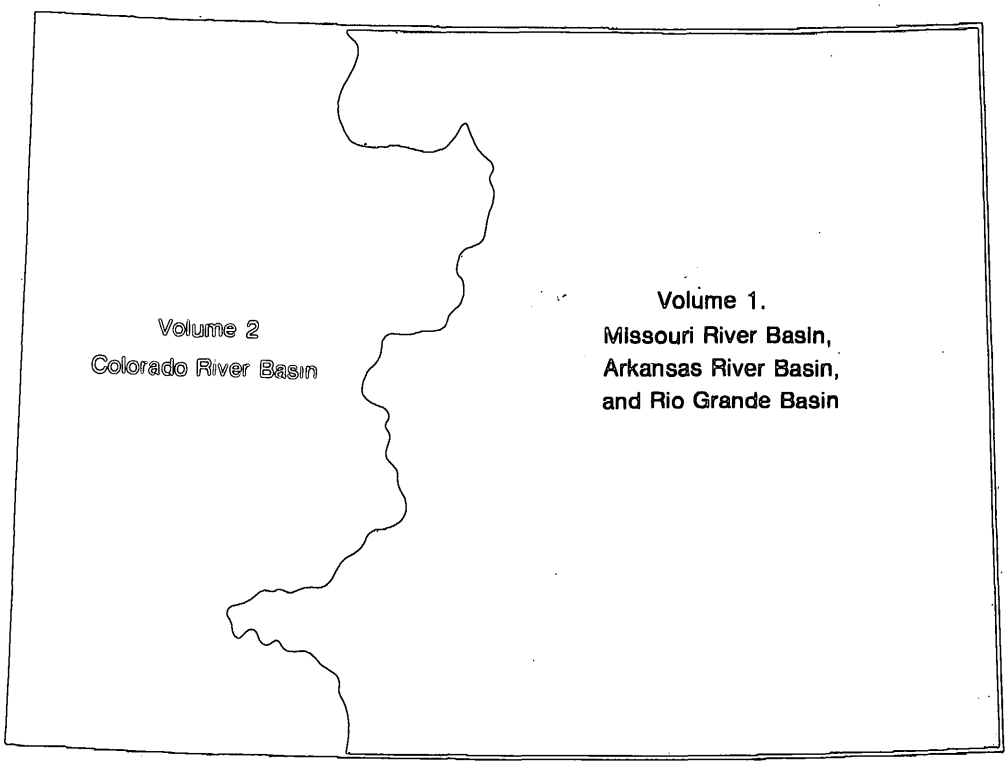
Water Resources Data Colorado Water Year 1993

Volume 2. Colorado River Basin



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-93-2
Prepared in cooperation with the State of Colorado
and with other agencies

CALENDAR FOR WATER YEAR 1993

1992

OCTOBER

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1993

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AUGUST

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SEPTEMBER

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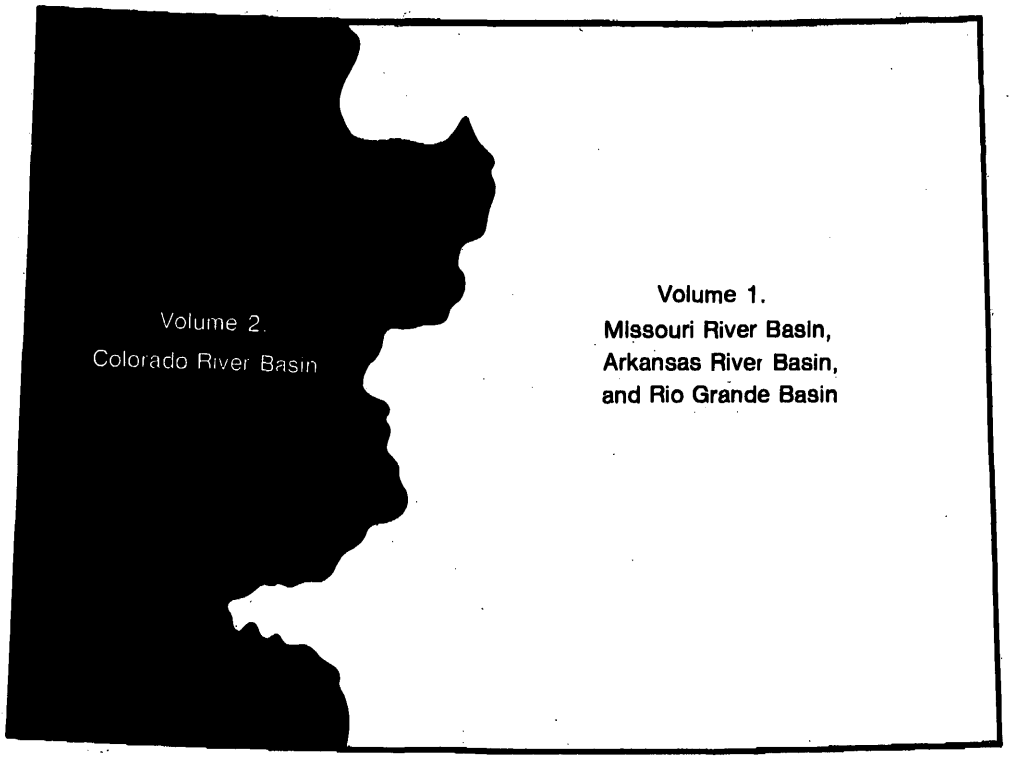
Water Resources Data Colorado Water Year 1993

Volume 2. Colorado River Basin

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-93-2
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

Gordon P. Eaton, Director

For information on the water program in Colorado write to:

District Chief, Water Resources Division
U.S. Geological Survey
Box 25046, Mail Stop 415
Denver Federal Center
Lakewood, CO 80225

1994

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:

J. D. Bennett	C. Dolan	S. V. Muro	M. R. Stevens
R. W. Boulger	D. M. Hartel	R. M. Neam	J. R. Sullivan
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M. D. Corse	J. D. Martinez	D. E. Smits	M. E. Whiteman
A. C. Duncan	J. M. McCormack	J. T. Steinheimer	K. R. Wilke

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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Volume 2. Colorado River Basin

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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 1993 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 325 gaging stations, stage and contents of 26 lakes and reservoirs, 1 partial-record low-flow station, peak flow information for 55 rest-stage partial record stations, and 4 miscellaneous sites; water quality for 119 gaging stations, supplemental water-quality for 181 gaged sites; water-quality for 2 miscellaneous sites, and 18 observation wells, and meteorological data for 4 sites. Eleven 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
*Colorado, *Hydrologic data, *Surface water, *Ground water, *Water quality; Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperatures, Sampling sites, Water analyses.

b. Identifiers/Open-Ended Terms

c. COSATI Field/Group

18. Availability Statement	19. Security Class (This Report)	21. No. of Pages
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(Formerly NTIS-35)
Department of Commerce

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ILLUSTRATIONS

TABLES

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)

WATER RESOURCES DATA - COLORADO, 1993

VOLUME 2: COLORADO RIVER BASIN

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

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 183 surface-water stations, for 5 partial-record surface-water stations and peak discharge data for 1 low-flow partial-record site, and 7 miscellaneous surface-water sites; (2) stage and contents for 13 lakes and reservoirs; and (3) surface-water-quality data for 48 surface water stations, 2 reservoirs, miscellaneous surface-water-quality data for 130 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. Seven pertinent stations operated by 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-93-2." 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.

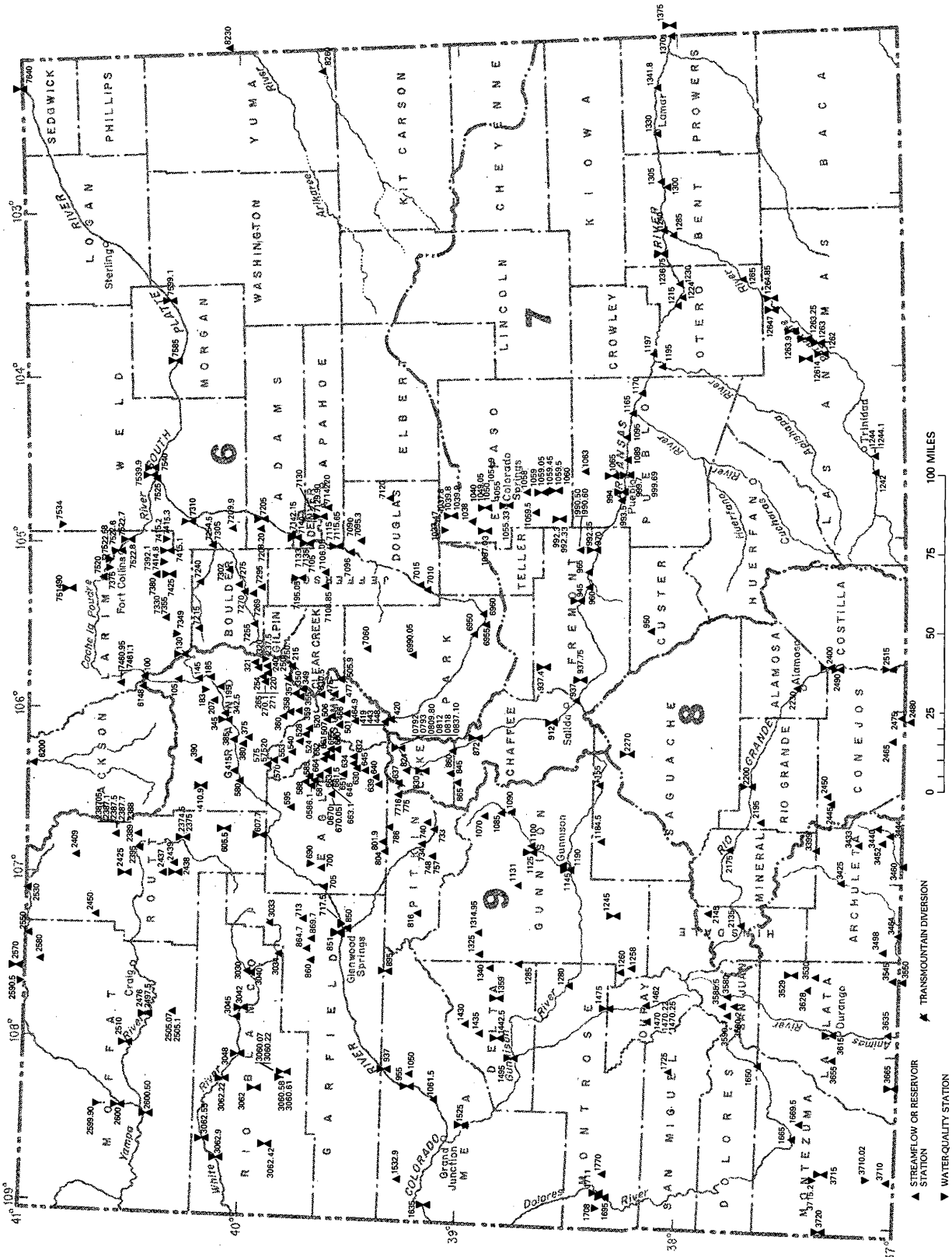


Figure 1.--Map showing locations of lakes and surface-water stations and surface-water-quality stations in Colorado

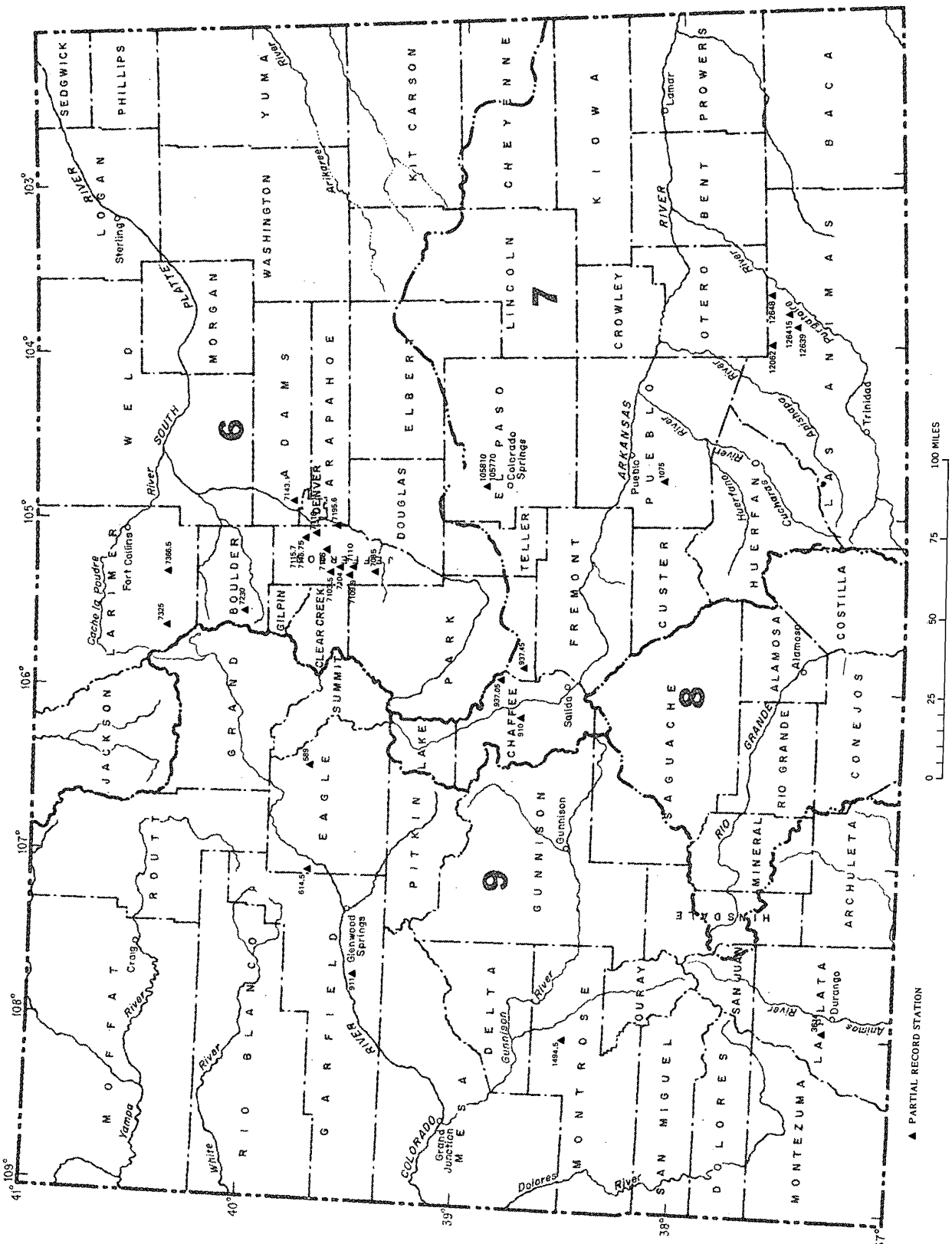


Figure 2.--Map showing locations of crest-stage partial record stations in Colorado.

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.
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 Littleton.
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 Department of Minerals and Geology.
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 Cherry Creek Valley Water and Sanitation District.
East Grand County Water-Quality Board.
Evergreen Metropolitan District.
Fountain Valley Authority.
Fremont Sanitation District.
Garfield County.
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 Blanco Water Conservancy District.
Rio Grande Water Conservation District.
Routt County.
Southeastern Colorado Water Conservancy District.
Southern Ute Indian Tribe.
Southwestern Colorado Water Conservation District.
St. Charles Mesa Water District.
Teller - Park Soil Conservation 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 Gunnison River Water Conservancy District.
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 1993 were obtained from published reports of the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Climatic Data 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 for October-December and 1961-90 for January-September) 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[1] for the entire water year. Precipitation was 42 percent greater than normal for October-March.

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 1993 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 1993 and departures-from-normal precipitation (1951-80 for October-December and 1961-90 for January-September), in inches
[--, data unavailable]

National Weather Service division	October-March		April-September		Water year 1993	
	Precipitation	Departure from normal	Precipitation	Departure from normal	Precipitation	Departure from normal
Colorado Drainage Basin	10.63	3.15	7.75	--	18.38	--

Streamflow

Monthly mean discharges during water year 1993 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 monthly discharges during the water year had the same general trend as long-term mean monthly discharges, and were consistently more than the long-term means for May through August. At the selected gaging stations, annual mean discharges for water year 1993 were from 13 to 38 percent more than the long-term averages.

The graph for the gaging station 09114500, Gunnison River near Gunnison (fig. 4, site B), indicates that monthly discharges for water year 1993 were greater than long-term means for all the months except October and April; for the gaging station 09361500, Animas River at Durango (fig. 4, site G), monthly discharges for water year 1993 were greater than long-term means for all the months except October, November, and December; and for the gaging station 09172500, San Miguel River near Placerville (fig. 4, site D), monthly discharges for water year 1993 were greater than long-term means for all the months except October through January. The mean discharges for May, June, July, and August for water year 1993 were greater 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 1993 was from 25 to 35 percent more than the long-term mean at gaging stations 09172500, San Miguel River near Placerville (fig. 4, site D); 09251000, Yampa River near Maybell (fig. 4, site E); 09304500, White River near Meeker (fig. 4, site F); and 09361500, Animas River at Durango (fig. 4, site G). The June through August mean discharge for water year 1993 was from 46 to 48 percent more than the long-term mean at gaging stations 09070000, Eagle River below Gypsum (fig. 4, site A); 09114500, Gunnison River near Gunnison (fig. 4, site B); and 09163500, Colorado River near Colorado-Utah State line (fig. 4, site C).

Peak discharges during water year 1993 and for the period of record for selected gaging stations are listed in table 2. The peak discharges at gaging station 09132500, North Fork Gunnison River near Somerset; 09152500, Gunnison River near Grand Junction; 09163500, Colorado River near Colorado-Utah State line; 09166500, Dolores River at Dolores; 09251000, Yampa River near Maybell; and 09346400, San Juan River near Carracas, were greater than the 75th-percentile values. The peak discharges for 09132500, North Fork Gunnison River near Somerset, and 09346400, San Juan River near Carracas, were the second highest of record. At eight of the selected gaging stations, peak discharges were less than the 75th-percentile values but greater than the median values. The peak discharges for the remaining four sites were less than the long-term median values but greater than the 25th-percentile values.

[1]Some divisional data were unavailable.

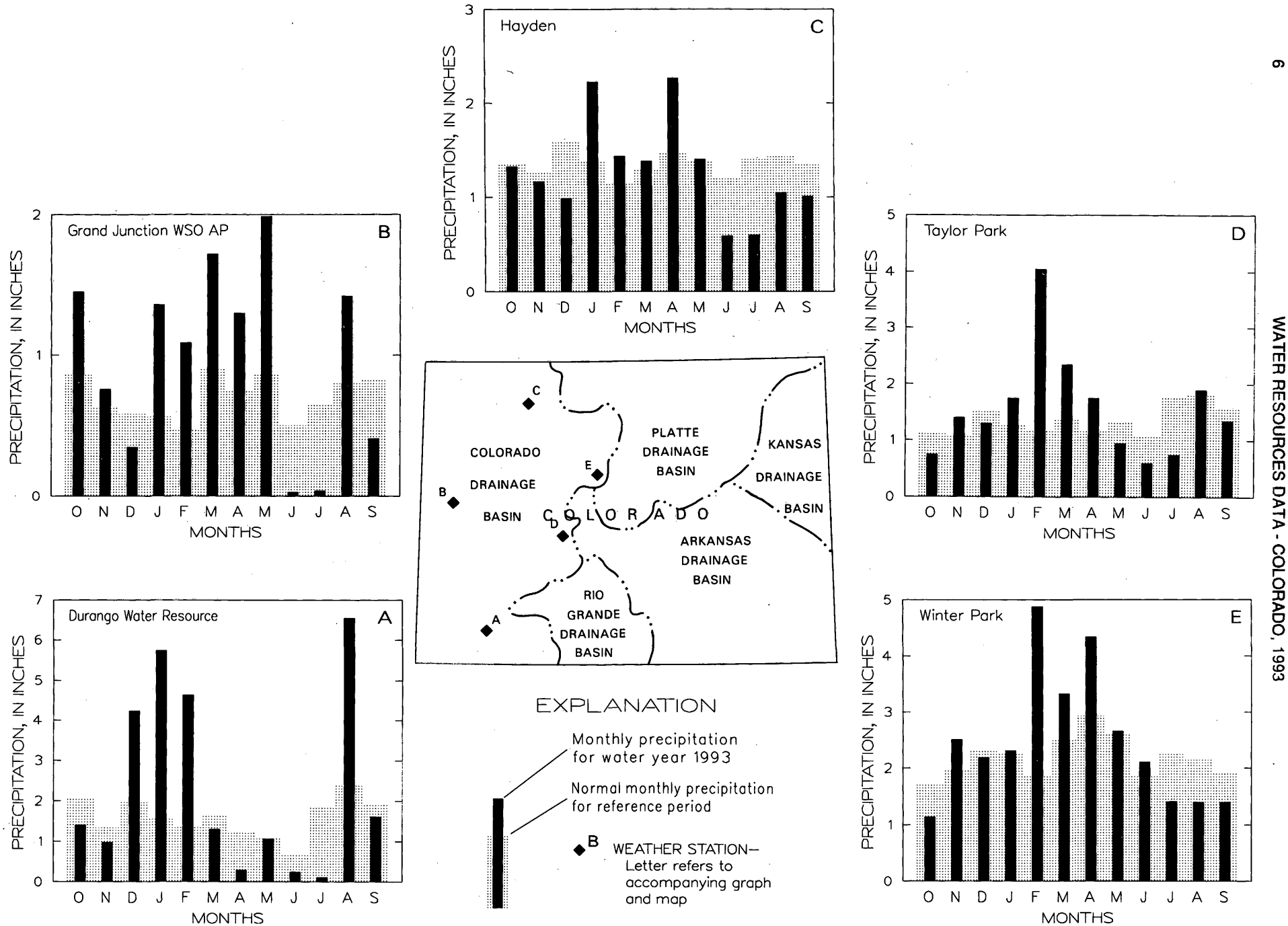
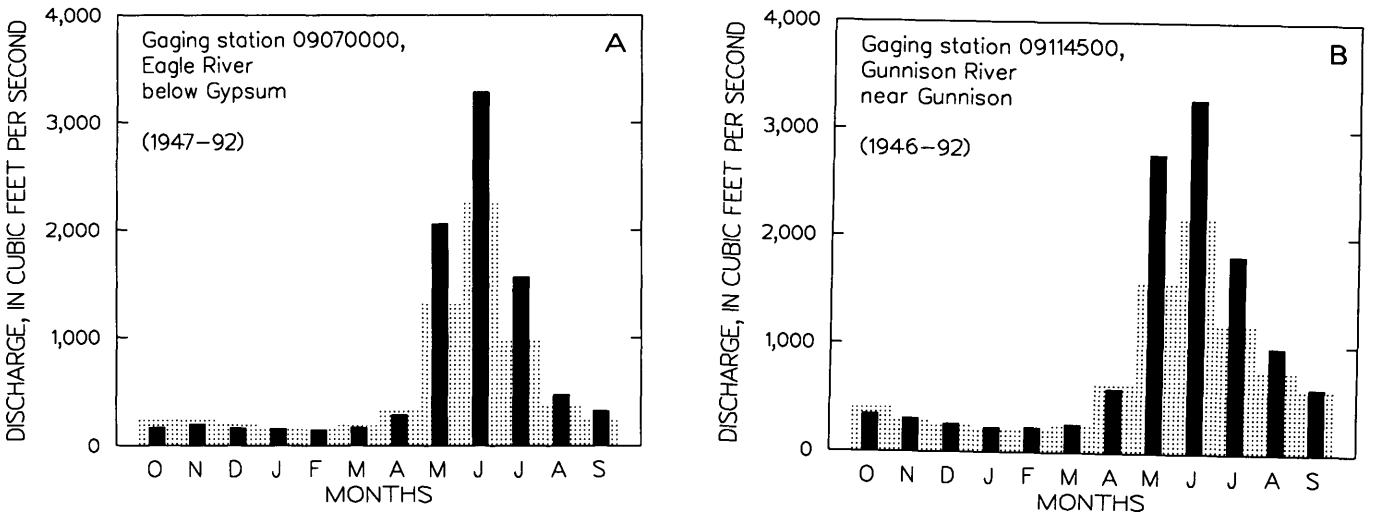
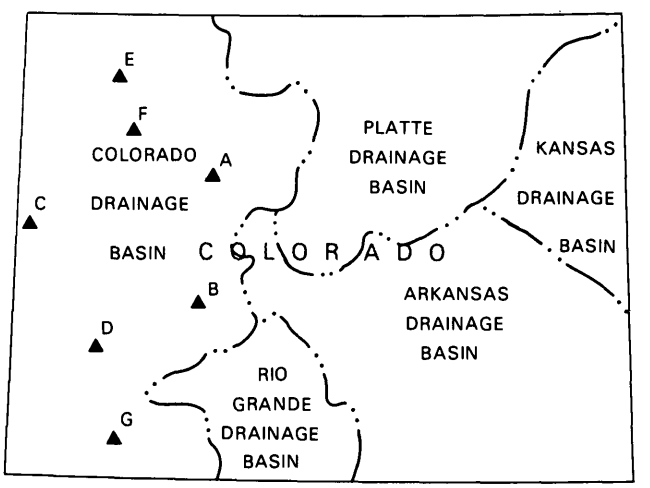

Hayden
C
PRECIPITATION, IN INCHES
MONTHS
O N D J F M A M J J A S
Grand Junction WSO AP
B
Taylor Park
D
Durango Water Resource
A
Winter Park
E
COLORADO DRAINAGE BASIN
PLATTE DRAINAGE BASIN
KANSAS DRAINAGE BASIN
ARKANSAS DRAINAGE BASIN
RIO GRANDE DRAINAGE BASIN
COLORADO
EXPLANATION
Monthly precipitation for water year 1993
Normal monthly precipitation for reference period
WEATHER STATION— Letter refers to accompanying graph and map

Table 2.--Peak discharges for water year 1993 and for the period of record at selected gaging stations

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

				Water year 1993		Period of record		
	Gaging station identification	Drainage area (mi^2)	Period of record (water years)	Date	Peak discharge (ft^3/s)	Date	Peak discharge (ft^3/s)	Remarks on 1993 peak discharge
09034500	Colorado River at Hot Sulphur Springs	825	1905-92	5/29	1,910	6/15/21	10,300	Greater than 25th percentile
09070000	Eagle River below Gypsum	945	1947-92	6/17	4,540	5/25/84	7,020	Less than 75th percentile
09070500	Colorado River near Dotsero	4,394	1941-92	5/29	11,500	5/25/84	22,200	Less than 75th percentile
09085000	Roaring Fork River at Glenwood Springs	1,451	1906-9, 1911-92	5/28	7,370	7/1/57	19,000	Less than median
09085100	Colorado River below Glenwood Springs	6,013	1967-92	5/28	17,700	5/25/84	31,500	Less than 75th percentile
09095500	Colorado River near Cameo	8,050	1934-92	5/28	23,300	5/26/84	39,300	Less than 75th percentile
09114500	Gunnison River near Gunnison	1,012	1911-27, 1945-92	5/28	4,600	6/13/18	11,400	Less than 75th percentile
09132500	North Fork Gunnison River near Somerset	526	1934-92	5/27	8,610	5/24/84	9,220	Greater than 75th percentile (2d highest)
09149500	Uncompahgre River at Delta	1,115	1903-31, 1939-92	5/17	1,730	5/15/84	5,800	Greater than median
09152500	Gunnison River near Grand Junction	7,928	1897-99, 1902-6, 1917-92	5/18	21,600	5/23/20	35,700	Greater than 75th percentile
09163500	Colorado River near Colorado-Utah State line	17,843	1951-92	5/28	44,300	5/27/84	69,800	Greater than 75th percentile
09166500	Dolores River at Dolores	504	1896-1903, 1911-12, 1922-92	5/28	5,500	10/5/11	10,000	Greater than 75th percentile
09171100	Dolores River near Bedrock	2,145	1970-92	5/20	4,680	4/30/73	9,500	Less than median
09239500	Yampa River at Steamboat Springs	604	1904-6, 1910-92	6/17	3,280	6/14/21	6,820	Less than median
09251000	Yampa River near Maybell	3,410	1904-5, 1916-92	5/22	12,800	5/17/84	25,100	Greater than 75th percentile
09304500	White River near Meeker	755	1901-5, 1910-92	5/22	3,980	5/25/84	6,950	Less than 75th percentile
09346400	San Juan River near Carracas	1,230	1962-92	8/28	8,200	9/6/70	9,730	Greater than 75th percentile (2d highest)
09361500	Animas River at Durango	692	1912-92	5/28	6,800	10/5/11	25,000	Less than 75th percentile





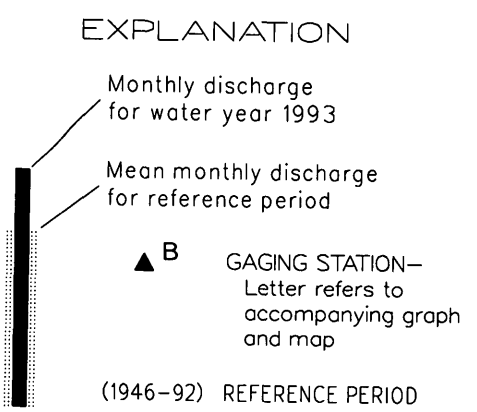


Figure 4.--Comparison of monthly discharges for water year 1993 to mean monthly discharges for the reference periods indicated on the individual graphs.

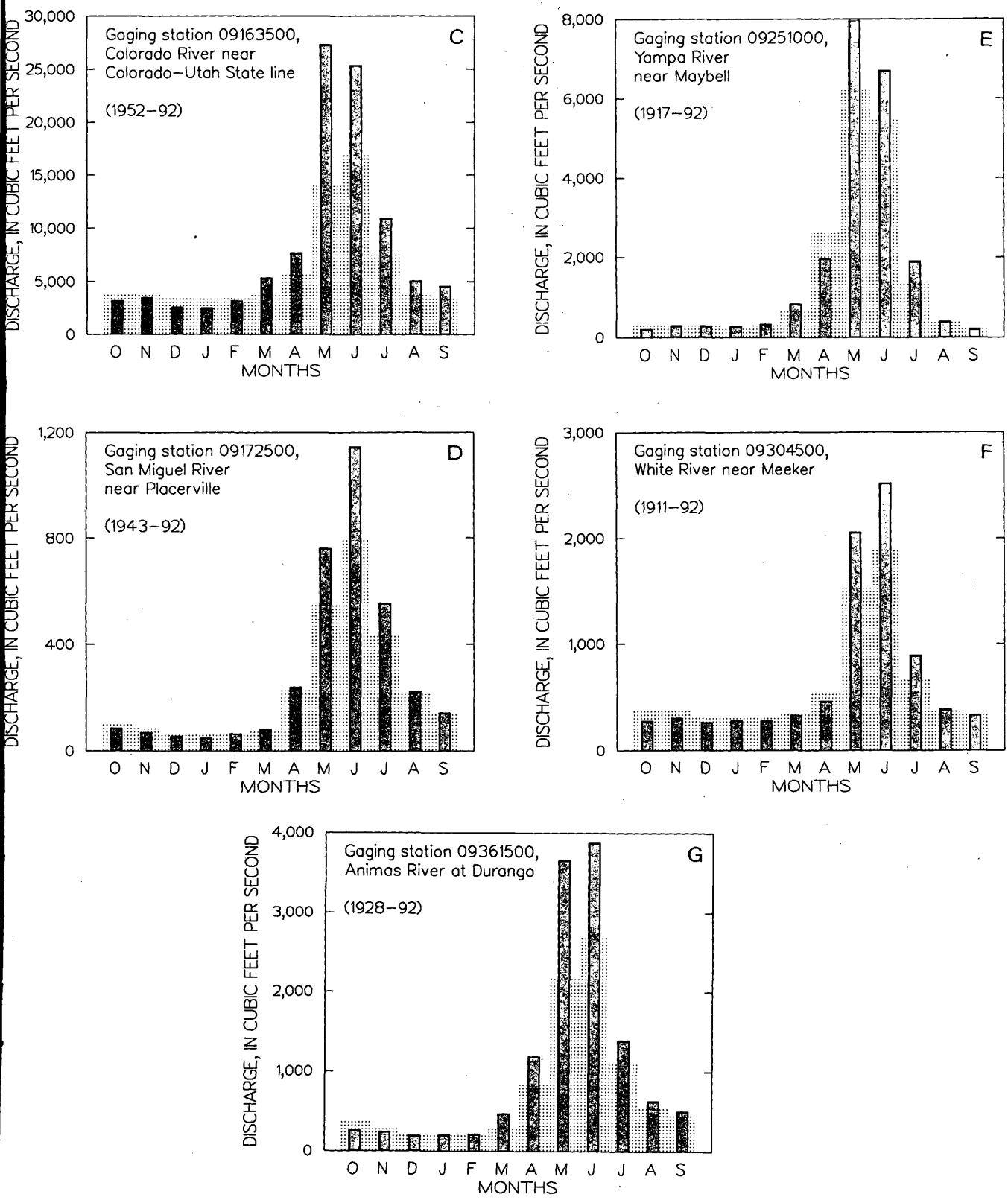


Figure 4.--(continued)

Chemical Quality of Streamflow

To determine if substantial changes occurred during water year 1993 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 1993 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 1993 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 1993 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 1993 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 1993 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]

Gaging station identification	Specific conductance						Wilcoxon-Mann-Whitney rank Sum test			
	Water year 1993			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	858	317	113	868	268	1983-92	0.11	1.98	A
09152500 Gunnison River near Grand Junction	10	838	355	91	857	301	1983-92	-.03	1.99	A
09177000 San Miguel River at Uravan	10	740	332	112	679	347	1983-92	.95	1.98	A
09306290 White River below Boise Creek, near Rangely	7	638	229	137	670	169	1983-92	-.38	1.98	A
09361500 Animas River at Durango	8	398	170	122	416	206	1983-92	-.11	1.98	A

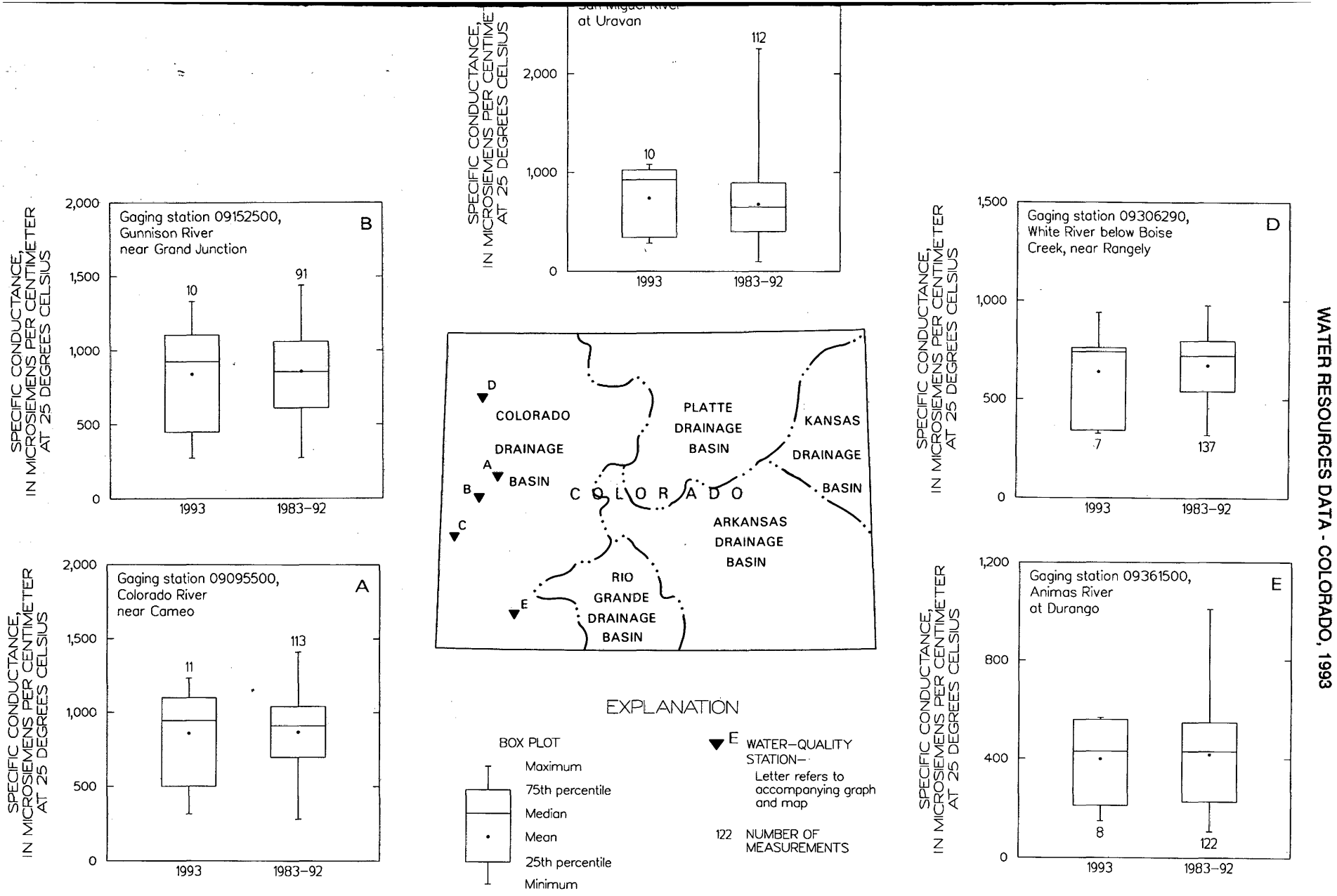


Figure 5.--Comparison of range and distribution of specific conductance measured during water year 1993 to long-term values.

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 1993 water year that began on October 1, 1992, and ended September 30, 1993. 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.

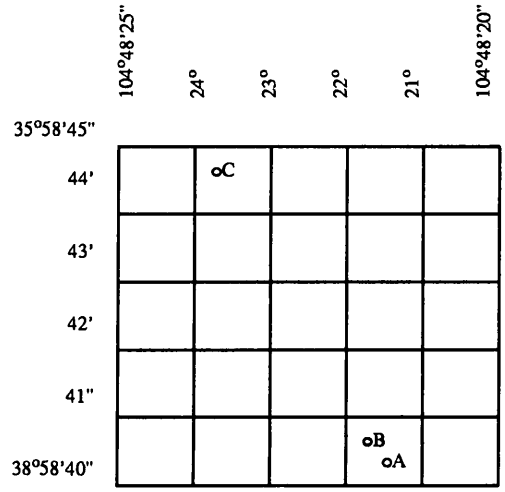
Downstream Order System

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).



Coordinates for site A 385841N104482101
B 385841N104482102
C 385844N104482300

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 stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections. "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

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 sea level (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.

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 has been exceeded by 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded by 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded by 90 percent of the time 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. 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 (1993) 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 ($CaC0_3$).

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.

Sea Level In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)--A geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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
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

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

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
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
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

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

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
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
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
Texas Creek at Taylor Park, CO	09107500	40.4	1929-34, 1988-92
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

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

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
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
ron 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
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

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

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
East Fork Dallas Creek near Ridgway, CO	09146500	16.8	1955-70, 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
West Paradox Creek above Bedrock, CO	09170800	53.3	1971-7
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 Gateway, 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

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

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
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 1909-16
Yampa River at Craig, CO	09247500	1,730	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
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
Wilson Creek above Taylor Creek near Axial, CO	09250507	20.0	1980-92
Taylor Creek at mouth near Axial, CO	09250510	7.22	1975-92
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	09259990	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
South Fork White River near Buford, CO	09303500	157	1903-06, 1910-15, 1942-47 1967-92
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 Tributary nar Rio Blanco, CO	09306042	1.06	1974-84, 1985-92
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

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

Station name	Station number	Drainage area (sq mi)	Period of record (calendar years)
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
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 SURFACE-WATER-QUALITY STATIONS

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

Discontinued continuous-record surface-water-quality stations

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., S.C.	1979-81
Stokes Gulch near Hayden, CO	09244464	13.6	Temp., S.C., Sed.	1978-81
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	09250507	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

DISCONTINUED CONTINUOUS SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
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
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

DISCONTINUED CONTINUOUS SURFACE-WATER-QUALITY STATIONS--Continued

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
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).

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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

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

1-*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.

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2-D2. *Application of seismic-refraction techniques to hydrologic studies,* by F. P. Haeni: USGS--TWRI Book 2, Chapter D2. 1988. 86 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.

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3-A4. *Measurement of peak discharge at width contractions by indirect methods,* by H. F. Matthai: USGS-TWRI Book 3, Chapter A4. 1967. 44 pages.

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3-A6. *General procedure for gaging streams,* by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.

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3-A9. *Measurement of time of travel in streams by dye tracing,* by F. A. Kilpatrick and J. F. Wilson, Jr.: USGS---TWRI Book 3, Chapter A9. 1989. 27 pages.

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3-A11. *Measurement of discharge by moving-boat method,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.

3-A12. *Flluorometric procedures for dye tracing*, by J. F. Wilson, Jr., E. D. Cobb, and F. A. Kilpatrick: USGS- -TWRI Book 3, Chapter A12. 1986. 41 pages.

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3-A19. *Levels of streamflow gaging stations,* by E.J. Kennedy: USGS--TWRI Book 3, Chapter A19. 1990. 27 pages.

3-B1. *Aquifer-test design, observation, and data analysis,* by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction,* by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.

3-B3. *Type curves for selected problems of flow to wells in confined aquifers,* by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

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3-B4. *Supplement* 1. *Regression modeling of ground-water flow - Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems,* by R. L. Cooley. USGS-TWRI Book 3, Chapter B4. 1993. 8 pages.

3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems*--An introduction, by O. L. Franke, T. E. Reilly, and G. D. Bennett: USGS--TWRI Book 3, Chapter B5. 1987. 15 pages.

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3-C1. *Fluvial sediment concepts,* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.

3-C2. *Field methods for measurement of fluvial sediment,* by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.

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4-B2. *Storage analyses for water supply,* by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.

4-B3. *Regional analyses of streamflow characteristics,* by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.

4-D1. *Computation of rate and volume of stream depletion by wells,* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.

5-A1. *Methods for determination of inorganic substances in water and fluvial sediments,* by M. J. Fishman and L. C. Friedman: USGS--TWRI Book 5, Chapter A1. 1989. 545 pages.

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5-A3. *Methods for the determination of organic substances in water and fluvial sediments,* edited by R. L. Wershaw, M. J. Fishman, R. R. Grabbe, and L. E. Lowe: USGS--TWRI Book 5, Chapter A3. 1987. 80 pages.

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5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments,* by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.

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6-A1. *A modular three-dimensional finite-difference ground-water flow model,* by M. G. McDonald and A. W. Harbaugh: USGS--TWRI Book 6, Chapter A1. 1988. 586 pages.

6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model,* by S. A. Leake and D. E. Prudic: USGS--TWRI Book 6, Chapter A2. 1991. 68 pages.

6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part1: Model Description and User's Manual,* by L. J. Torak: USGS--TWRI Book 6, Chapter A3. 1993. 136 pages.

6A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions,* by R. L. Cooley: USGS--TWRI Book 6, Chapter A4. 1992. 108 pages

6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-problems, Part 3: Design philosophy and programming details,* by L. J. Torak. USGS--TWRI Book 6, Chapter A5, 1993. 243 pages..

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments,* by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.

7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water,* by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.

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8-A1. *Methods of measuring water levels in deep wells,* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.

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.

8-B2. *Calibration and maintenance of vertical-axis type current meters,* by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 2 to Apr. 15, Apr. 19-21, and Sept. 7-21. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	12	11	8.0	6.9	6.6	8.0	34	481	329	50	23
2	19	12	11	7.8	7.0	6.4	8.0	36	454	306	48	26
3	18	12	10	7.6	6.7	6.3	8.6	36	432	299	46	25
4	17	12	10	7.2	6.7	6.3	8.6	45	328	243	45	22
5	17	12	10	7.0	6.7	6.4	8.6	58	280	217	47	23
6	16	12	10	6.7	6.7	6.1	8.6	55	286	177	47	23
7	15	13	9.1	6.9	6.7	6.1	8.4	52	334	154	42	24
8	14	13	8.8	7.0	6.7	6.1	8.5	48	275	156	45	28
9	14	13	8.7	6.9	6.7	6.1	8.7	45	242	155	45	26
10	14	13	8.6	6.7	6.7	6.1	9.2	48	229	156	39	25
11	14	12	8.6	6.7	6.7	6.1	9.6	73	242	154	39	23
12	15	12	8.9	6.7	6.7	6.2	10	109	275	152	35	22
13	14	12	9.0	6.7	6.7	6.2	11	154	340	151	32	34
14	13	12	8.7	6.9	6.8	6.2	11	191	392	150	31	31
15	12	12	8.5	7.0	7.0	6.2	11	229	456	140	32	31
16	12	13	8.4	7.0	7.1	6.2	11	254	497	132	28	31
17	12	13	8.4	7.0	7.1	6.2	11	289	493	123	26	30
18	12	14	8.5	7.0	7.1	6.2	11	261	526	115	25	30
19	12	12	8.6	6.7	7.0	6.2	11	231	429	107	24	29
20	12	12	8.7	6.7	7.0	6.2	12	253	407	99	25	28
21	12	12	8.7	6.7	6.8	6.2	12	277	436	93	29	28
22	12	11	8.7	6.7	6.8	6.2	12	289	471	86	29	24
23	12	12	8.5	6.7	6.8	6.6	14	261	465	81	24	26
24	12	11	8.3	6.7	6.8	7.8	14	259	411	81	22	25
25	13	11	7.9	6.7	6.8	9.0	14	276	355	74	21	28
26	13	11	7.9	6.7	6.8	10	16	337	346	66	27	29
27	13	11	7.6	6.7	6.8	9.6	20	352	355	62	25	28
28	12	11	7.6	6.7	6.7	9.6	24	425	355	59	22	26
29	13	11	8.0	6.9	---	9.3	37	459	371	57	21	25
30	13	11	8.0	6.9	---	8.3	36	410	373	57	22	24
31	12	---	8.0	6.9	---	8.0	---	443	---	55	21	---
TOTAL	428	360	272.7	214.5	191.0	215.0	392.8	6289	11336	4286	1014	797
MEAN	13.8	12.0	8.80	6.92	6.82	6.94	13.1	203	378	138	32.7	26.6
MAX	19	14	11	8.0	7.1	10	37	459	526	329	50	34
MIN	12	11	7.6	6.7	6.7	6.1	8.0	34	229	55	21	22
AC-FT	849	714	541	425	379	426	779	12470	22480	8500	2010	1580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1993, BY WATER YEAR (WY)

MEAN	23.6	14.9	9.68	7.70	6.93	7.33	27.3	164	312	111	33.1	26.1
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1953 - 1993	
ANNUAL TOTAL	15880.6		25796.0			
ANNUAL MEAN	43.4		70.7		62.3	
HIGHEST ANNUAL MEAN					109	1983
LOWEST ANNUAL MEAN					26.3	1954
HIGHEST DAILY MEAN	280	May 27	526	Jun 18	916	Jun 30 1957
LOWEST DAILY MEAN	5.1	Mar 26	[a]6.1	Mar 6	3.0	Jan 13 1963
ANNUAL SEVEN-DAY MINIMUM	5.4	Mar 24	6.1	Mar 6	3.5	Feb 4 1977
INSTANTANEOUS PEAK FLOW			578	Jun 18	976	Jun 30 1957
INSTANTANEOUS PEAK STAGE			6.77	Jun 18	[b]7.19	Jun 30 1957
ANNUAL RUNOFF (AC-FT)	31500		51170		45120	
10 PERCENT EXCEEDS	153		278		186	
50 PERCENT EXCEEDS	14		13		17	
90 PERCENT EXCEEDS	6.8		6.7		6.3	

a-Also occurred Mar 7-11.
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 sea level, 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.--47 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	28	391	450	420	6.0	5.2	511	20	96	403	388
2	.04	242	388	449	419	9.1	5.2	516	102	4.0	407	392
3	.03	419	395	449	416	9.5	5.2	515	119	170	438	389
4	.05	428	395	444	417	8.0	5.2	514	244	150	433	388
5	34	462	550	440	418	6.4	5.2	514	303	203	450	389
6	57	307	513	425	419	6.6	5.7	511	275	202	438	391
7	28	341	504	421	402	6.2	3.4	510	181	301	452	392
8	.01	346	466	418	394	2.2	4.5	510	105	312	457	387
9	.00	359	456	430	388	3.0	4.1	510	135	208	470	388
10	.00	364	456	423	392	6.3	4.1	511	388	208	540	396
11	.00	378	474	420	395	4.7	4.3	506	427	103	462	415
12	27	479	511	421	395	5.2	6.4	506	138	202	463	415
13	34	502	503	420	395	5.2	3.9	502	2.0	259	434	411
14	33	479	502	418	395	5.2	3.8	477	.03	86	432	338
15	40	416	503	421	394	5.2	3.7	379	.00	133	439	418
16	138	408	505	421	394	5.2	3.6	345	.00	247	536	431
17	320	406	503	420	394	5.2	3.6	189	.00	254	441	452
18	321	369	503	419	395	5.2	3.8	272	1.1	254	499	446
19	329	356	508	420	395	5.2	3.8	309	9.4	284	494	445
20	318	326	509	423	394	5.2	45	356	8.4	314	499	360
21	321	344	506	422	395	5.2	80	249	137	338	501	456
22	158	384	503	422	395	5.2	1.9	99	9.8	343	499	448
23	138	391	474	422	382	5.2	3.6	236	11	366	495	454
24	108	389	453	422	354	5.2	5.2	289	7.6	390	494	467
25	26	382	458	422	307	5.2	61	283	132	398	496	480
26	118	388	456	420	383	1.9	370	217	105	405	514	495
27	308	390	457	420	392	5.1	485	122	88	430	492	99
28	87	396	453	416	250	10	506	129	113	421	500	.01
29	126	388	455	416	---	3.9	512	96	7.0	422	526	.00
30	226	396	448	416	---	5.1	514	66	7.8	440	468	.00
31	169	---	447	415	---	7.0	---	130	---	407	362	---
TOTAL	3464.24	11263	14645	13165	10889	173.8	2668.4	10879	3076.13	8350.0	14534	10930.01
MEAN	112	375	472	425	389	5.61	88.9	351	103	269	469	364
MAX	329	502	550	450	420	10	514	516	427	440	540	495
MIN	.00	28	388	415	250	1.9	1.9	66	.00	4.0	362	.00
AC-FT	6870	22340	29050	26110	21600	345	5290	21580	6100	16560	28830	21680

CAL YR 1992 TOTAL 97620.60 MEAN 267 MAX 550 MIN .00 AC-FT 193600
WTR YR 1993 TOTAL 104037.58 MEAN 285 MAX 550 MIN .00 AC-FT 206400

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 1992 TO SEPTEMBER 1993

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...	1045	566	48	8.0	4.5	7.4	18	5.7	1.0	1.9	0.2
JAN											
19...	1355	441	62	8.4	1.5	8.8	24	7.5	1.3	2.4	0.2
MAR											
23...	1330	9.1	67	8.7	4.5	10.3	24	7.3	1.3	3.1	0.3
MAY											
26...	1000	396	46	7.8	5.5	8.6	17	5.3	0.98	1.9	0.2
JUL											
26...	1515	555	20	7.3	24.0	5.8	7	2.3	0.38	1.0	0.2
SEP											
20...	1420	10	51	7.9	12.0	7.7	18	5.4	1.0	2.2	0.2

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, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N)
NOV											
19...	0.7	20	2.8	0.4	0.1	4.8	24	30	0.03	36.7	0.05
JAN											
19...	0.8	28	3.5	0.6	0.1	6.4	36	40	0.05	42.9	--
MAR											
23...	0.9	29	3.4	0.7	0.1	6.6	60	42	0.08	1.47	--
MAY											
26...	0.6	21	2.6	0.5	0.1	5.7	34	31	0.05	36.4	--
JUL											
26...	0.3	10	1.4	0.3	<0.1	3.5	10	15	0.01	15.0	--
SEP											
20...	0.9	22	2.8	0.5	0.1	5.9	34	32	0.05	0.93	--

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, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS-PHORUS TOTAL (MG/L AS P)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
NOV										
19...	0.02	0.06	0.07	0.03	0.02	0.17	0.20	<0.01	<0.01	<0.01
JAN										
19...	0.01	--	--	--	0.04	0.26	0.30	0.01	<0.01	0.01
MAR										
23...	<0.01	0.14	0.14	--	0.02	0.28	0.30	<0.01	<0.01	<0.01
MAY										
26...	<0.01	0.09	0.09	--	0.03	--	<0.20	<0.01	<0.01	<0.01
JUL										
26...	<0.01	--	<0.05	--	0.02	--	<0.20	<0.01	<0.01	<0.01
SEP										
20...	<0.01	--	<0.05	--	0.03	0.27	0.30	0.02	<0.01	<0.01

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
NOV 19...	1045	6	<0.5	<10	<1.0	<5	<3	<10	12
JAN 19...	1355	7	<0.5	<10	<1.0	<5	<3	<10	31
MAR 23...	1330	7	<0.5	<10	<1.0	<5	<3	<10	31
MAY 26...	1000	5	<0.5	<10	<1.0	<5	<3	<10	39
JUL 26...	1515	4	<0.5	<10	<1.0	<5	<3	<10	22
SEP 20...	1420	7	<0.5	<10	<1.0	<5	<3	<10	26

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)
NOV 19...	10	<4	<1	<10	<10	2	33	<6	5
JAN 19...	<10	<4	1	<10	<10	<1	47	<6	<3
MAR 23...	<10	<4	8	<10	<10	1	46	<6	9
MAY 26...	<10	<4	2	<10	<10	<1	31	<6	6
JUL 26...	<10	<4	<1	<10	<10	1	12	<6	6
SEP 20...	<10	<4	1	<10	<10	<1	33	<6	22

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 mi^2.

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 above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level. 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, 17,540 acre-ft, July 30, elevation, 8,366.83 ft; minimum, 16,390 acre-ft, June 18, 19, elevation, 8,366.10 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	8,366.68	17,270	-
Oct. 31	8,366.78	17,490	+220
Nov. 30	8,366.64	17,190	-300
Dec. 31	8,366.68	17,230	+ 40
CAL YR 1992			-90
Jan. 31	8,366.75	17,360	+130
Feb. 28	8,366.73	17,380	+20
Mar. 31	8,366.62	17,180	-200
Apr. 30	8,366.67	17,240	+60
May 31	8,366.38	16,830	-410
June 30	8,366.50	17,050	+220
July 31	8,366.72	17,340	+290
Aug. 31	8,366.67	17,240	-100
Sept. 30	8,366.74	17,400	+160
WTR YR 1993			+130

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

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

REMARKS.--Samples were collected near surface and near bottom, near dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
OCT						
21...	0907	0.1	63	7.4	9.0	7.3
21...	0908	5.0	63	7.4	9.0	7.3
21...	0909	10	63	7.4	9.0	7.2
21...	0910	15	63	7.4	9.0	7.2
21...	0911	20	63	7.3	8.5	7.2
21...	0912	23	63	7.3	8.5	7.2
MAY						
27...	0938	0.1	57	7.6	10.0	7.9
27...	0939	5.0	57	7.6	10.0	7.9
27...	0940	10	57	7.6	10.0	7.9
27...	0941	15	57	7.4	9.5	7.5
27...	0942	20	57	7.4	9.0	7.3
27...	0943	25	57	7.3	8.5	6.6
JUL						
09...	1041	0.1	31	7.6	13.5	7.8
09...	1042	5.0	33	7.5	13.0	7.7
09...	1043	10	33	7.4	12.5	7.6
09...	1044	15	33	7.3	12.5	7.1
09...	1045	20	33	7.2	12.0	7.1
09...	1046	25	33	7.1	11.0	6.1
23...	1015	0.1	34	7.5	16.5	7.4
23...	1016	5.0	33	7.4	16.5	7.2
23...	1017	10	36	7.3	15.5	6.3
23...	1018	15	38	7.2	14.5	6.3
23...	1019	20	43	7.2	13.0	5.7
23...	1020	25	47	7.2	12.5	5.6
AUG						
20...	1011	0.1	57	7.3	13.0	5.5
20...	1012	5.0	57	7.3	12.0	5.3
20...	1013	10	57	7.2	11.5	5.0
20...	1014	15	58	7.2	11.5	4.7
20...	1015	20	59	7.2	11.0	4.6
20...	1016	25	59	7.1	11.0	4.5
SEP						
10...	0935	0.1	61	7.2	11.0	5.7
10...	0936	5.0	61	7.2	10.5	5.5
10...	0937	10	61	7.1	10.5	5.1
10...	0938	15	61	7.1	10.5	4.9
10...	0939	20	61	7.1	10.5	4.9
10...	0940	25	61	7.0	10.0	4.7

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											
21...	0940	0.1	63	7.4	9.0	88.0	7.3	<1	26	8.0	1.4
21...	1010	23	63	7.3	8.5	--	7.2	--	26	8.1	1.4
MAY											
27...	0910	0.1	57	7.6	10.0	56.0	7.9	K1	21	6.4	1.3
27...	0930	25	57	7.3	8.5	--	6.6	--	21	6.4	1.3
JUL											
09...	1015	0.1	31	7.6	13.5	65.0	7.8	<1	14	4.3	0.8
09...	1030	25	33	7.1	11.0	--	6.1	--	14	4.1	0.8
23...	0935	0.1	34	7.5	12.5	92.0	7.4	K2	13	4.0	0.8
23...	0940	25	47	7.2	12.5	--	5.6	--	19	5.9	1.0
AUG											
20...	0920	0.1	57	7.3	13.0	118	5.5	<1	23	7.0	1.3
20...	0940	25	59	7.1	11.0	--	4.5	--	23	7.2	1.3
SEP											
10...	0905	0.1	61	7.2	11.0	70.0	5.7	K1	25	7.8	1.4
10...	0925	25	61	7.0	10.0	--	4.7	--	25	7.7	1.4

K-Based on non-ideal colony count.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
21...	2.5	0.2	0.8	30	3.3	0.6	0.2	5.9	43	41
21...	2.6	0.2	0.8	29	3.4	0.2	0.2	6.1	48	40
MAY										
27...	2.5	0.2	0.9	24	3.9	0.5	0.2	7.2	42	38
27...	2.1	0.2	0.8	23	3.6	0.5	0.2	7.5	44	37
JUL										
09...	1.2	0.1	0.6	13	2.4	0.3	0.1	5.2	24	23
09...	1.3	0.2	0.5	14	2.6	0.4	0.1	5.6	32	24
23...	1.4	0.2	0.5	15	2.3	0.3	0.1	5.3	24	24
23...	2.0	0.2	0.6	19	2.8	0.3	0.1	6.4	26	31
AUG										
20...	2.3	0.2	0.7	26	3.3	0.4	0.1	7.1	35	38
20...	2.4	0.2	0.7	26	3.4	0.4	0.1	7.3	37	39
SEP										
10...	2.4	0.2	0.7	26	3.4	0.6	0.1	7.6	52	40
10...	2.4	0.2	0.8	25	3.3	0.6	0.1	7.6	44	39

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										
21...	<0.01	0.05	0.02	0.02	<0.20	<0.01	0.01	<0.01	7.0	0.5
21...	<0.01	<0.05	0.03	0.02	0.20	0.02	<0.01	<0.01	--	--
MAY										
27...	<0.01	0.06	--	0.03	0.20	0.02	<0.01	<0.01	3.4	0.1
27...	<0.01	0.10	--	0.03	<0.20	0.01	0.01	<0.01	--	--
JUL										
09...	<0.01	<0.05	--	0.02	<0.20	0.03	<0.01	<0.01	1.3	<0.1
09...	<0.01	<0.05	--	0.02	<0.20	0.01	<0.01	<0.01	--	--
23...	<0.01	<0.05	--	0.02	0.20	<0.01	<0.01	<0.01	3.2	0.1
23...	<0.01	<0.05	--	0.03	0.30	0.01	<0.01	<0.01	--	--
AUG										
20...	<0.01	<0.05	--	0.03	<0.20	<0.01	<0.01	<0.01	1.6	0.1
20...	<0.01	0.06	--	0.03	<0.20	<0.01	<0.01	<0.01	--	--
SEP										
10...	<0.01	0.06	--	0.04	0.20	0.02	0.01	<0.01	3.3	0.2
10...	<0.01	0.08	--	0.03	<0.20	0.02	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									
21...	0940	7	<0.5	<10	<1	<5	<3	<10	34
21...	1010	8	<0.5	<10	1	<5	<3	<10	46
MAY									
27...	0910	8	<0.5	<10	<1	<5	<3	<10	82
27...	0930	8	<0.5	<10	<1	<5	<3	<10	140
JUL									
09...	1015	6	<0.5	<10	2	<5	<3	<10	60
09...	1030	6	<0.5	<10	<1	<5	<3	<10	82
23...	0935	5	<0.5	10	<1	<5	<3	<10	44
23...	0940	7	<0.5	<10	<1	<5	<3	<10	25
AUG									
20...	0920	8	<0.5	<10	<1	<5	<3	<10	39
20...	0940	8	<0.5	<10	<1	<5	<3	<10	28
SEP									
10...	0905	8	<0.5	<10	<1	<5	<3	<10	22
10...	0925	8	<0.5	<10	<1	<5	<3	<10	19

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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									
21...	<10	<4	17	<10	<10	[a]<0.2	46	<6	6
21...	<10	<4	32	<10	<10	[a]<0.2	46	<6	18
MAY									
27...	<10	<4	36	<10	<10	[a]<0.2	37	<6	7
27...	<10	<4	63	<10	<10	[a]<0.2	36	<6	5
JUL									
09...	<10	<4	5	<10	<10	[a]<0.2	21	<6	6
09...	<10	<4	42	<10	<10	[a]<0.2	22	<6	7
23...	<10	<4	1	<10	<10	[a]<0.2	21	<6	8
23...	<10	<4	7	<10	<10	[a]<0.2	33	<6	12
AUG									
20...	<10	<4	2	<10	<10	[a]<0.2	42	<6	<3
20...	<10	<4	7	<10	<10	[a]<0.2	44	<6	<3
SEP									
10...	<10	<4	3	<10	<10	<0.2	46	<6	6
10...	<10	<4	3	<10	<10	<0.2	47	<6	13

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 SW¼NE¼ sec.24, T. 3 N., R.76 W., Grand County, Hydrologic Unit 14010001, at road crossing at south end of Shadow Mountain Lake, 4 mi southwest of Grand Lake, and 13.5 mi northeast of Granby.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
17...	2100	657	63	7.6	5.0	7.7	25	7.9	1.3	2.3
DEC										
10...	0530	648	67	7.8	2.0	8.2	25	7.5	1.4	2.6
FEB										
22...	1730	600	66	6.8	2.0	5.5	25	7.8	1.4	2.6
AUG										
12...	1900	746	62	7.0	8.0	4.4	26	8.2	1.4	2.6
23...	1900	391	60	7.2	10.5	5.8	25	7.8	1.4	2.5
SEP										
16...	0530	726	64	7.2	8.0	6.3	25	7.5	1.4	2.4

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)
NOV										
17...	0.2	0.8	27	3.1	0.5	0.1	5.8	43	39	0.06
DEC										
10...	0.2	0.8	29	3.1	0.6	0.1	6.0	39	40	0.05
FEB										
22...	0.2	0.8	27	3.4	1.8	0.1	6.4	37	41	0.05
AUG										
12...	0.2	0.9	29	3.5	0.6	0.1	7.3	42	43	0.06
23...	0.2	0.7	25	3.1	0.5	0.1	7.7	41	39	0.06
SEP										
16...	0.2	0.7	30	3.4	0.4	0.1	7.2	38	42	0.05

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)
NOV									
17...	76.3	0.02	0.30	0.11	0.02	0.02	0.04	0.02	<0.01
DEC									
10...	68.2	0.01	<0.20	0.18	0.02	<0.01	0.01	<0.01	<0.01
FEB									
22...	59.9	0.01	<0.20	0.15	--	0.01	0.01	<0.01	<0.01
AUG									
12...	84.6	<0.01	0.20	0.09	--	0.03	0.02	0.02	0.01
23...	43.3	<0.01	<0.20	0.10	--	0.02	0.01	0.01	0.01
SEP									
16...	74.5	<0.01	<0.20	0.09	--	0.01	0.03	0.02	<0.01

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
NOV								
17...	7	<0.5	<1.0	<5	<3	<10	31	10
DEC								
10...	7	<0.5	<1.0	<5	<3	<10	40	<10
FEB								
22...	7	<0.5	<1.0	<5	<3	<10	29	<10
AUG								
12...	8	<0.5	<1.0	<5	<3	<10	25	<10
23...	8	<0.5	<1.0	<5	<3	<10	25	<10
SEP								
16...	7	<0.5	<1.0	<5	<3	<10	18	<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)
NOV								
17...	<4	7	<10	<10	2.0	46	<6	<3
DEC								
10...	<4	2	<10	<10	<1.0	48	<6	<3
FEB								
22...	<4	1	<10	<10	<1.0	48	<6	<3
AUG								
12...	<4	7	<10	<10	<1.0	47	<6	15
23...	<4	13	<10	<10	<1.0	47	<6	8
SEP								
16...	<4	4	<10	<10	<1.0	47	<6	7

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 1992 TO SEPTEMBER 1993

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)
JUN									
08...	1145	92	7.8	7.5	140	38	12	2.0	3.9
21...	1345	84	7.9	15.0	180	35	11	1.7	3.4

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)
JUN										
08...	0.3	1.0	41	3.6	1.2	0.2	12	72	61	<0.01
21...	0.3	0.8	37	2.7	0.8	0.2	10	54	53	<0.01

DATE	NITROGEN, NO2+NO3 DISSOLVED (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)
JUN								
08...	<0.05	0.02	0.30	0.04	0.03	0.02	1.4	0.2
21...	<0.05	0.02	<0.20	0.04	0.02	0.01	0.9	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)
JUN									
08...	1145	15	<0.5	<10	<1.0	<5	<3	<10	140
21...	1345	13	<0.5	<10	<1.0	<5	<3	<10	88

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)
JUN									
08...	<10	<4	30	<10	<10	[a]<0.2	66	<6	<3
21...	<10	<4	27	<10	<10	[a]<0.2	58	<6	5

a-Analysis based on preliminary method.

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 mi^2.

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 above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level. 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, 410,100 acre-ft, July 21-23, elevation, 8,272.18 ft; minimum, 167,500 acre ft, Feb. 28, Mar. 1, elevation, 8,231.06 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	8,249.45	265,700	-
Oct. 31	8,248.35	259,400	-6,300
Nov. 30	8,244.84	239,500	-19,900
Dec. 31	8,239.74	211,700	-27,800
CAL YR 1992			+7,800
Jan. 31	8,235.01	187,100	-24,600
Feb. 28	8,231.06	167,500	-19,600
Mar. 31	8,231.46	169,400	+1,900
Apr. 30	8,232.35	173,800	+4,400
May 31	8,245.87	245,300	+71,500
June 30	8,267.47	378,000	+132,700
July 31	8,271.79	407,400	+29,400
Aug. 31	8,269.10	389,000	-18,400
Sept. 30	8,266.73	373,000	-16,000
WTR YR 1993			+107,300

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 were collected near surface and near bottom, near spillway.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
OCT						
20...	0931	0.1	66	7.3	10.0	6.4
20...	0932	5.0	66	7.3	10.0	6.3
20...	0933	10	66	7.3	10.0	6.3
20...	0934	15	66	7.3	10.0	6.3
20...	0935	20	66	7.3	10.0	6.3
20...	0936	25	66	7.3	10.0	6.3
20...	0937	30	66	7.2	10.0	6.3
20...	0938	40	66	7.2	10.0	6.3
20...	0939	50	67	7.2	10.0	6.2
20...	0940	60	67	7.2	10.0	6.0
20...	0941	70	67	7.2	9.5	5.6
20...	0942	80	67	7.2	9.0	2.4
20...	0943	90	67	7.2	9.0	1.0
20...	0944	100	67	7.2	9.0	0.6
20...	0945	110	68	7.2	8.5	0.4
20...	0946	120	67	7.2	8.5	0.3
20...	0947	130	67	7.2	8.5	0.3
20...	0948	140	68	7.2	8.5	0.2
20...	0949	150	68	7.2	8.5	0.2
20...	0950	160	68	7.2	8.5	0.2
20...	0951	165	68	7.2	8.5	0.2
MAY						
26...	1034	0.1	63	8.2	9.5	8.9
26...	1035	5.0	63	8.4	9.0	9.1
26...	1036	10	64	8.3	8.5	9.1
26...	1037	15	71	8.1	8.0	8.8
26...	1038	20	70	7.8	7.5	8.6
26...	1039	25	74	7.8	7.5	8.6
26...	1040	30	66	7.8	7.5	8.4
26...	1041	40	70	7.7	6.5	8.2
26...	1042	50	68	7.7	6.0	8.0
26...	1043	60	68	7.6	5.5	8.0
26...	1044	70	67	7.5	5.0	7.9
26...	1045	80	68	7.4	4.5	7.5
26...	1046	90	69	7.4	4.5	7.3
26...	1047	100	71	7.3	4.5	7.2
26...	1048	110	72	7.3	4.5	7.0
26...	1049	120	76	7.3	4.0	6.2
26...	1050	130	71	7.2	4.0	6.1
26...	1051	140	80	7.2	4.0	5.7
26...	1052	150	80	7.2	4.0	5.6
26...	1053	157	80	7.2	4.0	5.5

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
JUL						
08...	0952	0.1	53	8.0	15.5	7.4
08...	0953	5.0	53	8.0	14.5	7.4
08...	0954	10	53	7.9	14.5	7.2
08...	0955	15	53	7.8	14.5	7.3
08...	0956	20	53	7.8	14.5	7.3
08...	0957	25	53	7.7	14.5	7.1
08...	0958	30	53	7.7	14.0	7.0
08...	0959	40	55	7.3	10.5	6.1
08...	1000	50	53	7.2	9.5	5.8
08...	1001	60	60	7.2	9.5	5.7
08...	1002	70	60	7.1	9.0	5.6
08...	1003	80	61	7.2	8.0	5.6
08...	1004	90	62	7.1	7.5	5.4
08...	1005	100	63	7.1	7.5	5.3
08...	1006	110	63	7.1	6.5	5.3
08...	1007	120	64	7.1	6.5	5.2
08...	1008	130	64	7.1	6.5	5.2
08...	1009	140	65	7.1	6.5	5.2
22...	1003	0.1	53	8.3	17.0	8.0
22...	1004	5.0	53	8.3	17.0	7.9
22...	1005	10	53	8.3	16.5	7.8
22...	1006	15	54	8.3	16.5	7.6
22...	1007	20	54	8.2	16.5	7.5
22...	1008	25	54	8.1	16.5	7.4
22...	1009	30	56	7.8	14.5	6.3
22...	1010	40	55	7.4	13.0	5.8
22...	1011	50	55	7.3	11.0	5.4
22...	1012	60	59	7.2	9.5	4.9
22...	1013	70	60	7.2	8.5	4.7
22...	1014	80	60	7.2	8.0	4.7
22...	1015	90	60	7.2	7.5	4.7
22...	1016	100	61	7.2	7.5	4.8
22...	1017	110	62	7.2	7.5	4.8
22...	1018	120	62	7.2	7.0	4.8
22...	1019	130	64	7.2	7.0	4.7
22...	1020	140	65	7.2	7.0	4.7
22...	1021	145	66	7.2	7.0	4.7
AUG						
19...	1035	0.1	55	8.5	17.5	7.2
19...	1036	5.0	55	8.5	17.0	7.2
19...	1037	10	55	8.5	17.0	7.2
19...	1038	15	55	8.3	17.0	6.9
19...	1039	20	55	8.2	16.5	6.8
19...	1040	25	55	8.0	16.5	6.4
19...	1041	30	55	7.8	16.0	5.8
19...	1042	40	55	7.6	14.5	4.7
19...	1043	50	56	7.4	10.5	4.1
19...	1044	60	60	7.3	8.5	3.8
19...	1045	70	60	7.2	8.5	3.8
19...	1046	80	61	7.1	8.0	3.7
19...	1047	90	61	7.1	7.5	3.5
19...	1048	100	61	7.1	7.5	3.5
19...	1049	110	61	7.1	7.5	3.5
19...	1050	120	61	7.1	7.5	3.5
19...	1051	130	62	7.1	7.5	3.5
19...	1052	140	62	7.1	7.5	3.5
19...	1053	145	62	7.1	7.5	3.5
SEP						
09...	1034	0.1	55	7.8	15.5	7.3
09...	1035	5.0	55	7.9	15.5	7.3
09...	1036	10	55	7.8	15.5	7.2
09...	1037	15	55	7.8	15.0	7.1
09...	1038	20	55	7.8	15.0	7.1
09...	1039	25	55	7.7	15.0	7.0
09...	1040	30	55	7.7	15.0	6.9
09...	1041	40	55	7.6	15.0	6.9
09...	1042	50	56	7.2	12.0	3.1
09...	1043	60	59	7.2	10.0	2.6
09...	1044	70	59	7.2	8.5	2.9
09...	1045	80	59	7.2	8.0	3.0
09...	1046	90	60	7.1	8.0	3.0
09...	1047	100	60	7.1	8.0	2.8
09...	1048	110	60	7.1	7.5	2.8
09...	1049	120	61	7.1	7.5	2.8
09...	1050	130	61	7.1	7.5	2.8
09...	1051	140	62	7.1	7.5	2.8
09...	1052	145	62	7.1	7.5	2.7

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
20...	1015	0.1	66	7.3	10.0	215	6.4	<1	26	8.0	1.5
20...	1030	165	68	7.2	8.5	--	0.2	--	28	8.7	1.5
MAY											
26...	0910	0.1	63	8.2	9.5	68.0	8.9	K1	25	7.6	1.4
26...	1020	157	80	7.2	4.0	--	5.5	--	31	9.6	1.6
JUL											
08...	0920	0.1	53	8.0	15.5	117	7.4	K1	22	6.9	1.2
08...	0940	140	65	7.1	6.5	--	5.2	--	26	8.1	1.4
22...	0930	0.1	53	8.3	17.0	111	8.0	<1	22	6.9	1.2
22...	0955	145	66	7.2	7.0	--	4.7	--	27	8.3	1.4
AUG											
19...	1000	0.1	55	8.5	17.5	131	7.2	<1	22	6.7	1.2
19...	1020	145	62	7.1	7.5	--	3.5	--	24	7.4	1.3
SEP											
09...	0940	0.1	55	7.8	15.5	146	7.3	K1	23	6.9	1.3
09...	0955	145	62	7.1	7.5	--	2.7	--	25	7.7	1.5

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										
20...	2.6	0.2	0.8	30	3.7	0.5	0.1	5.4	45	41
20...	2.8	0.2	0.8	29	3.3	0.2	0.1	8.6	48	44
MAY										
26...	2.5	0.2	0.7	29	3.5	0.7	0.2	6.7	48	41
26...	3.2	0.3	0.8	35	3.7	0.8	0.1	8.6	54	51
JUL										
08...	2.3	0.2	0.6	28	3.1	0.5	0.1	6.1	34	38
08...	2.8	0.2	0.7	27	3.4	0.5	0.1	7.8	44	42
22...	2.2	0.2	0.7	25	3.1	0.6	0.1	5.8	36	36
22...	2.8	0.2	0.8	26	3.5	0.4	0.2	7.9	34	41
AUG										
19...	2.2	0.2	0.7	25	3.1	0.4	0.1	5.5	38	35
19...	2.4	0.2	0.7	29	3.4	0.4	0.1	7.7	45	41
SEP										
09...	2.2	0.2	0.7	22	3.1	0.5	0.1	5.7	40	34
09...	2.6	0.2	0.8	27	3.5	1.0	0.1	8.1	48	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										
20...	<0.01	0.07	0.05	0.05	<0.20	<0.01	<0.01	<0.01	1.6	<0.1
20...	0.01	0.18	0.02	0.02	<0.20	<0.01	<0.01	<0.01	--	--
MAY										
26...	<0.01	<0.05	--	0.02	0.30	0.02	<0.01	<0.01	5.7	0.1
26...	<0.01	0.09	--	0.07	0.20	<0.01	<0.01	<0.01	--	--
JUL										
08...	<0.01	<0.05	--	0.02	<0.20	0.02	<0.01	<0.01	3.2	0.2
08...	<0.01	0.09	--	0.01	<0.20	<0.01	0.01	<0.01	--	--
22...	<0.01	<0.05	--	0.02	0.30	<0.01	<0.01	<0.01	2.9	0.1
22...	<0.01	0.09	--	0.02	0.20	0.01	<0.01	<0.01	--	--
AUG										
19...	<0.01	<0.05	--	0.03	0.20	<0.01	<0.01	<0.01	3.2	<0.1
19...	<0.01	0.11	--	0.03	<0.20	0.02	0.02	<0.01	--	--
SEP										
09...	<0.01	<0.05	--	0.03	<0.20	0.01	<0.01	0.01	2.1	<0.1
09...	<0.01	0.16	--	0.03	<0.20	0.03	0.03	0.03	--	--

K-Based on non-ideal colony count.

