2	87	3.5	04...	1340	56.9	75	11.5
APR									
16...	1145	53.6	78	3.0					
09037500 WILLIAMS FORK NEAR PARSHALL, CO (LAT 40 00 01N LONG 106 10 45W)									
OCT 1991					MAY 1992				
31...	1430	49.2	100	1.0	01...	1450	197	66	9.5
NOV					21...	1120	278	53	7.0
21...	0920	53.7	98	0.0	JUN				
DEC					10...	1115	220	64	8.0
05...	0945	41.3	102	0.0	JUL				
JAN 1992					23...	1515	50.4	86	15.5
15...	1540	39.1	102	0.0	AUG				
FEB					12...	1755	24.3	112	19.0
26...	1115	32.9	103	0.0	SEP				
APR					02...	1125	78.8	93	9.5
03...	1235	44.7	103	6.0					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO (LAT 40 02 07N LONG 106 12 17W)									
OCT 1991					APR 1992				
30...	1645	109	124	9.0	14...	1425	190	130	3.5
NOV					24...	1130	183	124	4.0
20...	1420	110	128	6.0	MAY				
DEC					05...	1140	183	123	5.0
04...	1327	109	127	5.0	JUN				
JAN 1992					05...	1000	29.5	122	6.0
15...	1145	111	126	2.0	JUL				
FEB					09...	1345	26.8	117	7.5
26...	1230	112	128	2.0	AUG				
MAR					13...	1330	252	114	8.5
23...	1540	114	133	3.5	SEP				
					15...	1120	184	109	10.0
09039000 TROUBLESOME CREEK NEAR PEARMONT, CO (LAT 40 13 03N LONG 106 18 45W)									
OCT 1991					APR 1992				
29...	1535	9.03	100	1.0	16...	1525	21.3	93	7.0
NOV					MAY				
19...	1600	11.8	97	0.5	05...	1650	29.7	83	12.0
DEC					JUN				
03...	0925	9.90	91	0.0	02...	1300	58.8	83	9.0
JAN 1992					JUL				
15...	0955	9.08	91	0.0	06...	1555	19.8	103	18.0
FEB					AUG				
25...	1350	10.9	92	0.0	12...	1350	13.4	111	17.0
MAR					SEP				
26...	1000	9.03	92	2.0	14...	1350	10.1	110	12.5
09046490 BLUE RIVER AT BLUE RIVER, CO (LAT 39 27 21N LONG 106 01 52W)									
OCT 1991					MAY 1992				
10...	1105	14.8	171	7.5	01...	1310	34.2	161	4.5
NOV					28...	1415	83.6	145	7.0
19...	1600	9.03	190	3.0	JUN				
DEC					19...	1015	63.0	157	10.5
17...	1500	7.50	200	2.5	JUL				
JAN 1992					16...	1000	22.0	165	9.5
28...	1520	5.00	207	0.5	AUG				
MAR					19...	1400	40.1	141	12.5
05...	1235	3.80	197	1.5	SEP				
31...	1430	4.00	191	1.5	17...	1015	23.9	146	11.0
09046600 BLUE RIVER NEAR DILLON, CO (LAT 39 32 55N LONG 106 02 19W)									
OCT 1991					APR 1992				
10...	1310	60.0	165	9.0	03...	0940	20.2	180	5.0
NOV					MAY				
21...	1300	27.6	166	1.5	29...	1005	243	141	7.5
DEC					JUL				
20...	1025	23.4	169	2.5	17...	0925	112	175	8.5
JAN 1992					SEP				
30...	1000	17.8	171	2.0	18...	0920	67.3	154	9.0
MAR									
06...	1010	19.4	177	3.0					
09047500 SNAKE RIVER NEAR MONTEZUMA, CO (LAT 39 36 20N LONG 105 56 33W)									
OCT 1991					MAY 1992				
07...	0950	26.2	115	1.0	27...	1000	207	73	3.5
NOV					JUN				
21...	0930	14.2	120	0.0	17...	1045	181	78	6.0
DEC					JUL				
16...	0900	12.4	139	0.0	15...	0940	93.9	88	6.0
JAN 1992					AUG				
27...	1035	10.8	141	0.0	18...	1000	45.4	107	7.0
MAR					SEP				
02...	1245	9.80	150	1.5	16...	1310	31.2	126	9.5
APR									
16...	1145	17.3	135	2.0					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09047700 KEYSTONE GULCH NEAR DILLON, CO (LAT 39 35 40N LONG 105 58 19W)									
OCT 1991					MAY 1992				
07...	1110	4.4	86	1.0	27...	1245	19.3	64	4.0
NOV					JUN				
21...	1100	3.40	93	0.0	17...	1450	13.7	68	8.5
DEC					JUL				
16...	1240	2.35	91	0.0	15...	1130	7.33	75	8.0
JAN 1992					AUG				
27...	1310	1.38	95	0.0	18...	1215	4.99	82	7.5
MAR					SEP				
02...	1515	1.44	92	0.0	16...	1600	3.19	85	9.0
30...	1105	1.52	87	0.5					
09050100 TENMILE CREEK BELOW NORTH TENMILE CREEK, AT FRISCO, CO (LAT 39 34 37N LONG 106 06 33W)									
OCT 1991					MAY 1992				
02...	1550	29.7	600	10.5	29...	1240	313	300	6.5
NOV					JUN				
21...	1540	17.2	610	0.0	18...	1130	288	355	7.5
DEC					JUL				
20...	0845	15.8	210	0.5	15...	1515	137	410	5.0
JAN 1992					AUG				
30...	1145	9.63	222	0.0	20...	0940	38.2	450	8.0
MAR					SEP				
06...	1150	27.2	1300	1.0	18...	1100	32.6	410	8.0
30...	1600	30.4	920	5.0					
09050700 BLUE RIVER BELOW DILLON, CO (LAT 39 37 32N LONG 106 03 57W)									
OCT 1991					MAY 1992				
02...	0910	105	--	5.0	02...	1330	--	282	4.5
NOV					JUN				
22...	1130	103	267	5.0	18...	1500	440	237	9.5
DEC					JUL				
16...	1430	101	239	2.5	17...	1210	105	265	8.5
JAN 1992					AUG				
27...	1315	102	241	3.0	18...	1555	--	252	6.0
MAR					SEP				
06...	1315	102	288	3.0	18...	1430	--	252	6.0
APR									
02...	1600	105	319	3.5					
09051050 STRAIGHT CREEK BELOW LASKEY GULCH NEAR DILLON, CO (LAT 39 38 23N LONG 106 02 23W)									
NOV 1991					MAY 1992				
22...	1100	4.38	147	0.0	27...	1530	41.9	105	6.5
DEC					JUN				
20...	1345	3.87	150	0.0	18...	0915	38.1	79	3.5
JAN 1992					JUL				
30...	1435	1.39	175	0.0	15...	1310	16.4	160	7.5
MAR					AUG				
05...	1555	3.81	189	0.0	18...	1500	9.63	107	11.5
APR					SEP				
03...	1100	2.90	241	1.5	18...	1410	7.64	119	8.5
28...	1715	10.7	232	10.0					
09052000 ROCK CREEK NEAR DILLON, CO (LAT 39 43 23N LONG 106 07 41W)									
OCT 1991					MAY 1992				
09...	1135	6.87	64	5.5	27...	1420	67.1	30	6.0
NOV					JUN				
04...	1400	6.29	68	0.0	08...	1645	39.9	37	7.0
DEC					JUL				
09...	1445	5.46	69	0.0	28...	1250	19.9	41	10.0
JAN 1992					AUG				
30...	1420	3.81	73	0.0	11...	1620	13.2	46	12.0
MAR					SEP				
11...	1440	3.36	75	0.5	03...	1715	15.4	49	9.0
APR									
14...	1635	12.6	57	2.0					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09052400 BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO (LAT 39 43 41N LONG 106 10 22W)				
OCT 1991				
08...	1030	4.50	47	6.0
NOV				
04...	1635	3.76	67	--
DEC				
12...	1455	2.93	70	--
JAN 1992				
30...	1505	2.02	77	0.0
MAR				
11...	1420	1.89	77	0.5
APR				
30...	1020	19.7	38	1.0
MAY 1992				
19...	1600	37.8	46	7.0
JUN				
12...	1010	44.4	35	4.0
JUL				
24...	1020	17.6	38	8.0
AUG				
19...	1830	8.47	45	15.0
SEP				
11...	1020	7.05	53	5.0
09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO (LAT 39 45 47N LONG 106 11 31W)				
OCT 1991				