09018500 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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									
20...	1015	8	<0.5	<10	<1	<5	<3	<10	37
20...	1030	5	<0.5	<10	1	<5	<3	<10	29
MAY									
26...	0910	9	<0.5	<10	<1	<5	<3	<10	59
26...	1020	11	<0.5	<10	<1	<5	<3	<10	21
JUL									
08...	0920	9	<0.5	10	<1	<5	<3	<10	18
08...	0940	9	<0.5	<10	<1	<5	<3	<10	27
22...	0930	8	<0.5	<10	<1	<5	<3	<10	12
22...	0955	9	<0.5	10	<1	<5	<3	<10	21
AUG									
19...	1000	8	<0.5	<10	<1	<5	<3	<10	16
19...	1020	8	<0.5	10	<1	<5	<3	<10	21
SEP									
09...	0940	8	<0.5	<10	<1	<5	<3	<10	9
09...	0955	7	<0.5	<10	<1	<5	<3	<10	33

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									
20...	<10	<4	11	<10	<10	[a]<0.2	51	<6	9
20...	<10	<4	10	<10	<10	[a]<0.2	52	<6	18
MAY									
26...	<10	<4	9	<10	<10	[a]<0.2	49	<6	5
26...	<10	<4	560	<10	<10	[a]<0.2	59	<6	9
JUL									
08...	<10	<4	2	<10	<10	[a]<0.2	42	<6	11
08...	<10	<4	9	<10	<10	[a]<0.2	50	<6	10
22...	<10	<4	2	<10	<10	[a]<0.2	42	<6	8
22...	<10	<4	11	<10	<10	[a]<0.2	50	<6	13
AUG									
19...	<10	<4	3	<10	<10	<0.2	42	<6	7
19...	<10	<4	23	<10	<10	<0.2	43	<6	<3
SEP									
09...	<10	<4	2	<10	<10	<0.2	43	<6	12
09...	<10	<4	25	<10	<10	<0.2	51	<6	8

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 were collected near surface and near bottom, near dam in Rainbow Bay.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLING DEPTH (FEET)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)
OCT						
20...	1123	0.1	67	7.3	10.0	6.8
20...	1124	5.0	67	7.3	9.5	6.8
20...	1125	10	67	7.3	9.5	6.8
20...	1126	15	67	7.3	9.5	6.8
20...	1127	20	67	7.3	9.5	6.9
20...	1128	25	67	7.3	9.5	6.8
20...	1129	30	67	7.3	9.5	6.6
20...	1130	40	67	7.2	9.5	6.5
MAY						
26...	1140	0.1	66	8.1	9.0	8.9
26...	1041	5.0	67	8.1	9.0	8.9
26...	1042	10	69	8.1	8.0	8.9
26...	1043	15	72	8.0	8.0	8.9
26...	1044	20	74	7.9	8.0	8.9
26...	1045	25	74	7.9	8.0	8.8
26...	1046	30	75	7.7	8.0	8.6
26...	1047	35	75	7.7	7.5	8.5
JUL						
08...	1151	0.1	58	7.7	14.0	7.2
08...	1152	5.0	59	7.7	14.0	7.3
08...	1153	10	59	7.7	14.0	7.3
08...	1154	15	60	7.6	14.0	7.2
08...	1155	20	60	7.6	14.0	7.3
08...	1156	25	60	7.5	13.5	7.0
08...	1157	30	60	7.5	13.5	7.0
08...	1158	40	60	7.5	13.5	7.0
08...	1159	50	60	7.5	13.5	7.0
08...	1200	55	60	7.6	13.5	7.0
22...	1120	0.1	54	8.3	17.5	8.0
22...	1121	5.0	53	8.2	16.5	7.9
22...	1122	10	54	8.2	16.5	7.7
22...	1123	15	56	8.1	16.0	7.6
22...	1124	20	58	8.0	16.0	7.8
22...	1125	25	57	8.0	16.0	7.5
22...	1126	30	58	8.0	16.0	7.3
22...	1127	40	60	7.4	13.0	5.4
22...	1128	45	60	7.3	12.5	5.3
AUG						
19...	1151	0.1	55	8.5	17.5	7.2
19...	1152	5.0	55	8.6	17.5	7.0
19...	1153	10	55	8.6	17.0	7.0
19...	1154	15	55	8.6	17.0	6.9
19...	1155	20	55	8.6	17.0	7.0
19...	1156	25	55	8.4	17.0	6.8
19...	1157	30	55	8.1	16.5	6.4
19...	1158	40	57	7.4	12.0	3.3
19...	1159	50	60	7.2	9.5	2.6
19...	1200	60	62	7.1	8.5	2.3
SEP						
09...	1215	0.1	56	7.7	16.0	7.4
09...	1216	5.0	56	7.7	15.0	7.3
09...	1217	10	56	7.7	15.0	7.2
09...	1218	15	56	7.6	15.0	7.0
09...	1219	20	56	7.6	15.0	6.9
09...	1220	25	56	7.6	15.0	6.9
09...	1221	30	56	7.6	15.0	6.8
09...	1222	40	57	7.5	15.0	6.8
09...	1223	50	57	7.2	14.0	5.1
09...	1224	55	58	7.1	11.5	2.5

400844105530800 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
20...	1145	0.1	67	7.3	10.0	124	6.8	<1	26	8.1	1.5
20...	1210	40	67	7.2	9.5	--	6.5	--	26	8.2	1.4
MAY											
26...	1120	0.1	66	8.1	9.0	43.0	8.9	K4	27	8.2	1.5
26...	1125	35	75	7.7	7.5	--	8.5	--	29	8.7	1.7
JUL											
08...	1130	0.1	58	7.7	14.0	--	7.2	<1	25	7.6	1.4
08...	1140	55	60	7.6	13.5	--	7.0	--	23	7.2	1.1
22...	1100	0.1	54	8.3	17.5	90.0	8.0	<1	23	7.1	1.2
22...	1110	45	60	7.3	12.5	--	5.3	--	24	7.6	1.3
AUG											
19...	1125	0.1	55	8.5	17.5	112	7.2	<1	23	6.9	1.3
19...	1135	60	62	7.1	8.5	--	2.3	--	25	7.7	1.5
SEP											
09...	1150	0.1	56	7.7	16.0	128	7.4	<1	23	7.2	1.3
09...	1205	55	58	7.1	11.5	--	2.5	--	24	7.4	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										
20...	2.5	0.2	0.7	30	3.2	0.2	0.1	5.5	41	40
20...	2.4	0.2	0.7	30	3.2	0.5	0.1	5.5	46	40
MAY										
26...	2.7	0.2	0.7	31	4.4	0.6	0.2	7.7	50	45
26...	3.4	0.3	0.6	32	4.3	0.8	0.1	10	60	49
JUL										
08...	2.5	0.2	0.6	25	3.3	0.5	0.1	6.7	38	38
08...	2.7	0.2	0.5	25	3.3	0.4	0.1	6.0	48	36
22...	2.4	0.2	0.6	23	3.2	0.3	0.1	5.9	30	35
22...	2.5	0.2	0.7	25	3.2	0.3	0.1	6.9	26	38
AUG										
19...	2.3	0.2	0.7	25	3.8	0.4	0.1	5.7	39	36
19...	2.4	0.2	0.7	28	3.4	0.4	0.2	7.9	40	42
SEP										
09...	2.2	0.2	0.7	27	3.0	0.6	0.1	5.8	34	37
09...	2.3	0.2	0.8	24	3.2	0.7	0.1	6.8	46	38

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										
20...	0.01	0.07	0.03	0.03	<0.20	<0.01	<0.01	<0.01	1.2	<0.1
20...	<0.01	0.07	0.03	0.03	<0.20	0.01	<0.01	<0.01	--	--
MAY										
26...	<0.01	<0.05	--	0.02	0.20	0.02	<0.01	<0.01	4.3	<0.1
26...	<0.01	<0.05	--	0.02	0.20	0.03	<0.01	<0.01	--	--
JUL										
08...	<0.01	<0.05	--	0.02	0.20	0.02	<0.01	<0.01	5.2	0.3
08...	<0.01	<0.05	--	0.03	<0.20	0.02	<0.01	0.01	--	--
22...	<0.01	<0.05	--	0.02	0.20	<0.01	<0.01	<0.01	3.2	<0.1
22...	<0.01	<0.05	--	0.02	0.20	<0.01	<0.01	<0.01	--	--
AUG										
19...	<0.01	<0.05	--	0.03	<0.20	<0.01	<0.01	<0.01	--	--
19...	<0.01	0.11	--	0.05	0.20	0.02	0.02	<0.01	--	--
SEP										
09...	<0.01	<0.05	--	0.04	<0.20	0.02	<0.01	0.02	3.4	<0.1
09...	<0.01	0.09	--	0.04	<0.20	0.02	<0.01	<0.01	--	--

K-Based on non-ideal colony count.

400844105530800 LAKE GRANBY NEAR GRANBY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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									
20...	1145	8	<0.5	<10	1	<5	<3	<10	32
20...	1210	8	<0.5	<10	<1	<5	<3	<10	27
MAY									
26...	1120	9	<0.5	<10	<1	<5	<3	<10	60
26...	1125	11	<0.5	<10	<1	<5	<3	<10	79
JUL									
08...	1130	9	<0.5	10	<1	<5	<3	<10	19
08...	1140	8	<0.5	<10	1	<5	<3	<10	18
22...	1100	8	<0.5	10	<1	<5	<3	<10	12
22...	1110	9	<0.5	<10	<1	<5	<3	<10	19
AUG									
19...	1125	8	<0.5	<10	<1	<5	<3	<10	16
19...	1135	9	<0.5	10	<1	<5	<3	<10	15
SEP									
09...	1150	8	<0.5	<10	<1	<5	<3	<10	14
09...	1205	8	<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									
20...	<10	<4	6	<10	<10	[a]<0.2	50	<6	4
20...	<10	<4	5	<10	<10	[a]<0.2	49	<6	4
MAY									
26...	<10	<4	14	<10	<10	[a]<0.2	55	<6	4
26...	<10	<4	19	<10	<10	[a]<0.2	65	<6	10
JUL									
08...	<10	<4	<1	<10	<10	[a]<0.2	47	<6	8
08...	<10	<4	<1	<10	<10	[a]<0.2	45	<6	4
22...	<10	<4	2	<10	<10	[a]<0.2	43	<6	8
22...	<10	<4	3	<10	<10	[a]<0.2	46	<6	7
AUG									
19...	<10	<4	3	<10	<10	<0.2	45	<6	5
19...	<10	<4	19	<10	<10	<0.2	46	<6	6
SEP									
09...	<10	<4	2	<10	<10	<0.2	44	<6	3
09...	<10	<4	8	<10	<10	<0.2	46	<6	5

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 mi^2.

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 sea level, 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 ft^3/s, July 11, 1983, gage height, 5.39 ft; minimum daily, 9.6 ft^3/s, Sept. 21, 1981.

EXTREMES FOR PERIOD OF CONTINUOUS RECORD.--Maximum discharge observed, 4,100 ft^3/s, June 20, 1909, gage height, 5.5 ft, site and datum then in use; minimum daily, 6.6 ft^3/s, Jan. 29, 1950; minimum observed prior to starting construction of Shadow Mountain Lake, 20 ft^3/s, Apr. 6, 1936 (discharge measurement).

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 857 ft^3/s at 1500 Aug. 26, gage height, 3.25 ft; minimum daily, 17 ft^3/s, Sept. 27.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	57	73	73	76	28
2	---	---	---	---	---	---	---	75	73	73	56	20
3	---	---	---	---	---	---	---	76	78	80	42	19
4	---	---	---	---	---	---	---	76	75	83	41	19
5	---	---	---	---	---	---	---	73	73	84	42	19
6	---	---	---	---	---	---	---	69	71	77	41	19
7	---	---	---	---	---	---	---	73	74	75	41	20
8	---	---	---	---	---	---	---	73	70	76	42	20
9	---	---	---	---	---	---	---	72	74	76	42	20
10	---	---	---	---	---	---	---	72	75	76	42	21
11	---	---	---	---	---	---	---	73	73	75	43	21
12	---	---	---	---	---	---	---	73	73	76	43	21
13	---	---	---	---	---	---	---	72	72	78	43	24
14	---	---	---	---	---	---	---	72	73	75	42	21
15	---	---	---	---	---	---	---	73	76	75	41	21
16	---	---	---	---	---	---	---	75	75	76	39	20
17	---	---	---	---	---	---	---	76	81	76	36	19
18	---	---	---	---	---	---	---	75	85	76	39	20
19	---	---	---	---	---	---	---	75	75	75	38	20
20	---	---	---	---	---	---	---	75	76	76	39	20
21	---	---	---	---	---	---	---	72	76	76	39	20
22	---	---	---	---	---	---	---	75	75	76	40	20
23	---	---	---	---	---	---	---	73	76	78	40	20
24	---	---	---	---	---	---	---	73	76	78	41	21
25	---	---	---	---	---	---	---	73	76	78	41	19
26	---	---	---	---	---	---	---	74	75	78	127	20
27	---	---	---	---	---	---	---	75	76	78	38	17
28	---	---	---	---	---	---	---	76	76	76	37	19
29	---	---	---	---	---	---	---	72	76	76	37	20
30	---	---	---	---	---	---	---	70	76	76	38	22
31	---	---	---	---	---	---	---	70	---	76	37	---
TOTAL	---	---	---	---	---	---	---	2258	2253	2377	1383	610
MEAN	---	---	---	---	---	---	---	72.8	75.1	76.7	44.6	20.3
MAX	---	---	---	---	---	---	---	76	85	84	127	28
MIN	---	---	---	---	---	---	---	57	70	73	36	17
AC-FT	---	---	---	---	---	---	---	4480	4470	4710	2740	1210

09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO

LOCATION.--Lat 40°08'49", long 105°56'31", in SE1/4 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 above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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, 8,770 acre-ft, June 3, elevation, 8,129.00 ft; minimum, 5,680 acre-ft, Nov. 20, elevation, 8,116.71 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	8,120.52	6,530	-
Oct. 31	8,120.00	6,410	-120
Nov. 30	8,117.18	5,780	-630
Dec. 31	8,118.65	6,100	+320
CAL YR 1992			-320
Jan. 31	8,120.15	6,440	+340
Feb. 28	8,121.38	6,730	+290
Mar. 31	8,123.37	7,230	+500
Apr. 30	8,119.85	6,370	-860
May 31	8,128.12	8,510	+2,140
June 30	8,121.94	6,870	-1,640
July 31	8,120.28	6,470	-400
Aug. 31	8,123.68	7,300	+830
Sept. 30	8,123.71	7,310	+10
WTR YR 1993			+780

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 sea level, 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. 8, Nov. 9 to Mar. 31, and Apr. 29 to May 11. Records good 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.5	3.5	2.8	2.3	1.9	2.3	18	70	78	16	7.9
2	4.4	3.1	3.4	2.8	2.3	1.9	2.5	14	68	76	16	8.4
3	4.4	3.1	3.6	2.7	2.1	1.9	2.2	12	66	75	15	7.7
4	4.2	3.9	3.6	2.6	2.1	1.9	2.3	12	58	69	15	7.2
5	4.3	4.2	3.4	2.5	2.1	1.9	2.5	15	56	61	15	7.1
6	4.5	4.1	3.3	2.4	2.1	1.9	2.2	14	55	51	15	7.0
7	4.6	4.2	3.2	2.4	2.1	1.9	2.3	13	55	45	14	8.9
8	4.8	3.8	3.3	2.4	2.0	2.0	2.6	12	48	42	14	8.8
9	4.9	3.8	3.4	2.4	2.0	1.9	2.9	12	46	43	13	7.3
10	5.1	3.8	3.5	2.4	2.0	1.9	3.2	11	45	43	13	6.8
11	4.7	3.8	3.3	2.3	2.0	1.9	2.9	10	49	44	13	6.5
12	4.8	3.8	3.2	2.3	2.0	1.9	2.9	10	56	42	13	6.4
13	4.5	3.8	3.2	2.3	2.1	1.9	2.8	16	66	39	12	9.9
14	4.5	3.9	3.1	2.3	2.1	1.9	2.6	18	80	38	12	8.1
15	4.5	4.1	3.2	2.4	2.1	2.0	2.8	18	94	36	11	7.9
16	4.1	4.1	3.2	2.4	2.0	2.0	2.9	20	98	35	11	7.6
17	4.2	4.2	3.3	2.4	2.0	2.0	2.8	22	107	32	11	7.8
18	4.1	4.2	3.2	2.4	2.1	2.0	3.3	22	103	30	10	7.5
19	4.1	4.2	3.2	2.4	2.0	2.0	3.2	22	88	29	10	7.0
20	4.1	4.0	3.0	2.2	2.1	2.1	2.9	25	86	28	10	6.7
21	4.1	3.8	3.0	2.2	2.1	2.0	3.2	30	94	26	10	6.4
22	3.9	3.8	3.2	2.2	1.9	2.0	3.9	33	101	24	9.9	6.1
23	3.9	3.7	3.1	2.2	1.9	2.2	4.2	32	103	23	9.5	6.0
24	3.9	3.6	3.1	2.2	1.9	2.3	3.6	33	94	22	9.1	5.9
25	4.5	3.5	3.1	2.2	2.0	2.7	3.9	37	83	20	9.3	5.8
26	4.4	3.6	3.0	2.2	2.0	2.8	4.5	39	82	19	10	5.7
27	4.1	3.7	2.9	2.2	2.0	2.8	5.4	41	82	19	9.1	5.5
28	4.2	3.7	3.0	2.2	1.9	2.6	6.4	44	82	18	8.5	5.4
29	4.1	3.6	2.8	2.2	---	2.4	9.0	46	83	18	8.2	5.3
30	4.1	3.5	2.8	2.3	---	2.4	19	49	83	18	8.2	5.2
31	3.7	---	2.9	2.3	---	2.3	---	54	---	17	8.0	---
TOTAL	134.2	114.1	99.0	73.2	57.3	65.3	117.2	754	2281	1160	358.8	209.8
MEAN	4.33	3.80	3.19	2.36	2.05	2.11	3.91	24.3	76.0	37.4	11.6	6.99
MAX	5.1	4.2	3.6	2.8	2.3	2.8	19	54	107	78	16	9.9
MIN	3.7	3.1	2.8	2.2	1.9	1.9	2.2	10	45	17	8.0	5.2
AC-FT	266	226	196	145	114	130	232	1500	4520	2300	712	416

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

MEAN	5.73	4.04	3.05	2.38	1.97	2.01	4.54	26.8	69.4	28.4	12.0	7.98
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	4.33	2.69	2.58	1.63	1.45	1.41	2.12	17.1	38.2	16.1	8.45	6.19
(WY)	1993	1992	1992	1987	1987	1987	1973	1971	1989	1987	1990	1989

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	4392.7		5423.9			
ANNUAL MEAN	12.0		14.9		14.0	
HIGHEST ANNUAL MEAN					16.9	1970
LOWEST ANNUAL MEAN					10.5	1989
HIGHEST DAILY MEAN	[a]68	May 27	107	Jun 17	135	Jun 22 1971
LOWEST DAILY MEAN	[b]1.6	Feb 26	[c]1.9	Feb 22	1.2	Feb 26 1989
ANNUAL SEVEN-DAY MINIMUM	1.7	Feb 21	1.9	Feb 28	1.4	Feb 20 1989
INSTANTANEOUS PEAK FLOW			117	Jun 16	181	Jun 5 1972
INSTANTANEOUS PEAK STAGE			1.78	Jun 16	2.15	Jun 5 1972
ANNUAL RUNOFF (AC-FT)	8710		10760		10150	
10 PERCENT EXCEEDS	40		47		41	
50 PERCENT EXCEEDS	4.5		4.2		5.0	
90 PERCENT EXCEEDS	1.9		2.1		2.0	

a-Also occurred May 28.
b-Also occurred Feb 27.
c-Also occurred Feb 23-24, Feb 28, Mar 1-7, and Mar 9-14.

09023750 FRASER RIVER BELOW BUCK CREEK AT WINTER PARK, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°53'35", long 105°45'52" (revised), 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.--25.6 mi^2 (revised).

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
OCT								
07...	0915	20	67	7.6	2.5	--	9.6	0.045
14...	1415	17	72	8.5	4.5	--	9.3	--
22...	1145	15	73	8.6	3.0	--	9.7	--
28...	1045	14	77	8.2	2.5	--	10.5	--
NOV								
04...	0920	5.2	88	8.2	1.0	--	10.8	0.015
12...	1430	5.5	88	8.5	1.0	--	10.1	--
18...	1220	5.8	96	8.2	2.0	--	10.6	--
25...	1045	5.5	91	7.5	1.0	--	9.9	--
DEC								
02...	0905	4.8	91	8.0	1.0	--	10.5	0.088
09...	1500	5.2	94	7.6	0.0	--	9.8	--
16...	1300	9.6	82	7.8	0.5	--	9.9	--
23...	1040	7.9	85	8.2	0.5	--	10.4	--
30...	0955	8.1	86	8.7	0.5	--	10.4	--
JAN								
06...	1435	7.4	84	8.4	0.5	--	10.1	--
13...	1240	7.7	87	7.9	0.5	--	10.4	--
21...	1145	6.7	85	7.8	1.0	--	10.5	--
28...	0915	6.6	92	8.5	0.0	--	10.3	--
FEB								
03...	1425	5.9	89	--	0.5	--	10.6	--
10...	1215	6.6	94	7.8	1.0	--	10.5	--
17...	1145	6.6	88	7.9	0.5	--	10.3	--
24...	1000	7.1	87	8.2	0.5	--	10.6	--
MAR								
03...	1415	8.1	132	8.1	0.5	--	10.3	--
10...	1350	6.9	117	8.4	0.5	--	10.4	--
17...	1100	6.1	103	8.5	0.0	--	10.5	--
24...	0900	5.5	134	8.2	0.5	--	10.9	--
31...	0925	6.7	139	8.3	1.0	--	10.2	--
APR								
06...	1430	7.4	146	8.4	1.5	--	10.0	--
16...	1100	7.0	132	7.7	2.0	--	10.0	--
22...	1100	8.6	--	--	--	--	--	--
29...	0900	18	126	8.1	1.0	--	10.3	--
MAY								
05...	1400	9.8	139	8.2	4.0	--	9.5	--
19...	1140	46	95	8.2	2.5	--	10	--
JUN								
02...	1354	172	54	7.8	5.5	3.5	9.2	--
16...	0900	152	44	7.8	3.5	--	9.8	--
30...	1245	159	40	7.7	7.5	--	9.5	--
JUL								
07...	1240	71	47	8.0	7.5	0.30	10.9	--
14...	1100	51	47	8.6	6.5	--	8.8	--
22...	0800	30	54	7.6	4.0	--	10.0	--
28...	1250	31	59	7.9	9.0	--	8.7	--
AUG								
04...	1230	33	59	7.7	8.5	--	8.6	--
11...	0920	12	73	7.9	8.5	--	10.6	--
18...	0800	12	77	7.9	7.0	--	8.8	--
25...	1205	9.6	77	8.0	11.0	--	10.4	--
SEP								
01...	1145	11	78	7.8	8.0	--	--	--
08...	1015	11	80	8.4	5.5	--	9.4	--
16...	1100	10	81	8.0	5.0	--	--	--
22...	0800	9.4	83	7.8	3.5	--	9.2	--
29...	1255	7.9	84	8.1	6.0	--	9.0	--

09023750 FRASER RIVER BELOW BUCK CREEK AT WINTER PARK, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO-GEN, NITRATE DIS-SOLVED (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)
OCT							
07...	--	0.005	--	0.050	--	0.011	--
14...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
NOV							
04...	--	0.002	--	0.017	--	0.005	--
12...	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
DEC							
02...	--	0.004	--	0.092	--	0.015	--
09...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
JAN							
06...	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--
21...	0.115	--	0.003	0.118	--	--	0.012
28...	--	--	--	--	--	--	--
FEB							
03...	0.111	--	0.003	--	0.114	--	<0.002
10...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
MAR							
03...	0.107	--	0.001	--	0.108	--	0.003
10...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
APR							
06...	0.105	--	0.001	--	0.106	--	0.007
16...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--
MAY							
05...	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--
JUN							
02...	0.096	--	0.001	--	0.097	--	0.016
16...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
JUL							
07...	--	--	<0.001	--	0.050	--	0.006
14...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
AUG							
04...	--	--	<0.001	--	0.032	--	0.008
11...	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
SEP							
01...	0.025	--	0.001	--	0.026	--	<0.002
08...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--

09024000 FRASER RIVER AT WINTER PARK, CO
(Formerly published as Fraser River near Winter Park)

LOCATION.--Lat 39°54'00", long 105°46'34", in SE¼ sec.4, T.2 S., R.75 W., Grand County, Hydrologic Unit 14010001, on left bank 500 ft downstream from bridge on U.S. Highway 40, 1.4 mi south of Winter Park, 2.0 mi upstream from Vasquez Creek, 3.5 mi downstream from point of diversion for Moffat water tunnel, and 3.9 mi southeast of Fraser.

DRAINAGE AREA.--27.6 mi².

PERIOD OF RECORD.--September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "near Arrow" 1910-23 and as "near West Portal" 1924-39 and as "near Winter Park" 1990-1992. 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 above sea level, 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. 8, Nov. 2-16, Nov. 21 to Dec. 1, Dec. 11-16, Jan. 4 to Feb. 12, Feb. 22-24, 28, Mar. 1, 2, 4, 5, 13, 14, and Apr. 21. Records good except for estimated daily discharges, which are poor. Transmountain diversions upstream from station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (not known since 1968). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	4.5	5.2	7.7	6.7	6.4	8.1	12	164	161	20	11
2	20	4.5	5.4	7.9	6.7	6.3	8.1	12	163	153	19	11
3	18	4.5	5.3	7.7	6.4	6.2	8.0	12	169	144	14	11
4	19	4.4	5.2	7.7	6.3	6.2	8.3	14	155	124	29	10
5	19	4.4	5.2	7.4	6.3	6.2	8.6	13	112	95	25	10
6	19	4.4	5.1	7.0	6.4	6.3	8.1	12	78	72	22	10
7	19	4.4	5.4	6.8	6.5	6.3	7.7	12	84	58	21	12
8	19	4.5	5.2	6.8	6.5	6.6	8.0	11	63	57	13	11
9	16	4.6	5.2	6.9	6.5	6.4	8.6	10	58	55	11	10
10	16	4.5	5.3	6.9	6.5	6.3	9.0	12	56	55	12	9.7
11	17	4.4	5.3	6.6	6.6	6.4	8.7	16	60	56	12	9.4
12	16	4.3	5.5	6.6	6.5	6.2	9.5	22	71	57	12	9.5
13	15	4.3	5.5	6.5	6.6	6.3	8.6	24	106	55	15	15
14	15	4.4	5.8	6.7	6.6	6.4	8.4	24	127	48	15	12
15	15	4.5	8.0	6.9	6.6	6.5	8.0	23	149	44	16	11
16	15	4.6	8.3	6.9	6.4	6.6	8.0	23	156	39	15	10
17	15	5.2	8.2	6.9	6.7	6.6	8.8	34	165	35	12	10
18	17	5.0	8.1	6.9	6.5	6.7	9.0	42	161	32	11	9.8
19	17	5.0	8.0	6.7	6.7	6.8	9.0	71	146	27	11	9.6
20	16	5.0	8.0	6.4	6.6	7.2	8.1	79	144	26	11	9.4
21	13	5.0	8.5	6.4	6.1	6.8	11	90	165	25	11	9.2
22	13	5.0	8.3	6.5	6.2	7.1	11	97	211	22	11	9.0
23	15	5.0	8.2	6.5	6.2	7.6	13	92	211	28	10	9.0
24	17	4.9	8.3	6.5	6.3	8.6	12	90	208	36	9.9	9.0
25	20	5.0	8.2	6.5	6.3	10	12	102	177	32	10	9.0
26	20	4.9	7.7	6.5	6.4	10	13	112	164	30	11	8.9
27	17	4.9	7.9	6.5	6.3	9.5	16	117	161	28	10	8.9
28	11	4.9	8.3	6.5	6.4	8.7	19	137	162	26	10	8.7
29	4.8	5.0	7.5	6.5	---	8.4	22	142	166	23	9.8	7.8
30	4.5	5.0	7.8	6.7	---	8.1	18	145	165	22	9.8	6.3
31	4.8	---	7.6	6.7	---	7.9	---	150	---	21	9.7	---
TOTAL	482.1	141.0	211.5	211.7	180.8	221.6	315.6	1752	4177	1686	428.2	297.2
MEAN	15.6	4.70	6.82	6.83	6.46	7.15	10.5	56.5	139	54.4	13.8	9.91
MAX	20	5.2	8.5	7.9	6.7	10	22	150	211	161	29	15
MIN	4.5	4.3	5.1	6.4	6.1	6.2	7.7	10	56	21	9.7	6.3
AC-FT	956	280	420	420	359	440	626	3480	8290	3340	849	589

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

MEAN	10.8	9.73	7.71	6.72	6.27	6.66	12.9	49.9	114	47.2	19.3	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	5707.4		10104.7			
ANNUAL MEAN	15.6		27.7			
HIGHEST ANNUAL MEAN					60.9	1914
LOWEST ANNUAL MEAN					5.93	1954
HIGHEST DAILY MEAN	151	Jun 26	[a]211	Jun 22	622	Jun 14 1918
LOWEST DAILY MEAN	[b]4.2	Jan 8	[c]4.3	Nov 12	[d]2.0	Mar 29 1912
ANNUAL SEVEN-DAY MINIMUM	4.2	Jan 20	4.4	Nov 7	2.1	Oct 5 1956
INSTANTANEOUS PEAK FLOW			231	Jun 22	820	Jun 13 1918
INSTANTANEOUS PEAK STAGE			[e]2.10	Jun 22	2.90	Jun 13 1918
ANNUAL RUNOFF (AC-FT)	11320		20040			
10 PERCENT EXCEEDS	24		93		58	
50 PERCENT EXCEEDS	9.4		9.5		8.8	
90 PERCENT EXCEEDS	4.6		5.2		4.1	

a-Also occurred Jun 23.
b-Also occurred Jan 9 and Jan 21-26.
c-Also occurred Nov 13.
d-Also occurred Mar 30, Apr 9, 1912, and Jan 23, 1915.
e-Maximum gage height 2.12 ft, Dec 16, backwater from ice.

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 mi².

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 sea level. June 1, 1907, to Oct. 31, 1909, nonrecording gage at site 0.8 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 5, Apr. 8, 9, and Apr. 20-22. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	3.7	2.7	4.7	4.2	4.0	4.8	10	143	146	26	22
2	5.9	3.7	2.7	4.6	4.2	4.0	4.9	10	147	139	25	22
3	5.8	3.7	2.6	4.5	4.1	3.9	5.1	12	138	135	26	21
4	5.8	3.6	2.6	4.3	4.1	3.9	5.3	12	117	123	40	19
5	5.8	3.3	2.6	4.1	4.1	3.9	5.4	12	92	114	33	19
6	5.8	3.2	2.5	4.2	4.1	3.8	5.7	11	78	93	15	18
7	5.4	3.0	2.5	4.3	4.1	3.8	5.6	11	82	85	13	23
8	7.3	3.2	2.4	4.3	4.0	3.8	5.6	11	62	81	13	26
9	11	2.9	2.4	4.3	4.0	3.8	5.8	8.5	54	63	12	22
10	9.5	2.9	2.5	4.2	4.0	3.8	5.8	7.5	54	44	13	20
11	9.5	2.9	2.5	4.1	4.0	3.8	6.0	9.2	66	41	11	19
12	9.4	2.9	2.6	4.1	4.0	3.8	6.4	17	81	41	10	18
13	9.4	2.8	2.6	4.1	4.0	3.8	7.3	34	102	38	9.8	26
14	9.0	2.8	2.5	4.3	4.1	3.8	7.4	40	117	36	11	23
15	8.0	2.8	4.5	4.3	4.2	3.8	7.5	42	125	33	11	22
16	7.3	2.7	5.0	4.3	4.2	3.8	8.2	48	134	29	9.2	22
17	8.7	2.7	5.2	4.3	4.2	3.8	7.7	60	149	26	7.5	22
18	5.4	2.7	5.2	4.3	4.2	3.8	7.2	59	145	23	8.0	22
19	5.4	2.7	5.2	4.1	4.2	3.8	6.8	59	126	15	7.0	20
20	5.5	2.7	5.2	4.1	4.2	3.8	6.8	66	128	36	5.3	19
21	9.1	2.7	5.2	4.1	4.1	3.8	7.0	78	143	40	4.9	18
22	9.1	2.6	5.2	4.1	4.0	3.8	8.2	84	181	35	4.9	18
23	7.4	2.7	5.2	4.1	4.0	3.8	12	78	192	44	5.3	17
24	4.8	2.7	5.0	4.1	4.0	4.0	9.3	76	178	52	7.2	17
25	5.5	2.7	4.7	4.1	4.0	4.4	9.2	89	166	46	7.0	17
26	5.8	2.8	4.7	4.1	4.1	4.8	9.6	99	162	42	8.0	17
27	7.1	2.7	4.5	4.1	4.0	5.2	11	95	156	39	23	16
28	6.5	2.7	4.5	4.1	4.0	5.1	12	110	152	36	22	16
29	4.7	2.7	4.7	4.1	---	5.0	13	116	156	34	22	15
30	3.7	2.7	4.7	4.3	---	4.8	13	117	156	33	22	14
31	3.9	---	4.7	4.2	---	4.7	---	128	---	27	21	---
TOTAL	213.5	87.9	119.1	130.9	114.4	126.1	229.6	1609.2	3782	1769	453.1	590
MEAN	6.89	2.93	3.84	4.22	4.09	4.07	7.65	51.9	126	57.1	14.6	19.7
MAX	11	3.7	5.2	4.7	4.2	5.2	13	128	192	146	40	26
MIN	3.7	2.6	2.4	4.1	4.0	3.8	4.8	7.5	54	15	4.9	14
AC-FT	423	174	236	260	227	250	455	3190	7500	3510	899	1170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

MEAN	5.83	6.76	5.44	4.66	4.28	4.38	7.36	26.5	63.8	21.8	7.52	6.29
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	3541.6		9224.8			
ANNUAL MEAN	9.68		25.3			
HIGHEST ANNUAL MEAN					39.6	1936
LOWEST ANNUAL MEAN					2.30	1963
HIGHEST DAILY MEAN	[a]70	Jun 21	192	Jun 23	417	Jun 25 1983
LOWEST DAILY MEAN	[b]2.4	Dec 8	[b]2.4	Dec 8	[c].00	Sep 9 1944
ANNUAL SEVEN-DAY MINIMUM	2.5	Dec 5	2.5	Dec 5	.00	Sep 9 1944
INSTANTANEOUS PEAK FLOW			228	Jun 22	[d]526	Jun 27 1983
INSTANTANEOUS PEAK STAGE			3.08	Jun 22	4.14	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	7020		18300			
10 PERCENT EXCEEDS	14		87		21	
50 PERCENT EXCEEDS	7.0		6.4		5.2	
90 PERCENT EXCEEDS	3.0		3.0		1.4	

a-Also occurred Jun 22.
b-Also occurred Dec 9.
c-Also no flow at times in 1946, 1956, 1960, and 1966.
d-From rating curve extended above 286 ft³/s.

09025010 FRASER RIVER BELOW VASQUEZ CREEK AT WINTER PARK, CO

WATER-QUALITY RECORDS

LOCATION (REVISED).--Lat 39°55'37", 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 1992 TO SEPTEMBER 1993

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)
OCT							
07...	1025	26	64	8.1	2.0	9.9	0.048
14...	0830	25	65	8.2	1.5	10.1	--
22...	1300	21	64	8.4	3.5	9.8	--
28...	1215	21	63	8.2	4.0	9.5	--
NOV							
04...	1045	7.6	84	8.3	0.0	10.5	0.144
12...	0945	10	75	7.9	0.0	10.3	--
18...	1335	11	80	8.4	0.0	10.5	--
25...	1200	11	74	7.9	0.0	11.0	--
DEC							
02...	1030	11	75	8.0	0.0	10.4	0.183
09...	0815	13	79	7.4	0.0	10.5	--
16...	1430	30	65	7.9	0.0	9.1	--
23...	1225	14	73	8.1	0.0	11.1	--
30...	1145	16	77	8.4	0.0	10.3	--
JAN							
06...	0925	15	77	8.4	0.0	9.9	--
13...	1415	16	78	8.1	0.0	10.4	--
21...	1315	15	77	--	0.0	10.0	--
28...	1100	13	85	7.9	0.0	10.1	--
FEB							
03...	0920	14	80	8.0	0.0	10.4	--
10...	1345	15	84	7.8	0.0	10.3	--
17...	1300	14	81	7.9	0.0	10.3	--
24...	1130	15	81	7.9	0.0	10.5	--
MAR							
03...	0915	12	89	7.6	0.0	10.7	--
10...	1435	13	95	8.3	0.5	10.5	--
24...	1030	12	112	7.6	1.0	11.0	--
31...	1050	14	116	8.5	0.5	10.2	--
APR							
06...	0920	18	117	8.0	0.5	10.3	--
16...	1200	15	107	--	1.5	10.7	--
21...	0905	8.6	117	7.9	0.0	--	--
21...	1105	23	118	8.3	0.0	--	--
21...	1305	26	124	8.2	1.5	--	--
21...	1530	21	102	8.2	1.5	--	--
21...	1845	28	98	8.3	1.0	--	--
21...	2020	23	100	8.2	0.5	--	--
21...	2100	20	105	7.8	1.0	--	--
21...	2310	20	111	7.7	1.0	--	--
22...	0105	18	111	7.6	0.5	--	--
22...	0315	18	110	7.7	0.5	--	--
22...	0440	18	109	8.0	0.0	--	--
22...	0635	17	112	8.1	0.0	--	--
29...	1000	31	115	7.9	1.5	11.0	--
MAY							
05...	0900	29	106	8.1	2.0	10.5	--
19...	1245	121	71	8.2	3.5	9.9	--
JUN							
02...	1544	350	44	7.9	6.0	9.6	--
16...	1010	287	37	7.6	4.5	10.1	--
30...	0915	329	33	7.4	4.5	10.0	--
JUL							
07...	1350	138	38	8.0	8.5	8.9	--
14...	1210	85	41	8.6	8.5	9.4	--
22...	0930	67	43	7.7	5.5	9.4	--
28...	0830	70	46	7.7	6.0	10.3	--
AUG							
04...	1330	74	47	7.6	8.5	8.6	--
11...	1025	22	59	7.9	10.0	8.0	--
18...	0900	21	64	7.9	9.0	9.2	--
25...	0815	17	67	7.9	8.5	9.4	--

09025010 FRASER RIVER BELOW VASQUEZ CREEK AT WINTER PARK, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
SEP							
01...	1230	34	54	7.7	8.0	--	0.043
08...	1120	34	55	8.4	6.0	9.2	--
15...	0930	33	58	7.4	2.0	--	--
15...	1140	33	59	8.0	4.0	--	--
15...	1320	32	59	8.1	5.5	--	--
15...	1515	34	58	7.9	7.5	--	0.042
15...	1715	34	58	7.9	8.0	--	--
15...	2125	34	56	7.7	6.0	--	0.032
15...	2255	34	55	7.9	5.5	--	--
16...	0040	33	55	7.9	4.5	--	--
16...	0330	32	55	7.7	4.0	--	--
16...	0510	34	55	7.8	3.5	--	--
16...	0725	34	55	7.6	3.0	--	--
22...	0915	26	59	7.8	3.5	9.6	--
29...	0840	24	61	7.5	2.0	9.9	--

DATE	TIME	NITRO-GEN, NITRATE DIS-SOLVED (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)
OCT								
07...	1025	--	0.007	--	0.055	--	0.006	--
14...	0830	--	--	--	--	--	--	--
22...	1300	--	--	--	--	--	--	--
28...	1215	--	--	--	--	--	--	--
NOV								
04...	1045	--	0.002	--	0.146	--	0.011	--
12...	0945	--	--	--	--	--	--	--
18...	1335	--	--	--	--	--	--	--
25...	1200	--	--	--	--	--	--	--
DEC								
02...	1030	--	0.011	--	0.194	--	0.085	--
09...	0815	--	--	--	--	--	--	--
16...	1430	--	--	--	--	--	--	--
23...	1225	--	--	--	--	--	--	--
30...	1145	--	--	--	--	--	--	--
JAN								
06...	0925	--	--	--	--	--	--	--
13...	1415	--	--	--	--	--	--	--
21...	1315	0.260	--	0.007	--	0.267	--	0.351
28...	1100	--	--	--	--	--	--	--
FEB								
03...	0920	0.273	--	0.006	--	0.279	--	0.458
10...	1345	--	--	--	--	--	--	--
17...	1300	--	--	--	--	--	--	--
24...	1130	--	--	--	--	--	--	--
MAR								
03...	0915	0.316	--	0.004	--	0.320	--	0.397
10...	1435	--	--	--	--	--	--	--
24...	1030	--	--	--	--	--	--	--
31...	1050	--	--	--	--	--	--	--
APR								
06...	0920	0.365	--	0.005	--	0.370	--	0.778
16...	1200	--	--	--	--	--	--	--
21...	0905	--	--	--	--	--	--	--
21...	1105	0.294	--	0.004	--	0.298	--	0.160
21...	1305	--	--	--	--	--	--	--
21...	1530	--	--	--	--	--	--	--
21...	1845	0.188	--	0.004	--	0.192	--	0.125
21...	2020	--	--	--	--	--	--	--
21...	2100	0.198	--	0.004	--	0.202	--	0.123
21...	2310	--	--	--	--	--	--	--
22...	0105	0.216	--	0.004	--	0.220	--	0.154
22...	0315	--	--	--	--	--	--	--
22...	0440	--	--	--	--	--	--	--
22...	0635	0.234	--	0.004	--	0.238	--	0.166
29...	1000	--	--	--	--	--	--	--
MAY								
05...	0900	0.196	--	0.001	--	0.197	--	0.059
19...	1245	--	--	--	--	--	--	--
JUN								
02...	1544	0.059	--	0.001	--	0.060	--	0.019
16...	1010	--	--	--	--	--	--	--
30...	0915	--	--	--	--	--	--	--

09025010 FRASER RIVER BELOW VASQUEZ CREEK AT WINTER PARK, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NITRO-GEN, NITRATE DIS-SOLVED (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)
JUL								
07...	1350	0.032	--	0.001	--	0.033	--	0.018
14...	1210	--	--	--	--	--	--	--
22...	0930	--	--	--	--	--	--	--
28...	0830	--	--	--	--	--	--	--
AUG								
04...	1330	--	--	<0.001	--	0.037	--	0.010
11...	1025	--	--	--	--	--	--	--
18...	0900	--	--	--	--	--	--	--
25...	0815	--	--	--	--	--	--	--
SEP								
01...	1230	0.043	--	0.002	0.045	0.045	--	<0.002
08...	1120	--	--	--	--	--	--	--
15...	0930	--	--	--	--	--	--	--
15...	1140	--	--	--	--	--	--	--
15...	1320	--	--	--	--	--	--	--
15...	1515	0.042	--	0.002	0.044	0.044	--	0.009
15...	1715	--	--	--	--	--	--	--
15...	2125	0.032	--	0.002	0.034	0.034	--	<0.002
15...	2255	--	--	--	--	--	--	--
16...	0040	--	--	--	--	--	--	--
16...	0330	--	--	--	--	--	--	--
16...	0510	--	--	--	--	--	--	--
16...	0725	--	--	--	--	--	--	--
22...	0915	--	--	--	--	--	--	--
29...	0840	--	--	--	--	--	--	--

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 7-9 and Nov. 2 to Apr. 24. Records good 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88	.38	.32	1.7	1.4	1.2	1.2	2.3	44	17	2.3	1.1
2	.85	.38	.32	1.6	1.4	1.2	1.2	2.4	42	16	1.5	1.3
3	.84	.36	.32	1.6	1.3	1.1	1.3	3.1	41	16	.86	1.2
4	.84	.35	.32	1.5	1.3	1.1	1.3	4.6	33	18	.77	.94
5	.82	.34	.32	1.5	1.3	1.1	1.3	5.0	31	17	.99	.79
6	.83	.33	.31	1.5	1.3	1.1	1.3	3.9	30	14	.99	.79
7	.84	.32	.31	1.5	1.3	1.1	1.3	3.4	30	12	1.5	1.5
8	.86	.32	.31	1.5	1.3	1.1	1.2	3.3	26	11	1.7	1.8
9	.90	.33	.31	1.5	1.3	1.1	1.2	3.4	23	10	1.4	1.5
10	.93	.32	.31	1.4	1.3	1.1	1.2	4.4	21	9.3	1.2	1.3
11	.97	.32	.32	1.4	1.3	1.1	1.1	6.2	22	8.9	1.3	1.1
12	1.0	.32	.32	1.4	1.3	1.1	1.1	10	24	8.5	.99	1.0
13	.99	.31	.32	1.5	1.3	1.1	1.1	16	25	7.9	.92	3.9
14	.94	.31	.40	1.5	1.4	1.1	.96	18	26	7.4	.91	2.8
15	.89	.31	1.1	1.5	1.4	1.1	.93	18	27	7.0	.54	2.3
16	.85	.31	1.5	1.5	1.4	1.0	.94	20	28	6.5	.43	2.3
17	.88	.31	1.6	1.5	1.4	1.0	.95	26	30	6.3	.37	2.3
18	.85	.31	1.6	1.5	1.4	1.0	.96	28	35	5.9	.78	2.2
19	.88	.32	1.7	1.5	1.4	1.0	.98	27	30	5.7	1.5	1.8
20	.71	.32	1.7	1.4	1.3	1.0	.96	33	29	5.5	1.6	1.7
21	.35	.31	1.7	1.4	1.2	1.0	.97	34	27	4.7	1.5	1.5
22	.42	.30	1.7	1.4	1.2	1.0	1.2	37	29	4.1	1.5	1.2
23	.47	.31	1.6	1.4	1.2	1.1	1.1	34	28	3.7	1.4	1.1
24	.26	.33	1.6	1.4	1.2	1.2	.96	33	26	4.0	1.2	1.0
25	.29	.32	1.6	1.4	1.2	1.4	.88	37	23	3.8	1.1	.94
26	.38	.32	1.6	1.4	1.2	1.5	1.2	38	23	3.4	1.5	.76
27	.29	.33	1.6	1.4	1.2	1.4	1.8	37	22	3.1	1.5	.76
28	.28	.32	1.6	1.4	1.2	1.4	2.4	46	21	3.0	1.3	.79
29	.36	.32	1.7	1.4	---	1.2	2.9	40	21	2.7	1.2	.82
30	.48	.32	1.7	1.4	---	1.2	2.6	38	19	2.7	1.1	.68
31	.44	---	1.7	1.4	---	1.2	---	40	---	2.7	1.1	---
TOTAL	21.57	9.75	31.81	45.4	36.4	35.3	38.49	652.0	836	247.8	36.95	43.17
MEAN	.70	.32	1.03	1.46	1.30	1.14	1.28	21.0	27.9	7.99	1.19	1.44
MAX	1.0	.38	1.7	1.7	1.4	1.5	2.9	46	44	18	2.3	3.9
MIN	.26	.30	.31	1.4	1.2	1.0	.88	2.3	19	2.7	.37	.68
AC-FT	43	19	63	90	72	70	76	1290	1660	492	73	86

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	.85	.55	.48	.49	.46	.48	1.61	10.2	13.0	5.38	1.55	1.11
MAX	2.00	1.35	1.03	1.46	1.30	1.14	4.14	34.8	45.1	22.7	3.65	2.65
(WY)	1971	1971	1993	1993	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	579.43		2034.64			
ANNUAL MEAN	1.58		5.57			
HIGHEST ANNUAL MEAN					7.22	1984
LOWEST ANNUAL MEAN					.83	1977
HIGHEST DAILY MEAN	8.9	Jun 9	46	May 28	95	May 25 1984
LOWEST DAILY MEAN	.19	Apr 6	.26	Oct 24	.10	Jan 13 1977
ANNUAL SEVEN-DAY MINIMUM	.25	Apr 2	.31	Nov 12	.11	Jan 9 1977
INSTANTANEOUS PEAK FLOW			54	May 28	106	May 24 1984
INSTANTANEOUS PEAK STAGE			2.56	May 28	[a]3.13	May 24 1984
ANNUAL RUNOFF (AC-FT)	1150		4040			
10 PERCENT EXCEEDS	4.4		23		6.9	
50 PERCENT EXCEEDS	.85		1.3		.80	
90 PERCENT EXCEEDS	.28		.32		.33	

a-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 sea level.

REMARKS.--Estimated daily discharges: Oct. 8, Nov. 3-5, 10-18, 21-24, 28 to, Dec. 1, Dec. 15-18, Jan. 2 to Mar. 8, Mar. 11-26, Apr. 1, 2, 7-9, and Apr. 11-24. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	7.6	6.6	7.5	6.4	5.9	6.2	7.4	176	252	28	15
2	14	8.0	6.3	7.8	6.4	5.8	6.2	7.4	168	251	26	15
3	14	8.0	6.2	8.0	6.3	5.8	6.1	8.5	167	252	29	15
4	14	8.2	6.1	8.1	6.3	5.7	6.3	11	143	233	50	14
5	13	8.3	5.9	8.1	6.2	5.6	6.1	12	128	186	37	14
6	13	8.4	5.9	7.8	6.2	5.6	5.9	9.9	131	146	15	14
7	13	8.6	5.9	7.6	6.2	5.6	6.1	9.7	137	137	18	17
8	14	8.7	5.8	7.4	6.2	5.6	6.1	9.0	112	145	18	17
9	14	7.6	5.7	7.2	6.2	5.6	6.1	8.6	95	113	18	15
10	15	7.8	5.8	7.0	6.2	5.5	6.3	9.0	65	33	18	15
11	15	7.7	5.7	7.0	6.0	5.7	6.2	12	61	32	18	14
12	14	7.6	5.8	6.8	6.0	5.7	6.4	19	50	31	18	13
13	14	7.5	6.1	6.6	6.0	5.7	6.6	36	64	30	18	18
14	13	7.5	6.1	6.6	6.0	5.7	6.8	41	86	29	18	15
15	12	7.4	8.0	6.6	6.0	5.7	6.9	43	117	28	18	15
16	12	7.2	8.2	6.6	6.0	5.6	6.9	53	124	27	19	14
17	12	7.2	8.2	6.6	6.2	5.6	6.8	60	145	26	18	14
18	12	7.2	8.1	6.5	6.2	5.6	7.0	56	159	24	18	14
19	12	6.9	8.1	6.5	6.0	5.6	7.0	57	200	32	18	14
20	12	7.0	7.7	6.4	6.0	5.6	7.0	66	202	72	18	13
21	12	7.1	7.6	6.4	6.0	5.6	7.0	80	202	71	18	13
22	12	6.8	7.5	6.4	6.1	5.6	7.1	90	254	66	18	12
23	11	6.9	7.4	6.4	6.1	5.6	7.2	86	246	63	18	12
24	11	6.8	7.4	6.4	6.1	5.7	7.2	88	210	62	18	11
25	12	6.5	7.4	6.4	6.0	6.0	7.3	110	195	55	15	11
26	13	6.5	7.4	6.4	6.0	6.5	7.2	131	200	53	17	11
27	12	6.5	7.4	6.4	6.0	6.4	7.2	134	207	52	16	11
28	12	6.6	7.5	6.4	6.0	6.4	7.9	161	237	49	15	11
29	10	6.6	7.6	6.4	---	6.1	8.6	146	265	48	15	10
30	9.4	6.6	7.7	6.4	---	6.0	9.0	149	238	45	15	10
31	9.0	---	7.7	6.4	---	6.2	---	165	---	29	15	---
TOTAL	389.4	221.3	214.8	213.1	171.3	179.3	204.7	1875.5	4784	2672	618	407
MEAN	12.6	7.38	6.93	6.87	6.12	5.78	6.82	60.5	159	86.2	19.9	13.6
MAX	15	8.7	8.2	8.1	6.4	6.5	9.0	165	265	252	50	18
MIN	9.0	6.5	5.7	6.4	6.0	5.5	5.9	7.4	50	24	15	10
AC-FT	772	439	426	423	340	356	406	3720	9490	5300	1230	807

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

MEAN	11.8	9.37	7.63	6.86	6.30	6.38	9.60	37.6	114	66.1	24.4	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	5802.7		11950.4			
ANNUAL MEAN	15.9		32.7		26.3	
HIGHEST ANNUAL MEAN					47.9	1952
LOWEST ANNUAL MEAN					9.98	1963
HIGHEST DAILY MEAN	126	Jun 13	265	Jun 29	377	Jun 10 1952
LOWEST DAILY MEAN	4.0	Apr 1	5.5	Mar 10	[a]1.8	Jan 25 1968
ANNUAL SEVEN-DAY MINIMUM	4.3	Mar 27	5.6	Mar 4	1.8	Jan 24 1968
INSTANTANEOUS PEAK FLOW			318	Jun 29	470	Jun 15 1952
INSTANTANEOUS PEAK STAGE			2.67	Jun 29	[b]2.89	Jun 15 1952
ANNUAL RUNOFF (AC-FT)	11510		23700		19030	
10 PERCENT EXCEEDS	33		120		62	
50 PERCENT EXCEEDS	9.0		8.6		10	
90 PERCENT EXCEEDS	4.6		6.0		4.7	

a-Also occurred Jan 26-30, Feb 1, 2, and Feb 14.
b-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 (REVISED).--Lat 39°57'15", long 105°48'48", 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 1992 TO SEPTEMBER 1993

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)
OCT							
07...	1130	35	79	8.1	3.0	9.6	0.023
14...	1030	36	78	8.4	3.0	9.7	--
22...	0845	19	77	8.5	1.0	8.8	--
28...	1415	22	75	7.9	5.0	9.3	--
NOV							
04...	1155	8.6	90	8.4	0.0	10.5	0.077
12...	1030	18	88	7.9	0.0	11.4	--
18...	0755	17	87	8.3	0.0	10.3	--
25...	1400	19	86	7.6	0.0	10.3	--
DEC							
02...	1210	18	86	8.0	0.0	10.1	0.200
09...	1000	18	86	7.5	0.0	10.0	--
16...	0900	45	86	8.2	0.0	10.5	--
23...	1320	18	85	7.8	0.0	11.5	--
30...	1315	23	87	8.0	0.0	10.3	--
JAN							
06...	1050	20	82	8.0	0.0	11.9	--
13...	0915	20	88	--	0.0	10.3	--
21...	1415	19	90	8.2	0.0	10.4	--
28...	1245	17	90	7.5	0.0	10.4	--
FEB							
03...	1025	18	93	--	0.0	10.8	--
10...	0915	19	91	8.4	0.0	10.2	--
17...	1500	19	91	7.8	0.0	10.7	--
24...	1230	18	91	8.0	0.0	10.4	--
MAR							
03...	1030	12	95	7.7	1.0	10.6	--
10...	1000	--	98	8.2	0.0	9.1	--
17...	1345	--	106	--	0.0	10.4	--
24...	1100	--	106	7.7	0.5	12.0	--
31...	1245	27	112	8.4	0.5	10.7	--
APR							
06...	1015	26	110	7.8	0.0	10.2	--
16...	0920	25	99	8.1	0.5	10.2	--
22...	1035	30	--	--	--	-	--
29...	1115	59	95	7.8	4.0	9.7	--
MAY							
05...	1000	79	86	8.0	2.5	9.7	--
19...	0855	247	66	8.3	2.0	10.2	--
JUN							
02...	1705	567	44	7.7	7.0	9.2	--
16...	1200	432	56	7.9	8.0	9.8	--
30...	1045	485	34	7.6	6.5	10.8	--
JUL							
07...	0815	288	40	7.4	4.5	11.0	--
14...	1330	121	55	8.9	12.0	8.9	--
22...	1100	124	55	7.9	8.5	7.9	--
28...	0940	110	48	8.0	7.5	9.8	--
AUG							
04...	0830	115	49	7.5	7.0	9.1	--
11...	1135	33	64	8.0	13.5	8.2	--
18...	1010	32	66	7.8	11.0	8.0	--
25...	0920	29	72	7.8	10.5	8.3	--
SEP							
01...	0820	45	57	7.9	6.0	--	--
08...	1235	46	75	8.3	10.5	8.2	--
16...	1030	39	61	8.0	5.0	--	--
22...	1020	34	64	8.0	5.5	9.1	--
29...	1010	21	71	7.9	3.5	9.9	--

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	NITRO-GEN, NITRATE DIS-SOLVED (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)
OCT							
07...	--	0.005	--	0.028	--	0.012	--
14...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
NOV							
04...	--	0.002	--	0.079	--	0.021	--
12...	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
DEC							
02...	--	0.012	--	0.212	--	0.108	--
09...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
JAN							
06...	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--
21...	0.177	--	0.005	--	0.182	--	0.143
28...	--	--	--	--	--	--	--
FEB							
03...	0.159	--	0.006	--	0.165	--	0.122
10...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
MAR							
03...	0.277	--	0.003	--	0.280	--	0.430
10...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--
APR							
06...	0.270	--	0.005	--	0.275	--	0.346
16...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--
MAY							
05...	0.105	--	0.001	--	0.106	--	0.106
19...	--	--	--	--	--	--	--
JUN							
02...	0.058	--	0.001	--	0.059	--	0.013
16...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
JUL							
07...	0.057	--	0.001	--	0.058	--	0.007
14...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--
AUG							
04...	--	--	<0.001	--	0.022	--	0.011
11...	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--
SEP							
01...	0.044	--	0.002	--	0.046	--	0.012
08...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--

09027100 FRASER RIVER AT TABERNASH, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°59'25", long 105°49'44", SE¼NW¼ 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.--116 mi² (revised).

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
OCT							
07...	1230	38	75	9.3	4.0	10.5	0.015
14...	1230	43	74	9.6	6.0	11.1	--
22...	1010	23	80	8.9	1.0	10.6	--
28...	0845	32	81	8.0	3.0	11.4	--
NOV							
04...	1315	13	120	8.5	0.5	14.3	0.178
12...	1225	19	98	8.7	0.0	13.0	--
18...	1100	21	98	7.9	0.0	12.7	--
25...	0840	19	99	7.4	0.0	14.7	--
DEC							
02...	1410	18	95	7.8	0.0	10.9	0.289
09...	1330	19	95	7.7	0.0	11.3	--
16...	1145	24	96	7.8	0.0	9.4	--
23...	0915	26	93	8.1	0.0	10.0	--
30...	1400	30	97	7.8	0.0	8.7	--
JAN							
06...	1135	28	94	8.1	0.0	10.5	--
13...	1000	23	93	8.1	0.0	--	--
21...	0915	24	94	8.3	0.0	10.3	--
28...	1355	22	95	7.5	0.0	10.1	--
FEB							
03...	1225	21	96	--	0.0	9.9	--
10...	1015	23	101	7.9	0.0	9.4	--
17...	0945	23	100	8.5	0.0	10.0	--
24...	1345	23	102	7.6	0.0	9.3	--
MAR							
03...	1115	20	104	7.5	1.0	10.0	--
10...	1145	22	106	8.0	0.5	9.6	--
17...	0900	22	115	7.6	0.0	8.9	--
24...	1330	23	126	7.5	0.5	10.0	--
31...	1405	29	123	8.2	0.0	9.9	--
APR							
06...	1105	29	125	8.0	0.0	10.1	--
16...	0945	28	121	7.6	0.5	10.2	--
21...	1010	17	123	7.8	0.0	--	--
21...	1210	27	129	7.8	0.5	--	--
21...	1410	32	119	7.7	1.5	--	--
21...	1715	41	110	8.3	1.5	--	--
21...	1945	43	114	8.2	0.5	--	--
21...	2050	44	114	8.2	0.5	--	--
21...	2205	43	111	7.7	0.5	--	--
22...	0010	41	110	7.7	0.5	--	--
22...	0205	40	111	7.6	0.0	--	--
22...	0355	38	112	7.7	0.0	--	--
22...	0530	36	117	8.0	0.0	--	--
22...	0740	31	120	8.1	0.0	--	--
29...	1230	82	110	7.8	6.5	9.4	--
MAY							
05...	1115	85	92	8.5	4.0	10.2	--
19...	1025	262	68	8.2	4.0	9.9	--
JUN							
02...	1031	574	49	7.6	5.0	10.3	--
16...	1320	400	45	7.9	9.5	9.2	--
30...	1150	498	40	7.7	8.5	9.8	--
JUL							
07...	1000	266	47	8.0	5.5	11.4	--
14...	0940	114	51	8.7	9.5	9.8	--
22...	1230	113	55	9.1	11.5	9.1	--
28...	1055	97	57	9.0	10.5	9.7	--
AUG							
04...	0925	91	60	7.7	8.5	9.2	--
11...	0800	34	85	7.8	9.5	7.7	--
18...	1210	34	82	8.1	16.0	8.2	--
25...	1045	25	82	8.5	14.0	10.8	--

09027100 FRASER RIVER AT TABERNASH, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	NITRO-GEN, NITRATE TOTAL (MG/L AS N)
SEP							
01...	0910	52	69	8.1	6.5	--	--
08...	0900	56	68	8.5	6.5	10.1	--
15...	1030	50	77	8.4	5.0	--	--
15...	1220	49	78	8.7	9.0	--	--
15...	1400	49	78	8.9	11.5	--	--
15...	1605	49	78	9.0	13.0	--	--
15...	1830	43	79	8.6	12.0	--	--
15...	1950	43	81	7.8	10.5	--	--
15...	2210	50	82	7.8	8.0	--	--
15...	2330	52	79	7.8	7.5	--	--
16...	0120	52	78	7.8	6.0	--	--
16...	0410	51	77	7.7	5.0	--	--
16...	0545	51	76	7.8	4.5	--	--
16...	0830	46	75	7.8	4.0	--	--
22...	1135	33	74	9.1	9.0	10.1	--
29...	1145	24	80	9.2	7.0	10.4	--

DATE	TIME	NITRO-GEN, NITRATE DIS-SOLVED (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)
OCT								
07...	1230	--	0.008	--	0.023	--	0.009	--
14...	1230	--	--	--	--	--	--	--
22...	1010	--	--	--	--	--	--	--
28...	0845	--	--	--	--	--	--	--
NOV								
04...	1315	--	0.002	--	0.180	--	0.017	--
12...	1225	--	--	--	--	--	--	--
18...	1100	--	--	--	--	--	--	--
25...	0840	--	--	--	--	--	--	--
DEC								
02...	1410	--	0.014	--	0.303	--	0.170	--
09...	1330	--	--	--	--	--	--	--
16...	1145	--	--	--	--	--	--	--
23...	0915	--	--	--	--	--	--	--
30...	1400	--	--	--	--	--	--	--
JAN								
06...	1135	--	--	--	--	--	--	--
13...	1000	--	--	--	--	--	--	--
21...	0915	0.410	--	0.009	--	0.419	--	0.440
28...	1355	--	--	--	--	--	--	--
FEB								
03...	1225	0.445	--	0.012	--	0.457	--	0.626
10...	1015	--	--	--	--	--	--	--
17...	0945	--	--	--	--	--	--	--
24...	1345	--	--	--	--	--	--	--
MAR								
03...	1115	0.516	--	0.006	--	0.522	--	0.536
10...	1145	--	--	--	--	--	--	--
17...	0900	--	--	--	--	--	--	--
24...	1330	--	--	--	--	--	--	--
31...	1405	--	--	--	--	--	--	--
APR								
06...	1105	0.463	--	0.005	--	0.468	--	0.710
16...	0945	--	--	--	--	--	--	--
21...	1010	--	--	--	--	--	--	--
21...	1210	0.440	--	0.010	--	0.450	--	0.541
21...	1410	--	--	--	--	--	--	--
21...	1715	0.325	--	0.007	--	0.332	--	0.310
21...	1945	--	--	--	--	--	--	--
21...	2050	0.328	--	0.008	--	0.336	--	0.293
21...	2205	--	--	--	--	--	--	--
22...	0010	--	--	--	--	--	--	--
22...	0205	0.295	--	0.006	--	0.301	--	0.264
22...	0355	--	--	--	--	--	--	--
22...	0530	0.334	--	0.006	--	0.340	--	0.310
22...	0740	--	--	--	--	--	--	--
29...	1230	--	--	--	--	--	--	--
MAY								
05...	1115	0.166	--	0.002	--	0.168	--	0.089
19...	1025	--	--	--	--	--	--	--
JUN								
02...	1031	0.048	--	0.001	--	0.049	--	0.016
16...	1320	--	--	--	--	--	--	--
30...	1150	--	--	--	--	--	--	--

09027100 FRASER RIVER AT TABERNASH, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	NITRO-GEN, NITRATE DIS-SOLVED (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)
JUL								
07...	1000	0.043	--	0.002	--	0.045	--	0.013
14...	0940	--	--	--	--	--	--	--
22...	1230	--	--	--	--	--	--	--
28...	1055	--	--	--	--	--	--	--
AUG								
04...	0925	0.032	--	0.002	--	0.034	--	0.027
11...	0800	--	--	--	--	--	--	--
18...	1210	--	--	--	--	--	--	--
25...	1045	--	--	--	--	--	--	--
SEP								
01...	0910	0.060	--	0.005	--	0.065	--	0.027
08...	0900	--	--	--	--	--	--	--
15...	1030	--	--	--	--	--	--	--
15...	1220	--	--	--	--	--	--	--
15...	1400	--	--	--	--	--	--	--
15...	1605	0.078	--	0.011	--	0.089	--	0.042
15...	1830	--	--	--	--	--	--	--
15...	1950	--	--	--	--	--	--	--
15...	2210	0.091	--	0.014	--	0.105	--	0.110
15...	2330	--	--	--	--	--	--	--
16...	0120	--	--	--	--	--	--	--
16...	0410	--	--	--	--	--	--	--
16...	0545	--	--	--	--	--	--	--
16...	0830	--	--	--	--	--	--	--
22...	1135	--	--	--	--	--	--	--
29...	1145	--	--	--	--	--	--	--

09032000 RANCH CREEK NEAR FRASER, CO

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

DRAINAGE AREA.--19.9 mi².

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

REVISED RECORDS.--WSP 1243: 1935.

GAGE.--Water-stage recorder. Elevation of gage is 8,685 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3-6, and Dec. 16. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	6.3	2.9	5.6	4.4	3.6	3.8	6.1	151	59	15	9.1
2	8.0	6.2	2.9	5.8	4.4	3.6	3.8	6.3	147	54	14	10
3	7.8	6.0	2.9	5.6	4.3	3.6	4.0	7.8	137	52	13	9.6
4	7.8	5.4	2.8	5.4	4.2	3.6	4.0	12	118	49	16	8.6
5	7.5	4.4	2.7	5.2	4.2	3.6	4.0	14	103	47	14	8.5
6	7.6	4.0	2.9	5.1	4.2	3.4	3.9	11	106	40	10	8.3
7	7.8	3.4	2.7	5.3	4.2	3.4	3.6	10	113	37	9.8	10
8	7.8	3.7	2.6	5.4	4.2	3.4	3.6	8.5	100	36	9.4	11
9	8.5	3.2	2.6	5.4	4.2	3.4	3.6	5.2	82	32	9.2	8.8
10	8.1	3.2	2.6	5.2	4.2	3.4	3.7	6.0	52	22	10	8.2
11	8.2	3.2	2.6	5.1	4.2	3.4	3.4	8.2	33	20	9.2	7.9
12	8.1	3.1	2.7	5.1	4.2	3.4	3.3	13	35	20	7.1	7.4
13	8.2	3.1	2.9	5.0	4.2	3.4	3.2	17	45	19	6.8	14
14	7.8	3.1	2.8	4.9	4.2	3.4	3.1	18	61	19	6.4	12
15	7.5	3.1	2.7	4.9	4.1	3.4	3.1	20	71	18	6.0	11
16	7.2	3.0	5.6	4.9	4.0	3.4	3.1	24	75	17	5.7	11
17	7.4	2.9	5.7	4.9	4.0	3.4	3.2	31	104	16	5.4	12
18	7.1	2.9	5.7	4.8	4.0	3.4	3.4	32	118	15	5.2	11
19	7.2	2.9	6.0	4.7	4.0	3.4	3.3	57	142	14	5.2	10
20	7.0	2.9	6.1	4.7	4.0	3.4	3.2	81	139	13	5.1	10
21	7.0	2.9	6.1	4.7	3.8	3.4	3.2	97	153	12	5.4	9.7
22	7.0	2.8	6.1	4.7	3.8	3.4	4.1	99	149	11	5.4	9.3
23	6.8	3.1	5.9	4.7	3.7	3.4	5.0	96	132	11	4.9	8.9
24	6.6	2.9	5.9	4.7	3.6	3.5	4.5	95	124	16	4.5	8.7
25	7.4	2.9	5.7	4.7	3.6	3.9	4.3	104	129	17	4.5	8.5
26	7.8	2.9	5.8	4.7	3.6	4.4	4.9	114	127	19	5.6	8.3
27	7.4	2.7	5.6	4.7	3.6	4.2	5.4	113	123	18	5.0	8.1
28	7.4	2.7	5.6	4.7	3.6	4.2	6.1	139	120	17	4.5	7.8
29	8.0	2.9	5.6	4.7	---	4.0	7.4	146	102	16	4.2	7.5
30	7.7	2.9	5.6	4.4	---	3.8	7.5	147	64	16	5.1	7.4
31	7.3	---	5.6	4.4	---	3.8	---	147	---	16	8.9	---
TOTAL	235.1	104.7	133.9	154.1	112.7	111.0	122.7	1685.1	3155	768	240.5	282.6
MEAN	7.58	3.49	4.32	4.97	4.02	3.58	4.09	54.4	105	24.8	7.76	9.42
MAX	8.5	6.3	6.1	5.8	4.4	4.4	7.5	147	153	59	16	14
MIN	6.6	2.7	2.6	4.4	3.6	3.4	3.1	5.2	33	11	4.2	7.4
AC-FT	466	208	266	306	224	220	243	3340	6260	1520	477	561

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1935 - 1993, BY WATER YEAR (WY)

MEAN	4.76	4.31	3.51	3.08	2.75	2.67	5.41	30.6	75.4	24.8	7.63	5.06
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1935 - 1993	
ANNUAL TOTAL	3520.2		7105.4			
ANNUAL MEAN	9.62		19.5			
HIGHEST ANNUAL MEAN					31.4	1983
LOWEST ANNUAL MEAN					2.55	1964
HIGHEST DAILY MEAN	91	Jun 15	153	Jun 21	345	Jun 29 1957
LOWEST DAILY MEAN	[a]1.9	Jan 14	[b]2.6	Dec 8	[c].40	Sep 21 1960
ANNUAL SEVEN-DAY MINIMUM	1.9	Jan 19	2.7	Dec 5	.42	Sep 21 1988
INSTANTANEOUS PEAK FLOW			[d]169	May 31	451	Jun 27 1983
INSTANTANEOUS PEAK STAGE			2.83	May 31	3.96	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	6980		14090			
10 PERCENT EXCEEDS	18		67		30	
50 PERCENT EXCEEDS	5.2		5.7		4.1	
90 PERCENT EXCEEDS	2.1		3.1		1.8	

a-Also occurred Jan 15, 19-22, 24-28.
b-Also occurred Dec 9-11.
c-Also occurred Oct 6, 1960, and Sept 24-26, 1988.
d-Also occurred Jun 21.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 8, Nov. 1 to Apr. 27, Apr. 29-30, May 2, 4, 10-11, and Sept. 10-30. Records fair 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	2.3	1.6	1.3	1.0	1.1	1.4	2.1	26	42	6.9	2.5
2	2.5	2.2	1.7	1.3	1.0	1.0	1.4	2.6	5.7	39	6.7	2.9
3	2.4	2.1	1.7	1.3	.98	1.0	1.3	2.5	2.2	36	6.4	2.6
4	2.4	2.0	1.7	1.2	.98	1.0	1.3	3.6	2.3	32	6.4	2.3
5	2.4	1.9	1.8	1.1	.96	1.0	1.3	4.8	2.1	32	7.7	2.1
6	2.4	2.0	1.8	1.1	.99	1.0	1.3	3.8	4.7	27	6.9	1.9
7	2.6	2.0	1.7	1.1	1.0	1.0	1.3	3.0	3.0	24	5.9	2.6
8	2.6	2.0	1.6	1.2	1.0	1.0	1.4	2.8	2.0	24	5.6	2.4
9	2.5	1.9	1.6	1.2	1.0	1.1	1.4	2.5	2.0	25	5.4	2.0
10	2.7	1.9	1.6	1.2	1.0	1.1	1.4	3.4	2.2	25	5.9	1.8
11	2.5	1.9	1.6	1.2	1.0	1.1	1.4	4.3	2.5	25	5.7	1.5
12	2.4	1.8	1.6	1.2	1.0	1.0	1.4	6.3	3.4	24	5.2	1.2
13	2.3	1.8	1.6	1.2	1.0	1.0	1.3	9.4	7.3	23	5.0	3.0
14	2.3	1.9	1.5	1.2	1.0	1.0	1.3	10	15	23	4.9	2.4
15	2.2	2.0	1.5	1.2	1.0	1.0	1.3	10	20	21	4.8	2.7
16	2.0	2.0	1.5	1.2	1.1	1.0	1.4	11	20	19	4.5	2.7
17	2.1	2.1	1.5	1.1	1.1	1.1	1.4	13	29	16	4.1	2.7
18	2.1	2.1	1.5	1.1	1.1	1.1	1.4	6.3	27	13	3.9	2.5
19	2.0	2.0	1.4	1.1	1.1	1.1	1.5	1.2	12	12	3.8	2.4
20	2.0	2.0	1.4	1.0	1.1	1.1	1.5	2.4	11	12	3.8	2.3
21	2.0	2.0	1.4	1.0	1.1	1.1	1.5	4.8	17	13	3.8	2.2
22	2.0	1.9	1.4	.98	1.1	1.1	1.5	5.9	17	12	3.8	2.2
23	1.9	1.9	1.4	.95	1.0	1.2	1.6	3.4	20	11	3.6	2.1
24	1.9	1.8	1.4	.92	1.0	1.2	1.6	2.9	35	11	3.4	2.0
25	2.1	1.8	1.3	.94	1.0	1.3	1.6	7.4	42	9.7	3.9	2.0
26	2.5	1.8	1.3	.94	1.1	1.3	1.7	12	43	9.2	4.1	2.0
27	2.4	1.7	1.3	.96	1.1	1.3	1.7	13	42	8.8	3.5	1.9
28	2.4	1.7	1.4	.96	1.1	1.3	1.8	22	42	8.4	3.3	1.9
29	2.6	1.7	1.4	.98	---	1.3	2.0	20	44	8.0	3.1	1.8
30	2.5	1.6	1.4	.98	---	1.4	2.2	22	45	7.9	3.1	1.8
31	2.3	---	1.4	1.0	---	1.4	---	28	---	7.4	3.0	---
TOTAL	71.6	57.8	47.0	34.11	28.91	34.7	44.6	246.4	546.4	600.4	148.1	66.4
MEAN	2.31	1.93	1.52	1.10	1.03	1.12	1.49	7.95	18.2	19.4	4.78	2.21
MAX	2.7	2.3	1.8	1.3	1.1	1.4	2.2	28	45	42	7.7	3.0
MIN	1.9	1.6	1.3	.92	.96	1.0	1.3	1.2	2.0	7.4	3.0	1.2
AC-FT	142	115	93	68	57	69	88	489	1080	1190	294	132

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

MEAN	2.46	1.95	1.44	1.22	1.03	1.06	1.44	8.93	30.6	12.0	4.59	3.20
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	2094.24		1926.42			
ANNUAL MEAN	5.72		5.28		5.83	
HIGHEST ANNUAL MEAN					11.0	1984
LOWEST ANNUAL MEAN					3.77	1989
HIGHEST DAILY MEAN	[a]38	May 21	45	Jun 30	96	Jun 14 1984
LOWEST DAILY MEAN	[b].28	Apr 16	.92	Jan 24	.04	May 7 1985
ANNUAL SEVEN-DAY MINIMUM	.28	Apr 16	.95	Jan 22	.07	Apr 12 1985
INSTANTANEOUS PEAK FLOW			53	Jun 17	126	Jun 13 1984
INSTANTANEOUS PEAK STAGE			1.86	Jun 17	2.37	Jun 13 1984
ANNUAL RUNOFF (AC-FT)	4150		3820		4220	
10 PERCENT EXCEEDS	18		15		14	
50 PERCENT EXCEEDS	2.0		2.0		2.0	
90 PERCENT EXCEEDS	1.4		1.0		1.0	

a-Also occurred Jun 14.
b-Also occurred Apr 17 to May 4.

400009105504600 FRASER RIVER BELOW CROOKED CREEK AT TABERNASH, CO

WATER-QUALITY RECORDS

LOCATION (REVISED).--Lat 40°00'30", long 105°50'50", in 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.--224 mi² (revised).

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

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT							
07...	1345	63	102	9.0	5.5	9.9	0.009
NOV							
04...	1455	36	125	8.7	0.0	10.9	0.033
DEC							
02...	1445	23	128	7.8	0.0	10.8	0.188
JAN							
21...	1030	35	91	7.8	0.0	10.2	--
FEB							
03...	1335	32	100	--	0.0	10.7	--
MAR							
03...	1330	28	160	7.9	0.5	10.0	--
APR							
06...	1255	58	154	8.6	1.5	10.4	--
MAY							
05...	1300	180	108	8.5	8.0	9.8	--
JUN							
02...	1145	650	69	7.4	6.5	9.5	--
JUL							
07...	1100	--	76	8.2	8.0	11.2	--
AUG							
04...	1035	--	92	8.1	11.0	9.1	--
SEP							
01...	1030	75	108	8.0	8.5	--	--

DATE	NITRO-GEN, NITRATE DIS-SOLVED (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)
OCT							
07...	--	<0.010	--	0.009	--	0.012	--
NOV							
04...	--	0.020	--	0.053	--	0.006	--
DEC							
02...	--	0.010	--	0.198	--	0.096	--
JAN							
21...	0.288	--	0.014	--	0.302	--	0.225
FEB							
03...	0.346	--	0.008	--	0.354	--	0.412
MAR							
03...	0.297	--	0.003	--	0.300	--	0.191
APR							
06...	0.262	--	0.003	--	0.265	--	0.270
MAY							
05...	0.082	--	0.001	--	0.083	--	0.012
JUN							
02...	0.037	--	0.001	--	0.038	--	0.010
JUL							
07...	0.026	--	0.001	--	0.027	--	0.004
AUG							
04...	0.024	--	0.001	--	0.025	--	0.015
SEP							
01...	0.026	--	0.002	--	0.028	--	<0.002

09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, CO

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

DRAINAGE AREA.--789 mi^2.

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

GAGE.--Water-stage recorder. Elevation of gage is 7,790 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 23 to Mar. 22. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	108	105	92	87	85	70	80	251	1360	971	265	144
2	94	103	96	88	84	70	91	238	1330	922	235	125
3	88	94	98	85	84	69	96	310	1300	912	206	143
4	88	87	95	82	83	70	99	388	1050	952	211	123
5	88	85	91	81	81	72	116	453	830	991	252	112
6	92	94	88	82	78	74	126	317	661	793	240	112
7	94	98	85	84	77	74	108	298	788	676	189	119
8	91	101	84	85	76	77	82	273	644	648	181	157
9	95	108	84	85	78	78	127	226	539	640	269	130
10	104	107	84	86	80	76	144	189	443	487	267	117
11	111	103	85	87	78	73	135	229	396	439	189	111
12	111	92	89	85	75	75	159	320	392	450	176	109
13	112	102	88	83	74	78	143	476	506	442	165	161
14	111	102	86	81	73	79	139	510	625	413	160	190
15	109	100	84	80	70	83	145	528	786	388	161	156
16	103	99	84	80	69	86	154	573	761	364	190	136
17	103	100	84	80	68	88	165	725	886	334	132	132
18	102	96	85	82	66	89	208	798	1170	339	122	133
19	92	102	86	84	68	90	185	727	1020	314	121	129
20	92	104	86	87	67	90	167	857	934	346	115	126
21	91	109	86	86	66	92	170	931	935	393	118	120
22	88	106	86	86	63	92	226	1040	1020	381	122	107
23	88	99	86	85	66	93	300	1160	1060	381	122	111
24	89	96	87	81	65	73	332	1120	1030	409	126	99
25	99	94	88	78	66	58	344	1170	945	401	125	107
26	129	92	88	82	66	65	265	1240	909	376	127	109
27	123	90	88	84	68	67	330	1350	896	357	135	103
28	115	90	88	87	70	79	535	1610	916	346	151	113
29	111	90	88	86	---	81	543	1710	1040	330	140	110
30	108	90	88	84	---	97	405	1520	1010	334	143	106
31	109	---	86	86	---	81	---	1270	---	306	138	---
TOTAL	3138	2938	2713	2599	2044	2439	6119	22807	26182	15835	5293	3750
MEAN	101	97.9	87.5	83.8	73.0	78.7	204	736	873	511	171	125
MAX	129	109	98	88	85	97	543	1710	1360	991	269	190
MIN	88	85	84	78	63	58	80	189	392	306	115	99
AC-FT	6220	5830	5380	5160	4050	4840	12140	45240	51930	31410	10500	7440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 1993, BY WATER YEAR (WY)

MEAN	95.1	102	81.7	76.8	76.6	103	283	662	836	555	169	102
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1982 - 1993	
ANNUAL TOTAL	49818		95857			
ANNUAL MEAN	136		263		262	
HIGHEST ANNUAL MEAN					726	1984
LOWEST ANNUAL MEAN					122	1989
HIGHEST DAILY MEAN	406	Jun 30	1710	May 29	4930	May 25 1984
LOWEST DAILY MEAN	[a]66	Jan 2	58	Mar 25	[b]42	Oct 1 1981
ANNUAL SEVEN-DAY MINIMUM	70	Jan 2	66	Feb 20	51	Oct 1 1981
INSTANTANEOUS PEAK FLOW			1790	May 29	5260	May 25 1984
INSTANTANEOUS PEAK STAGE			5.05	May 29	7.34	May 25 1984
ANNUAL RUNOFF (AC-FT)	98810		190100		190100	
10 PERCENT EXCEEDS	269		811		534	
50 PERCENT EXCEEDS	100		109		106	
90 PERCENT EXCEEDS	77		78		68	

a-Also occurred Jan 3, 4.
b-Also occurred Oct 2, 1981.

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO

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

DRAINAGE AREA.--825 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1904 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to 1907 and 1914-18, published as Grand River at Hot Sulphur Springs, and as Grand River at Sulphur Springs 1907-13. 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 above sea level, 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, above sea level. 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. 24 to Mar. 30, and Apr. 27-28, and June 12-14. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	110	101	105	99	86	74	134	266	1450	977	313	142
2	99	99	110	100	86	74	142	249	1420	926	312	130
3	87	92	115	98	86	74	144	302	1390	908	300	142
4	88	91	110	94	84	74	144	372	1120	927	286	123
5	89	95	106	90	82	77	161	445	861	966	299	114
6	93	95	102	90	80	78	168	331	675	758	292	110
7	92	99	100	91	78	80	145	315	814	617	244	119
8	90	101	98	93	78	82	118	290	679	599	275	156
9	90	102	97	95	81	82	149	249	566	618	367	133
10	97	101	96	96	82	85	177	211	473	508	429	119
11	104	102	100	97	80	82	164	248	418	469	243	114
12	105	94	103	94	78	85	190	325	450	484	193	113
13	108	95	100	92	76	90	171	470	540	412	157	161
14	109	109	96	90	74	94	155	514	700	381	153	199
15	108	101	94	87	72	96	163	535	799	385	157	160
16	104	99	93	86	70	97	164	577	773	394	189	139
17	102	103	93	86	70	99	174	720	896	368	163	137
18	101	100	94	87	70	100	220	827	1220	375	159	136
19	93	97	96	89	70	102	190	735	1050	334	154	134
20	91	95	96	91	70	105	161	871	936	353	148	127
21	92	102	96	90	69	108	159	958	926	397	140	126
22	90	96	97	88	69	110	216	1090	1010	399	122	109
23	90	104	98	86	69	111	295	1240	1100	427	124	116
24	90	104	100	86	69	113	331	1190	1070	476	119	104
25	95	105	100	84	69	114	339	1240	962	491	121	109
26	119	105	100	84	71	120	278	1320	925	402	124	113
27	119	102	100	84	73	123	400	1430	913	377	130	107
28	111	101	100	84	74	129	545	1710	951	360	146	116
29	111	100	100	84	---	136	510	1830	1110	332	136	118
30	104	100	100	84	---	141	410	1660	1040	328	140	114
31	104	---	98	87	---	145	---	1380	---	304	138	---
TOTAL	3085	2990	3093	2786	2116	3080	6717	23900	27237	16052	6273	3840
MEAN	99.5	99.7	99.8	89.9	75.6	99.4	224	771	908	518	202	128
MAX	119	109	115	100	86	145	545	1830	1450	977	429	199
MIN	87	91	93	84	69	74	118	211	418	304	119	104
AC-FT	6120	5930	6130	5530	4200	6110	13320	47410	54020	31840	12440	7620

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1993, BY WATER YEAR (WY)

MEAN	92.5	91.6	77.7	72.6	74.3	99.8	270	645	758	417	149	86.4
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1954 - 1993	
ANNUAL TOTAL	53183		101169			
ANNUAL MEAN	145		277		[a]237	
HIGHEST ANNUAL MEAN					736	1984
LOWEST ANNUAL MEAN					111	1954
HIGHEST DAILY MEAN	406	Jun 15	1830	May 29	5310	May 25 1984
LOWEST DAILY MEAN	[b]69	Feb 16	[c]69	Feb 21	33	Sep 27 1956
ANNUAL SEVEN-DAY MINIMUM	70	Feb 15	69	Feb 19	37	Sep 24 1956
INSTANTANEOUS PEAK FLOW			1910	May 29	[d]5720	May 25 1984
INSTANTANEOUS PEAK STAGE			3.00	May 29	[e]5.10	May 25 1984
ANNUAL RUNOFF (AC-FT)	105500		200700		171400	
10 PERCENT EXCEEDS	275		841		529	
50 PERCENT EXCEEDS	109		114		100	
90 PERCENT EXCEEDS	76		84		63	

a-Average discharge for 39 years (water years 1905-09, 1911-47), 675 ft³/s; 489000 acre-ft/yr, prior to storage by Lake Granby.
b-Also occurred Feb 21.
c-Also occurred Feb 22-25.
d-Maximum discharge and stage for period of record, 10300 ft³/s, Jun 15, 1921, gage height, 8.7 ft, site and datum then in use.
e-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 observed, 524 microsiemens, Dec. 24, 1986; minimum daily observed, 48 microsiemens, June 2, 1947.
WATER TEMPERATURE: Maximum daily observed, 29°C, Aug. 3, 1981; minimum daily observed, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 240 microsiemens, Mar. 28; minimum daily observed, 72 microsiemens, June 1, 24, 26, and 29.
WATER TEMPERATURE: Maximum daily observed, 21°C, Aug. 24 and 25; minimum daily observed, freezing point on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT										
08...	1115	93	133	7.6	3.5	10.8	58	18	3.1	6.1
MAR										
25...	1120	114	144	7.2	0.0	11.8	53	16	3.1	7.2
MAY										
26...	1045	1500	84	7.3	8.0	9.8	33	10	1.9	4.0
JUL										
16...	0930	394	124	8.1	12.0	--	47	15	2.3	5.0

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)
OCT									
08...	0.3	1.2	61	5.7	2.4	0.3	11	85	0.12
MAR									
25...	0.4	1.6	63	5.4	4.0	0.2	13	90	0.12
MAY									
26...	0.3	1.0	31	4.3	1.5	0.2	12	54	0.07
JUL									
16...	0.3	1.0	56	3.1	1.0	0.2	12	73	0.10

DATE	SOLIDS, DISSOLVED (TONS PER DAY)	RESIDUE TOTAL AT 105 DEG. C, SUSPENDED (MG/L)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N)	NITROGEN, NO2+NO3 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)
OCT								
08...	21.2	13	<0.05	<0.05	0.30	<0.20	0.03	0.01
MAR								
25...	27.8	2	--	0.37	0.30	0.30	0.08	0.05
MAY								
26...	218	35	--	<0.05	0.40	0.30	0.03	<0.01
JUL								
16...	78.1	3	--	<0.05	0.20	0.30	0.03	0.02

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT 08...	<1	<1	<1	14	<0.5	<1	<1	<1	<1
MAR 25...	<1	<1	<1	17	<0.5	<1	<1	2	<1
MAY 26...	<1	<1	<1	14	<0.5	<1	<1	2	<1
JUL 16...	<1	<1	<1	17	<0.5	<1	<1	3	2

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)
OCT 08...	2	1	110	<1	<1	9	<0.1	<0.1
MAR 25...	<1	<1	80	<1	<1	54	<0.1	<0.1
MAY 26...	7	2	160	4	<1	25	<0.1	<0.1
JUL 16...	4	2	100	1	<1	30	<0.1	<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)
OCT 08...	<1	<1	<1	<1	<1	<1	<10	11
MAR 25...	2	<1	<1	<1	<1	<1	<10	<3
MAY 26...	2	<1	<1	<1	<1	<1	10	4
JUL 16...	2	<1	<1	<1	<1	<1	<10	4

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
NOV 19...	0955	100	139	1.0
DEC 10...	1140	96	152	0.0
JAN 28...	1120	83	136	0.0
APR 22...	1230	224	169	8.0
JUN 10...	0935	476	96	9.0

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVED VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	113	136	146	133	132	138	206	142	72	74	125	123
2	114	136	142	135	124	137	224	137	75	74	125	124
3	115	139	138	133	126	139	187	132	73	79	131	125
4	117	139	144	130	126	141	192	129	78	87	131	129
5	124	148	144	135	126	132	206	122	83	92	123	129
6	133	148	143	135	133	143	200	123	85	95	130	130
7	133	143	149	133	131	133	208	138	85	97	130	128
8	131	139	145	133	127	140	177	130	96	96	132	126
9	131	190	148	133	125	134	183	142	98	101	133	126
10	131	218	148	135	126	142	176	131	101	105	133	130
11	126	158	139	132	130	137	175	126	103	115	138	130
12	126	169	142	129	126	142	177	117	102	116	135	134
13	127	149	143	134	130	140	175	113	94	117	134	130
14	125	144	148	132	127	139	175	104	89	117	132	130
15	124	160	143	131	126	140	174	100	83	120	132	133
16	125	152	144	131	132	137	175	98	85	121	132	129
17	126	153	141	132	131	138	175	96	79	121	130	127
18	123	152	139	133	127	136	179	94	84	123	134	127
19	127	142	136	133	130	135	182	95	85	124	134	128
20	129	147	140	135	126	171	182	93	82	124	131	132
21	128	148	140	134	130	178	178	87	77	118	132	130
22	129	145	134	133	129	197	175	83	77	118	134	131
23	129	161	137	133	178	180	172	87	74	120	135	131
24	132	190	136	188	137	198	165	86	72	115	132	134
25	133	147	135	149	133	210	163	85	73	117	133	134
26	136	149	133	135	193	178	165	83	72	116	132	138
27	139	147	136	124	133	180	162	82	75	118	122	139
28	130	145	135	127	133	240	150	85	73	119	125	140
29	139	156	132	125	---	208	146	80	72	120	127	141
30	128	150	132	125	---	189	139	76	76	122	128	142
31	131	---	131	121	---	220	---	75	---	124	124	---
MEAN	128	153	140	134	133	160	178	106	82	110	131	131

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY OBSERVED VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	3.0	.0	.0	.0	.0	7.0	10.0	11.0	13.0	18.0	16.0
2	15.0	2.0	.0	.0	.0	.0	4.0	10.0	9.0	14.0	17.0	16.0
3	14.0	.0	.0	.0	.0	.0	5.0	9.0	10.0	13.0	20.0	17.0
4	13.0	1.0	.0	.0	.0	.0	9.0	11.0	9.0	8.0	17.0	18.0
5	9.0	.0	.0	.0	.0	.0	4.0	7.0	12.0	9.0	17.0	17.0
6	8.0	.0	.0	.0	.0	.0	6.0	7.0	11.0	11.0	16.0	16.0
7	7.0	.0	.0	.0	.0	.0	5.0	8.0	8.0	13.0	18.0	17.0
8	8.0	1.0	.0	.0	.0	.0	10.0	8.0	8.0	12.0	17.0	18.0
9	6.0	.0	.0	.0	.0	.0	5.0	13.0	10.0	10.0	20.0	18.0
10	9.0	.0	.0	.0	.0	.0	8.0	7.0	11.0	13.0	17.0	16.0
11	9.0	5.0	.0	.0	.0	.0	8.0	14.0	12.0	13.0	16.0	18.0
12	3.0	1.0	.0	.0	.0	.0	3.0	8.0	12.0	13.0	18.0	16.0
13	5.0	.0	.0	.0	.0	.0	8.0	10.0	12.0	13.0	17.0	11.0
14	9.0	3.0	.0	.0	.0	.0	10.0	10.0	12.0	14.0	16.0	14.0
15	9.0	5.0	.0	.0	.0	.0	8.0	8.0	12.0	14.0	17.0	14.0
16	7.0	1.0	.0	.0	.0	.0	7.0	9.0	12.0	13.0	19.0	14.0
17	4.0	1.0	.0	.0	.0	.0	7.0	7.0	11.0	14.0	18.0	16.0
18	9.0	.0	.0	.0	.0	.0	5.0	6.0	9.0	16.0	16.0	14.0
19	4.0	3.0	.0	.0	.0	.0	1.0	6.0	12.0	15.0	17.0	13.0
20	4.0	.0	.0	.0	.0	4.0	2.0	10.0	13.0	16.0	20.0	8.0
21	8.0	3.0	.0	.0	.0	8.0	1.0	10.0	13.0	13.0	17.0	15.0
22	8.0	.0	.0	.0	.0	.0	9.0	7.0	12.0	13.0	20.0	15.0
23	8.0	.0	.0	.0	.0	2.0	6.0	7.0	12.0	13.0	20.0	14.0
24	9.0	.0	.0	.0	.0	.0	5.0	7.0	11.0	12.0	21.0	14.0
25	8.0	.0	.0	.0	.0	2.0	10.0	9.0	12.0	13.0	21.0	13.0
26	6.0	.0	.0	.0	.0	6.0	6.0	8.0	12.0	14.0	18.0	14.0
27	6.0	.0	.0	.0	.0	2.0	9.0	8.0	12.0	17.0	16.0	8.0
28	6.0	.0	.0	.0	.0	2.0	6.0	11.0	10.0	15.0	19.0	10.0
29	7.0	.0	.0	.0	---	1.0	9.0	10.0	13.0	16.0	17.0	14.0
30	8.0	.0	.0	.0	---	1.0	8.0	9.0	11.0	16.0	14.0	14.0
31	6.0	---	.0	.0	---	1.0	---	11.0	---	19.0	17.0	---
MEAN	8.0	1.0	.0	.0	.0	.9	6.4	8.9	11.1	13.5	17.8	14.6

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 1 to May 17, and May 21-22. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	1.9	1.2	.77	.70	.63	.54	1.4	46	97	18	6.6
2	4.2	1.9	1.1	.76	.70	.61	.54	1.4	44	94	17	6.8
3	4.0	1.8	1.1	.75	.70	.59	.54	1.5	38	89	17	6.1
4	4.0	1.8	1.1	.74	.70	.58	.55	2.0	27	71	16	5.6
5	4.0	1.8	1.0	.74	.70	.57	.56	3.2	24	58	16	5.5
6	3.8	1.9	1.0	.74	.70	.56	.57	3.0	27	47	15	5.4
7	3.8	2.0	1.0	.74	.70	.55	.57	2.6	27	48	13	6.9
8	5.8	2.0	1.0	.74	.70	.54	.57	2.3	20	53	13	8.4
9	4.2	2.0	1.0	.74	.70	.53	.58	1.9	17	53	12	6.4
10	3.8	2.0	1.0	.73	.70	.52	.58	2.0	22	57	12	5.8
11	3.7	2.0	1.0	.73	.70	.52	.59	2.3	31	59	12	5.4
12	3.0	2.0	1.0	.72	.70	.51	.60	3.3	46	60	11	5.1
13	2.8	2.0	1.0	.72	.70	.51	.60	6.0	60	56	11	7.6
14	2.4	1.9	1.0	.72	.70	.51	.61	7.6	73	55	10	7.2
15	2.3	1.8	1.0	.72	.70	.50	.61	10	85	52	9.3	7.7
16	2.5	1.8	1.0	.72	.70	.51	.61	12	95	47	8.6	7.3
17	2.5	1.7	.97	.72	.70	.51	.62	15	87	44	8.1	7.0
18	2.6	1.6	.96	.72	.70	.51	.62	11	71	40	7.9	6.6
19	2.5	1.5	.94	.72	.69	.51	.63	11	64	36	7.7	6.2
20	2.6	1.5	.92	.72	.69	.51	.64	12	75	34	7.9	5.7
21	2.5	1.5	.90	.71	.69	.51	.68	16	95	31	8.7	5.3
22	2.2	1.5	.89	.71	.68	.51	.72	20	103	29	8.3	4.8
23	2.1	1.5	.88	.71	.67	.51	.77	15	108	26	7.5	4.5
24	1.9	1.4	.86	.71	.67	.52	.83	15	94	24	7.1	4.4
25	2.2	1.4	.85	.71	.66	.52	.92	21	87	22	6.8	4.1
26	2.4	1.3	.83	.71	.66	.52	1.0	27	93	21	7.7	3.9
27	2.6	1.3	.82	.71	.65	.52	1.1	26	97	20	7.1	3.7
28	2.1	1.3	.81	.71	.64	.53	1.2	35	97	20	6.6	3.5
29	2.3	1.2	.80	.71	---	.53	1.3	36	109	20	6.4	3.3
30	2.1	1.2	.79	.71	---	.53	1.5	38	97	20	6.4	3.0
31	1.9	---	.78	.71	---	.53	---	46	---	19	6.5	---
TOTAL	93.2	50.5	29.50	22.47	19.30	16.51	21.75	406.5	1959	1402	321.6	169.8
MEAN	3.01	1.68	.95	.72	.69	.53	.72	13.1	65.3	45.2	10.4	5.66
MAX	5.8	2.0	1.2	.77	.70	.63	1.5	46	109	97	18	8.4
MIN	1.9	1.2	.78	.71	.64	.50	.54	1.4	17	19	6.4	3.0
AC-FT	185	100	59	45	38	33	43	806	3890	2780	638	337

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

MEAN	2.91	1.71	1.09	.87	.77	.74	1.44	14.0	56.2	29.7	9.43	4.55
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	3538.85		4512.13			
ANNUAL MEAN	9.67		12.4		10.3	
HIGHEST ANNUAL MEAN					15.5	1984
LOWEST ANNUAL MEAN					6.28	1977
HIGHEST DAILY MEAN	[a]68	Jun 20	109	Jun 29	146	Jun 25 1983
LOWEST DAILY MEAN	.65	Mar 3	.50	Mar 15	.44	Feb 11 1972
ANNUAL SEVEN-DAY MINIMUM	.66	Feb 29	.51	Mar 12	.46	Feb 11 1972
INSTANTANEOUS PEAK FLOW			154	Jun 29	290	Jun 28 1988
INSTANTANEOUS PEAK STAGE			[b]4.63	Jun 29	[c]5.19	Jun 28 1988
ANNUAL RUNOFF (AC-FT)	7020		8950		7460	
10 PERCENT EXCEEDS	31		46		33	
50 PERCENT EXCEEDS	2.5		2.0		1.9	
90 PERCENT EXCEEDS	.68		.58		.70	

a-Also occurred Jun 24.
b-Maximum gage height, 4.88 ft, May 15, backwater from ice.
c-Maximum gage height, 7.57 ft, May 15, 1984, backwater from ice.

09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

LOCATION.--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 sea level, from topographic map. Prior to July 21, 1933, nonrecording gage, and July 21, 1933, to Sept. 30, 1941, water-stage recorder at site 600 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 1 to May 13. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.9	6.6	3.7	3.2	2.6	2.5	2.8	6.1	142	246	39	16
2	8.8	6.2	3.7	3.2	2.6	2.5	2.7	6.1	137	236	37	17
3	8.6	6.0	3.7	3.2	2.6	2.5	2.7	6.4	121	223	36	15
4	8.5	6.2	3.7	3.1	2.6	2.5	2.7	6.9	91	184	34	13
5	8.5	6.2	3.7	3.0	2.6	2.5	2.8	9.0	85	157	36	14
6	8.5	5.7	3.7	2.9	2.6	2.5	2.6	8.5	92	125	33	13
7	8.5	5.6	3.6	2.9	2.6	2.5	2.5	8.0	90	122	30	17
8	11	5.8	3.6	2.9	2.6	2.5	2.4	7.6	72	125	29	20
9	8.5	5.8	3.6	2.9	2.6	2.5	2.4	7.4	62	128	28	15
10	8.8	5.8	3.6	2.9	2.6	2.5	2.5	7.6	71	130	27	14
11	8.6	5.6	3.6	2.9	2.6	2.5	2.5	11	92	132	27	13
12	8.4	5.4	3.6	2.9	2.6	2.5	2.6	16	124	133	25	12
13	8.1	5.1	3.6	2.8	2.6	2.5	2.6	20	170	125	20	18
14	7.9	4.8	3.6	2.8	2.6	2.5	2.6	30	203	84	4.0	17
15	7.8	4.6	3.6	2.8	2.6	2.5	2.6	37	223	59	3.7	17
16	7.4	4.6	3.6	2.8	2.6	2.5	2.6	43	243	49	8.7	17
17	7.5	4.6	3.6	2.8	2.6	2.5	2.6	51	255	44	3.7	16
18	7.2	4.7	3.6	2.8	2.6	2.5	2.6	46	215	37	3.5	15
19	7.1	4.8	3.6	2.8	2.6	2.6	2.6	45	192	42	6.8	14
20	6.9	4.9	3.6	2.8	2.6	2.6	2.6	50	212	50	3.5	13
21	6.9	4.7	3.6	2.8	2.6	2.6	2.6	64	246	64	3.2	12
22	7.0	4.5	3.6	2.8	2.6	2.6	3.1	70	265	51	3.2	12
23	6.9	4.3	3.6	2.7	2.5	2.7	4.0	57	263	26	6.4	11
24	6.7	4.1	3.6	2.7	2.5	2.8	4.1	56	241	5.9	3.3	11
25	7.2	4.0	3.6	2.7	2.5	2.9	3.6	72	227	5.3	3.0	11
26	8.0	3.9	3.5	2.7	2.5	3.0	4.1	89	236	16	12	10
27	7.6	3.9	3.5	2.7	2.5	3.2	5.5	86	243	15	17	10
28	7.7	3.8	3.3	2.7	2.5	3.1	6.5	104	247	28	16	9.7
29	7.8	3.8	3.3	2.7	---	3.0	7.1	105	271	37	15	9.5
30	7.7	3.7	3.3	2.7	---	2.9	7.2	108	267	43	15	9.1
31	7.0	---	3.2	2.7	---	2.8	---	129	---	41	16	---
TOTAL	246.0	149.7	110.7	88.3	72.2	81.8	99.8	1362.6	5398	2763.2	545.0	411.3
MEAN	7.94	4.99	3.57	2.85	2.58	2.64	3.33	44.0	180	89.1	17.6	13.7
MAX	11	6.6	3.7	3.2	2.6	3.2	7.2	129	271	246	39	20
MIN	6.7	3.7	3.2	2.7	2.5	2.5	2.4	6.1	62	5.3	3.0	9.1
AC-FT	488	297	220	175	143	162	198	2700	10710	5480	1080	816

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1933 - 1993, BY WATER YEAR (WY)

MEAN	5.05	3.19	2.17	1.83	1.78	1.80	3.62	29.3	112	57.5	11.5	7.01
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1933 - 1993	
ANNUAL TOTAL	8538.1		11328.6			
ANNUAL MEAN	23.3		31.0		[a]26.0	
HIGHEST ANNUAL MEAN					38.6	1984
LOWEST ANNUAL MEAN					4.11	1976
HIGHEST DAILY MEAN	133	Jun 20	271	Jun 29	325	Jun 21 1938
LOWEST DAILY MEAN	2.9	Apr 1	[b]2.4	Apr 8	.20	Mar 6 1967
ANNUAL SEVEN-DAY MINIMUM	3.0	Mar 26	2.5	Feb 23	.27	Feb 13 1971
INSTANTANEOUS PEAK FLOW			354	Jun 29	[c]441	Jun 21 1938
INSTANTANEOUS PEAK STAGE			5.31	Jun 29	[d]2.48	Jun 21 1938
ANNUAL RUNOFF (AC-FT)	16940		22470		14250	
10 PERCENT EXCEEDS	75		113		64	
50 PERCENT EXCEEDS	7.8		5.8		3.2	
90 PERCENT EXCEEDS	3.2		2.6		.60	

a-Including diversions to August P. Gumlick Tunnel.
b-Also occurred Apr 9.
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 (REVISED).--Lat 39°47'50", long 106°01'32", in NW¼4NW¼4 sec.16, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 0.3 mi upstream from Darling Creek and 1.4 mi southeast of Leal.

DRAINAGE AREA.--35.0 mi² (revised).

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

GAGE.--Water-stage recorder. Elevation of gage is 8,940 ft above sea level, from topographic map. Prior to Oct. 1, 1972, and May 6, 1981 to Jan. 31, 1983, at site 300 ft upstream at different datum. Prior to Oct. 20, 1992, and Oct. 1, 1972 to May 5, 1981, at site 0.6 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 2 to May 2. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	9.9	10	6.8	4.5	4.0	5.6	10	256	373	68	34
2	13	10	10	6.7	4.6	4.0	5.4	11	242	363	64	33
3	13	10	10	6.6	4.7	4.0	5.1	13	228	347	60	31
4	12	10	10	6.2	4.8	3.9	5.0	16	178	302	57	26
5	12	10	10	5.9	5.0	3.9	5.1	19	166	269	65	27
6	12	10	10	5.6	5.0	3.9	5.2	15	171	229	61	25
7	13	10	9.8	5.5	4.8	3.9	5.3	14	179	217	55	36
8	14	11	9.6	5.3	4.7	3.8	5.4	13	146	220	52	45
9	13	11	9.4	5.2	4.5	3.8	5.6	12	134	220	49	34
10	13	11	9.0	5.1	4.5	3.8	5.9	13	136	217	47	28
11	13	12	9.0	5.0	4.5	3.8	6.0	17	159	218	47	25
12	13	12	8.8	4.8	4.4	3.8	6.4	30	195	216	43	23
13	12	12	8.9	4.8	4.4	3.9	6.8	48	254	206	38	40
14	12	12	8.8	4.8	4.3	3.9	7.0	63	310	169	14	37
15	12	12	8.8	4.8	4.3	4.0	7.4	79	339	137	13	37
16	11	13	8.8	4.8	4.3	4.1	7.8	99	345	122	17	36
17	12	13	8.6	4.7	4.2	4.2	8.0	114	369	112	13	35
18	11	13	8.2	4.8	4.2	4.3	8.4	102	347	100	13	32
19	11	13	8.0	4.8	4.2	4.4	8.9	101	294	98	16	29
20	10	13	8.0	4.8	4.2	4.5	9.4	107	314	96	14	27
21	10	13	8.0	4.9	4.1	4.7	9.6	121	359	119	14	25
22	10	13	8.0	4.8	4.1	4.8	9.8	132	386	101	14	24
23	9.9	13	8.0	4.7	4.2	4.9	9.8	113	381	76	18	23
24	9.9	13	7.9	4.7	4.2	5.0	10	111	348	40	14	21
25	10	12	7.8	4.5	4.1	5.2	10	132	327	36	13	21
26	11	12	7.8	4.4	4.1	5.4	10	165	342	45	22	20
27	11	11	7.6	4.4	4.1	5.6	11	167	349	38	35	20
28	11	11	7.5	4.4	4.0	5.6	12	203	358	56	32	19
29	11	10	7.3	4.5	---	5.6	11	204	385	66	29	18
30	11	10	7.2	4.4	---	5.6	9.6	203	394	74	30	17
31	11	---	6.9	4.4	---	5.7	---	234	---	72	30	---
TOTAL	360.8	345.9	267.7	157.1	123.0	138.0	232.5	2681	8391	4954	1057	848
MEAN	11.6	11.5	8.64	5.07	4.39	4.45	7.75	86.5	280	160	34.1	28.3
MAX	14	13	10	6.8	5.0	5.7	12	234	394	373	68	45
MIN	9.9	9.9	6.9	4.4	4.0	3.8	5.0	10	134	36	13	17
AC-FT	716	686	531	312	244	274	461	5320	16640	9830	2100	1680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

MEAN	11.2	8.39	6.95	5.86	5.31	5.70	10.2	53.9	196	105	25.7	15.1
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	12990.5		19556.0			
ANNUAL MEAN	35.5		53.6		37.4	
HIGHEST ANNUAL MEAN					71.3	1984
LOWEST ANNUAL MEAN					17.6	1976
HIGHEST DAILY MEAN	191	Jun 20	394	Jun 30	518	Jun 25 1971
LOWEST DAILY MEAN	6.9	Dec 31	[a]3.8	Mar 8	2.7	Apr 5 1977
ANNUAL SEVEN-DAY MINIMUM	7.3	Mar 12	3.8	Mar 6	2.8	Mar 31 1977
INSTANTANEOUS PEAK FLOW			498	Jun 29	[b]677	Jun 24 1971
INSTANTANEOUS PEAK STAGE			6.34	Jun 29	7.12	Jun 24 1971
ANNUAL RUNOFF (AC-FT)	25770		38790		27100	
10 PERCENT EXCEEDS	107		203		108	
50 PERCENT EXCEEDS	13		12		9.9	
90 PERCENT EXCEEDS	7.5		4.4		4.7	

a-Also occurred Mar 9-12.
b-Site and datum then in use, from rating curve extended above 430 ft³/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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 21. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	3.3	2.4	2.3	2.1	2.0	2.0	2.3	39	62	18	9.5
2	3.6	3.5	2.3	2.3	2.1	2.0	2.0	2.3	38	60	17	9.0
3	3.6	3.4	2.3	2.3	2.1	2.0	2.0	2.6	36	56	16	7.8
4	3.5	3.4	2.3	2.2	2.0	1.9	2.0	3.5	34	50	16	7.3
5	3.5	3.5	2.2	2.2	2.0	1.9	2.1	4.0	32	46	17	7.4
6	3.5	3.5	2.3	2.1	2.0	1.9	2.1	3.3	33	43	16	7.4
7	3.6	3.5	2.4	2.2	2.0	1.9	2.2	3.0	33	41	15	9.6
8	3.7	3.4	2.4	2.2	2.0	1.9	2.2	2.8	30	41	14	9.9
9	3.7	3.4	2.4	2.2	2.0	1.9	2.0	2.7	28	41	14	8.1
10	3.9	3.4	2.5	2.1	2.0	2.0	1.9	3.0	28	41	14	7.4
11	3.9	3.5	2.5	2.2	2.0	2.0	2.1	4.0	31	40	13	7.0
12	3.8	3.5	2.6	2.2	2.1	1.9	2.1	6.5	35	39	13	6.8
13	3.6	3.3	2.5	2.3	2.1	1.9	2.2	9.8	44	38	12	9.0
14	3.5	3.2	2.4	2.3	2.0	1.8	2.1	12	52	38	12	8.6
15	3.5	3.1	2.4	2.1	2.0	1.8	2.0	13	47	36	11	8.6
16	3.4	3.0	2.3	2.1	1.9	1.8	2.0	17	56	34	11	8.4
17	3.5	2.9	2.4	2.1	1.9	1.8	1.9	20	69	32	11	8.3
18	3.4	2.8	2.3	2.2	1.8	1.9	1.9	19	67	30	11	7.9
19	3.4	2.8	2.3	2.2	1.8	1.9	2.0	20	60	29	11	7.6
20	3.3	2.8	2.3	2.2	1.9	1.9	2.0	24	62	27	10	7.3
21	3.3	2.8	2.3	2.2	2.0	1.9	2.0	27	64	26	11	7.0
22	3.3	2.7	2.3	2.2	2.0	1.9	1.9	27	68	25	11	6.7
23	3.3	2.6	2.2	2.2	2.0	2.0	2.1	25	67	24	10	6.5
24	3.3	2.5	2.2	2.1	2.0	2.0	1.9	25	65	24	9.7	6.4
25	3.3	2.5	2.1	2.1	2.0	2.0	1.9	30	64	22	9.6	6.4
26	3.5	2.5	2.1	2.0	1.9	2.0	2.1	34	66	22	10	6.2
27	3.4	2.5	2.2	1.9	2.0	2.0	2.3	36	66	21	9.8	6.1
28	3.5	2.4	2.3	1.9	2.0	2.0	2.5	42	65	20	9.4	5.9
29	3.6	2.5	2.3	2.0	---	2.0	2.8	41	69	19	9.4	5.8
30	3.6	2.6	2.2	2.0	---	2.0	2.8	40	69	19	9.7	5.7
31	3.1	---	2.2	2.1	---	2.0	---	42	---	18	9.7	---
TOTAL	108.8	90.8	71.9	66.7	55.7	59.9	63.1	543.8	1517	1064	381.3	225.6
MEAN	3.51	3.03	2.32	2.15	1.99	1.93	2.10	17.5	50.6	34.3	12.3	7.52
MAX	3.9	3.5	2.6	2.3	2.1	2.0	2.8	42	69	62	18	9.9
MIN	3.1	2.4	2.1	1.9	1.8	1.8	1.9	2.3	28	18	9.4	5.7
AC-FT	216	180	143	132	110	119	125	1080	3010	2110	756	447

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

MEAN	3.97	3.04	2.50	2.13	1.95	1.95	2.84	14.1	48.1	22.3	7.33	4.66
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	2990.1		4248.6			
ANNUAL MEAN	8.17		11.6		9.58	
HIGHEST ANNUAL MEAN					18.1	1983
LOWEST ANNUAL MEAN					5.64	1977
HIGHEST DAILY MEAN	[a]40	Jun 20	[b]69	Jun 17	175	Jun 25 1983
LOWEST DAILY MEAN	[c]2.0	Jan 30	[d]1.8	Feb 18	1.0	Jan 12 1975
ANNUAL SEVEN-DAY MINIMUM	2.0	Jan 29	1.8	Mar 12	1.1	Feb 24 1975
INSTANTANEOUS PEAK FLOW			86	Jun 29	[e]241	Jun 30 1984
INSTANTANEOUS PEAK STAGE			3.50	Jun 29	4.30	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	5930		8430		6940	
10 PERCENT EXCEEDS	26		38		26	
50 PERCENT EXCEEDS	3.5		3.3		3.4	
90 PERCENT EXCEEDS	2.3		2.0		1.8	

a-Also occurred Jun 23.
b-Also occurred Jun 29-30.
c-Also occurred Jan 31 to Feb 2.
d-Also occurred Feb 19, and Mar 14-17.
e-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 NE¼ sec.17, T.3 S., R.77 W., Grand County, Hydrologic Unit 14010001, on left bank 800 ft upstream from highway bridge, 0.6 mi upstream from mouth, and 1.2 mi southeast of Leal.

DRAINAGE AREA.--27.3 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 8,950 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 23 to Apr. 9 and Apr. 13-26. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	10	8.9	9.7	7.1	9.6	11	203	222	40	23
2	12	11	10	8.8	9.8	7.1	9.2	11	195	216	41	23
3	12	11	11	8.8	9.8	7.1	8.4	11	181	209	43	22
4	12	11	11	8.9	9.6	7.2	7.8	14	148	179	42	20
5	11	11	11	8.8	9.7	7.2	6.6	18	138	163	43	21
6	11	11	11	8.6	9.9	7.1	6.6	17	142	145	40	20
7	12	11	12	8.5	10	7.0	6.7	15	146	138	39	24
8	12	10	12	8.3	9.9	6.9	6.7	14	125	141	38	27
9	12	10	11	8.4	9.7	6.8	6.7	14	111	139	36	22
10	12	10	11	8.4	9.4	6.6	6.9	14	107	135	35	20
11	12	10	11	8.4	9.3	6.5	6.8	16	120	137	36	19
12	12	10	11	8.3	8.9	6.2	6.9	25	140	142	33	18
13	11	10	10	8.3	8.7	6.1	6.9	36	172	134	32	28
14	11	11	10	8.2	8.3	6.0	7.2	45	215	123	32	24
15	11	11	10	8.1	7.8	6.0	7.2	54	246	116	31	24
16	11	11	9.8	8.2	8.0	6.0	7.5	65	265	110	29	22
17	11	12	9.6	8.2	8.2	6.1	7.5	74	271	101	27	22
18	11	12	9.5	8.2	8.4	6.3	7.5	69	249	91	26	20
19	11	13	9.5	8.3	8.4	6.5	7.5	71	205	83	26	19
20	10	13	9.3	8.4	8.3	6.6	7.6	81	206	76	26	18
21	10	13	9.0	8.4	8.3	6.9	7.7	97	239	71	27	18
22	10	12	8.8	8.5	8.1	7.0	7.8	103	249	65	27	17
23	10	12	8.6	8.8	7.9	7.3	7.8	92	241	60	25	16
24	11	11	8.6	9.0	7.9	7.4	8.0	93	222	57	23	16
25	11	10	8.7	8.6	7.8	7.6	8.2	111	206	52	22	16
26	11	10	8.8	8.7	7.7	8.0	8.9	137	213	50	24	16
27	12	10	8.9	8.8	7.5	8.2	9.8	138	223	51	23	15
28	12	10	8.9	9.0	7.3	8.7	10	163	224	48	22	15
29	12	10	9.0	9.0	---	9.5	12	164	236	45	21	15
30	12	10	9.0	9.2	---	9.9	12	167	239	44	21	14
31	12	---	9.0	9.4	---	9.8	---	185	---	43	21	---
TOTAL	352	328	307.0	266.4	244.3	222.7	240.0	2125	5877	3386	951	594
MEAN	11.4	10.9	9.90	8.59	8.72	7.18	8.00	68.5	196	109	30.7	19.8
MAX	12	13	12	9.4	10	9.9	12	185	271	222	43	28
MIN	10	10	8.6	8.1	7.3	6.0	6.6	11	107	43	21	14
AC-FT	698	651	609	528	485	442	476	4210	11660	6720	1890	1180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 1993, BY WATER YEAR (WY)

MEAN	13.3	10.5	8.97	7.38	6.99	7.02	11.4	55.3	155	71.7	25.9	16.5
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1966 - 1993	
ANNUAL TOTAL	9396.6		14893.4			
ANNUAL MEAN	25.7		40.8		32.5	
HIGHEST ANNUAL MEAN					54.8	1984
LOWEST ANNUAL MEAN					20.2	1977
HIGHEST DAILY MEAN	133	Jun 14	271	Jun 17	355	Jun 17 1978
LOWEST DAILY MEAN	[a]7.4	Jan 29	[b]6.0	Mar 14	2.6	Mar 6 1967
ANNUAL SEVEN-DAY MINIMUM	7.4	Jan 29	6.1	Mar 12	2.8	Feb 28 1967
INSTANTANEOUS PEAK FLOW			325	Jun 16	464	Jun 15 1978
INSTANTANEOUS PEAK STAGE			3.71	Jun 16	[c]3.37	Jun 15 1978
ANNUAL RUNOFF (AC-FT)	18640		29540		23580	
10 PERCENT EXCEEDS	79		140		95	
50 PERCENT EXCEEDS	12		11		12	
90 PERCENT EXCEEDS	7.6		7.5		6.4	

a-Also occurred Jan 30 to Feb 21, 1992.
b-Also occurred Mar 15, 16.
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 sea level, from topographic map. Prior to Aug. 16, 1953, at site 15 ft downstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 27, 30, Dec. 7, 14, 17, 19-21, 24, 26, 27, Jan. 3-7, 23-25, 28, 29, Feb. 4, 5, 14, 27, and Mar. 13-14. Records good except for estimated daily discharges, which are poor. Transmountain diversion upstream from station through August P. Gumlick Tunnel (see table below for figures of diversion). Diversions for irrigation of about 200 acres of hay meadows upstream from station and about 40 acres downstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	38	26	23	19	18	21	43	602	778	157	82
2	42	41	25	23	20	19	23	43	588	749	151	77
3	42	35	26	22	20	19	22	48	572	731	145	74
4	41	37	25	22	19	18	22	61	470	654	141	67
5	42	40	25	22	19	18	25	75	430	578	147	68
6	38	41	25	22	21	18	24	64	434	498	139	67
7	40	39	24	22	19	18	22	59	473	465	132	83
8	38	40	24	22	20	18	21	54	390	472	127	100
9	46	41	24	22	20	18	23	49	351	470	123	84
10	43	41	24	22	20	18	25	51	341	461	119	72
11	44	40	25	21	20	18	24	68	382	461	121	69
12	42	39	25	22	20	19	25	99	445	451	112	67
13	42	42	25	21	19	19	24	139	557	433	105	96
14	39	34	24	21	19	19	23	171	644	385	85	92
15	35	32	24	21	20	18	24	197	732	336	78	89
16	33	32	25	21	20	18	23	244	735	312	78	87
17	35	32	24	21	20	18	24	279	813	293	74	85
18	34	32	24	21	20	19	26	254	811	272	69	79
19	34	32	23	21	19	19	23	251	688	259	69	75
20	34	34	23	21	19	18	26	270	708	244	70	71
21	34	32	23	21	19	19	24	313	774	261	68	66
22	35	29	24	20	19	19	29	347	825	236	70	62
23	35	35	24	20	19	19	33	307	830	213	68	59
24	36	33	24	20	19	20	32	303	774	175	63	55
25	35	32	24	20	19	21	30	348	726	162	59	55
26	40	32	22	21	19	23	33	417	746	161	68	55
27	39	32	22	20	19	25	39	421	764	150	80	51
28	40	28	22	19	19	25	46	525	770	160	75	51
29	44	28	22	19	---	24	51	520	798	164	72	51
30	45	26	23	20	---	23	53	513	815	169	74	49
31	45	---	23	19	---	22	---	553	---	164	75	---
TOTAL	1214	1049	743	652	545	607	840	7086	18988	11317	3014	2138
MEAN	39.2	35.0	24.0	21.0	19.5	19.6	28.0	229	633	365	97.2	71.3
MAX	46	42	26	23	21	25	53	553	830	778	157	100
MIN	33	26	22	19	19	18	21	43	341	150	59	49
AC-FT	2410	2080	1470	1290	1080	1200	1670	14060	37660	22450	5980	4240
a	0	0	0	0	0	0	0	403	488	1050	456	0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

MEAN	37.5	29.4	23.7	20.5	19.0	19.0	36.4	173	479	214	69.2	43.6
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	32202		48193			
ANNUAL MEAN	88.0		[b]135		[c]97.0	
HIGHEST ANNUAL MEAN					176	1984
LOWEST ANNUAL MEAN					45.4	1954
HIGHEST DAILY MEAN	432	Jun 20	830	Jun 23	1430	Jun 21 1938
LOWEST DAILY MEAN	17	Feb 10	[d]18	Mar 1	[e]13	Dec 28 1939
ANNUAL SEVEN-DAY MINIMUM	18	Feb 9	18	Mar 4	14	Dec 23 1939
INSTANTANEOUS PEAK FLOW			930	Jun 22	1720	Jun 10 1952
INSTANTANEOUS PEAK STAGE			3.55	Jun 22	[f]4.23	Jun 10 1952
INSTANTANEOUS LOW FLOW					13	Dec 28 1939
ANNUAL RUNOFF (AC-FT)	63870		95590		70300	
10 PERCENT EXCEEDS	275		463		269	
50 PERCENT EXCEEDS	40		39		33	
90 PERCENT EXCEEDS	19		19		18	

a-Diversions in acre-feet, through August P. Gumlick Tunnel, provided by Denver Water Board.
b-Includes diversions through August P. Gumlick Tunnel.
c-Does not include diversions through August P. Gumlick Tunnel.
d-Also occurred Mar 4-11, 15-17, 20.
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 above sea level, (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: Nov. 22 to Apr. 5. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	50	45	38	33	33	38	91	786	690	94	40
2	45	48	46	37	34	33	38	89	765	650	89	40
3	44	44	44	37	33	33	39	112	729	635	86	40
4	44	47	45	35	33	32	39	148	626	585	85	38
5	45	50	45	33	32	32	40	177	558	521	88	38
6	47	54	44	34	33	32	41	147	532	424	86	38
7	49	53	43	34	33	32	38	142	584	366	81	40
8	46	57	43	35	32	32	37	129	499	366	78	54
9	55	51	43	35	32	33	39	111	448	362	77	46
10	50	51	44	34	32	33	41	104	387	349	76	62
11	52	50	44	33	31	33	40	137	385	348	76	76
12	51	50	44	34	31	33	41	195	411	335	71	72
13	50	52	42	34	31	32	40	275	501	319	65	92
14	49	56	41	35	30	32	39	339	578	282	59	96
15	47	53	42	35	31	33	39	364	657	223	54	93
16	46	53	40	35	31	33	40	415	639	197	51	90
17	47	53	41	35	32	35	40	479	732	169	50	87
18	45	53	41	35	32	35	43	465	792	148	47	82
19	45	52	39	35	34	35	40	447	649	132	45	79
20	45	49	39	35	34	35	41	477	643	122	45	78
21	44	47	39	34	34	36	40	524	679	158	43	72
22	44	46	40	33	33	36	48	593	716	135	43	67
23	44	46	40	33	33	36	55	554	736	114	43	64
24	45	46	39	33	33	36	57	530	707	83	41	61
25	47	45	39	34	33	36	51	571	689	81	41	61
26	52	44	38	33	33	36	60	662	686	80	42	60
27	50	45	38	33	33	36	78	665	701	78	43	60
28	49	45	38	33	32	37	89	786	694	78	42	62
29	54	45	39	34	---	37	102	772	703	78	41	62
30	57	45	40	34	---	37	113	748	729	80	40	59
31	60	---	39	33	---	38	---	757	---	80	39	---
TOTAL	1493	1480	1284	1065	908	1062	1486	12005	18941	8268	1861	1909
MEAN	48.2	49.3	41.4	34.4	32.4	34.3	49.5	387	631	267	60.0	63.6
MAX	60	57	46	38	34	38	113	786	792	690	94	96
MIN	44	44	38	33	30	32	37	89	385	78	39	38
AC-FT	2960	2940	2550	2110	1800	2110	2950	23810	37570	16400	3690	3790
a	0	0	0	0	0	0	0	403	448	1050	456	0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1993, BY WATER YEAR (WY)

MEAN	60.6	51.5	42.4	37.2	35.2	39.7	81.0	267	562	219	89.5	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1905 - 1993	
ANNUAL TOTAL	30621		51762			
ANNUAL MEAN	83.7		[b]145		[b]134	
HIGHEST ANNUAL MEAN					[c]248	1984
LOWEST ANNUAL MEAN					[c]38.8	1963
HIGHEST DAILY MEAN	389	May 29	792	Jun 18	2520	Jun 14 1918
LOWEST DAILY MEAN	[d]21	Aug 5	30	Feb 14	[e]4.8	May 6 1972
ANNUAL SEVEN-DAY MINIMUM	22	Jul 31	31	Feb 10	5.1	May 6 1972
INSTANTANEOUS PEAK FLOW			891	Jun 18	[f]2620	Jun 14 1918
INSTANTANEOUS PEAK STAGE			4.57	Jun 18	6.05	Jun 14 1918
ANNUAL RUNOFF (AC-FT)	60740		102700		93640	
10 PERCENT EXCEEDS	241		541		346	
50 PERCENT EXCEEDS	45		46		54	
90 PERCENT EXCEEDS	27		33		30	

a-Diversions in acre-ft through August P. Gumlick Tunnel provided by Denver Water Board.
b-Includes diversions through August P. Gumlick Tunnel.
c-Does not include diversions through August P. Gumlick Tunnel.
d-Also occurred Aug 6.
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 mi^2.

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is above sea level, (levels by city engineer of Denver); gage readings have been reduced to elevations above sea level.

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, 97,280 acre-ft, July 11, 1993, elevation, 7,811.28 ft; no contents at times in 1958 (construction) and 1966 (drained for repairs).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 97,280 acre-ft, July 11, elevation, 7,811.28 ft; minimum, 58,380 acre-ft, May 11, 12, elevation, 7,782.40 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	7,793.58	71,730	-
Oct. 31	7,791.10	68,590	-3,140
Nov. 30	7,788.40	65,280	-3,310
Dec. 31	7,788.53	65,440	+160
CAL YR 1992			-5,560
Jan. 31	7,789.38	66,460	+1,020
Feb. 28	7,790.32	67,620	+1,160
Mar. 31	7,788.94	65,930	-1,690
Apr. 30	7,784.30	60,500	-5,430
May 31	7,794.80	73,320	+12,820
June 30	7,809.26	94,030	+20,710
July 31	7,809.95	95,130	+1,100
Aug. 31	7,808.03	92,100	-3,030
Sept. 30	7,803.73	85,630	-6,470
WTR YR 1993			+13,900

09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO

LOCATION.--Lat 40°02'07", long 106°12'17", in NW¼SE¼ 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 above sea level, (Denver Board of Water Commissioners Datum). See WSP 1713 or 1733 for history of changes prior to Oct. 21, 1959.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Williams Fork Reservoir (station 09038000). Transmountain diversion upstream from station through August P. Gumlick Tunnel (station 09036000). Diversions upstream from station for irrigation of about 3,200 acres upstream from station and about 100 acres downstream from station. About 450 acres upstream from station irrigated by diversion into the drainage area. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	114	115	78	62	15	47	113	250	238	441	169	169
2	115	115	44	62	14	47	113	250	236	441	171	167
3	115	116	43	63	14	47	113	249	235	443	130	168
4	113	116	37	63	14	47	113	250	249	444	112	169
5	123	116	27	63	14	47	78	250	307	400	113	170
6	114	116	27	63	14	47	59	250	347	330	113	171
7	115	116	27	55	14	47	59	250	388	301	113	153
8	115	115	27	51	14	47	59	252	400	319	114	138
9	115	115	29	52	14	52	59	250	425	400	115	140
10	116	115	30	52	14	55	59	250	416	419	115	140
11	113	116	47	52	14	55	59	247	401	409	115	139
12	115	116	62	52	14	63	98	246	399	444	113	139
13	114	116	62	35	14	74	114	247	398	418	111	136
14	114	116	62	14	14	78	153	248	398	390	111	134
15	114	116	62	14	15	84	171	253	401	355	110	200
16	115	116	62	14	15	90	173	252	402	309	109	236
17	115	116	62	15	15	90	180	250	399	274	110	205
18	115	116	62	14	15	90	177	251	398	233	111	170
19	115	116	62	14	28	94	225	250	397	219	108	169
20	116	115	62	14	45	101	243	248	395	215	110	201
21	116	116	62	14	46	101	241	250	396	224	112	232
22	115	113	62	14	46	101	242	250	338	223	132	226
23	115	117	62	14	46	101	248	248	395	224	167	233
24	115	116	62	14	47	109	247	246	395	223	170	236
25	115	116	62	14	47	112	247	243	422	221	170	237
26	115	117	62	14	47	109	247	242	441	222	173	236
27	129	117	62	13	47	109	247	243	442	222	171	233
28	116	116	62	15	47	109	247	243	424	189	170	237
29	116	118	62	16	---	111	249	241	442	169	171	239
30	115	128	62	16	---	113	250	238	444	169	168	154
31	115	---	62	16	---	113	---	238	---	169	169	---
TOTAL	3583	3488	1656	984	703	2490	4883	7675	11368	9459	4146	5577
MEAN	116	116	53.4	31.7	25.1	80.3	163	248	379	305	134	186
MAX	129	128	78	63	47	113	250	253	444	444	173	239
MIN	113	113	27	13	14	47	59	238	235	169	108	134
AC-FT	7110	6920	3280	1950	1390	4940	9690	15220	22550	18760	8220	11060

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 1993, BY WATER YEAR (WY)

MEAN	129	135	107	106	91.3	91.1	68.5	110	189	159	154	157
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1949 - 1993	
ANNUAL TOTAL	42894		56012			
ANNUAL MEAN	117		[a]172		[a]127	
HIGHEST ANNUAL MEAN					254	1984
LOWEST ANNUAL MEAN					39.1	1959
HIGHEST DAILY MEAN	257	Aug 17	[b]444	Jun 30	1860	Jun 28 1983
LOWEST DAILY MEAN	[c]25	Jun 17	13	Jan 27	[d].30	May 14 1963
ANNUAL SEVEN-DAY MINIMUM	25	Jun 17	14	Jan 21	.54	Apr 27 1959
INSTANTANEOUS PEAK FLOW			477	Jul 12	[e]2640	Jun 20 1953
INSTANTANEOUS PEAK STAGE			3.23	Jul 12	8.50	Jun 20 1953
ANNUAL RUNOFF (AC-FT)	85080		111100		[a]92010	
10 PERCENT EXCEEDS	189		342		251	
50 PERCENT EXCEEDS	115		115		111	
90 PERCENT EXCEEDS	30		23		15	

a-Adjusted for storage at Williams Fork Reservoir.
b-Also occurred Jul 4 and 12.
c-Also occurred Jun 18-23, Jul 5, Jul 10-14, and Jul 16.
d-No flow for part of Apr 29, 1975.
e-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 SW¼SE¼ sec.14, T.3 N., R.80 W., Grand County, Hydrologic Unit 14010001, on left bank 45 ft downstream from small tributary, 3 mi north of Pearmont, 4 mi downstream from Rabbit Ear Creek, 5.2 mi upstream from East Fork, and 12 mi northeast of Kremmling.

DRAINAGE AREA.--44.6 mi².

PERIOD OF RECORD.--October 1953 to September 1993 (Discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 8,049 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-16, Oct. 19 to Nov. 3, Nov. 4 to Mar. 20, Mar. 21-29, and Apr. 11 to May 20. Records 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	12	9.6	12	12	12	36	268	57	26	19
2	10	12	11	9.6	11	12	13	34	255	52	26	19
3	10	13	10	9.6	12	13	12	30	251	50	26	20
4	10	13	9.6	9.6	12	12	13	33	201	50	26	21
5	11	13	9.2	9.8	11	11	15	41	161	52	26	20
6	11	14	9.0	10	10	12	15	60	139	43	26	19
7	10	14	8.8	9.6	11	11	14	52	159	38	25	21
8	10	13	8.6	11	12	10	17	49	153	35	24	21
9	10	12	8.4	10	12	11	14	47	132	34	23	22
10	10	13	8.0	10	13	11	17	44	108	33	23	22
11	10	14	8.2	11	12	10	16	40	104	33	22	22
12	11	15	8.4	10	12	10	16	50	113	32	18	22
13	11	16	8.6	9.8	12	10	15	56	133	31	16	22
14	11	18	9.0	10	12	11	14	62	149	32	15	22
15	10	17	9.0	12	11	11	14	66	161	28	15	17
16	9.4	17	9.0	11	11	12	14	70	170	27	16	17
17	9.7	18	8.6	11	11	11	13	74	177	26	15	30
18	9.6	18	8.2	10	11	12	14	82	184	27	16	31
19	10	19	9.0	10	12	13	14	90	149	27	16	32
20	9.8	18	9.2	11	12	12	14	109	129	26	16	29
21	10	17	9.4	11	11	12	15	163	120	27	16	12
22	10	16	9.0	12	13	11	13	169	113	27	17	11
23	10	15	9.0	11	14	11	16	148	108	29	18	13
24	9.6	12	9.0	11	14	11	17	144	98	30	18	13
25	10	13	9.0	11	13	12	17	149	88	29	18	14
26	11	12	9.6	11	12	11	16	187	79	29	18	15
27	11	11	9.0	12	12	12	18	216	72	29	19	15
28	11	10	9.0	11	13	12	20	268	67	26	19	15
29	10	9.6	9.0	11	---	12	30	293	62	21	19	15
30	11	11	9.2	10	---	12	32	269	59	25	19	15
31	11	---	9.4	11	---	12	---	264	---	26	19	---
TOTAL	318.1	425.6	282.4	326.6	334	355	480	3395	4162	1031	616	586
MEAN	10.3	14.2	9.11	10.5	11.9	11.5	16.0	110	139	33.3	19.9	19.5
MAX	11	19	12	12	14	13	32	293	268	57	26	32
MIN	9.4	9.6	8.0	9.6	10	10	12	30	59	21	15	11
AC-FT	631	844	560	648	662	704	952	6730	8260	2040	1220	1160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1993, BY WATER YEAR (WY)

MEAN	14.2	12.6	10.9	10.6	10.8	11.4	19.7	85.6	111	37.5	18.3	15.6
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	10.3	7.77	4.97	5.19	5.43	7.30	12.4	26.9	26.9	14.0	10.2	8.01
(WY)	1993	1978	1977	1977	1977	1977	1964	1981	1954	1954	1954	1987

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1954 - 1993	
ANNUAL TOTAL	6903.8		12311.7			
ANNUAL MEAN	18.9		33.7		29.9	
HIGHEST ANNUAL MEAN					50.9	1983
LOWEST ANNUAL MEAN					13.6	1977
HIGHEST DAILY MEAN	75	May 27	293	May 29	562	Jun 25 1983
LOWEST DAILY MEAN	[a]7.9	Mar 21	8.0	Dec 10	[b]4.5	Dec 20 1976
ANNUAL SEVEN-DAY MINIMUM	8.0	Mar 19	8.4	Dec 7	4.6	Dec 18 1976
INSTANTANEOUS PEAK FLOW			309	May 29	630	Jun 25 1983
INSTANTANEOUS PEAK STAGE			[c]2.12	May 29	[d]2.81	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	13690		24420		21630	
10 PERCENT EXCEEDS	40		93		69	
50 PERCENT EXCEEDS	13		14		14	
90 PERCENT EXCEEDS	9.0		9.6		9.0	

a-Also occurred Mar 23 and 24.
b-Also occurred Dec 21-24, 1976.
c-Maximum gage height, 2.73 ft, Mar 20, backwater from beaver dam.
d-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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 28 to Nov. 13, and Nov. 17 to Apr. 7. Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	4.6	6.4	6.6	10	12	30	126	432	32	11	6.1
2	3.3	4.9	6.4	6.6	10	12	30	128	435	28	9.1	6.3
3	3.2	5.2	6.2	7.0	10	12	32	164	443	23	8.6	6.6
4	3.1	5.4	6.0	7.4	10	13	33	230	338	24	12	6.3
5	3.0	5.6	5.8	7.4	10	14	35	282	303	38	19	5.8
6	3.0	5.9	5.6	7.4	10	14	37	201	298	31	21	5.5
7	3.2	6.1	5.4	7.8	10	14	38	205	331	23	16	6.1
8	4.0	6.4	5.4	8.0	10	14	39	203	257	22	16	7.4
9	4.6	6.6	5.4	8.2	10	15	40	182	260	19	17	7.8
10	4.7	6.8	5.6	8.6	10	15	38	193	248	14	16	7.2
11	4.8	6.7	5.8	8.6	12	15	43	264	240	10	15	6.4
12	5.9	6.6	6.0	8.6	11	16	40	347	249	12	15	6.0
13	6.2	6.6	6.0	8.6	11	16	35	451	274	9.9	13	11
14	5.7	7.8	6.0	8.6	11	15	33	551	237	11	11	13
15	5.3	8.7	6.0	8.8	11	18	34	609	253	9.5	11	13
16	4.7	9.3	6.0	8.8	11	19	33	583	244	9.6	12	12
17	4.5	8.4	6.0	9.2	12	20	32	614	234	12	11	10
18	4.5	8.8	6.0	9.2	11	20	39	638	240	14	11	9.7
19	4.6	8.4	6.0	9.4	11	21	35	644	180	12	8.5	11
20	4.3	8.1	6.0	9.6	11	22	30	734	156	12	7.8	13
21	4.3	7.8	6.0	9.8	11	23	30	789	140	14	8.7	14
22	4.2	7.6	6.0	10	11	24	35	746	126	11	9.4	12
23	4.4	7.4	6.0	10	11	25	48	650	103	7.6	8.5	10
24	4.5	7.2	6.0	10	11	27	54	584	87	8.6	7.8	8.5
25	4.4	6.9	6.0	10	11	27	48	547	73	9.1	7.3	6.8
26	4.6	6.6	6.0	10	11	29	64	566	69	10	7.6	4.6
27	4.6	6.2	6.2	10	11	30	104	546	69	10	7.9	3.8
28	4.0	5.8	6.4	10	11	30	140	498	64	9.8	8.1	3.8
29	4.2	6.0	6.4	10	---	30	138	535	52	9.6	7.2	3.9
30	4.3	6.2	6.6	10	---	30	156	471	40	8.9	6.7	3.8
31	4.4	---	6.6	10	---	30	---	471	---	9.9	6.2	---
TOTAL	133.8	204.6	186.2	274.2	300	622	1523	13752	6475	474.5	346.4	241.4
MEAN	4.32	6.82	6.01	8.85	10.7	20.1	50.8	444	216	15.3	11.2	8.05
MAX	6.2	9.3	6.6	10	12	30	156	789	443	38	21	14
MIN	3.0	4.6	5.4	6.6	10	12	30	126	40	7.6	6.2	3.8
AC-FT	265	406	369	544	595	1230	3020	27280	12840	941	687	479

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

MEAN	4.88	6.31	4.31	5.03	6.00	13.8	78.9	302	124	10.2	10.0	6.09
MAX	5.99	6.82	6.01	8.85	10.7	20.1	121	444	216	15.3	13.9	8.05
(WY)	1991	1993	1993	1993	1993	1993	1990	1993	1993	1993	1991	1993
MIN	4.32	5.64	2.82	2.68	3.00	9.92	50.8	190	32.2	5.01	6.02	4.34
(WY)	1993	1991	1991	1991	1991	1991	1993	1992	1992	1992	1992	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	10682.8		24533.1			
ANNUAL MEAN	29.2		67.2		51.0	
HIGHEST ANNUAL MEAN					67.2	1993
LOWEST ANNUAL MEAN					29.0	1992
HIGHEST DAILY MEAN	277	May 2	789	May 21	789[b]	May 21 1993
LOWEST DAILY MEAN	1.6	Jul 6	3.0[a]	Oct 5	1.2[b]	Sep 15 1990
ANNUAL SEVEN-DAY MINIMUM	2.6	Jul 2	3.2	Oct 1	1.9	Sep 11 1990
INSTANTANEOUS PEAK FLOW			849	May 21	849	May 21 1993
INSTANTANEOUS PEAK STAGE			6.98	May 21	6.98	May 21 1993
INSTANTANEOUS LOW FLOW			3.0	Oct 5	1.2	Sep 15 1990
ANNUAL RUNOFF (AC-FT)	21190		48660		36910	
10 PERCENT EXCEEDS	90		242		182	
50 PERCENT EXCEEDS	6.0		10		8.4	
90 PERCENT EXCEEDS	3.5		5.4		3.1	

a-Also occurred Oct 6.
b-Also occurred Sep 16, 1990 and Jul 17, 1991.

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°C, July 14, 1991; minimum, 0.0°C, on many days during winter.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 709 microsiemens, April 14; minimum daily, 118 microsiemens, June 13.
WATER TEMPERATURE: Maximum 23.2°C, July 20, 28; minimum, 0.0°C, on many days during winter.
SEDIMENT CONCENTRATION: Maximum daily, 1,050 mg/L, May 5, 15; minimum daily, 4 mg/L, Sept. 25, 26, 29.
SEDIMENT LOADS: Maximum daily, 2,010 tons, May 22; minimum daily 0.04 tons, Sept. 29 .

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
06...	1115	3.1	527	7.6	6.0	0.90	9.2	220	60	18	21
NOV											
18...	1115	8.7	460	7.7	0.0	--	11.2	190	53	15	17
DEC											
09...	1115	5.4	447	7.7	0.0	4.3	9.8	190	53	15	19
APR											
19...	1610	32	630	8.0	4.0	25	10.2	260	71	21	29
MAY											
17...	1545	585	176	8.1	5.5	94	9.2	78	23	5.0	5.1
JUN											
02...	1230	550	125	7.7	6.0	32	7.8	56	17	3.2	3.3
07...	1650	322	170	7.6	7.0	40	9.0	69	20	4.7	5.2
24...	1215	94	265	7.6	10.0	5.2	6.9	110	32	8.0	8.1
JUL											
12...	1530	9.8	630	8.1	21.0	0.50	--	270	74	21	25
AUG											
09...	1520	17	514	8.2	19.0	0.70	9.0	240	69	16	16
23...	1640	8.7	418	8.6	20.0	5.6	7.9	190	53	14	16
SEP											
13...	1630	11	452	8.4	11.0	5.3	8.3	200	54	15	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										
06...	17	0.6	2.3	152	120	2.7	0.2	6.4	334	322
NOV										
18...	16	0.5	1.9	135	110	2.1	0.2	8.0	286	288
DEC										
09...	17	0.6	2.0	148	86	1.9	0.2	9.6	292	276
APR										
19...	19	0.8	3.5	146	170	5.8	0.2	8.6	414	397
MAY										
17...	12	0.3	1.4	73	21	0.8	<0.1	8.7	122	110
JUN										
02...	11	0.2	0.8	50	13	0.7	0.1	7.8	84	76
07...	14	0.3	1.0	64	24	0.6	<0.1	8.2	118	102
24...	13	0.3	1.0	91	39	0.9	0.1	9.1	168	153
JUL										
12...	17	0.7	1.9	206	130	2.2	0.3	11	412	389
AUG										
09...	13	0.5	1.8	185	92	1.5	0.2	7.3	324	315
23...	15	0.5	1.7	125	91	1.9	0.2	6.6	266	259
SEP										
13...	14	0.5	1.9	126	110	1.8	0.2	5.8	264	280

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
06...	0.45	2.77	--	<0.01	--	<0.05	--	0.01	--	0.29
NOV										
18...	0.39	6.70	--	<0.01	0.02	<0.05	<0.05	0.03	0.01	0.27
DEC										
09...	0.40	4.27	6	0.04	--	<0.05	--	0.02	--	0.28
APR										
19...	0.56	35.7	--	--	<0.01	--	0.12	--	0.05	0.55
MAY										
17...	0.17	193	282	--	<0.01	--	0.17	--	0.04	0.46
JUN										
02...	0.11	125	--	--	<0.01	--	<0.05	--	0.03	0.37
07...	0.16	103	--	--	<0.01	--	<0.05	--	0.02	0.28
24...	0.23	42.5	--	--	<0.01	--	<0.05	--	0.03	0.17
JUL										
12...	0.56	10.9	5	--	<0.01	--	<0.05	--	0.03	0.37
AUG										
09...	0.44	15.3	--	--	<0.01	--	<0.05	--	0.02	0.38
23...	0.36	6.28	--	--	<0.01	--	<0.05	--	0.02	0.28
SEP										
13...	0.36	7.84	5	--	<0.01	--	<0.05	--	0.02	0.18

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										
06...	--	0.30	--	0.30	<0.01	--	<0.01	--	--	--
NOV										
18...	--	0.30	--	0.30	0.02	0.01	<0.01	<0.01	--	--
DEC										
09...	--	0.30	--	0.30	0.02	--	<0.01	--	4.0	4.1
APR										
19...	0.45	0.60	0.50	0.72	0.07	0.03	--	0.02	--	--
MAY										
17...	0.36	0.50	0.40	0.67	0.04	0.02	--	<0.01	15	10
JUN										
02...	--	0.40	<0.20	0.40	0.12	0.02	--	0.01	--	--
07...	0.18	0.30	0.20	0.30	0.04	0.02	--	0.01	--	--
24...	0.17	0.20	0.20	0.20	0.03	0.03	--	0.01	--	--
JUL										
12...	0.37	0.40	0.40	0.40	0.01	0.01	--	<0.01	8.6	8.9
AUG										
09...	0.38	0.40	0.40	0.40	0.02	<0.01	--	<0.01	--	--
23...	0.18	0.30	0.20	0.30	<0.01	<0.01	--	0.01	--	--
SEP										
13...	0.18	0.20	0.20	0.20	0.02	0.01	--	<0.01	5.0	3.9

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												
06...	1115	--	--	--	--	--	--	--	--	--	--	--
NOV												
18...	1115	--	--	--	--	--	--	--	--	--	--	--
DEC												
09...	1115	--	--	--	--	--	--	--	--	--	--	--
APR												
19...	1610	--	--	--	--	--	--	--	--	--	--	--
MAY												
17...	1545	2500	3	1	<100	38	<10	20	<1	<1	4	1
JUN												
02...	1230	--	--	--	--	--	--	--	--	--	--	--
07...	1650	--	--	--	--	--	--	--	--	--	--	--
24...	1215	--	--	--	--	--	--	--	--	--	--	--
JUL												
12...	1530	--	--	--	--	--	--	--	--	--	--	--
AUG												
09...	1520	--	--	--	--	--	--	--	--	--	--	--
23...	1640	--	--	--	--	--	--	--	--	--	--	--
SEP												
13...	1630	130	<1	<1	100	65	<10	40	<1	<1	<1	<1

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 DIS-SOLVED (UG/L AS HG)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG)
OCT												
06...	--	--	--	--	15	--	--	--	--	--	--	--
NOV												
18...	--	--	--	--	17	--	--	--	--	--	--	--
DEC												
09...	--	--	--	--	71	--	--	--	--	--	--	--
APR												
19...	--	--	--	--	92	--	--	--	--	--	--	--
MAY												
17...	3	35	6	5400	130	66	5	30	140	16	<0.1	<0.1
JUN												
02...	--	--	--	--	100	--	--	--	--	--	--	--
07...	--	--	--	--	69	--	--	--	--	--	--	--
24...	--	--	--	--	110	--	--	--	--	--	--	--
JUL												
12...	--	--	--	--	43	--	--	--	--	--	--	--
AUG												
09...	--	--	--	--	13	--	--	--	--	--	--	--
23...	--	--	--	--	9	--	--	--	--	--	--	--
SEP												
13...	<1	1	<1	410	10	<1	<1	20	40	23	<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											
06...	--	--	--	--	--	--	--	--	--	--	--
NOV											
18...	--	--	--	--	--	--	--	--	--	--	--
DEC											
09...	--	--	--	--	--	--	--	--	--	--	--
APR											
19...	--	--	--	--	--	--	--	--	--	--	--
MAY											
17...	<1	1	9	2	1	<1	<1	<1	180	40	<3
JUN											
02...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	--	--	--	--	--	--	--	--	--	--	--
AUG											
09...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
13...	3	1	2	2	<1	1	<1	<1	450	5	4

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

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					
06...	1115	3.1	5.0	0.04	--
NOV					
18...	1115	8.7	11	0.26	--
DEC					
09...	1115	5.4	5.0	0.07	--
APR					
19...	1610	32	64	5.5	--
29...	1120	102	267	74	--
MAY					
03...	1255	134	265	96	--
06...	1417	195	350	184	<90
13...	1305	407	631	693	--
17...	1545	585	430	680	--
20...	1206	777	433	908	<80
24...	1321	601	247	400	--
27...	1050	609	193	317	<75
JUN					
02...	1230	550	142	211	--
07...	1650	322	109	94	--
24...	1215	94	18	4.5	--
JUL					
12...	1530	9.8	20	0.53	--
AUG					
09...	1520	17	11	0.51	--
23...	1640	8.7	11	0.27	--
SEP					
13...	1630	11	11	0.32	--

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

SUSPENDED-SEDIMENT DISCHARGE AND PARTICLE-SIZE DISTRIBUTION OF BEDLOAD, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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								
29...	1140	10	100	34	0.04	0.0	0.0	3.0
29...	1200	10	100	34	0.12	1.0	1.0	4.0
MAY								
06...	1346	10	188	38	0.90	2.0	4.0	7.0
06...	1400	10	195	38	0.79	1.0	2.0	4.0
10...	1335	10	167	32	1.4	2.0	3.0	4.0
20...	1230	10	752	39	1.2	0.6	0.9	2.0
20...	1248	10	760	39	5.5	0.7	1.0	3.0
24...	1405	10	551	36	1.0	0.4	1.0	3.0
24...	1422	10	543	36	0.85	0.5	1.0	2.0
27...	1130	10	563	35	0.83	0.2	0.4	1.0
27...	1149	10	561	35	8.7	0.3	0.5	1.0

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
APR							
29...	19	58	84	100	--	--	--
29...	25	65	90	100	--	--	--
MAY							
06...	40	79	94	98	100	--	--
06...	26	58	81	91	97	100	--
10...	22	46	66	79	86	100	--
20...	27	63	86	97	100	--	--
20...	27	51	72	82	89	96	100
24...	32	66	87	94	99	100	--
24...	20	52	85	99	100	--	--
27...	17	46	72	84	92	100	--
27...	23	51	68	78	83	91	100

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C) WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	483	413	---	---	---	---	---	343	137	431	---	---
2	498	371	---	---	---	---	---	343	129	441	---	---
3	510	385	---	---	---	---	---	328	129	462	---	---
4	517	415	---	---	---	---	---	302	161	480	---	---
5	522	408	---	---	---	---	---	272	161	466	---	---
6	521	382	---	---	---	---	---	288	152	463	---	---
7	525	378	---	---	---	---	---	299	162	524	---	---
8	518	389	---	---	---	---	---	300	207	536	---	---
9	492	363	---	---	---	---	---	298	199	573	---	---
10	480	380	---	---	---	---	---	300	186	612	507	---
11	469	421	---	---	---	---	---	277	172	626	485	---
12	469	409	---	---	---	---	---	250	149	---	466	---
13	447	411	---	---	---	---	---	228	136	---	434	---
14	429	405	---	---	---	---	592	212	146	---	427	434
15	433	414	---	---	---	---	570	199	156	---	431	399
16	438	423	---	---	---	---	570	192	149	---	419	394
17	444	416	---	---	---	---	587	181	156	---	407	400
18	458	435	---	---	---	---	573	177	203	---	393	412
19	459	430	---	---	---	---	603	173	208	---	437	418
20	462	414	---	---	---	---	599	177	214	---	417	427
21	463	428	---	---	---	---	578	178	224	---	412	395
22	470	459	---	---	---	---	571	169	225	---	446	379
23	472	454	---	---	---	---	554	166	250	---	437	384
24	471	439	---	---	---	---	522	158	269	---	428	406
25	471	468	---	---	---	---	517	155	294	---	461	427
26	473	475	---	---	---	---	501	152	329	---	433	444
27	481	498	---	---	---	---	457	153	358	---	453	533
28	472	---	---	---	---	---	385	151	358	---	450	578
29	458	---	---	---	---	---	364	144	399	---	438	612
30	446	---	---	---	---	---	332	145	421	---	449	603
31	446	---	---	---	---	---	---	142	---	---	453	---
MEAN	474	---	---	---	---	---	---	221	215	---	---	---

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

TEMPERATURE WATER, (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.7	5.4	3.8	1.8	---	---	---	---	---	---	---	---
2	15.6	5.7	3.5	.8	---	---	---	---	---	---	---	---
3	15.3	5.9	1.4	.0	---	---	---	---	---	---	---	---
4	15.2	6.9	1.3	.0	---	---	---	---	---	---	---	---
5	---	---	.8	.0	---	---	---	---	---	---	---	---
6	11.8	5.8	1.1	.0	---	---	---	---	---	---	---	---
7	9.0	4.5	.6	.0	---	---	---	---	---	---	---	---
8	7.6	.7	1.4	.0	---	---	---	---	---	---	---	---
9	8.5	3.0	1.6	.0	---	---	---	---	---	---	---	---
10	10.5	1.6	.5	.0	---	---	---	---	---	---	---	---
11	11.4	2.6	.5	.0	---	---	---	---	---	---	---	---
12	10.9	3.4	.3	.0	---	---	---	---	---	---	---	---
13	11.1	4.0	.6	.0	---	---	---	---	---	---	---	---
14	11.0	4.6	.5	.0	---	---	---	---	---	---	---	---
15	9.8	5.0	.4	.0	---	---	---	---	---	---	---	---
16	6.3	2.7	.4	.0	---	---	---	---	---	---	---	---
17	9.2	1.0	.4	.0	---	---	---	---	---	---	---	---
18	9.7	1.6	.5	.0	---	---	---	---	---	---	---	---
19	10.6	2.4	.7	.0	---	---	---	---	---	---	---	---
20	10.8	2.2	.7	.0	---	---	---	---	---	---	---	---
21	9.3	2.0	.5	.0	---	---	---	---	---	---	---	---
22	9.7	2.1	.2	.0	---	---	---	---	---	---	---	---
23	9.9	2.3	.1	.0	---	---	---	---	---	---	---	---
24	9.9	2.1	.1	.0	---	---	---	---	---	---	---	---
25	7.6	3.1	.1	.0	---	---	---	---	---	---	---	---
26	9.2	4.6	.2	.0	---	---	---	---	---	---	---	---
27	9.6	4.3	.2	.1	---	---	---	---	---	---	---	---
28	9.0	5.1	---	---	---	---	---	---	---	---	---	---
29	8.0	5.7	---	---	---	---	---	---	---	---	---	---
30	6.8	5.5	---	---	---	---	---	---	---	---	---	---
31	5.5	3.4	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	9.4	1.9	10.7	6.0	21.2	12.5	22.4	13.9	---	---
2	---	---	9.3	2.9	10.1	5.6	22.5	12.4	21.9	13.5	---	---
3	---	---	9.0	3.6	9.4	5.8	17.2	11.4	22.0	13.0	---	---
4	---	---	10.3	2.7	10.1	4.3	12.1	8.4	17.2	13.3	---	---
5	---	---	8.2	2.5	11.3	6.9	15.0	8.7	18.5	12.6	---	---
6	---	---	6.5	1.0	12.4	6.3	16.4	8.8	18.4	12.0	---	---
7	---	---	7.0	4.1	10.1	5.7	18.1	8.8	18.0	12.5	---	---
8	---	---	7.8	2.7	7.8	4.7	18.6	12.7	17.0	13.9	---	---
9	---	---	8.6	3.4	11.0	5.5	18.9	11.3	19.1	12.3	---	---
10	---	---	10.8	3.2	13.0	6.9	17.5	11.5	18.7	15.4	---	---
11	---	---	10.8	3.4	12.2	8.3	18.2	12.1	18.9	14.1	---	---
12	---	---	11.1	3.5	13.6	7.4	21.5	12.3	19.7	13.8	---	---
13	---	---	11.6	3.9	13.8	7.9	21.0	13.4	18.3	14.0	---	---
14	3.3	.0	10.7	4.5	15.3	8.5	20.7	12.2	19.1	13.2	12.0	5.4
15	4.5	.0	9.0	4.5	14.8	10.2	22.4	12.4	19.0	12.9	13.3	7.0
16	4.8	.0	8.3	4.7	14.7	10.2	21.3	12.6	18.8	12.8	12.7	8.4
17	5.1	.0	8.1	4.5	13.4	10.5	21.7	13.0	18.0	12.9	14.7	8.9
18	4.2	.0	10.6	3.3	13.3	9.2	22.5	11.9	20.2	12.9	12.4	9.9
19	4.7	.0	9.6	3.5	16.4	8.7	20.9	12.7	19.6	14.8	11.4	8.9
20	7.3	.0	11.2	4.8	18.5	10.4	23.2	12.4	22.0	15.0	13.1	6.9
21	8.3	.0	9.9	4.6	17.3	11.5	20.3	13.4	18.1	15.4	14.2	8.5
22	9.2	1.7	8.9	4.4	18.5	10.7	19.7	11.2	17.1	13.1	14.5	9.0
23	10.8	3.6	10.4	3.4	17.0	11.9	16.7	12.3	19.7	12.2	13.8	9.2
24	6.9	3.2	9.0	3.9	16.4	7.8	16.7	11.1	21.2	12.9	12.6	7.9
25	11.3	2.8	10.1	4.7	18.5	9.2	19.3	10.1	19.8	14.7	11.9	6.0
26	10.8	4.0	9.2	4.6	19.4	10.6	21.1	11.1	19.1	14.6	14.3	5.9
27	11.8	4.1	8.3	4.5	19.2	11.6	22.1	12.6	17.5	13.6	14.8	5.0
28	9.8	2.9	10.1	5.0	18.7	11.2	23.2	11.5	20.1	13.1	14.7	5.4
29	9.1	1.9	8.8	5.1	20.7	12.7	23.1	13.5	17.5	13.8	15.0	5.5
30	7.3	2.6	11.8	4.6	21.5	12.7	19.9	14.7	19.3	12.4	13.5	5.4
31	---	---	11.5	5.3	---	---	23.0	13.2	17.5	12.0	---	---
MONTH	---	---	11.8	1.0	21.5	4.3	23.2	8.4	22.4	12.0	---	---

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

SEDIMENT-DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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	30	---	---	126	244	86	432	274	317
2	30	---	---	128	229	83	435	262	302
3	32	---	---	164	399	187	443	401	475
4	33	---	---	230	742	505	338	205	185
5	35	---	---	282	1050	833	303	141	118
6	37	---	---	201	454	245	298	229	178
7	38	---	---	205	322	180	331	218	191
8	39	---	---	203	580	312	257	136	95
9	40	---	---	182	224	126	260	212	151
10	38	---	---	193	226	124	248	237	153
11	43	---	---	264	454	333	240	166	110
12	40	---	---	347	639	610	249	201	145
13	35	---	---	451	912	1130	274	194	155
14	33	---	---	551	961	1450	237	162	103
15	34	---	---	609	1050	1730	253	141	99
16	33	---	---	583	871	1390	244	108	69
17	32	---	---	614	791	1340	234	111	67
18	39	---	---	638	749	1340	240	69	45
19	35	---	---	644	718	1280	180	69	34
20	30	97	8.2	734	943	1900	156	68	29
21	30	136	11	789	852	1840	140	125	49
22	35	225	21	746	979	2010	126	29	9.9
23	48	123	16	650	652	1180	103	34	9.3
24	54	165	24	584	375	606	87	16	3.5
25	48	104	14	547	358	537	73	15	3.0
26	64	186	34	566	286	446	69	33	6.1
27	104	326	91	546	235	352	69	45	8.4
28	140	604	229	498	233	316	64	15	2.6
29	138	701	286	535	303	444	52	12	1.7
30	156	1040	475	471	288	378	40	13	1.4
31	---	---	---	471	207	268	---	---	---
TOTAL	1523	---	---	13752	---	23561	6475	---	3115.9

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)
		JULY			AUGUST			SEPTEMBER	
1	32	12	1.0	11	20	.59	6.1	8	.13
2	28	9	.68	9.1	16	.39	6.3	8	.14
3	23	168	10	8.6	15	.35	6.6	9	.16
4	24	220	14	12	16	.52	6.3	9	.15
5	38	25	2.6	19	22	1.1	5.8	10	.16
6	31	18	1.5	21	22	1.2	5.5	10	.15
7	23	21	1.3	16	17	.73	6.1	10	.16
8	22	17	1.0	16	17	.73	7.4	10	.20
9	19	7	.36	17	9	.41	7.8	10	.21
10	14	9	.34	16	9	.39	7.2	8	.16
11	10	15	.40	15	9	.24	6.4	8	.14
12	12	20	.65	15	13	.53	6	7	.11
13	9.9	13	.35	13	14	.49	11	16	.48
14	11	7	.21	11	8	.24	13	33	1.2
15	9.5	12	.31	11	6	.18	13	20	.70
16	9.6	14	.36	12	9	.29	12	14	.45
17	12	16	.52	11	11	.33	10	12	.32
18	14	15	.57	11	9	.27	9.7	14	.37
19	12	12	.39	8.5	10	.23	11	14	.42
20	12	7	.23	7.8	10	.21	13	17	.62
21	14	10	.38	8.7	11	.26	14	59	2.2
22	11	9	.27	9.4	13	.33	12	20	.64
23	7.6	9	.18	8.5	10	.23	10	10	.27
24	8.6	12	.28	7.8	9	.19	8.5	8	.18
25	9.1	15	.37	7.3	9	.18	6.8	4	.07
26	10	18	.49	7.6	9	.18	4.6	4	.05
27	10	18	.49	7.9	9	.19	3.8	6	.06
28	9.8	15	.40	8.1	8	.17	3.8	7	.07
29	9.6	13	.34	7.2	6	.12	3.9	4	.04
30	8.9	16	.38	6.7	5	.09	3.8	6	.06
31	9.9	16	.43	6.2	8	.13	---	---	---
TOTAL	474.5	---	40.78	346.4	---	11.49	241.4	---	10.07

09041500 MUDDY CREEK AT KREMMLING, CO

LOCATION.--Lat 40°03'43", long 106°23'43", in NW¼SE¼ 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 mi².