08...	1320	8.8	55	6.5
NOV				
05...	0915	5.2	77	1.0
DEC				
12...	1315	5.30	81	1.0
JAN 1992				
28...	1550	2.95	92	0.0
MAR				
11...	1300	3.61	91	0.0
APR				
29...	1125	25.4	48	3.5
MAY 1992				
22...	1330	73.1	26	6.5
JUN				
11...	1525	50.2	32	9.0
JUL				
23...	1010	29.5	31	10.0
AUG				
13...	1050	15.5	39	11.5
SEP				
03...	1020	27.5	38	7.5
09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO (LAT 39 47 57N LONG 106 16 04W)				
OCT 1991				
09...	1315	8.06	29	9.5
NOV				
05...	1145	6.46	59	1.0
DEC				
12...	1145	6.41	56	1.0
JAN 1992				
28...	1450	6.32	58	0.0
MAR				
11...	1010	4.38	65	0.5
APR				
29...	1440	41.0	36	6.0
MAY 1992				
12...	1331	42.1	34	6.5
JUN				
11...	1040	65.5	35	8.5
JUL				
21...	1425	54.7	25	13.5
AUG				
14...	1310	21.2	27	15.5
SEP				
10...	1510	11.7	29	14.0
09055300 CATARACT CREEK NEAR KREMMLING, CO (LAT 39 50 07N LONG 106 18 57W)				
OCT 1991				
07...	1315	2.22	41	11.0
NOV				
05...	1400	2.15	45	5.0
DEC				
11...	1340	2.32	51	3.0
JAN 1992				
28...	1055	1.09	60	2.0
APR				
30...	1530	34.2	56	8.0
MAY 1992				
21...	1520	95.4	30	7.5
22...	1030	104	31	7.5
JUN				
08...	1320	46.8	39	9.5
JUL				
21...	1200	20.7	34	15.0
AUG				
14...	1030	5.32	37	17.0
SEP				
10...	1730	4.98	40	16.0
09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO (LAT 39 52 49N LONG 106 20 00W)				
OCT 1991				
07...	1445	469	178	12.5
NOV				
06...	1710	330	181	8.0
DEC				
12...	0930	290	184	3.0
JAN 1992				
27...	1530	294	194	3.0
MAR				
18...	0955	308	210	3.0
MAY 1992				
01...	0945	257	213	4.5
27...	1155	102	208	6.0
JUN				
10...	1555	56.2	213	5.0
JUL				
24...	1320	189	194	8.5
AUG				
10...	1405	571	193	9.0
11...	1345	670	192	9.0
SEP				
01...	1355	665	192	10.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09057520 BLUE RIVER BELOW SPRUCE CREEK NEAR KREMMLING, CO (LAT 39 57 49N LONG 106 21 35W)									
OCT 1991					MAY 1992				
07...	1525	345	179	14.5	01...	1150	166	220	7.5
NOV					21...	1740	48.5	230	12.0
07...	1655	242	182	8.5	JUN				
DEC					10...	1718	26.9	271	18.0
11...	1630	192	186	3.0	JUL				
JAN 1992					21...	1555	116	207	15.0
27...	1345	190	194	6.0	AUG				
MAR					11...	1045	484	195	10.5
11...	1115	170	211	4.0	SEP				
18...	1310	191	215	4.0	03...	1410	447	193	12.5
09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO (LAT 39 42 29N LONG 106 25 38W)									
OCT 1991					MAY 1992				
08...	1705	3.41	36	7.0	12...	1305	51.6	--	6.0
NOV					27...	1120	155	--	8.0
19...	1020	5.26	51	2.0	JUN				
JAN 1992					16...	1540	77.8	32	8.0
14...	1007	1.26	49	0.0	JUL				
MAR					21...	1208	25.7	37	15.0
12...	0917	3.32	70	0.0	AUG				
APR					26...	1230	17.6	47	14.0
14...	1525	21.9	57	2.5					
09058610 DICKSON CREEK NEAR VAIL, CO (LAT 39 42 14N LONG 106 27 25W)									
OCT 1991					MAY 1992				
08...	1050	1.44	377	9.0	12...	1637	6.42	59	5.0
NOV					27...	1411	13.6	261	7.5
19...	1356	1.30	43	2.0	JUN				
JAN 1992					16...	1305	5.55	320	9.5
14...	1005	1.04	404	0.0	JUL				
MAR					21...	1437	2.40	378	14.0
11...	1008	0.920	419	0.0	AUG				
APR					26...	1400	1.84	370	13.0
14...	1215	2.46	325	1.0					
09058700 FREEMAN CREEK NEAR MINTURN, CO (LAT 39 41 55N LONG 106 26 41W)									
OCT 1991					JUN 1992				
08...	1330	0.140	289	5.0	16...	1607	1.25	--	7.0
MAR 1992					JUL				
11...	1030	0.070	--	0.5	21...	1537	0.440	248	17.0
APR					AUG				
15...	1325	1.20	151	0.0	26...	1540	0.219	236	15.5
MAY									
12...	1519	8.50	--	4.5					
27...	1314	5.69	132	9.0					
09058800 EAST MEADOW CREEK NEAR MINTURN, CO (LAT 39 43 54N LONG 106 25 36W)									
OCT 1991					JUN 1992				
08...	1530	1.08	39	7.0	16...	0840	16.0	38	9.5
APR 1992					JUL				
23...	1230	1.22	78	--	21...	0915	3.25	56	6.5
MAY					AUG				
12...	1050	10.6	32	4.0	26...	1025	2.06	--	5.5
27...	1005	22.8	79	3.5					
09059500 PINEY RIVER NEAR STATE BRIDGE, CO (LAT 39 48 00N LONG 106 35 00W)									
OCT 1991					APR 1992				
08...	1415	13.8	360	9.0	15...	1452	68.7	223	6.5
NOV					MAY				
19...	1000	15.8	332	0.0	19...	1530	323	129	10.0
JAN 1992					JUN				
16...	1010	13.2	365	0.0	17...	1307	124	139	10.0
MAR					JUL				
11...	0940	12.3	340	0.0	14...	1446	63.9	163	14.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09063000 EAGLE RIVER AT RED CLIFF, CO (LAT 39 30 34N LONG 106 22 00W)				
OCT 1991				
10...	1425	12.1	157	4.0
NOV				
20...	1610	17.3	--	0.5
JAN 1992				
14...	1435	10.4	221	0.5
MAR				
10...	1325	8.58	219	2.5
APR				
14...	1500	28.1	173	4.5
MAY 1992				
11...	1625	98.9	175	10.0
26...	1757	132	--	6.0
JUN				
15...	1609	97.8	178	12.0
JUL				
22...	1807	25.2	236	13.0
AUG				
25...	1100	25.3	--	8.5
09063200 WEARYMAN CREEK NEAR RED CLIFF, CO (LAT 39 31 14N LONG 106 19 06W)				
OCT 1991				
10...	1200	2.25	--	2.0
NOV				
21...	0920	1.92	246	0.5
JAN 1992				
15...	1435	0.91	217	0.0
MAR				
10...	1135	0.89	275	0.0
APR				
14...	1250	1.87	258	2.0
16...	1000	2.84	274	2.0
MAY 1992				
11...	1450	10.8	221	6.0
26...	1340	25.6	225	5.0
JUN				
15...	1650	35.0	142	11.0
JUL				
20...	1319	8.56	265	7.0
AUG				
07...	1135	4.52	258	6.0
25...	0835	4.91	279	4.5
09063400 TURKEY CREEK NEAR RED CLIFF, CO (LAT 39 31 32N LONG 106 20 08W)				
OCT 1991				
10...	1316	5.54	221	3.0
NOV				
21...	1033	4.12	--	0.5
JAN 1992				
15...	1357	3.21	319	0.0
MAR				
10...	1130	3.34	--	0.5
APR				
16...	1120	8.05	250	2.0
MAY 1992				
11...	1510	43.8	239	6.0
26...	1505	103	265	5.0
JUN				
15...	1430	110	164	5.0
JUL				
20...	1433	22.3	283	7.5
AUG				
25...	0945	10.4	269	5.5
09063900 MISSOURI CREEK NEAR GOLD PARK, CO (LAT 39 23 25N LONG 106 28 10W)				
OCT 1991				
10...	0938	1.11	--	2.0
JAN 1992				
15...	1025	0.580	36	0.0
MAR				
10...	0910	0.690	29	0.5
APR				
16...	0945	4.39	38	0.0
MAY 1992				
14...	0945	13.2	30	1.5
29...	0856	11.6	30	1.5
JUN				
18...	0907	11.9	25	3.0
JUL				
20...	1605	17.2	26	9.0
AUG				
25...	1600	23.3	41	9.0