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 sea level, 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. 31 to Nov. 3, Nov. 6-10, 12-29, Dec. 1 to Apr. 14, and May 15 to Aug. 24. Records good except for estimated daily discharges, which are poor. Records include flow of diversion ditch.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	10	7.4	8.0	12	13	43	162	650	83	35	13
2	5.7	11	7.4	8.0	12	13	44	148	639	83	33	14
3	5.3	11	7.3	8.0	12	13	45	167	632	84	32	13
4	4.8	11	7.2	8.4	12	13	46	218	619	98	31	12
5	4.6	10	7.0	8.6	12	14	45	351	521	114	33	11
6	4.5	9.8	6.8	8.6	12	15	45	258	481	118	42	12
7	5.3	9.5	6.6	8.6	12	17	47	241	514	100	34	14
8	5.2	9.2	6.4	8.9	12	18	49	239	495	84	30	18
9	6.5	8.8	6.3	9.0	12	18	52	216	466	82	31	16
10	8.8	8.4	6.3	9.4	13	19	52	198	444	81	29	13
11	9.0	8.2	6.5	9.8	13	19	54	265	414	74	19	12
12	9.0	8.6	6.8	10	13	19	56	355	401	82	19	10
13	9.4	9.5	7.0	10	13	21	58	459	414	70	18	15
14	9.6	10	7.0	10	13	20	59	552	392	65	15	23
15	10	9.5	7.0	10	12	23	59	598	358	67	8.9	22
16	8.1	9.5	7.0	10	12	27	59	623	346	63	32	19
17	7.7	9.5	7.0	10	12	28	55	643	341	55	18	18
18	7.9	9.5	7.0	11	12	30	62	680	405	52	12	16
19	8.0	9.4	7.0	11	13	32	64	692	391	77	11	16
20	8.0	9.2	7.0	11	13	34	60	701	299	62	6.8	19
21	7.6	9.0	7.0	11	13	36	57	783	267	55	6.2	21
22	7.4	8.8	7.0	12	13	36	60	852	236	54	14	19
23	7.5	8.6	7.0	12	13	35	68	840	210	48	14	17
24	7.6	8.5	7.0	12	13	35	85	760	181	55	14	15
25	7.8	8.4	7.0	12	13	37	80	706	158	62	11	12
26	8.7	8.2	7.0	12	13	39	83	717	127	49	12	9.6
27	9.3	8.0	7.0	12	13	40	107	718	118	36	14	8.2
28	9.0	7.7	7.0	12	13	40	163	708	116	34	15	5.7
29	9.4	7.6	7.4	12	---	41	163	688	98	32	14	6.1
30	10	7.4	7.5	12	---	41	184	699	88	31	13	6.3
31	10	---	7.8	12	---	42	---	658	---	36	12	---
TOTAL	238.1	273.8	216.7	319.3	351	828	2104	15895	10821	2086	628.9	425.9
MEAN	7.68	9.13	6.99	10.3	12.5	26.7	70.1	513	361	67.3	20.3	14.2
MAX	10	11	7.8	12	13	42	184	852	650	118	42	23
MIN	4.5	7.4	6.3	8.0	12	13	43	148	88	31	6.2	5.7
AC-FT	472	543	430	633	696	1640	4170	31530	21460	4140	1250	845

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

MEAN	16.8	16.3	14.8	14.6	17.0	39.2	156	488	290	86.7	26.7	15.1
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1983 - 1993	
ANNUAL TOTAL	16350.8		34187.7			
ANNUAL MEAN	44.7		93.7		98.8	
HIGHEST ANNUAL MEAN					172	1984
LOWEST ANNUAL MEAN					44.8	1992
HIGHEST DAILY MEAN	318	May 2	852	May 22	1590	May 17 1984
LOWEST DAILY MEAN	3.8	Sep 14	4.5	Oct 6	[a]2.7	Sep 16 1990
ANNUAL SEVEN-DAY MINIMUM	4.9	Sep 11	5.1	Oct 2	4.1	Sep 11 1990
INSTANTANEOUS PEAK FLOW			Not determined		1670	May 16 1984
INSTANTANEOUS PEAK STAGE			Not determined		12.67	May 16 1984
ANNUAL RUNOFF (AC-FT)	32430		67810		71570	
10 PERCENT EXCEEDS	134		356		287	
50 PERCENT EXCEEDS	11		14		24	
90 PERCENT EXCEEDS	6.9		7.0		7.8	

a-Minimum daily discharge for period of record, 1.0 ft³/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, 2,340 microsiemens, Sept. 17, 1993; minimum, 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 measured, 2,340 microsiemens, Sept. 17; minimum measured, 200 microsiemens, May 27. WATER TEMPERATURE: Maximum, 19.4°C, August 25; minimum, 0.2°C, on November 25.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	TURBIDITY (NTU)	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)
OCT 07...	1140	5.1	1410	8.2	9.0	19	8.6	630	140	67	71
NOV 16...	1600	9.5	1090	8.0	0.5	--	11.2	450	100	49	55
DEC 09...	1415	6.2	1030	7.8	0.0	9.2	12.4	460	110	45	52
JAN 26...	1130	12	643	7.6	0.0	11	9.4	280	69	25	33
FEB 23...	1430	12	643	7.5	0.0	11	9.0	260	66	24	32
MAR 24...	1140	35	1200	7.8	0.0	12	8.4	440	79	59	88
APR 21...	1230	55	1040	8.6	6.0	21	10.0	440	98	47	62
MAY 18...	1400	709	256	7.9	9.0	2 280	7.8	160	44	11	9.9
JUN 08...	1500	454	389	7.9	8.0	40	5.4	160	43	13	12
JUL 15...	1515	47	1160	8.2	18.5	6.2	--	560	140	50	40
AUG 10...	1140	31	1180	8.2	19.5	26	7.4	560	140	52	45
SEP 15...	1300	22	1210	8.4	23.0	27	9.2	530	120	55	58

DATE	SODIUM PERCENT	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)	SOLIDS, DISSOLVED (TONS PER AC-FT)
OCT 07...	20	1	4.0	159	590	8.2	0.3	4.9	1040	981	1.41
NOV 16...	21	1	2.7	176	390	5.7	0.2	7.4	758	717	1.03
DEC 09...	20	1	3.0	210	370	5.1	0.3	10	721	721	0.98
JAN 26...	21	0.9	2.2	164	190	3.5	0.2	12	448	434	0.61
FEB 23...	21	0.9	2.1	157	180	3.5	0.2	13	414	416	0.56
MAR 24...	30	2	5.4	150	460	10	0.2	9.8	878	803	1.19
APR 21...	23	1	3.6	165	350	8.4	0.2	6.5	724	675	0.98
MAY 18...	12	0.3	2.3	82	51	4.9	0.3	9.1	--	189	0.26
JUN 08...	14	0.4	1.5	82	110	1.4	0.2	8.5	250	239	0.34
JUL 15...	13	0.7	2.8	214	470	3.4	0.3	9.8	888	845	1.21
AUG 10...	15	0.8	2.9	200	460	3.6	0.3	6.7	892	830	1.21
SEP 15...	19	1	3.1	159	500	5.1	0.3	5.4	884	844	1.20

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
07...	14.4	--	--	0.01	--	<0.05	--	0.02	--	0.38
NOV										
16...	19.3	--	0.11	<0.01	0.02	0.13	0.13	0.03	0.02	0.27
DEC										
09...	12.1	11	0.08	0.04	--	0.12	--	0.02	--	0.28
JAN										
26...	14.6	--	--	--	0.02	--	0.18	--	0.06	0.24
FEB										
23...	13.9	--	--	--	0.01	--	0.22	--	0.06	--
MAR										
24...	83.2	--	--	--	0.04	--	0.33	--	0.19	0.91
APR										
21...	107	--	--	--	<0.01	--	0.06	--	0.03	0.37
MAY										
18...	363	924	--	--	<0.01	--	0.14	--	0.05	0.45
JUN										
08...	306	--	--	--	<0.01	--	<0.05	--	0.03	0.27
JUL										
15...	112	24	--	--	<0.01	--	<0.05	--	0.06	0.44
AUG										
10...	74.4	--	--	--	<0.01	--	<0.05	--	0.02	0.38
SEP										
15...	51.3	43	--	--	<0.01	--	<0.05	--	0.02	0.38

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										
07...	--	0.40	--	0.40	0.04	--	0.02	--	--	--
NOV										
16...	--	0.30	--	0.43	0.02	0.01	<0.01	<0.01	--	--
DEC										
09...	--	0.30	--	0.42	0.02	--	0.01	--	5.1	5.7
JAN										
26...	--	0.30	<0.20	0.48	0.02	<0.01	--	<0.01	--	--
FEB										
23...	0.24	<0.20	0.30	--	0.03	<0.01	--	<0.01	--	--
MAR										
24...	1.0	1.1	1.2	1.4	0.11	0.11	--	0.02	--	--
APR										
21...	0.47	0.40	0.50	0.46	0.03	0.03	--	0.01	--	--
MAY										
18...	0.35	0.50	0.40	0.64	0.08	0.01	--	0.01	21	9.7
JUN										
08...	0.17	0.30	0.20	0.30	0.04	0.02	--	0.01	--	--
JUL										
15...	0.44	0.50	0.50	0.50	0.02	0.02	--	0.02	9.8	9.2
AUG										
10...	0.38	0.40	0.40	0.40	0.02	<0.01	--	<0.01	--	--
SEP										
15...	0.38	0.40	0.40	0.40	0.06	0.01	--	<0.01	5.8	6.1

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 07...	1140	--	--	--	--	--	--	--	--	--	--	--
NOV 16...	1600	--	--	--	--	51	--	--	--	<1	--	<5
DEC 09...	1415	--	--	--	--	--	--	--	--	--	--	--
JAN 26...	1130	--	--	--	--	--	--	--	--	--	--	--
FEB 23...	1430	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	1140	--	--	--	--	--	--	--	--	--	--	--
APR 21...	1230	--	--	--	--	--	--	--	--	--	--	--
MAY 18...	1400	8200	4	2	300	120	<10	20	2	<1	12	8
JUN 08...	1500	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	1515	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	1140	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	1300	560	1	<1	100	69	<10	130	<1	<1	<1	<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)	LEAD, TOTAL RECOVERABLE (UG/L AS PB)	LEAD, DISSOLVED (UG/L AS PB)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN)	MANGANESE, DISSOLVED (UG/L AS MN)	MERCURY TOTAL RECOVERABLE (UG/L AS HG)	MERCURY DISSOLVED (UG/L AS HG)
OCT 07...	--	--	--	--	7	--	--	--	--	--	--	--
NOV 16...	--	--	<10	--	3	--	<10	--	--	63	--	--
DEC 09...	--	--	--	--	7	--	--	--	--	--	--	--
JAN 26...	--	--	--	--	19	--	--	--	--	--	--	--
FEB 23...	--	--	--	--	32	--	--	--	--	--	--	--
MAR 24...	--	--	--	--	86	--	--	--	--	--	--	--
APR 21...	--	--	--	--	12	--	--	--	--	--	--	--
MAY 18...	8	32	11	16000	6300	40	18	40	440	200	<0.1	<0.1
JUN 08...	--	--	--	--	65	--	--	--	--	--	--	--
JUL 15...	--	--	--	--	8	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	7	--	--	--	--	--	--	--
SEP 15...	1	2	1	880	5	1	<1	70	50	33	<0.1	<0.1

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 07...	--	--	--	--	--	--	--	--	--	--	--
NOV 16...	--	<10	--	<10	--	--	--	1	1000	--	<3
DEC 09...	--	--	--	--	--	--	--	--	--	--	--
JAN 26...	--	--	--	--	--	--	--	--	--	--	--
FEB 23...	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	--	--	--	--	--	--	--	--	--	--	--
APR 21...	--	--	--	--	--	--	--	--	--	--	--
MAY 18...	<1	<1	26	10	4	2	<1	<1	320	100	41
JUN 08...	--	--	--	--	--	--	--	--	--	--	--
JUL 15...	--	--	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--	--	--
SEP 15...	3	2	4	2	4	5	<1	<1	1300	<10	4

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 07...	1140	5.1	137	1.9	--
NOV 16...	1600	9.5	41	1.0	--
DEC 09...	1415	6.2	54	0.90	--
JAN 26...	1130	12	20	0.66	--
FEB 23...	1430	12	18	0.61	--
MAR 24...	1140	35	28	2.7	--
APR 21...	1230	55	41	6.1	--
29...	1445	181	855	418	--
MAY 03...	1103	192	518	268	--
06...	1200	267	851	613	90
10...	1025	205	324	179	--
18...	1400	709	1330	2540	--
25...	1125	662	690	1230	--
JUN 08...	1500	454	238	291	--
22...	1336	95	90	23	--
JUL 15...	1515	47	75	9.5	--
AUG 10...	1140	31	60	5.0	--
SEP 15...	1300	22	53	3.1	--

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1310	---	---	---	---	---	443	262	930	1310	1420
2	---	1270	---	---	---	---	---	463	248	959	1330	1310
3	---	1200	---	---	---	---	---	455	278	947	1270	1300
4	---	1200	---	---	---	---	---	421	298	971	1270	1320
5	---	1320	---	---	---	---	---	372	309	1020	1280	1320
6	---	1300	---	---	---	---	---	359	277	1020	1240	1310
7	---	1240	---	---	---	---	---	382	312	1000	1280	1290
8	1500	1210	---	---	---	---	---	403	398	1050	1280	1270
9	1500	1200	---	---	---	---	---	394	322	1070	1250	1240
10	1510	1130	---	---	---	---	---	397	341	1090	1240	1210
11	1520	1050	---	---	---	---	---	377	393	1100	1310	1210
12	1520	1020	---	---	---	---	---	336	388	1150	1210	1330
13	1510	989	---	---	---	---	---	307	390	1160	1250	1390
14	1560	968	---	---	---	---	1500	288	375	1200	1310	1350
15	1400	1100	---	---	---	---	1470	275	443	1220	1270	1320
16	1280	1140	---	---	---	---	1250	267	452	1200	1210	2110
17	1230	1100	---	---	---	---	1200	258	473	1190	1210	2310
18	1210	1110	---	---	---	---	1260	265	605	1200	1260	2190
19	1170	1140	---	---	---	---	1170	249	633	1190	1190	1790
20	1130	1090	---	---	---	---	1170	263	600	1230	1150	1310
21	1100	976	---	---	---	---	1110	267	624	1250	1140	1190
22	1080	997	---	---	---	---	1080	276	677	1340	1170	1230
23	1080	999	---	---	---	---	1030	263	681	1360	1230	1280
24	1110	1020	---	---	---	---	927	246	711	1430	1250	1250
25	1130	1210	---	---	---	---	783	246	725	1250	1310	1120
26	1120	---	---	---	---	---	790	247	761	1140	1340	1030
27	1120	---	---	---	---	---	742	224	775	1240	1290	1050
28	1130	---	---	---	---	---	611	271	807	1310	1270	1080
29	1110	---	---	---	---	---	499	261	844	1250	1240	1100
30	1110	---	---	---	---	---	469	252	877	1300	1430	1120
31	1120	---	---	---	---	---	---	262	---	1280	1520	---
MEAN	---	---	---	---	---	---	---	316	509	1160	1270	1360

09041500 MUDDY CREEK AT KREMMLING, CO--Continued

TEMPERATURE, WATER (DEG. C) WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.4	9.2	6.2	5.0	---	---	---	---	---	---	---	---
2	11.7	9.0	5.0	3.8	---	---	---	---	---	---	---	---
3	11.9	9.7	3.8	2.4	---	---	---	---	---	---	---	---
4	12.1	10.0	2.5	1.7	---	---	---	---	---	---	---	---
5	11.3	9.2	2.0	1.1	---	---	---	---	---	---	---	---
6	11.3	9.3	1.7	1.0	---	---	---	---	---	---	---	---
7	10.3	8.3	1.5	.7	---	---	---	---	---	---	---	---
8	8.3	6.5	2.1	.7	---	---	---	---	---	---	---	---
9	7.5	6.6	2.1	1.2	---	---	---	---	---	---	---	---
10	7.7	5.3	1.8	.8	---	---	---	---	---	---	---	---
11	8.2	5.9	1.7	.5	---	---	---	---	---	---	---	---
12	8.6	6.5	1.3	.5	---	---	---	---	---	---	---	---
13	9.2	7.1	1.2	.5	---	---	---	---	---	---	---	---
14	9.3	7.7	1.6	.3	---	---	---	---	---	---	---	---
15	9.0	7.7	1.2	.5	---	---	---	---	---	---	---	---
16	8.1	6.7	1.1	.4	---	---	---	---	---	---	---	---
17	7.5	5.7	1.1	.4	---	---	---	---	---	---	---	---
18	7.6	5.9	1.2	.4	---	---	---	---	---	---	---	---
19	7.9	6.3	1.0	.5	---	---	---	---	---	---	---	---
20	7.8	6.1	1.2	.4	---	---	---	---	---	---	---	---
21	7.5	6.2	1.2	.4	---	---	---	---	---	---	---	---
22	7.7	6.2	1.1	.4	---	---	---	---	---	---	---	---
23	7.8	6.2	.7	.3	---	---	---	---	---	---	---	---
24	7.9	6.2	.5	.3	---	---	---	---	---	---	---	---
25	7.4	6.5	.5	.2	---	---	---	---	---	---	---	---
26	8.0	6.7	---	---	---	---	---	---	---	---	---	---
27	8.0	6.7	---	---	---	---	---	---	---	---	---	---
28	7.9	7.4	---	---	---	---	---	---	---	---	---	---
29	8.2	7.2	---	---	---	---	---	---	---	---	---	---
30	7.9	7.3	---	---	---	---	---	---	---	---	---	---
31	7.6	6.2	---	---	---	---	---	---	---	---	---	---
MONTH	12.1	5.3	---	---	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	7.5	5.9	---	---	19.1	17.9	---	---	15.0	13.3
2	---	---	8.1	6.2	---	---	---	---	---	---	15.0	13.0
3	---	---	8.6	7.4	---	---	---	---	---	---	15.7	11.9
4	---	---	8.9	7.3	---	---	---	---	---	---	15.6	12.6
5	---	---	8.9	5.6	---	---	---	---	---	---	15.2	13.5
6	---	---	6.7	4.5	---	---	---	---	---	---	15.2	13.3
7	---	---	6.7	5.8	---	---	---	---	---	---	14.3	12.4
8	---	---	6.7	5.2	---	---	---	---	---	---	15.8	11.6
9	---	---	7.6	5.8	---	---	---	---	---	---	16.6	11.1
10	---	---	9.2	5.9	13.9	9.0	---	---	---	---	---	---
11	---	---	9.5	7.4	13.6	10.4	---	---	---	---	16.1	13.7
12	---	---	9.7	8.1	---	---	---	---	---	---	15.9	13.0
13	---	---	10.6	8.7	14.4	11.4	---	---	---	---	---	---
14	---	---	10.3	8.8	14.6	10.9	---	---	---	---	---	---
15	---	---	9.9	7.4	15.0	12.2	---	---	---	---	---	---
16	---	---	8.5	7.6	14.7	10.3	---	---	---	---	---	---
17	---	---	8.3	7.7	14.7	11.2	---	---	---	---	---	---
18	---	---	8.9	7.3	13.6	10.9	---	---	---	---	---	---
19	---	---	8.9	8.1	15.7	10.9	---	---	---	---	---	---
20	---	---	10.1	8.3	17.7	13.0	---	---	---	---	---	---
21	---	---	10.7	9.4	17.8	11.9	---	---	---	---	---	---
22	---	---	---	---	17.0	14.6	---	---	---	---	---	---
23	---	---	---	---	16.9	13.0	---	---	---	---	---	---
24	---	---	---	---	15.9	13.0	---	---	---	---	---	---
25	---	---	---	---	16.9	12.2	---	---	19.4	17.2	---	---
26	---	---	---	---	17.6	13.5	---	---	18.5	17.3	---	---
27	---	---	---	---	18.7	13.8	---	---	18.1	15.4	---	---
28	---	---	---	---	18.5	16.5	---	---	18.6	15.4	---	---
29	---	---	---	---	18.8	17.1	---	---	18.6	16.0	---	---
30	---	---	---	---	19.0	17.2	---	---	17.9	14.2	---	---
31	---	---	---	---	---	---	---	---	16.3	14.7	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1 to May 5, Aug. 7-10, and Aug. 28 to Sept. 14. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	30	3.7	20	.00
2	---	---	---	---	---	---	.00	.00	28	3.4	17	.00
3	---	---	---	---	---	---	.00	.00	26	3.5	15	.00
4	---	---	---	---	---	---	.00	.00	23	3.7	14	.00
5	---	---	---	---	---	---	.00	.54	22	3.5	13	.00
6	---	---	---	---	---	---	.00	.86	22	2.8	13	.00
7	---	---	---	---	---	---	.00	.79	21	2.3	5.1	.00
8	---	---	---	---	---	---	.00	.64	17	2.6	.30	.00
9	---	---	---	---	---	---	.00	.64	16	2.7	.38	.00
10	---	---	---	---	---	---	.00	.79	16	2.5	9.6	.00
11	---	---	---	---	---	---	.00	1.5	18	2.5	15	.00
12	---	---	---	---	---	---	.00	2.7	22	2.5	15	.00
13	---	---	---	---	---	---	.00	4.2	20	2.4	13	.00
14	---	---	---	---	---	---	.00	5.8	11	2.2	12	.00
15	---	---	---	---	---	---	.00	6.8	11	2.0	11	1.5
16	---	---	---	---	---	---	.00	8.5	10	1.2	7.8	6.3
17	---	---	---	---	---	---	.00	9.3	10	2.5	7.7	8.4
18	---	---	---	---	---	---	.00	8.7	8.6	10	7.0	10
19	---	---	---	---	---	---	.00	9.0	7.5	9.0	7.0	11
20	---	---	---	---	---	---	.00	11	7.7	8.3	6.5	11
21	---	---	---	---	---	---	.00	20	8.3	14	8.4	11
22	---	---	---	---	---	---	.00	22	7.6	19	9.0	11
23	---	---	---	---	---	---	.00	18	7.0	16	6.6	11
24	---	---	---	---	---	---	.00	18	5.7	14	5.6	9.7
25	---	---	---	---	---	---	.00	20	4.5	11	5.9	9.1
26	---	---	---	---	---	---	.00	22	4.1	14	6.3	9.4
27	---	---	---	---	---	---	.00	23	4.0	17	2.8	9.1
28	---	---	---	---	---	---	.00	23	3.8	16	.00	9.3
29	---	---	---	---	---	---	.00	24	4.0	17	.00	9.2
30	---	---	---	---	---	---	.00	25	4.1	20	.00	19
31	---	---	---	---	---	---	---	28	---	26	.00	---
TOTAL	---	---	---	---	---	---	0.00	314.76	399.9	257.3	253.98	156.00
MEAN	---	---	---	---	---	---	.000	10.2	13.3	8.30	8.19	5.20
MAX	---	---	---	---	---	---	.00	28	30	26	20	19
MIN	---	---	---	---	---	---	.00	.00	3.8	1.2	.00	.00
AC-FT	---	---	---	---	---	---	.00	624	793	510	504	309

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1 to May 3. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	18	14	3.3	1.3
2	---	---	---	---	---	---	.00	.00	19	13	3.2	1.3
3	---	---	---	---	---	---	.00	.00	16	13	3.2	1.2
4	---	---	---	---	---	---	.00	.55	12	12	3.0	1.2
5	---	---	---	---	---	---	.00	1.2	12	11	2.9	1.2
6	---	---	---	---	---	---	.00	1.1	13	9.8	2.8	1.1
7	---	---	---	---	---	---	.00	1.2	12	9.3	2.1	1.1
8	---	---	---	---	---	---	.00	1.2	10	9.7	.99	1.3
9	---	---	---	---	---	---	.00	1.3	10	9.5	.79	1.2
10	---	---	---	---	---	---	.00	1.4	9.9	9.0	1.9	1.2
11	---	---	---	---	---	---	.00	1.5	12	8.8	2.6	1.1
12	---	---	---	---	---	---	.00	2.3	15	8.7	2.5	1.0
13	---	---	---	---	---	---	.00	3.1	19	8.2	2.5	1.2
14	---	---	---	---	---	---	.00	3.7	22	7.9	2.6	1.1
15	---	---	---	---	---	---	.00	3.5	24	7.6	2.5	1.3
16	---	---	---	---	---	---	.00	4.6	23	7.2	2.3	1.3
17	---	---	---	---	---	---	.00	3.8	24	6.7	2.2	1.3
18	---	---	---	---	---	---	.00	3.9	24	6.4	2.2	1.3
19	---	---	---	---	---	---	.00	4.3	23	6.0	2.1	1.2
20	---	---	---	---	---	---	.00	5.3	24	5.9	2.1	1.2
21	---	---	---	---	---	---	.00	6.8	25	5.5	2.1	1.1
22	---	---	---	---	---	---	.00	6.7	24	5.1	2.0	1.1
23	---	---	---	---	---	---	.00	6.5	22	4.8	1.9	1.1
24	---	---	---	---	---	---	.00	6.8	20	4.6	1.8	1.1
25	---	---	---	---	---	---	.00	8.3	18	4.3	1.8	1.1
26	---	---	---	---	---	---	.00	9.2	18	4.1	1.8	1.0
27	---	---	---	---	---	---	.00	9.1	17	3.8	1.6	1.0
28	---	---	---	---	---	---	.00	9.3	16	3.7	1.3	1.0
29	---	---	---	---	---	---	.00	10	16	3.6	1.2	1.0
30	---	---	---	---	---	---	.00	13	15	3.7	1.4	1.0
31	---	---	---	---	---	---	---	15	---	3.5	1.4	---
TOTAL	---	---	---	---	---	---	0.00	144.65	532.9	230.4	66.08	34.6
MEAN	---	---	---	---	---	---	.000	4.67	17.8	7.43	2.13	1.15
MAX	---	---	---	---	---	---	.00	15	25	14	3.3	1.3
MIN	---	---	---	---	---	---	.00	.00	9.9	3.5	.79	1.0
AC-FT	---	---	---	---	---	---	.00	287	1060	457	131	69

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

LOCATION.--Lat 39°22'51", long 106°04'14", in NE¼SE¼ 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 1 to May 6. Records good except for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.00	28	3.6	43	.59
2	---	---	---	---	---	---	.00	.00	33	10	37	.59
3	---	---	---	---	---	---	.00	.00	24	13	32	.56
4	---	---	---	---	---	---	.00	.00	16	4.6	28	.59
5	---	---	---	---	---	---	.00	.00	22	.69	29	.59
6	---	---	---	---	---	---	.00	.00	27	5.7	28	.61
7	---	---	---	---	---	---	.00	.42	25	15	20	.59
8	---	---	---	---	---	---	.00	.35	17	21	14	.59
9	---	---	---	---	---	---	.00	.35	15	22	15	.59
10	---	---	---	---	---	---	.00	.44	17	25	22	.61
11	---	---	---	---	---	---	.00	.99	28	32	34	.59
12	---	---	---	---	---	---	.00	2.1	38	30	30	.59
13	---	---	---	---	---	---	.00	3.2	53	24	27	.60
14	---	---	---	---	---	---	.00	4.3	77	24	25	.55
15	---	---	---	---	---	---	.00	5.3	95	26	21	.59
16	---	---	---	---	---	---	.00	5.9	91	22	19	.59
17	---	---	---	---	---	---	.00	6.6	92	19	18	.59
18	---	---	---	---	---	---	.00	5.2	63	18	17	.59
19	---	---	---	---	---	---	.00	6.0	54	17	17	.53
20	---	---	---	---	---	---	.00	8.0	60	23	16	.56
21	---	---	---	---	---	---	.00	12	66	42	21	.59
22	---	---	---	---	---	---	.00	12	70	39	21	.59
23	---	---	---	---	---	---	.00	11	69	34	16	.60
24	---	---	---	---	---	---	.00	9.7	55	28	15	.59
25	---	---	---	---	---	---	.00	11	49	25	14	.57
26	---	---	---	---	---	---	.00	15	61	32	15	.53
27	---	---	---	---	---	---	.00	16	63	35	6.6	.52
28	---	---	---	---	---	---	.00	16	61	35	.61	.56
29	---	---	---	---	---	---	.00	17	61	38	.59	.59
30	---	---	---	---	---	---	.00	18	27	45	.64	.58
31	---	---	---	---	---	---	---	23	---	52	.63	---
TOTAL	---	---	---	---	---	---	0.00	209.85	1457	760.59	603.07	17.41
MEAN	---	---	---	---	---	---	.000	6.77	48.6	24.5	19.5	.58
MAX	---	---	---	---	---	---	.00	23	95	52	43	.61
MIN	---	---	---	---	---	---	.00	.00	15	.69	.59	.52
AC-FT	---	---	---	---	---	---	.00	416	2890	1510	1200	35

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 sea level, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	14	7.8	5.0	4.1	3.9	3.7	11	175	166	23	29
2	19	14	8.2	5.1	4.3	3.6	3.8	10	170	165	21	31
3	18	12	8.3	5.2	4.4	3.6	4.0	11	159	153	20	32
4	18	10	8.4	4.9	4.1	3.6	3.6	13	130	148	19	27
5	18	11	7.9	5.2	3.9	3.7	3.7	16	116	129	19	24
6	18	12	7.9	5.0	4.0	3.8	3.8	15	114	103	19	24
7	19	12	7.6	5.1	4.0	3.4	3.9	16	121	83	18	29
8	16	12	7.7	5.1	4.1	3.4	3.9	14	105	82	35	35
9	16	13	7.9	5.2	4.3	3.5	4.2	12	98	84	47	34
10	17	13	7.6	5.0	5.1	3.6	5.0	12	94	80	41	31
11	16	13	7.5	5.2	4.7	4.2	4.5	15	97	85	23	29
12	16	12	7.4	5.2	4.1	3.6	5.0	23	108	87	18	27
13	16	11	7.8	5.3	4.0	3.1	5.5	34	130	92	16	36
14	15	11	7.2	5.5	3.4	3.5	5.0	46	142	89	16	40
15	15	10	7.3	5.2	3.7	3.8	4.9	54	136	87	16	34
16	15	10	7.4	4.9	4.5	3.7	5.0	54	136	86	15	30
17	14	10	7.1	4.9	4.8	3.3	5.2	65	148	83	14	29
18	14	10	7.2	4.9	4.4	3.5	5.8	56	165	89	14	27
19	14	10	7.4	5.0	4.1	3.4	6.7	57	149	86	14	26
20	14	10	5.8	5.1	4.4	3.2	5.9	67	136	80	16	24
21	14	9.9	6.6	5.2	4.3	3.4	5.5	78	156	54	17	23
22	13	9.3	6.5	5.1	4.2	3.3	6.0	91	158	37	16	22
23	13	9.8	6.4	5.4	4.9	3.3	6.6	80	155	33	15	21
24	12	9.4	6.5	4.4	4.3	3.5	6.8	85	141	31	13	21
25	12	8.9	6.4	5.2	4.0	3.6	6.8	92	127	29	13	20
26	14	8.6	5.9	5.1	3.7	3.8	6.4	112	121	27	14	20
27	14	7.9	5.5	5.0	3.6	4.5	7.0	131	117	25	16	20
28	13	7.8	5.4	4.8	3.6	5.4	7.7	127	110	23	24	19
29	14	7.9	5.2	4.4	---	4.1	8.9	134	112	22	26	19
30	14	7.8	5.4	4.0	---	3.9	11	138	140	22	28	18
31	14	---	5.2	3.9	---	3.9	---	153	---	26	30	---
TOTAL	474	317.3	216.4	154.5	117.0	114.1	165.8	1822	3966	2386	636	801
MEAN	15.3	10.6	6.98	4.98	4.18	3.68	5.53	58.8	132	77.0	20.5	26.7
MAX	19	14	8.4	5.5	5.1	5.4	11	153	175	166	47	40
MIN	12	7.8	5.2	3.9	3.4	3.1	3.6	10	94	22	13	18
AC-FT	940	629	429	306	232	226	329	3610	7870	4730	1260	1590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

MEAN	19.6	14.2	10.7	7.92	5.94	5.55	12.8	59.4	109	69.5	39.3	25.4
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	6.98	4.98	4.12	3.68	5.53	33.6	63.1	23.0	18.0	14.2
(WY)	1992	1992	1993	1993	1991	1993	1993	1990	1992	1991	1986	1986

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	8391.1		11170.1			
ANNUAL MEAN	22.9		30.6		31.7	
HIGHEST ANNUAL MEAN					70.1	1984
LOWEST ANNUAL MEAN					20.5	1990
HIGHEST DAILY MEAN	86	May 27	175	Jun 1	404	Jul 10 1984
LOWEST DAILY MEAN	3.1	Mar 15	3.1	Mar 13	[a]3.1	Mar 15 1992
ANNUAL SEVEN-DAY MINIMUM	3.2	Mar 10	3.3	Mar 17	3.2	Mar 10 1992
INSTANTANEOUS PEAK FLOW			[b]185	Jun 1	506	Jul 1 1984
INSTANTANEOUS PEAK STAGE			[b]1.98	Jun 1	2.84	Jul 1 1984
ANNUAL RUNOFF (AC-FT)	16640		22160		23000	
10 PERCENT EXCEEDS	59		109		79	
50 PERCENT EXCEEDS	14		12		16	
90 PERCENT EXCEEDS	4.1		3.9		5.5	

a-Also occurred Mar 13, 1993.
b-Also occurred Jun 2 and Jun 18.

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 sea level, from topographic map. Prior to Aug. 6, 1992, gage site 1.4 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 30 to Mar. 21. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	37	25	17	17	23	23	65	476	370	106	74
2	52	37	25	17	17	23	22	67	491	373	101	75
3	51	35	25	17	17	22	22	72	467	364	99	75
4	50	35	25	17	17	22	22	82	420	367	97	74
5	48	34	25	17	17	22	23	97	370	343	96	70
6	47	32	25	17	17	22	23	101	353	304	94	67
7	46	31	24	17	17	22	23	96	369	268	92	65
8	46	31	24	17	18	22	22	89	343	251	89	69
9	45	32	24	17	18	22	22	83	317	250	101	76
10	44	33	24	17	17	22	23	80	302	240	115	75
11	44	33	24	17	17	22	23	90	293	238	113	71
12	44	33	25	17	16	21	24	112	304	242	98	67
13	43	32	25	17	16	20	24	148	333	244	87	67
14	43	31	24	17	16	20	24	191	383	240	82	78
15	43	31	23	17	17	20	24	218	419	235	80	87
16	43	31	23	17	17	20	24	244	446	228	77	80
17	40	31	24	17	18	20	24	259	464	222	74	73
18	39	31	22	17	19	20	25	267	511	217	69	70
19	39	31	21	17	19	20	26	256	495	212	67	65
20	38	30	20	17	19	20	26	270	445	204	68	61
21	37	30	20	17	19	19	26	301	449	190	70	57
22	37	29	20	17	19	19	28	326	459	166	71	55
23	36	29	20	17	20	19	32	323	459	152	70	52
24	36	28	19	17	21	20	34	306	439	144	65	49
25	36	28	18	17	23	21	35	320	398	140	64	48
26	36	27	18	17	24	22	36	343	374	132	59	47
27	37	26	17	17	23	23	41	412	365	123	60	47
28	37	26	17	17	23	23	48	423	354	117	62	48
29	37	25	17	17	---	23	56	411	351	112	63	47
30	37	25	17	17	---	23	63	415	367	107	67	45
31	37	---	17	17	---	23	---	424	---	106	70	---
TOTAL	1302	924	677	527	518	660	868	6891	12016	6901	2526	1934
MEAN	42.0	30.8	21.8	17.0	18.5	21.3	28.9	222	401	223	81.5	64.5
MAX	54	37	25	17	24	23	63	424	511	373	115	87
MIN	36	25	17	17	16	19	22	65	293	106	59	45
AC-FT	2580	1830	1340	1050	1030	1310	1720	13670	23830	13690	5010	3840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

MEAN	52.0	38.8	31.1	26.3	24.3	23.7	39.1	169	329	195	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	17.0	17.2	18.3	23.0	65.1	72.0	73.7	55.1	40.5
(WY)	1978	1978	1978	1993	1992	1992	1964	1981	1963	1966	1977	1962

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	26713		35744			
ANNUAL MEAN	73.0		97.9		[a]104	
HIGHEST ANNUAL MEAN					168	1984
LOWEST ANNUAL MEAN					45.8	1963
HIGHEST DAILY MEAN	272	May 27	511	Jun 18	1160	Jun 26 1983
LOWEST DAILY MEAN	[b]17	Jan 26	[c]16	Feb 12	[c]16	Feb 12 1993
ANNUAL SEVEN-DAY MINIMUM	17	Feb 7	17	Feb 10	17	Feb 10 1993
INSTANTANEOUS PEAK FLOW			540	Jun 18	[d]1250	Jun 17 1965
INSTANTANEOUS PEAK STAGE			5.28	Jun 18	5.38	Jun 17 1965
ANNUAL RUNOFF (AC-FT)	52990		70900		66450	
10 PERCENT EXCEEDS	186		337		242	
50 PERCENT EXCEEDS	43		37		44	
90 PERCENT EXCEEDS	18		17		23	

a-Adjusted for diversions to Hoosier Pass tunnel.
b-Also occurred Jan 27, 31, Feb 4, 5, 7-27, and Dec 27-31.
c-Also occurred Feb 13 and 14.
d-From rating curve extended above 800 ft³/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 sea level, from topographic map. Prior to Oct. 14, 1943, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 21. Records good 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	16	20	12	10	9.0	10	15	343	377	94	43
2	26	18	20	12	10	9.0	10	16	343	364	92	48
3	26	19	20	12	10	9.0	10	19	319	356	88	42
4	26	20	20	12	10	9.0	10	26	262	333	85	38
5	26	21	20	12	10	9.0	10	31	244	303	87	40
6	28	21	20	12	10	9.0	10	24	255	262	82	38
7	27	21	20	12	10	9.0	10	23	254	240	78	46
8	28	23	20	12	10	9.0	10	20	214	248	77	54
9	26	23	20	12	10	9.0	10	19	195	247	74	45
10	25	23	20	12	10	9.0	10	18	192	242	71	40
11	25	22	20	12	10	8.6	11	23	214	242	70	38
12	24	21	20	12	10	8.4	11	47	255	240	65	36
13	24	20	20	12	10	8.4	12	67	330	233	71	57
14	23	20	20	12	10	8.4	12	78	386	231	69	51
15	24	19	20	12	10	8.7	13	88	432	227	63	51
16	23	19	20	12	10	9.2	13	108	451	213	57	50
17	23	19	20	12	10	9.2	14	125	474	201	54	49
18	22	20	18	12	10	9.2	14	119	436	189	55	49
19	22	20	17	12	10	9.2	13	124	394	179	54	47
20	21	20	16	12	10	9.2	12	137	399	169	53	43
21	20	20	16	12	10	9.2	12	164	439	160	58	41
22	21	20	16	12	10	9.2	11	172	480	147	56	38
23	20	20	16	12	10	11	11	159	467	138	49	36
24	20	20	16	12	10	12	11	168	429	134	46	34
25	21	20	15	12	9.5	14	11	185	399	123	44	35
26	24	20	15	12	9.0	14	12	222	404	116	50	34
27	23	20	14	12	9.0	15	14	230	395	114	48	33
28	23	20	13	11	9.0	13	16	240	385	107	44	33
29	23	20	12	11	---	12	19	257	390	103	42	32
30	22	20	12	10	---	10	19	274	391	102	45	31
31	22	---	12	10	---	10	---	303	---	99	43	---
TOTAL	734	605	548	366	276.5	307.9	361	3501	10571	6439	1964	1252
MEAN	23.7	20.2	17.7	11.8	9.87	9.93	12.0	113	352	208	63.4	41.7
MAX	28	23	20	12	10	15	19	303	480	377	94	57
MIN	20	16	12	10	9.0	8.4	10	15	192	99	42	31
AC-FT	1460	1200	1090	726	548	611	716	6940	20970	12770	3900	2480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1993, BY WATER YEAR (WY)

MEAN	27.1	19.6	15.2	11.9	10.5	10.6	18.1	96.3	279	144	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1943 - 1993	
ANNUAL TOTAL	18839.1		26925.4			
ANNUAL MEAN	51.5		73.8		61.3	
HIGHEST ANNUAL MEAN					94.6	1984
LOWEST ANNUAL MEAN					35.1	1954
HIGHEST DAILY MEAN	236	May 21	480	Jun 22	804	Jun 10 1952
LOWEST DAILY MEAN	[a]8.0	Mar 12	[a]8.4	Mar 12	5.0	Feb 26 1964
ANNUAL SEVEN-DAY MINIMUM	8.1	Mar 9	8.6	Mar 9	6.0	Jan 9 1963
INSTANTANEOUS PEAK FLOW			[b]542	Jun 16	1250	Jun 10 1952
INSTANTANEOUS PEAK STAGE			[b]3.07	Jun 16	[c]3.51	Jun 10 1952
ANNUAL RUNOFF (AC-FT)	37370		53410		44420	
10 PERCENT EXCEEDS	164		245		172	
50 PERCENT EXCEEDS	22		21		22	
90 PERCENT EXCEEDS	9.5		10		10	

a-Also occurred Mar 13 and 14.
b-Also occurred Jun 22.
c-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 NE¼4NE¼4 sec.26, T.5 S., R.77 W., Summit County, Hydrologic Unit 14010002, on right bank 0.7 mi upstream from mouth and 4.7 mi southeast of Dillon.

DRAINAGE AREA.--9.10 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 9,350 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4 to Apr. 21. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.4	3.2	2.0	1.8	1.8	1.8	3.4	41	28	7.7	4.8
2	2.9	3.5	3.2	2.0	1.8	1.8	1.8	3.3	40	26	7.3	4.8
3	2.9	3.1	3.2	2.0	1.8	1.8	1.8	3.4	41	25	7.2	4.5
4	2.8	3.2	3.1	2.0	1.8	1.8	1.8	4.6	36	25	7.0	4.2
5	2.7	3.3	3.1	2.0	1.8	1.8	1.8	5.5	35	26	7.0	4.4
6	2.8	3.6	3.1	2.0	1.8	1.8	1.8	4.8	36	23	6.9	4.3
7	3.0	3.9	3.1	2.0	1.8	1.8	1.8	4.4	34	20	6.5	4.9
8	3.8	4.3	3.1	2.0	1.8	1.8	2.0	4.3	29	19	6.5	5.5
9	3.4	4.3	3.1	2.0	1.8	1.8	2.1	3.9	27	18	6.6	4.7
10	3.4	4.3	3.1	2.0	1.8	1.8	2.3	4.1	27	16	6.3	4.3
11	3.3	4.1	3.1	2.0	1.8	1.7	2.3	5.6	28	16	6.4	4.3
12	3.3	4.0	3.1	2.0	1.8	1.6	2.1	7.3	29	16	6.2	4.0
13	2.8	4.0	3.1	2.0	1.8	1.5	2.0	10	32	15	6.2	5.8
14	2.8	4.0	3.1	1.9	1.8	1.5	2.0	12	37	14	6.3	5.4
15	2.8	4.0	3.1	1.9	1.8	1.5	2.0	13	43	14	5.9	5.2
16	3.1	4.0	3.1	1.8	1.8	1.6	2.2	16	44	13	5.3	4.9
17	3.2	4.0	3.1	1.8	1.8	1.6	2.5	17	47	13	5.5	4.6
18	3.1	4.0	3.1	1.8	1.8	1.6	3.0	16	46	12	5.4	4.3
19	2.7	4.0	2.9	1.8	1.8	1.6	2.5	16	42	12	5.5	4.3
20	2.9	4.0	2.7	1.8	1.8	1.6	2.3	21	41	12	5.6	4.3
21	2.8	4.0	2.7	1.8	1.8	1.6	2.5	24	44	11	6.2	4.0
22	2.6	3.9	2.7	1.8	1.8	1.6	2.2	26	42	11	5.9	4.0
23	2.6	3.7	2.7	1.8	1.8	1.6	2.6	25	40	10	5.1	3.9
24	2.6	3.6	2.7	1.8	1.8	1.6	2.5	26	38	11	4.8	3.7
25	2.9	3.4	2.6	1.8	1.8	1.7	2.3	25	35	10	4.8	3.8
26	3.1	3.3	2.5	1.8	1.8	1.9	2.5	25	34	9.5	5.1	3.8
27	3.1	3.2	2.3	1.8	1.8	2.2	3.1	27	33	9.4	5.0	3.6
28	3.0	3.2	2.2	1.8	1.8	2.0	3.2	28	32	8.9	4.7	3.5
29	3.2	3.2	2.1	1.8	---	1.8	3.7	25	31	8.6	4.6	3.6
30	3.2	3.2	2.0	1.8	---	1.8	4.2	37	30	8.1	4.6	3.6
31	2.9	---	2.0	1.8	---	1.8	---	40	---	8.1	4.6	---
TOTAL	92.6	111.7	88.2	58.6	50.4	53.4	70.7	483.6	1094	468.6	182.7	131.0
MEAN	2.99	3.72	2.85	1.89	1.80	1.72	2.36	15.6	36.5	15.1	5.89	4.37
MAX	3.8	4.3	3.2	2.0	1.8	2.2	4.2	40	47	28	7.7	5.8
MIN	2.6	3.1	2.0	1.8	1.8	1.5	1.8	3.3	27	8.1	4.6	3.5
AC-FT	184	222	175	116	100	106	140	959	2170	929	362	260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

MEAN	3.35	2.92	2.45	2.13	1.99	2.01	3.07	12.0	23.5	9.81	5.29	3.77
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	1871.3		2885.5			
ANNUAL MEAN	5.11		7.91		6.03	
HIGHEST ANNUAL MEAN					13.1	1984
LOWEST ANNUAL MEAN					3.10	1963
HIGHEST DAILY MEAN	[a]18	May 23	47	Jun 17	81	May 31 1984
LOWEST DAILY MEAN	1.3	Mar 9	[b]1.5	Mar 13	1.1	Feb 26 1964
ANNUAL SEVEN-DAY MINIMUM	1.4	Mar 3	1.6	Mar 12	1.3	Nov 28 1963
INSTANTANEOUS PEAK FLOW			57	Jun 17	[c]118	Jun 27 1983
INSTANTANEOUS PEAK STAGE			2.76	Jun 17	3.01	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	3710		5720		4370	
10 PERCENT EXCEEDS	14		26		14	
50 PERCENT EXCEEDS	3.4		3.3		3.0	
90 PERCENT EXCEEDS	1.4		1.8		1.8	

a-Also occurred May 27.
b-Also occurred Mar 14 and 15.
c-From rating curve extended above 65 ft³/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 sea level, from topographic map. Prior to Apr. 21, 1981 at site 720 ft downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 1 to Apr. 9. Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by a few small diversions upstream from station for irrigation and municipal use and transbasin diversion from Robinson Reservoir, capacity, 2,520 acre-ft, in Eagle River basin. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	26	21	21	21	25	27	64	673	552	114	55
2	24	25	21	21	21	25	27	60	643	526	113	55
3	24	24	21	21	21	25	27	66	599	515	110	55
4	23	25	21	21	21	25	27	77	489	474	104	54
5	23	26	21	21	21	25	27	91	474	424	98	44
6	24	27	21	20	21	25	27	79	501	363	96	45
7	24	27	21	19	21	25	27	75	503	338	90	50
8	24	27	21	19	21	25	29	70	417	355	86	62
9	25	26	21	19	21	25	31	67	377	345	89	57
10	24	26	21	20	21	25	32	69	390	332	83	55
11	24	25	21	21	21	25	31	83	460	341	91	55
12	24	24	21	21	21	25	34	117	538	334	83	55
13	24	25	21	21	21	25	33	164	641	324	72	60
14	23	25	23	21	21	25	34	205	691	302	70	58
15	24	25	22	21	21	25	33	262	707	292	69	58
16	25	26	22	21	21	25	32	295	703	273	66	55
17	26	26	21	21	22	25	30	333	727	255	63	55
18	25	26	21	21	23	26	31	321	680	238	63	55
19	25	26	21	21	23	27	37	330	619	225	62	55
20	25	25	21	21	23	27	37	386	656	211	63	53
21	25	25	21	21	23	27	41	434	696	197	69	40
22	24	24	21	21	23	27	35	441	722	183	78	39
23	23	23	21	21	23	27	36	394	699	172	65	39
24	23	23	21	21	23	27	36	403	641	170	57	38
25	23	22	21	21	24	27	36	438	590	155	55	36
26	28	21	21	21	25	27	36	498	595	151	59	35
27	27	21	21	21	25	27	45	541	608	145	58	34
28	27	21	21	21	25	27	50	610	596	130	56	34
29	28	21	21	21	---	27	57	576	609	125	55	34
30	28	21	21	21	---	27	64	569	599	120	55	34
31	29	---	21	21	---	27	---	626	---	119	55	---
TOTAL	771	734	655	643	618	802	1049	8744	17843	8686	2347	1454
MEAN	24.9	24.5	21.1	20.7	22.1	25.9	35.0	282	595	280	75.7	48.5
MAX	29	27	23	21	25	27	64	626	727	552	114	62
MIN	23	21	21	19	21	25	27	60	377	119	55	34
AC-FT	1530	1460	1300	1280	1230	1590	2080	17340	35390	17230	4660	2880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 1993, BY WATER YEAR (WY)

MEAN	31.8	24.4	18.8	16.1	16.2	17.9	36.9	248	467	189	72.9	43.0
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1958 - 1993	
ANNUAL TOTAL	31667		44346			
ANNUAL MEAN	86.5		121		98.6	
HIGHEST ANNUAL MEAN					183	1984
LOWEST ANNUAL MEAN					47.0	1977
HIGHEST DAILY MEAN	436	May 27	727	Jun 17	1480	Jun 17 1965
LOWEST DAILY MEAN	13	Feb 1	[a]19	Jan 7	[b]7.0	Mar 8 1960
ANNUAL SEVEN-DAY MINIMUM	14	Jan 26	20	Jan 4	7.9	Mar 8 1960
INSTANTANEOUS PEAK FLOW			844	Jun 14	[c]1910	Jun 16 1965
INSTANTANEOUS PEAK STAGE			4.22	Jun 14	6.15	Jun 16 1965
ANNUAL RUNOFF (AC-FT)	62810		87960		71460	
10 PERCENT EXCEEDS	299		466		315	
50 PERCENT EXCEEDS	30		27		29	
90 PERCENT EXCEEDS	15		21		13	

a-Also occurred Jan 8 and 9.
b-Also occurred Mar 14, 1960.
c-From rating curve extended above 750 ft³/s.

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 sea level, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	102	101	101	101	109	106	101	411	1070	104	102
2	104	104	101	101	101	109	106	101	413	1030	102	103
3	104	104	101	101	101	109	106	73	413	1000	104	103
4	104	104	101	101	101	109	105	71	413	988	104	102
5	104	104	101	101	101	109	104	101	413	928	104	101
6	104	104	101	101	101	109	104	101	413	820	104	100
7	104	104	101	101	103	109	104	101	416	698	104	101
8	104	103	101	101	104	109	104	101	416	601	103	101
9	104	104	101	100	104	109	104	101	415	540	102	101
10	104	104	100	101	101	109	104	176	409	491	103	101
11	104	104	101	101	102	109	104	255	411	461	102	101
12	115	104	101	101	104	109	104	255	412	440	103	101
13	117	104	101	101	104	109	104	255	413	425	102	101
14	103	104	101	101	104	109	103	255	412	406	102	101
15	104	104	101	101	104	109	101	251	472	385	104	101
16	104	104	101	101	105	109	100	255	606	362	104	99
17	104	104	101	101	106	109	101	255	606	335	103	100
18	104	104	101	101	106	109	101	255	607	297	104	101
19	104	104	101	101	106	109	101	255	609	254	103	99
20	104	104	101	101	106	108	101	314	622	222	104	100
21	104	104	101	101	106	108	101	403	679	193	104	101
22	104	102	101	101	106	107	101	404	772	163	103	101
23	104	102	101	101	106	107	101	404	994	132	104	101
24	104	104	101	101	106	106	101	404	1140	115	104	101
25	104	102	101	101	106	106	101	399	1140	108	103	101
26	104	101	101	101	106	106	101	405	1120	104	104	101
27	104	101	101	101	106	106	101	408	1110	104	104	101
28	104	101	101	101	107	106	101	408	1090	103	103	101
29	104	101	101	101	---	106	101	408	1070	102	103	101
30	104	101	101	101	---	108	101	408	1090	104	103	101
31	103	---	101	101	---	108	---	408	---	104	103	---
TOTAL	3244	3096	3130	3130	2914	3353	3077	8091	19507	13085	3203	3029
MEAN	105	103	101	101	104	108	103	261	650	422	103	101
MAX	117	104	101	101	107	109	106	408	1140	1070	104	103
MIN	102	101	100	100	101	106	100	71	409	102	102	99
AC-FT	6430	6140	6210	6210	5780	6650	6100	16050	38690	25950	6350	6010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

MEAN	112	90.0	81.5	72.9	74.4	74.0	110	304	681	422	247	162
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1963 - 1993	
ANNUAL TOTAL	48691		68859			
ANNUAL MEAN	133		189		203	
HIGHEST ANNUAL MEAN					538	1984
LOWEST ANNUAL MEAN					65.5	1981
HIGHEST DAILY MEAN	570	Jun 14	[a]1140	Jun 24	1940	May 24 1984
LOWEST DAILY MEAN	[b]53	May 5	71	May 4	[c].00	Sep 4 1963
ANNUAL SEVEN-DAY MINIMUM	82	May 1	93	Apr 28	.00	Sep 4 1963
INSTANTANEOUS PEAK FLOW			[a]1170	Jun 24	2010	May 25 1984
INSTANTANEOUS PEAK STAGE			[a]3.01	Jun 24	[d]3.88	May 25 1984
ANNUAL RUNOFF (AC-FT)	96580		136600		147000	
10 PERCENT EXCEEDS	152		413		450	
50 PERCENT EXCEEDS	104		104		101	
90 PERCENT EXCEEDS	101		101		51	

a-Also occurred Jun 25.
b-Also occurred May 6.
c-Also occurred Sep 5 to Nov 19, 1963.
d-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 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,070 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 13 to Apr. 10, and July 9-12. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	5.8	5.0	3.5	3.5	2.9	4.5	7.0	66	101	20	12
2	6.0	6.5	5.0	3.5	3.5	2.9	4.5	7.8	65	97	21	14
3	5.5	6.2	5.0	3.5	3.5	2.9	4.5	8.6	60	94	21	12
4	5.5	5.9	5.0	3.5	3.5	2.9	4.5	11	53	83	20	11
5	5.5	5.5	5.0	3.5	3.5	2.9	4.5	11	47	77	22	11
6	6.0	5.6	5.0	3.5	3.5	2.9	4.6	9.1	49	74	20	11
7	6.1	5.8	5.0	3.5	3.5	2.9	4.7	8.4	54	69	19	14
8	6.1	5.8	5.0	3.5	3.5	2.9	4.8	7.8	45	67	19	14
9	5.6	6.0	5.0	3.5	3.4	2.9	4.9	7.4	40	64	18	11
10	5.7	6.2	5.0	3.5	3.3	2.8	5.0	8.3	41	63	18	10
11	5.7	6.2	5.0	3.5	3.1	2.6	5.0	11	46	62	18	9.4
12	5.4	6.2	5.0	3.5	2.9	2.5	5.2	14	56	60	17	9.3
13	5.6	6.0	5.0	3.5	2.8	2.5	4.9	17	67	57	18	15
14	5.9	5.7	5.0	3.5	2.8	2.5	5.2	20	90	56	16	12
15	6.0	5.5	5.0	3.5	2.8	2.7	5.1	20	97	54	16	12
16	6.0	5.4	5.0	3.5	2.8	2.7	4.9	24	119	50	15	11
17	5.9	5.4	5.0	3.5	2.8	2.7	5.0	25	130	45	14	10
18	5.7	5.4	4.8	3.5	2.8	2.7	4.9	23	120	39	14	9.6
19	5.8	5.4	4.3	3.5	2.8	2.7	4.4	24	109	36	14	9.5
20	5.6	5.4	4.1	3.5	2.8	2.7	5.0	29	108	35	14	9.1
21	5.6	5.4	4.0	3.5	2.8	2.8	5.5	34	117	35	14	8.7
22	5.7	5.4	4.0	3.5	2.8	3.2	5.8	33	123	33	14	8.6
23	5.5	5.4	4.0	3.5	2.8	4.0	5.8	30	118	28	13	8.3
24	5.6	5.2	4.0	3.5	2.8	5.0	5.5	30	111	28	12	8.1
25	6.1	5.0	4.0	3.5	2.8	6.2	5.6	37	101	26	12	8.2
26	7.0	5.0	3.8	3.5	2.8	7.0	6.5	44	103	24	13	8.0
27	6.3	5.0	3.6	3.5	2.8	7.5	7.5	44	104	22	13	8.0
28	6.4	5.0	3.5	3.5	2.8	6.5	8.2	51	104	21	12	7.8
29	6.7	5.0	3.5	3.5	---	5.6	9.6	50	109	19	11	7.8
30	6.5	5.0	3.5	3.5	---	5.0	8.5	52	112	19	11	8.1
31	6.4	---	3.5	3.5	---	4.6	---	60	---	18	11	---
TOTAL	183.2	167.3	139.6	108.5	85.5	112.6	164.6	758.4	2564	1556	490	308.5
MEAN	5.91	5.58	4.50	3.50	3.05	3.63	5.49	24.5	85.5	50.2	15.8	10.3
MAX	7.0	6.5	5.0	3.5	3.5	7.5	9.6	60	130	101	22	15
MIN	5.4	5.0	3.5	3.5	2.8	2.5	4.4	7.0	40	18	11	7.8
AC-FT	363	332	277	215	170	223	326	1500	5090	3090	972	612

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

MEAN	6.37	5.55	4.45	3.78	3.39	3.93	6.56	23.0	58.4	25.5	11.1	7.10
MAX	9.62	7.79	5.14	4.63	4.30	5.40	9.99	26.5	85.5	50.2	15.8	10.3
(WY)	1987	1989	1989	1989	1990	1989	1989	1991	1993	1993	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1987 - 1993	
ANNUAL TOTAL	4063.6		6638.2			
ANNUAL MEAN	11.1		18.2		13.3	
HIGHEST ANNUAL MEAN					18.2	1993
LOWEST ANNUAL MEAN					10.9	1987
HIGHEST DAILY MEAN	53	Jun 14	130	Jun 17	130	Jun 17 1993
LOWEST DAILY MEAN	1.8	Jan 31	[a]2.5	Mar 12	1.8	Jan 31 1992
ANNUAL SEVEN-DAY MINIMUM	1.9	Jan 26	2.6	Mar 11	1.9	Jan 26 1992
INSTANTANEOUS PEAK FLOW			168	Jun 16	168	Jun 16 1993
INSTANTANEOUS PEAK STAGE			5.30	Jun 16	[b]5.42	Jul 5 1990
ANNUAL RUNOFF (AC-FT)	8060		13170		9610	
10 PERCENT EXCEEDS	32		56		35	
50 PERCENT EXCEEDS	5.8		5.9		6.0	
90 PERCENT EXCEEDS	2.5		2.9		3.4	

a-Also occurred Mar 13 and 14.
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 NE¼ sec.9, T.4 S., R.78 W., Summit County, Hydrologic Unit 14010002, on right bank 500 ft upstream from bridge on State Highway 9, 1,100 ft upstream from mouth, 1,200 ft downstream from confluence of North and South Rock Creeks, and 8 mi northwest of Dillon.

DRAINAGE AREA.--15.8 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 8,502.52 ft above sea level, (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: Nov. 3-7, Nov. 11 to Apr. 9, and Apr. 17. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	4.8	3.9	3.4	3.3	3.2	4.0	8.4	139	116	47	16
2	5.8	4.6	3.9	3.4	3.3	3.2	4.1	8.2	130	113	44	17
3	5.7	4.5	3.8	3.3	3.2	3.1	4.0	8.9	108	118	39	16
4	5.5	4.4	3.8	3.3	3.2	3.1	4.1	12	75	106	37	13
5	5.3	4.4	3.7	3.4	3.2	3.1	4.2	15	67	78	40	14
6	5.2	4.5	3.7	3.4	3.3	3.1	4.3	12	76	58	39	14
7	5.3	4.5	3.8	3.4	3.3	3.0	4.4	10	83	57	33	16
8	5.4	4.8	3.8	3.4	3.2	3.0	4.6	9.6	60	72	33	22
9	5.2	4.6	3.7	3.3	3.2	3.0	4.7	8.5	48	88	34	16
10	4.9	4.7	3.7	3.4	3.1	2.9	4.4	9.5	53	90	33	14
11	4.9	4.7	3.8	3.4	3.2	3.0	4.3	14	71	96	41	13
12	4.7	4.6	3.9	3.4	3.2	3.0	4.3	21	96	97	37	13
13	4.5	4.5	3.9	3.4	3.2	3.0	4.3	29	127	95	31	20
14	4.4	4.3	3.9	3.4	3.3	3.0	5.9	34	142	90	28	20
15	4.3	4.4	3.8	3.4	3.2	2.8	4.9	41	129	88	25	17
16	4.2	4.4	3.8	3.4	3.2	3.0	4.2	53	116	85	24	16
17	4.6	4.3	3.7	3.3	3.2	3.0	4.0	63	139	77	22	15
18	4.7	4.3	3.6	3.3	3.2	3.0	4.4	58	134	74	21	14
19	4.6	4.4	3.6	3.2	3.3	3.0	5.6	56	99	66	21	13
20	4.6	4.5	3.5	3.2	3.2	3.1	4.8	65	108	66	19	12
21	4.6	4.5	3.5	3.1	3.2	3.1	4.8	80	129	66	21	11
22	4.5	4.5	3.6	3.1	3.2	3.1	5.3	85	135	57	26	10
23	4.5	4.4	3.5	3.1	3.1	3.2	6.2	73	132	53	22	9.6
24	4.5	4.3	3.5	3.2	3.1	3.3	5.8	69	115	49	19	9.6
25	4.6	4.2	3.4	3.3	3.3	3.4	5.4	77	97	41	18	9.4
26	4.7	4.1	3.3	3.3	3.3	3.5	6.0	90	107	44	21	8.9
27	4.6	4.0	3.3	3.3	3.3	3.6	7.7	114	115	48	21	8.7
28	4.8	4.0	3.4	3.2	3.3	3.5	9.1	125	114	44	17	8.4
29	5.5	4.0	3.4	3.3	---	3.5	9.9	130	123	46	16	8.0
30	5.3	3.9	3.4	3.2	---	3.6	11	115	123	48	18	7.8
31	5.4	---	3.4	3.2	---	3.8	---	130	---	52	17	---
TOTAL	152.9	132.1	113.0	102.4	90.3	98.2	160.7	1624.1	3190	2278	864	402.4
MEAN	4.93	4.40	3.65	3.30	3.22	3.17	5.36	52.4	106	73.5	27.9	13.4
MAX	6.1	4.8	3.9	3.4	3.3	3.8	11	130	142	118	47	22
MIN	4.2	3.9	3.3	3.1	3.1	2.8	4.0	8.2	48	41	16	7.8
AC-FT	303	262	224	203	179	195	319	3220	6330	4520	1710	798

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1993, BY WATER YEAR (WY)

MEAN	7.70	5.93	4.75	4.04	3.67	3.82	9.31	46.9	94.6	56.2	23.3	12.0
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1943 - 1993	
ANNUAL TOTAL	5775.1		9208.1			
ANNUAL MEAN	15.8		25.2		22.7	
HIGHEST ANNUAL MEAN					32.4	1984
LOWEST ANNUAL MEAN					12.5	1977
HIGHEST DAILY MEAN	78	May 21	142	Jun 14	203	Jun 8 1948
LOWEST DAILY MEAN	2.9	Feb 11	2.8	Mar 15	1.5	Mar 23 1989
ANNUAL SEVEN-DAY MINIMUM	3.0	Feb 8	3.0	Mar 9	1.6	Mar 21 1989
INSTANTANEOUS PEAK FLOW			196	Jun 14	[a]289	Jun 10 1973
INSTANTANEOUS PEAK STAGE			4.00	Jun 14	[b]4.35	Jun 10 1973
ANNUAL RUNOFF (AC-FT)	11450		18260		16480	
10 PERCENT EXCEEDS	46		90		70	
50 PERCENT EXCEEDS	5.5		4.8		7.2	
90 PERCENT EXCEEDS	3.4		3.2		3.5	

a-From rating curve extended above 154 ft³/s.
b-Maximum gage height, 4.36 ft, Jun 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 1 to May 15. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	3.8	2.3	1.6	1.5	1.5	1.8	2.7	91	113	39	14
2	4.8	3.6	2.2	1.6	1.5	1.5	1.7	2.6	86	110	38	13
3	4.6	3.4	2.2	1.6	1.5	1.5	1.7	2.5	72	112	34	12
4	4.4	3.2	2.1	1.5	1.5	1.5	1.8	2.8	48	83	32	11
5	4.2	3.0	2.1	1.5	1.5	1.5	1.9	3.1	41	53	34	11
6	4.1	3.0	2.1	1.5	1.5	1.5	1.9	4.5	48	40	33	11
7	4.2	3.1	2.2	1.5	1.5	1.5	1.9	4.0	56	43	29	13
8	4.0	3.2	2.2	1.5	1.5	1.5	1.8	3.6	39	62	28	17
9	4.1	3.2	2.2	1.5	1.5	1.5	1.9	3.4	31	76	29	13
10	4.1	3.3	2.2	1.5	1.5	1.5	1.9	3.6	33	81	29	12
11	4.1	3.3	2.2	1.5	1.5	1.5	2.0	4.1	47	89	33	11
12	4.0	3.1	2.1	1.5	1.5	1.5	2.0	12	68	90	31	10
13	3.9	3.0	2.1	1.5	1.5	1.5	2.0	18	90	89	28	16
14	3.8	2.9	2.1	1.5	1.5	1.5	2.0	28	106	83	25	16
15	3.7	2.8	2.0	1.5	1.5	1.5	2.0	30	112	84	23	13
16	3.7	2.8	1.9	1.5	1.5	1.6	2.0	36	95	77	22	12
17	3.8	2.7	1.9	1.5	1.5	1.6	2.0	42	112	72	21	12
18	3.7	2.7	1.9	1.5	1.5	1.6	2.0	34	106	69	20	11
19	3.7	2.6	1.9	1.5	1.5	1.6	2.0	31	73	59	19	10
20	3.6	2.6	1.9	1.5	1.6	1.7	2.0	38	88	59	18	9.3
21	3.5	2.5	1.9	1.5	1.6	1.7	2.1	50	108	56	19	8.4
22	3.5	2.5	1.9	1.4	1.5	1.7	2.1	48	117	51	22	7.8
23	3.5	2.5	1.9	1.4	1.5	1.8	2.1	38	117	45	19	7.3
24	3.5	2.4	1.8	1.4	1.5	1.8	2.1	39	99	39	18	7.0
25	3.5	2.3	1.7	1.4	1.5	1.8	2.2	51	84	34	17	6.7
26	3.5	2.3	1.7	1.4	1.5	1.8	2.4	64	95	39	19	6.3
27	3.5	2.3	1.7	1.4	1.5	1.8	2.5	65	104	43	18	6.1
28	3.5	2.3	1.7	1.4	1.5	1.8	2.6	75	106	39	15	5.8
29	3.8	2.3	1.6	1.4	---	1.8	2.7	79	125	41	14	5.6
30	3.8	2.3	1.6	1.4	---	1.8	2.8	73	129	42	15	5.4
31	3.9	---	1.6	1.5	---	1.8	---	81	---	43	14	---
TOTAL	120.9	85.0	60.9	45.9	42.2	50.2	61.9	968.9	2526	2016	755	313.7
MEAN	3.90	2.83	1.96	1.48	1.51	1.62	2.06	31.3	84.2	65.0	24.4	10.5
MAX	4.9	3.8	2.3	1.6	1.6	1.8	2.8	81	129	113	39	17
MIN	3.5	2.3	1.6	1.4	1.5	1.5	1.7	2.5	31	34	14	5.4
AC-FT	240	169	121	91	84	100	123	1920	5010	4000	1500	622

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	5.04	3.28	2.58	2.06	1.92	2.02	4.69	28.5	77.6	49.8	18.3	9.22
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	4377.4		7046.6			
ANNUAL MEAN	12.0		19.3		17.1	
HIGHEST ANNUAL MEAN					26.1	1984
LOWEST ANNUAL MEAN					9.50	1977
HIGHEST DAILY MEAN	76	May 21	129	Jun 30	210	Jun 25 1983
LOWEST DAILY MEAN	1.5	Feb 10	[a]1.4	Jan 22	.80	Jan 6 1977
ANNUAL SEVEN-DAY MINIMUM	1.7	Dec 25	1.4	Jan 22	.88	Jan 1 1977
INSTANTANEOUS PEAK FLOW			186	Jun 29	316	Jul 1 1984
INSTANTANEOUS PEAK STAGE			[b]3.13	Jun 29	[b]3.42	Jul 1 1984
ANNUAL RUNOFF (AC-FT)	8680		13980		12400	
10 PERCENT EXCEEDS	35		72		56	
50 PERCENT EXCEEDS	4.1		3.3		4.4	
90 PERCENT EXCEEDS	1.8		1.5		1.6	

a-Also occurred Jan 23-30.
b-Maximum gage height, 3.70 ft, May 15, 1993, backwater from ice.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7, and Nov. 10 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	5.5	3.4	3.2	3.0	2.8	3.8	10	143	175	70	23
2	7.3	5.4	3.4	3.2	3.0	2.9	3.9	11	142	168	68	22
3	7.1	4.9	3.4	3.2	3.0	2.9	4.1	12	117	171	60	22
4	6.6	4.9	3.4	3.2	3.0	2.9	4.3	16	79	136	57	19
5	6.9	5.0	3.4	3.2	3.0	2.9	4.4	17	64	91	60	20
6	5.7	5.2	3.4	3.2	3.0	2.9	4.3	14	71	67	61	21
7	6.4	5.0	3.4	3.2	3.0	2.9	4.3	13	86	66	52	24
8	6.1	4.6	3.4	3.1	3.0	2.9	4.2	13	64	93	50	32
9	5.8	4.8	3.4	3.1	3.0	3.0	4.6	12	50	115	55	26
10	5.6	4.8	3.4	3.1	3.0	3.0	5.0	12	50	121	53	22
11	5.5	4.8	3.4	3.1	3.0	3.1	5.0	17	69	139	67	20
12	5.4	4.8	3.4	3.1	3.0	3.1	5.0	25	95	145	58	18
13	5.2	4.7	3.4	3.1	3.0	3.1	4.9	35	127	138	52	26
14	4.9	4.3	3.4	3.1	3.0	3.1	4.7	45	151	121	45	29
15	4.9	4.0	3.3	3.1	2.9	3.1	4.8	54	171	124	40	25
16	4.7	3.8	3.3	3.1	2.9	3.1	4.9	61	144	122	36	23
17	4.8	3.7	3.3	3.1	2.9	3.1	5.1	72	166	113	36	22
18	4.7	3.6	3.3	3.1	2.9	3.1	5.5	70	149	110	34	21
19	4.7	3.5	3.3	3.1	2.9	3.1	5.2	61	107	95	32	19
20	4.6	3.5	3.3	3.1	2.9	3.1	5.4	77	130	91	30	16
21	4.6	3.5	3.3	3.1	2.9	3.1	5.8	104	159	89	32	15
22	4.5	3.5	3.3	3.0	2.9	3.1	6.8	112	174	81	37	14
23	4.5	3.3	3.3	3.0	2.9	3.2	7.7	90	172	72	33	13
24	4.4	3.3	3.3	3.0	2.9	3.3	7.6	85	147	62	30	12
25	4.5	3.3	3.3	3.0	2.9	3.6	7.4	97	127	55	29	11
26	4.5	3.3	3.3	3.0	2.9	3.9	7.9	111	145	62	32	11
27	4.5	3.3	3.2	3.0	2.9	4.3	9.0	117	161	73	33	9.9
28	4.5	3.4	3.2	3.0	2.9	4.3	11	126	157	66	27	9.4
29	5.3	3.4	3.2	3.0	---	4.2	13	133	174	68	25	9.1
30	5.4	3.4	3.2	3.0	---	4.1	12	124	193	74	26	8.5
31	5.8	---	3.2	3.0	---	4.0	---	132	---	78	24	---
TOTAL	167.2	124.5	103.2	95.8	82.6	101.2	181.6	1878	3784	3181	1344	562.9
MEAN	5.39	4.15	3.33	3.09	2.95	3.26	6.05	60.6	126	103	43.4	18.8
MAX	7.8	5.5	3.4	3.2	3.0	4.3	13	133	193	175	70	32
MIN	4.4	3.3	3.2	3.0	2.9	2.8	3.8	10	50	55	24	8.5
AC-FT	332	247	205	190	164	201	360	3730	7510	6310	2670	1120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	8.28	5.01	3.73	2.91	2.66	3.04	8.20	45.5	109	77.6	29.9	14.6
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	6261.4		11606.0			
ANNUAL MEAN	17.1		31.8		26.0	
HIGHEST ANNUAL MEAN					40.2	1984
LOWEST ANNUAL MEAN					14.3	1977
HIGHEST DAILY MEAN	82	May 21	193	Jun 30	292	Jun 25 1983
LOWEST DAILY MEAN	2.1	Feb 13	2.8	Mar 1	[a]1.0	Mar 14 1974
ANNUAL SEVEN-DAY MINIMUM	2.2	Feb 8	2.9	Feb 23	1.1	Mar 8 1974
INSTANTANEOUS PEAK FLOW			253	Jun 30	[b]485	Aug 5 1983
INSTANTANEOUS PEAK STAGE			5.07	Jun 30	[c]6.14	Aug 5 1983
ANNUAL RUNOFF (AC-FT)	12420		23020		18820	
10 PERCENT EXCEEDS	49		116		82	
50 PERCENT EXCEEDS	5.8		5.2		6.9	
90 PERCENT EXCEEDS	2.6		3.0		2.5	

a-Also occurred Jan 12, 1977.
b-From rating curve extended above 170 ft³/s.
c-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 SW¼SW¼ 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 sea level, 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: Nov. 24 to Apr. 19. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	5.2	4.2	2.7	2.3	2.6	3.1	11	192	206	94	29
2	9.4	5.5	4.1	2.7	2.3	2.6	3.1	11	182	199	90	27
3	9.0	5.6	4.0	2.6	2.2	2.6	3.1	11	138	202	75	26
4	8.7	5.7	4.0	2.6	2.2	2.6	3.1	13	92	144	71	24
5	7.8	5.6	3.9	2.6	2.2	2.6	3.1	21	75	97	74	25
6	7.4	5.6	3.8	2.6	2.2	2.7	3.0	20	92	71	72	28
7	7.1	5.6	3.8	2.6	2.2	2.7	2.9	16	109	74	64	32
8	7.2	5.6	3.7	2.6	2.2	2.8	2.9	14	76	107	62	42
9	7.2	5.6	3.7	2.6	2.1	2.8	3.0	11	58	139	68	37
10	6.7	6.2	3.6	2.5	2.1	2.8	3.1	10	60	144	72	31
11	6.5	6.6	3.5	2.5	2.1	2.8	3.1	11	94	167	94	29
12	6.2	6.2	3.5	2.5	2.1	2.9	3.1	20	122	174	76	27
13	6.4	6.2	3.4	2.5	2.0	2.9	3.1	41	167	167	65	36
14	5.9	5.7	3.4	2.5	2.1	2.9	3.1	55	193	144	56	41
15	5.7	5.6	3.3	2.5	2.1	2.9	3.2	72	220	147	49	37
16	5.6	5.4	3.3	2.5	2.1	2.8	3.2	88	172	143	45	33
17	5.3	5.3	3.2	2.5	2.2	2.7	3.3	97	192	135	44	31
18	5.0	5.3	3.1	2.5	2.2	2.7	3.5	81	165	129	42	28
19	5.0	5.3	3.1	2.5	2.2	2.7	3.8	74	117	114	42	26
20	4.9	5.3	3.0	2.4	2.3	2.7	3.6	95	153	111	42	24
21	4.8	5.3	3.0	2.4	2.3	2.7	3.7	131	195	114	46	22
22	4.8	5.2	2.9	2.4	2.4	2.8	4.0	145	198	100	52	20
23	4.6	5.1	2.9	2.4	2.4	2.8	4.1	97	197	90	42	18
24	4.5	5.0	2.9	2.4	2.4	2.8	4.5	87	166	80	39	16
25	4.5	5.0	2.9	2.4	2.5	2.8	4.9	107	138	65	38	15
26	4.5	5.1	2.8	2.4	2.5	2.8	5.1	157	160	69	44	14
27	4.4	5.0	2.8	2.4	2.6	2.9	5.9	152	187	89	46	13
28	4.4	4.9	2.7	2.3	2.6	3.1	6.6	169	193	85	37	12
29	4.5	4.7	2.7	2.3	---	3.1	7.8	172	215	89	33	11
30	4.6	4.4	2.7	2.3	---	3.2	10	135	237	98	32	9.3
31	4.9	---	2.7	2.3	---	3.2	---	155	---	100	31	---
TOTAL	187.4	162.8	102.6	77.0	63.1	87.0	120.0	2279	4555	3793	1737	763.3
MEAN	6.05	5.43	3.31	2.48	2.25	2.81	4.00	73.5	152	122	56.0	25.4
MAX	9.9	6.6	4.2	2.7	2.6	3.2	10	172	237	206	94	42
MIN	4.4	4.4	2.7	2.3	2.0	2.6	2.9	10	58	65	31	9.3
AC-FT	372	323	204	153	125	173	238	4520	9030	7520	3450	1510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1993, BY WATER YEAR (WY)

MEAN	8.58	5.05	3.63	2.71	2.41	2.76	9.71	55.8	132	101	40.3	18.2
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1943 - 1993	
ANNUAL TOTAL	8723.4		13927.2			
ANNUAL MEAN	23.8		38.2		31.9	
HIGHEST ANNUAL MEAN					46.7	1984
LOWEST ANNUAL MEAN					19.3	1977
HIGHEST DAILY MEAN	145	May 21	237	Jun 30	404	Jun 25 1983
LOWEST DAILY MEAN	2.2	Mar 15	2.0	Feb 13	[a]1.3	Feb 22 1976
ANNUAL SEVEN-DAY MINIMUM	2.4	Mar 14	2.1	Feb 9	1.4	Jan 9 1977
INSTANTANEOUS PEAK FLOW			315	Jun 30	[b]555	Jun 25 1983
INSTANTANEOUS PEAK STAGE			2.86	Jun 30	[c]4.74	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	17300		27620		23140	
10 PERCENT EXCEEDS	74		138		105	
50 PERCENT EXCEEDS	6.4		5.6		7.0	
90 PERCENT EXCEEDS	2.7		2.5		2.3	

a-Also occurred Jun 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 SW¼4NE¼4 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 sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	2.0	1.9	1.3	1.1	1.2	1.5	7.9	166	163	35	7.5
2	3.8	1.8	1.8	1.3	1.1	1.2	1.6	7.7	165	150	34	7.1
3	3.5	1.8	1.8	1.3	1.1	1.1	1.7	9.1	135	154	30	6.6
4	2.7	1.9	1.7	1.3	1.1	1.1	1.7	13	85	112	27	6.0
5	2.8	1.9	1.7	1.3	1.1	1.1	1.8	17	65	70	27	5.9
6	2.7	2.0	1.7	1.3	1.1	1.1	2.0	13	79	52	27	6.1
7	2.7	2.1	1.6	1.3	1.1	1.0	2.0	11	104	53	24	6.9
8	2.4	2.2	1.6	1.3	1.1	1.0	1.9	9.1	68	77	22	8.7
9	1.7	2.3	1.5	1.3	1.1	.96	1.8	7.5	50	99	23	9.2
10	1.8	2.5	1.5	1.3	1.1	.99	1.8	6.7	43	107	23	7.9
11	1.8	2.6	1.6	1.3	1.1	1.1	1.8	8.7	53	116	26	6.9
12	1.8	2.6	1.7	1.4	1.1	1.1	1.8	15	89	119	25	6.0
13	1.5	2.6	1.7	1.3	1.2	1.1	1.9	23	141	112	22	7.1
14	1.5	2.6	1.6	1.3	1.1	1.1	1.9	29	161	94	20	9.0
15	1.5	2.6	1.6	1.3	1.1	1.1	1.8	38	190	99	18	8.7
16	1.5	2.4	1.6	1.3	1.1	1.1	1.8	55	176	93	16	8.4
17	1.6	2.4	1.5	1.3	1.2	1.1	1.8	64	191	78	14	8.2
18	1.6	2.3	1.5	1.3	1.2	1.2	1.9	49	160	74	13	7.8
19	1.5	2.3	1.5	1.3	1.1	1.2	2.2	46	106	60	12	7.5
20	1.6	2.3	1.5	1.3	1.2	1.1	2.1	108	128	56	11	7.1
21	1.5	2.2	1.4	1.2	1.2	1.1	2.0	128	155	56	11	6.6
22	1.4	2.2	1.4	1.2	1.2	1.1	2.0	137	166	48	13	6.1
23	1.5	2.2	1.3	1.2	1.3	1.1	2.2	103	168	42	13	5.7
24	1.6	2.2	1.3	1.2	1.4	1.1	2.9	84	149	38	11	5.3
25	1.5	2.2	1.3	1.2	1.4	1.1	2.9	101	119	35	9.7	4.9
26	1.4	2.1	1.2	1.1	1.3	1.2	3.0	137	133	33	11	4.7
27	1.5	2.1	1.2	1.1	1.3	1.4	4.7	135	152	37	13	4.6
28	1.6	2.0	1.2	1.1	1.2	1.7	6.5	154	153	36	11	4.4
29	1.5	2.0	1.2	1.1	---	1.6	7.7	162	177	35	9.0	4.3
30	1.5	1.9	1.3	1.1	---	1.6	8.8	137	192	37	8.0	4.0
31	1.9	---	1.3	1.1	---	1.6	---	143	---	37	7.6	---
TOTAL	60.9	66.3	46.7	38.7	32.7	36.55	79.5	1958.7	3919	2372	566.3	199.2
MEAN	1.96	2.21	1.51	1.25	1.17	1.18	2.65	63.2	131	76.5	18.3	6.64
MAX	4.0	2.6	1.9	1.4	1.4	1.7	8.8	162	192	163	35	9.2
MIN	1.4	1.8	1.2	1.1	1.1	.96	1.5	6.7	43	33	7.6	4.0
AC-FT	121	132	93	77	65	72	158	3890	7770	4700	1120	395

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	4.00	2.51	1.78	1.29	1.12	1.28	5.87	46.2	107	52.4	13.2	6.51
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	5169.17		9376.55			
ANNUAL MEAN	14.1		25.7		20.3	
HIGHEST ANNUAL MEAN					28.7	1983
LOWEST ANNUAL MEAN					10.8	1977
HIGHEST DAILY MEAN	103	May 21	192	Jun 30	298	Jun 25 1983
LOWEST DAILY MEAN	[a].84	Feb 11	.96	Mar 9	.28	Oct 7 1971
ANNUAL SEVEN-DAY MINIMUM	.87	Feb 8	1.0	Mar 4	.38	Feb 12 1977
INSTANTANEOUS PEAK FLOW			254	Jun 30	353	Jun 25 1983
INSTANTANEOUS PEAK STAGE			4.79	Jun 30	[b]5.20	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	10250		18600		14680	
10 PERCENT EXCEEDS	50		107		69	
50 PERCENT EXCEEDS	2.6		2.2		3.3	
90 PERCENT EXCEEDS	1.1		1.1		1.1	

a-Also occurred Feb 13.
b-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 above sea level, (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations above sea level.

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

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

EXTREMES FOR CURRENT YEAR: Maximum contents, 259,300 acre-ft, June 24, elevation, 9,018.59 ft; minimum, 203,100 acre-ft, Apr. 20, elevation, 8.999.63 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 above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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, 146,100 acre-ft, July 31 elevation, 7,949.70 ft; minimum, 57,600 acre-ft, May 11, elevation, 7,894.61 ft.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation [a](feet)	Contents (acre-feet)	Change in contents (acre-feet	Gage height [a](feet)	Contents (acre-feet)	Change in contents (acre-feet)
	09050600 DILLON RESERVOIR			09057000 GREEN MOUNTAIN RESERVOIR		
Sept. 30.....	9,014.74	246,800	-	7,924.40	98,500	-
Oct. 31.....	9,013.71	243,600	-3,200	7,918.82	89,700	-8,800
Nov. 30.....	9,010.54	233,900	-9,700	7,914.37	83,100	-6,600
Dec. 31.....	9,007.96	226,300	-7,600	7,909.78	76,600	-6,500
CAL YR 1992....			-6,200			-16,900
Jan. 31.....	9,005.43	219,000	-7,300	7,906.74	72,500	-4,100
Feb. 28.....	9,003.21	212,800	-6,200	7,904.47	69,500	-3,000
Mar. 31.....	9,000.83	206,300	-6,500	7,902.03	66,400	-3,100
Apr. 30.....	9,000.10	204,300	-2,000	7,896.58	59,900	-6,500
May 31.....	9,009.71	231,400	+27,100	7,912.21	80,000	+20,100
June 30.....	9,018.53	259,100	+27,700	7,942.26	130,900	+50,900
July 31.....	9,015.92	250,500	-8,600	7,949.70	146,100	+15,200
Aug. 31.....	9,012.91	241,100	-9,400	7,947.47	141,500	-4,600
Sept. 30.....	9,009.72	231,400	-9,700	7,944.11	134,600	-6,900
WTR YR 1993....			-15,400			+36,100

a-Above sea level.

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 sea level, (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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	379	259	267	235	195	201	281	381	734	1300	539	290
2	376	261	263	236	192	197	286	377	736	1400	537	286
3	375	260	273	236	191	198	284	379	728	1320	534	301
4	371	262	271	237	193	199	283	418	780	1240	504	359
5	371	261	269	241	193	202	281	477	833	1130	458	378
6	369	261	274	241	193	202	281	481	832	979	423	379
7	314	262	227	242	194	204	287	509	834	981	426	382
8	351	263	272	233	193	198	283	521	833	982	426	356
9	345	262	267	218	198	203	281	521	793	953	425	338
10	313	261	264	218	197	201	283	526	736	905	398	338
11	306	261	246	218	196	199	285	529	734	907	371	338
12	307	262	237	212	196	192	286	531	737	924	371	339
13	303	263	237	201	195	198	291	526	736	969	382	340
14	267	262	235	196	197	193	287	528	689	1020	435	340
15	267	263	236	195	196	194	306	529	635	1050	411	340
16	268	262	244	197	196	194	339	523	625	1040	396	340
17	267	266	243	199	195	195	346	522	625	1040	396	339
18	267	267	241	198	198	195	344	552	631	1030	393	339
19	267	204	240	198	201	195	343	630	634	951	456	338
20	267	257	240	197	203	194	339	628	637	813	703	340
21	265	254	238	196	202	201	339	599	634	654	873	341
22	265	255	238	196	204	196	341	683	659	554	700	338
23	264	258	237	203	202	200	340	681	730	514	326	338
24	265	263	235	194	204	205	332	682	727	460	325	339
25	267	268	245	193	204	199	333	680	720	416	322	339
26	265	269	239	184	204	200	329	707	712	383	325	339
27	265	272	240	194	204	205	325	700	707	342	322	339
28	265	268	240	199	205	203	355	729	701	318	322	338
29	233	270	236	199	---	200	387	729	833	347	322	337
30	257	262	232	197	---	207	389	731	1080	406	306	335
31	257	---	229	198	---	267	---	732	---	487	291	---
TOTAL	9218	7818	7655	6501	5541	6237	9466	17741	22025	25815	13418	10183
MEAN	297	261	247	210	198	201	316	572	734	833	433	339
MAX	379	272	274	242	205	267	389	732	1080	1400	873	382
MIN	233	204	227	184	191	192	281	377	625	318	291	286
AC-FT	18280	15510	15180	12890	10990	12370	18780	35190	43690	51200	26610	20200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 1993, BY WATER YEAR (WY)

MEAN	380	293	308	302	289	313	387	549	728	781	611	499
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1943 - 1993	
ANNUAL TOTAL	107844		141618			
ANNUAL MEAN	295		388		454	
HIGHEST ANNUAL MEAN					946	1984
LOWEST ANNUAL MEAN					200	1964
HIGHEST DAILY MEAN	795	Aug 22	1400	Jul 2	[a]3370	Jul 8 1957
LOWEST DAILY MEAN	58	Jun 10	184	Jan 26	[b,c].00	Dec 6 1942
ANNUAL SEVEN-DAY MINIMUM	61	Jun 10	193	Feb 2	.00	Jan 5 1943
INSTANTANEOUS PEAK FLOW			1430	Jul 3	[d]3520	Jul 8 1957
INSTANTANEOUS PEAK STAGE			7.01	Jul 3	10.13	Jul 8 1957
ANNUAL RUNOFF (AC-FT)	213900		280900		329200	
10 PERCENT EXCEEDS	596		731		839	
50 PERCENT EXCEEDS	291		287		363	
90 PERCENT EXCEEDS	71		197		121	

a-Maximum daily discharge for period of record, 3620 ft³/s, Jun 22, 1938.
b-No flow at times in 1943.
c-Minimum daily discharge (prior to Green Mountain Reservoir), 80 ft³/s, Feb 18-24, 1938, Feb 18 and 19, 1940.
d-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 sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	199	142	171	133	143	210	325	595	972	481	274
2	280	202	142	173	131	138	215	322	598	1090	479	270
3	280	200	147	173	132	140	216	330	588	1090	476	276
4	279	199	149	182	133	140	216	368	603	1030	454	322
5	279	200	146	187	132	141	217	423	637	959	415	345
6	280	199	172	174	140	142	215	409	631	832	383	346
7	241	200	168	175	132	145	218	427	641	838	384	351
8	267	200	201	170	131	141	217	435	626	844	385	333
9	266	201	197	157	134	145	216	429	598	811	384	315
10	240	200	193	156	135	145	218	432	546	758	365	314
11	236	198	183	157	134	145	219	443	540	758	340	314
12	237	199	175	154	135	139	221	441	546	756	339	313
13	238	199	173	146	135	142	224	431	552	802	345	317
14	204	198	174	142	139	138	219	453	514	854	389	314
15	205	198	173	143	136	143	226	458	452	889	368	313
16	207	198	179	144	136	143	259	465	444	883	357	312
17	207	200	179	145	136	143	265	471	450	876	355	312
18	207	202	177	145	137	146	266	477	455	870	355	312
19	208	157	175	146	141	145	263	503	440	814	390	311
20	206	164	183	145	143	144	259	511	433	710	581	311
21	206	135	173	143	142	149	259	484	433	587	732	312
22	204	136	173	143	143	146	264	561	444	503	645	311
23	203	138	173	149	142	148	266	552	504	469	305	310
24	204	141	170	139	144	153	267	548	502	426	284	310
25	207	145	178	141	143	151	266	555	492	388	250	311
26	205	145	174	133	145	150	268	577	501	360	256	311
27	205	147	174	140	143	155	275	569	514	327	252	310
28	205	145	173	151	144	155	299	608	510	305	250	310
29	181	147	173	157	---	152	332	603	602	326	250	310
30	197	141	170	146	---	154	335	593	801	370	240	308
31	200	---	168	143	---	198	---	587	---	437	252	---
TOTAL	7064	5333	5327	4770	3851	4559	7410	14790	16192	21934	11741	9378
MEAN	228	178	172	154	138	147	247	477	540	708	379	313
MAX	280	202	201	187	145	198	335	608	801	1090	732	351
MIN	181	135	142	133	131	138	210	322	433	305	240	270
AC-FT	14010	10580	10570	9460	7640	9040	14700	29340	32120	43510	23290	18600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

MEAN	342	174	160	162	163	160	266	193	225	291	427	437
MAX	602	213	194	196	194	208	362	477	540	708	601	690
(WY)	1990	1992	1992	1990	1992	1990	1990	1993	1993	1993	1990	1990
MIN	200	121	94.0	106	130	96.0	224	75.7	37.2	80.9	252	313
(WY)	1991	1991	1991	1991	1991	1991	1992	1992	1992	1992	1991	1993

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	74273		112349			
ANNUAL MEAN	203		308		250	
HIGHEST ANNUAL MEAN					308	1993
LOWEST ANNUAL MEAN					186	1991
HIGHEST DAILY MEAN	631	Aug 22	[a]1090	Jul 2	1180	Sep 1 1990
LOWEST DAILY MEAN	27	Jun 10	[b]131	Feb 2	11	May 31 1990
ANNUAL SEVEN-DAY MINIMUM	28	Jul 1	133	Feb 2	12	May 25 1990
INSTANTANEOUS PEAK FLOW			1160	Jul 3	[c]1210	Sep 1 1990
INSTANTANEOUS PEAK STAGE			5.59	Jul 3	[d]5.25	Sep 1 1990
ANNUAL RUNOFF (AC-FT)	147300		222800		181400	
10 PERCENT EXCEEDS	431		587		505	
50 PERCENT EXCEEDS	194		224		195	
90 PERCENT EXCEEDS	35		142		88	

a-Also occurred Jul 3.
b-Also occurred Feb 8.
c-Also occurred Sep 4, 1990.
d-Maximum gage height for period of record, 5.59 ft, Jul 3, 1993.

09058000 COLORADO RIVER NEAR KREMMLING, CO

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

DRAINAGE AREA.--2,382 mi².

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 sea level, from topographic map. See WSP 1313 for history of changes prior to Oct. 1, 1961.

REMARKS.--Estimated daily discharges: Nov. 26 to Dec. 1, Dec. 8, 9, 13-29, Jan. 5-8, Jan. 17 to Feb. 16, Feb. 18, and Feb. 20-23. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	613	554	470	449	370	402	694	1370	3690	2850	1180	709
2	604	558	473	472	360	393	715	1250	3690	2950	1190	700
3	595	550	479	441	350	393	714	1290	3590	2900	1130	679
4	583	539	480	442	350	390	732	1430	3470	2850	1030	755
5	581	528	476	440	350	399	767	1750	3030	2980	1030	771
6	591	540	454	440	350	405	746	1670	2750	2590	997	763
7	562	546	418	440	350	397	708	1570	2840	2290	942	798
8	583	543	450	436	350	395	649	1560	2930	2150	899	822
9	590	553	455	436	360	401	619	1480	2660	2220	899	797
10	571	559	455	425	360	411	703	1400	2440	2070	982	752
11	565	551	430	407	360	414	693	1440	2230	1950	873	728
12	566	540	438	423	360	410	718	1580	2180	2040	835	709
13	573	558	440	416	365	413	784	1820	2210	2170	807	749
14	538	551	450	401	370	426	752	2100	2320	2130	837	821
15	532	552	450	376	370	438	790	2260	2300	2080	830	818
16	530	550	440	365	370	445	830	2380	2370	2000	821	852
17	536	553	440	360	370	458	854	2560	2420	1940	821	835
18	535	553	430	350	370	474	889	2820	2770	1870	770	777
19	534	521	420	350	374	488	924	2860	2950	1810	761	776
20	526	541	420	350	380	489	920	2940	2590	1630	947	769
21	525	536	420	360	385	504	905	3160	2540	1520	1190	807
22	524	521	420	370	390	503	933	3430	2540	1410	1200	800
23	520	543	430	380	405	520	1040	3660	2660	1360	773	798
24	520	537	440	380	395	535	1150	3560	2650	1330	739	797
25	520	515	430	380	391	564	1130	3460	2530	1310	693	785
26	534	510	430	380	393	608	1190	3510	2450	1250	728	789
27	563	500	430	380	393	612	1100	3730	2380	1180	746	782
28	562	500	430	380	391	627	1460	3930	2340	1110	734	771
29	535	490	440	380	---	630	1590	4090	2430	1060	742	780
30	539	480	443	380	---	641	1620	4130	2670	1090	732	764
31	553	---	446	380	---	695	---	3790	---	1190	710	---
TOTAL	17203	16072	13727	12369	10382	14880	27319	77980	80620	59280	27568	23253
MEAN	555	536	443	399	371	480	911	2515	2687	1912	889	775
MAX	613	559	480	472	405	695	1620	4130	3690	2980	1200	852
MIN	520	480	418	350	350	390	619	1250	2180	1060	693	679
AC-FT	34120	31880	27230	24530	20590	29510	54190	154700	159900	117600	54680	46120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

MEAN	749	653	574	552	544	633	1005	1912	2009	1510	1056	856
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1962 - 1993	
ANNUAL TOTAL	240853		380653			
ANNUAL MEAN	658		1043		1006	
HIGHEST ANNUAL MEAN					2378	1984
LOWEST ANNUAL MEAN					568	1964
HIGHEST DAILY MEAN	1180	May 1	4130	May 30	[a]12700	May 26 1984
LOWEST DAILY MEAN	418	Dec 7	[b]350	Jan 18	[c]250	Dec 13 1963
ANNUAL SEVEN-DAY MINIMUM	426	Dec 17	351	Feb 2	264	Dec 20 1963
INSTANTANEOUS PEAK FLOW			4190	May 30	[d]13600	May 26 1984
INSTANTANEOUS PEAK STAGE			10.67	May 30	16.60	May 26 1984
ANNUAL RUNOFF (AC-FT)	477700		755000		729200	
10 PERCENT EXCEEDS	982		2550		1820	
50 PERCENT EXCEEDS	571		649		761	
90 PERCENT EXCEEDS	465		380		430	

a-Maximum daily discharge for period of record, 20000 ft³/s, Jun 7, 1912.
b-Also occurred Jan 19, 20, and Feb 3-8.
c-Minimum discharge observed for period of record, 166 ft³/s, Dec 19, 1907.
d-Maximum discharge observed for period of record, 21500 ft³/s, Jun 7, 1912, gage height, 21.8 ft, datum then in use, from rating curve extended above 14000 ft³/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 1992 TO SEPTEMBER 1993

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)	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)	SODIUM, DIS-SOLVED (MG/L AS NA)
OCT												
05...	1400	581	217	8.2	11.5	7.8	<1	K4	94	30	4.6	7.3
NOV												
17...	1530	542	230	7.4	2.5	9.7	K5	K4	87	27	4.8	8.6
APR												
20...	1430	948	282	7.7	3.5	9.4	K3	K7	110	32	6.4	12
MAY												
19...	1445	2900	187	7.8	9.0	7.6	170	55	78	24	4.3	6.3
JUL												
13...	1700	2140	241	7.4	16.0	--	36	20	89	27	5.1	8.5
SEP												
14...	1545	828	215	8.2	10.5	8.8	--	K12	89	27	5.1	8.5

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)	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)
OCT												
05...	0.3	2.0	68	32	3.7	0.4	6.9	129	128	0.18	202	<0.01
NOV												
17...	0.4	1.9	74	37	3.5	0.4	6.8	140	135	0.19	205	<0.01
APR												
20...	0.5	2.2	75	55	5.0	0.4	8.7	174	168	0.24	445	--
MAY												
19...	0.3	1.6	63	26	2.7	0.2	10	124	114	0.17	971	--
JUL												
13...	0.4	1.7	70	41	2.3	0.4	8.9	148	137	0.20	855	--
SEP												
14...	0.4	1.7	67	35	2.5	0.3	9.9	132	131	0.18	295	--

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 TOTAL (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)
OCT										
05...	<0.01	0.06	0.06	0.03	0.02	0.30	0.01	<0.01	<0.01	<0.01
NOV										
17...	0.02	0.07	<0.05	0.02	0.01	<0.20	0.02	0.03	<0.01	<0.01
APR										
20...	<0.01	--	0.14	--	0.03	<0.20	0.03	0.02	--	<0.01
MAY										
19...	<0.01	--	0.11	--	0.03	0.30	0.02	<0.01	--	<0.01
JUL										
13...	<0.01	--	0.06	--	0.03	<0.20	0.02	0.01	--	<0.01
SEP										
14...	<0.01	--	0.09	--	0.02	0.20	0.03	<0.01	--	0.02

K-Based on non-ideal colony count.

09058000 COLORADO RIVER NEAR KREMMLING, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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									
05...	38	<0.5	<1	<5	<3	10	22	10	6
NOV									
17...	34	<0.5	1	<5	<3	<10	15	<10	7
APR									
20...	35	<0.5	<1	<5	<3	<10	25	<10	10
MAY									
19...	33	<0.5	<1	<5	<3	<10	59	<10	5
JUL									
13...	37	<0.5	3	<5	<3	<10	53	<10	6
SEP									
14...	34	<0.5	<1	<5	<3	<10	38	<10	11

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							
05...	19	40	<10	<1	160	<6	15
NOV							
17...	16	20	<10	1	160	<6	<3
APR							
20...	28	20	<10	<1	190	<6	4
MAY							
19...	28	10	<10	<1	160	<6	<3
JUL							
13...	23	10	<10	<1	180	<6	7
SEP							
14...	19	10	<10	<1	170	<6	19

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 sea level, levels by U.S. Bureau of Reclamation. Prior to October 1963, water-stage recorder at site 15 ft upstream at present datum.

REMARKS.--Estimated daily discharges: Nov. 2 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	4.5	3.3	3.8	2.3	1.8	3.4	23	203	177	41	10
2	5.3	4.2	3.6	3.6	2.4	1.7	3.6	26	180	170	39	9.9
3	5.0	4.0	3.8	3.5	2.5	1.8	3.8	29	149	168	35	9.9
4	4.6	3.9	3.9	3.3	2.4	2.0	4.0	30	94	124	33	8.9
5	4.6	3.7	3.7	3.0	2.3	1.9	3.8	33	84	82	32	9.5
6	4.1	3.6	3.5	2.6	2.0	1.8	4.0	31	109	69	30	10
7	4.4	3.6	3.2	3.2	2.2	1.9	4.3	25	125	74	26	12
8	4.1	3.7	3.0	3.7	2.3	2.0	4.1	20	82	111	25	18
9	4.0	3.8	2.8	4.1	2.3	2.1	3.9	18	68	113	26	14
10	4.0	3.9	3.2	3.8	2.3	2.1	3.8	18	69	118	26	11
11	4.0	4.0	3.7	3.7	2.2	2.0	4.0	26	96	134	34	9.6
12	4.0	3.9	3.6	3.6	2.1	1.9	4.2	43	117	127	28	8.4
13	3.7	3.8	3.6	3.7	2.1	1.8	4.3	61	168	119	23	12
14	3.5	3.9	3.5	3.8	2.1	1.7	4.3	77	193	103	21	15
15	3.3	4.0	3.1	3.6	2.1	2.0	4.4	104	203	108	19	15
16	3.1	4.1	2.8	3.5	2.2	2.1	4.3	124	161	103	17	14
17	3.1	4.0	3.0	3.4	2.2	2.2	4.3	146	169	90	17	12
18	3.1	3.9	3.7	3.4	2.3	2.3	4.3	137	136	86	16	11
19	3.2	3.8	3.5	3.2	2.3	2.5	4.4	115	101	71	15	9.5
20	3.2	3.8	2.5	2.9	2.3	2.6	4.7	149	135	68	13	8.8
21	3.1	3.7	1.6	2.7	2.2	2.6	4.7	199	165	66	13	7.9
22	2.9	3.5	2.3	2.4	2.1	2.5	4.8	210	175	59	16	7.0
23	2.9	3.4	3.0	2.3	2.0	2.4	5.0	133	179	51	15	6.3
24	2.8	3.6	3.3	2.2	1.8	2.5	5.3	110	154	47	13	5.6
25	2.8	3.3	3.5	2.3	1.9	2.6	5.3	121	134	45	11	5.1
26	3.1	3.0	3.3	2.5	2.0	3.0	5.9	193	151	46	14	5.0
27	3.2	2.8	3.2	2.4	1.9	3.3	6.4	163	171	49	16	4.8
28	3.2	2.7	3.3	2.3	1.8	3.8	7.7	197	172	46	13	4.5
29	3.6	2.5	3.4	2.3	---	4.1	9.3	201	186	45	11	4.3
30	3.9	2.8	3.7	2.2	---	3.8	13	162	201	44	11	4.0
31	4.6	---	3.9	2.2	---	3.5	---	183	---	43	11	---
TOTAL	116.0	109.4	101.5	95.2	60.6	74.3	149.3	3107	4330	2756	660	283.0
MEAN	3.74	3.65	3.27	3.07	2.16	2.40	4.98	100	144	88.9	21.3	9.43
MAX	5.6	4.5	3.9	4.1	2.5	4.1	13	210	203	177	41	18
MIN	2.8	2.5	1.6	2.2	1.8	1.7	3.4	18	68	43	11	4.0
AC-FT	230	217	201	189	120	147	296	6160	8590	5470	1310	561

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1993, BY WATER YEAR (WY)

MEAN	5.87	3.75	2.66	2.09	1.87	2.35	11.0	65.2	125	58.0	14.6	7.14
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1948 - 1993	
ANNUAL TOTAL	8915.0		11842.3			
ANNUAL MEAN	24.4		32.4		25.0	
HIGHEST ANNUAL MEAN					41.2	1984
LOWEST ANNUAL MEAN					12.9	1977
HIGHEST DAILY MEAN	200	May 21	210	May 22	362	Jun 9 1985
LOWEST DAILY MEAN	1.6	Dec 21	1.6	Dec 21	.40	Oct 6 1975
ANNUAL SEVEN-DAY MINIMUM	1.9	Jan 10	1.8	Feb 28	.62	Mar 28 1975
INSTANTANEOUS PEAK FLOW			271	Jun 15	560	Jun 8 1985
INSTANTANEOUS PEAK STAGE			4.60	Jun 15	[a]5.12	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	17680		23490		18100	
10 PERCENT EXCEEDS	80		129		86	
50 PERCENT EXCEEDS	4.7		4.1		4.6	
90 PERCENT EXCEEDS	2.7		2.2		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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 2 to Apr. 14. Records good except for estimated daily discharges, which are poor. Diversion by Willy N. ditch 75 ft upstream for irrigation of hay meadows downstream from station. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.0	.70	.90	.86	.76	.94	2.0	28	13	3.9	2.5
2	1.1	.96	.90	.90	.88	.84	.88	2.5	27	13	3.8	2.4
3	.99	.88	.96	.86	.94	.85	.92	3.4	26	12	3.8	2.3
4	.98	.84	.98	.70	.86	.82	.90	4.9	24	12	3.5	2.3
5	1.0	.80	.92	.56	.76	.70	.94	4.6	23	12	3.6	2.6
6	.98	.82	.80	.64	.78	.76	.98	3.3	23	10	3.4	2.3
7	1.1	.84	.70	.80	.80	.72	.92	3.0	25	9.1	3.2	2.8
8	1.0	.86	.76	.96	.90	.74	.90	2.8	23	8.9	3.5	2.6
9	1.1	.88	.84	1.0	.96	.76	.86	2.6	21	8.7	3.3	2.3
10	1.1	.90	.96	1.0	.94	.78	.90	2.9	19	8.0	3.3	2.3
11	1.0	.80	.98	1.0	.92	.79	.94	4.8	19	7.6	3.3	2.2
12	.98	.74	1.0	.98	.90	.74	.98	7.4	21	7.4	3.0	2.1
13	.93	.70	.96	.98	.84	.64	1.0	9.0	23	7.2	3.0	3.3
14	1.0	.74	.86	1.0	.80	.65	1.0	9.8	26	6.8	3.0	2.6
15	.92	.76	.78	1.0	.76	.70	.92	13	28	6.3	2.9	2.3
16	.91	.77	.82	.98	.80	.78	.92	14	28	6.2	2.8	2.2
17	.90	.78	.86	.96	.82	.84	.93	15	29	6.0	2.8	2.1
18	.92	.76	.88	.94	.86	.88	.95	15	27	5.8	2.7	2.0
19	.92	.75	.70	.92	.92	.94	.98	15	23	5.6	2.8	2.1
20	.92	.74	.46	.92	.80	.92	.94	18	22	5.4	2.7	2.0
21	.92	.72	.58	.90	.76	.90	.97	19	22	5.3	3.0	2.0
22	.90	.70	.86	.88	.68	.88	1.2	19	22	5.1	3.2	1.9
23	.88	.70	.96	.80	.74	.86	1.4	19	20	5.1	2.7	1.9
24	.87	.72	.94	.68	.73	.84	1.2	19	19	5.4	2.6	1.9
25	.92	.68	.90	.70	.72	.88	1.2	22	17	4.9	2.5	1.9
26	1.0	.64	.96	.74	.70	.90	1.4	24	16	4.6	3.0	1.9
27	.92	.58	.82	.90	.66	.94	2.2	23	15	4.4	2.7	1.9
28	.93	.54	.84	.86	.68	1.0	2.5	26	15	4.3	2.6	1.9
29	1.1	.50	.92	.80	---	1.0	2.8	26	15	4.2	2.4	1.8
30	1.0	.56	.94	.82	---	.98	2.6	26	14	4.2	2.5	1.8
31	1.1	---	.92	.84	---	.96	---	27	---	4.1	2.4	---
TOTAL	30.39	22.66	26.46	26.92	22.77	25.75	36.17	403.0	660	222.6	93.9	66.2
MEAN	.98	.76	.85	.87	.81	.83	1.21	13.0	22.0	7.18	3.03	2.21
MAX	1.1	1.0	1.0	1.0	.96	1.0	2.8	27	29	13	3.9	3.3
MIN	.87	.50	.46	.56	.66	.64	.86	2.0	14	4.1	2.4	1.8
AC-FT	60	45	52	53	45	51	72	799	1310	442	186	131

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

MEAN	1.05	.91	.74	.65	.63	.73	1.51	6.58	9.59	2.99	1.44	1.21
MAX	1.83	1.56	1.36	1.06	1.07	1.23	6.10	14.3	22.0	7.18	3.04	2.30
(WY)	1985	1985	1985	1985	1985	1985	1979	1979	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1972 - 1993	
ANNUAL TOTAL	968.05		1636.82			
ANNUAL MEAN	2.64		4.48		2.34	
HIGHEST ANNUAL MEAN					4.48	1993
LOWEST ANNUAL MEAN					.58	1977
HIGHEST DAILY MEAN	[a]14	May 22	29	Jun 17	42	May 6 1979
LOWEST DAILY MEAN	.46	Dec 20	.46	Dec 20	[b].00	Aug 12 1972
ANNUAL SEVEN-DAY MINIMUM	.60	Nov 25	.60	Nov 25	.00	Sep 12 1972
INSTANTANEOUS PEAK FLOW			33	May 31	48	May 6 1979
INSTANTANEOUS PEAK STAGE			3.10	May 31	[c]2.75	May 6 1979
ANNUAL RUNOFF (AC-FT)	1920		3250		1690	
10 PERCENT EXCEEDS	8.5		17		5.7	
50 PERCENT EXCEEDS	1.1		1.0		1.0	
90 PERCENT EXCEEDS	.84		.74		.40	

a-Also occurred May 27.
b-No flow at times some years.
c-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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 31 to May 13, and Aug. 1-4. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.06	.05	.05	.05	.05	.05	.40	30	3.0	.66	.34
2	.14	.05	.05	.05	.05	.05	.05	.45	28	2.6	.60	.33
3	.12	.05	.05	.05	.05	.05	.05	.50	25	2.8	.56	.33
4	.11	.05	.05	.05	.05	.05	.05	.60	20	3.5	.53	.32
5	.10	.05	.05	.05	.05	.05	.05	.50	18	3.8	.54	.34
6	.09	.05	.05	.05	.05	.05	.05	.50	18	2.6	.47	.32
7	.09	.05	.05	.05	.05	.05	.05	.50	20	2.1	.45	.40
8	.16	.05	.05	.05	.05	.05	.05	.45	15	2.3	.50	.39
9	.11	.05	.05	.05	.05	.05	.05	.40	13	2.1	.47	.32
10	.11	.05	.05	.05	.05	.05	.05	.80	12	1.7	.46	.29
11	.11	.05	.05	.05	.05	.05	.05	1.5	12	1.6	.49	.28
12	.12	.05	.05	.05	.05	.05	.05	3.0	13	1.4	.46	.28
13	.12	.05	.05	.05	.05	.05	.05	3.3	14	1.3	.40	.59
14	.10	.05	.05	.05	.05	.05	.05	5.8	14	1.2	.43	.47
15	.09	.05	.05	.05	.05	.05	.05	10	14	1.2	.44	.34
16	.08	.05	.05	.05	.05	.05	.05	13	14	1.2	.42	.30
17	.08	.05	.04	.05	.05	.05	.05	15	13	1.2	.37	.30
18	.08	.05	.04	.05	.05	.05	.05	17	12	1.2	.35	.28
19	.07	.05	.03	.05	.05	.05	.05	17	11	1.1	.35	.28
20	.07	.05	.00	.05	.05	.05	.05	19	9.0	1.0	.36	.28
21	.06	.05	.00	.05	.05	.05	.07	20	8.0	1.0	.40	.27
22	.06	.05	.02	.05	.05	.05	.10	22	7.5	.94	.46	.26
23	.00	.05	.03	.05	.05	.05	.12	22	6.8	.96	.38	.27
24	.00	.05	.04	.05	.05	.05	.14	22	6.1	1.1	.34	.25
25	.00	.05	.05	.05	.05	.05	.16	25	5.3	1.0	.32	.26
26	.00	.05	.05	.05	.05	.05	.18	29	4.8	.91	.42	.28
27	.07	.05	.05	.05	.05	.05	.20	27	4.4	.83	.38	.28
28	.06	.05	.05	.05	.05	.05	.25	33	4.0	.80	.34	.28
29	.05	.05	.05	.05	---	.05	.50	32	3.8	.74	.33	.26
30	.08	.05	.05	.05	---	.05	.45	30	3.3	.78	.36	.25
31	.07	---	.05	.05	---	.05	---	30	---	.75	.36	---
TOTAL	2.56	1.51	1.35	1.55	1.40	1.55	3.17	401.70	379.0	48.71	13.40	9.44
MEAN	.083	.050	.044	.050	.050	.050	.11	13.0	12.6	1.57	.43	.31
MAX	.16	.06	.05	.05	.05	.05	.50	33	30	3.8	.66	.59
MIN	.00	.05	.00	.05	.05	.05	.05	.40	3.3	.74	.32	.25
AC-FT	5.1	3.0	2.7	3.1	2.8	3.1	6.3	797	752	97	27	19

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	.26	.17	.12	.091	.083	.13	.65	6.62	6.42	.93	.32	.25
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	.083	.030	.000	.000	.000	.000	.000	1.26	.30	.15	.065	.079
(WY)	1993	1965	1965	1965	1965	1991	1991	1977	1977	1977	1981	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	320.17		865.34			
ANNUAL MEAN	.87		2.37		1.34	
HIGHEST ANNUAL MEAN					3.54	1984
LOWEST ANNUAL MEAN					.31	1977
HIGHEST DAILY MEAN	15	May 3	33	May 28	63	May 25 1984
LOWEST DAILY MEAN	[a].00	Jan 5	[b].00	Oct 23	[c].00	Nov 10 1964
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 5	.02	Dec 17	.00	Nov 10 1964
INSTANTANEOUS PEAK FLOW			44	May 29	82	May 25 1984
INSTANTANEOUS PEAK STAGE			2.36	May 29	[d]2.21	May 25 1984
ANNUAL RUNOFF (AC-FT)	635		1720		971	
10 PERCENT EXCEEDS	2.5		9.4		3.3	
50 PERCENT EXCEEDS	.12		.07		.20	
90 PERCENT EXCEEDS	.00		.05		.05	

a-No flow many days.
b-Also occurred Oct 24-26, Dec 20 and 21.
c-No flow some days some years.
d-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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 8 to Jun. 29, and Aug. 4 to Sept. 3. Records fair 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.0	.90	.80	.70	.90	.80	2.0	25	31	3.8	2.0
2	.97	.96	.80	.80	.80	.90	.80	2.2	27	29	3.6	1.6
3	.95	.84	.80	.80	.80	.90	.90	3.0	27	27	3.5	1.8
4	.92	.90	.90	.80	.80	.90	.90	4.0	25	23	3.6	1.4
5	.91	1.0	.90	.90	.70	.90	1.0	4.5	24	23	3.7	1.8
6	.93	1.0	.90	.90	.50	.80	.90	3.0	24	19	3.5	1.5
7	1.1	1.1	.90	.90	.60	.70	.80	2.0	27	18	3.2	2.1
8	1.1	1.1	1.0	.90	.70	.80	.80	2.0	23	19	3.5	2.1
9	1.0	1.0	1.0	.90	.70	.80	.70	3.0	22	19	3.3	1.3
10	1.0	1.0	1.0	.80	.70	.80	.70	4.0	20	18	3.3	.95
11	1.0	1.0	1.0	.80	.70	.82	.70	6.0	20	18	3.3	.85
12	1.0	1.0	.90	.90	.70	.84	.70	6.5	22	18	3.0	1.2
13	1.0	1.0	.90	.90	.80	.86	.60	7.0	25	17	3.0	2.2
14	1.1	1.0	.80	.90	.70	.88	.70	10	28	15	3.0	2.8
15	1.1	.90	.70	.80	.70	.90	.80	10	28	14	2.9	3.0
16	1.0	.90	.80	.70	.70	.92	.70	11	28	13	2.8	2.6
17	.94	1.0	.90	.80	.70	.90	.60	11	29	11	2.8	2.3
18	.90	1.0	1.0	.80	.70	.90	.60	11	27	10	2.7	2.2
19	.92	1.0	1.0	.80	.80	.90	.70	12	22	9.6	2.8	2.1
20	.96	.90	1.0	.70	.80	.90	.80	13	22	8.8	2.7	2.0
21	.94	1.0	1.0	.70	.80	.80	.90	13	22	7.9	3.0	2.0
22	.96	.90	.90	.70	.80	.80	1.0	13	22	7.2	3.2	1.8
23	1.0	1.0	.90	.80	.80	.80	1.2	13	23	6.4	2.7	1.6
24	1.3	1.1	.80	.80	.70	.80	1.5	13	24	6.5	2.6	1.6
25	1.2	1.0	.70	.80	.70	.70	1.8	16	25	5.7	2.5	1.5
26	1.2	1.1	.80	.80	.70	.80	1.8	18	26	5.2	3.0	1.5
27	1.1	1.1	.80	.80	.80	.80	2.0	17	28	4.8	2.7	1.4
28	1.1	1.0	.80	.80	.80	.90	1.8	19	30	4.7	2.6	1.4
29	1.0	1.0	.90	.70	---	.80	2.0	19	31	4.3	2.4	1.4
30	1.0	1.0	.90	.60	---	.80	2.0	19	33	3.9	2.5	1.4
31	1.0	---	.80	.70	---	.80	---	20	---	3.9	2.4	---
TOTAL	31.60	29.80	27.40	24.80	20.40	26.02	31.20	307.2	759	420.9	93.6	53.40
MEAN	1.02	.99	.88	.80	.73	.84	1.04	9.91	25.3	13.6	3.02	1.78
MAX	1.3	1.1	1.0	.90	.80	.92	2.0	20	33	31	3.8	3.0
MIN	.90	.84	.70	.60	.50	.70	.60	2.0	20	3.9	2.4	.85
AC-FT	63	59	54	49	40	52	62	609	1510	835	186	106

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	1.25	.97	.78	.66	.63	.71	1.64	10.9	22.6	8.21	2.24	1.41
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	1379.66		1825.32			
ANNUAL MEAN	3.77		5.00		4.37	
HIGHEST ANNUAL MEAN					8.05	1983
LOWEST ANNUAL MEAN					1.83	1977
HIGHEST DAILY MEAN	21	May 27	33	Jun 30	81	Jun 20 1983
LOWEST DAILY MEAN	.60	Feb 6	.50	Feb 6	.32	Jan 7 1979
ANNUAL SEVEN-DAY MINIMUM	.68	Feb 6	.66	Feb 5	.33	Jan 6 1979
INSTANTANEOUS PEAK FLOW			[a]38	Jun 29	81	Jun 30 1984
INSTANTANEOUS PEAK STAGE			1.44	Jun 29	[b]1.71	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	2740		3620		3170	
10 PERCENT EXCEEDS	14		19		15	
50 PERCENT EXCEEDS	1.1		1.0		1.1	
90 PERCENT EXCEEDS	.77		.70		.56	

a-May have been higher during period of no gage height record.
b-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 sea level. Prior to July 29, 1944, nonrecording gage, and July 29, 1944, to Oct. 24, 1947, water-stage recorder, at datum 2.38 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 12-18, 21-30, Dec. 1 to Jan. 9, Jan. 18 to Mar. 14, Mar. 24, 26-28, and July 8-13. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	17	12	12	12	11	19	96	246	358	94	25
2	15	17	14	12	12	12	22	105	261	331	88	25
3	15	16	14	12	13	13	21	127	330	321	82	24
4	15	19	14	11	12	13	20	169	306	265	73	22
5	14	21	15	12	11	12	23	184	313	232	74	22
6	14	17	14	10	10	10	22	142	325	197	71	23
7	15	18	14	11	10	11	19	120	387	184	65	26
8	14	16	11	12	11	10	21	108	359	215	61	37
9	16	16	11	12	12	11	21	97	309	220	62	30
10	16	17	12	11	12	12	21	100	290	235	58	26
11	15	19	13	11	13	12	21	146	348	250	64	23
12	15	18	13	11	12	12	21	221	353	255	58	22
13	15	17	13	11	11	11	21	300	401	250	52	29
14	15	17	13	11	11	10	21	354	405	227	48	35
15	14	18	11	11	10	11	21	448	311	223	44	33
16	14	19	10	11	9.8	11	20	485	352	215	40	32
17	14	20	11	11	10	11	20	540	308	198	34	31
18	14	19	11	12	11	12	22	541	385	193	33	27
19	14	16	12	13	10	13	21	503	347	171	31	26
20	13	16	10	13	11	12	21	534	358	162	30	25
21	13	16	8.8	12	12	12	21	524	391	158	29	23
22	13	16	9.0	13	11	11	25	452	422	143	33	22
23	13	15	11	12	10	15	32	440	403	134	32	20
24	13	15	13	11	10	15	34	423	354	124	29	19
25	13	14	12	10	11	15	32	426	368	121	27	19
26	13	13	12	10	12	17	40	365	379	114	31	18
27	13	12	12	11	12	18	58	380	358	117	34	18
28	13	11	11	12	11	19	88	306	375	110	30	18
29	15	10	12	11	---	19	103	330	361	99	26	17
30	15	11	13	11	---	20	110	331	362	96	26	17
31	19	---	13	11	---	18	---	226	---	102	26	---
TOTAL	446	486	374.8	354	312.8	409	961	9523	10467	6020	1485	734
MEAN	14.4	16.2	12.1	11.4	11.2	13.2	32.0	307	349	194	47.9	24.5
MAX	19	21	15	13	13	20	110	541	422	358	94	37
MIN	13	10	8.8	10	9.8	10	19	96	246	96	26	17
AC-FT	885	964	743	702	620	811	1910	18890	20760	11940	2950	1460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1993, BY WATER YEAR (WY)

MEAN	19.1	17.4	15.0	13.5	13.0	15.1	52.9	257	344	110	31.1	17.4
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1944 - 1993	
ANNUAL TOTAL	21876.8		31572.6			
ANNUAL MEAN	59.8		86.5		75.6	
HIGHEST ANNUAL MEAN					127	1984
LOWEST ANNUAL MEAN					27.2	1977
HIGHEST DAILY MEAN	446	May 21	541	May 18	1300	May 25 1984
LOWEST DAILY MEAN	8.8	Dec 21	8.8	Dec 21	[a]1.9	Sep 1 1954
ANNUAL SEVEN-DAY MINIMUM	10	Dec 16	10	Dec 16	2.3	Sep 17 1954
INSTANTANEOUS PEAK FLOW			624	May 18	[b,c]1300	May 25 1984
INSTANTANEOUS PEAK STAGE			5.27	May 18		
ANNUAL RUNOFF (AC-FT)	43390		62620		54740	
10 PERCENT EXCEEDS	201		331		255	
50 PERCENT EXCEEDS	18		19		19	
90 PERCENT EXCEEDS	12		11		10	

a-Also occurred Sep 18, 19, 1954.
b-Maximum daily discharge for period of record.
c-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 sea level, from topographic map.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.9	8.5	8.4	8.5	9.5	12	47	232	11	3.0	3.6
2	1.7	1.8	8.7	8.7	8.5	9.4	12	49	197	10	3.0	3.5
3	1.7	3.1	8.4	8.8	8.4	9.4	12	61	185	7.7	2.9	3.5
4	1.6	9.4	8.1	8.5	8.3	9.3	12	97	150	11	2.8	3.5
5	1.6	9.3	7.8	8.8	8.1	9.2	12	118	140	17	2.9	3.5
6	1.6	9.5	8.0	9.1	8.0	9.3	12	81	133	13	3.0	3.5
7	1.7	9.1	7.7	9.1	8.1	9.2	11	75	146	7.8	3.0	4.9
8	1.8	9.0	7.6	9.3	8.3	9.4	12	62	131	5.9	2.9	14
9	2.0	9.7	7.7	9.5	8.4	9.5	12	55	121	5.4	6.3	4.8
10	1.9	9.5	7.9	9.4	8.4	9.2	12	64	102	4.8	4.6	3.5
11	1.8	8.0	8.2	9.0	8.2	9.3	12	112	94	4.4	4.7	3.0
12	1.7	8.2	8.2	8.9	8.2	9.0	12	187	89	4.4	6.0	2.7
13	1.5	9.8	8.1	8.8	8.1	9.3	12	271	85	4.4	4.1	3.9
14	1.4	8.8	7.8	9.2	8.5	9.6	11	302	75	4.3	3.6	5.5
15	1.4	8.7	7.9	9.3	8.6	9.5	11	287	70	4.3	3.5	3.8
16	1.4	8.7	8.2	9.3	8.5	9.7	11	281	64	3.2	3.4	3.2
17	1.4	9.0	7.9	9.3	8.5	9.9	10	293	63	2.1	3.1	3.0
18	1.4	8.5	8.2	9.4	8.6	9.9	11	294	87	2.0	2.9	2.8
19	1.5	9.1	8.2	9.3	8.7	9.7	11	296	68	2.0	2.9	2.8
20	1.5	9.3	7.5	9.1	8.7	9.7	11	403	52	1.9	2.9	3.5
21	1.5	8.3	7.6	9.3	8.0	9.7	11	408	45	2.4	3.2	3.1
22	1.4	8.0	7.8	8.8	8.5	9.7	13	406	40	3.9	3.4	2.7
23	1.4	8.5	7.7	8.3	9.0	9.7	15	350	33	3.5	3.4	2.5
24	1.4	7.6	7.5	8.7	9.2	9.9	18	312	31	3.5	3.5	2.4
25	1.5	7.5	7.6	9.2	9.0	11	20	290	29	3.5	3.2	2.4
26	1.5	7.3	7.5	9.2	9.0	11	22	319	25	3.2	3.5	2.4
27	1.5	7.2	7.3	9.0	9.3	12	28	334	19	3.0	4.4	2.3
28	1.5	7.2	7.5	8.7	9.3	12	37	351	15	3.0	3.8	2.3
29	1.5	8.1	8.0	8.6	---	13	47	294	14	3.0	3.7	2.3
30	1.5	8.5	8.1	8.5	---	13	50	253	12	3.0	3.7	2.4
31	2.3	---	8.4	8.2	---	12	---	261	---	3.0	3.6	---
TOTAL	49.5	238.6	245.6	277.7	238.9	312.0	492	7013	2547	161.6	110.9	107.3
MEAN	1.60	7.95	7.92	8.96	8.53	10.1	16.4	226	84.9	5.21	3.58	3.58
MAX	2.3	9.8	8.7	9.5	9.3	13	50	408	232	17	6.3	14
MIN	1.4	1.8	7.3	8.2	8.0	9.0	10	47	12	1.9	2.8	2.3
AC-FT	98	473	487	551	474	619	976	13910	5050	321	220	213

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	9.07	11.5	10.4	9.94	9.78	12.3	58.0	165	62.7	10.3	5.47	5.34
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	1.60	7.95	7.74	7.91	7.66	8.77	16.4	73.2	16.3	2.18	1.55	1.81
(WY)	1993	1993	1991	1991	1990	1991	1993	1990	1992	1992	1990	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	7141.7		11794.1			
ANNUAL MEAN	19.5		32.3		30.9	
HIGHEST ANNUAL MEAN					50.2	1986
LOWEST ANNUAL MEAN					17.8	1990
HIGHEST DAILY MEAN	172	May 1	408	May 21	410	May 10 1985
LOWEST DAILY MEAN	[a]1.4	Oct 14	[a]1.4	Oct 14	1.2	Aug 15 1990
ANNUAL SEVEN-DAY MINIMUM	1.4	Oct 13	1.4	Oct 13	1.3	Aug 25 1990
INSTANTANEOUS PEAK FLOW			534	May 21	534	May 21 1993
INSTANTANEOUS PEAK STAGE			3.99	May 21	[b]3.99	May 21 1993
ANNUAL RUNOFF (AC-FT)	14170		23390		22410	
10 PERCENT EXCEEDS	69		86		91	
50 PERCENT EXCEEDS	8.5		8.5		10	
90 PERCENT EXCEEDS	1.6		2.2		2.9	

a-Also occurred Oct 15-18, 22-24.
b-Maximum gage height, 4.03 ft, May 4, 1986.

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 1992 TO SEPTEMBER 1993

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
APR											
13...	1420	13	128	7.8	3.0	11.2	63	18	4.3	4.0	0.2
MAY											
12...	1345	151	83	7.8	6.5	--	43	13	2.6	2.5	0.2
JUN											
02...	0945	197	50	7.9	6.0	--	22	6.6	1.4	2.1	0.2
AUG											
30...	1330	3.9	168	8.5	13.5	8.5	84	25	5.2	4.5	0.2

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)
APR										
13...	0.2	1.2	58	7.6	0.8	0.1	15	86	0.12	2.96
MAY										
12...	0.2	--	38	4.6	--	0.1	12	--	--	--
JUN										
02...	0.2	0.50	22	2.2	0.6	<0.1	11	38	0.05	20.1
AUG										
30...	0.2	1.2	77	11	0.7	0.2	11	106	0.14	1.11

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
APR									
13...	<0.01	0.09	<0.01	--	<0.2	<0.01	<0.01	3.6	2.8
MAY									
12...	<0.01	0.10	0.03	0.57	0.60	0.05	0.02	11	8.4
JUN									
02...	0.01	<0.05	0.03	--	<0.2	0.01	0.01	8.2	7.1
AUG									
30...	<0.01	0.09	0.04	--	<0.2	0.01	0.01	2.5	3.0

09060550 ROCK CREEK AT CRATER, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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, DISSOLVED (UG/L AS B)	BORON, TOTAL RECOVERABLE (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)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 13...	--	--	--	--	<10	--	--	--	--	--	--
MAY 12...	--	--	--	--	30	--	--	--	--	--	--
JUN 02...	430	<1	<100	<10	<10	20	<1	<1	<1	2	630
AUG 30...	--	--	--	--	20	--	--	--	--	--	--

DATE	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 13...	140	--	--	--	--	--	--	--	--	--
MAY 12...	330	--	--	--	--	--	--	--	--	--
JUN 02...	180	<1	20	<0.1	<1	<1	<1	<1	30	10
AUG 30...	41	--	--	--	--	--	--	--	--	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 06...	1240	1.6	270	10.0
NOV 17...	1325	9.1	133	2.0
JAN 12...	1200	8.9	124	0.5
MAY 19...	1500	236	62	
JUL 13...	1350	4.5	136	
AUG 17...	1200	3.4	169	

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 sea level, from topographic map. Prior to Oct. 1, 1989, at datum 1.0 ft, higher.

REMARKS.--Estimated daily discharges: Nov. 22, 24-30, Dec. 1 to Feb. 23. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	15	18	12	16	19	33	139	324	42	5.3	12
2	8.7	15	18	13	16	20	33	144	277	40	4.7	12
3	8.6	14	18	13	15	19	31	168	277	34	3.9	11
4	8.6	18	17	13	15	21	32	236	252	43	4.2	11
5	8.7	21	16	13	15	20	33	344	230	48	5.2	14
6	9.1	23	16	12	16	18	34	236	216	50	6.3	16
7	8.7	23	16	13	16	19	31	229	248	38	6.1	15
8	8.5	31	15	13	17	20	30	206	238	26	6.2	21
9	10	33	15	13	17	20	30	205	216	20	11	17
10	10	29	16	13	17	20	32	174	199	17	10	14
11	10	22	16	13	17	21	32	223	186	14	12	14
12	11	24	16	14	17	19	33	300	175	11	15	13
13	11	24	15	14	17	26	34	400	168	8.1	14	18
14	11	25	15	13	17	22	33	442	150	7.4	10	24
15	11	26	14	14	17	22	33	402	136	5.8	11	18
16	12	25	15	14	17	22	35	423	127	5.9	13	16
17	12	25	16	14	18	22	36	411	124	5.0	12	15
18	12	24	15	14	18	23	38	435	157	4.7	12	15
19	12	24	16	14	18	24	38	499	152	4.1	11	15
20	12	24	15	14	18	23	37	607	126	4.1	11	16
21	12	21	13	14	18	24	40	714	112	3.9	11	17
22	12	20	13	13	18	24	47	614	104	4.5	12	16
23	12	20	14	13	18	24	59	569	91	5.8	12	15
24	12	21	15	13	19	25	71	490	88	6.2	11	16
25	12	20	15	13	19	27	70	472	84	6.5	11	16
26	12	19	14	14	18	29	95	462	83	5.1	12	16
27	12	18	13	15	18	30	143	445	68	4.3	14	16
28	12	17	12	16	20	33	172	448	50	3.9	14	16
29	13	17	12	16	---	36	171	413	48	3.9	13	15
30	14	18	12	16	---	35	175	362	42	4.3	13	15
31	16	---	12	16	---	33	---	346	---	4.8	13	---
TOTAL	342.5	656	463	425	482	740	1711	11558	4748	481.3	319.9	465
MEAN	11.0	21.9	14.9	13.7	17.2	23.9	57.0	373	158	15.5	10.3	15.5
MAX	16	33	18	16	20	36	175	714	324	50	15	24
MIN	8.5	14	12	12	15	18	30	139	42	3.9	3.9	11
AC-FT	679	1300	918	843	956	1470	3390	22930	9420	955	635	922

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

MEAN	27.0	29.7	24.5	22.9	24.0	33.7	137	312	114	28.8	20.8	20.4
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	11.0	19.2	14.9	13.7	17.2	19.1	57.0	89.3	25.2	9.97	4.90	5.93
(WY)	1993	1990	1993	1993	1993	1991	1993	1990	1992	1992	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	11415.5		22391.7			
ANNUAL MEAN	31.2		61.3		66.5	
HIGHEST ANNUAL MEAN					115	1986
LOWEST ANNUAL MEAN					29.3	1990
HIGHEST DAILY MEAN	157	May 1	714	May 21	1270	May 16 1984
LOWEST DAILY MEAN	3.6	Jul 7	[a]3.9	Jul 21	1.5	Jul 1 1990
ANNUAL SEVEN-DAY MINIMUM	6.2	Aug 19	4.4	Jul 28	3.1	Sep 10 1990
INSTANTANEOUS PEAK FLOW			832	May 21	1760	May 16 1984
INSTANTANEOUS PEAK STAGE			3.97	May 21	[b]4.74	May 16 1984
ANNUAL RUNOFF (AC-FT)	22640		44410		48150	
10 PERCENT EXCEEDS	92		201		163	
50 PERCENT EXCEEDS	20		17		27	
90 PERCENT EXCEEDS	8.1		10		12	

a-Also occurred Jul 28, 29 and Aug 3.
b-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 September 1993, (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
13...	0955	35	363	7.8	2.0	12.0	170	45	13	13
MAY										
12...	1045	282	252	8.1	7.5	--	120	35	7.6	6.1
JUN										
02...	1215	300	144	7.9	10.0	--	64	19	4.0	3.9
AUG										
30...	1505	13	496	8.5	17.0	8.6	240	63	19	23

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)
APR										
13...	0.4	4.2	145	54	3.2	0.2	14	234	0.32	21.8
MAY										
12...	0.2	2.4	91	34	1.8	0.2	13	156	0.21	119
JUN										
02...	0.2	1.3	61	11	0.8	0.1	12	89	0.12	72.0
AUG										
30...	0.7	8.0	212	61	2.6	0.3	15	320	0.43	11.2

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)
APR									
13...	<0.01	0.12	0.02	0.18	0.20	<0.01	<0.01	5.0	4.8
MAY									
12...	<0.01	0.15	0.06	0.54	0.60	0.05	0.03	16	8.3
JUN									
02...	0.01	<0.05	0.03	0.27	0.30	0.02	<0.01	9.7	7.6
AUG									
30...	<0.01	0.13	0.04	0.26	0.30	0.02	0.02	5.0	5.9

09060770 ROCK CREEK AT MCCOY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	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, DISSOLVED (UG/L AS B)	BORON, TOTAL RECOVERABLE (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)	IRON, TOTAL RECOVERABLE (UG/L AS FE)
APR 13...	--	--	--	--	20	--	--	--	--	--	--
MAY 12...	--	--	--	--	160	--	--	--	--	--	--
JUN 02...	530	<1	<100	<10	<10	20	<1	1	<1	3	840
AUG 30...	--	--	--	--	60	--	--	--	--	--	--

DATE	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 13...	65	--	--	--	--	--	--	--	--	--
MAY 12...	250	--	--	--	--	--	--	--	--	--
JUN 02...	130	<1	40	<0.1	<1	2	<1	<1	120	20
AUG 30...	53	--	--	--	--	--	--	--	--	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT 06...	1415	9.8	529	12.0
NOV 17...	1450	28	371	3.5
JAN 12...	1010	13	365	0.0
MAR 02...	1505	24	348	0.0
MAY 19...	1645	447	176	9.5
JUL 13...	1530	8.2	492	17.5
AUG 17...	0955	13	489	13.0

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 mi².

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

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

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,653.80 ft above sea level, (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. 4 to Mar. 15, May 3-12, and Sept. 8-30. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	11	10	9.0	11	13	43	391	158	24	17
2	12	15	12	10	10	11	12	42	382	147	24	17
3	12	14	13	9.0	10	12	12	35	359	138	24	18
4	12	14	13	7.0	9.0	11	13	40	303	140	23	17
5	12	14	13	8.0	8.0	11	14	45	270	135	23	17
6	11	15	11	9.0	8.0	10	13	40	257	117	23	17
7	11	15	9.0	9.0	8.0	10	12	35	266	102	22	17
8	10	14	10	9.0	8.0	11	12	34	241	95	23	18
9	11	14	11	10	8.0	11	12	32	215	89	23	17
10	11	14	11	10	9.0	12	12	30	210	82	22	16
11	12	15	11	9.0	8.0	11	11	60	218	75	23	15
12	12	15	10	8.0	8.0	12	11	90	235	70	23	17
13	12	14	9.0	9.0	9.0	12	11	155	272	67	22	20
14	12	15	8.0	10	9.0	11	10	188	320	63	22	19
15	12	15	9.0	9.0	9.0	11	11	198	364	59	21	17
16	12	16	9.0	8.0	8.0	12	11	231	377	54	21	17
17	12	16	10	9.0	8.0	12	11	226	364	51	20	16
18	12	16	11	9.0	8.0	11	12	218	330	47	20	15
19	12	16	9.0	8.0	8.0	11	11	224	285	43	20	15
20	12	15	6.0	8.0	8.0	11	10	250	267	41	20	15
21	12	15	7.0	8.0	9.0	11	11	313	260	39	20	15
22	13	15	9.0	8.0	9.0	11	13	313	276	37	20	14
23	13	14	10	8.0	10	11	14	284	276	35	20	14
24	13	13	10	7.0	10	12	16	297	253	35	19	14
25	13	10	9.0	7.0	10	13	16	342	228	33	19	14
26	14	9.0	10	8.0	9.0	13	19	303	212	30	19	14
27	15	8.0	10	9.0	10	13	26	350	207	28	19	14
28	15	9.0	9.0	10	10	13	30	366	194	27	19	14
29	15	9.0	9.0	9.0	---	14	36	350	185	26	18	13
30	15	10	10	8.0	---	13	44	353	174	25	18	13
31	15	---	11	8.0	---	13	---	371	---	25	18	---
TOTAL	387	409.0	310.0	268.0	247.0	361	459	5858	8191	2113	652	476
MEAN	12.5	13.6	10.0	8.65	8.82	11.6	15.3	189	273	68.2	21.0	15.9
MAX	15	16	13	10	10	14	44	371	391	158	24	20
MIN	10	8.0	6.0	7.0	8.0	10	10	30	174	25	18	13
AC-FT	768	811	615	532	490	716	910	11620	16250	4190	1290	944

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

MEAN	16.2	13.6	11.3	10.4	10.3	11.8	33.4	158	198	56.3	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	11019.6		19731.0			
ANNUAL MEAN	30.1		54.1		47.0	
HIGHEST ANNUAL MEAN					90.2	1912
LOWEST ANNUAL MEAN					16.5	1981
HIGHEST DAILY MEAN	155	May 27	391	Jun 1	900	Jun 5 1912
LOWEST DAILY MEAN	6.0	Dec 20	6.0	Dec 20	[a]1.0	Oct 15 1917
ANNUAL SEVEN-DAY MINIMUM	8.0	Feb 27	7.7	Jan 19	3.8	Jan 31 1989
INSTANTANEOUS PEAK FLOW			482	May 25	[b]1010	Jun 5 1912
INSTANTANEOUS PEAK STAGE			5.58	May 25	[c]4.00	Jun 5 1912
ANNUAL RUNOFF (AC-FT)	21860		39140		34030	
10 PERCENT EXCEEDS	97		225		130	
50 PERCENT EXCEEDS	14		14		16	
90 PERCENT EXCEEDS	8.8		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 ft³/s.
c-Maximum gage height recorded, 6.43 ft, May 24, 1984.

09063200 WEARYMAN CREEK NEAR RED CLIFF, CO

LOCATION (REVISED).--Lat 39°31'20", long 106°19'23", in SE¼SW¼ sec.15, T.6 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.15 mi upstream from mouth and 2.25 mi east of Red Cliff.

DRAINAGE AREA.--9.53 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,280 ft above sea level, from topographic map. Prior to Aug. 7, 1992, at site 0.25 mile upsteam, at different datum.

REMARKS.--Estimated daily discharges: Oct. 8 to May 11, June 5-29, and July 22 to Aug. 3. Records fair 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.4	1.6	1.7	1.3	1.1	1.3	3.5	50	79	11	5.6
2	2.5	2.3	1.6	1.6	1.4	1.1	1.3	3.3	57	73	11	5.6
3	2.3	2.2	2.0	1.5	1.5	1.0	1.2	3.7	53	71	10	5.3
4	2.2	2.1	2.0	1.4	1.3	1.0	1.2	4.2	48	68	9.2	5.1
5	2.1	2.1	1.9	1.1	1.2	1.0	1.2	5.5	45	64	9.1	5.2
6	2.4	2.1	1.9	1.3	1.1	1.0	1.3	6.2	37	60	8.6	5.0
7	2.5	2.2	1.9	1.4	1.2	1.0	1.3	5.1	30	56	8.5	5.3
8	2.5	2.1	1.6	1.5	1.3	1.0	1.5	4.5	38	50	8.5	5.2
9	2.4	2.2	1.6	1.5	1.3	1.1	1.7	3.8	30	47	8.0	4.8
10	2.8	2.3	1.7	1.4	1.4	1.2	1.3	3.5	27	42	7.8	4.6
11	2.6	2.2	1.8	1.4	1.4	1.2	1.3	5.0	30	39	7.7	4.6
12	2.6	2.0	1.6	1.4	1.4	1.1	1.3	6.6	27	34	7.3	4.4
13	2.6	1.6	1.5	1.4	1.3	1.1	1.3	8.4	30	32	7.2	5.4
14	2.5	2.1	1.4	1.4	1.2	1.1	1.3	11	45	29	7.4	5.0
15	2.5	2.0	1.1	1.4	1.1	1.2	1.3	14	66	27	7.3	4.7
16	2.5	2.0	1.2	1.4	1.2	1.3	1.3	17	86	23	7.0	4.7
17	2.4	1.9	1.2	1.4	1.2	1.4	1.3	21	100	20	6.9	4.5
18	2.4	1.8	1.3	1.4	1.3	1.3	1.3	21	84	19	6.7	4.3
19	2.5	1.7	1.2	1.4	1.3	1.3	1.4	21	76	17	6.9	4.3
20	2.4	1.6	1.0	1.4	1.3	1.4	1.4	21	60	16	7.0	4.2
21	2.4	1.6	1.1	1.3	1.3	1.3	1.4	22	80	15	7.1	4.1
22	2.4	1.7	1.2	1.3	1.2	1.2	1.4	23	112	14	6.9	3.9
23	2.4	1.9	1.3	1.3	1.2	1.1	1.7	23	95	13	6.6	3.9
24	2.3	1.7	1.3	1.3	1.2	1.0	1.6	23	80	13	6.3	3.8
25	2.3	1.6	1.2	1.3	1.1	1.1	1.6	25	70	13	6.1	3.8
26	2.6	1.5	1.2	1.2	1.2	1.1	1.7	29	75	13	6.5	3.7
27	2.5	1.5	1.2	1.3	1.2	1.2	2.0	32	85	12	6.2	3.6
28	2.5	1.6	1.3	1.3	1.2	1.3	2.4	36	102	12	5.9	3.5
29	2.5	1.8	1.4	1.3	---	1.4	3.0	34	93	12	5.7	3.5
30	2.5	1.7	1.5	1.3	---	1.4	3.8	36	80	11	5.6	3.5
31	2.4	---	1.6	1.3	---	1.3	---	43	---	11	5.5	---
TOTAL	76.0	57.5	45.4	42.6	35.3	36.3	47.1	515.3	1891	1005	231.5	135.1
MEAN	2.45	1.92	1.46	1.37	1.26	1.17	1.57	16.6	63.0	32.4	7.47	4.50
MAX	2.8	2.4	2.0	1.7	1.5	1.4	3.8	43	112	79	11	5.6
MIN	2.1	1.5	1.0	1.1	1.1	1.0	1.2	3.3	27	11	5.5	3.5
AC-FT	151	114	90	84	70	72	93	1020	3750	1990	459	268

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	2.77	1.94	1.55	1.30	1.20	1.30	2.12	12.3	45.5	21.1	6.88	3.87
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	2183.23		4118.1			
ANNUAL MEAN	5.97		11.3		8.48	
HIGHEST ANNUAL MEAN					17.4	1984
LOWEST ANNUAL MEAN					3.61	1977
HIGHEST DAILY MEAN	[a]36	Jun 15	112	Jun 22	140	Jun 20 1983
LOWEST DAILY MEAN	[b].72	Jan 23	[c]1.0	Dec 20	.30	Feb 21 1967
ANNUAL SEVEN-DAY MINIMUM	.79	Feb 7	1.0	Mar 2	.40	Feb 8 1967
INSTANTANEOUS PEAK FLOW			Not determined		[d]155	Jun 20 1983
INSTANTANEOUS PEAK STAGE			Not determined		[d]3.61	Jun 20 1983
ANNUAL RUNOFF (AC-FT)	4330		8170		6150	
10 PERCENT EXCEEDS	22		36		24	
50 PERCENT EXCEEDS	2.5		2.4		2.4	
90 PERCENT EXCEEDS	.84		1.2		1.1	

a-Also occurred Jun 16.
b-Also occurred Feb 12.
c-Also occurred Mar 3-8 and Mar 24.
d-Site and datum then in use.

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 mi².