09064000 HOMESTAKE CREEK AT GOLD PARK, CO (LAT 39 24 20N LONG 106 25 58W)				
OCT 1991				
10...	1014	8.41	--	3.0
NOV				
20...	1110	8.23	43	0.5
JAN 1992				
15...	0952	4.23	29	0.0
MAR				
10...	0930	4.78	32	0.5
APR				
16...	1005	21.1	67	0.0
MAY 1992				
14...	1016	41.2	32	3.0
29...	1108	47.1	32	5.0
JUN				
18...	1122	30.5	37	7.0
JUL				
23...	1005	43.4	32	9.0
AUG				
25...	1430	49.6	40	10.0
09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO (LAT 39 28 24N LONG 106 22 02W)				
NOV 1991				
20...	1145	12.5	57	0.5
JAN 1992				
15...	1330	6.00	47	0.0
MAR				
10...	1000	6.73	28	0.0
APR				
16...	1250	46.3	35	3.0
MAY 1992				
14...	1309	101	34	8.0
29...	1025	77.8	34	7.0
JUN				
18...	1235	45.7	36	11.0
JUL				
23...	1125	48.9	36	11.5
AUG				
25...	1235	60.7	33	10.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09064600 EAGLE RIVER NEAR MINTURN, CO (LAT 39 33 14N LONG 106 24 07W)				
OCT 1991				
11...	0748	33.0	--	2.0
NOV				
18...	1455	34.4	216	1.0
JAN 1992				
14...	1420	24.6	231	0.0
MAR				
10...	1444	21.8	243	0.5
APR				
13...	1340	128	161	5.0
MAY 1992				
20...	0922	406	107	6.0
JUN				
17...	0937	268	142	6.0
JUL				
15...	0902	102	155	9.5
SEP				
02...	0912	83.3	141	7.0
09065100 CROSS CREEK NEAR MINTURN, CO (LAT 39 34 05N LONG 106 24 45W)				
OCT 1991				
11...	0950	9.69	--	2.0
NOV				
20...	0905	4.88	54	0.0
JAN 1992				
13...	1435	2.84	49	0.0
MAR				
10...	1605	3.72	68	0.5
APR				
13...	1635	37.6	45	4.0
MAY 1992				
20...	1029	258	24	5.0
JUN				
17...	1055	100	30	6.0
JUL				
15...	1007	80.0	31	10.0
AUG				
04...	0830	31.1	39	11.0
SEP				
02...	1016	35.2	43	5.5
09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO (LAT 39 37 40N LONG 106 16 24W)				
OCT 1991				
22...	1045	3.21	72	1.5
NOV				
14...	1158	5.49	69	0.0
DEC				
18...	1130	3.24	70	0.0
JAN 1992				
22...	1025	2.20	--	0.0
FEB				
18...	1400	2.30	71	0.0
MAR				
27...	1145	3.36	80	5.0
APR 1992				
14...	0948	25.8	50	3.0
MAY				
15...	1007	82.8	38	3.0
JUN				
09...	1144	85.5	38	5.0
JUL				
21...	1256	25.0	52	10.0
AUG				
19...	1511	13.6	61	14.0
SEP				
14...	1140	10.6	68	7.0
09066000 BLACK GORE CREEK NEAR MINTURN, CO (LAT 39 35 47N LONG 106 15 52W)				
OCT 1991				
22...	0935	1.77	205	0.5
NOV				
14...	0815	2.38	159	0.0
DEC				
18...	0945	2.19	204	0.0
FEB 1992				
18...	1625	2.04	206	0.0
MAR				
25...	1110	2.51	--	0.5
APR				
13...	1115	13.9	280	2.5
15...	1620	12.4	265	3.5
MAY 1992				
14...	1405	52.7	111	7.0
JUN				
09...	1002	51.0	107	5.0
JUL				
21...	1014	9.37	146	8.0
23...	1008	7.60	146	8.0
AUG				
18...	1033	5.29	170	9.0
SEP				
15...	1220	10.2	220	9.5
09066100 BIGHORN CREEK NEAR MINTURN, CO (LAT 39 38 24N LONG 106 17 34W)				
OCT 1991				
22...	1145	1.50	73	2.5
NOV				
14...	1220	1.68	70	0.5
DEC				
19...	0940	0.98	71	0.0
JAN 1992				
22...	1130	0.79	--	0.0
FEB				
18...	1230	0.78	75	0.0
MAR				
25...	1530	1.06	--	0.5
APR 1992				
13...	1345	8.79	58	3.0
MAY				
14...	1052	25.4	42	4.0
JUN				
09...	1316	31.3	41	--
JUL				
21...	1440	7.95	50	10.0
AUG				
19...	1011	4.89	59	7.0
SEP				
15...	1035	3.32	68	7.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09066150 PITKIN CREEK NEAR MINTURN, CO (LAT 39 38 37N LONG 106 18 07W)									
OCT 1991					APR 1992				
22...	1305	2.02	93	3.0	14...	1125	7.42	85	3.0
NOV					MAY				
14...	0940	2.39	87	0.0	14...	0905	26.6	52	3.0
DEC					JUN				
18...	1316	1.19	80	0.5	10...	1302	32.5	49	8.0
JAN 1992					JUL				
22...	1300	0.77	90	0.5	22...	1055	10.6	58	6.5
FEB					AUG				
18...	1115	0.79	87	0.5	18...	1200	9.22	66	8.0
MAR					SEP				
25...	1350	0.94	--	0.5	15...	0926	4.76	78	7.0
09066200 BOOTH CREEK NEAR MINTURN, CO (LAT 39 39 02N LONG 106 19 16W)									
OCT 1991					APR 1992				
21...	1450	1.65	139	7.5	13...	1546	9.20	119	5.0
NOV					MAY				
14...	1340	2.20	115	2.0	13...	1400	26.7	75	6.0
DEC					JUN				
18...	1440	1.06	120	1.0	10...	1156	30.8	58	9.0
JAN 1992					JUL				
22...	1440	0.77	135	0.5	22...	0944	6.91	75	7.5
FEB					AUG				
18...	1000	0.77	139	0.5	19...	0820	3.66	93	7.5
MAR					SEP				
10...	1345	1.18	141	4.5	14...	1302	3.05	101	9.0
09066300 MIDDLE CREEK NEAR MINTURN, CO (LAT 39 38 50N LONG 106 22 48W)									
OCT 1991					APR 1992				
21...	1130	0.83	229	3.0	15...	0934	1.75	225	2.0
NOV					MAY				
14...	1500	0.58	208	1.0	13...	1220	12.2	147	4.5
DEC					JUN				
19...	1105	0.49	215	1.0	10...	0942	19.6	130	4.5
JAN 1992					JUL				
22...	1600	0.16	221	0.5	22...	0825	3.0	171	6.5
FEB					AUG				
18...	0650	0.17	225	0.5	18...	1442	1.89	182	10.5
MAR					SEP				
10...	1036	0.25	239	4.0	14...	1411	0.94	206	8.0
09066310 GORE CREEK, LOWER STATION, AT VAIL, CO (LAT 39 38 28N LONG 106 23 37W)									
OCT 1991					APR 1992				
21...	1330	17.7	319	7.5	14...	1415	77.7	190	5.0
NOV					MAY				
15...	0925	17.2	278	2.0	13...	0915	268	130	4.0
DEC					JUL				
19...	1305	13.2	309	1.5	23...	0840	72.4	174	9.0
FEB 1992					AUG				
18...	0850	9.32	360	1.0	20...	1008	37	224	10.0
MAR					SEP				
27...	1403	13.0	346	8.5	16...	0835	32.9	243	7.5
09066400 RED SANDSTONE CREEK NEAR MINTURN, CO (LAT 39 40 58N LONG 106 24 03W)									
OCT 1991					MAY 1992				
09...	1800	1.26	--	5.0	13...	1458	30.6	56	5.5
NOV					27...	1538	40.6	52	5.5
19...	1300	1.48	--	2.5	JUN				
JAN 1992					16...	1734	23.0	59	6.0
14...	1233	1.90	62	0.5	JUL				
MAR					21...	1718	4.76	89	10.5
11...	1120	1.17	69	0.0	AUG				
					06...	1700	2.35	94	10.0
					26...	1650	3.36	90	9.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09067000 BEAVER CREEK AT AVON, CO (LAT 39 37 47N LONG 106 31 20W)									
OCT 1991					MAY 1992				
07...	1327	3.40	271	8.5	20...	1157	35.6	100	6.5
NOV					JUN				
18...	1615	2.19	221	2.0	16...	1407	34.0	70	8.0
JAN 1992					JUL				
13...	1603	2.24	341	3.0	15...	1132	14.8	97	11.0
MAR					SEP				
09...	1630	2.82	370	2.5	01...	1537	8.60	252	10.0
APR									
13...	1345	6.39	299	6.5					