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 2 to Apr. 6, and June 16-25. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.3	5.5	4.4	3.8	3.0	3.5	9.5	114	174	25	11
2	6.2	5.2	6.0	4.2	4.0	2.9	3.4	9.1	87	158	24	11
3	6.2	5.1	6.4	4.0	3.7	2.8	3.5	10	68	154	23	10
4	6.2	5.1	6.3	3.5	3.o	2.8	3.6	14	80	147	23	9.6
5	6.2	5.0	6.1	3.0	2.8	2.9	3.5	18	104	145	22	9.9
6	6.2	5.0	6.0	3.5	3.2	2.8	3.5	16	63	124	21	9.4
7	6.2	5.1	6.0	3.8	3.4	2.7	3.4	14	82	107	21	11
8	5.6	5.1	5.0	4.2	3.6	2.8	5.0	12	71	103	21	10
9	6.7	5.2	5.2	4.0	3.7	3.0	3.7	10	55	103	19	8.8
10	6.1	5.4	5.5	3.9	3.9	3.4	3.6	11	64	105	19	8.2
11	6.2	5.8	5.8	3.8	3.8	3.3	3.6	15	57	109	19	7.8
12	6.1	5.4	5.0	3.7	3.7	3.2	3.6	27	65	108	18	7.6
13	6.0	5.0	4.5	3.8	3.6	3.0	3.6	45	67	96	17	9.9
14	6.0	6.0	4.0	3.8	3.3	3.1	3.6	62	119	80	16	8.8
15	5.9	6.5	3.5	3.9	3.0	3.3	3.6	83	184	71	16	8.2
16	5.8	6.0	3.8	3.8	3.3	3.6	3.6	98	195	68	15	7.9
17	5.9	5.8	4.0	3.8	3.4	3.9	3.7	106	200	65	14	7.6
18	5.8	5.6	4.2	3.7	3.4	3.5	3.8	108	185	58	14	7.5
19	5.8	5.2	3.6	3.7	3.5	3.7	3.8	100	160	53	14	7.5
20	5.7	5.0	2.5	3.7	3.6	4.0	3.8	108	170	52	14	7.4
21	5.7	5.0	3.0	3.6	3.4	3.5	3.9	110	180	50	13	7.2
22	5.7	5.5	4.5	3.6	3.2	3.2	4.3	103	190	46	13	6.9
23	5.6	6.0	4.2	3.5	3.0	2.9	4.9	98	190	43	12	6.8
24	5.5	5.5	4.0	3.5	3.2	2.8	4.6	98	180	42	12	6.7
25	5.5	5.0	3.9	3.5	3.3	3.0	4.5	105	170	39	12	6.7
26	6.1	4.8	3.8	3.4	3.3	3.2	5.0	117	167	37	12	6.7
27	5.9	4.6	3.7	3.6	3.2	3.5	6.0	133	206	34	12	6.7
28	5.7	5.2	4.2	3.8	3.1	3.7	7.3	146	214	32	11	6.7
29	6.0	5.8	4.5	3.7	---	3.9	9.6	126	196	30	11	6.7
30	5.8	5.0	4.6	3.6	---	3.8	11	120	172	29	11	6.7
31	5.9	---	4.8	3.5	---	3.7	---	120	---	27	11	---
TOTAL	184.4	160.2	144.1	115.5	95.4	100.9	134.5	2151.6	4045	2489	505	246.9
MEAN	5.95	5.34	4.65	3.73	3.41	3.25	4.48	69.4	135	80.3	16.3	8.23
MAX	6.7	6.5	6.4	4.4	4.0	4.0	11	146	214	174	25	11
MIN	5.5	4.6	2.5	3.0	2.8	2.7	3.4	9.1	55	27	11	6.7
AC-FT	366	318	286	229	189	200	267	4270	8020	4940	1000	490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

MEAN	6.21	4.63	3.65	3.14	2.92	3.44	7.63	47.3	119	47.2	14.0	8.05
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	7361.7		10372.5			
ANNUAL MEAN	20.1		28.4		22.3	
HIGHEST ANNUAL MEAN					49.4	1984
LOWEST ANNUAL MEAN					9.46	1977
HIGHEST DAILY MEAN	114	May 28	214	Jun 28	415	Jun 17 1965
LOWEST DAILY MEAN	2.5	Dec 20	2.5	Dec 20	[a]1.0	Jan 21 1964
ANNUAL SEVEN-DAY MINIMUM	2.9	Feb 4	2.8	Mar 2	1.0	Jan 21 1964
INSTANTANEOUS PEAK FLOW			[b]227	Jun 27	[c]556	Jun 8 1985
INSTANTANEOUS PEAK STAGE			[d]2.26	Jun 27	[e]2.87	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	14600		20570		16160	
10 PERCENT EXCEEDS	83		106		71	
50 PERCENT EXCEEDS	6.0		5.9		5.8	
90 PERCENT EXCEEDS	3.2		3.4		2.8	

a-Also occurred Jan 21 to Feb 29, 1964.
b-May have been higher during period of indefinite stage-discharge relationship, Jun 16-25.
c-From rating curve extended above 325 ft³/s.
d-Maximum gage height, 2.84 ft, Jun 18, backwater from debris.
e-Maximum gage height for period of record, 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1-6, and Oct. 24 to Apr. 22. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.9	1.9	1.1	1.3	.95	.90	1.0	2.2	39	39	7.1	11
2	3.7	1.8	1.3	1.2	1.0	.90	1.0	2.0	26	39	6.8	12
3	3.5	1.7	1.5	1.0	.96	.90	1.1	2.4	21	47	6.7	8.9
4	3.3	1.6	1.4	.95	.90	.95	1.1	4.1	15	27	6.6	7.8
5	3.0	1.5	1.3	.90	.86	1.0	1.1	6.3	16	14	6.9	9.5
6	2.7	1.6	1.2	1.0	.90	.95	1.1	4.6	20	13	6.7	9.1
7	3.2	1.7	1.1	1.1	.95	.90	1.1	3.7	19	14	6.5	12
8	3.3	1.9	1.0	1.2	1.0	.95	1.0	3.5	14	19	7.2	13
9	2.6	2.0	1.2	1.1	1.1	1.0	.90	2.9	12	18	6.9	11
10	2.5	2.2	1.3	1.1	1.0	1.1	.95	3.0	16	20	6.7	9.4
11	2.5	2.3	1.4	1.1	1.0	.95	1.0	4.8	21	26	7.1	8.4
12	2.4	2.1	1.3	1.1	1.0	.90	1.0	7.9	38	25	6.7	7.7
13	2.3	1.9	1.3	1.1	.95	.86	1.0	12	53	23	6.4	15
14	2.0	2.2	1.1	1.1	.95	.95	1.0	14	59	19	6.1	14
15	2.4	2.5	.90	1.1	.90	1.0	1.1	15	52	17	5.8	12
16	2.3	2.3	1.0	1.0	.95	1.0	1.0	17	56	14	5.7	11
17	2.2	2.1	1.1	1.0	.95	1.1	1.0	16	58	13	5.5	10
18	2.1	1.9	1.1	1.0	1.0	1.0	1.1	15	37	11	12	8.8
19	1.9	1.7	.90	1.0	1.0	1.1	1.2	16	27	9.7	12	8.0
20	1.8	1.5	.80	1.0	1.1	1.2	1.2	22	40	9.6	11	7.1
21	1.8	1.4	1.1	.95	1.0	1.1	1.1	25	48	9.3	14	6.4
22	1.7	1.3	1.4	.95	.95	1.0	.95	21	51	8.7	15	5.8
23	1.6	1.6	1.2	.92	.95	.95	1.1	17	45	8.0	12	5.3
24	1.5	1.5	1.1	.88	1.0	1.0	.99	16	28	8.1	11	5.0
25	1.4	1.4	1.0	.85	1.0	1.0	.90	22	25	7.9	11	4.8
26	1.5	1.3	1.0	.88	1.1	1.0	.92	26	36	8.1	12	4.4
27	1.6	1.1	1.2	.92	1.0	1.1	1.2	40	39	7.8	11	4.1
28	1.7	1.2	1.1	.94	.95	1.2	1.5	38	39	7.6	8.8	3.8
29	1.8	1.3	1.2	.90	---	1.2	2.3	31	56	7.8	8.1	3.7
30	1.9	1.2	1.3	.90	---	1.1	3.0	30	49	7.8	8.3	3.5
31	2.0	---	1.4	.90	---	1.1	---	39	---	7.2	8.2	---
TOTAL	72.1	51.7	36.3	31.34	27.37	31.36	34.91	479.4	1055	505.6	265.8	252.5
MEAN	2.33	1.72	1.17	1.01	.98	1.01	1.16	15.5	35.2	16.3	8.57	8.42
MAX	3.9	2.5	1.5	1.3	1.1	1.2	3.0	40	59	47	15	15
MIN	1.4	1.1	.80	.85	.86	.86	.90	2.0	12	7.2	5.5	3.5
AC-FT	143	103	72	62	54	62	69	951	2090	1000	527	501

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

MEAN	2.85	1.68	1.02	.71	.61	.72	2.69	15.1	32.9	22.3	9.92	4.62
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1972 - 1993	
ANNUAL TOTAL	2183.42		2843.38			
ANNUAL MEAN	5.97		7.79		7.95	
HIGHEST ANNUAL MEAN					20.6	1984
LOWEST ANNUAL MEAN					4.35	1977
HIGHEST DAILY MEAN	31	May 21	59	Jun 14	172	Jul 10 1984
LOWEST DAILY MEAN	.54	Jan 3	.80	Dec 20	[a].24	Feb 12 1977
ANNUAL SEVEN-DAY MINIMUM	.59	Jan 25	.90	Jan 24	.25	Feb 7 1977
INSTANTANEOUS PEAK FLOW			[b]108	Jun 29	[c]300	Jul 4 1975
INSTANTANEOUS PEAK STAGE			[b]2.92	Jun 29	[d]3.19	Jul 4 1975
ANNUAL RUNOFF (AC-FT)	4330		5640		5760	
10 PERCENT EXCEEDS	15		22		20	
50 PERCENT EXCEEDS	2.5		1.9		2.1	
90 PERCENT EXCEEDS	.63		.95		.50	

a-Also occurred Feb 13, 1977.
b-Also occurred Jul 3, 1993.
c-From rating curve extended above 35 ft^3/s.
d-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 sea level, from topographic map. Prior to Aug. 1, 1972, water-stage recorder at site 1,500 ft upstream at datum 9,245 ft above sea level (river-profile survey).

REMARKS.--Estimated daily discharges: Oct. 25 to Apr. 5. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	10	11	9.0	8.0	8.5	21	177	76	29	27
2	15	15	11	10	9.5	7.5	8.0	23	127	74	27	30
3	15	14	13	9.5	9.0	7.5	8.2	28	102	96	30	24
4	15	13	12	8.5	8.5	8.5	8.5	40	63	74	36	22
5	15	13	12	7.5	7.5	8.5	8.5	48	62	52	37	25
6	17	13	11	8.5	8.5	8.0	8.4	37	71	44	36	24
7	17	14	11	9.0	9.0	7.5	8.2	35	74	41	34	32
8	16	15	9.0	10	9.5	8.0	8.8	34	52	47	37	38
9	15	16	10	9.5	10	8.5	8.1	32	46	47	36	30
10	15	18	12	9.5	9.5	9.0	8.3	35	51	47	35	26
11	15	19	13	9.0	9.5	8.5	8.3	49	62	55	37	24
12	14	18	12	9.0	9.5	8.5	8.6	75	103	52	33	22
13	14	17	12	9.5	9.0	8.0	8.5	117	164	49	31	41
14	14	19	11	9.5	8.5	8.5	8.4	156	203	43	30	39
15	15	22	8.0	9.5	8.0	8.5	9.1	175	199	40	28	35
16	14	18	9.0	9.5	9.0	9.0	8.2	189	183	36	27	32
17	14	16	10	9.5	9.0	9.5	8.8	161	171	33	24	29
18	13	15	10	9.5	9.0	8.5	8.7	101	122	31	26	27
19	13	14	9.0	9.5	9.5	9.0	9.4	92	94	30	26	25
20	12	13	6.0	9.5	10	10	12	123	121	31	25	23
21	12	12	9.0	9.5	9.5	9.0	11	135	149	30	30	20
22	12	12	11	9.0	9.0	8.5	11	126	141	29	37	19
23	12	13	10	8.5	8.5	8.0	13	92	105	28	32	17
24	12	12	10	8.0	9.0	8.0	12	88	75	30	31	17
25	12	11	9.0	7.5	9.5	9.0	12	112	62	29	28	17
26	13	10	9.0	8.0	9.5	9.0	14	144	77	28	31	16
27	13	9.0	9.8	9.0	9.0	9.5	19	203	83	29	29	15
28	14	10	9.0	9.0	8.5	9.5	24	186	80	32	25	14
29	14	11	10	8.0	---	10	29	153	113	31	23	12
30	14	10	11	8.0	---	9.5	29	148	97	32	22	13
31	15	---	12	8.5	---	9.0	---	178	---	31	22	---
TOTAL	435	428	320.8	280.0	253.5	268.0	347.5	3136	3229	1327	934	735
MEAN	14.0	14.3	10.3	9.03	9.05	8.65	11.6	101	108	42.8	30.1	24.5
MAX	17	22	13	11	10	10	29	203	203	96	37	41
MIN	12	9.0	6.0	7.5	7.5	7.5	8.0	21	46	28	22	12
AC-FT	863	849	636	555	503	532	689	6220	6400	2630	1850	1460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1993, BY WATER YEAR (WY)

MEAN	13.8	9.88	7.47	5.97	5.63	6.56	15.0	65.6	96.0	58.5	32.0	16.8
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1973 - 1993	
ANNUAL TOTAL	7408.8		11693.8			
ANNUAL MEAN	20.2		32.0		[a]27.9	
HIGHEST ANNUAL MEAN					79.2	1984
LOWEST ANNUAL MEAN					15.3	1977
HIGHEST DAILY MEAN	81	Apr 29	[b]203	May 27	[c]602	Jun 30 1984
LOWEST DAILY MEAN	3.2	Feb 22	6.0	Dec 20	1.8	Feb 5 1976
ANNUAL SEVEN-DAY MINIMUM	3.4	Feb 17	7.9	Mar 1	1.9	Jan 31 1976
INSTANTANEOUS PEAK FLOW			358	Jun 14	[d]930	Jun 30 1984
INSTANTANEOUS PEAK STAGE			5.22	Jun 14	[e]6.21	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	14700		23190		20180	
10 PERCENT EXCEEDS	43		90		62	
50 PERCENT EXCEEDS	15		14		12	
90 PERCENT EXCEEDS	4.0		8.5		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-Also occurred Jun 14.
c-Maximum daily discharge for period of record, 755 ft^3/s, Jun 21, 1951.
d-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.
e-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 sea level (river-profile survey). See WSP 1713 or 1733 for history of changes prior to May 8, 1961.

REMARKS.--Estimated daily discharges: Oct. 26 to Apr. 6. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	21	15	14	10	8.5	13	95	312	130	39	30
2	22	20	16	14	10	8.0	12	100	266	120	35	44
3	21	19	18	13	9.5	7.5	13	114	238	137	36	35
4	20	18	17	11	9.0	8.0	13	149	169	156	43	26
5	18	17	16	9.0	8.5	9.0	14	157	158	120	44	27
6	17	17	15	11	9.0	8.5	15	114	171	100	45	30
7	19	18	12	12	9.5	8.0	17	105	185	84	41	38
8	18	19	13	13	10	9.0	16	95	140	86	44	60
9	20	21	14	12	11	9.5	15	84	123	89	46	50
10	18	23	16	11	10	10	14	93	124	80	43	39
11	18	25	17	10	10	10	16	134	140	87	45	34
12	17	24	17	9.5	10	9.5	17	179	171	84	40	29
13	16	23	16	9.5	9.5	9.0	19	218	239	81	36	53
14	15	25	14	10	9.0	9.5	20	240	270	71	35	58
15	17	27	12	10	8.5	10	18	261	289	67	32	48
16	17	26	13	10	9.5	11	16	281	251	61	29	43
17	17	26	13	10	9.5	12	14	279	267	55	28	40
18	16	25	14	10	9.5	10	15	212	223	50	26	35
19	16	23	11	10	10	12	18	203	178	45	29	31
20	15	22	8.0	10	11	13	22	255	188	45	27	30
21	14	18	11	10	10	12	25	279	224	44	33	26
22	14	17	13	9.5	9.5	12	27	266	215	41	43	23
23	13	19	15	9.0	9.0	11	44	216	189	39	37	21
24	13	16	13	8.5	9.5	12	39	204	155	42	36	20
25	13	14	13	8.0	10	13	35	222	126	39	30	19
26	14	12	12	8.5	10	13	49	268	134	37	35	20
27	15	11	12	9.5	9.5	16	72	333	145	36	42	20
28	17	12	13	9.5	9.0	15	96	322	138	42	34	20
29	18	13	14	8.5	---	14	136	282	154	41	28	18
30	19	14	15	9.0	---	15	116	266	159	44	27	16
31	20	---	14	9.5	---	14	---	291	---	42	29	---
TOTAL	531	585	432.0	318.5	269.5	339.0	956	6317	5741	2195	1117	983
MEAN	17.1	19.5	13.9	10.3	9.62	10.9	31.9	204	191	70.8	36.0	32.8
MAX	24	27	18	14	11	16	136	333	312	156	46	60
MIN	13	11	8.0	8.0	8.5	7.5	12	84	123	36	26	16
AC-FT	1050	1160	857	632	535	672	1900	12530	11390	4350	2220	1950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	18.9	13.5	10.4	8.34	8.18	10.6	36.2	123	144	70.9	35.5	21.9
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	11072.0		19784.0			
ANNUAL MEAN	30.3		54.2		[a]42.0	
HIGHEST ANNUAL MEAN					116	1984
LOWEST ANNUAL MEAN					20.3	1977
HIGHEST DAILY MEAN	150	May 8	333	May 27	831	May 25 1984
LOWEST DAILY MEAN	4.8	Feb 21	7.5	Mar 3	[b]1.8	Sep 2 1990
ANNUAL SEVEN-DAY MINIMUM	5.1	Feb 17	8.2	Mar 1	2.1	Aug 29 1990
INSTANTANEOUS PEAK FLOW			400	Jun 15	[c]943	May 24 1984
INSTANTANEOUS PEAK STAGE			3.09	Jun 15	3.96	May 24 1984
ANNUAL RUNOFF (AC-FT)	21960		39240		30400	
10 PERCENT EXCEEDS	70		171		110	
50 PERCENT EXCEEDS	18		19		17	
90 PERCENT EXCEEDS	5.9		9.5		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. Datum of gage is 8,078.37 ft above sea level, from levels by private engineering firm.

REMARKS.--Estimated daily discharges: Nov. 13, 17-20, and Nov. 23 to Apr. 16. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	40	34	30	29	32	35	175	1030	541	115	65
2	40	41	34	31	30	34	37	175	989	501	111	75
3	39	39	36	28	30	30	38	200	931	506	106	68
4	38	49	36	25	27	28	37	248	771	548	110	59
5	37	48	35	23	25	28	40	310	709	468	109	60
6	36	46	35	25	26	30	41	242	710	397	110	62
7	38	48	31	29	29	28	40	222	745	343	103	68
8	35	45	29	31	32	29	38	205	639	328	105	90
9	39	45	31	31	31	31	37	187	564	333	111	77
10	37	48	33	31	31	32	38	188	538	306	103	66
11	36	48	34	30	30	31	43	260	572	307	109	60
12	36	46	35	29	29	30	43	373	636	300	102	56
13	35	44	31	29	27	28	43	527	773	286	93	80
14	34	45	27	31	26	29	43	662	856	264	91	96
15	34	46	26	31	27	32	42	725	943	247	85	84
16	35	48	28	32	28	33	40	767	903	231	80	77
17	35	46	30	32	29	33	39	804	947	216	76	72
18	34	45	29	31	29	35	44	714	899	201	72	66
19	34	45	24	31	32	34	44	695	791	184	73	62
20	32	45	21	30	34	33	42	785	764	176	75	59
21	32	43	22	30	33	32	42	826	811	171	78	54
22	32	37	24	30	30	31	58	823	807	160	88	51
23	32	37	29	26	31	33	79	741	784	153	81	50
24	31	37	29	23	34	33	75	717	718	152	77	47
25	32	34	27	23	33	35	69	752	634	144	70	47
26	41	32	29	24	33	39	87	855	614	135	74	46
27	43	30	26	28	32	41	124	971	616	128	79	45
28	40	28	27	27	31	41	164	1020	590	127	70	44
29	43	29	28	26	---	39	197	964	591	124	64	42
30	42	32	30	25	---	37	210	935	606	125	62	40
31	43	---	32	27	---	36	---	984	---	121	64	---
TOTAL	1136	1246	922	879	838	1017	1909	18052	22481	8223	2746	1868
MEAN	36.6	41.5	29.7	28.4	29.9	32.8	63.6	582	749	265	88.6	62.3
MAX	43	49	36	32	34	41	210	1020	1030	548	115	96
MIN	31	28	21	23	25	28	35	175	538	121	62	40
AC-FT	2250	2470	1830	1740	1660	2020	3790	35810	44590	16310	5450	3710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 1993, BY WATER YEAR (WY)

MEAN	37.1	35.8	28.2	26.0	23.6	27.3	75.0	370	465	157	69.6	52.8
MAX	50.5	41.5	32.9	29.1	29.9	32.8	108	582	749	265	88.6	62.3
(WY)	1991	1993	1992	1991	1993	1993	1992	1993	1993	1993	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1990 - 1993	
ANNUAL TOTAL	34621		61317			
ANNUAL MEAN	94.6		168		114	
HIGHEST ANNUAL MEAN					168	1993
LOWEST ANNUAL MEAN					87.9	1990
HIGHEST DAILY MEAN	443	May 27	1030	Jun 1	1030	Jun 1 1993
LOWEST DAILY MEAN	[a]21	Feb 20	21	Dec 20	13	Jan 4 1990
ANNUAL SEVEN-DAY MINIMUM	22	Feb 15	25	Dec 19	16	Jan 4 1990
INSTANTANEOUS PEAK FLOW			1120	Jun 1	1120	Jun 1 1993
INSTANTANEOUS PEAK STAGE			5.92	Jun 1	5.92	Jun 1 1993
ANNUAL RUNOFF (AC-FT)	68670		121600		82710	
10 PERCENT EXCEEDS	295		675		314	
50 PERCENT EXCEEDS	45		43		43	
90 PERCENT EXCEEDS	25		29		23	

a-Also occurred Dec 20.

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 mi².

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 sea level, from topographic map. Prior to July 18, 1956, nonrecording gage at site 0.3 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 11-15, 24-30, Dec. 1-5, 23-31, Jan. 1-9, 24-31, Feb. 1-10, 14-19, 21-28, Mar. 1-9, 13, 14, 20, 27-29, Apr. 1, 4-6, June 13-15. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	8.1	5.0	4.2	4.1	4.3	4.5	43	381	386	109	28
2	13	8.0	5.2	4.0	4.3	4.3	5.0	45	336	369	100	32
3	13	7.1	5.2	4.1	4.5	4.0	5.3	51	297	398	86	30
4	11	8.0	5.2	4.1	4.4	3.9	5.6	64	197	354	79	24
5	10	9.4	5.2	4.3	4.2	3.8	6.0	76	174	238	75	26
6	9.8	8.1	5.1	4.4	3.8	4.0	6.2	60	208	192	76	28
7	9.9	7.6	4.9	4.7	3.8	4.1	6.4	48	237	189	70	28
8	8.9	7.1	4.2	4.6	4.2	4.3	7.5	41	166	239	73	41
9	9.6	7.4	3.9	4.3	4.3	4.3	8.2	37	138	272	83	39
10	8.7	8.7	3.6	4.1	4.0	3.9	7.8	37	147	273	70	30
11	8.6	8.0	3.2	4.2	3.8	3.0	8.5	53	218	324	94	26
12	8.4	7.0	3.1	4.3	3.2	3.0	8.5	84	287	313	74	23
13	7.8	7.2	3.0	4.9	3.6	2.9	8.3	116	320	307	61	38
14	7.4	7.0	3.0	5.0	4.3	2.8	8.6	129	400	280	51	45
15	7.5	7.2	3.2	4.0	4.2	2.8	8.3	147	380	273	44	39
16	7.7	8.1	3.0	3.4	4.2	2.3	8.1	178	365	262	41	36
17	7.3	6.7	2.8	3.1	4.3	1.8	8.3	204	450	235	39	35
18	7.2	6.2	2.8	2.7	4.5	1.8	9.8	190	390	217	35	33
19	7.1	6.5	2.8	2.3	4.5	1.6	10	182	276	191	34	29
20	6.9	6.7	2.9	2.3	3.9	1.6	9.5	219	328	182	32	27
21	6.4	6.6	3.0	2.0	3.8	1.6	9.8	249	415	176	35	24
22	6.0	6.2	3.3	2.2	3.8	2.9	14	246	418	155	46	21
23	6.0	6.1	4.0	2.9	3.7	2.6	21	184	413	136	40	19
24	5.7	6.0	4.2	4.0	3.8	3.1	20	179	327	122	32	18
25	5.6	5.4	4.3	4.3	4.0	3.2	20	205	303	101	30	16
26	8.7	4.9	4.5	4.5	4.1	4.1	27	265	341	113	34	16
27	9.5	4.5	4.6	4.5	4.1	4.3	39	290	375	128	40	14
28	8.2	4.3	4.6	4.5	3.9	4.4	52	299	372	116	31	13
29	9.0	4.6	4.6	4.3	---	4.5	58	293	393	119	27	12
30	8.5	5.0	4.5	4.1	---	4.6	55	253	437	132	26	12
31	9.5	---	4.4	4.0	---	4.2	---	306	---	120	26	---
TOTAL	267.9	203.7	123.3	120.3	113.3	104.0	466.2	4773	9489	6912	1693	802
MEAN	8.64	6.79	3.98	3.88	4.05	3.35	15.5	154	316	223	54.6	26.7
MAX	15	9.4	5.2	5.0	4.5	4.6	58	306	450	398	109	45
MIN	5.6	4.3	2.8	2.0	3.2	1.6	4.5	37	138	101	26	12
AC-FT	531	404	245	239	225	206	925	9470	18820	13710	3360	1590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

MEAN	13.0	6.92	3.95	2.72	2.61	3.48	21.0	119	252	135	43.0	21.6
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	15442.1		25067.7			
ANNUAL MEAN	42.2		68.7		52.1	
HIGHEST ANNUAL MEAN					83.2	1984
LOWEST ANNUAL MEAN					25.4	1977
HIGHEST DAILY MEAN	240	May 21	450	Jun 17	618 [b]	Jun 30 1957
LOWEST DAILY MEAN	2.2	Feb 15	1.6 [a]	Mar 19	.10 [b]	Dec 27 1962
ANNUAL SEVEN-DAY MINIMUM	2.3	Feb 12	1.9	Mar 15	.13	Dec 26 1962
INSTANTANEOUS PEAK FLOW			556	Jun 30	754	Jun 30 1957
INSTANTANEOUS PEAK STAGE			4.79	Jun 30	5.45 [c]	Jun 30 1957
ANNUAL RUNOFF (AC-FT)	30630		49720		37770	
10 PERCENT EXCEEDS	137		272		175	
50 PERCENT EXCEEDS	10		8.6		10	
90 PERCENT EXCEEDS	2.7		3.5		2.0	

a-Also occurred Mar 20, 21.
b-Also occurred Dec 28-31, 1962, Jan 6-8, 11-15, 1963.
c-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 NE¼NW¼ sec.18, T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on right bank 10 ft downstream from bridge pier on Interstate 70, 0.2 mi upstream from Black Gore Creek, 4.4 mi east of Vail, and 8.4 mi northeast of Minturn.

DRAINAGE AREA.--14.4 mi².

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 sea level, 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. 2 to Apr. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.6	3.2	4.0	3.5	2.2	2.6	3.7	19	173	225	55	15
2	6.2	3.5	4.0	3.5	2.2	2.6	3.7	20	168	224	50	15
3	5.8	3.8	4.0	3.5	2.2	2.6	3.6	24	144	214	44	14
4	5.4	4.7	4.0	3.5	2.2	2.6	4.1	32	101	172	40	13
5	5.2	4.3	4.0	3.5	2.2	2.6	4.0	36	94	119	42	14
6	5.2	4.3	4.0	3.2	2.2	2.6	3.7	28	112	99	39	13
7	5.5	4.1	4.0	3.2	2.2	2.6	3.7	21	115	114	35	16
8	6.4	4.1	4.0	3.2	2.2	2.6	4.0	18	86	140	35	17
9	5.4	4.2	4.0	2.9	2.2	2.6	4.3	16	74	157	33	14
10	5.5	4.5	4.0	2.9	2.2	2.6	4.1	17	79	163	31	13
11	5.5	4.6	4.0	2.6	2.2	2.6	4.3	27	104	173	36	12
12	5.1	4.7	4.0	2.5	2.2	2.6	4.2	48	139	171	32	11
13	4.8	4.9	4.0	2.4	2.2	2.6	3.8	72	181	166	30	15
14	4.4	4.8	4.0	2.2	2.2	2.6	3.6	90	222	154	27	14
15	4.5	5.0	4.0	2.2	2.2	2.6	3.6	108	234	144	25	14
16	4.3	5.0	4.0	2.2	2.2	2.6	3.4	123	228	133	23	12
17	4.5	5.0	4.0	2.2	2.2	2.6	3.5	125	232	117	22	11
18	4.5	5.0	4.0	2.2	2.2	2.6	3.7	110	211	104	21	11
19	4.3	5.0	4.0	2.2	2.4	2.6	3.6	101	192	94	22	10
20	4.1	4.8	4.0	2.2	2.4	2.6	3.5	119	218	91	21	9.5
21	4.0	4.5	4.0	2.2	2.4	2.6	3.7	137	230	87	22	8.8
22	4.0	4.5	4.0	2.2	2.4	2.6	5.1	135	232	79	25	8.0
23	3.9	4.3	4.0	2.2	2.6	2.6	8.1	116	230	70	21	7.8
24	3.8	4.3	4.0	2.1	2.6	2.8	7.5	121	219	65	20	7.7
25	3.9	4.0	4.0	2.2	2.6	3.3	6.7	139	202	59	19	7.5
26	4.4	4.0	3.7	2.2	2.6	4.9	9.0	156	215	63	21	7.2
27	4.3	4.0	3.5	2.2	2.6	4.5	13	152	219	64	20	6.9
28	4.6	4.0	3.5	2.2	2.6	3.7	18	163	217	59	17	6.5
29	4.8	4.0	3.5	2.2	---	3.5	24	159	230	59	16	6.2
30	4.5	4.0	3.5	2.2	---	3.3	24	157	228	59	17	6.2
31	4.4	---	3.5	2.2	---	3.2	---	163	---	60	16	---
TOTAL	149.8	131.1	121.2	79.9	64.8	89.0	195.2	2752	5329	3698	877	336.3
MEAN	4.83	4.37	3.91	2.58	2.31	2.87	6.51	88.8	178	119	28.3	11.2
MAX	6.6	5.0	4.0	3.5	2.6	4.9	24	163	234	225	55	17
MIN	3.8	3.2	3.5	2.1	2.2	2.6	3.4	16	74	59	16	6.2
AC-FT	297	260	240	158	129	177	387	5460	10570	7330	1740	667

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1993, BY WATER YEAR (WY)

MEAN	7.26	4.94	3.72	3.18	3.04	3.62	11.8	67.8	154	69.6	20.2	9.56
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1948 - 1993	
ANNUAL TOTAL	8654.9		13823.3			
ANNUAL MEAN	23.6		37.9		29.9	
HIGHEST ANNUAL MEAN					48.3	1983
LOWEST ANNUAL MEAN					17.4	1954
HIGHEST DAILY MEAN	[a]117	May 20	234	Jun 15	455	Jun 25 1983
LOWEST DAILY MEAN	2.0	Feb 10	2.1	Jan 24	1.2	Mar 5 1977
ANNUAL SEVEN-DAY MINIMUM	2.2	Feb 4	2.2	Jan 18	1.3	Feb 27 1977
INSTANTANEOUS PEAK FLOW			272	Jun 29	[b]662	Jun 24 1983
INSTANTANEOUS PEAK STAGE			3.42	Jun 29	[c]2.60	Jun 24 1983
ANNUAL RUNOFF (AC-FT)	17170		27420		21670	
10 PERCENT EXCEEDS	86		147		98	
50 PERCENT EXCEEDS	6.3		4.8		6.9	
90 PERCENT EXCEEDS	2.3		2.3		2.4	

a-Also occurred May 21.
b-From rating curve extended above 140 ft³/s.
c-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 sea level, from topographic map. Prior to October 1963, at site 15 ft upstream, at present datum.

REMARKS.--Estimated daily discharges: Nov. 2 to Apr. 26, and Aug. 10-11. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.9	2.2	2.0	1.8	2.2	3.7	11	168	90	11	5.0
2	2.8	2.8	2.2	2.0	1.8	2.2	3.7	14	156	83	11	4.9
3	2.7	2.8	2.2	2.0	1.8	2.2	3.6	16	138	81	9.8	4.6
4	2.7	2.8	2.2	2.0	1.7	2.2	3.8	21	106	77	9.1	4.4
5	2.8	2.8	2.2	2.0	1.8	2.2	4.1	21	105	73	9.2	4.6
6	2.7	2.8	2.2	1.9	1.8	2.2	3.9	15	114	60	8.5	4.4
7	2.9	2.8	2.2	1.9	1.8	2.2	3.7	13	122	53	8.0	5.6
8	2.9	2.8	2.2	1.9	1.8	2.2	3.8	13	93	49	8.2	5.1
9	3.0	2.8	2.2	1.8	1.8	2.2	4.0	13	81	46	7.5	4.5
10	2.8	2.8	2.2	1.8	1.8	2.2	4.0	16	81	43	8.0	4.3
11	2.8	2.8	2.2	1.8	1.8	2.2	4.2	25	95	41	9.1	4.0
12	2.8	2.8	2.2	1.8	1.8	2.2	4.1	37	122	40	8.3	3.9
13	2.7	2.8	2.2	1.8	1.8	2.2	3.8	48	156	37	8.0	6.6
14	2.6	2.8	2.2	1.8	1.8	2.4	3.5	57	181	34	8.0	5.8
15	2.6	2.8	2.2	1.8	1.8	2.4	3.5	64	189	32	8.2	5.2
16	2.6	2.8	2.2	1.8	1.8	2.4	3.4	68	195	31	7.3	4.6
17	2.7	2.8	2.2	1.8	1.8	2.4	3.5	67	189	29	6.8	4.3
18	2.5	2.8	2.2	1.8	1.8	2.4	3.6	64	172	27	6.4	4.0
19	2.5	2.8	2.2	1.8	1.9	2.4	3.5	66	157	24	6.4	4.0
20	2.4	2.8	2.2	1.8	2.0	2.4	3.5	86	160	22	6.4	3.8
21	2.4	2.7	2.2	1.8	2.0	2.4	3.8	91	163	21	6.6	3.6
22	2.4	2.5	2.2	1.8	2.0	2.4	4.9	86	162	20	6.8	3.5
23	2.4	2.4	2.2	1.8	2.2	2.4	6.4	79	151	19	6.0	3.4
24	2.4	2.4	2.2	1.8	2.2	2.4	8.0	84	133	19	5.6	3.4
25	2.5	2.2	2.2	1.8	2.2	3.0	7.8	97	118	17	5.3	3.3
26	3.0	2.2	2.1	1.8	2.2	4.4	6.6	153	114	15	6.0	3.2
27	2.8	2.2	2.0	1.8	2.2	4.1	8.6	141	109	14	5.6	3.2
28	2.8	2.2	2.0	1.8	2.2	3.7	11	154	102	13	5.3	3.1
29	3.2	2.2	2.0	1.8	---	3.5	14	133	102	12	5.1	3.1
30	3.0	2.2	2.0	1.8	---	3.3	13	135	97	12	5.1	3.0
31	3.0	---	2.0	1.8	---	3.2	---	158	---	12	4.9	---
TOTAL	84.2	79.3	67.1	57.1	53.4	80.2	159.0	2046	4031	1146	227.5	126.4
MEAN	2.72	2.64	2.16	1.84	1.91	2.59	5.30	66.0	134	37.0	7.34	4.21
MAX	3.2	2.9	2.2	2.0	2.2	4.4	14	158	195	90	11	6.6
MIN	2.4	2.2	2.0	1.8	1.7	2.2	3.4	11	81	12	4.9	3.0
AC-FT	167	157	133	113	106	159	315	4060	8000	2270	451	251

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1948 - 1993, BY WATER YEAR (WY)

MEAN	3.90	3.42	2.79	2.37	2.28	2.85	7.59	55.9	90.3	21.8	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1948 - 1993	
ANNUAL TOTAL	4911.2		8157.2			
ANNUAL MEAN	13.4		22.3		17.1	
HIGHEST ANNUAL MEAN					30.3	1984
LOWEST ANNUAL MEAN					8.16	1954
HIGHEST DAILY MEAN	95	May 21	195	Jun 16	253	Jun 17 1965
LOWEST DAILY MEAN	1.9	Jan 24	1.7	Feb 4	[a].90	Feb 22 1968
ANNUAL SEVEN-DAY MINIMUM	2.0	Feb 2	1.8	Jan 29	.90	Feb 4 1979
INSTANTANEOUS PEAK FLOW			255	Jun 14	365	Jun 7 1952
INSTANTANEOUS PEAK STAGE			4.64	Jun 14	[b]5.42	Jun 7 1952
ANNUAL RUNOFF (AC-FT)	9740		16180		12370	
10 PERCENT EXCEEDS	51		90		54	
50 PERCENT EXCEEDS	3.0		3.3		3.7	
90 PERCENT EXCEEDS	2.1		1.8		1.9	

a-Also occurred Jan 30, 1970, Feb 4 to Mar 6, 1979.
b-Maximum 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 N½ sec.12, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.3 mi upstream from U.S. Highway 6, 0.4 mi upstream from mouth, 4.5 mi east of Vail, and 8.5 mi northeast of Minturn.

DRAINAGE AREA.--4.54 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 2 to Apr. 21 and July 27 to Aug. 10. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.5	1.2	1.0	1.0	.72	1.4	5.9	69	70	19	4.8
2	2.1	1.5	1.2	1.0	.92	.72	1.5	5.8	64	68	18	4.8
3	2.0	1.9	1.2	1.0	.84	.72	1.4	6.9	57	63	17	4.2
4	1.9	1.9	1.2	1.0	.80	.72	1.4	9.8	36	46	16	4.2
5	1.9	1.8	1.2	1.0	.80	.68	1.5	12	33	31	16	4.9
6	1.8	1.8	1.1	1.0	.80	.76	1.4	9.0	41	28	15	4.2
7	2.0	1.7	1.1	1.0	.80	.76	1.4	6.8	42	37	13	4.7
8	1.8	1.7	1.2	1.0	.80	.76	1.3	5.6	30	45	14	5.0
9	1.8	1.6	1.2	1.0	.80	.76	1.4	4.9	24	48	13	4.5
10	1.9	1.6	1.2	1.0	.80	.76	1.6	5.3	28	54	12	4.4
11	1.8	1.5	1.2	1.0	.72	.76	1.6	8.0	41	54	14	4.3
12	1.7	1.4	1.2	1.0	.72	.76	1.7	16	55	52	12	4.0
13	1.6	1.4	1.2	1.0	.72	.82	1.8	26	73	61	12	5.1
14	1.6	1.4	1.2	1.0	.72	.82	1.8	32	87	63	11	4.4
15	1.6	1.4	1.2	1.0	.72	.82	1.9	40	83	57	9.4	4.9
16	1.5	1.4	1.2	1.0	.72	.82	1.8	41	74	52	9.2	5.1
17	1.5	1.4	1.2	1.0	.72	.82	1.9	46	75	44	8.8	5.2
18	1.5	1.4	1.2	1.0	.72	.82	2.0	44	67	40	8.4	4.9
19	1.5	1.4	1.1	1.0	.72	.82	1.9	41	54	37	7.6	4.7
20	1.4	1.4	1.1	1.0	.72	.82	2.0	48	68	42	7.2	4.3
21	1.4	1.4	1.1	1.0	.72	.86	2.0	56	75	37	8.4	4.0
22	1.5	1.4	1.0	1.0	.72	.86	2.3	55	76	28	8.8	3.9
23	1.5	1.4	1.0	1.0	.72	.86	2.9	45	73	23	7.3	3.9
24	1.4	1.4	1.0	1.0	.72	.86	2.8	43	62	22	7.1	3.6
25	1.4	1.3	1.0	1.0	.72	.86	2.6	49	57	23	6.9	3.6
26	1.5	1.3	1.0	1.0	.72	1.2	3.1	57	64	24	7.4	3.5
27	1.4	1.3	1.0	1.0	.72	1.6	4.4	60	66	24	6.3	3.5
28	1.5	1.3	1.0	1.0	.72	1.5	5.6	63	68	23	5.4	3.4
29	1.5	1.2	1.0	1.0	---	1.4	7.0	61	75	22	5.5	3.4
30	1.6	1.2	1.0	1.0	---	1.3	7.6	56	75	21	5.9	3.3
31	1.5	---	1.0	1.0	---	1.3	---	62	---	20	5.1	---
TOTAL	51.2	44.3	34.7	31.0	21.32	28.04	73.0	1021.0	1792	1259	326.7	128.7
MEAN	1.65	1.48	1.12	1.00	.76	.90	2.43	32.9	59.7	40.6	10.5	4.29
MAX	2.1	1.9	1.2	1.0	1.0	1.6	7.6	63	87	70	19	5.2
MIN	1.4	1.2	1.0	1.0	.72	.68	1.3	4.9	24	20	5.1	3.3
AC-FT	102	88	69	61	42	56	145	2030	3550	2500	648	255

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

MEAN	2.71	1.70	1.04	.85	.84	.98	3.96	24.0	49.7	22.8	7.44	3.67
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	3582.46		4810.96			
ANNUAL MEAN	9.79		13.2		10.0	
HIGHEST ANNUAL MEAN					18.6	1984
LOWEST ANNUAL MEAN					5.15	1966
HIGHEST DAILY MEAN	70	May 20	87	Jun 14	170	Jun 26 1983
LOWEST DAILY MEAN	.70	Jan 5	.68	Mar 5	[a].10	Feb 8 1967
ANNUAL SEVEN-DAY MINIMUM	.75	Jan 4	.71	Feb 27	.20	Mar 4 1981
INSTANTANEOUS PEAK FLOW			115	Jun 14	[b]338	Jun 8 1985
INSTANTANEOUS PEAK STAGE			3.93	Jun 14	[c]4.10	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	7110		9540		7240	
10 PERCENT EXCEEDS	37		54		33	
50 PERCENT EXCEEDS	1.9		1.8		2.3	
90 PERCENT EXCEEDS	.79		.80		.60	

a-Also occurred Jan 30, 1970.
b-From rating curve extended above 82 ft^3/s.
c-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 sea level, 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: Nov. 2-15, and Nov. 18 to Apr. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	2.4	1.7	1.3	1.3	1.3	2.2	6.1	66	70	24	6.2
2	3.4	2.5	1.7	1.3	1.3	1.3	2.2	5.0	64	75	23	5.8
3	3.2	3.0	1.7	1.3	1.3	1.3	2.2	6.4	59	75	20	5.3
4	3.2	3.0	1.7	1.3	1.3	1.2	2.3	8.5	45	64	19	5.2
5	3.1	2.9	1.7	1.3	1.3	1.1	2.4	11	43	50	19	6.7
6	2.9	2.9	1.7	1.3	1.3	1.2	2.1	9.2	49	43	18	5.9
7	3.2	2.8	1.7	1.3	1.3	1.2	1.7	8.1	50	50	16	8.4
8	3.1	2.8	1.7	1.3	1.3	1.3	1.9	7.3	38	60	17	10
9	2.9	2.7	1.7	1.3	1.3	1.3	2.1	6.5	33	61	16	7.3
10	2.9	2.7	1.7	1.3	1.3	1.3	2.0	5.1	34	62	16	6.6
11	2.7	2.6	1.7	1.3	1.3	1.3	1.9	8.2	46	62	18	6.0
12	2.7	2.6	1.7	1.3	1.3	1.3	1.8	13	60	62	16	5.7
13	2.5	2.5	1.7	1.3	1.3	1.3	1.7	22	74	60	15	10
14	2.5	2.5	1.7	1.3	1.3	1.3	1.7	34	76	59	13	9.0
15	2.4	2.5	1.7	1.3	1.3	1.3	1.6	43	102	58	12	9.6
16	2.4	2.5	1.7	1.3	1.3	1.3	1.6	45	86	53	11	9.2
17	2.5	2.4	1.7	1.3	1.3	1.3	1.6	46	87	51	11	8.0
18	2.4	2.3	1.6	1.3	1.3	1.3	1.6	43	81	46	10	7.1
19	2.3	2.3	1.6	1.3	1.4	1.3	1.7	41	74	41	9.0	6.6
20	2.2	2.2	1.5	1.3	1.4	1.3	1.9	46	84	40	8.3	5.9
21	2.1	2.1	1.4	1.3	1.4	1.3	1.7	49	91	38	9.2	5.2
22	2.1	2.1	1.4	1.3	1.4	1.3	1.9	47	88	34	11	4.7
23	2.1	2.0	1.4	1.3	1.4	1.3	2.5	41	86	31	8.4	4.4
24	1.9	2.0	1.4	1.3	1.4	1.3	2.6	41	82	28	8.1	4.2
25	2.1	1.9	1.4	1.3	1.4	1.8	2.5	45	76	27	7.8	3.9
26	2.4	1.9	1.3	1.3	1.3	2.4	2.9	53	77	31	9.9	3.7
27	2.2	1.8	1.3	1.3	1.3	2.3	4.0	54	74	30	8.0	3.4
28	2.1	1.8	1.3	1.3	1.3	2.2	4.9	56	75	29	6.9	3.1
29	2.5	1.7	1.3	1.3	---	2.1	4.9	71	79	28	6.8	2.9
30	2.4	1.7	1.3	1.3	---	2.0	7.2	64	73	27	6.9	2.9
31	2.5	---	1.3	1.3	---	2.0	---	67	---	26	6.4	---
TOTAL	80.4	71.1	48.4	40.3	37.1	45.5	73.3	1002.4	2052	1471	400.7	182.9
MEAN	2.59	2.37	1.56	1.30	1.32	1.47	2.44	32.3	68.4	47.5	12.9	6.10
MAX	3.5	3.0	1.7	1.3	1.4	2.4	7.2	71	102	75	24	10
MIN	1.9	1.7	1.3	1.3	1.3	1.1	1.6	5.0	33	26	6.4	2.9
AC-FT	159	141	96	80	74	90	145	1990	4070	2920	795	363

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	3.96	2.49	1.77	1.42	1.32	1.41	3.96	24.0	53.8	29.9	9.75	5.14
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	3834.08		5505.1			
ANNUAL MEAN	10.5		15.1		11.6	
HIGHEST ANNUAL MEAN					22.7	1984
LOWEST ANNUAL MEAN					6.77	1989
HIGHEST DAILY MEAN	51	Jun 14	102	Jun 15	186[b]	Jun 14 1978
LOWEST DAILY MEAN	.77[a]	Jan 22	1.1	Mar 5	.24[b]	Oct 29 1972
ANNUAL SEVEN-DAY MINIMUM	.77	Jan 22	1.2	Mar 1	.26	Oct 26 1972
INSTANTANEOUS PEAK FLOW			122	Jun 14	265	Jun 8 1985
INSTANTANEOUS PEAK STAGE			2.75	Jun 14	2.85[c]	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	7600		10920		8400	
10 PERCENT EXCEEDS	39		58		38	
50 PERCENT EXCEEDS	3.0		2.5		3.2	
90 PERCENT EXCEEDS	.80		1.3		1.1	

a-Also occurred Jan 23-29.
b-Also occurred Oct 30 to Nov 1, 1972.
c-Maximum gage height, 3.60 ft, Jun 21, 1983, backwater from debris.

09066200 BOOTH CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'54", long 106°19'21", in NE¼SE¼ 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 mi².

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 sea level, 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: Nov. 18 to Apr. 13. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	1.4	1.3	1.0	.74	1.0	2.1	7.7	94	98	14	3.3
2	2.1	1.6	1.3	1.0	.74	1.0	2.2	6.8	85	84	13	3.2
3	1.9	1.7	1.3	1.0	.74	1.0	2.4	6.8	70	70	12	2.9
4	1.8	1.8	1.3	1.0	.74	1.0	2.3	8.8	44	53	11	2.7
5	1.7	1.7	1.3	1.0	.74	1.0	2.6	12	43	40	11	3.6
6	1.7	1.5	1.2	.94	.74	1.0	2.5	9.4	59	36	10	3.1
7	1.9	1.5	1.2	.92	.74	1.0	2.4	7.7	59	45	8.8	4.4
8	1.7	1.5	1.2	.92	.74	1.0	2.3	6.4	39	51	9.5	4.7
9	1.8	1.6	1.2	.84	.74	1.0	2.4	5.4	34	57	8.6	3.7
10	1.6	1.7	1.2	.84	.74	1.0	2.7	4.9	34	57	8.9	3.4
11	1.6	1.7	1.1	.84	.74	1.0	2.6	6.7	43	60	9.8	3.0
12	1.5	1.8	1.1	.84	.74	1.0	2.6	16	66	56	8.0	2.8
13	1.5	1.7	1.1	.74	.74	1.1	2.7	37	96	53	7.2	5.1
14	1.4	1.8	1.1	.74	.74	1.1	2.4	47	113	50	6.5	5.2
15	1.3	1.9	1.1	.74	.74	1.1	2.3	54	104	46	5.9	5.7
16	1.3	2.0	1.1	.74	.74	1.1	2.2	64	94	42	5.5	5.3
17	1.3	1.9	1.1	.74	.74	1.1	2.2	70	110	40	5.3	4.9
18	1.3	1.9	1.1	.74	.74	1.1	2.3	58	80	36	4.9	4.4
19	1.3	1.9	1.1	.74	.86	1.1	2.2	52	68	32	4.6	4.1
20	1.2	1.8	1.1	.74	.90	1.1	2.1	72	86	31	4.4	3.6
21	1.2	1.7	1.1	.74	.90	1.2	2.2	82	95	29	4.7	3.2
22	1.2	1.7	1.1	.74	.90	1.2	2.6	75	118	26	5.1	3.0
23	1.3	1.6	1.1	.74	1.0	1.2	3.3	59	103	22	4.3	2.8
24	1.2	1.6	1.1	.72	1.0	1.2	3.2	58	88	20	4.1	2.6
25	1.2	1.5	1.1	.74	1.0	1.5	3.0	76	72	18	3.9	2.4
26	1.4	1.5	1.0	.74	1.0	2.0	3.6	89	100	19	5.0	2.3
27	1.3	1.4	1.0	.74	1.0	2.8	5.2	83	95	19	4.2	2.2
28	1.3	1.4	1.0	.74	1.0	2.5	6.4	98	99	18	3.7	2.1
29	1.5	1.4	1.0	.74	---	2.4	8.1	89	125	17	3.5	2.0
30	1.4	1.3	1.0	.74	---	2.2	9.3	77	101	16	3.5	2.0
31	1.5	---	1.0	.74	---	2.6	---	86	---	15	3.3	---
TOTAL	46.6	49.5	35.0	25.18	22.88	41.6	94.4	1424.6	2417	1256	214.2	103.7
MEAN	1.50	1.65	1.13	.81	.82	1.34	3.15	46.0	80.6	40.5	6.91	3.46
MAX	2.2	2.0	1.3	1.0	1.0	2.8	9.3	98	125	98	14	5.7
MIN	1.2	1.3	1.0	.72	.74	1.0	2.1	4.9	34	15	3.3	2.0
AC-FT	92	98	69	50	45	83	187	2830	4790	2490	425	206

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	2.76	2.06	1.28	1.01	.95	1.32	5.53	31.0	65.3	25.7	5.88	3.07
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	3304.30		5730.66			
ANNUAL MEAN	9.03		15.7		12.2	
HIGHEST ANNUAL MEAN					19.0	1982
LOWEST ANNUAL MEAN					6.66	1977
HIGHEST DAILY MEAN	57	Jun 13	125	Jun 29	218	Jun 15 1978
LOWEST DAILY MEAN	[a].74	Feb 8	.72	Jan 24	[b].20	Feb 8 1967
ANNUAL SEVEN-DAY MINIMUM	.75	Feb 7	.74	Jan 18	.33	Feb 7 1967
INSTANTANEOUS PEAK FLOW			259	Jun 29	355	Jun 15 1978
INSTANTANEOUS PEAK STAGE			3.56	Jun 29	[c]4.07	Jun 15 1978
ANNUAL RUNOFF (AC-FT)	6550		11370		8810	
10 PERCENT EXCEEDS	35		65		41	
50 PERCENT EXCEEDS	2.0		2.2		2.3	
90 PERCENT EXCEEDS	.77		.74		.70	

a-Also occurred Feb 9-11.
b-Also occurred Jan 29, 1970, Feb 10, 11, 1981.
c-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 sea level, from topographic map. Prior to Oct. 1, 1977 at site 700 ft upstream, at different datum.

REMARKS.--Estimated daily discharges: Nov. 12 to Apr. 13. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.85	.64	.55	.41	.31	.28	.41	2.4	36	55	6.8	1.7
2	.84	.57	.55	.40	.31	.28	.44	1.3	35	50	6.3	1.6
3	.77	.69	.55	.39	.31	.28	.46	1.3	33	47	5.8	1.3
4	.77	.80	.55	.38	.31	.28	.44	1.9	29	40	5.6	.91
5	.76	.77	.55	.37	.31	.28	.42	4.4	29	34	5.8	1.7
6	.77	.77	.55	.36	.31	.28	.42	2.5	30	29	5.2	1.4
7	.85	.77	.55	.36	.31	.28	.45	1.5	30	27	4.8	1.8
8	1.1	.75	.55	.36	.31	.28	.49	1.3	28	28	4.9	2.1
9	1.1	.71	.55	.36	.30	.28	.49	1.2	25	29	4.7	1.4
10	1.0	.71	.55	.36	.30	.28	.49	1.1	25	29	4.8	.98
11	1.2	.68	.55	.36	.30	.30	.49	1.4	27	29	4.6	.88
12	1.1	.65	.55	.36	.30	.31	.51	1.4	31	27	3.8	1.0
13	1.0	.65	.55	.36	.30	.32	.52	2.8	39	25	3.3	2.5
14	.90	.58	.55	.36	.30	.32	.51	8.1	51	23	3.0	2.0
15	.86	.54	.55	.36	.30	.32	.49	11	51	22	2.7	1.9
16	.81	.54	.55	.35	.30	.32	.49	14	53	20	2.6	1.8
17	.87	.54	.52	.33	.28	.32	.55	16	54	20	2.4	1.7
18	.79	.54	.50	.31	.28	.32	.59	17	50	18	2.3	1.5
19	.79	.54	.47	.31	.28	.32	.59	16	49	17	2.1	1.4
20	.70	.54	.45	.31	.28	.34	.59	21	51	16	2.0	1.3
21	.69	.54	.44	.31	.28	.35	.55	23	56	15	2.0	1.2
22	.70	.55	.44	.31	.28	.36	.70	23	59	13	2.2	1.1
23	.66	.55	.44	.31	.28	.37	.94	22	56	12	1.9	1.1
24	.61	.55	.43	.31	.28	.37	.96	22	48	12	1.7	.98
25	.70	.55	.41	.31	.28	.37	.91	24	44	11	1.6	.98
26	.89	.55	.41	.31	.27	.46	1.1	28	45	10	2.3	.96
27	.76	.55	.41	.31	.28	.43	1.6	29	45	9.1	2.0	.90
28	.73	.55	.41	.31	.28	.40	2.6	33	46	8.4	1.8	.89
29	.82	.55	.41	.31	---	.39	2.9	31	52	8.1	1.6	.83
30	.83	.55	.41	.31	---	.39	2.8	31	57	7.8	1.8	.84
31	.80	---	.41	.31	---	.42	---	33	---	7.3	1.6	---
TOTAL	26.02	18.47	15.36	10.57	8.23	10.30	24.90	426.6	1264	698.7	104.0	40.65
MEAN	.84	.62	.50	.34	.29	.33	.83	13.8	42.1	22.5	3.35	1.35
MAX	1.2	.80	.55	.41	.31	.46	2.9	33	59	55	6.8	2.5
MIN	.61	.54	.41	.31	.27	.28	.41	1.1	25	7.3	1.6	.83
AC-FT	52	37	30	21	16	20	49	846	2510	1390	206	81

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	1.19	.82	.49	.39	.37	.40	1.31	11.8	34.9	13.3	3.31	1.77
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	1470.83		2647.80			
ANNUAL MEAN	4.02		7.25		5.84	
HIGHEST ANNUAL MEAN					11.3	1984
LOWEST ANNUAL MEAN					2.52	1977
HIGHEST DAILY MEAN	27	Jun 14	59	Jun 22	[b]93	Jun 22 1983
LOWEST DAILY MEAN	[a].15	Feb 6	.27	Feb 26	[b].00	Nov 10 1964
ANNUAL SEVEN-DAY MINIMUM	.15	Feb 6	.28	Feb 20	.00	Nov 10 1964
INSTANTANEOUS PEAK FLOW			[c]69	Jun 21	116	Jun 20 1974
INSTANTANEOUS PEAK STAGE			[c]2.71	Jun 21	[d,e]2.65	Jun 20 1974
ANNUAL RUNOFF (AC-FT)	2920		5250		4230	
10 PERCENT EXCEEDS	17		29		20	
50 PERCENT EXCEEDS	.86		.77		.92	
90 PERCENT EXCEEDS	.16		.31		.20	

a-Also occurred Feb 7-13.
b-No flow at times most years.
c-Also occurred Jun 29, 30.
d-Maximum gage height, 3.28 ft, Jun 25, 1983, backwater from debris.
e-Datum then in use.

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 mi².

PERIOD OF RECORD.--August 1988 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,060 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4, 5, 10, 12, 22, Nov. 24 to Dec. 1, Dec. 3, 7, 8, 13-28, Jan. 1, Jan. 4 to Feb. 16, Feb. 21-23, 27-28, Mar. 2-5, 13, and June 21-23. Records fair except for estimated daily discharges and period May 13-Sept. 7, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	18	15	12	11	9.9	21	70	1050	992	131	49
2	20	17	15	12	11	9.9	24	70	984	924	125	48
3	19	18	15	12	11	9.9	23	83	842	848	154	45
4	19	18	15	12	11	9.9	23	106	635	691	151	42
5	18	19	15	12	11	9.9	26	125	601	485	153	48
6	18	19	14	12	11	9.7	25	94	661	414	140	45
7	19	18	14	12	11	9.9	23	80	710	415	117	49
8	17	18	15	12	11	11	22	70	557	478	114	53
9	20	18	15	12	11	11	24	61	486	554	107	45
10	18	18	15	12	11	11	27	63	460	552	102	41
11	19	18	15	12	11	11	26	90	550	601	113	39
12	18	18	15	12	11	10	27	146	796	604	102	37
13	17	18	15	12	11	11	27	246	989	542	95	58
14	17	19	15	12	11	11	25	341	1190	496	88	51
15	16	19	15	11	11	11	25	429	1190	471	81	50
16	16	19	15	11	11	11	24	504	1050	411	76	48
17	17	18	15	11	11	11	25	543	1090	366	71	44
18	16	18	15	11	11	11	28	499	1010	356	66	42
19	16	18	14	11	11	11	26	485	840	316	62	40
20	16	17	14	11	11	11	27	555	1140	298	60	38
21	16	17	14	11	11	12	26	650	1170	277	63	36
22	16	17	13	11	11	12	33	643	1200	250	71	35
23	16	17	13	11	11	14	42	574	1100	221	61	33
24	16	17	13	11	9.9	16	41	577	1060	198	56	33
25	16	16	13	11	10	20	38	709	904	165	54	32
26	17	16	12	11	9.6	24	43	830	970	166	62	31
27	17	16	12	11	10	28	59	813	994	164	58	30
28	18	16	12	11	10	25	73	884	925	152	53	29
29	20	15	12	11	---	24	85	882	1020	145	51	29
30	19	15	12	11	---	22	91	874	999	140	54	27
31	21	---	12	11	---	21	---	1000	---	140	50	---
TOTAL	548	525	434	355	302.5	429.1	1029	13096	27173	12832	2741	1227
MEAN	17.7	17.5	14.0	11.5	10.8	13.8	34.3	422	906	414	88.4	40.9
MAX	21	19	15	12	11	28	91	1000	1200	992	154	58
MIN	16	15	12	11	9.6	9.7	21	61	460	140	50	27
AC-FT	1090	1040	861	704	600	851	2040	25980	53900	25450	5440	2430

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

MEAN	19.5	16.4	12.8	10.2	9.06	12.8	49.7	323	578	186	52.1	29.4
MAX	25.9	19.6	14.0	11.5	10.8	17.0	87.0	422	906	414	88.4	40.9
(WY)	1991	1991	1993	1990	1993	1989	1989	1993	1993	1993	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1988 - 1993	
ANNUAL TOTAL	33594.5		60691.6			
ANNUAL MEAN	91.8		166		109	
HIGHEST ANNUAL MEAN					166	1993
LOWEST ANNUAL MEAN					86.5	1990
HIGHEST DAILY MEAN	626	May 21	1200	Jun 22	1200	Jun 22 1993
LOWEST DAILY MEAN	8.0	Jan 24	9.6	Feb 26	[a]7.2	Feb 12 1990
ANNUAL SEVEN-DAY MINIMUM	8.3	Feb 9	9.9	Mar 1	7.4	Feb 8 1990
INSTANTANEOUS PEAK FLOW			about 1470	Jun 20	about 1470	Jun 20 1993
INSTANTANEOUS PEAK STAGE			about 10.96	Jun 20	about 10.96	Jun 20 1993
ANNUAL RUNOFF (AC-FT)	66630		120400		78600	
10 PERCENT EXCEEDS	356		646		383	
50 PERCENT EXCEEDS	20		23		21	
90 PERCENT EXCEEDS	9.0		11		9.4	

a-Also occurred Feb 13, 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4 to Apr. 20, May 7-13, and June 1. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	1.8	1.6	1.6	1.3	.88	1.2	5.2	108	52	5.5	2.6
2	1.9	1.6	1.7	1.5	1.3	.80	1.2	5.5	100	49	5.1	2.6
3	1.8	1.5	1.8	1.4	1.3	.76	1.2	6.6	83	45	4.9	2.3
4	1.8	1.5	1.8	1.3	1.2	.84	1.3	8.8	70	38	4.7	2.1
5	1.8	1.5	1.7	1.1	1.2	.86	1.2	9.9	67	36	4.9	2.7
6	1.8	1.6	1.6	1.1	1.1	.94	1.3	7.1	75	31	4.4	2.3
7	1.9	1.8	1.4	1.1	1.1	1.1	1.4	7.0	73	29	4.1	3.2
8	2.0	1.7	1.3	1.2	1.2	1.1	1.3	9.0	58	30	4.3	3.3
9	2.1	1.6	1.4	1.4	1.3	1.2	1.3	10	50	29	4.1	2.3
10	2.2	1.6	1.5	1.6	1.4	1.3	1.2	12	51	27	5.1	2.1
11	2.2	1.6	1.6	1.5	1.4	1.3	1.4	16	57	27	4.7	1.9
12	2.1	1.7	1.6	1.3	1.4	1.2	1.4	20	72	25	3.8	1.9
13	2.0	1.7	1.5	1.3	1.2	1.1	1.5	24	93	23	3.5	3.9
14	1.8	1.6	1.4	1.3	1.1	1.1	1.6	26	112	21	3.4	3.5
15	1.8	1.6	1.2	1.4	1.1	1.2	1.5	32	108	20	3.1	3.2
16	1.8	1.6	1.3	1.5	1.1	1.3	1.6	37	108	18	2.9	2.9
17	1.8	1.7	1.4	1.6	1.1	1.5	1.5	44	102	16	2.7	2.6
18	1.8	1.8	1.5	1.6	1.1	1.6	1.7	46	85	15	2.6	2.4
19	1.7	1.8	1.4	1.5	1.0	1.6	1.7	45	78	14	2.6	2.3
20	1.7	1.8	1.3	1.5	1.0	1.6	1.5	59	78	13	2.6	2.2
21	1.6	1.8	1.0	1.5	1.1	1.6	1.6	67	80	12	2.7	2.0
22	1.6	1.7	1.1	1.4	1.1	1.5	2.2	64	80	11	2.9	1.9
23	1.6	1.6	1.3	1.2	1.1	1.4	2.7	60	77	9.6	2.5	1.9
24	1.6	1.5	1.4	1.1	1.0	1.3	2.5	63	72	9.9	2.3	1.8
25	1.7	1.4	1.4	1.1	.95	1.3	2.3	74	64	8.9	2.2	1.8
26	2.0	1.3	1.3	1.1	.96	1.3	2.9	86	63	8.3	2.9	1.8
27	1.9	1.2	1.4	1.2	.90	1.3	3.1	87	62	7.7	2.5	1.7
28	1.8	1.2	1.3	1.2	.86	1.4	7.1	107	60	7.1	2.2	1.7
29	2.0	1.2	1.3	1.3	---	1.5	7.5	98	62	6.7	2.2	1.7
30	2.0	1.4	1.4	1.2	---	1.1	7.8	95	58	6.4	2.8	1.6
31	1.9	---	1.5	1.2	---	1.2	---	104	---	6.0	2.7	---
TOTAL	57.6	47.4	44.4	41.3	31.87	38.18	67.7	1335.1	2306	651.6	106.9	70.2
MEAN	1.86	1.58	1.43	1.33	1.14	1.23	2.26	43.1	76.9	21.0	3.45	2.34
MAX	2.2	1.8	1.8	1.6	1.4	1.6	7.8	107	112	52	5.5	3.9
MIN	1.6	1.2	1.0	1.1	.86	.76	1.2	5.2	50	6.0	2.2	1.6
AC-FT	114	94	88	82	63	76	134	2650	4570	1290	212	139

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 1993, BY WATER YEAR (WY)

MEAN	1.98	1.52	1.22	1.03	.97	1.08	3.48	28.6	50.6	12.6	3.71	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1964 - 1993	
ANNUAL TOTAL	2491.1		4798.25			
ANNUAL MEAN	6.81		13.1		9.09	
HIGHEST ANNUAL MEAN					14.9	1983
LOWEST ANNUAL MEAN					4.31	1977
HIGHEST DAILY MEAN	42	May 20	112	Jun 14	164	Jun 20 1983
LOWEST DAILY MEAN	[a]1.0	Mar 6	.76	Mar 3	.20	Jan 30 1970
ANNUAL SEVEN-DAY MINIMUM	1.0	Mar 5	.84	Feb 27	.34	Jan 28 1970
INSTANTANEOUS PEAK FLOW			162	Jun 14	215	Jun 19 1983
INSTANTANEOUS PEAK STAGE			4.32	Jun 14	[b]4.66	Jun 19 1983
ANNUAL RUNOFF (AC-FT)	4940		9520		6580	
10 PERCENT EXCEEDS	26		59		29	
50 PERCENT EXCEEDS	1.9		1.8		1.8	
90 PERCENT EXCEEDS	1.2		1.2		.80	

a-Also occurred Mar 7-10 and Dec 21.
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 NE¼SW¼ sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft upstream from U.S. Highway 6 and 24, and 700 ft upstream from mouth.

DRAINAGE AREA.--14.8 mi².

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 sea level, from topographic map. Prior to May 1, 1974, nonrecording gage near present site, at different datum.

REMARKS.--Estimated daily discharges: Nov. 2, 4-7, 9-17, 20-30, Dec. 1-3, 5-11, 13, 15, 16, 18-24, Jan. 3-11, Mar. 12, 13. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	3.8	2.5	2.3	2.2	2.4	3.3	8.3	96	79	16	6.9
2	3.8	3.7	2.4	2.7	2.3	2.3	3.5	8.5	95	76	14	7.0
3	3.5	3.7	2.2	2.7	2.2	2.3	3.4	9.9	91	74	14	6.5
4	3.5	3.7	2.1	2.6	2.2	2.3	3.7	12	72	72	13	6.1
5	3.3	3.7	2.6	2.2	2.2	2.3	4.1	13	67	66	13	6.5
6	3.3	3.7	2.7	2.4	2.2	2.3	4.1	10	67	56	13	6.5
7	3.8	3.6	2.4	2.4	2.2	2.4	3.6	10	74	48	12	7.0
8	3.3	3.5	2.4	2.5	2.3	2.6	3.5	9.1	61	47	13	7.6
9	3.6	3.6	2.6	2.4	2.3	2.5	4.0	8.6	55	48	13	6.5
10	3.4	3.8	2.6	2.4	2.3	2.5	4.5	9.8	51	44	13	6.0
11	3.3	4.0	2.6	2.4	2.3	2.5	4.0	13	54	45	14	5.9
12	3.7	3.8	2.2	2.4	2.3	2.3	4.3	17	63	45	12	5.2
13	3.5	3.4	2.2	2.3	2.3	2.2	4.2	24	83	44	10	9.9
14	3.4	3.7	2.2	2.3	2.2	2.4	3.6	32	103	42	9.6	8.7
15	3.4	3.7	2.4	2.3	2.3	2.5	3.6	44	118	40	9.5	7.7
16	3.7	3.6	2.4	2.4	2.3	2.5	3.7	48	120	37	8.3	7.1
17	3.3	3.6	2.3	2.3	2.3	2.5	3.8	51	132	35	8.3	6.7
18	3.3	3.4	2.5	2.1	2.3	2.7	4.2	56	123	32	7.7	6.2
19	3.4	3.4	2.3	2.0	2.3	2.9	4.1	66	105	29	7.7	6.2
20	3.3	3.5	2.1	2.0	2.5	2.7	3.7	53	105	28	7.4	5.8
21	3.4	3.6	2.3	2.5	2.5	2.7	4.1	59	118	27	7.8	5.5
22	3.3	3.2	2.5	2.5	2.4	2.7	5.6	58	114	25	8.9	5.3
23	3.2	3.4	2.7	2.5	2.5	3.0	6.5	55	104	23	7.7	5.1
24	3.1	3.1	2.5	2.1	2.6	3.2	6.1	54	98	24	7.4	5.0
25	3.0	2.8	2.3	2.4	2.6	3.7	5.3	56	91	22	6.7	5.1
26	3.8	2.7	2.6	2.6	2.6	3.8	6.5	63	94	20	7.8	5.1
27	3.5	2.5	2.2	2.0	2.5	4.0	9.1	75	96	19	8.3	4.7
28	3.7	2.3	2.7	2.0	2.4	4.0	9.9	86	95	18	7.6	4.9
29	4.2	2.5	2.3	2.2	---	3.6	10	91	99	17	7.0	4.7
30	3.7	2.6	2.4	2.2	---	3.4	9.3	82	88	17	6.8	4.7
31	4.3	---	2.5	2.3	---	3.2	---	87	---	16	6.8	---
TOTAL	109.2	101.6	74.7	72.4	65.6	86.4	149.3	1269.2	2732	1215	311.3	186.1
MEAN	3.52	3.39	2.41	2.34	2.34	2.79	4.98	40.9	91.1	39.2	10.0	6.20
MAX	4.3	4.0	2.7	2.7	2.6	4.0	10	91	132	79	16	9.9
MIN	3.0	2.3	2.1	2.0	2.2	2.2	3.3	8.3	51	16	6.7	4.7
AC-FT	217	202	148	144	130	171	296	2520	5420	2410	617	369

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY)

MEAN	4.08	3.36	2.90	2.44	2.27	2.79	5.91	26.1	62.1	30.3	9.66	5.48
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1974 - 1993	
ANNUAL TOTAL	3294.9		6372.8			
ANNUAL MEAN	9.00		17.5		13.1	
HIGHEST ANNUAL MEAN					22.7	1984
LOWEST ANNUAL MEAN					4.94	1977
HIGHEST DAILY MEAN	39	May 27	132	Jun 17	242	Jun 27 1983
LOWEST DAILY MEAN	1.7	Jan 3	[a]2.0	Jan 19	.55	Sep 10 1977
ANNUAL SEVEN-DAY MINIMUM	1.8	Feb 2	2.2	Jan 27	.75	Sep 5 1977
INSTANTANEOUS PEAK FLOW			143	Jun 16	249	Jun 27 1983
INSTANTANEOUS PEAK STAGE			3.04	Jun 16	3.46	Jun 27 1983
ANNUAL RUNOFF (AC-FT)	6540		12640		9470	
10 PERCENT EXCEEDS	28		64		39	
50 PERCENT EXCEEDS	3.8		3.8		4.2	
90 PERCENT EXCEEDS	1.9		2.3		2.0	

a-Also occurred Jan 20, 27, and 28.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 23 to Dec 3, Dec. 25-30, Jan. 5-8, 24-27, and Feb. 5-10. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	104	70	69	66	59	91	497	2870	2290	430	170
2	103	100	70	70	66	54	104	496	2810	2250	406	181
3	99	90	70	68	64	56	99	569	2690	2200	376	175
4	98	101	69	62	62	51	95	700	2280	2100	359	158
5	98	95	67	64	60	56	116	859	2130	1780	359	161
6	95	104	69	64	58	52	112	668	2180	1560	357	166
7	99	95	67	64	58	54	98	596	2280	1390	335	172
8	91	93	77	63	58	58	94	548	2020	1450	326	216
9	106	99	72	63	58	66	105	503	1780	1500	357	192
10	99	104	69	61	58	69	125	506	1720	1420	322	171
11	97	102	66	62	57	62	118	690	1920	1440	361	159
12	96	83	68	62	55	54	132	1010	2170	1350	327	149
13	91	103	70	60	54	75	130	1410	2620	1270	291	205
14	89	89	63	65	52	70	112	1580	2800	1150	269	228
15	86	89	72	64	60	65	111	1800	3040	1090	247	203
16	87	93	66	62	55	68	113	1990	2860	1030	232	191
17	88	94	63	62	53	69	111	2170	3020	950	219	186
18	86	89	72	61	53	68	131	2030	2790	890	207	175
19	85	90	68	60	55	67	128	1980	2510	797	203	167
20	83	90	67	59	52	66	122	2100	2570	755	201	160
21	80	80	82	58	52	64	119	2490	2780	726	207	151
22	79	65	77	52	57	66	166	2620	2850	664	241	143
23	79	64	70	55	59	73	239	2690	2780	607	221	133
24	78	64	72	54	57	84	241	2760	2470	574	199	127
25	78	64	70	52	57	100	214	2890	2220	523	187	125
26	99	64	70	50	57	116	263	3320	2240	514	196	123
27	105	62	70	52	54	128	382	3460	2290	519	210	119
28	99	60	70	51	56	105	495	3680	2220	492	188	116
29	112	66	70	60	---	105	570	3630	2250	477	171	114
30	109	70	70	56	---	101	596	3550	2330	476	171	110
31	117	---	70	61	---	93	---	3560	---	460	169	---
TOTAL	2916	2566	2166	1866	1603	2274	5532	57352	73490	34694	8344	4846
MEAN	94.1	85.5	69.9	60.2	57.2	73.4	184	1850	2450	1119	269	162
MAX	117	104	82	70	66	128	596	3680	3040	2290	430	228
MIN	78	60	63	50	52	51	91	496	1720	460	169	110
AC-FT	5780	5090	4300	3700	3180	4510	10970	113800	145800	68820	16550	9610

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

MEAN	87.6	72.4	56.2	49.4	47.1	58.5	217	1179	1525	590	197	131
MAX	115	85.5	69.9	60.2	57.2	73.4	349	1850	2450	1119	269	162
(WY)	1991	1993	1993	1993	1993	1993	1989	1993	1993	1993	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1989 - 1993	
ANNUAL TOTAL	105553		197649			
ANNUAL MEAN	288		542		352	
HIGHEST ANNUAL MEAN					542	1993
LOWEST ANNUAL MEAN					283	1990
HIGHEST DAILY MEAN	1430	May 21	3680	May 28	3680	May 28 1993
LOWEST DAILY MEAN	33	Jan 9	50	Jan 26	[a]32	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	35	Jan 4	52	Jan 22	35	Jan 4 1992
INSTANTANEOUS PEAK FLOW			3860	May 31	3860	May 31 1993
INSTANTANEOUS PEAK STAGE			5.14	May 31	5.14	May 31 1993
ANNUAL RUNOFF (AC-FT)	209400		392000		254800	
10 PERCENT EXCEEDS	970		2210		1120	
50 PERCENT EXCEEDS	104		105		99	
90 PERCENT EXCEEDS	39		58		45	

a-Also occurred Jan 5 and 6, 1990.

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, 1,400 microsiemens Oct. 20 (may have been higher during January); minimum daily, 170 microsiemens May 25.
WATER TEMPERATURES: Maximum daily, 20.0°C Aug. 6; minimum daily, 0.0°C on many days during winter.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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												
20...	0900	218	1030	7.8	2.5	11.1	330	100	19	75	2	3.0
MAR												
31...	0900	214	1040	7.6	4.5	10.0	330	96	23	79	2	4.3
JUN												
21...	1215	3850	170	7.9	9.5	9.2	76	23	4.6	4.1	0.2	0.7
AUG												
30...	1245	322	803	8.2	17.0	7.9	290	89	16	50	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, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)
NOV												
20...	129	230	110	0.1	7.8	625	0.85	368	<1	0.53	0.02	<0.01
MAR												
31...	136	240	110	0.1	8.5	646	0.88	373	121	0.66	--	0.01
JUN												
21...	56	25	3.7	0.1	5.2	103	0.14	1070	49	0.72	--	<0.01
AUG												
30...	125	170	71	0.2	8.0	483	0.66	420	2	0.34	--	0.03

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, 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)
NOV												
20...	0.54	0.54	0.04	0.04	--	<0.2	<0.2	--	0.05	0.05	0.04	0.03
MAR												
31...	0.67	0.67	--	0.06	0.34	0.6	0.4	1.3	0.20	0.09	--	0.09
JUN												
21...	0.72	0.72	--	0.05	0.25	0.2	0.3	0.92	0.04	0.03	--	<0.01
AUG												
30...	0.37	0.37	--	0.03	--	0.2	<0.2	0.57	0.04	0.02	--	0.03

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
NOV									
20...	<1	<1	<1	46	<0.5	<1	<1	3	<1
MAR									
31...	<1	<1	<1	53	<0.5	<1	<1	2	<1
JUN									
21...	<1	<1	<1	40	<0.5	<1	<1	<1	<1
AUG									
30...	<1	<1	<1	59	<0.5	<1	<1	<1	<1

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)
NOV								
20...	2	1	3	1	<1	130	<0.1	<0.1
MAR								
31...	4	4	43	4	3	190	<0.1	0.1
JUN								
21...	4	2	80	5	1	22	<0.1	<0.1
AUG								
30...	3	<1	53	<1	<1	42	<0.1	<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								
20...	<1	<1	<1	<1	<1	<1	110	59
MAR								
31...	3	2	3	3	<1	<1	170	62
JUN								
21...	2	<1	<1	<1	<1	<1	50	24
AUG								
30...	1	<1	<1	<1	<1	<1	30	18

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1000	1000	1200	---	1200	1000	950	500	220	220	400	800
2	1000	1000	1100	---	1200	1000	1000	480	220	221	320	800
3	1000	1000	1000	---	1100	1000	850	450	220	330	400	800
4	1000	1000	1000	---	1200	1100	950	450	320	320	400	800
5	1100	1100	1200	---	1200	1250	850	480	320	300	330	850
6	1100	1100	1100	---	1100	1100	1000	500	220	330	420	900
7	1000	1100	1100	---	1200	1100	1000	450	260	310	480	900
8	1000	1000	1100	---	1200	1200	1000	350	260	300	480	850
9	1100	1000	1200	---	1200	1100	1000	480	320	220	480	850
10	1200	1100	1000	---	1300	1100	950	500	300	240	480	850
11	1200	1100	1100	---	1200	1100	900	480	200	330	520	850
12	1100	1100	1000	---	1200	1150	950	440	300	320	570	850
13	1200	1100	1100	---	1200	1150	1000	300	320	330	600	850
14	1200	1100	1000	---	1200	1100	750	350	200	330	630	850
15	1000	1200	1100	---	1300	900	750	280	200	320	750	850
16	1000	1200	1000	---	1300	1100	1000	200	250	300	750	850
17	1000	1200	1000	---	1200	1100	1000	200	200	300	800	900
18	1000	1100	1000	---	1200	1100	1000	190	300	330	700	900
19	1100	1100	1000	---	1200	1150	900	240	350	330	750	900
20	1400	1100	950	---	1100	1000	1000	200	310	330	800	900
21	1100	1100	1000	---	1100	900	1000	190	200	330	750	900
22	1100	1020	1000	---	1100	900	950	280	200	320	700	900
23	1100	1100	1000	---	1100	850	850	200	240	330	700	900
24	1100	1100	950	---	1100	900	950	200	200	310	750	900
25	1200	1100	1100	---	1100	900	850	170	240	330	700	850
26	1100	1200	1100	---	1100	950	850	190	200	330	750	900
27	1100	1200	950	---	1000	1000	950	220	220	330	750	950
28	1000	1100	1000	---	1000	950	900	190	230	400	700	850
29	950	1200	1200	---	---	850	900	200	200	400	700	850
30	1000	1100	1100	---	---	950	850	250	200	420	700	850
31	1000	---	1000	---	---	---	---	200	---	420	700	---
MEAN	1080	1100	1050	---	1160	---	928	316	247	320	612	865

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	7.0	2.0	---	.0	5.0	6.0	12.0	12.0	12.0	17.0	15.0
2	9.0	7.0	2.0	---	.0	5.0	8.0	12.0	11.0	13.0	16.0	16.0
3	10.0	7.0	2.0	---	.0	5.0	11.0	12.0	10.0	14.0	18.0	17.0
4	10.0	6.0	1.0	---	.0	5.0	11.0	11.0	13.0	11.0	19.0	17.0
5	11.0	6.0	.0	---	.0	7.0	7.0	12.0	8.0	12.0	18.0	18.0
6	12.0	6.0	.0	---	.0	7.0	6.0	12.0	11.0	14.0	20.0	19.0
7	11.0	6.0	.0	---	.0	7.0	6.0	12.0	10.0	12.0	19.0	18.0
8	10.0	6.0	.0	---	.0	7.0	6.0	11.0	11.0	12.0	19.0	17.0
9	11.0	6.0	.0	---	.0	7.0	7.0	12.0	10.0	14.0	19.0	16.0
10	12.0	6.0	.0	---	.0	7.0	8.0	13.0	13.0	15.0	19.0	17.0
11	12.0	5.0	.0	---	.0	8.0	11.0	13.0	11.0	15.0	19.0	17.0
12	13.0	5.0	.0	---	.0	5.0	11.0	13.0	12.0	16.0	19.0	16.0
13	12.0	4.0	.0	---	.0	6.0	12.0	12.0	14.0	17.0	18.0	16.0
14	12.0	4.0	.0	---	.0	6.0	11.0	12.0	13.0	17.0	18.0	16.0
15	10.0	4.0	.0	---	.0	8.0	11.0	12.0	12.0	17.0	18.0	16.0
16	10.0	4.0	.0	---	.0	8.0	11.0	11.0	14.0	16.0	19.0	16.0
17	10.0	4.0	.0	---	1.0	8.0	11.0	11.0	12.0	16.0	17.0	17.0
18	10.0	3.0	.0	---	1.0	10.0	11.0	11.0	13.0	17.0	17.0	17.0
19	11.0	3.0	.0	---	2.0	9.0	7.0	12.0	15.0	16.0	16.0	17.0
20	10.0	3.0	.0	---	3.0	10.0	11.0	12.0	13.0	17.0	17.0	17.0
21	11.0	3.0	.0	---	3.0	11.0	11.0	12.0	12.0	17.0	18.0	17.0
22	11.0	3.0	.0	---	4.0	11.0	14.0	12.0	16.0	16.0	17.0	17.0
23	10.0	3.0	.0	---	4.0	11.0	14.0	13.0	16.0	18.0	17.0	17.0
24	10.0	3.0	.0	---	4.0	11.0	14.0	12.0	17.0	15.0	16.0	16.0
25	12.0	3.0	.0	---	4.0	11.0	14.0	13.0	14.0	17.0	16.0	19.0
26	10.0	2.0	.0	---	4.0	11.0	14.0	13.0	13.0	17.0	16.0	18.0
27	10.0	2.0	.0	---	5.0	10.0	14.0	13.0	11.0	18.0	16.0	17.0
28	8.0	2.0	.0	---	5.0	8.0	14.0	13.0	12.0	17.0	15.0	15.0
29	8.0	2.0	.0	---	---	14.0	14.0	13.0	13.0	18.0	16.0	13.0
30	8.0	3.0	.0	---	---	8.0	14.0	13.0	13.0	19.0	17.0	13.0
31	6.0	---	.0	---	---	---	---	13.0	---	18.0	16.0	---
MEAN	10.3	4.3	.2	---	1.4	---	10.7	12.2	12.5	15.6	17.5	16.6

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 sea level.

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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	225	178	168	154	140	198	628	4180	2980	730	324
2	179	213	197	179	168	133	214	595	4080	2810	699	334
3	160	207	191	174	154	124	215	647	3850	2790	649	345
4	146	201	193	145	132	120	207	737	3150	2780	618	311
5	149	203	179	107	133	120	229	997	2720	2310	605	307
6	154	211	189	147	137	142	243	827	2750	1950	615	330
7	165	203	147	187	164	134	216	731	3100	1720	587	334
8	176	204	156	195	170	141	200	660	2630	1790	568	385
9	176	208	191	186	162	152	200	604	2280	1910	609	388
10	181	225	197	180	161	154	223	557	2080	1850	566	345
11	180	227	189	162	159	155	228	685	2250	1910	604	327
12	179	205	190	162	152	142	234	971	2560	1890	584	308
13	174	228	181	167	144	120	254	1410	3220	1840	522	360
14	169	225	136	178	120	143	225	1800	3650	1730	491	475
15	167	220	147	184	139	175	216	2150	4150	1660	466	431
16	165	222	170	177	143	173	215	2450	3850	1590	437	419
17	168	222	169	179	143	172	216	2780	4250	1470	404	402
18	163	223	166	175	141	200	229	2700	4070	1390	386	383
19	159	218	155	167	151	196	254	2560	3390	1240	365	364
20	159	218	99	168	168	181	223	2770	3400	1170	360	347
21	157	213	141	169	145	176	218	3180	3670	1130	364	323
22	156	192	181	157	128	175	244	3230	3760	1050	408	301
23	156	208	179	149	142	177	324	2840	3730	969	414	284
24	152	196	160	113	153	191	376	2700	3390	909	369	271
25	153	170	150	120	145	211	335	2750	3010	870	347	274
26	174	163	163	141	146	232	345	3270	2990	813	354	270
27	184	137	146	154	132	258	433	3530	3080	812	409	264
28	183	127	157	140	124	268	572	3830	3000	772	379	259
29	205	166	182	131	---	238	663	3870	3010	754	342	256
30	210	183	190	146	---	242	742	3670	3250	774	323	250
31	236	---	182	151	---	213	---	3830	---	773	321	---
TOTAL	5314	6063	5251	4958	4110	5398	8691	63959	98500	48406	14895	9971
MEAN	171	202	169	160	147	174	290	2063	3283	1561	480	332
MAX	236	228	197	195	170	268	742	3870	4250	2980	730	475
MIN	146	127	99	107	120	120	198	557	2080	754	321	250
AC-FT	10540	12030	10420	9830	8150	10710	17240	126900	195400	96010	29540	19780

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 1993, BY WATER YEAR (WY)

MEAN	258	241	199	181	173	186	349	1317	2290	1010	381	269
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1947 - 1993	
ANNUAL TOTAL	161762		275516			
ANNUAL MEAN	442		755		572	
HIGHEST ANNUAL MEAN					1082	1984
LOWEST ANNUAL MEAN					264	1977
HIGHEST DAILY MEAN	2070	May 27	4250	Jun 17	6580	May 25 1984
LOWEST DAILY MEAN	99	Dec 20	99	Dec 20	93	Sep 16 1990
ANNUAL SEVEN-DAY MINIMUM	121	Feb 24	128	Feb 27	99	Aug 29 1990
INSTANTANEOUS PEAK FLOW			4540	Jun 17	7020	May 25 1984
INSTANTANEOUS PEAK STAGE			7.92	Jun 17	9.46	May 25 1984
ANNUAL RUNOFF (AC-FT)	320900		546500		414300	
10 PERCENT EXCEEDS	1310		2780		1560	
50 PERCENT EXCEEDS	217		223		241	
90 PERCENT EXCEEDS	132		145		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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26 to Dec. 11, 14, 15, Dec. 20 to Feb. 10. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	936	934	880	860	880	746	1150	2850	10800	7140	2160	1200
2	925	929	960	900	920	704	1170	2530	10700	6990	2100	1200
3	908	930	940	800	860	711	1190	2560	10300	6970	2040	1180
4	893	920	920	740	800	689	1160	2850	9330	6780	1930	1140
5	876	917	880	660	760	685	1220	3560	8300	6300	1830	1220
6	871	914	800	740	810	747	1300	3480	7850	5760	1850	1270
7	883	931	740	860	880	746	1220	3100	8090	4990	1770	1280
8	866	939	760	940	900	768	1130	2960	7720	4760	1690	1370
9	882	943	880	900	880	799	1070	2780	6840	4870	1720	1400
10	904	971	900	860	860	800	1070	2600	6210	4780	1680	1310
11	880	968	850	840	799	832	1170	2750	6100	4640	1800	1230
12	872	910	833	800	754	780	1170	3350	6370	4530	1670	1180
13	866	939	750	820	704	686	1260	4290	7200	4600	1550	1230
14	866	972	720	880	679	812	1260	5340	7880	4510	1480	1400
15	826	948	740	900	743	894	1200	6170	8640	4340	1480	1420
16	814	947	767	900	692	898	1250	6890	8470	4190	1450	1410
17	816	940	772	900	736	900	1300	7590	8990	3950	1410	1430
18	822	941	769	860	688	963	1330	7800	8860	3790	1380	1380
19	823	939	779	840	733	968	1420	7780	8380	3530	1300	1300
20	814	928	580	880	770	934	1410	8120	8070	3330	1310	1290
21	801	905	680	890	743	915	1380	9080	8150	3100	1510	1270
22	797	868	880	800	706	925	1410	9540	8350	2900	1770	1270
23	799	891	860	760	731	916	1550	9250	8300	2730	1710	1240
24	793	851	800	700	757	946	1780	8880	7950	2610	1320	1230
25	805	769	740	700	737	982	1850	8760	7290	2570	1250	1220
26	815	755	800	790	741	1060	1820	9540	7050	2440	1210	1210
27	833	700	740	820	729	1140	2060	10000	7070	2360	1310	1210
28	861	660	810	760	710	1190	2290	10700	6920	2230	1310	1200
29	886	720	890	740	---	1140	2790	11000	6870	2130	1250	1190
30	868	880	900	800	---	1130	3020	10700	7350	2090	1230	1200
31	922	---	860	860	---	1110	---	10700	---	2130	1210	---
TOTAL	26523	26759	25180	25500	21702	27516	44400	197500	240400	128040	48680	38080
MEAN	856	892	812	823	775	888	1480	6371	8013	4130	1570	1269
MAX	936	972	960	940	920	1190	3020	11000	10800	7140	2160	1430
MIN	793	660	580	660	679	685	1070	2530	6100	2090	1210	1140
AC-FT	52610	53080	49940	50580	43050	54580	88070	391700	476800	254000	96560	75530

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1941 - 1993, BY WATER YEAR (WY)

MEAN	1191	1082	950	905	915	1024	1863	4857	6362	3106	1687	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1941 - 1993	
ANNUAL TOTAL	500689		850280			
ANNUAL MEAN	1368		2330		2104	
HIGHEST ANNUAL MEAN					4173	1984
LOWEST ANNUAL MEAN					1117	1977
HIGHEST DAILY MEAN	3610	May 28	11000	May 29	20800	May 25 1984
LOWEST DAILY MEAN	580	Dec 20	580	Dec 20	350	Jan 5 1944
ANNUAL SEVEN-DAY MINIMUM	727	Dec 15	711	Feb 27	417	Jan 13 1944
INSTANTANEOUS PEAK FLOW			11500	May 29	22200	May 25 1984
INSTANTANEOUS PEAK STAGE			9.53	May 29	14.20	May 25 1984
ANNUAL RUNOFF (AC-FT)	993100		1687000		1525000	
10 PERCENT EXCEEDS	2470		7240		4980	
50 PERCENT EXCEEDS	1040		1140		1250	
90 PERCENT EXCEEDS	845		746		754	

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 sea level, from topographic map. Prior to Oct. 19, 1978, at site 600 ft upstream, at datum, 25.33 ft, higher.

REMARKS.--Estimated daily discharges: Oct. 31 to June 14. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.67	.65	.61	.44	.06	.04	.05	.06	25	116	3.8	2.2
2	.63	.60	.61	.36	.05	.04	.05	.06	30	101	3.8	2.2
3	.61	.65	.62	.33	.04	.04	.05	.07	35	91	3.7	2.0
4	.59	.60	.62	.30	.04	.04	.05	.08	40	71	3.7	2.0
5	.46	.55	.61	.30	.03	.04	.05	.09	45	54	3.5	2.2
6	.34	.50	.61	.27	.03	.04	.06	.10	50	47	3.5	2.4
7	.33	.50	.60	.25	.03	.04	.06	.14	55	39	3.4	2.6
8	.28	.50	.60	.25	.03	.04	.06	.16	60	39	3.4	2.6
9	.28	.50	.57	.26	.02	.04	.06	.20	68	39	3.3	1.9
10	1.2	.55	.57	.26	.03	.04	.06	.24	76	35	3.3	1.7
11	.86	.55	.58	.24	.03	.04	.06	.26	84	32	4.4	1.6
12	.16	.50	.59	.24	.03	.04	.06	.28	90	30	3.4	1.6
13	.16	.45	.60	.24	.03	.04	.06	.30	112	27	3.2	2.4
14	.16	.45	.60	.24	.03	.04	.06	.40	133	23	3.1	1.8
15	.16	.45	.60	.24	.03	.04	.06	1.0	141	20	3.2	1.5
16	.16	.45	.56	.23	.03	.05	.06	1.5	154	17	2.9	1.6
17	.16	.45	.48	.23	.03	.05	.06	2.0	149	15	2.9	1.8
18	.28	.60	.49	.22	.03	.05	.06	2.5	127	13	3.0	1.6
19	.34	.60	.49	.15	.03	.05	.06	3.0	129	11	2.9	1.6
20	.34	.60	.48	.10	.03	.05	.06	4.0	133	9.4	2.9	1.5
21	.34	.65	.46	.09	.03	.05	.06	4.5	134	8.8	3.3	1.5
22	.34	.65	.46	.09	.03	.05	.06	5.0	143	8.3	3.0	1.5
23	.34	.60	.45	.09	.03	.05	.06	6.0	132	8.0	2.6	1.5
24	.41	.65	.45	.09	.03	.05	.06	6.5	131	7.4	2.6	1.4
25	.55	.65	.38	.08	.03	.05	.06	7.0	136	7.6	2.3	1.4
26	.55	.60	.38	.08	.03	.05	.06	8.0	141	6.2	3.4	1.4
27	.55	.60	.37	.08	.03	.05	.06	9.0	144	5.7	2.7	1.3
28	.58	.60	.37	.08	.03	.05	.06	10	142	5.0	2.3	1.3
29	.61	.60	.40	.07	---	.05	.06	12	139	4.7	2.1	1.4
30	.61	.64	.40	.07	---	.05	.06	15	119	4.4	1.7	1.4
31	.60	---	.45	.06	---	.05	---	20	---	4.3	1.7	---
TOTAL	13.65	16.94	16.06	6.03	0.90	1.40	1.75	119.44	3097	899.8	95.0	52.9
MEAN	.44	.56	.52	.19	.032	.045	.058	3.85	103	29.0	3.06	1.76
MAX	1.2	.65	.62	.44	.06	.05	.06	20	154	116	4.4	2.6
MIN	.16	.45	.37	.06	.02	.04	.05	.06	25	4.3	1.7	1.3
AC-FT	27	34	32	12	1.8	2.8	3.5	237	6140	1780	188	105

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	2.29	1.62	1.02	.56	.41	.36	2.05	39.9	93.4	14.3	2.46	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	.44	.25	.14	.000	.000	.000	.000	3.85	13.0	1.33	.55	.55
(WY)	1993	1978	1978	1978	1978	1980	1991	1993	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	3117.05		4320.87			
ANNUAL MEAN	8.52		11.8		13.3	
HIGHEST ANNUAL MEAN					23.8	1986
LOWEST ANNUAL MEAN					5.79	1977
HIGHEST DAILY MEAN	115	May 20	154	Jun 16	290	Jun 8 1986
LOWEST DAILY MEAN	[a].10	Mar 4	.02	Feb 9	[b].00	Apr 7 1977
ANNUAL SEVEN-DAY MINIMUM	.10	Mar 4	.03	Feb 5	.00	Apr 7 1977
INSTANTANEOUS PEAK FLOW			194	Jun 17	364	Jun 5 1986
INSTANTANEOUS PEAK STAGE			4.95	Jun 17	[c]4.99	Jun 5 1986
ANNUAL RUNOFF (AC-FT)	6180		8570		9650	
10 PERCENT EXCEEDS	28		37		39	
50 PERCENT EXCEEDS	.60		.55		1.2	
90 PERCENT EXCEEDS	.13		.04		.03	

a-Also occurred Mar 5-11, and Mar 18 to Apr 4.
b-No flow many days most years.
c-Maximum gage height observed, 8.64 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 from No Name Creek and 2.0 mi 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 fair except for temperature records during the period Mar. 24 to Sept. 30, which are poor. Interruptions in the daily record are due to instrument malfunctions.

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, 925 microsiemens, Nov. 28 (may have been higher during periods of missing record); minimum, 231 microsiemens, June 17 and 22 (may have been lower during period of missing record June 18-21).
WATER TEMPERATURE: Maximum 19.1°C Aug. 1 and 2 (may have been higher during periods of missing record); minumum, 0.0°C on many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
08...	1130	E1070	750	8.7	8.5	8.8	200	60	11	72
NOV										
20...	1153	E1150	712	8.2	3.5	11.0	190	56	11	65
DEC										
15...	1000	E783	829	8.2	0.0	12.4	200	61	12	86
JAN										
14...	1315	E802	754	8.6	0.0	12.3	200	59	12	77
FEB										
23...	1045	E759	798	8.1	1.0	11.0	190	57	12	85
MAR										
31...	1045	E1300	729	7.5	7.0	9.7	200	57	14	64
MAY										
13...	1335	E3990	343	8.1	12.0	8.4	120	35	7.6	19
JUN										
21...	1430	E8080	234	7.8	12.0	8.7	97	29	5.9	9.7
AUG										
06...	1145	E2150	525	8.5	17.0	9.1	150	45	9.1	42
30...	1505	E1510	652	8.4	17.0	8.5	190	56	11	58
SEP										
29...	0945	E1420	656	8.4	12.0	9.2	180	54	11	59

E-Estimated.

09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	SOLIDS, DISSOLVED (TONS PER DAY)
OCT										
08...	2	2.9	106	98	110	0.4	7.0	425	0.58	1230
NOV										
20...	2	2.6	109	100	94	0.3	8.1	402	0.55	1250
DEC										
15...	3	2.8	118	99	120	0.3	9.4	461	0.63	975
JAN										
14...	2	2.7	118	91	120	0.3	9.6	442	0.60	958
FEB										
23...	3	3.0	109	97	130	0.3	10	460	0.63	942
MAR										
31...	2	3.2	114	110	90	0.2	10	417	0.57	1460
MAY										
13...	0.8	2.0	90	47	18	0.2	9.0	192	0.26	2070
JUN										
21...	0.4	1.1	71	29	10	0.2	7.5	135	0.18	2940
AUG										
06...	1	2.0	97	76	55	0.3	8.3	296	0.40	1720
30...	2	2.4	108	90	80	0.3	9.5	372	0.51	1520
SEP										
29...	2	2.5	103	91	84	0.3	8.6	372	0.51	1430

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	712	733	752	---	---	786	719	371	249	247	449	665
2	721	725	712	---	---	786	708	387	247	253	456	666
3	726	724	717	---	---	794	693	397	248	257	462	667
4	734	732	728	---	---	789	700	388	255	258	472	670
5	741	734	729	---	---	810	707	365	267	280	482	667
6	746	736	724	---	---	821	679	342	278	297	538	644
7	742	729	767	---	---	800	694	359	277	325	580	633
8	738	716	760	---	---	790	711	370	278	331	585	625
9	764	712	834	---	---	777	745	373	290	312	590	597
10	739	708	799	---	---	777	740	380	304	306	575	590
11	734	701	725	---	---	774	713	387	306	314	558	616
12	743	711	725	---	---	770	695	375	312	317	549	633
13	752	718	755	---	---	805	688	336	278	323	559	636
14	751	708	795	---	---	839	661	310	273	342	571	627
15	759	694	748	778	---	774	668	310	250	347	569	582
16	780	700	792	789	---	761	662	311	245	348	556	573
17	779	697	778	810	---	754	641	318	236	353	561	567
18	775	697	781	829	---	742	622	314	---	353	551	568
19	770	691	732	844	---	729	606	312	---	360	565	584
20	772	686	---	857	---	742	587	310	---	365	558	588
21	781	718	---	862	---	758	587	304	---	382	535	590
22	784	714	---	861	---	758	581	297	236	385	---	592
23	785	727	---	872	---	762	571	287	239	397	---	590
24	787	731	---	889	786	766	525	283	245	403	577	592
25	788	750	---	805	786	763	488	281	255	411	637	589
26	778	799	---	761	785	745	488	271	259	424	658	592
27	786	849	---	800	782	711	475	260	257	434	658	590
28	769	869	---	837	782	690	453	256	254	436	634	---
29	744	873	---	---	---	686	419	257	257	441	642	---
30	746	812	---	---	---	718	387	263	245	450	657	---
31	748	---	---	---	---	725	---	255	---	452	661	---
MEAN	757	736	---	---	---	765	620	324	---	352	---	---

09071750 COLORADO RIVER ABOVE GLENWOOD SPRINGS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	13.2	12.0	7.4	5.3	.0	.0	---	---	---	---	1.7	.0
2	13.2	12.1	5.3	4.7	.0	.0	---	---	---	---	1.9	.0
3	13.2	12.3	4.9	3.5	.0	.0	---	---	---	---	2.0	.0
4	13.0	12.2	3.6	2.2	.0	.0	---	---	---	---	1.7	.0
5	12.9	11.5	2.9	1.9	.0	.0	---	---	---	---	2.5	.4
6	12.3	11.1	3.2	2.2	.0	.0	---	---	---	---	3.8	1.1
7	11.5	9.5	3.4	2.4	.0	.0	---	---	---	---	4.6	2.0
8	9.7	7.7	3.7	2.8	.0	.0	---	---	---	---	4.6	2.2
9	8.5	7.5	4.5	3.5	.0	.0	---	---	---	---	4.9	2.5
10	8.4	7.0	4.5	2.6	.0	.0	---	---	---	---	5.0	3.0
11	9.3	7.8	2.6	1.3	.0	.0	---	---	---	---	5.0	3.2
12	9.9	8.8	2.0	.7	.2	.0	---	---	---	---	4.1	1.2
13	10.3	9.2	1.6	.6	.0	.0	---	---	---	---	3.3	1.3
14	10.4	9.5	2.2	1.4	.0	.0	---	---	---	---	4.2	1.8
15	10.7	9.9	2.4	1.6	.0	.0	.0	.0	---	---	5.1	3.2
16	10.2	8.4	2.7	2.0	.0	.0	.0	.0	---	---	4.9	3.4
17	8.6	7.5	2.9	2.0	.0	.0	.0	.0	---	---	5.0	3.7
18	8.6	7.7	3.0	2.2	.0	.0	.2	.0	---	---	5.2	3.7
19	8.9	8.2	3.3	2.5	.0	.0	.3	.0	---	---	5.8	3.9
20	9.2	8.0	3.5	2.6	---	---	.2	.0	---	---	5.7	4.3
21	9.0	8.0	3.5	2.2	---	---	.3	.0	---	---	6.6	4.7
22	8.8	8.1	2.6	1.2	---	---	.0	.0	---	---	7.3	5.6
23	9.0	8.0	2.0	.9	---	---	.0	.0	---	---	8.1	6.3
24	9.2	8.4	1.0	.0	---	---	.0	.0	1.0	.3	---	---
25	10.0	9.1	.0	.0	---	---	.0	.0	1.1	.1	9.2	7.4
26	10.1	9.2	.0	.0	---	---	.0	.0	1.4	.2	9.3	7.8
27	9.6	8.8	.0	.0	---	---	.0	.0	1.8	.4	8.6	6.4
28	9.5	8.6	.0	.0	---	---	.0	.0	1.6	.1	6.4	5.0
29	9.1	8.4	.0	.0	---	---	---	---	---	---	6.7	4.7
30	9.0	8.5	.0	.0	---	---	---	---	---	---	7.7	6.6
31	8.8	7.4	---	---	---	---	---	---	---	---	7.2	5.7
MONTH	13.2	7.0	7.4	.0	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	9.6	8.1	11.0	9.9	14.4	12.2	19.1	16.1	15.3	14.1
2	---	---	9.6	8.1	10.9	9.3	14.5	12.3	19.1	17.8	14.8	13.7
3	---	---	10.8	8.5	10.3	9.0	---	---	18.4	17.4	15.0	13.5
4	---	---	10.9	9.0	9.9	7.8	---	---	---	---	15.4	14.1
5	---	---	10.5	9.4	10.9	8.7	---	---	17.9	16.4	15.8	14.2
6	---	---	9.6	6.9	10.9	9.4	12.9	10.3	17.4	16.4	15.4	13.9
7	---	---	8.2	7.3	10.4	8.6	14.0	10.6	16.6	15.7	15.3	13.9
8	7.3	5.9	8.2	7.2	9.1	7.6	---	---	16.6	15.7	14.6	13.5
9	8.5	7.2	8.6	7.0	10.7	8.0	---	---	16.9	15.5	14.8	13.6
10	9.7	8.6	10.2	7.8	11.8	9.5	15.4	13.2	18.2	16.8	15.3	14.1
11	9.1	7.9	---	---	12.3	10.8	15.4	13.9	18.0	16.9	---	---
12	8.9	6.5	12.3	10.7	---	---	15.1	13.4	18.1	17.3	---	---
13	---	---	---	---	---	---	15.9	13.4	17.9	16.6	---	---
14	7.9	6.7	11.4	10.4	---	---	15.9	14.1	17.6	16.1	13.0	10.8
15	8.2	7.4	10.7	10.0	---	---	16.3	14.3	16.4	15.7	11.8	10.8
16	---	---	10.0	8.9	---	---	16.6	14.6	16.7	15.9	12.1	11.1
17	---	---	9.1	8.5	12.0	10.0	---	---	16.6	16.0	12.6	11.1
18	---	---	9.7	7.9	---	---	---	---	17.0	16.0	12.9	11.0
19	8.0	6.8	10.0	8.9	---	---	---	---	17.3	16.1	12.4	10.3
20	7.7	7.1	10.4	9.2	---	---	---	---	17.8	16.5	12.0	10.0
21	8.4	5.8	10.4	9.4	---	---	17.1	15.3	18.0	17.2	---	---
22	9.9	8.5	10.0	9.3	12.9	11.0	16.4	14.7	17.3	16.3	---	---
23	10.4	9.4	9.9	7.9	12.8	11.5	16.0	14.6	17.0	15.7	---	---
24	---	---	9.9	8.6	12.2	10.9	15.0	13.4	16.7	15.5	---	---
25	9.5	7.7	10.7	8.5	12.7	10.8	---	---	17.8	16.1	---	---
26	10.9	8.2	10.7	9.5	---	---	16.7	14.0	17.2	16.3	---	---
27	12.0	10.2	9.7	8.7	---	---	17.3	14.0	17.1	16.0	---	---
28	12.1	10.5	9.7	8.7	13.4	12.0	---	---	17.1	15.8	---	---
29	11.7	9.9	10.5	9.0	---	---	18.1	16.7	17.7	16.1	---	---
30	10.8	9.3	10.8	8.7	---	---	18.7	17.3	16.9	15.5	---	---
31	---	---	10.9	9.5	---	---	---	---	16.0	14.7	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

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 upstream from 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 8 to Apr. 28. 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 (59,400 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	26	19	17	15	15	18	51	371	340	53	30
2	43	24	18	16	16	16	18	46	341	328	52	36
3	37	22	18	16	16	15	19	46	308	314	50	30
4	36	20	18	15	15	15	18	52	235	270	47	28
5	36	21	17	14	14	13	18	66	216	227	47	29
6	36	22	17	15	14	14	19	58	230	200	46	29
7	32	23	16	16	14	15	18	51	229	188	43	31
8	32	25	15	16	15	15	17	42	180	194	45	35
9	33	26	17	16	15	15	17	38	156	183	48	30
10	33	26	16	16	15	15	18	37	154	176	44	28
11	33	22	16	16	14	15	19	46	174	174	46	28
12	34	20	16	15	14	14	18	73	213	174	43	27
13	35	19	16	14	14	13	19	128	282	169	43	37
14	34	20	16	14	13	14	18	156	374	154	43	35
15	33	19	17	16	13	15	18	181	429	145	42	33
16	31	19	17	15	14	15	19	202	419	138	39	32
17	30	19	18	15	14	15	19	205	520	129	37	30
18	30	19	18	15	14	15	19	191	397	117	36	29
19	28	19	17	15	14	15	20	185	329	109	34	29
20	27	19	16	15	13	16	19	238	352	103	35	29
21	28	19	15	15	14	15	19	276	414	100	35	28
22	28	17	16	15	13	16	20	264	440	91	43	28
23	27	18	16	14	14	15	23	229	441	83	38	27
24	27	19	15	13	15	17	25	236	378	81	35	25
25	27	18	15	13	15	18	24	257	339	77	34	25
26	27	18	16	14	15	19	23	299	371	69	34	25
27	28	18	17	15	15	20	25	316	382	63	35	25
28	28	17	16	14	14	19	33	342	374	60	34	25
29	28	17	16	13	---	19	48	307	424	57	31	25
30	28	18	17	13	---	19	52	308	413	58	29	24
31	27	---	17	14	---	18	---	355	---	56	28	---
TOTAL	980	609	514	460	401	490	660	5281	9885	4627	1249	872
MEAN	31.6	20.3	16.6	14.8	14.3	15.8	22.0	170	329	149	40.3	29.1
MAX	44	26	19	17	16	20	52	355	520	340	53	37
MIN	27	17	15	13	13	13	17	37	154	56	28	24
AC-FT	1940	1210	1020	912	795	972	1310	10470	19610	9180	2480	1730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

MEAN	29.6	21.8	17.7	15.5	14.7	15.3	31.1	154	388	156	59.5	39.2
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1980 - 1993	
ANNUAL TOTAL	18623		26028			
ANNUAL MEAN	50.9		71.3		[a]129	
HIGHEST ANNUAL MEAN					194	1984
LOWEST ANNUAL MEAN					35.7	1981
HIGHEST DAILY MEAN	179	May 22	520	Jun 17	1930	Jun 8 1985
LOWEST DAILY MEAN	[b]11	Jan 2	[c]13	Jan 24	8.0	Jan 11 1980
ANNUAL SEVEN-DAY MINIMUM	11	Mar 7	14	Jan 24	9.2	Mar 22 1981
INSTANTANEOUS PEAK FLOW			725	Jun 29	[d]2350	Jun 8 1985
INSTANTANEOUS PEAK STAGE			3.17	Jun 29	5.10	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	36940		51630		[a]93460	
10 PERCENT EXCEEDS	122		235		176	
50 PERCENT EXCEEDS	31		26		26	
90 PERCENT EXCEEDS	12		15		13	

a-Includes Twin Lakes tunnel.
b-Also occurred Jan 3, Feb 13, 19, Mar 10-13, 20, and Mar 25.
c-Also occurred Jan 25, 29-30, Feb 14, 15, 20, 22, Mar 5, 13.
d-From rating curve extended above 910 ft^3/s.

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 sea level. Prior to Apr. 25, 1968, at site 85 ft upstream, at datum 1.16 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 7, 20, 23-25, 27-29, Jan. 4-5, 13-14, 22-26, 28-31, Feb. 4-7, 13-19. 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 (59,400) 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	48	40	36	33	34	39	74	569	439	83	58
2	52	47	39	35	34	32	41	72	539	418	79	70
3	46	46	39	34	33	33	38	77	503	412	75	60
4	45	46	38	31	30	28	38	89	389	378	72	55
5	45	47	37	32	29	30	42	101	342	314	74	56
6	44	51	36	36	30	33	40	85	381	275	73	57
7	44	54	32	35	31	32	38	79	386	267	68	61
8	43	57	39	35	33	32	36	75	290	273	73	73
9	50	58	36	35	32	33	38	73	258	248	80	62
10	49	48	36	34	32	33	43	69	259	237	71	54
11	51	44	35	34	31	33	40	86	298	241	76	52
12	52	40	35	32	31	29	42	122	365	238	68	51
13	51	45	34	29	29	28	42	188	466	224	66	69
14	48	41	41	34	27	34	40	228	558	203	66	69
15	49	42	37	34	31	34	41	259	647	193	69	65
16	49	42	36	33	30	33	42	292	613	186	64	63
17	48	42	39	33	30	33	41	291	717	173	60	59
18	47	42	37	34	31	33	43	269	594	159	58	56
19	48	41	35	33	31	34	41	259	482	146	57	54
20	49	42	32	33	28	33	41	298	505	141	58	54
21	50	39	36	33	31	35	42	335	581	133	62	53
22	50	36	35	30	26	33	49	346	591	124	77	51
23	49	42	33	29	34	35	55	315	592	116	71	49
24	50	40	31	28	34	37	53	334	518	116	61	46
25	51	39	34	30	34	41	49	339	447	109	58	46
26	55	39	38	33	33	43	53	433	475	104	62	46
27	55	37	38	33	30	43	59	451	495	102	65	45
28	56	36	35	30	31	40	68	505	485	99	61	44
29	56	38	37	29	---	41	77	446	500	94	57	44
30	55	40	38	30	---	40	81	459	527	92	55	43
31	58	---	36	32	---	39	---	516	---	88	53	---
TOTAL	1548	1309	1124	1009	869	1071	1392	7565	14372	6342	2072	1665
MEAN	49.9	43.6	36.3	32.5	31.0	34.5	46.4	244	479	205	66.8	55.5
MAX	58	58	41	36	34	43	81	516	717	439	83	73
MIN	43	36	31	28	26	28	36	69	258	88	53	43
AC-FT	3070	2600	2230	2000	1720	2120	2760	15010	28510	12580	4110	3300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	42.9	34.6	29.7	26.6	25.3	26.7	48.4	198	407	183	65.5	49.2
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	31318		40338			
ANNUAL MEAN	85.6		111		[a]149	
HIGHEST ANNUAL MEAN					229	1984
LOWEST ANNUAL MEAN					42.1	1977
HIGHEST DAILY MEAN	354	May 21	717	Jun 17	1790	Jun 9 1985
LOWEST DAILY MEAN	21	Feb 19	26	Feb 22	12	Nov 28 1976
ANNUAL SEVEN-DAY MINIMUM	22	Feb 7	30	Feb 16	15	Feb 1 1977
INSTANTANEOUS PEAK FLOW			806	Jun 17	2230	Jun 9 1985
INSTANTANEOUS PEAK STAGE			3.38	Jun 17	5.29	Jun 9 1985
ANNUAL RUNOFF (AC-FT)	62120		80010		[a]107950	
10 PERCENT EXCEEDS	233		344		245	
50 PERCENT EXCEEDS	52		48		39	
90 PERCENT EXCEEDS	24		32		22	

a-Including diversion by Twin Lakes tunnel.

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 sea level, 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: Oct. 1-6, Oct. 27 to Apr. 27, May 4, 5, May 12-14, and July 2-27. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	9.0	8.0	6.5	6.5	6.0	8.5	60	260	172	42	29
2	14	8.5	8.0	6.5	7.0	5.5	9.0	59	247	165	41	42
3	14	8.0	7.5	6.0	6.5	6.0	8.5	70	204	160	40	30
4	13	7.0	7.5	5.5	6.0	5.5	8.5	74	160	155	39	24
5	13	7.0	7.5	5.5	5.5	6.0	9.0	77	157	150	40	26
6	12	6.5	7.0	6.0	5.5	6.5	9.0	80	173	145	39	26
7	13	6.0	7.0	6.0	5.5	6.5	8.5	70	178	140	37	31
8	12	6.0	7.0	6.0	6.0	6.5	8.0	63	140	135	40	40
9	16	6.0	7.0	6.0	6.0	6.5	8.0	54	134	130	41	29
10	15	6.5	7.0	6.0	6.0	6.5	10	56	153	125	38	24
11	17	6.0	7.0	6.0	5.5	6.5	9.5	86	177	120	48	21
12	17	6.5	7.5	5.5	5.5	6.0	10	100	253	115	36	20
13	16	6.0	7.5	5.0	5.5	6.0	10	115	378	110	34	43
14	15	7.0	7.0	6.5	4.5	7.0	10	130	458	105	36	42
15	15	7.5	7.0	6.5	5.5	7.0	10	140	490	100	32	38
16	15	7.5	7.0	6.5	5.0	7.0	10	167	461	95	30	37
17	14	7.0	7.0	6.5	5.0	7.0	10	175	541	90	29	32
18	14	7.0	7.0	6.5	5.0	7.0	11	157	388	85	28	28
19	13	7.0	7.0	6.5	5.0	7.0	10	155	249	80	27	26
20	13	6.5	7.0	6.5	5.0	7.0	10	187	301	76	27	25
21	13	7.0	7.5	6.5	5.5	7.5	11	178	466	72	30	23
22	12	8.0	7.5	6.0	4.0	7.0	15	166	407	68	43	21
23	12	7.0	7.0	6.0	5.5	7.5	19	154	401	64	34	19
24	12	7.0	6.5	6.0	5.5	8.0	18	151	276	60	28	18
25	12	7.0	7.5	6.0	5.5	9.0	17	175	212	57	26	18
26	13	7.5	8.0	6.5	5.0	9.5	20	187	232	55	33	18
27	13	8.0	8.0	6.5	4.5	9.5	25	211	220	53	33	15
28	12	8.0	7.0	6.0	5.0	9.0	30	231	202	51	28	15
29	11	8.0	7.0	6.0	---	9.0	61	193	251	62	25	14
30	10	8.0	7.0	6.0	---	9.0	73	225	225	45	23	13
31	9.5	---	6.5	6.5	---	8.5	---	260	---	44	24	---
TOTAL	414.5	214.0	224.0	190.0	152.5	222.5	476.5	4206	8394	3084	1051	787
MEAN	13.4	7.13	7.23	6.13	5.45	7.18	15.9	136	280	99.5	33.9	26.2
MAX	17	9.0	8.0	6.5	7.0	9.5	73	260	541	172	48	43
MIN	9.5	6.0	6.5	5.0	4.0	5.5	8.0	54	134	44	23	13
AC-FT	822	424	444	377	302	441	945	8340	16650	6120	2080	1560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 1993, BY WATER YEAR (WY)

MEAN	15.9	10.9	7.39	6.16	5.64	6.39	20.0	115	206	72.6	30.7	19.6
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1980 - 1993	
ANNUAL TOTAL	10847.7		19416.0			
ANNUAL MEAN	29.6		53.2		[a]43.1	
HIGHEST ANNUAL MEAN					69.3	1984
LOWEST ANNUAL MEAN					27.9	1989
HIGHEST DAILY MEAN	154	May 27	541	Jun 17	786	Jun 6 1988
LOWEST DAILY MEAN	2.8	Jan 16	4.0	Feb 22	[b]1.8	Dec 20 1980
ANNUAL SEVEN-DAY MINIMUM	3.1	Jan 10	4.9	Feb 16	1.9	Dec 20 1980
INSTANTANEOUS PEAK FLOW			773	Jun 15	[c]1170	Jun 8 1985
INSTANTANEOUS PEAK STAGE			2.95	Jun 15	[d]2.33	Jun 8 1985
ANNUAL RUNOFF (AC-FT)	21520		38510		31220	
10 PERCENT EXCEEDS	93		169		113	
50 PERCENT EXCEEDS	13		13		13	
90 PERCENT EXCEEDS	3.5		6.0		4.8	

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 mi².

PERIOD OF RECORD.--September 1969 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,100 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 24-27, Dec. 14, Jan. 3-7, 23-25, 27-28, Feb. 4-6, 14, Mar. 4-5, 12, and Mar. 13. Records good except for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	18	15	11	11	10	11	17	214	292	94	45
2	22	19	15	11	10	12	12	17	222	287	89	47
3	22	17	14	10	10	11	11	19	204	287	81	43
4	22	17	14	9.5	10	10	11	23	149	232	76	40
5	21	18	14	11	10	10	11	24	135	147	83	41
6	21	17	13	11	10	10	11	22	159	128	76	41
7	21	17	13	11	11	10	11	23	147	159	70	46
8	20	18	14	11	10	10	11	24	114	200	81	51
9	21	18	13	10	10	10	11	23	99	203	79	45
10	20	18	13	10	10	10	11	25	102	211	81	42
11	20	18	13	11	10	10	11	29	127	239	79	40
12	20	17	13	11	10	10	11	36	171	244	69	38
13	19	17	13	11	11	10	11	47	231	218	66	46
14	20	17	14	11	10	11	11	69	281	195	62	42
15	20	17	13	11	11	10	11	77	327	193	58	40
16	19	16	13	11	10	10	11	91	343	184	55	38
17	19	16	15	11	11	10	11	99	362	172	54	37
18	19	16	13	11	11	10	12	90	275	149	52	35
19	19	15	12	11	10	10	11	94	239	135	51	34
20	18	15	13	11	10	10	12	99	275	130	50	33
21	18	15	12	11	10	10	12	109	352	122	56	32
22	18	16	12	11	10	10	13	121	369	119	67	31
23	18	15	12	12	11	10	14	109	369	106	57	30
24	18	14	12	10	11	10	13	115	321	100	52	30
25	18	13	12	11	10	11	13	124	284	92	49	28
26	18	12	12	11	10	12	14	149	315	101	60	28
27	18	12	12	12	11	12	16	154	332	100	56	27
28	19	13	12	10	11	11	17	161	332	95	49	27
29	19	15	11	11	---	11	18	145	340	97	47	26
30	19	14	11	11	---	11	18	167	342	96	45	26
31	19	---	11	11	---	11	---	196	---	96	44	---
TOTAL	608	480	399	336.5	290	323	371	2498	7532	5129	1988	1109
MEAN	19.6	16.0	12.9	10.9	10.4	10.4	12.4	80.6	251	165	64.1	37.0
MAX	23	19	15	12	11	12	18	196	369	292	94	51
MIN	18	12	11	9.5	10	10	11	17	99	92	44	26
AC-FT	1210	952	791	667	575	641	736	4950	14940	10170	3940	2200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 1993, BY WATER YEAR (WY)

MEAN	20.7	15.9	13.0	10.9	9.99	9.86	13.8	64.7	178	111	46.0	29.4
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1970 - 1993	
ANNUAL TOTAL	14392.0		21063.5			
ANNUAL MEAN	39.3		57.7		43.6	
HIGHEST ANNUAL MEAN					77.8	1984
LOWEST ANNUAL MEAN					19.2	1977
HIGHEST DAILY MEAN	174	Jun 25	[a]369	Jun 22	456	Jun 9 1985
LOWEST DAILY MEAN	9.0	Feb 19	9.5	Jan 4	5.5	Jan 28 1990
ANNUAL SEVEN-DAY MINIMUM	10	Jan 21	10	Mar 4	6.4	Jan 1 1982
INSTANTANEOUS PEAK FLOW			477	Jun 17	559	Jun 30 1984
INSTANTANEOUS PEAK STAGE			3.22	Jun 17	[b]3.64	Jun 30 1984
ANNUAL RUNOFF (AC-FT)	28550		41780		31620	
10 PERCENT EXCEEDS	104		171		120	
50 PERCENT EXCEEDS	19		18		18	
90 PERCENT EXCEEDS	10		10		9.0	

a-Also occurred Jun 23.
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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26 to May 12, and June 11 to July 18. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	32	25	24	25	26	29	32	269	450	221	90
2	44	32	25	24	26	27	30	30	281	430	219	90
3	43	31	26	23	25	28	29	28	287	410	213	87
4	43	31	26	22	24	27	28	30	272	380	210	84
5	42	30	25	22	24	26	28	32	262	340	212	83
6	42	30	25	23	25	26	28	32	262	300	204	82
7	41	30	24	25	26	25	28	31	257	320	198	83
8	41	29	23	25	26	25	27	30	243	350	201	86
9	40	30	24	25	26	25	27	29	235	380	199	83
10	40	30	25	25	26	24	27	28	224	400	192	80
11	38	29	25	25	26	25	27	27	250	420	186	78
12	38	29	24	25	26	25	28	27	280	440	181	77
13	38	28	23	24	25	25	27	30	320	400	174	84
14	38	28	22	24	24	25	27	36	370	350	169	80
15	37	28	22	26	25	26	26	44	440	320	160	76
16	37	28	22	26	26	26	26	55	480	310	151	75
17	36	27	23	25	26	25	27	70	500	290	142	73
18	36	27	25	26	26	25	27	79	440	270	135	71
19	36	27	24	25	27	25	27	85	390	253	130	71
20	35	27	20	24	28	25	28	96	430	249	125	69
21	35	27	23	24	26	25	28	122	460	262	126	68
22	34	27	24	23	26	25	27	159	490	252	136	67
23	34	27	24	23	27	25	28	169	480	248	122	65
24	34	27	24	22	28	25	29	181	480	244	111	64
25	34	26	24	23	28	26	30	193	450	234	107	64
26	33	25	25	24	27	28	29	227	440	234	119	62
27	33	23	26	24	26	29	29	233	430	235	119	61
28	33	24	25	24	26	29	30	240	470	227	103	59
29	33	25	24	23	---	29	32	241	480	224	97	59
30	32	26	24	23	---	28	33	254	480	223	93	57
31	33	---	25	24	---	28	---	274	---	222	91	---
TOTAL	1158	840	746	745	726	808	846	3144	11152	9667	4846	2228
MEAN	37.4	28.0	24.1	24.0	25.9	26.1	28.2	101	372	312	156	74.3
MAX	45	32	26	26	28	29	33	274	500	450	221	90
MIN	32	23	20	22	24	24	26	27	224	222	91	57
AC-FT	2300	1670	1480	1480	1440	1600	1680	6240	22120	19170	9610	4420

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

MEAN	38.2	28.2	22.0	18.6	17.4	16.2	19.6	72.7	247	194	86.6	51.6
MAX	67.0	44.5	36.0	31.3	27.0	28.5	41.4	174	372	352	164	89.5
(WY)	1985	1985	1985	1985	1985	1988	1984	1984	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	21439		36906			
ANNUAL MEAN	58.6		101		67.8	
HIGHEST ANNUAL MEAN					112	1984
LOWEST ANNUAL MEAN					29.0	1977
HIGHEST DAILY MEAN	217	Jun 26	[a]500	Jun 17	570	Jun 25 1983
LOWEST DAILY MEAN	[b]13	Mar 5	20	Dec 20	9.0	Mar 29 1975
ANNUAL SEVEN-DAY MINIMUM	13	Mar 5	23	Dec 14	10	Mar 27 1975
INSTANTANEOUS PEAK FLOW			Not determined		[c]836	Jun 22 1980
INSTANTANEOUS PEAK STAGE			Not determined		[d]3.39	Jun 22 1980
ANNUAL RUNOFF (AC-FT)	42520		73200		49140	
10 PERCENT EXCEEDS	169		283		195	
50 PERCENT EXCEEDS	32		30		30	
90 PERCENT EXCEEDS	15		24		14	

a-Estimated during period of indefinite stage-discharge relationship, Jun 11 to Jul 18.
b-Also occurred Mar 6-8, 10, 11.
c-From rating curve extended above 350 ft^3/s, but may have been higher during period of indefinite stage-discharge relationship in Jun, 1984.
d-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 mi².

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,210 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Transmountain diversions upstream from station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	44	36	25	23	25	37	166	648	324	107	87
2	45	44	34	26	23	24	39	169	597	294	93	103
3	43	42	32	25	23	24	38	197	579	317	86	77
4	42	44	32	23	23	24	39	241	456	334	89	68
5	41	49	31	23	24	24	42	264	425	283	98	79
6	39	50	31	23	24	24	41	201	442	232	92	79
7	43	46	30	24	24	24	38	167	463	218	75	95
8	41	45	31	25	24	25	38	144	367	235	101	107
9	46	45	31	25	24	25	42	133	326	213	101	77
10	44	47	31	25	24	24	48	141	329	196	78	84
11	45	44	30	25	24	24	47	211	360	197	81	76
12	47	43	30	25	24	23	48	299	406	191	75	72
13	44	45	30	24	23	23	46	378	501	186	89	125
14	44	41	27	24	23	24	46	421	608	162	105	101
15	44	43	29	24	24	24	45	462	680	149	80	90
16	43	44	28	24	24	24	45	540	673	144	79	79
17	42	43	27	24	23	24	46	544	725	132	84	77
18	39	42	28	24	23	25	49	504	595	124	78	85
19	39	40	28	24	23	25	48	482	474	124	78	80
20	38	41	27	24	24	24	46	549	481	135	83	76
21	37	36	27	23	23	25	52	568	572	127	92	70
22	38	36	27	24	22	25	74	572	589	119	115	64
23	37	40	27	24	23	26	105	522	574	114	89	61
24	36	34	26	24	25	30	95	507	460	130	70	58
25	37	35	25	26	26	35	86	516	348	122	81	58
26	51	33	25	26	26	41	114	566	360	116	96	56
27	51	32	25	26	26	45	156	638	378	113	91	53
28	49	36	26	25	25	40	186	689	369	112	72	52
29	52	38	27	25	---	41	212	611	396	113	76	50
30	48	35	26	23	---	42	211	589	411	128	73	49
31	52	---	26	23	---	38	---	615	---	113	73	---
TOTAL	1342	1237	890	755	667	871	2159	12606	14592	5497	2680	2288
MEAN	43.3	41.2	28.7	24.4	23.8	28.1	72.0	407	486	177	86.5	76.3
MAX	52	50	36	26	26	45	212	689	725	334	115	125
MIN	36	32	25	23	22	23	37	133	326	112	70	49
AC-FT	2660	2450	1770	1500	1320	1730	4280	25000	28940	10900	5320	4540

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	44.0	33.8	26.2	21.8	21.2	26.6	84.8	295	413	162	75.0	54.6
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	29819		45584			
ANNUAL MEAN	81.5		125		105	
HIGHEST ANNUAL MEAN					164	1984
LOWEST ANNUAL MEAN					54.6	1977
HIGHEST DAILY MEAN	303	Apr 30	725	Jun 17	1200	Jun 8 1987
LOWEST DAILY MEAN	[a]18	Feb 6	22	Feb 22	[b]10	Nov 28 1976
ANNUAL SEVEN-DAY MINIMUM	18	Feb 6	23	Feb 17	11	Jan 13 1977
INSTANTANEOUS PEAK FLOW			966	Jun 17	1550	Jun 8 1987
INSTANTANEOUS PEAK STAGE			3.92	Jun 17	4.50	Jun 8 1987
ANNUAL RUNOFF (AC-FT)	59150		90420		76070	
10 PERCENT EXCEEDS	211		423		275	
50 PERCENT EXCEEDS	48		46		43	
90 PERCENT EXCEEDS	20		24		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 NW1/4 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 7766.00 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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, 102,500 acre-ft, August 14, elevation, 7,766.12 ft; minimum contents, 49,200 acre-ft, May 13, 14 elevation, 7,700.00 ft.

MONTHEND ELEVATION IN FEET ABOVE SEA LEVEL AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	7,754.73	91,500	-
Oct. 31	7,742.05	80,200	-11,300
Nov. 30	7,739.06	77,700	-2,500
Dec. 31	7,735.01	74,400	-3,300
CAL YR 1992			-2,000
Jan. 31	7,731.18	71,300	-3,100
Feb. 28	7,727.79	68,700	-2,600
Mar. 31	7,717.46	61,000	-7,700
Apr. 30	7,705.92	53,100	-7,900
May 31	7,712.61	57,600	+4,500
June 30	7,751.40	88,500	+30,900
July 31	7,765.10	101,500	+13,000
Aug. 31	7,765.30	101,700	+200
Sept. 30	7,762.88	99,300	-2,400
WTR YR 1993			+7,800

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 sea level, (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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	262	161	106	105	92	97	235	297	1070	193	122	174
2	262	125	105	105	92	110	235	298	1000	191	120	173
3	262	108	102	104	92	111	235	361	917	189	120	172
4	262	108	102	100	92	127	235	377	900	191	118	173
5	262	108	102	92	91	135	235	407	891	189	118	174
6	261	108	102	92	91	149	235	443	899	170	118	174
7	258	108	100	93	92	149	235	462	699	139	118	174
8	258	108	100	94	92	149	235	470	397	136	118	174
9	258	108	100	94	92	153	235	468	277	137	118	174
10	258	106	100	93	94	169	235	505	206	134	118	174
11	258	106	100	92	94	169	235	578	194	133	127	174
12	258	106	100	92	94	169	235	607	168	133	149	174
13	259	106	100	92	94	169	235	612	176	130	153	173
14	262	106	100	92	94	169	235	623	184	128	174	178
15	262	106	100	92	94	169	235	638	194	128	177	174
16	261	106	100	92	94	169	235	646	198	126	175	174
17	258	106	100	92	94	169	235	703	203	126	172	173
18	258	105	102	92	94	169	235	725	213	124	172	174
19	258	106	102	92	94	173	235	719	239	122	172	174
20	256	106	100	92	94	188	235	723	238	122	172	174
21	255	106	102	92	94	188	235	737	246	122	171	174
22	255	106	106	93	94	193	235	744	285	120	169	174
23	255	106	106	94	92	212	238	744	329	120	169	174
24	255	106	106	92	92	213	241	744	378	120	169	174
25	255	106	106	92	92	214	239	745	421	120	169	174
26	255	106	104	92	92	215	234	747	442	121	169	174
27	255	106	104	92	92	217	234	783	442	122	169	174
28	255	106	103	92	92	217	239	861	365	122	169	174
29	241	106	106	92	---	217	242	982	278	122	169	174
30	195	106	104	92	---	223	275	1050	234	122	171	174
31	161	---	106	92	---	235	---	1050	---	122	174	---
TOTAL	7830	3267	3176	2907	2600	5406	7112	19849	12683	4274	4699	5218
MEAN	253	109	102	93.8	92.9	174	237	640	423	138	152	174
MAX	262	161	106	105	94	235	275	1050	1070	193	177	178
MIN	161	105	100	92	91	97	234	297	168	120	118	172
AC-FT	15530	6480	6300	5770	5160	10720	14110	39370	25160	8480	9320	10350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 1993, BY WATER YEAR (WY)

MEAN	140	127	138	133	135	141	160	276	375	266	151	132
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1969 - 1993	
ANNUAL TOTAL	48391		79021			
ANNUAL MEAN	132		216		[a]181	
HIGHEST ANNUAL MEAN					288	1984
LOWEST ANNUAL MEAN					83.9	1977
HIGHEST DAILY MEAN	266	Sep 24	1070	Jun 1	1390	Jun 25 1983
LOWEST DAILY MEAN	71	Apr 21	[b]91	Feb 5	[c]29	Mar 5 1981
ANNUAL SEVEN-DAY MINIMUM	82	Feb 2	92	Jan 31	29	Mar 5 1981
INSTANTANEOUS PEAK FLOW			1130	May 29	[d]1400	Sep 16 1976
INSTANTANEOUS PEAK STAGE			3.48	May 29	[e]3.50	Sep 16 1976
ANNUAL RUNOFF (AC-FT)	95980		156700		131400	
10 PERCENT EXCEEDS	255		413		302	
50 PERCENT EXCEEDS	114		169		152	
90 PERCENT EXCEEDS	84		93		81	

a-Subsequent to completion of Ruedi Reservoir.
b-Also occurred Feb 6.
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 mi².

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,905 ft above sea level, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	84	73	56	52	49	39	97	392	2120	2250	595	224
2	82	76	59	51	48	39	105	395	2080	2200	572	264
3	79	70	59	50	45	36	100	460	1850	2210	513	225
4	79	66	55	34	42	36	103	548	1400	1820	483	210
5	79	67	54	43	35	40	120	539	1260	1270	512	216
6	78	67	53	52	41	41	126	430	1360	1040	478	205
7	81	66	42	53	49	43	110	392	1380	1160	428	226
8	76	66	51	51	49	54	101	344	1090	1450	452	260
9	79	69	56	51	49	52	103	301	920	1410	445	215
10	76	73	55	49	48	48	109	292	890	1450	432	199
11	77	71	53	47	45	50	111	363	1040	1600	508	189
12	77	66	54	41	44	46	117	520	1290	1710	422	181
13	77	68	49	42	42	45	118	741	1710	1700	387	318
14	77	68	40	53	36	46	107	937	2050	1510	353	240
15	77	70	46	50	47	50	107	1100	2370	1460	316	210
16	77	72	50	49	44	49	107	1330	2400	1360	305	201
17	77	71	41	52	44	50	109	1430	2600	1240	298	193
18	74	71	51	47	46	62	121	1420	2020	1150	278	183
19	75	67	49	47	51	62	124	1430	1760	1010	278	178
20	75	68	31	47	51	60	116	1540	1860	970	273	165
21	74	66	48	46	39	62	125	1710	2210	908	302	152
22	74	60	48	45	40	69	180	1750	2310	833	350	144
23	74	68	42	41	50	77	238	1520	2340	751	284	140
24	74	62	40	33	48	90	256	1500	2070	754	265	139
25	76	55	50	38	42	107	258	1510	1860	636	266	135
26	63	43	67	52	42	125	258	1830	1980	669	382	131
27	58	39	40	43	39	133	282	2190	2130	692	324	127
28	60	46	47	41	38	124	374	2360	2260	666	261	125
29	71	57	54	43	---	112	458	1900	2340	652	242	122
30	69	48	51	43	---	112	463	1850	2550	639	228	120
31	99	---	49	45	---	100	---	1990	---	633	223	---
TOTAL	2348	1929	1540	1431	1243	2059	5103	35014	55500	37803	11455	5637
MEAN	75.7	64.3	49.7	46.2	44.4	66.4	170	1129	1850	1219	370	188
MAX	99	76	67	53	51	133	463	2360	2600	2250	595	318
MIN	58	39	31	33	35	36	97	292	890	633	223	120
AC-FT	4660	3830	3050	2840	2470	4080	10120	69450	110100	74980	22720	11180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1993, BY WATER YEAR (WY)

MEAN	96.0	70.7	55.5	48.9	48.2	64.0	194	759	1287	633	193	124
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1956 - 1993	
ANNUAL TOTAL	83070		161062			
ANNUAL MEAN	227		441		298	
HIGHEST ANNUAL MEAN					468	1957
LOWEST ANNUAL MEAN					107	1977
HIGHEST DAILY MEAN	1250	May 21	2600	Jun 17	3500	Jun 25 1983
LOWEST DAILY MEAN	31	Dec 20	31	Dec 20	[a]22	Dec 5 1955
ANNUAL SEVEN-DAY MINIMUM	42	Jan 31	38	Feb 27	27	Feb 11 1964
INSTANTANEOUS PEAK FLOW			3060	Jun 30	4180	Jun 25 1983
INSTANTANEOUS PEAK STAGE			4.93	Jun 30	6.12	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	164800		319500		216000	
10 PERCENT EXCEEDS	736		1560		942	
50 PERCENT EXCEEDS	81		107		93	
90 PERCENT EXCEEDS	45		43		43	

a-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 sea level. Prior to Nov. 20, 1915, nonrecording gage on highway bridge 800 ft downstream, at different datum. Nov. 20, 1915, to Oct. 26, 1917, nonrecording gage at present site and datum.

REMARKS.--No estimated daily discharges. Records good. Diversions upstream from station for irrigation of about 35,000 acres. Transmountain diversions to Arkansas River basin through Busk-Ivanhoe tunnel since 1925, Twin Lakes tunnel since 1935, and Charles H. Boustead tunnel since 1972. Natural flow of stream affected by storage in Ruedi Reservoir on 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	674	710	518	473	461	430	694	1680	6240	5500	1800	1110
2	673	777	542	478	450	436	720	1630	6230	5270	1750	1200
3	669	736	536	478	441	443	702	1760	5790	5320	1640	1130
4	660	690	516	464	422	444	691	2140	4840	5010	1560	1050
5	654	682	503	464	400	457	731	2370	4280	4060	1550	1040
6	651	686	506	510	428	477	770	2100	4320	3280	1530	1050
7	678	677	482	506	447	478	729	1990	4610	3150	1430	1050
8	702	684	486	478	466	478	685	1880	3700	3650	1450	1160
9	702	697	506	478	444	478	688	1710	3090	3620	1530	1070
10	704	724	506	478	443	480	736	1630	2770	3600	1440	1010
11	702	679	490	478	432	499	743	1820	2960	3770	1570	970
12	694	627	493	466	429	485	750	2210	3360	3910	1470	945
13	700	655	483	448	419	477	798	2730	4230	3970	1380	1120
14	690	634	477	478	396	481	746	3230	4870	3640	1350	1170
15	690	639	487	478	427	494	725	3590	5680	3570	1290	1060
16	690	642	481	471	433	499	719	4210	5650	3440	1230	1020
17	687	634	478	468	428	501	726	4610	6600	3170	1190	996
18	680	628	478	464	417	534	754	4490	5720	3040	1130	971
19	676	618	480	457	443	560	807	4400	4970	2750	1110	954
20	672	616	465	457	474	569	750	4710	4920	2620	1110	931
21	665	598	537	457	419	567	742	5120	5620	2510	1120	893
22	676	547	619	449	395	574	826	5380	5890	2370	1310	863
23	670	602	507	456	421	593	1060	4820	6050	2220	1240	842
24	672	575	484	408	454	626	1190	4720	5740	2210	1160	838
25	675	531	540	440	455	659	1050	4420	5150	2030	1110	822
26	708	498	558	451	450	722	1050	5020	5240	1990	1270	793
27	704	485	556	456	422	786	1220	5560	5480	1990	1380	774
28	720	485	650	435	425	811	1510	6670	5720	1900	1230	767
29	761	543	532	431	---	744	1720	5910	5580	1890	1160	747
30	711	513	483	443	---	761	1830	5670	6110	1890	1110	732
31	736	---	478	442	---	732	---	5840	---	1870	1080	---
TOTAL	21346	18812	15857	14340	12141	17275	26862	114020	151410	99210	41680	29078
MEAN	689	627	512	463	434	557	895	3678	5047	3200	1345	969
MAX	761	777	650	510	474	811	1830	6670	6600	5500	1800	1200
MIN	651	485	465	408	395	430	685	1630	2770	1870	1080	732
AC-FT	42340	37310	31450	28440	24080	34260	53280	226200	300300	196800	82670	57680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 1993, BY WATER YEAR (WY)

MEAN	709	666	573	507	476	527	807	2169	4048	2377	932	704
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1972 - 1993	
ANNUAL TOTAL	298534		562031			
ANNUAL MEAN	816		1540		[a]1210	
HIGHEST ANNUAL MEAN					2092	1984
LOWEST ANNUAL MEAN					485	1977
HIGHEST DAILY MEAN	2830	May 27	6670	May 28	[b]11200	Jun 25 1983
LOWEST DAILY MEAN	330	Feb 28	395	Feb 22	[c,d]248	Aug 11 1977
ANNUAL SEVEN-DAY MINIMUM	353	Feb 24	421	Feb 12	258	Aug 9 1977
INSTANTANEOUS PEAK FLOW			7370	May 28	[e]12100	Jun 25 1983
INSTANTANEOUS PEAK STAGE			6.33	May 28	[f]8.06	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	592100		1115000		876300	
10 PERCENT EXCEEDS	1670		4650		2940	
50 PERCENT EXCEEDS	642		729		661	
90 PERCENT EXCEEDS	376		453		424	

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 sea level, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1800	1830	1490	1370	1180	1200	1990	4560	16900	12500	4140	2560
2	1780	1930	1600	1380	1210	1260	2060	4170	16700	12100	4030	2660
3	1760	1910	1570	1440	1230	1190	2080	4260	16000	12100	3890	2560
4	1740	1820	1540	1180	1180	1260	2050	4830	14300	11600	3740	2410
5	1710	1800	1480	1020	1120	1210	2100	5680	12900	10300	3670	2460
6	1700	1780	1450	1120	1080	1310	2260	5520	12500	9060	3680	2510
7	1740	1800	1320	1370	1160	1310	2170	5070	12800	8190	3540	2530
8	1770	1820	1310	1510	1230	1320	2040	4810	11600	8390	3510	2670
9	1740	1840	1320	1530	1240	1400	1920	4480	10100	8450	3590	2670
10	1790	1880	1500	1430	1250	1440	1970	4250	9210	8390	3500	2550
11	1780	1860	1540	1370	1240	1480	2090	4460	9270	8390	3730	2410
12	1750	1730	1490	1280	1230	1430	2130	5340	9920	8490	3540	2330
13	1750	1770	1430	1180	1190	1290	2200	6720	11700	8560	3330	2560
14	1740	1800	1190	1280	1070	1380	2190	8410	13000	8170	3220	2700
15	1710	1770	1270	1340	1160	1500	2160	9560	14400	7920	3150	2680
16	1690	1780	1340	1330	1180	1570	2140	10900	14300	7630	3130	2620
17	1690	1770	1200	1300	1220	1550	2170	12000	15500	7120	2910	2620
18	1680	1770	1350	1280	1160	1630	2250	12100	14600	6830	2820	2560
19	1650	1760	1380	1260	1220	1730	2400	12100	13400	6270	2810	2480
20	1610	1770	1110	1250	1370	1650	2350	12700	13100	6000	2780	2430
21	1650	1680	1120	1250	1230	1620	2320	14100	13700	5680	2990	2390
22	1670	1630	1230	1230	1160	1630	2410	14800	14200	5370	3460	2350
23	1660	1660	1300	1200	1180	1650	2700	14200	14300	5070	3400	2300
24	1650	1660	1230	1080	1280	1720	3040	13800	13700	4950	2900	2280
25	1670	1510	1230	1040	1260	1760	3050	13500	12600	4720	2770	2270
26	1700	1430	1190	1090	1290	1960	2980	14700	12400	4550	2890	2230
27	1730	1270	1170	1160	1210	2110	3350	15600	12600	4460	2970	2210
28	1680	1270	1270	1060	1230	2180	3750	17100	12600	4270	2870	2210
29	1820	1450	1400	1070	---	2080	4400	16700	12400	4180	2730	2170
30	1790	1470	1550	1100	---	2070	4750	16300	13300	4130	2620	2170
31	1860	---	1470	1120	---	2030	---	16500	---	4150	2570	---
TOTAL	53460	51220	42040	38620	33760	48920	75470	309220	394000	227990	100880	73550
MEAN	1725	1707	1356	1246	1206	1578	2516	9975	13130	7355	3254	2452
MAX	1860	1930	1600	1530	1370	2180	4750	17100	16900	12500	4140	2700
MIN	1610	1270	1110	1020	1070	1190	1920	4170	9210	4130	2570	2170
AC-FT	106000	101600	83390	76600	66960	97030	149700	613300	781500	452200	200100	145900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	2084	1905	1602	1495	1484	1690	2697	6998	10340	5625	2813	2252
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	850430		1449130			
ANNUAL MEAN	2324		3970		3420	
HIGHEST ANNUAL MEAN					6276	1984
LOWEST ANNUAL MEAN					1638	1977
HIGHEST DAILY MEAN	6330	May 27	17100	May 28	30200	May 25 1984
LOWEST DAILY MEAN	1110	Dec 20	1020	Jan 5	870	Feb 11 1981
ANNUAL SEVEN-DAY MINIMUM	1200	Dec 20	1090	Jan 24	978	Mar 10 1977
INSTANTANEOUS PEAK FLOW			17700	May 28	31500	May 25 1984
INSTANTANEOUS PEAK STAGE			9.37	May 28	12.49	May 25 1984
ANNUAL RUNOFF (AC-FT)	1687000		2874000		2478000	
10 PERCENT EXCEEDS	4380		12400		8030	
50 PERCENT EXCEEDS	1840		2050		2080	
90 PERCENT EXCEEDS	1330		1220		1320	

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1990 to September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT									
26...	1115	1730	1050	8.4	11.0	11.1	K16	K3	<1
APR									
06...	1015	2310	870	8.0	8.0	9.1	28	K10	<1
JUN									
14...	1315	13400	255	8.0	9.5	9.3	140	33	<1
AUG									
11...	0945	3880	720	8.2	16.0	8.5	92	84	<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)
OCT									
26...	<1	170	<1	20	10	<0.1	<1	[a]<0.2	<10
APR									
06...	<1	1600	<1	90	40	<0.1	1	[a]<0.2	<10
JUN									
14...	<1	3000	<1	160	10	<0.1	<1	[a]<0.2	<10
AUG									
11...	<1	220	<1	30	20	<0.1	<1	<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
07...	1445	1740	914	12.0
NOV				
18...	0902	1760	1100	6.0
JAN				
14...	1020	1290	980	1.0
FEB				
25...	1255	1170	1000	3.0
APR				
14...	1508	2180	900	9.5
MAY				
18...	0755	13100	252	6.0
JUN				
03...	0931	16800	232	8.5
JUL				
14...	1445	8070	390	13.0
AUG				
19...	0845	2670	650	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.

PERIOD OF RECORD.--1911, October 1990 to current year. Published as West Fork Elk Creek near New Castle, 1911.

REVISED RECORDS.--WDR CO-92-2: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,760 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 20 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	.43	.27	.18	.19	.23	.65	1.8	7.6	3.7	3.1	2.0
2	.24	.46	.27	.17	.19	.23	.70	1.8	7.2	3.8	2.6	2.0
3	.24	.36	.27	.17	.19	.24	.69	2.0	7.1	3.9	2.0	1.9
4	.25	.27	.27	.17	.19	.24	.75	2.5	6.8	3.9	1.9	1.9
5	.26	.36	.27	.17	.18	.23	.92	2.7	6.4	3.9	1.9	2.0
6	.28	.31	.27	.18	.18	.24	1.0	2.3	6.4	3.8	1.9	2.0
7	.35	.32	.27	.18	.18	.24	.86	2.4	6.5	3.7	1.9	2.0
8	.36	.36	.27	.18	.18	.25	.83	2.1	6.1	3.7	2.1	2.0
9	.35	.36	.27	.18	.18	.26	.88	1.9	6.3	3.6	2.0	2.1
10	.34	.32	.27	.17	.18	.26	.95	2.0	6.0	3.7	2.1	2.1
11	.32	.23	.27	.15	.18	.28	.97	2.1	5.8	3.8	2.3	2.0
12	.32	.39	.27	.13	.19	.30	1.0	2.7	5.7	3.8	2.2	2.0
13	.31	.31	.24	.14	.19	.31	.92	3.6	5.5	3.7	2.1	2.2
14	.32	.19	.24	.17	.20	.32	.84	4.5	4.8	3.7	2.1	2.1
15	.31	.31	.24	.20	.21	.32	.85	5.7	4.8	3.5	2.1	2.1
16	.30	.35	.22	.21	.21	.30	.91	8.0	4.7	3.5	2.0	2.1
17	.31	.37	.20	.19	.21	.29	.89	8.6	4.9	3.5	2.0	2.1
18	.31	.31	.20	.19	.22	.29	.94	8.5	5.4	3.4	2.0	2.1
19	.33	.28	.20	.18	.21	.31	.98	8.3	5.3	3.3	2.0	2.2
20	.36	.31	.19	.18	.22	.32	.96	8.9	5.3	3.3	2.0	2.1
21	.37	.27	.19	.18	.23	.35	1.0	9.4	5.2	3.3	2.1	2.1
22	.37	.42	.19	.18	.23	.38	1.2	9.6	4.9	3.3	2.1	2.0
23	.36	.30	.19	.19	.23	.43	1.3	8.8	4.8	3.4	2.0	2.0
24	.36	.39	.19	.19	.22	.47	1.3	8.7	4.7	3.5	2.0	2.0
25	.39	.37	.18	.18	.24	.54	1.2	8.7	4.2	3.4	2.0	2.0
26	.45	.31	.19	.19	.26	.70	1.4	8.8	4.1	3.2	2.1	2.0
27	.44	.28	.18	.19	.24	.83	1.6	8.9	3.9	3.2	2.0	2.0
28	.47	.27	.18	.18	.23	.75	1.8	9.1	3.7	3.2	1.9	2.0
29	.88	.27	.18	.18	---	.69	1.9	8.6	3.8	3.2	1.9	1.9
30	.74	.27	.18	.18	---	.66	2.0	8.1	3.6	3.2	1.9	1.9
31	1.3	---	.18	.18	---	.60	---	7.6	---	3.2	1.9	---
TOTAL	12.25	9.75	7.00	5.51	5.76	11.86	32.19	178.7	161.5	109.3	64.2	60.9
MEAN	.40	.32	.23	.18	.21	.38	1.07	5.76	5.38	3.53	2.07	2.03
MAX	1.3	.46	.27	.21	.26	.83	2.0	9.6	7.6	3.9	3.1	2.2
MIN	.24	.19	.18	.13	.18	.23	.65	1.8	3.6	3.2	1.9	1.9
AC-FT	24	19	14	11	11	24	64	354	320	217	127	121

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

MEAN	.35	.27	.21	.20	.21	.33	.77	2.40	2.17	1.54	1.04	1.01
MAX	.40	.32	.23	.22	.26	.41	1.07	5.76	5.38	3.53	2.07	2.03
(WY)	1993	1993	1993	1992	1992	1992	1993	1993	1993	1993	1993	1993
MIN	.32	.22	.20	.18	.17	.18	.57	.66	.47	.46	.45	.47
(WY)	1992	1992	1991	1993	1991	1991	1991	1992	1991	1991	1991	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1991 - 1993	
ANNUAL TOTAL	170.58		658.92			
ANNUAL MEAN	.47		1.81		.88	
HIGHEST ANNUAL MEAN					1.81	1993
LOWEST ANNUAL MEAN					.38	1991
HIGHEST DAILY MEAN	1.3	Oct 31	9.6	May 22	9.6	May 22 1993
LOWEST DAILY MEAN	[a].18	Dec 25	.13	Jan 12	.13	Jan 12 1993
ANNUAL SEVEN-DAY MINIMUM	.18	Dec 25	.16	Jan 8	.16	Jan 8 1993
INSTANTANEOUS PEAK FLOW			11	May 21	11	May 21 1993
INSTANTANEOUS PEAK STAGE			1.35	May 21	1.35	May 21 1993
ANNUAL RUNOFF (AC-FT)	338		1310		636	
10 PERCENT EXCEEDS	.69		4.8		2.1	
50 PERCENT EXCEEDS	.49		.75		.40	
90 PERCENT EXCEEDS	.21		.19		.19	

a-Also occurred Dec 27-31.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 8 to Nov. 19, Nov. 25-27, Dec. 14, 16-27, Jan. 4-7, 12, 13, 24-31, Feb. 4-8, May 17, 18, June 7 to July 2. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	11	10	8.6	9.7	11	18	94	1060	340	38	22
2	15	11	10	8.6	9.7	11	18	92	1100	280	35	22
3	12	11	9.7	8.9	9.4	11	18	100	1040	241	34	22
4	13	10	9.0	8.6	9.0	13	17	135	845	209	36	22
5	13	10	9.2	8.6	9.0	13	17	148	731	174	37	22
6	12	10	9.3	8.7	9.2	11	18	132	754	158	35	22
7	12	11	9.6	8.9	9.4	11	17	115	660	148	35	22
8	13	11	9.3	10	9.6	11	17	101	620	140	33	22
9	10	11	9.3	9.4	10	11	18	89	580	135	32	21
10	11	11	9.3	9.3	10	11	18	85	500	125	33	21
11	11	10	9.3	8.3	10	12	18	103	460	117	35	21
12	10	10	9.3	8.6	10	11	19	146	470	111	32	21
13	10	10	9.3	10	10	14	19	257	500	102	31	22
14	10	10	9.0	10	14	12	19	377	540	97	30	21
15	10	10	9.3	9.9	12	12	19	487	580	89	29	20
16	10	10	9.0	9.7	11	12	19	606	620	85	28	20
17	10	10	8.8	9.7	11	12	18	790	640	82	28	19
18	10	10	8.8	9.3	11	12	18	840	620	79	27	19
19	10	10	8.8	9.3	11	13	18	917	600	75	26	19
20	10	9.7	8.8	9.3	11	13	18	1030	580	61	27	19
21	10	9.4	8.7	9.3	10	13	17	1030	560	55	26	18
22	10	9.3	8.7	9.3	12	13	18	1090	560	52	26	18
23	10	10	8.6	9.3	11	13	21	963	660	50	25	18
24	10	6.9	8.6	9.0	11	14	25	888	580	51	24	18
25	10	8.0	8.6	9.0	11	15	26	921	520	48	23	18
26	11	8.6	8.4	9.0	11	17	29	1070	460	45	24	18
27	11	9.0	8.4	9.0	10	19	46	1010	500	44	23	18
28	11	10	9.0	9.0	10	20	79	1070	560	42	23	18
29	12	11	9.0	9.0	---	19	103	995	480	40	23	18
30	12	11	9.0	9.0	---	19	108	979	400	39	22	18
31	12	---	8.6	9.0	---	19	---	1010	---	38	22	---
TOTAL	347	299.9	280.7	283.6	292.0	418	833	17670	18780	3352	902	599
MEAN	11.2	10.0	9.05	9.15	10.4	13.5	27.8	570	626	108	29.1	20.0
MAX	16	11	10	10	14	20	108	1090	1100	340	38	22
MIN	10	6.9	8.4	8.3	9.0	11	17	85	400	38	22	18
AC-FT	688	595	557	563	579	829	1650	35050	37250	6650	1790	1190

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

MEAN	11.7	10.2	9.49	8.69	8.67	9.75	32.4	405	331	67.8	23.3	17.9
MAX	12.4	10.5	10.9	9.87	10.4	13.5	55.1	570	626	108	29.1	20.0
(WY)	1991	1992	1992	1992	1993	1993	1992	1993	1993	1993	1993	1993
MIN	11.2	10.0	8.52	7.05	6.76	6.61	14.4	292	97.6	33.2	18.6	16.7
(WY)	1993	1993	1991	1991	1991	1991	1991	1991	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1991 - 1993	
ANNUAL TOTAL	19403.3		44057.2			
ANNUAL MEAN	53.0		121		78.3	
HIGHEST ANNUAL MEAN					121	1993
LOWEST ANNUAL MEAN					53.2	1992
HIGHEST DAILY MEAN	430	May 9	1100	Jun 2	1100	Jun 2 1993
LOWEST DAILY MEAN	6.9	Nov 24	6.9	Nov 24	5.8	Jan 23 1991
ANNUAL SEVEN-DAY MINIMUM	8.0	Mar 10	8.6	Dec 21	6.2	Jan 22 1991
INSTANTANEOUS PEAK FLOW			1230	May 21	1230	May 21 1993
INSTANTANEOUS PEAK STAGE			7.26	May 21	7.26	May 21 1993
ANNUAL RUNOFF (AC-FT)	38490		87390		56730	
10 PERCENT EXCEEDS	151		548		268	
50 PERCENT EXCEEDS	14		18		14	
90 PERCENT EXCEEDS	8.8		9.0		8.0	

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 ft above sea level, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.6	6.6	5.6	4.7	4.4	4.2	9.3	25	408	266	30	14
2	8.2	6.3	5.6	4.7	4.4	4.4	9.2	25	331	234	29	13
3	7.8	6.1	5.6	4.6	4.4	4.4	8.9	28	332	205	27	13
4	7.8	5.8	5.6	4.6	4.4	4.4	8.5	39	343	161	26	13
5	7.7	6.3	5.6	4.7	4.4	4.4	8.8	39	319	130	26	12
6	7.3	6.5	5.6	4.7	4.4	4.4	9.4	33	353	108	25	12
7	7.0	6.6	5.4	4.5	4.4	4.4	9.6	28	347	101	24	12
8	6.4	6.6	5.3	4.3	4.4	4.6	9.3	25	288	101	25	11
9	6.6	6.6	5.3	4.4	4.4	4.7	8.9	23	233	101	25	11
10	6.6	6.6	5.3	4.4	4.4	4.7	8.9	21	219	98	25	11
11	6.6	6.2	5.3	3.3	4.4	4.9	9.0	25	267	96	26	10
12	6.8	5.7	5.3	2.7	4.4	5.3	8.9	38	361	93	22	10
13	6.8	6.2	5.3	4.7	4.4	5.3	9.2	62	378	84	20	12
14	6.6	5.9	4.7	5.2	4.4	5.3	9.2	85	440	78	20	11
15	6.6	5.9	5.0	5.3	4.4	5.3	8.8	112	592	73	18	10
16	6.6	5.9	5.0	4.8	4.4	5.3	8.5	166	527	68	18	10
17	6.6	5.9	5.0	4.7	4.4	5.1	8.4	192	496	62	17	10
18	6.6	6.1	4.9	4.6	4.4	5.3	8.2	191	384	59	17	10
19	6.6	6.0	4.7	4.4	4.4	5.6	8.0	193	299	54	16	10
20	6.6	5.9	4.7	4.4	4.4	5.6	8.0	241	336	51	16	9.9
21	6.6	5.5	4.7	4.4	4.4	5.8	8.1	265	348	48	17	9.6
22	6.6	5.3	4.7	4.4	4.4	6.3	9.2	279	406	46	17	9.5
23	6.6	6.1	4.7	4.4	4.4	6.6	12	242	395	43	16	9.2
24	6.4	4.8	4.7	4.4	4.2	7.7	12	227	321	44	15	9.2
25	6.6	5.4	4.7	4.4	4.7	9.0	13	246	310	40	15	9.2
26	6.9	5.7	4.7	4.4	4.7	10	13	303	299	38	16	9.2
27	6.7	5.7	4.7	4.4	4.5	11	16	288	342	36	14	9.2
28	6.4	5.6	4.7	4.4	4.3	11	23	300	320	35	14	9.2
29	6.9	5.6	4.7	4.4	---	10	26	295	325	34	14	9.2
30	6.9	5.6	4.7	4.4	---	10	29	305	315	33	14	8.9
31	7.2	---	4.7	4.4	---	9.7	---	331	---	32	14	---
TOTAL	214.2	179.0	156.5	138.1	123.6	194.7	338.3	4672	10634	2652	618	317.3
MEAN	6.91	5.97	5.05	4.45	4.41	6.28	11.3	151	354	85.5	19.9	10.6
MAX	8.6	6.6	5.6	5.3	4.7	11	29	331	592	266	30	14
MIN	6.4	4.8	4.7	2.7	4.2	4.2	8.0	21	219	32	14	8.9
AC-FT	425	355	310	274	245	386	671	9270	21090	5260	1230	629

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

MEAN	6.65	5.55	5.05	4.66	4.40	5.44	14.2	139	221	45.8	15.5	11.0
MAX	7.15	5.97	5.49	5.10	4.67	6.28	21.6	157	354	85.5	19.9	13.7
(WY)	1992	1993	1992	1992	1992	1993	1992	1992	1993	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1991 - 1993	
ANNUAL TOTAL	9633.8		20237.7			
ANNUAL MEAN	26.3		55.4		39.9	
HIGHEST ANNUAL MEAN					55.4	1993
LOWEST ANNUAL MEAN					26.3	1992
HIGHEST DAILY MEAN	236	May 21	592	Jun 15	592	Jun 15 1993
LOWEST DAILY MEAN	[a]4.4	Feb 15	2.7	Jan 12	2.7	Jan 12 1993
ANNUAL SEVEN-DAY MINIMUM	4.5	Feb 24	4.0	Jan 6	4.0	Feb 19 1991
INSTANTANEOUS PEAK FLOW			741	Jun 15	741	Jun 15 1993
INSTANTANEOUS PEAK STAGE			5.84	Jun 15	5.84	Jun 15 1993
ANNUAL RUNOFF (AC-FT)	19110		40140		28910	
10 PERCENT EXCEEDS	97		265		126	
50 PERCENT EXCEEDS	7.8		8.8		8.2	
90 PERCENT EXCEEDS	4.8		4.4		4.4	

a-Also occurred Feb 16-19, Feb 26 to Mar 1, Mar 24, 25.