09067005 EAGLE RIVER AT AVON, CO (LAT 39 37 54N LONG 106 31 19W)									
OCT 1991					MAY 1992				
07...	1303	97	379	9.0	20...	1241	1360	114	7.0
NOV					JUN				
18...	1455	75.3	438	2.0	16...	1427	943	158	8.0
JAN 1992					JUL				
13...	1405	50.0	419	3.0	15...	1249	367	167	13.0
MAR					SEP				
09...	1430	54.7	409	4.0	02...	1048	241	209	9.0
APR									
13...	1625	317	216	7.0					
09070000 EAGLE RIVER BELOW GYPSUM, CO (LAT 39 38 58N LONG 106 57 11W)									
OCT 1991					MAY 1992				
07...	1450	187	1030	12.0	18...	1424	1480	207	10.5
NOV					JUN				
18...	1255	233	927	3.5	16...	1055	1350	241	9.0
JAN 1992					JUL				
13...	1303	181	966	0.0	13...	1452	700	451	17.5
MAR					AUG				
09...	1525	155	981	7.5	31...	1520	247	847	16.0
APR									
13...	1540	414	480	11.5					
09070500 COLORADO RIVER NEAR DOTSERO, CO (LAT 39 38 40N LONG 107 04 40W)									
OCT 1991					MAY 1992				
07...	1420	1130	544	10.0	18...	1152	2960	240	11.0
NOV					JUN				
22...	1440	1040	526	2.0	16...	0832	2410	280	10.0
MAR 1992					JUL				
09...	1215	1020	494	5.0	13...	1215	1390	485	17.0
APR					AUG				
13...	1225	1830	389	10.0	31...	1248	1410	479	15.0
09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO (LAT 39 43 04N LONG 107 18 51W)									
OCT 1991					JUN 1992				
09...	1005	0.63	246	4.0	17...	1337	8.34	263	10.0
MAR 1992					JUL				
17...	1333	0.12	349	0.0	22...	1321	2.47	276	15.0
MAY					AUG				
28...	1725	70.6	--	5.5	27...	1600	0.61	255	11.0
09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO (LAT 39 08 28N LONG 106 46 25W)									
OCT 1991					MAY 1992				
02...	0845	26.4	50	5.5	06...	0755	111	42	3.0
NOV					JUN				
06...	0750	19.1	55	0.0	10...	0805	120	37	5.5
DEC					JUL				
11...	0855	16.3	78	0.0	08...	0815	93.8	42	9.5
JAN 1992					14...	1220	71.3	46	11.0
29...	0930	10.0	92	0.0	AUG				
MAR					05...	0740	75.1	65	9.5
04...	0820	13.6	81	0.0					
APR									
07...	1530	20.8	72	4.5					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09073400 ROARING FORK RIVER NEAR ASPEN, CO (LAT 39 10 48N LONG 106 48 05W)									
OCT 1991					APR 1992				
01...	1615	37.2	60	11.5	07...	1305	38.8	86	5.0
NOV					MAY				
05...	1435	39.5	65	3.0	05...	1510	182	49	7.5
DEC					JUN				
10...	1510	39.9	86	0.0	09...	1520	232	33	9.5
JAN 1992					JUL				
29...	1200	32.7	93	--	07...	1625	126	45	12.5
MAR					AUG				
03...	1530	26.3	89	4.0	04...	1450	64.6	66	14.5
09074000 HUNTER CREEK NEAR ASPEN, CO (LAT 39 12 21N LONG 106 47 49W)									
OCT 1991					APR 1992				
01...	1415	9.80	55	10.5	07...	1035	8.12	63	2.5
NOV					MAY				
05...	1250	8.36	55	1.0	05...	1225	88.9	35	5.5
DEC					JUN				
10...	1330	7.63	69	0.0	09...	1235	86.5	32	7.5
JAN 1992					JUL				
29...	1445	3.68	75	--	07...	1435	51.9	35	13.0
MAR					AUG				
03...	1400	6.50	74	0.5	04...	1255	27.8	49	14.5
09074800 CASTLE CREEK ABOVE ASPEN, CO (LAT 39 05 15N LONG 106 48 42W)									
OCT 1991					APR 1992				
01...	0855	22.0	275	4.0	07...	0805	11.0	427	1.5
NOV					MAY				
05...	0800	17.6	300	0.0	05...	0750	65.5	316	2.0
DEC					JUN				
10...	0835	10.7	406	0.0	09...	0800	87.2	226	4.5
JAN 1992					JUL				
29...	0900	9.99	--	0.0	07...	0805	117	205	6.0
MAR					AUG				
03...	0815	10.9	417	1.0	04...	0800	47.0	281	6.5
09075700 MAROON CREEK ABOVE ASPEN, CO (LAT 39 07 25N LONG 106 54 17W)									
OCT 1991					APR 1992				
01...	1125	40.9	375	7.0	08...	0800	13.2	--	2.5
NOV					MAY				
05...	1010	26.0	465	4.0	05...	0940	40.7	601	4.5
DEC					JUN				
10...	1040	21.5	660	0.0	09...	1010	112	323	6.5
JAN 1992					JUL				
30...	1150	16.8	738	0.0	07...	1020	182	276	8.0
MAR					AUG				
03...	1055	13.1	768	2.5	04...	1025	74.6	371	8.5
09080400 FRYINGPAN RIVER NEAR RUEDI, CO (LAT 39 21 56N LONG 106 49 30W)									
OCT 1991					APR 1992				
02...	1140	208	175	7.0	08...	1130	85.2	281	4.0
NOV					MAY				
06...	1040	115	175	7.5	06...	1050	150	302	7.0
DEC					JUN				
11...	1150	94.4	207	6.0	10...	1050	118	238	5.5
JAN 1992					JUL				
30...	1320	86.8	257	3.5	08...	1055	119	234	6.0
MAR					AUG				
04...	1120	81.5	269	3.5	05...	1030	222	240	6.5
09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO (LAT 39 13 56N LONG 107 13 36W)									
OCT 1991					APR 1992				
02...	1420	85.5	385	12.0	08...	1355	105	531	8.5
NOV					MAY				
06...	1315	78.3	460	5.5	06...	1345	732	211	7.5
DEC					JUN				
11...	1430	61.1	636	3.5	10...	1340	649	210	9.5
JAN 1992					JUL				
28...	1305	48.6	764	5.0	08...	1410	780	186	10.5
MAR					AUG				
04...	1400	52.8	725	3.5	05...	1300	150	366	13.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO (LAT 39 32 37N LONG 107 19 44W)									
OCT 1991					MAY 1992				
11...	0940	558	626	8.0	21...	0807	2720	258	9.0
NOV					JUN				
20...	1210	541	611	3.0	19...	0805	2030	331	10.5
JAN 1992					JUL				
17...	0940	318	562	0.5	16...	1331	1130	455	15.0
MAR					SEP				
05...	1115	412	630	4.0	03...	0904	650	615	11.5
APR									
15...	1115	913	416	7.0					
09086000 WEST ELK CREEK NEAR NEW CASTLE, CO (LAT 39 39 59N LONG 107 37 35W)									
OCT 1991					MAY 1992				
10...	0825	0.300	793	6.0	14...	1425	0.720	817	11.5
NOV					29...	1432	0.610	833	10.0
20...	1553	0.210	763	0.0	JUN				
JAN 1992					18...	0847	0.740	838	10.0
17...	0840	0.260	838	0.0	JUL				
MAR					16...	0850	0.650	764	11.0
13...	0948	0.370	911	1.0	SEP				
20...	1155	0.420	840	1.0	03...	1102	0.630	770	11.5
APR									
17...	1345	0.500	826	1.0					
09086470 MAIN ELK CREEK NEAR NEW CASTLE, CO (LAT 39 40 41N LONG 107 34 21W)									
OCT 1991					MAY 1992				
10...	0945	11.5	343	6.5	14...	1340	390	290	7.5
NOV					29...	1232	211	258	7.5
21...	0955	11.3	334	2.0	JUN				
JAN 1992					18...	1016	70.4	290	7.5
17...	1040	12.1	362	0.0	JUL				
MAR					16...	1011	31.0	319	9.0
12...	1102	6.89	379	3.0	AUG				
APR					13...	1326	16.6	327	13.0
17...	1238	56.0	323	7.0					
09086970 EAST ELK CREEK ABOVE BOILER CREEK NEAR NEW CASTLE, CO (LAT 39 40 05N LONG 107 31 28W)									
OCT 1991					APR 1992				
10...	1237	7.00	270	7.0	17...	1043	25.2	219	4.0
NOV					MAY				
21...	1125	6.74	254	2.0	29...	1042	172	188	5.5
DEC					JUN				
12...	1510	4.65	263	2.0	18...	1207	46.8	225	8.0
JAN 1992					JUL				
17...	1335	4.67	276	1.0	16...	1152	17.9	251	9.5
MAR					AUG				
16...	1445	6.82	284	4.0	13...	1000	9.42	270	11.0
09089500 WEST DIVIDE CREEK NEAR RAVEN, CO (LAT 39 19 52N LONG 107 34 46W)									
NOV 1991					MAY 1992				
04...	1225	2.47	330	0.0	04...	1355	143	178	10.0
DEC					JUN				
09...	1315	2.50	416	0.0	08...	1345	96.1	202	9.5
JAN 1992					JUL				
31...	1230	3.04	425	0.0	06...	1255	14.5	273	19.0
MAR					AUG				
02...	1155	3.40	388	1.0	03...	1315	2.70	354	20.5
APR									
06...	1150	28.2	338	4.0					
09093700 COLORADO RIVER NEAR DE BEQUE, CO. (LAT 39 21 45N LONG 108 09 07W)									
OCT 1991					APR 1992				
15...	1055	1770	1040	11.5	24...	1300	2480	765	12.0
NOV					JUN				
20...	0945	1780	1000	3.0	05...	1325	4380	583	15.5
FEB 1992					JUL				
13...	0920	1650	1150	4.5	08...	0925	2970	716	17.0
25...	1110	1500	1070	6.0	AUG				
MAR					03...	0940	2030	940	20.0
25...	1350	1530	1080	11.5					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09105000 PLATEAU CREEK NEAR CAMEO, CO (LAT 39 11 00N LONG 108 16 10W)				
OCT 1991				
23...	1310	75.5	800	10.0
NOV				
12...	1200	137	579	4.5
18...	1145	163	590	4.5
DEC				
03...	0840	123	634	0.0
JAN 1992				
17...	1500	76.0	660	0.0
FEB				
12...	1415	71.8	710	7.0
26...	0900	69	688	1.5
MAR				
24...	1320	89.0	764	8.5
APR				
27...	1105	228	462	11.5
MAY				
26...	1640	451	344	17.5
JUL				
07...	1415	79.1	662	19.0
AUG				
03...	1305	66.6	698	20.5
SEP				
10...	1510	111	603	18.5
09106150 COLO RIVER BELOW GRAND VALLEY DIVERSION NEAR PALISADE, CO (LAT 39 05 55N LONG 108 21 16W)				
OCT 1991				
23...	1015	782	1110	11.5
NOV				
18...	1445	2040	1000	5.0
JAN 1992				
16...	1400	1310	1100	0.5
16...	1540	1300	1140	0.5
MAR				
18...	1220	1800	1091	10.0
APR				
20...	1645	1970	680	14.0
MAY 1992				
28...	1225	7570	391	15.0
JUL				
08...	1510	1470	750	19.5
AUG				
04...	1410	523	952	24.0
SEP				
11...	1110	636	986	17.5
09107000 TAYLOR RIVER AT TAYLOR PARK, CO (LAT 38 50 59N LONG 106 34 21W)				
OCT 1991				
22...	1015	37.1	137	1.5
DEC				
03...	1115	61.7	112	0.0
APR 1992				
21...	1105	51.2	113	3.5
MAY				
12...	1050	167	83	4.5
JUN 1992				
09...	1225	206	86	5.5
JUL				
07...	1350	112	114	13.5
AUG				
05...	1340	65.0	--	12.5
SEP				
09...	1520	57.2	72	14.5
09107500 TEXAS CREEK AT TAYLOR PARK, CO (LAT 38 50 41N LONG 106 34 12W)				
OCT 1991				
22...	1135	9.34	87	3.0
DEC				
03...	1325	7.44	76	0.0
APR 1992				
21...	1355	13.4	80	6.0
MAY				
12...	1250	68.3	57	6.0
JUN 1992				
09...	1025	82.2	54	6.0
JUL				
07...	1505	36.5	62	14.0
AUG				
05...	1520	20.4	72	15.0
SEP				
09...	1350	24.7	73	14.0
09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO (LAT 38 49 06N LONG 106 36 31W)				
OCT 1991				
22...	1305	143	109	10.0
DEC				
03...	1510	108	89	4.0
JAN 1992				
07...	0950	102	105	3.0
FEB				
25...	0940	95.5	112	3.0
APR				
14...	1255	165	115	4.0
MAY 1992				
12...	1445	173	106	5.0
JUN				
09...	1435	208	99	5.5
JUL				
08...	1035	289	91	8.0
AUG				
05...	1145	241	93	9.0
SEP				
09...	1145	255	98	11.5
09110000 TAYLOR RIVER AT ALMONT, CO (LAT 38 39 52N LONG 106 50 41W)				
OCT 1991				
22...	1450	200	142	8.0
DEC				
04...	0930	141	145	0.0
JAN 1992				
07...	1215	149	146	0.0
FEB				
25...	1125	148	145	0.0
APR				
15...	0925	269	130	3.5
MAY 1992				
12...	1655	317	125	9.0
JUN				
09...	1705	430	122	10.5
JUL				
08...	1250	394	119	10.0
AUG				
05...	0915	305	126	9.5
SEP				
03...	1145	321	119	11.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09114500 GUNNISON RIVER NEAR GUNNISON, CO (LAT 38 32 31N LONG 106 56 57W)									
OCT 1991					MAY 1992				
21...	1520	258	232	9.5	13...	1625	944	186	12.5
DEC					JUN				
04...	1310	269	232	0.0	10...	1650	1160	215	12.5
JAN 1992					JUL				
07...	1520	274	207	1.0	09...	1450	940	233	15.0
FEB					AUG				
25...	1500	219	198	2.5	07...	0945	605	228	12.0
APR					SEP				
15...	1540	868	171	7.5	08...	1635	458	188	16.0
09118450 COCHETOPA CREEK BELOW ROCK CREEK NEAR PARLIN, CO (LAT 38 20 08N LONG 106 46 18W)									
OCT 1991					MAY 1992				
23...	0945	29.4	284	3.0	13...	1210	15.8	301	10.0
DEC					JUN				
02...	1500	12.6	260	0.0	10...	1005	53.7	288	8.5
JAN 1992					JUL				
08...	1515	15.5	268	0.0	09...	1005	37.7	268	12.0
FEB					AUG				
26...	1430	21.6	255	0.5	06...	1000	54.9	244	12.5
APR					SEP				
15...	1300	40.2	187	4.5	03...	1700	53.7	171	16.0
09126000 CIMARRON RIVER NEAR CIMARRON, CO (LAT 38 15 45N LONG 107 32 39W)									
OCT 1991					MAY 1992				
24...	1330	37.0	159	8.0	11...	1355	218	110	8.0
DEC					JUN				
05...	1310	14.3	--	0.0	08...	1415	438	86	8.0
JAN 1992					JUL				
09...	1115	9.08	132	0.0	10...	1045	181	89	11.0
FEB					AUG				
27...	1110	11.2	138	0.0	04...	1120	113	89	9.5
APR					SEP				
17...	1235	18.8	119	5.0	10...	1235	83.6	115	15.0
09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO (LAT 38 31 45N LONG 107 38 54W)									
OCT 1991					MAY 1992				
11...	0940	307	222	9.0	14...	1420	3050	186	8.5
DEC					JUN				
06...	1050	1330	--	5.5	11...	1350	906	180	9.5
JAN 1992					JUL				
06...	1440	1250	215	2.5	06...	1655	852	200	11.0
FEB					AUG				
24...	1420	776	208	4.0	03...	1355	861	198	12.0
APR					SEP				
13...	1625	541	246	5.5	08...	1330	722	207	13.5
09128500 SMITH FORK NEAR CRAWFORD, CO (LAT 38 43 40N LONG 107 30 22W)									
OCT 1991					APR 1992				
03...	1345	5.38	130	13.0	09...	1305	119	130	7.0
NOV					MAY				
07...	1245	11.3	130	5.5	07...	1305	345	81	9.0
DEC					JUN				
12...	1305	9.02	157	0.0	11...	1305	95.4	98	12.5
JAN 1992					JUL				
28...	1025	6.97	168	0.0	09...	1245	28.6	121	16.0
MAR					AUG				
05...	1245	13.1	150	0.0	06...	1105	9.78	154	13.5
09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO (LAT 38 55 33N LONG 107 26 01W)									
OCT 1991					APR 1992				
03...	0910	170	160	9.0	09...	0820	642	164	3.0
NOV					MAY				
07...	0755	89.7	130	3.5	07...	0825	1250	75	5.0
DEC					JUN				
12...	0850	70.9	166	0.0	11...	0815	1060	93	8.5
JAN 1992					JUL				
28...	1330	57	297	0.0	09...	0815	481	95	11.5
MAR					AUG				
05...	0835	79.3	158	0.5	06...	0800	238	146	12.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09134000 MINNESOTA CREEK NEAR PAONIA, CO (LAT 38 52 13N LONG 107 30 06W)				
OCT 1991				
03...	1120	3.12	390	9.0
NOV				
07...	1010	4.63	495	4.0
DEC				
12...	1045	3.92	632	0.0
JAN 1992				
29...	1120	2.70	685	--
MAR				
05...	1010	4.06	935	0.5
APR 1992				
09...	1030	16.6	618	4.5
MAY				
07...	1025	68.7	230	7.5
JUN				
11...	1030	53.0	194	10.5
JUL				
09...	1020	34.4	223	12.5
AUG				
06...	1325	16.2	289	17.5
09143000 SURFACE CREEK NEAR CEDAREDGE, CO (LAT 38 59 05N LONG 107 51 13W)				
OCT 1991				
04...	0935	22.6	60	5.5
NOV				
08...	0835	4.42	100	0.0
DEC				
13...	0920	3.48	148	0.0
JAN 1992				
30...	1230	3.20	147	0.0
MAR				
06...	0935	4.54	143	0.0
APR 1992				
10...	0850	31.0	123	0.0
MAY				
08...	0845	101	96	3.5
JUN				
12...	0845	68.0	77	8.0
JUL				
10...	0850	69.7	69	9.5
AUG				
07...	0830	97.0	65	12.5
09143500 SURFACE CREEK AT CEDAREDGE, CO (LAT 38 54 06N LONG 107 55 14W)				
OCT 1991				
04...	1110	12.4	70	7.0
NOV				
08...	1045	4.19	115	2.0
DEC				
13...	1040	2.71	173	0.0
JAN 1992				
30...	1359	4.25	165	0.5
FEB				
14...	1025	3.59	153	1.0
MAR				
06...	1130	3.00	158	3.5
APR 1992				
10...	1050	33.0	123	3.0
MAY				
08...	1035	68.9	106	7.0
JUN				
12...	1030	49.9	89	10.0
JUL				
10...	1030	31.6	73	12.0
AUG				
07...	1025	33.4	73	14.0
09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO (LAT 38 11 02N LONG 107 44 43W)				
OCT 1991				
15...	1540	55.2	767	14.0
NOV				
21...	1145	65.3	--	0.0
JAN 1992				
10...	1330	46.5	779	1.5
MAR				
04...	1035	61	980	3.5
APR				
22...	1355	116	626	9.5
MAY 1992				
14...	0910	307	340	6.5
20...	1100	--	292	8.0
29...	1215	441	346	11.5
JUN				
18...	1505	425	382	16.5
JUL				
21...	1400	205	519	11.5
09147000 DALLAS CREEK NEAR RIDGWAY, CO (LAT 38 10 40N LONG 107 45 28W)				
OCT 1991				
15...	1310	9.42	--	12.0
NOV				
22...	1005	24.0	--	0.0
26...	1305	21.8	762	3.0
JAN 1992				
10...	1103	15.8	729	0.0
MAR				
03...	1455	22.6	879	5.5
04...	0930	22.9	892	5.0
17...	1155	24.2	800	5.5
APR 1992				
22...	1030	46.7	537	5.0
MAY				
06...	1224	0.80	1062	14.0
14...	1200	2.19	1149	15.0
JUN				
18...	1015	39.2	694	11.5
JUL				
21...	1130	69.2	690	13.5
AUG				
25...	1351	52.1	543	11.0
09147025 UNCOMPAHGRE RIVER BELOW RIDGWAY RESERVOIR, CO (LAT 38 14 17N LONG 107 45 31W)				
OCT 1991				
16...	1040	97.2	434	10.5
NOV				
06...	1305	100	773	9.5
22...	1130	93.1	--	7.0
JAN 1992				
15...	1515	37.6	649	5.0
MAR				
03...	0957	46.2	718	4.5
APR				
23...	1130	516	712	4.5
MAY 1992				
14...	1510	190	654	6.0
JUN				
19...	0805	369	--	8.0
23...	0845	453	548	8.0
JUL				
21...	1430	291	426	11.5
AUG				
26...	1225	258	463	12.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09153290 REED WASH NEAR MACK, CO (LAT 39 12 41N LONG 108 48 11W)				
OCT 1991				
23...	1610	52.7	2030	12.0
NOV				
26...	1000	9.71	4620	6.5
JAN 1992				
16...	1130	5.53	4640	1.0
MAR				
12...	1230	4.64	4600	9.0
APR				
09...	1305	65.5	1248	15.0
MAY 1992				
28...	1455	48.9	1466	19.0
JUL				
07...	1015	52.8	1864	17.5
AUG				
04...	0930	71.1	1814	18.5
SEP				
10...	1120	70.2	1838	15.5
09165000 DOLORES RIVER BELOW RICO, CO (LAT 37 38 20N LONG 108 03 35W)				
OCT 1991				
29...	1105	21.1	--	0.0
DEC				
05...	1255	22.6	466	0.0
JAN 1992				
14...	1135	19.0	495	0.0
MAR				
24...	1400	26.9	540	1.5
APR				
22...	1305	148	247	6.5
MAY 1992				
06...	1410	437	196	12.0
29...	1400	528	150	7.0
JUN				
19...	1120	338	155	10.0
JUL				
24...	1135	116	231	10.0
AUG				
27...	1035	74.2	198	6.0
09166500 DOLORES RIVER AT DOLORES, CO (LAT 37 28 21N LONG 108 29 49W)				
OCT 1991				
25...	1230	70.2	1230	7.5
JAN 1992				
14...	1310	44.4	452	0.0
MAR				
13...	1340	79.0	451	7.0
APR				
14...	1045	1570	177	4.0
30...	0955	2190	158	4.0
MAY 1992				
22...	1315	1850	149	9.0
JUN				
11...	1230	1150	171	12.0
JUL				
24...	1345	347	253	15.0
AUG				
27...	1320	228	235	15.5
09166950 LOST CANYON CREEK NEAR DOLORES, CO (LAT 37 26 45N LONG 108 28 03W)				
JAN 1992				
14...	1400	0.71	280	0.0
FEB				
20...	1545	1.51	282	0.5
MAR				
09...	1415	6.79	367	4.0
31...	1155	59.0	116	6.0
APR				
10...	0840	179	317	3.0
14...	0835	367	83	2.0
30...	0745	245	68	5.0
MAY 1992				
22...	1430	103	75	10.0
JUN				
11...	1030	2.21	338	17.5
JUL				
24...	1455	0.78	490	18.0
09172500 SAN MIGUEL RIVER NEAR PLACERVILLE, CO (LAT 38 02 05N LONG 108 07 15W)				
OCT 1991				
29...	1350	56.0	430	0.5
DEC				
05...	1050	58.0	425	0.0
JAN 1992				
14...	0925	58.0	389	0.0
MAR				
11...	0925	50.0	420	0.5
APR				
22...	1030	255	334	6.5
MAY 1992				
06...	1145	503	284	10.0
29...	1120	679	260	9.0
JUN				
19...	0815	742	190	9.0
JUL				
24...	0920	382	309	11.0
AUG				
27...	0845	201	305	7.0
09177000 SAN MIGUEL RIVER AT URAVAN, CO (LAT 38 21 26N LONG 108 42 44W)				
OCT 1991				
29...	1615	100	833	4.0
DEC				
05...	0850	62.0	1100	0.0
JAN 1992				
13...	1540	99.0	753	0.0
MAR				
11...	1300	84.0	437	--
APR				
21...	1700	656	365	12.5
MAY 1992				
06...	0905	805	323	13.0
29...	0915	1240	452	13.0
JUN				
18...	1630	655	389	20.0
JUL				
23...	0840	190	607	18.5
AUG				
26...	1750	184	761	20.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09238705 LONG LAKE INLET NEAR BUFFALO PASS, CO (LAT 40 28 25N LONG 106 40 46W)									
OCT 1991					JUL 1992				
08...	1055	0.07	47	2.0	14...	--	1.25	25	8.0
FEB 1992					AUG				
27...	--	0.050	28	0.0	05...	--	0.20	41	8.5
APR					17...	--	0.100	46	10.0
08...	--	0.12	45	0.5	SEP				
MAY					02...	--	0.10	40	4.5
29...	--	7.43	18	1.0					
09238710 FISH CREEK TRIBUTARY BELOW LONG LAKE, NEAR BUFFLAO PASS, CO (LAT 40 28 36N LONG 106 41 13W)									
MAY 1992					AUG 1992				
29...	--	12.8	18	3.0	05...	--	0.37	20	18.0
JUL					17...	--	0.05	20	20.5
14...	--	2.24	19	18.0	SEP				
					02...	--	0.04	22	9.5
09238750 MIDDLE FORK FISH CREEK NEAR BUFFALO PASS, CO (LAT 40 29 54N LONG 106 41 30W)									
OCT 1991					JUL 1992				
08...	--	0.21	39	6.0	13...	--	1.73	22	9.0
08...	1317	0.21	39	6.0	AUG				
FEB 1992					05...	--	0.48	32	12.0
27...	--	0.28	38	0.0	17...	--	0.40	36	13.0
APR					SEP				
08...	--	0.05	30	0.5	02...	--	0.76	28	7.5
MAY									
29...	--	18.1	13	1.5					
09238770 GRANITE CREEK NEAR BUFFALO PASS, CO (LAT 40 29 35N LONG 106 41 31W)									
OCT 1991					JUL 1992				
08...	--	0.55	43	6.5	14...	--	4.44	22	15.5
08...	1205	0.55	43	6.5	AUG				
FEB 1992					05...	--	1.02	38	9.0
27...	--	0.58	30	0.0	17...	--	0.65	39	14.5
APR					SEP				
08...	--	1.25	47	0.5	02...	--	1.65	34	7.0
MAY									
29...	--	30.2	15	2.0					
09238900 FISH CREEK AT UPPER STATION NEAR STEAMBOAT SPRINGS, CO (LAT 40 28 30N LONG 106 47 11W)									
OCT 1991					MAY 1992				
08...	--	4.25	31	7.5	18...	--	331	17	6.0
08...	1615	4.25	31	7.5	JUL				
JAN 1992					07...	--	19.3	25	11.5
27...	--	4.82	32	0.0	SEP				
APR					30...	--	2.34	41	9.5
15...	--	58.4	29	4.0					
09240900 ELK RIVER ABOVE CLARK, CO (LAT 40 44 38N LONG 106 51 13W)									
OCT 1991					MAY 1992				
09...	--	43.9	88	5.0	15...	--	627	39	5.0
09...	1140	43.9	88	5.0	28...	--	783	37	4.5
NOV					JUN				
19...	--	34.4	88	1.0	17...	--	435	41	4.5
DEC					JUL				
12...	--	41.9	90	0.0	08...	--	273	43	9.0
JAN 1992					AUG				
27...	--	31.6	17	0.0	10...	--	95.6	71	16.5
MAR					SEP				
12...	--	33.9	97	0.5	01...	--	72.5	79	11.0
APR					30...	--	44.0	89	9.5
15...	--	177	66	3.0					
09243700 MIDDLE CREEK NEAR OAK CREEK, CO (LAT 40 23 08N LONG 106 59 33W)									
NOV 1991					JUN 1992				
20...	--	0.51	1018	0.0	17...	--	1.30	696	17.0
FEB 1992					24...	--	0.34	721	25.0
04...	--	0.38	983	0.0	JUL				
MAR					13...	--	2.06	740	19.5
13...	--	2.35	838	1.0	AUG				
APR					11...	--	0.11	831	15.0
14...	--	3.32	649	10.0					
MAY									
21...	--	1.78	696	14.5					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO (LAT 40 23 25N LONG 106 59 39W)				
NOV 1991				
20...	--	0.42	2920	0.0
JAN 1992				
29...	--	0.60	2910	0.0
FEB				
19...	--	2.32	--	0.0
MAR				
11...	--	2.19	2780	0.5
12...	--	2.90	--	0.5
31...	--	6.30	2020	8.0
APR				
14...	--	3.30	2630	8.5
MAY 1992				
21...	--	2.14	2930	14.0
JUN				
17...	--	1.32	1040	13.5
JUL				
08...	--	0.78	3130	19.5
13...	--	1.37	2980	19.0
AUG				
11...	--	0.40	3240	17.0
SEP				
01...	--	0.01	2770	11.0
09245000 ELKHEAD CREEK NEAR ELKHEAD, CO (LAT 40 40 11N LONG 107 17 04W)				
OCT 1991				
03...	0809	2.47	301	7.0
NOV				
13...	0959	1.74	295	0.0
FEB 1992				
04...	0950	4.86	319	0.0
MAR				
13...	1225	8.63	335	1.0
MAY 1992				
04...	1130	104	151	9.5
15...	1036	84.0	162	12.0
22...	0824	54.0	180	11.0
JUN				
30...	0929	8.42	263	14.5
JUL				
20...	1024	4.04	280	17.0
AUG				
20...	1344	0.55	314	22.5
09250507 WILSON CREEK ABOVE TAYLOR CREEK NEAR AXIAL, CO (LAT 40 18 53N LONG 107 47 58W)				
OCT 1991				
01...	1437	0.61	1763	16.0
NOV				
05...	1555	1.72	1653	3.5
FEB 1992				
07...	1343	1.03	1807	0.0
MAR				
05...	1509	1.19	1460	3.0
APR				
07...	1447	1.31	1695	15.0
MAY 1992				
18...	1420	2.70	1312	20.0
JUN				
09...	1119	1.84	1453	16.0
JUL				
01...	0948	0.86	1644	14.5
AUG				
04...	1120	1.09	1625	18.5
SEP				
30...	1210	0.43	1850	11.0
09250510 TAYLOR CREEK AT MOUTH NEAR AXIAL, CO (LAT 40 18 48N LONG 107 47 57W)				
NOV 1991				
06...	1500	0.02	1562	6.0
FEB 1992				
28...	1645	0.14	1301	4.0
MAR 1992				
02...	1421	0.12	1447	9.0
03...	1500	0.09	1634	2.5
05...	1410	0.18	1882	4.5
09260000 LITTLE SNAKE RIVER NEAR LILY, CO (LAT 40 32 50N LONG 108 25 25W)				
OCT 1991				
02...	1339	22.8	944	19.0
NOV				
03...	1115	86.0	830	0.0
MAR 1992				
11...	1426	399	544	7.5
APR				
06...	1001	363	493	9.0
MAY				
13...	0934	1050	189	16.0
JUN 1992				
02...	1317	1040	242	21.0
JUL				
08...	0930	358	624	15.5
AUG				
03...	1204	15.4	360	23.0
SEP				
30...	0908	12.6	1409	7.0
09260050 YAMPA RIVER AT DEERLODGE PARK, CO. (LAT 40 27 02N LONG 108 31 20W)				
OCT 1991				
02...	1455	196	615	19.0
DEC				
04...	1400	261	736	0.0
MAR 1992				
12...	1511	872	685	4.5
MAY				
11...	1210	6610	196	11.0
26...	1330	5010	160	18.0
JUN 1992				
02...	1015	4040	226	16.5
22...	1230	1370	258	23.5
JUL				
07...	0830	553	340	19.0
AUG				
03...	0920	125	464	19.5
SEP				
18...	1125	355	436	17.5
09303300 SOUTH FORK WHITE RIVER AT BUDGES RESORT, CO (LAT 39 50 36N LONG 107 20 03W)				
OCT 1991				
09...	1306	47.7	154	8.0
MAR 1992				
17...	0942	41.5	142	1.0
MAY				
28...	1107	221	--	5.0
JUN 1992				
17...	1012	118	135	6.0
JUL				
22...	1107	59.4	158	8.5
AUG				
27...	1227	46.5	154	8.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09303400 SOUTH FORK WHITE RIVER NEAR BUDGES RESORT, CO (LAT 39 51 51N LONG 107 32 00W									
NOV 1991					MAY 1992				
05...	1312	86.7	184	0.5	21...	0940	742	174	5.5
DEC					JUN				
26...	1105	63.0	201	0.0	01...	1146	457	189	5.0
FEB 1992					JUL				
20...	1210	71.0	188	0.5	09...	0935	144	193	9.0
MAR					AUG				
20...	1000	47.0	193	1.5	17...	0950	79.0	191	14.5
APR					SEP				
27...	1326	117	203	10.5	08...	0750	67.2	209	6.5
09304500 WHITE RIVER NEAR MEEKER, CO (LAT 40 02 01N LONG 107 51 42W)									
NOV 1991					MAY 1992				
12...	1615	310	450	4.5	19...	1200	1360	276	10.5
DEC					JUN				
28...	1439	261	477	0.0	24...	0826	359	451	14.0
JAN 1992					JUL				
31...	1519	319	460	0.0	24...	1221	417	459	16.5
FEB					AUG				
27...	1550	227	507	5.0	24...	1302	186	545	14.5
MAR					SEP				
31...	1503	347	523	10.0	26...	0945	207	539	8.0
APR									
28...	1401	839	351	12.0					
09339900 EAST FORK SAN JUAN RIVER ABOVE SAND CREEK, NEAR PAGOSA SPGS, CO (LAT 37 23 23N LONG 106 50 26W)									
OCT 1991					JUN 1992				
23...	1220	18.0	150	8.5	16...	1225	253	94	9.5
MAR 1992					JUL				
19...	1045	37.0	172	0.5	15...	1140	74.0	110	14.5
APR					AUG				
30...	1245	360	91	9.5	25...	1300	246	105	12.5
MAY									
22...	1250	400	82	9.5					
09342500 SAN JUAN RIVER AT PAGOSA SPRINGS, CO (LAT 37 15 58N LONG 107 00 37W)									
OCT 1991					MAY 1992				
23...	1035	72.4	176	6.5	22...	1055	2010	65	7.0
JAN 1992					JUN				
09...	1320	60.0	182	0.5	16...	1030	1100	112	6.5
FEB					JUL				
25...	0930	68.0	205	2.0	15...	0950	257	191	14.0
MAR					AUG				
19...	1235	135	212	5.5	25...	1100	1110	89	9.0
APR									
13...	1125	1010	112	5.0					
30...	1040	1740	90	5.5					
09346000 NAVAJO RIVER AT EDITH, CO (LAT 37 00 10N LONG 106 54 25W)									
OCT 1991					APR 1992				
23...	1455	40.5	241	11.0	13...	1340	114	263	11.0
JAN 1992					MAY				
09...	1055	32.4	230	0.0	22...	1440	130	188	14.0
FEB					JUN				
25...	1120	41.3	256	1.0	25...	1305	223	143	14.0
MAR					AUG				
31...	1140	134	355	5.0	25...	1515	260	149	14.5
09346400 SAN JUAN RIVER NEAR CARRACAS, CO (LAT 37 00 49N LONG 107 18 42W)									
OCT 1991					JUN 1992				
24...	1025	138	318	9.0	03...	1025	1660	146	15.0
MAR 1992					JUL				
12...	1305	385	534	5.0	15...	1535	488	206	22.0
APR					AUG				
14...	1030	1920	187	11.0	26...	1100	1490	185	14.0
MAY					SEP				
08...	1050	1690	143	10.0	17...	1100	232	288	17.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
	09349800	PIEDRA RIVER NEAR ARBOLES, CO (LAT 37 05 18N LONG 107 23 50W)		
OCT 1991				
24...	1240	77.3	389	11.5
JAN 1992				
09...	1520	115	390	0.0
FEB				
25...	1405	147	423	5.0
MAR				
31...	1345	980	275	10.0
	09358000	ANIMAS RIVER AT SILVERTON, CO (LAT 37 48 40N LONG 107 39 32W)		
OCT 1991				
22...	1415	30.0	322	6.0
JAN 1992				
15...	1240	18.0	380	0.0
MAR				
25...	1350	18.0	400	1.5
APR				
16...	1415	70.0	316	7.5
MAY				
07...	1340	256	167	9.0
21...	1010	415	180	4.0
	09358550	CEMENT CREEK AT SILVERTON, CO (LAT 37 49 11N LONG 107 39 47W)		
OCT 1991				
17...	1000	14.0	1000	4.5
JAN 1992				
15...	1315	14.0	1080	0.0
MAR				
25...	1130	14.0	1130	1.0
APR				
16...	1255	31.0	718	6.0
MAY				
07...	1430	84.0	343	7.0
21...	1140	127	300	6.0
	09359010	MINERAL CREEK AT SILVERTON, CO (LAT 37 48 10N LONG 107 40 20W)		
OCT 1991				
17...	1400	26.4	450	9.5
JAN 1992				
15...	1040	19.5	560	0.0
MAR				
25...	1005	16.0	555	0.0
APR				
16...	1010	65.0	308	2.5
MAY				
07...	1250	204	180	7.5
21...	1300	352	142	7.0
	09359020	ANIMAS RIVER BELOW SILVERTON, CO (LAT 37 47 25N LONG 107 40 01W)		
OCT 1991				
17...	1020	79.0	491	4.0
MAR 1992				
25...	1515	65.0	643	3.0
APR				
16...	1150	176	370	6.0
MAY				
07...	1140	580	207	7.0
21...	1040	900	160	5.0
APR 1992				
14...	1310	2250	171	9.0
30...	1555	1740	147	11.0
JUN				
03...	1225	972	153	15.0
JUL				
15...	1405	222	265	21.5
AUG				
26...	1315	598	158	15.0
JUN 1992				
05...	1420	398	150	9.0
13...	1255	502	132	6.0
23...	1100	442	142	7.0
24...	1230	405	137	9.0
25...	1045	385	143	5.5
JUL				
22...	1140	110	214	9.5
SEP				
11...	1030	58.0	293	7.5
22...	1155	55.0	309	6.5
29...	1145	48.0	305	8.0
JUN 1992				
05...	1530	118	319	9.0
13...	1400	114	313	6.5
23...	0930	95.0	379	6.0
24...	1345	82.0	369	8.0
25...	0830	81.0	400	3.5
JUL				
22...	1330	29.0	658	14.0
SEP				
11...	0930	21.0	959	7.0
JUN 1992				
05...	1250	335	155	9.0
13...	0945	411	133	4.5
23...	1600	350	141	8.5
24...	1100	340	141	7.0
25...	0930	346	132	4.0
JUL				
22...	1510	103	258	15.5
SEP				
11...	1125	48.0	361	9.5
JUN 1992				
05...	1120	893	171	9.0
13...	1120	1050	159	5.0
23...	1400	854	170	8.0
24...	0915	776	163	4.0
25...	1200	807	170	7.0
JUL				
22...	1035	259	258	8.5
SEP				
11...	1250	121	429	12.5
18...	1215	118	437	10.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09361500 ANIMAS RIVER AT DURANGO, CO (LAT 37 16 45N LONG 107 52 47W)									
OCT 1991					MAY 1992				
28...	1335	248	615	7.0	21...	1530	3470	185	8.0
NOV					JUN				
26...	1125	295	502	3.0	24...	1455	1790	214	14.5
JAN 1992					JUL				
30...	1345	206	480	2.0	29...	0915	778	377	15.0
MAR					AUG				
30...	1030	323	497	8.5	28...	1145	871	340	11.0
APR					SEP				
28...	1515	1850	334	8.5	28...	1340	337	505	14.5
09371000 MANCOS RIVER NEAR TOWAOC, CO (LAT 37 01 39N LONG 108 44 27W)									
OCT 1991					MAY 1992				
24...	1340	8.49	1840	13.0	22...	0920	410	590	15.0
FEB 1992					26...	1305	571	630	15.0
04...	1105	27.7	1340	0.0	27...	1755	771	943	16.0
MAR					28...	1000	539	630	14.5
09...	1025	94.3	1220	7.0	JUL				
31...	1400	132	1050	5.0	10...	1040	6.99	1720	21.5
APR					SEP				
14...	1500	296	516	14.0	02...	1010	31.1	1230	17.0
30...	1335	342	436	15.0					
09371002 NAVAJO WASH NEAR TOWAOC, CO (LAT 37 12 03N LONG 108 41 50W)									
OCT 1991					APR 1992				
25...	1020	8.14	2150	8.5	17...	1150	18.5	1730	11.5
FEB 1992					30...	1215	25.1	1420	15.0
04...	1245	3.01	4130	0.0	MAY				
20...	1345	2.97	6420	1.5	22...	1055	47.1	1600	16.0
MAR					28...	0730	26.1	1950	13.0
09...	1225	3.37	6620	7.0	JUL				
13...	1140	1.81	7080	7.5	10...	1220	6.95	1510	20.0
31...	1520	5.26	5410	11.0	SEP				
					02...	1145	20.9	1400	15.5

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October 1, 1978

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
	Length	
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)
	Area	
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)
	Volume	
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)
	Flow	
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)
	Mass	
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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