09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in NE¼SW¼ sec.29, T.8 S., R.91 W., Mesa County, Hydrologic Unit 14010005, on left bank 10 ft downstream from private road bridge, 0.8 mi upstream from Brook Creek, 8 mi south of Raven, and 16 mi south of Silt.

DRAINAGE AREA.--64.6 mi².

PERIOD OF RECORD.--October 1955 to current year. Water-quality data available, May 1986 to September 1990. Sediment data available, October 1989 to September 1990.

REVISED RECORDS.--WSP 2124: Drainage area.

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

REMARKS.--Estimated daily discharges: Nov. 11-20, and Nov. 29 to Mar. 30. Records good, except for estimated daily discharges, which are poor. Natural flow of stream affected by water imported from Thompson Creek (Roaring Fork basin), Muddy Creek (Muddy Creek basin), and Buzzard Creek (Plateau Creek basin). Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	4.6	3.8	3.6	3.4	2.7	12	192	439	99	11	1.7
2	1.6	4.0	3.9	3.5	3.2	2.7	13	204	381	92	9.0	2.5
3	1.5	4.7	3.8	3.1	2.9	2.8	13	241	349	89	8.0	1.7
4	1.5	7.6	3.7	2.5	2.6	3.0	12	297	259	115	7.4	1.3
5	1.5	8.8	3.7	3.3	3.0	3.1	16	250	234	108	7.7	1.3
6	1.6	6.4	3.6	3.6	3.4	3.5	17	203	246	82	5.4	1.4
7	1.9	7.6	3.0	3.6	3.5	3.7	13	201	238	76	3.2	2.3
8	1.9	8.5	3.5	3.5	3.5	3.6	12	181	205	79	4.5	4.2
9	1.9	3.4	3.6	3.5	3.3	3.6	14	168	187	85	7.1	1.9
10	1.9	4.1	3.6	3.4	3.2	3.4	18	187	181	91	4.3	1.3
11	1.9	10	3.5	2.9	3.2	3.2	19	272	198	88	5.8	1.0
12	1.9	11	3.5	3.0	2.9	3.3	21	397	220	86	4.1	.92
13	1.9	4.7	3.3	3.4	2.6	3.5	20	594	227	79	2.6	2.8
14	1.9	4.5	3.3	3.6	3.1	3.5	18	636	232	73	2.3	3.7
15	1.8	4.4	3.4	3.5	3.1	3.6	18	655	234	66	2.2	1.9
16	1.8	4.5	3.3	3.5	3.3	4.1	19	636	233	58	1.9	1.4
17	1.8	4.6	3.0	3.4	3.4	4.2	21	653	223	52	1.6	1.3
18	1.8	4.5	3.5	3.3	3.6	4.2	29	606	202	47	1.4	1.2
19	1.7	4.4	2.7	3.3	3.5	4.5	29	588	170	41	1.3	1.2
20	1.7	5.3	2.3	3.2	2.9	5.0	24	635	162	36	1.4	1.2
21	1.8	3.7	3.3	3.1	3.1	6.0	34	611	157	34	2.2	1.0
22	1.9	4.3	3.3	3.0	3.4	6.8	61	617	150	31	6.3	.94
23	1.9	4.2	2.9	2.4	3.2	8.0	97	586	133	28	3.8	.83
24	1.8	3.9	3.3	2.8	3.0	9.2	104	580	116	32	1.9	.79
25	1.9	3.5	4.0	3.4	2.9	11	78	558	101	30	1.5	.85
26	2.3	3.0	4.3	3.0	2.9	14	94	583	95	26	5.8	.87
27	2.4	2.9	2.9	2.9	2.8	19	138	588	98	23	5.9	.89
28	2.1	3.4	3.4	3.0	2.8	24	188	595	99	22	2.7	.87
29	3.0	3.6	3.6	3.1	---	21	193	505	113	18	2.0	.87
30	3.2	3.4	3.5	3.2	---	19	207	461	106	14	1.8	.82
31	5.6	---	3.5	3.3	---	12	---	472	---	12	1.5	---
TOTAL	63.0	153.5	106.0	99.9	87.7	221.2	1552	13952	5988	1812	127.6	44.95
MEAN	2.03	5.12	3.42	3.22	3.13	7.14	51.7	450	200	58.5	4.12	1.50
MAX	5.6	11	4.3	3.6	3.6	24	207	655	439	115	11	4.2
MIN	1.5	2.9	2.3	2.4	2.6	2.7	12	168	95	12	1.3	.79
AC-FT	125	304	210	198	174	439	3080	27670	11880	3590	253	89

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 1993, BY WATER YEAR (WY)

MEAN	3.10	3.14	2.64	2.41	2.49	6.04	47.1	198	126	26.4	4.09	2.35
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1956 - 1993	
ANNUAL TOTAL	10451.48		24207.85			
ANNUAL MEAN	28.6		66.3		35.4	
HIGHEST ANNUAL MEAN					76.2	1984
LOWEST ANNUAL MEAN					3.38	1977
HIGHEST DAILY MEAN	236	May 27	655	May 15	932	May 14 1984
LOWEST DAILY MEAN	.77	Sep 14	.79	Sep 24	[a].00	Oct 1 1955
ANNUAL SEVEN-DAY MINIMUM	.85	Sep 9	.85	Sep 24	.00	Jul 21 1956
INSTANTANEOUS PEAK FLOW			750	May 15	[b]1410	May 14 1984
INSTANTANEOUS PEAK STAGE			4.73	May 15	5.83	May 14 1984
ANNUAL RUNOFF (AC-FT)	20730		48020		25640	
10 PERCENT EXCEEDS	125		221		118	
50 PERCENT EXCEEDS	3.7		3.7		3.8	
90 PERCENT EXCEEDS	1.7		1.7		.62	

a-No flow at times in most years.
b-From rating curve extended above 670 ft³/s.

09093700 COLORADO RIVER NEAR DE BEQUE, CO

LOCATION.--Lat 39°21'45", long 108°09'07", in NE¼SW¼ 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 mi².

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 14, 17, Dec. 20 to Jan. 9, Jan. 13, and May 13-20. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1830	1920	1510	1400	1210	1290	2200	5520	21500	13800	4170	2500
2	1810	1880	1510	1400	1320	1320	2230	5100	21500	13200	4090	2610
3	1790	2000	1610	1500	1330	1310	2310	5030	20500	12900	3960	2560
4	1770	1880	1580	1200	1320	1300	2240	5560	18300	12600	3750	2470
5	1750	1810	1560	1050	1240	1320	2250	6500	15900	11500	3610	2410
6	1720	1790	1520	1140	1200	1310	2510	6750	14800	10000	3580	2520
7	1720	1770	1490	1400	1200	1430	2510	6250	15200	8910	3490	2550
8	1770	1790	1390	1520	1310	1450	2310	5970	14200	8610	3390	2620
9	1770	1820	1370	1550	1420	1490	2150	5480	12300	8810	3460	2730
10	1800	1840	1370	1510	1450	1550	2150	5110	10900	8780	3400	2640
11	1810	1870	1480	1420	1410	1660	2180	5170	10500	8650	3500	2500
12	1800	1820	1530	1290	1380	1650	2330	6010	11300	8740	3560	2390
13	1780	1720	1540	1200	1340	1500	2410	7300	13100	8780	3290	2450
14	1770	1780	1290	1350	1280	1370	2420	8500	14800	8510	3120	2760
15	1750	1790	1330	1380	1200	1590	2360	10000	16600	8220	3030	2780
16	1710	1770	1310	1380	1280	1720	2350	12500	17200	7970	2990	2710
17	1710	1790	1200	1350	1290	1700	2380	15000	18300	7530	2880	2670
18	1700	1780	1350	1340	1310	1800	2440	16500	17700	7220	2660	2650
19	1700	1770	1350	1330	1350	1940	2590	17000	16000	6800	2630	2600
20	1620	1780	1120	1310	1640	1840	2610	18000	15100	6400	2570	2510
21	1650	1750	1130	1320	1660	1770	2560	18500	15600	6040	2590	2450
22	1650	1690	1240	1320	1330	1760	2610	19800	16300	5660	3030	2390
23	1650	1640	1320	1290	1270	1750	2890	19000	16500	5330	3250	2350
24	1650	1680	1250	1200	1350	1800	3330	17900	15900	5160	2910	2280
25	1660	1640	1240	1140	1440	1870	3500	17200	14500	5040	2580	2290
26	1710	1530	1200	1110	1370	1960	3400	18300	13700	4790	2580	2270
27	1680	1470	1190	1220	1390	2190	3580	19800	13900	4660	2800	2220
28	1730	1340	1300	1230	1350	2570	4250	21900	14000	4460	2770	2220
29	1730	1360	1420	1140	---	2450	5000	22000	13700	4280	2650	2210
30	1830	1490	1560	1170	---	2430	5520	21300	14300	4190	2550	2150
31	2210	---	1500	1190	---	2320	---	21200	---	4180	2460	---
TOTAL	54230	51960	42760	40350	37640	53410	83570	390150	464100	241720	97300	74460
MEAN	1749	1732	1379	1302	1344	1723	2786	12590	15470	7797	3139	2482
MAX	2210	2000	1610	1550	1660	2570	5520	22000	21500	13800	4170	2780
MIN	1620	1340	1120	1050	1200	1290	2150	5030	10500	4180	2460	2150
AC-FT	107600	103100	84810	80030	74660	105900	165800	773900	920500	479500	193000	147700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	2171	2002	1726	1624	1620	1846	2981	8234	11760	5949	2839	2276
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	890470		1631650			
ANNUAL MEAN	2433		4470		3757	
HIGHEST ANNUAL MEAN					7310	1984
LOWEST ANNUAL MEAN					1785	1977
HIGHEST DAILY MEAN	7470	May 28	22000	May 29	37400	May 26 1984
LOWEST DAILY MEAN	1120	Dec 20	1050	Jan 5	914	Dec 22 1977
ANNUAL SEVEN-DAY MINIMUM	1210	Dec 20	1170	Jan 25	1090	Dec 21 1990
INSTANTANEOUS PEAK FLOW			22900	May 28	38200	May 26 1984
INSTANTANEOUS PEAK STAGE			11.53	May 28	14.83	May 26 1984
ANNUAL RUNOFF (AC-FT)	1766000		3236000		2722000	
10 PERCENT EXCEEDS	4720		14100		8970	
50 PERCENT EXCEEDS	1850		2210		2120	
90 PERCENT EXCEEDS	1400		1310		1430	

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 mi², 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 sea level, (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: Dec. 19 to Jan. 18, Apr. 29 to May 2, May 5-17, and May 29-30. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1980	2220	1620	1500	1280	1330	2360	6000	21000	14200	4360	2630
2	1910	2290	1640	1500	1320	1320	2420	5800	21100	13400	4260	2690
3	1840	2380	1740	1600	1320	1360	2480	5600	20100	13100	4150	2710
4	1830	2190	1690	1300	1300	1330	2390	6180	18200	12800	3980	2630
5	1810	2080	1670	1150	1250	1400	2400	7500	15900	11600	3870	2550
6	1810	2070	1650	1200	1190	1440	2820	7700	14800	9860	3820	2650
7	1800	2050	1610	1450	1200	1580	2730	6800	15100	8590	3750	2670
8	1860	2060	1510	1600	1300	1620	2520	6900	14400	8460	3640	2670
9	1890	2130	1540	1650	1520	1660	2350	5600	12700	8880	3630	2770
10	1900	2150	1550	1600	1550	1750	2310	5600	11200	8880	3590	2680
11	1930	2180	1750	1520	1470	1860	2330	6000	10700	8750	3580	2610
12	1910	2130	1720	1400	1420	1790	2490	7000	11300	8850	3650	2520
13	1880	2020	1680	1300	1370	1600	2600	8800	12900	8920	3450	2510
14	1870	2050	1620	1420	1300	1500	2620	12000	14500	8680	3290	2710
15	1860	2070	1400	1470	1190	1730	2540	14000	15900	8310	3200	2830
16	1810	2040	1490	1450	1270	1890	2530	16000	16600	8040	3110	2780
17	1800	2030	1530	1450	1290	1890	2540	18000	17400	7620	3020	2740
18	1790	2010	1410	1450	1290	2070	2580	18700	17100	7300	2880	2740
19	1780	2010	1370	1440	1500	2170	2740	17900	15700	6930	2770	2700
20	1750	2040	1150	1410	1960	2060	2790	17900	14800	6540	2700	2640
21	1750	1990	1150	1390	1790	1980	2740	19900	15200	6200	2680	2570
22	1780	1890	1250	1380	1380	1980	2800	21300	15900	5870	3020	2510
23	1780	1840	1350	1360	1270	1980	3000	20500	16100	5590	3180	2470
24	1770	1870	1300	1330	1390	2000	3480	19000	15800	5410	3010	2400
25	1760	1810	1290	1210	1480	2070	3670	18100	14700	5280	2710	2420
26	1800	1680	1260	1230	1440	2140	3580	18900	13900	5040	2680	2440
27	1770	1600	1250	1260	1420	2340	3720	20400	14000	4910	2840	2420
28	1800	1490	1350	1290	1370	3030	4570	22200	14200	4730	2850	2430
29	1810	1510	1450	1210	---	2710	5700	22000	13900	4560	2780	2420
30	1920	1630	1600	1230	---	2630	6000	21000	14400	4470	2710	2380
31	2850	---	1550	1300	---	2470	---	20900	---	4390	2620	---
TOTAL	57800	59510	46140	43050	38830	58680	89800	424180	459500	246160	101780	77890
MEAN	1865	1984	1488	1389	1387	1893	2993	13680	15320	7941	3283	2596
MAX	2850	2380	1750	1650	1960	3030	6000	22200	21100	14200	4360	2830
MIN	1750	1490	1150	1150	1190	1320	2310	5600	10700	4390	2620	2380
AC-FT	114600	118000	91520	85390	77020	116400	178100	841400	911400	488300	201900	154500

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

MEAN	2094	1920	1682	1562	1573	1768	3181	9247	12600	5816	2789	2152
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	934280		1703320			
ANNUAL MEAN	2553		4667		3870	
HIGHEST ANNUAL MEAN					7605	1984
LOWEST ANNUAL MEAN					1937	1977
HIGHEST DAILY MEAN	7990	May 27	22200	May 28	38000	May 26 1984
LOWEST DAILY MEAN	[a]1150	Dec 20	[b]1150	Dec 20	700	Dec 29 1939
ANNUAL SEVEN-DAY MINIMUM	1250	Dec 20	1250	Jan 25	852	Dec 24 1939
INSTANTANEOUS PEAK FLOW			23300	May 28	39300	May 26 1984
INSTANTANEOUS PEAK STAGE			11.46	May 28	14.36	May 26 1984
ANNUAL RUNOFF (AC-FT)	1853000		3379000		2804000	
10 PERCENT EXCEEDS	4840		14400		9680	
50 PERCENT EXCEEDS	2060		2390		2100	
90 PERCENT EXCEEDS	1400		1340		1350	

a-Also occurred Dec 21.
b-Also occurred Dec 21 and Jan 5.

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 record of water temperature is good. Daily record of specific conductance is good. Specific conductance data Dec 20 to Jan 14 were deleted because of slush ice in the sensor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum , 1,970 microsiemens Jan. 19, 1940; minimum, 190 microsiemens June 17, 18, 1993.
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 1,390 microsiemens Jan. 27; minimum 190 microsiemens June 17, 18.
WATER TEMPERATURE: Maximum 21.4°C Aug. 1; minimum 0.0°C on many days November to January.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT 13...	1015	1880	1060	8.6	10.0	9.3	250	73	16	110
NOV 12...	1230	2150	1020	8.6	3.0	10.4	250	72	16	110
DEC 15...	1335	1420	1150	8.7	0.5	11.9	260	74	18	140
FEB 25...	1000	1470	1230	8.3	2.0	11.3	260	71	19	150
MAR 17...	0940	1900	1100	8.2	7.0	10.0	240	68	18	120
APR 21...	1015	2730	850	8.5	9.0	9.6	240	66	18	87
MAY 13...	0950	8610	508	8.3	12.0	8.4	160	44	13	35
JUN 25...	1000	14700	290	8.2	13.0	9.1	110	33	7.2	19
JUL 23...	1150	5520	535	8.2	16.0	9.1	160	47	9.8	43
AUG 19...	1000	2710	856	8.5	17.5	7.9	230	69	15	92
SEP 08...	1030	2650	920	8.5	15.5	8.1	230	68	15	91

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)	SOLIDS, DISSOLVED (TONS PER DAY)
OCT 13...	3	3.6	139	140	170	0.3	6.4	603	0.82	3060
NOV 12...	3	3.7	141	150	160	0.3	7.4	604	0.82	3510
DEC 15...	4	3.8	146	160	190	0.3	7.8	681	0.93	2610
FEB 25...	4	4.3	152	170	200	0.3	8.4	714	0.97	2830
MAR 17...	3	4.2	144	170	160	0.2	8.6	635	0.86	3260
APR 21...	2	3.2	143	140	110	0.3	9.2	519	0.71	3830
MAY 13...	1	2.2	129	69	35	0.2	10	286	0.39	6640
JUN 25...	0.8	1.1	83	37	19	0.2	6.6	173	0.24	6860
JUL 23...	1	1.7	103	74	58	0.2	6.8	302	0.41	4500
AUG 19...	3	3.2	138	110	120	0.3	8.5	501	0.68	3660
SEP 08...	3	4.0	142	130	120	0.3	9.3	523	0.71	3740

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT				
02...	1100	1920	1100	13.5
08...	0945	1840	1090	9.0
21...	1023	1800	1110	9.5
30...	0930	1820	1070	10.0
NOV				
04...	1210	2190	1030	4.5
DEC				
02...	1330	1680	1110	1.0
11...	1325	1660	1250	1.5
FEB				
02...	1330	1370	1280	2.5
03...	0905	1340	1260	1.5
10...	1030	1490	1210	3.0
19...	1200	1360	1200	3.5
MAR				
03...	1345	1340	1250	4.5
12...	1020	1820	1090	4.5
26...	1135	2150	1040	10.5
31...	1035	2530	1010	8.0
APR				
07...	1220	2750	961	8.0
16...	0945	2540	912	10.5
28...	1050	4770	684	12.5
MAY				
06...	1045	7410	483	8.5
21...	1300	20000	336	12.0
26...	1010	18500	315	11.0
JUN				
01...	1220	21000	289	12.0
10...	1320	11000	395	12.5
16...	0930	16500	283	12.0
JUL				
07...	1330	8400	419	14.0
14...	1020	8530	412	15.0
29...	1330	4540	633	19.0
AUG				
24...	1030	3060	755	18.0
SEP				
23...	1205	2490	941	15.5
28...	1005	2420	972	11.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					
02...	1100	1920	20	104	89
08...	0945	1840	17	84	--
13...	1015	1880	17	86	93
21...	1023	1800	35	170	68
30...	0930	1820	214	1050	98
NOV					
04...	1210	2190	160	946	96
12...	1230	2150	75	435	75
DEC					
02...	1330	1680	72	327	76
11...	1325	1660	36	161	81
15...	1335	1420	152	583	97
FEB					
03...	0905	1340	145	525	97
10...	1030	1490	793	3190	99
19...	1200	1360	1650	6060	97
25...	1000	1470	176	699	77
MAR					
03...	1345	1340	247	894	98
12...	1020	1820	588	2890	98
17...	0940	1900	678	3480	90
26...	1135	2150	499	2900	80
31...	1035	2530	501	3420	96
APR					
07...	1220	2750	518	3850	93
16...	0945	2540	187	1280	75
21...	1015	2730	211	1560	73
28...	1050	4770	2050	26400	62
MAY					
06...	1045	7410	1330	26600	76
13...	0950	8610	1950	45300	74
21...	1300	20000	2580	139000	81
26...	1010	18500	1070	53400	71
JUN					
01...	1220	21000	534	30300	68
10...	1320	11000	292	8670	60
16...	0930	16500	322	14300	55
25...	1000	14700	144	5720	58
JUL					
07...	1330	8400	161	3650	49
14...	1020	8530	63	1450	53
23...	1150	5520	39	581	62
29...	1330	4540	26	319	66
AUG					
19...	1000	2710	23	168	62
24...	1030	3060	40	330	71
SEP					
08...	1030	2650	293	2100	98
23...	1205	2490	9	61	--
28...	1005	2420	8	52	--

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued
SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1010	1070	1170	---	1320	1240	1010	559	274	291	633	911
2	1030	1060	1160	---	1300	1260	1010	576	270	304	631	912
3	1040	1060	1120	---	1260	1250	1010	605	274	310	640	892
4	1050	1060	1090	---	1250	1240	998	591	281	310	656	897
5	1050	1080	1100	---	1240	1250	994	535	301	331	680	918
6	1060	1100	1120	---	1250	1220	979	491	316	369	695	935
7	1070	1100	1130	---	1300	1220	961	506	307	398	697	909
8	1090	1100	1160	---	1290	1190	966	470	308	420	718	906
9	1090	1080	1220	---	1220	1180	996	480	331	401	733	887
10	1090	1110	1210	---	1180	1160	1030	495	354	399	726	871
11	1090	1080	1220	---	1230	1170	1020	515	368	397	740	878
12	1080	1050	1130	---	1200	1090	990	510	352	393	718	905
13	1080	1030	1110	---	1210	1120	952	474	324	385	721	927
14	1090	1060	1120	---	1230	1170	950	423	295	395	749	922
15	1130	1050	1160	1250	1260	1200	968	387	276	413	773	869
16	1070	1050	1250	1200	1310	1120	921	373	263	419	790	863
17	1100	1050	1210	1140	1270	1090	947	348	246	429	792	862
18	1110	1050	1190	1160	1260	1100	932	350	245	443	817	873
19	1120	1050	1200	1190	1180	1060	906	347	280	453	836	874
20	1120	1050	---	1210	1100	1060	874	347	312	478	856	885
21	1130	1060	---	1220	1110	1070	871	332	308	495	868	904
22	1130	1060	---	1220	1150	1080	870	314	291	515	879	914
23	1130	1080	---	1230	1250	1090	847	316	289	532	782	922
24	1130	1090	---	1240	1250	1080	785	322	290	551	754	929
25	1130	1080	---	1270	1220	1060	735	324	300	562	800	937
26	1140	1100	---	1350	1200	1040	728	316	313	584	865	938
27	1120	1140	---	1370	1190	997	730	303	310	597	878	945
28	1110	1170	---	1340	1210	934	682	290	303	609	844	956
29	1110	1250	---	1310	---	971	627	291	304	616	853	956
30	1090	1230	---	1340	---	992	581	290	300	626	874	960
31	1040	---	---	1350	---	1000	---	284	---	631	895	---
MEAN	1090	1090	---	---	1230	1120	893	407	299	453	771	909

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.1	12.4	8.2	7.0	1.2	.0	.0	.0	2.5	.8	5.2	2.3
2	16.5	11.9	7.4	6.5	1.3	.0	.0	.0	2.7	1.5	5.4	2.4
3	15.8	12.6	6.5	4.3	2.1	.3	.0	.0	3.4	1.4	5.4	2.5
4	15.9	12.7	5.6	3.2	1.4	.0	.0	.0	2.6	.6	5.0	2.1
5	15.3	12.3	5.8	4.0	.8	.0	.0	.0	2.1	.0	5.5	2.5
6	14.6	11.7	5.5	3.7	1.4	.0	.0	.0	1.8	.0	6.9	3.2
7	13.3	10.9	6.2	3.8	1.6	.3	.0	.0	2.2	.5	7.8	4.4
8	11.7	8.9	6.3	4.4	.7	.0	.0	.0	2.8	1.3	8.2	4.7
9	12.1	8.6	7.1	5.2	1.4	.0	.0	.0	3.4	2.3	8.1	5.1
10	12.2	8.8	6.0	4.7	2.0	.1	.0	.0	4.1	2.8	9.0	5.7
11	12.7	9.2	4.8	3.2	2.1	.5	.6	.0	4.2	3.0	9.0	6.8
12	13.0	9.3	4.0	2.5	2.5	.9	.4	.0	4.7	3.2	7.2	4.3
13	13.1	9.6	4.5	2.2	1.6	.3	.0	.0	4.6	2.2	6.6	3.3
14	13.2	10.2	4.9	2.4	.4	.0	.1	.0	3.5	1.5	7.4	4.2
15	13.6	10.8	5.2	2.7	.6	.0	.7	.0	3.3	1.2	8.8	5.9
16	12.3	10.1	5.4	3.1	.7	.0	1.9	.6	3.4	1.1	9.6	6.8
17	12.1	9.2	5.6	3.3	.2	.0	2.4	1.5	3.5	1.8	8.7	6.9
18	12.0	9.1	6.0	3.8	.1	.0	3.4	1.8	3.5	.9	9.4	7.1
19	12.5	9.3	4.8	3.7	.0	.0	3.3	2.3	4.7	2.8	9.4	6.4
20	12.4	9.4	4.8	3.5	.0	.0	3.3	1.8	5.0	3.7	9.7	6.6
21	11.5	9.2	4.7	3.2	.0	.0	3.2	1.6	4.1	2.6	10.2	6.8
22	12.0	9.3	3.8	2.6	.0	.0	3.4	1.7	3.2	1.3	10.7	7.1
23	12.2	9.5	3.9	2.4	.0	.0	2.4	.9	3.5	1.4	11.4	7.1
24	12.5	9.4	2.7	1.3	.0	.0	1.1	.0	3.4	2.2	11.9	7.7
25	13.0	10.7	1.7	.3	.0	.0	.6	.0	4.2	1.8	12.8	8.8
26	13.1	11.1	.7	.0	.0	.0	.9	.0	4.7	2.6	11.8	9.8
27	12.2	10.4	.1	.0	.0	.0	1.1	.0	5.2	2.7	10.5	7.4
28	11.9	10.3	.0	.0	.0	.0	1.2	.0	4.6	2.8	7.6	6.4
29	11.3	10.2	1.1	.0	.0	.0	1.4	.0	---	---	9.2	6.7
30	10.6	9.9	.7	.0	.0	.0	1.4	.0	---	---	9.9	7.7
31	9.9	8.2	---	---	.0	.0	1.1	.0	---	---	10.0	6.6
MONTH	16.5	8.2	8.2	.0	2.5	.0	3.4	.0	5.2	.0	12.8	2.1

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.7	7.6	12.3	9.5	12.9	11.0	15.5	12.9	21.4	18.9	19.6	16.7
2	9.5	7.6	11.8	9.4	12.2	11.0	16.0	13.1	20.8	18.4	19.1	16.3
3	9.5	6.7	12.9	10.0	12.1	10.6	14.8	13.2	20.6	18.2	18.6	15.4
4	10.8	7.6	12.3	10.6	11.2	9.6	13.2	11.1	19.4	18.1	18.9	15.6
5	11.5	9.0	10.9	9.5	11.9	9.6	12.9	10.1	19.0	17.6	19.4	16.5
6	10.1	8.2	10.4	8.7	12.6	10.9	14.6	11.1	20.4	17.6	18.8	16.2
7	9.5	6.9	9.6	8.1	11.4	9.7	16.0	12.4	19.7	17.7	18.9	16.1
8	10.2	6.4	8.9	7.5	11.1	8.9	17.1	13.8	19.0	17.8	18.2	15.0
9	11.2	7.4	11.4	7.8	12.6	9.7	16.8	13.8	20.3	17.0	18.6	15.7
10	11.9	8.7	12.4	9.1	14.0	10.2	17.4	14.0	21.1	18.3	19.0	15.9
11	11.8	8.6	13.7	10.6	14.7	12.2	17.9	14.7	21.1	18.9	19.0	15.5
12	10.7	8.8	14.3	11.4	14.8	12.3	17.6	14.9	20.2	18.4	17.8	15.2
13	10.1	7.4	13.9	11.7	14.5	12.2	17.7	14.8	20.4	17.7	16.7	14.9
14	10.6	7.0	13.3	11.7	14.3	11.9	17.7	14.4	19.3	17.8	15.5	12.8
15	11.6	7.8	13.0	10.9	14.0	12.1	18.1	14.5	19.4	16.7	15.3	12.2
16	11.7	9.1	12.5	11.0	13.4	12.0	18.2	14.9	19.5	16.5	15.4	12.9
17	11.4	8.1	11.2	9.7	12.9	11.7	18.4	14.9	18.9	16.8	16.2	13.1
18	11.8	9.8	11.2	9.0	12.0	10.8	18.3	15.1	20.1	16.2	14.7	13.5
19	10.4	8.0	11.2	9.7	13.1	10.3	18.2	15.1	19.6	17.2	15.7	12.9
20	11.8	7.9	11.9	10.1	14.5	11.5	18.8	15.9	20.1	17.1	15.9	12.3
21	12.0	8.8	12.4	10.7	14.5	12.6	18.4	16.0	19.2	17.4	16.3	12.9
22	12.6	9.9	12.0	10.1	14.1	12.1	17.7	15.6	20.1	17.3	16.8	13.2
23	13.4	10.8	11.5	9.3	14.1	12.2	17.0	15.7	20.1	16.7	16.7	13.6
24	11.5	10.1	11.7	10.0	13.5	11.2	17.8	15.0	20.6	17.5	15.0	12.5
25	12.3	8.8	12.3	9.9	13.9	11.0	18.2	15.5	19.4	17.7	15.3	11.9
26	13.0	10.4	11.9	10.9	14.8	11.8	18.7	16.3	20.4	17.2	15.1	11.6
27	14.7	11.8	11.2	10.3	15.2	12.5	19.4	16.6	19.5	17.9	15.1	11.6
28	14.5	12.4	10.8	9.6	14.8	12.8	19.7	16.9	20.4	17.2	15.3	11.6
29	13.2	11.3	12.3	10.0	15.4	12.7	19.7	17.6	20.0	17.5	15.4	11.7
30	12.0	10.6	12.5	10.3	15.4	13.4	20.9	18.1	20.3	17.4	15.0	11.7
31	---	---	12.5	11.0	---	---	21.1	19.1	19.9	17.5	---	---
MONTH	14.7	6.4	14.3	7.5	15.4	8.9	21.1	10.1	21.4	16.2	19.6	11.6

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 4.0 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 sea level, from topographic map. Prior to Aug. 27, 1936, nonrecording gage.

REMARKS.--Estimated daily discharges: Dec. 6-20, Dec. 27 to Jan. 9, Feb. 3-4, Mar. 19-25, and Apr. 27-28. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	106	146	111	85	89	82	182	760	2600	478	109	148
2	118	174	107	85	90	79	295	756	2390	435	107	159
3	100	143	108	85	86	77	241	833	2220	411	102	160
4	99	116	109	90	80	73	207	1090	1630	409	102	159
5	99	118	111	90	73	79	216	1110	1420	423	109	160
6	102	120	105	90	76	84	291	718	1580	387	110	163
7	100	118	100	85	85	87	255	747	1680	318	106	165
8	106	119	100	85	87	105	178	749	1250	266	141	174
9	115	119	100	90	111	113	176	527	1020	241	152	160
10	116	122	105	93	114	121	192	490	811	217	128	152
11	116	124	105	94	99	134	197	707	723	202	134	151
12	115	110	105	85	92	103	239	1050	1020	205	129	149
13	114	118	105	88	79	81	252	1420	1470	192	123	198
14	117	120	105	91	71	94	224	1710	1700	167	122	177
15	117	126	100	87	80	117	196	1700	1830	155	138	173
16	113	130	100	86	80	119	194	2200	2030	148	123	173
17	113	133	100	89	82	110	196	2450	2170	138	112	172
18	111	134	100	91	75	132	232	2260	1450	123	109	171
19	113	136	100	92	146	140	298	2030	1240	120	104	190
20	109	152	100	94	342	145	255	2020	1280	119	106	176
21	109	139	97	93	121	150	279	2260	1280	113	132	166
22	108	120	97	98	82	150	432	2580	1200	112	211	161
23	108	131	88	100	86	160	678	2320	1030	118	147	159
24	110	120	92	86	94	170	822	2310	889	132	138	156
25	117	110	96	94	99	180	492	2110	733	131	134	155
26	133	105	96	99	92	199	533	2260	662	125	167	151
27	118	115	90	101	80	231	750	2550	617	117	162	146
28	115	125	85	98	82	382	1000	3020	616	120	157	147
29	123	114	80	94	---	311	1040	2680	564	116	156	146
30	117	104	75	89	---	291	1030	2530	551	121	153	141
31	256	---	80	87	---	203	---	2550	---	113	144	---
TOTAL	3613	3761	3052	2814	2773	4502	11572	52497	39656	6472	4067	4858
MEAN	117	125	98.5	90.8	99.0	145	386	1693	1322	209	131	162
MAX	256	174	111	101	342	382	1040	3020	2600	478	211	198
MIN	99	104	75	85	71	73	176	490	551	112	102	141
AC-FT	7170	7460	6050	5580	5500	8930	22950	104100	78660	12840	8070	9640

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1993, BY WATER YEAR (WY)

MEAN	111	101	85.3	76.1	81.1	103	241	668	498	114	77.1	90.2
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1936 - 1993	
ANNUAL TOTAL	52660		139637			
ANNUAL MEAN	144		383		188	
HIGHEST ANNUAL MEAN					542	1983
LOWEST ANNUAL MEAN					48.8	1977
HIGHEST DAILY MEAN	1970	May 27	3020	May 28	4100	Jun 25 1983
LOWEST DAILY MEAN	[a]45	Jan 1	71	Feb 14	8.2	Aug 15 1977
ANNUAL SEVEN-DAY MINIMUM	45	Jan 1	79	Feb 27	9.1	Aug 10 1977
INSTANTANEOUS PEAK FLOW			3290	May 28	5580	Jun 15,1973
INSTANTANEOUS PEAK STAGE			6.92	May 28	[b]7.99	Jun 15,1973
ANNUAL RUNOFF (AC-FT)	104500		277000		136300	
10 PERCENT EXCEEDS	259		1220		420	
50 PERCENT EXCEEDS	101		131		94	
90 PERCENT EXCEEDS	65		87		45	

a-Also occurred Jan 2-5.
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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Apr. 24-27, June 7-9, July 27-31, Aug. 1-3, 18. Records good except for estimated daily discharges, which are poor. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	633	1120	1560	1620	1370	1500	2460	5100	24000	12800	2890	1230
2	614	1090	1570	1540	1440	1460	2560	4730	24100	11900	2850	1310
3	568	1200	1690	1550	1450	1500	2630	4610	23900	11600	2500	1330
4	541	1310	1620	1410	1440	1430	2500	5220	20900	11500	2390	1230
5	519	1550	1610	1180	1380	1620	2410	6360	17400	10500	2240	1130
6	509	1810	1570	1070	1320	1520	2920	7050	15700	8970	2160	1220
7	499	1770	1540	1230	1330	1670	2820	6360	14000	7800	2110	1270
8	521	1770	1410	1530	1410	1740	2460	6140	13000	7370	2010	1330
9	572	1800	1430	1740	1650	1690	2290	5340	12000	7400	2030	1450
10	578	1830	1430	1790	1770	2140	2180	4940	10300	7500	2040	1410
11	614	1860	1570	1770	1690	1890	2200	5150	9570	7620	2000	1270
12	626	1810	1620	1580	1560	1850	2040	6260	10600	7690	2190	1160
13	610	1720	1580	1380	1520	1680	2030	8280	12700	7720	1950	1230
14	600	1750	1470	1410	1430	1580	1960	10500	15300	7560	1760	1440
15	595	1790	1360	1480	1330	1800	1860	12800	17300	7440	1660	1560
16	571	1790	1380	1550	1370	2040	1800	15800	18800	7320	1550	1540
17	540	1800	1390	1580	1410	1990	1790	18900	19800	6910	1460	1510
18	540	1810	1390	1580	1430	2190	1850	19500	19500	6630	1250	1500
19	538	1700	1340	1570	1650	2250	2010	18700	17400	6280	1210	1490
20	522	1790	1260	1510	2440	2100	1880	18600	15800	5220	1140	1410
21	473	1820	1130	1480	2080	1970	1790	20900	15500	4790	1230	1320
22	485	1710	1110	1460	1560	1940	1970	23000	15900	4410	1680	1280
23	506	1700	1190	1460	1420	1950	2400	22500	16100	4080	1890	1230
24	492	1710	1290	1360	1510	1980	2500	20700	15600	3870	1710	1160
25	505	1670	1260	1250	1620	2100	2800	19700	14100	3790	1270	1150
26	700	1510	1170	1240	1580	2270	3000	20300	13100	3490	1290	1140
27	732	1410	1150	1320	1560	2490	3300	22800	13200	3440	1470	1120
28	754	1320	1230	1370	1500	3420	4070	25600	13400	3090	1550	1080
29	800	1420	1460	1300	---	3090	4590	25900	13000	3110	1430	1080
30	894	1490	1620	1290	---	2960	5140	23900	12900	3010	1320	1040
31	1820	---	1700	1320	---	2650	---	23300	---	2950	1210	---
TOTAL	19471	48830	44100	44920	43220	62460	76210	438940	474870	207760	55440	38620
MEAN	628	1628	1423	1449	1544	2015	2540	14160	15830	6702	1788	1287
MAX	1820	1860	1700	1790	2440	3420	5140	25900	24100	12800	2890	1560
MIN	473	1090	1110	1070	1320	1430	1790	4610	9570	2950	1140	1040
AC-FT	38620	96850	87470	89100	85730	123900	151200	870600	941900	412100	110000	76600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 1993, BY WATER YEAR (WY)

MEAN	673	1690	1378	1369	1439	1667	1821	7940	9160	3355	1136	1023
MAX	854	1918	1502	1449	1544	2015	2540	14160	15830	6702	1788	1287
(WY)	1992	1992	1992	1993	1993	1993	1993	1993	1993	1993	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1991 - 1993	
ANNUAL TOTAL	627502		1554841			
ANNUAL MEAN	1714		4260		2723	
HIGHEST ANNUAL MEAN					4260	1993
LOWEST ANNUAL MEAN					1764	1992
HIGHEST DAILY MEAN	7560	May 28	25900	May 29	25900	May 29 1993
LOWEST DAILY MEAN	473	Oct 21	473	Oct 21	448	Oct 2 1990
ANNUAL SEVEN-DAY MINIMUM	503	Oct 19	503	Oct 19	503	Oct 19 1992
INSTANTANEOUS PEAK FLOW			27400	May 29	27400	May 29 1993
INSTANTANEOUS PEAK STAGE			11.27	May 29	11.27	May 29 1993
ANNUAL RUNOFF (AC-FT)	1245000		3084000		1972000	
10 PERCENT EXCEEDS	3450		13300		6270	
50 PERCENT EXCEEDS	1460		1710		1470	
90 PERCENT EXCEEDS	660		1120		695	

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 September 1934, October 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 sea level, from topographic map. June 1929 to September 1934 water-stage recorder at different datum at site flooded by waters of Taylor Park Reservoir since 1937.

REMARKS.--Estimated daily discharges: Oct. 26 to Jan. 7, Jan. 11-15, Jan. 21 to Feb. 1, Feb. 3-7, 13-17, Feb. 21 to Mar. 10, and Mar. 13-15. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	42	38	31	36	35	40	103	680	589	124	75
2	50	40	39	31	36	35	40	100	663	561	118	85
3	49	38	38	30	37	35	38	104	678	557	114	75
4	47	37	37	29	36	35	41	126	512	615	111	69
5	46	37	35	30	35	35	45	133	477	458	116	69
6	46	37	36	33	36	35	43	109	494	338	111	73
7	45	37	35	35	37	35	37	107	516	323	103	89
8	40	37	35	36	38	35	41	103	403	342	115	108
9	46	38	38	35	38	37	44	101	359	322	134	81
10	45	39	40	35	38	39	45	114	351	318	116	71
11	44	38	39	35	37	39	43	159	399	320	122	68
12	44	38	38	33	36	37	40	220	495	313	105	65
13	44	38	38	34	34	37	40	294	613	303	97	82
14	44	39	42	35	34	37	39	349	696	275	109	85
15	45	40	44	38	35	38	40	393	761	259	104	78
16	44	40	42	38	36	41	37	418	812	250	92	74
17	44	38	38	38	38	39	37	458	778	232	84	74
18	44	37	37	38	38	38	41	439	709	218	81	71
19	41	39	37	37	38	39	38	455	657	201	78	69
20	42	38	37	36	38	42	40	501	675	193	79	69
21	42	37	37	35	37	39	38	504	750	191	79	66
22	42	39	37	34	35	39	42	544	749	179	111	64
23	42	38	36	34	36	39	51	481	728	169	96	63
24	43	37	35	33	37	41	59	509	674	166	78	61
25	42	35	34	34	37	41	51	536	628	158	75	61
26	40	35	35	36	39	43	51	586	655	154	78	61
27	39	35	34	38	38	43	70	588	643	146	87	61
28	38	37	33	37	36	40	88	570	632	138	80	61
29	39	39	32	36	---	41	97	535	619	135	75	60
30	42	40	31	36	---	41	107	593	645	135	77	60
31	44	---	30	35	---	41	---	652	---	130	75	---
TOTAL	1353	1139	1137	1075	1026	1191	1463	10884	18451	8688	3024	2148
MEAN	43.6	38.0	36.7	34.7	36.6	38.4	48.8	351	615	280	97.5	71.6
MAX	50	42	44	38	39	43	107	652	812	615	134	108
MIN	38	35	30	29	34	35	37	100	351	130	75	60
AC-FT	2680	2260	2260	2130	2040	2360	2900	21590	36600	17230	6000	4260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

MEAN	47.6	41.9	37.3	33.9	33.7	39.2	75.0	231	349	144	73.1	56.4
MAX	59.5	50.9	41.2	39.0	37.6	47.0	117	351	615	280	97.5	71.6
(WY)	1988	1991	1988	1988	1988	1988	1989	1993	1993	1993	1993	1993
MIN	39.6	34.5	30.0	28.6	28.2	34.4	48.8	162	195	98.8	55.3	46.5
(WY)	1989	1989	1989	1990	1990	1992	1993	1990	1992	1988	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1988 - 1993	
ANNUAL TOTAL	28899		51579			
ANNUAL MEAN	79.0		141		97.0	
HIGHEST ANNUAL MEAN					141	1993
LOWEST ANNUAL MEAN					79.4	1992
HIGHEST DAILY MEAN	297	May 21	812	Jun 16	812	Jun 16 1993
LOWEST DAILY MEAN	27	Jan 11	29	Jan 4	[a]24	Feb 7 1989
ANNUAL SEVEN-DAY MINIMUM	28	Jan 9	30	Dec 30	26	Feb 3 1989
INSTANTANEOUS PEAK FLOW			904	Jun 17	[b]904	Jun 17 1993
INSTANTANEOUS PEAK STAGE			3.56	Jun 17	3.56	Jun 17 1993
ANNUAL RUNOFF (AC-FT)	57320		102300		70260	
10 PERCENT EXCEEDS	192		506		230	
50 PERCENT EXCEEDS	47		44		49	
90 PERCENT EXCEEDS	30		35		33	

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.

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 sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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, 96,700 acre-ft, July 14-19, elevation, 9,325.20 ft; minimum contents, 53,300 acre-ft, May 25, elevation, 9298.60 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	9,309.70	69,400	-
Oct. 31	9,305.50	62,970	-6,430
Nov. 30		[a]70,000	+7,030
Dec. 31		[a]63,850	-6,150
CAL YR 1992	-	-	-12,050
Jan. 31		[a]71,000	+7,150
Feb. 28		[a]69,000	-2,000
Mar. 31		[a]67,000	-2,000
Apr. 30		[a]65,000	-2,000
May 31	9,304.40	61,400	-3,600
June 30	9,322.50	91,600	+30,200
July 31	9,323.90	94,200	+2,600
Aug. 31	9,319.90	86,800	-7,400
Sept. 30	9,316.00	79,800	-7,000
WTR YR 1993	-	-	+10,400

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 mi².

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 sea level, (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. 4 to Mar. 25. Records good except for estimated daily discharges, which are fair. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	96	95	95	98	100	116	300	411	510	323	287
2	251	95	95	95	98	100	190	301	427	508	323	287
3	250	95	95	95	98	100	237	299	476	511	324	286
4	248	96	95	95	98	100	240	300	497	510	324	286
5	248	96	95	95	98	100	245	300	499	510	323	286
6	248	96	94	95	98	100	248	301	499	509	323	286
7	248	96	94	95	98	100	247	301	500	485	324	285
8	249	96	94	95	98	100	246	296	499	464	322	286
9	254	96	94	95	98	100	247	297	500	432	323	284
10	255	96	94	95	98	100	248	296	500	386	323	284
11	255	96	94	95	98	100	250	296	501	388	323	285
12	253	95	94	95	98	100	249	297	499	388	321	284
13	255	95	93	95	98	102	249	297	502	389	321	285
14	255	95	93	95	100	102	248	298	501	388	322	284
15	255	95	93	96	100	102	248	300	508	389	322	285
16	255	95	93	96	100	102	247	301	507	390	322	285
17	255	95	93	96	100	102	249	302	509	389	321	285
18	255	95	93	96	100	102	247	305	510	388	322	284
19	255	95	93	96	100	102	247	306	509	389	322	286
20	255	95	94	96	100	103	247	306	511	388	304	285
21	255	95	94	96	100	103	246	309	512	388	290	285
22	258	95	94	96	100	103	265	310	516	389	291	287
23	258	95	94	96	100	103	292	311	517	389	290	287
24	201	95	94	97	100	103	296	311	517	389	289	287
25	111	95	94	97	100	103	295	314	519	386	289	288
26	91	95	94	97	100	104	295	326	519	388	288	289
27	91	95	94	97	100	103	295	374	520	392	287	289
28	93	95	94	97	100	104	301	402	520	397	288	290
29	93	95	94	97	---	104	300	405	521	397	288	291
30	91	95	94	98	---	104	301	410	517	369	287	291
31	95	---	95	98	---	104	---	409	---	323	287	---
TOTAL	6687	2859	2913	2972	2774	3155	7631	9880	15043	12918	9606	8589
MEAN	216	95.3	94.0	95.9	99.1	102	254	319	501	417	310	286
MAX	258	96	95	98	100	104	301	410	521	511	324	291
MIN	91	95	93	95	98	100	116	296	411	323	287	284
AC-FT	13260	5670	5780	5890	5500	6260	15140	19600	29840	25620	19050	17040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

MEAN	191	95.5	72.1	59.7	57.8	85.2	151	169	318	384	364	408
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1939 - 1993	
ANNUAL TOTAL	61604		85027			
ANNUAL MEAN	168		233		197	
HIGHEST ANNUAL MEAN					317	1986
LOWEST ANNUAL MEAN					94.8	1941
HIGHEST DAILY MEAN	294	Jun 17	521	Jun 29	2180 [b]	Jul 1 1957
LOWEST DAILY MEAN	91 [a]	Oct 26	91 [a]	Oct 26	.00 [b]	May 1 1940
ANNUAL SEVEN-DAY MINIMUM	93	Oct 26	93	Oct 26	.00	May 1 1940
INSTANTANEOUS PEAK FLOW			536	Jun 23	2270	Jul 1 1957
INSTANTANEOUS PEAK STAGE			4.74	Jun 23	7.56	Jul 1 1957
ANNUAL RUNOFF (AC-FT)	122200		168700		142500	
10 PERCENT EXCEEDS	255		445		484	
50 PERCENT EXCEEDS	174		249		107	
90 PERCENT EXCEEDS	95		95		14	

a-Also occurred Oct 27 and 30.
b-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 sea level. Prior to Apr. 16, 1922, nonrecording gage at same site and datum.

REMARKS.--Estimated daily discharges: Nov. 2 to Mar. 8. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	287	158	132	115	122	138	160	453	1260	931	494	362
2	284	150	132	115	128	138	201	433	1290	897	485	364
3	284	146	129	110	130	140	267	434	1300	884	477	364
4	284	140	125	108	128	140	270	467	1210	890	471	360
5	284	140	122	110	122	142	273	496	1140	866	467	360
6	284	140	122	115	124	150	281	468	1110	838	466	360
7	284	140	122	118	130	155	281	447	1160	812	462	367
8	284	145	118	118	133	160	282	417	1080	764	462	377
9	284	148	118	118	132	163	284	397	1030	760	460	368
10	284	145	122	118	130	160	284	399	1010	725	471	357
11	284	142	125	118	126	159	284	438	1010	712	463	356
12	284	138	125	118	122	158	285	499	1060	702	448	354
13	284	138	123	115	119	163	288	592	1150	701	443	350
14	284	142	120	110	120	162	288	666	1220	688	444	356
15	284	148	123	115	126	155	286	718	1270	675	444	358
16	284	148	120	117	132	155	284	763	1320	666	440	352
17	284	142	120	117	132	155	284	834	1310	662	430	351
18	284	142	118	118	130	155	284	838	1230	651	429	351
19	284	142	115	117	132	155	284	831	1160	636	418	351
20	284	140	115	115	134	153	287	849	1120	625	408	350
21	286	138	115	112	140	152	293	889	1130	622	385	347
22	288	132	118	110	146	154	305	895	1120	613	396	347
23	288	130	115	110	150	156	346	855	1110	610	393	347
24	268	133	115	110	150	158	364	858	1080	602	380	341
25	195	133	115	110	146	160	356	908	1030	599	375	339
26	162	128	120	118	140	161	364	996	1010	591	368	339
27	160	126	118	120	140	165	385	1150	1000	580	368	339
28	160	132	118	116	140	164	426	1150	988	577	368	339
29	160	134	115	115	---	160	455	1100	976	575	368	341
30	160	132	115	115	---	160	473	1110	969	561	368	343
31	160	---	115	117	---	160	---	1180	---	502	364	---
TOTAL	7970	4192	3725	3558	3704	4806	9204	22530	33853	21517	13215	10590
MEAN	257	140	120	115	132	155	307	727	1128	694	426	353
MAX	288	158	132	120	150	165	473	1180	1320	931	494	377
MIN	160	126	115	108	119	138	160	397	969	502	364	339
AC-FT	15810	8310	7390	7060	7350	9530	18260	44690	67150	42680	26210	21010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1993, BY WATER YEAR (WY)

MEAN	244	156	120	108	107	133	249	598	923	562	415	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1910 - 1993	
ANNUAL TOTAL	88556		138864			
ANNUAL MEAN	242		380		335	
HIGHEST ANNUAL MEAN					545	1984
LOWEST ANNUAL MEAN					155	1977
HIGHEST DAILY MEAN	500	May 27	1320	Jun 16	3600	Jun 9 1920
LOWEST DAILY MEAN	[a]115	Dec 19	108	Jan 4	[b]24	Mar 12 1938
ANNUAL SEVEN-DAY MINIMUM	115	Dec 19	112	Jan 19	27	Feb 19 1941
INSTANTANEOUS PEAK FLOW			1360	Jun 16	[c]3760	Jun 9 1920
INSTANTANEOUS PEAK STAGE			[d]3.69	Jun 16	[e]5.00	Jun 9 1920
ANNUAL RUNOFF (AC-FT)	175700		275400		242800	
10 PERCENT EXCEEDS	392		946		742	
50 PERCENT EXCEEDS	266		284		195	
90 PERCENT EXCEEDS	127		118		80	

a-Also occurred Dec 20, 21, 23-25, and 29-31.
b-Minimum discharge observed for period of record, before storage began in Taylor Park Reservoir, 50 ft³/s for several days in Aug 1913, gage height, 1.2 ft.
c-From rating curve extended above 2300 ft³/s.
d-Maximum gage height, 4.13 ft, Jan 29, backwater from ice.
e-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 sea level. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, nonrecording gages at bridge 200 ft downstream, at different datums. Oct. 1, 1934, to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 21 to Feb. 22, May 16-18, and June 15-23. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	91	91	57	52	64	80	602	2380	1830	462	267
2	84	94	75	55	53	65	87	624	2330	1750	441	272
3	82	91	78	48	51	66	83	694	2170	1730	403	247
4	82	93	75	43	49	75	82	806	1740	1800	381	234
5	83	92	77	47	47	79	89	863	1550	1400	395	230
6	83	91	75	54	48	75	88	726	1580	1140	391	232
7	82	87	69	54	49	65	79	634	1680	1100	358	256
8	79	89	82	53	49	65	75	572	1430	1210	429	290
9	82	92	77	52	49	65	82	531	1250	1160	500	250
10	81	91	74	52	48	64	88	569	1180	1170	442	234
11	79	89	71	50	47	66	84	739	1230	1210	445	231
12	80	73	72	46	46	63	87	992	1360	1260	417	220
13	78	84	70	52	45	65	87	1270	1680	1220	394	269
14	74	80	62	51	45	64	88	1550	1950	1120	386	273
15	73	82	65	50	47	65	88	1820	2060	1070	352	248
16	71	82	69	51	49	64	96	1980	2060	1030	332	236
17	75	87	59	52	48	63	95	2000	2250	949	321	230
18	81	92	64	50	50	66	105	2050	2100	904	307	218
19	81	85	62	50	54	64	104	2100	1930	808	303	212
20	81	91	57	50	56	63	102	2060	1860	740	305	202
21	81	81	52	50	52	66	112	2220	1910	674	347	186
22	81	71	58	48	52	61	131	2390	2050	605	431	177
23	81	89	59	46	56	65	168	2150	2170	568	365	168
24	83	77	61	46	58	67	193	2130	2150	554	316	161
25	83	65	68	48	58	72	175	2160	1950	487	293	156
26	85	69	68	51	60	86	196	2360	1930	459	324	154
27	84	72	62	48	62	97	266	2400	1930	454	343	150
28	82	85	56	46	63	90	399	2570	1930	465	298	149
29	86	89	64	47	---	88	533	2260	1860	469	278	144
30	87	78	62	47	---	89	635	2240	2000	471	268	143
31	102	---	59	49	---	81	---	2290	---	477	266	---
TOTAL	2520	2532	2093	1543	1443	2188	4577	48352	55650	30284	11293	6439
MEAN	81.3	84.4	67.5	49.8	51.5	70.6	153	1560	1855	977	364	215
MAX	102	94	91	57	63	97	635	2570	2380	1830	500	290
MIN	71	65	52	43	45	61	75	531	1180	454	266	143
AC-FT	5000	5020	4150	3060	2860	4340	9080	95910	110400	60070	22400	12770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

MEAN	116	95.1	73.8	62.4	59.4	67.1	248	1019	1371	559	232	129
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	83541		168914			
ANNUAL MEAN	228		463		337	
HIGHEST ANNUAL MEAN					573	1957
LOWEST ANNUAL MEAN					104	1977
HIGHEST DAILY MEAN	1120	May 27	2570	May 28	5000	Jun 12 1918
LOWEST DAILY MEAN	[a]50	Feb 20	43	Jan 4	19	Aug 13 1913
ANNUAL SEVEN-DAY MINIMUM	52	Feb 15	47	Feb 9	[b]21	Jan 15 1940
INSTANTANEOUS PEAK FLOW			2880	May 28	[b]6500	Jun 15 1921
INSTANTANEOUS PEAK STAGE			6.88	May 28	[c]6.60	Jun 15 1921
ANNUAL RUNOFF (AC-FT)	165700		335000		244000	
10 PERCENT EXCEEDS	689		1840		1050	
50 PERCENT EXCEEDS	91		89		107	
90 PERCENT EXCEEDS	57		51		55	

a-Also occurred Mar 10 and 25.
b-Site and datum then in use, from rating curve extended above 3000 ft³/s.
c-Maximum gage height 8.03 ft, May 26, 1984, present datum.

09112500 EAST RIVER AT ALMONT, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD--October 1990 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT									
27...	0745	85	321	8.4	4.5	9.4	K6	<1	<1
APR									
09...	0740	79	291	8.2	1.5	10.5	K5	K4	<1
JUN									
16...	1435	2190	173	8.0	12.0	7.0	28	51	<1
AUG									
13...	0820	388	261	8.2	9.5	8.0	70	50	<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)
OCT									
27...	<1	50	<1	10	<10	<0.1	<1	[a]<0.2	<10
APR									
09...	<1	90	<1	20	<10	<0.1	<1	[a]<0.2	20
JUN									
16...	<1	6400	<1	50	<10	<0.1	<1	[a]<0.2	10
AUG									
13...	<1	110	<1	10	<10	<0.1	<1	<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
07...	1015	81.6	334	6.0
NOV				
03...	1220	81.8	311	3.5
DEC				
17...	1535	64.4	319	0.0
FEB				
23...	1200	53.0	308	5.0
APR				
16...	0910	95.9	314	4.0
MAY				
12...	1410	898	221	8.5
18...	1200	2020	223	6.5
JUN				
03...	1010	2260	197	5.5
JUL				
01...	1340	1860	175	10.5
28...	1245	502	256	13.5
AUG				
26...	1000	311	286	11.0

a-Analysis based on preliminary method.
K-Based on non-ideal colony count.

09113100 CASTLE CREEK ABOVE MOUTH NEAR BALDWIN, CO

LOCATION.--Lat 38°46'09", long 107°05'02", T.15 S., R.87 W., Gunnison County, Hydrologic Unit 14020002, on left bank 1.5 mi upstream from mouth, and 25 mi northwest of Gunnison.

DRAINAGE AREA.--22.4 mi^2.

PERIOD OF RECORD.--October 1992 to September 1993.

GAGE.--Water-stage recorder. Elevation of gage is 8820 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 14. Records good except for estimated daily discharges and discharges above 100 ft^3/s, which are poor. Diversions for irrigation of a few 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	5.2	5.6	5.6	5.5	4.8	5.1	25	204	198	53	21
2	6.0	5.2	5.4	5.5	5.8	4.7	5.1	25	191	170	52	24
3	6.0	6.6	5.7	5.2	5.7	4.8	4.9	28	174	179	50	20
4	5.6	5.8	5.9	4.7	5.5	4.8	5.0	31	148	152	48	18
5	5.7	5.4	6.0	4.4	5.4	4.8	5.1	31	137	125	57	18
6	5.6	5.4	5.8	4.7	5.3	4.9	5.0	26	153	110	48	17
7	7.0	5.4	5.5	5.1	5.4	5.1	4.8	23	150	109	45	19
8	5.9	5.4	5.1	5.4	5.6	5.4	4.6	21	126	111	63	21
9	6.4	5.4	5.3	5.4	5.6	5.3	4.6	20	110	112	53	16
10	6.0	5.4	5.8	5.2	5.4	5.2	4.7	22	110	115	46	15
11	5.9	5.7	6.1	5.0	5.2	5.0	4.9	33	122	121	43	14
12	5.7	5.6	6.0	4.9	5.1	4.9	5.0	51	147	126	39	14
13	5.5	5.5	5.6	5.1	5.2	4.9	5.0	75	172	124	39	28
14	5.3	5.4	5.2	5.3	5.4	4.9	5.1	91	202	120	43	20
15	5.3	5.4	5.2	5.4	5.3	4.9	5.0	118	213	119	35	16
16	5.2	5.5	5.2	5.3	5.4	4.9	5.1	129	223	111	31	15
17	5.2	5.7	5.2	5.2	5.5	4.9	6.8	136	239	105	29	14
18	4.9	5.6	5.3	5.5	5.5	5.1	6.3	135	232	98	26	14
19	5.4	5.7	5.5	5.6	5.3	5.2	6.0	120	217	91	25	14
20	4.8	5.6	5.1	5.4	5.0	5.2	6.3	129	222	87	32	12
21	4.9	5.4	4.8	5.3	5.0	5.3	6.3	132	234	80	57	11
22	5.0	5.3	5.2	5.0	4.9	5.6	9.0	124	246	75	68	11
23	5.0	5.1	5.4	4.9	5.1	6.0	12	134	238	70	42	10
24	4.9	5.2	5.3	5.0	5.3	6.3	11	160	225	66	33	9.7
25	5.0	5.7	5.3	5.1	5.3	6.6	11	182	217	62	28	9.4
26	5.4	5.5	5.7	5.3	5.1	7.1	11	169	220	61	41	9.4
27	5.0	5.4	5.6	5.5	5.0	7.4	15	199	227	57	33	9.3
28	5.3	5.2	5.6	5.2	4.9	7.1	20	230	222	57	27	9.0
29	6.5	5.0	5.3	5.0	---	6.6	25	201	225	54	25	8.8
30	6.1	5.4	5.4	5.2	---	6.2	26	191	228	55	23	8.5
31	8.7	---	5.6	5.3	---	5.6	---	198	---	57	21	---
TOTAL	175.4	164.1	169.7	160.7	148.7	169.5	250.7	3189	5774	3177	1255	446.1
MEAN	5.66	5.47	5.47	5.18	5.31	5.47	8.36	103	192	102	40.5	14.9
MAX	8.7	6.6	6.1	5.6	5.8	7.4	26	230	246	198	68	28
MIN	4.8	5.0	4.8	4.4	4.9	4.7	4.6	20	110	54	21	8.5
AC-FT	348	325	337	319	295	336	497	6330	11450	6300	2490	885

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 1993, BY WATER YEAR (WY)

MEAN	5.66	5.47	5.47	5.18	5.31	5.47	8.36	103	192	102	40.5	14.9
MAX	5.66	5.47	5.47	5.18	5.31	5.47	8.36	103	192	102	40.5	14.9
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993
MIN	5.66	5.47	5.47	5.18	5.31	5.47	8.36	103	192	102	40.5	14.9
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993

SUMMARY STATISTICS FOR 1993 WATER YEAR

ANNUAL TOTAL	15079.9	
ANNUAL MEAN	41.3	
HIGHEST DAILY MEAN	246	Jun 22
LOWEST DAILY MEAN	4.4	Jan 5
ANNUAL SEVEN-DAY MINIMUM	4.8	Apr 6
INSTANTANEOUS PEAK FLOW	429	May 27
INSTANTANEOUS PEAK STAGE	5.33	May 27
ANNUAL RUNOFF (AC-FT)	29910	
10 PERCENT EXCEEDS	147	
50 PERCENT EXCEEDS	6.0	
90 PERCENT EXCEEDS	5.0	

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 sea level, 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: Dec. 12-14, and Dec. 18 to Feb. 20. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	319	295	285	248	230	252	304	1380	4160	2880	1140	726
2	319	268	285	242	243	250	336	1370	4060	2790	1110	742
3	319	272	288	232	240	239	416	1470	3950	2740	1070	723
4	319	279	288	210	230	241	455	1620	3380	2920	1030	694
5	319	301	285	200	220	247	464	1740	3010	2480	1050	672
6	331	322	285	215	222	253	475	1530	2950	2140	1070	670
7	340	324	262	240	230	253	457	1400	3130	2010	1010	689
8	340	327	275	240	238	257	452	1300	2850	2070	1050	764
9	345	340	277	235	243	254	458	1200	2570	2040	1220	696
10	354	336	285	222	245	259	480	1230	2440	2000	1150	643
11	359	338	280	220	240	253	467	1480	2440	2010	1120	593
12	368	313	270	230	238	244	477	1840	2570	2080	1080	552
13	368	312	250	240	235	240	471	2270	3010	2060	1040	610
14	368	316	240	232	228	252	463	2710	3420	1960	1090	685
15	362	318	240	236	218	257	460	3160	3810	1920	1050	637
16	361	311	246	236	212	240	462	3470	3800	1890	987	617
17	361	314	249	232	215	240	468	3820	4130	1800	933	607
18	364	326	248	230	222	240	470	3700	3790	1730	912	595
19	368	308	240	222	225	240	480	3650	3480	1620	902	584
20	380	319	225	218	220	240	477	3560	3300	1560	879	580
21	418	312	230	216	215	240	496	3820	3490	1500	894	561
22	424	287	250	210	215	240	537	3860	3530	1390	1090	541
23	424	298	250	210	217	240	646	3480	3550	1360	1010	529
24	418	296	240	210	222	245	764	3390	3390	1340	882	505
25	350	284	238	220	225	262	679	3470	3130	1270	842	505
26	302	279	250	232	225	277	714	3790	3020	1210	844	502
27	292	279	258	220	229	305	892	4000	3040	1200	899	497
28	292	283	252	215	240	305	1200	4300	3020	1180	820	497
29	292	333	248	215	---	307	1360	3930	2940	1170	786	496
30	292	284	248	218	---	319	1460	3950	3070	1200	750	482
31	308	---	250	220	---	305	---	4010	---	1140	726	---
TOTAL	10776	9174	8017	6966	6382	7996	17740	85900	98430	56660	30436	18194
MEAN	348	306	259	225	228	258	591	2771	3281	1828	982	606
MAX	424	340	288	248	245	319	1460	4300	4160	2920	1220	764
MIN	292	268	225	200	212	239	304	1200	2440	1140	726	482
AC-FT	21370	18200	15900	13820	12660	15860	35190	170400	195200	112400	60370	36090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

MEAN	399	299	235	209	201	249	610	1833	2510	1264	737	547
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	192117		356671			
ANNUAL MEAN	525		977		759	
HIGHEST ANNUAL MEAN					1246	1984
LOWEST ANNUAL MEAN					256	1977
HIGHEST DAILY MEAN	1790	May 27	4300	May 28	11400	Jun 11 1918
LOWEST DAILY MEAN	197	Mar 25	200	Jan 5	80	Dec 27 1962
ANNUAL SEVEN-DAY MINIMUM	203	Mar 20	215	Jan 19	95	Dec 25 1962
INSTANTANEOUS PEAK FLOW			4600	May 28	[a]11400	Jun 13 1918
INSTANTANEOUS PEAK STAGE			4.24	May 28	[b]6.74	Jul 1 1957
ANNUAL RUNOFF (AC-FT)	381100		707500		550200	
10 PERCENT EXCEEDS	1130		3030		1900	
50 PERCENT EXCEEDS	360		418		392	
90 PERCENT EXCEEDS	220		230		175	

a-Site and datum then in use, from rating curve extended above 5000 ft³/s, gage height, 4.05 ft.
b-Site and datum then in use.

09115500 TOMICHI CREEK AT SARGENTS, CO

LOCATION.--Lat 38°24'42", long 106°25'20", in SW¼SW¼ sec.21, T.48 N., R.5 E., Saguache County, Hydrologic Unit 14020003, on right bank 300 ft from U.S. Highway 50, 0.5 mi downstream from Marshall Creek, and 0.8 mi south of Sargents.

DRAINAGE AREA.-- 149 mi².

PERIOD OF RECORD.--October 1916 to September 1922, October 1937 to September 1972, October 1992 to September 1993. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1922(M). WRD Colo. 1967: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 8,416 ft above sea level, from topographic map. May 12 to Oct. 5, 1917, nonrecording gage. Oct. 6, 1917 to Sept. 30, 1922, water-stage recorder, at railroad bridge 1,000 ft upstream at different datum. Apr. 18, 1938 to Sept. 9, 1953, water-stage recorder at present site at datum 1.0 ft higher.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 15. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,900 acres upstream from station. Larkspur ditch diverts water upstream from station to Arkansas 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	34	30	29	31	27	38	146	562	132	47	39
2	33	28	31	29	32	27	40	124	564	124	45	43
3	32	30	30	29	31	27	38	132	539	117	44	38
4	32	30	29	27	30	28	40	154	476	126	46	37
5	32	30	29	25	29	29	43	168	439	121	49	37
6	33	29	28	27	31	30	47	152	414	108	45	36
7	34	30	27	29	32	32	45	142	403	100	44	39
8	33	30	29	29	32	34	42	130	352	93	44	40
9	34	31	29	29	32	33	38	118	322	87	44	37
10	34	32	30	29	31	33	38	117	298	84	44	35
11	33	30	29	28	30	35	39	143	277	81	40	36
12	33	28	28	27	30	33	43	187	274	85	39	33
13	33	29	28	26	29	31	42	244	291	85	40	38
14	32	30	28	28	28	30	42	288	306	78	49	41
15	32	30	29	30	28	31	45	325	320	72	43	37
16	32	30	30	29	30	32	42	376	325	69	41	35
17	32	30	30	29	30	33	50	469	311	65	42	35
18	31	30	29	30	29	35	59	524	291	59	40	37
19	31	30	29	31	30	35	52	498	264	58	39	37
20	32	29	27	30	31	35	52	488	252	58	43	36
21	36	29	29	29	30	36	67	517	261	65	44	35
22	32	28	29	29	29	39	88	531	251	60	50	33
23	31	30	30	28	28	43	100	518	232	56	44	33
24	31	29	30	27	30	46	87	514	215	54	39	32
25	31	28	30	28	30	48	78	515	196	51	38	31
26	39	28	32	30	29	50	107	574	186	48	40	31
27	36	27	32	31	28	47	139	625	178	48	43	31
28	34	29	31	30	28	44	163	603	165	48	53	31
29	36	30	29	29	---	41	176	573	150	44	45	30
30	35	29	29	29	---	40	176	552	143	45	48	30
31	37	---	30	30	---	37	---	551	---	47	44	---
TOTAL	1030	887	910	890	838	1101	2056	10998	9257	2368	1356	1063
MEAN	33.2	29.6	29.4	28.7	29.9	35.5	68.5	355	309	76.4	43.7	35.4
MAX	39	34	32	31	32	50	176	625	564	132	53	43
MIN	31	27	27	25	28	27	38	117	143	44	38	30
AC-FT	2040	1760	1800	1770	1660	2180	4080	21810	18360	4700	2690	2110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1917 - 1993, BY WATER YEAR (WY)

MEAN	31.2	27.4	23.3	21.4	21.8	27.2	68.6	200	199	64.0	39.6	29.0
MAX	48.9	36.8	30.7	34.0	34.9	50.3	139	382	588	255	128	59.5
(WY)	1971	1958	1962	1962	1962	1972	1962	1958	1957	1957	1957	1957
MIN	18.8	17.6	13.3	10.7	10.9	15.0	34.4	50.4	19.8	19.5	13.7	13.5
(WY)	1956	1967	1967	1967	1967	1970	1967	1954	1954	1940	1950	1950

SUMMARY STATISTICS	FOR 1993 WATER YEAR		WATER YEARS 1917 - 1993	
ANNUAL TOTAL	32754			
ANNUAL MEAN	89.7		62.8	
HIGHEST ANNUAL MEAN			122	1921
LOWEST ANNUAL MEAN			26.8	1967
HIGHEST DAILY MEAN	625	May 27	792	Jun 9 1921
LOWEST DAILY MEAN	25	Jan 5	6.0	Nov 16 1920
ANNUAL SEVEN-DAY MINIMUM	28	Feb 26	8.5	Sep 5 1959
INSTANTANEOUS PEAK FLOW	637	May 27	804	Jun 6 1957
INSTANTANEOUS PEAK STAGE	3.15	May 27	[a]3.66	Jun 6 1957
ANNUAL RUNOFF (AC-FT)	64970		45480	
10 PERCENT EXCEEDS	268		154	
50 PERCENT EXCEEDS	36		30	
90 PERCENT EXCEEDS	29		18	

a-Maximum gage height for period of record, 4.05 ft, Jun 16, 1917 and Jun 9, 1921, site and datum then in use.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 20 to Jan. 28, Feb. 25-27, Mar. 3-5, 7-10, 12-14, 19, 20, and 22-28. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	20	16	16	19	21	27	64	137	37	30	57
2	29	16	16	15	20	21	29	61	136	34	28	56
3	31	13	17	15	19	22	28	60	127	35	29	50
4	33	14	17	14	18	22	31	65	113	35	36	47
5	30	15	16	12	17	22	40	77	100	34	38	45
6	30	14	15	13	17	24	38	69	87	30	39	45
7	29	14	14	15	17	25	31	69	94	29	35	45
8	28	15	14	15	20	26	28	76	93	26	41	52
9	28	15	15	15	20	25	31	69	89	25	56	48
10	30	16	16	15	19	24	49	64	87	25	47	44
11	31	15	16	15	19	24	56	66	79	25	44	44
12	30	14	16	14	20	27	63	72	77	30	40	42
13	30	14	15	14	20	30	66	86	80	37	38	41
14	29	14	14	15	17	28	59	116	84	37	46	43
15	30	15	15	17	19	25	53	137	93	38	45	42
16	29	15	16	16	19	24	52	145	99	34	39	41
17	30	16	17	16	19	29	65	149	109	26	35	38
18	29	16	17	17	17	24	80	141	113	33	35	38
19	29	15	16	17	19	29	65	149	97	36	35	37
20	28	15	14	18	20	33	48	144	89	31	38	37
21	28	14	15	18	16	30	64	138	89	33	40	35
22	28	14	15	18	15	34	91	130	87	31	46	34
23	26	16	15	17	17	38	103	140	94	30	42	31
24	25	15	15	16	20	40	84	144	69	30	36	29
25	26	14	16	17	25	42	61	128	64	26	34	29
26	23	14	17	18	27	46	70	128	59	25	33	30
27	20	14	16	17	25	49	81	142	55	30	37	29
28	22	15	15	18	22	42	85	167	56	31	51	28
29	22	16	16	18	---	37	81	162	47	31	56	27
30	22	17	17	18	---	35	74	131	40	33	57	27
31	23	---	16	19	---	30	---	131	---	30	56	---
TOTAL	856	450	485	498	542	928	1733	3420	2643	967	1262	1191
MEAN	27.6	15.0	15.6	16.1	19.4	29.9	57.8	110	88.1	31.2	40.7	39.7
MAX	33	20	17	19	27	49	103	167	137	38	57	57
MIN	20	13	14	12	15	21	27	60	40	25	28	27
AC-FT	1700	893	962	988	1080	1840	3440	6780	5240	1920	2500	2360

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 1993, BY WATER YEAR (WY)

MEAN	38.7	32.1	24.3	21.4	22.2	32.2	57.9	94.9	102	55.8	67.1	45.7
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	15.0	10.3	11.1	10.5	12.5	27.9	18.4	21.5	21.1	34.7	16.8
(WY)	1990	1993	1982	1982	1982	1982	1990	1989	1989	1989	1989	1981

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1981 - 1993	
ANNUAL TOTAL	11537		14975			
ANNUAL MEAN	31.5		41.0		49.8	
HIGHEST ANNUAL MEAN					106	1984
LOWEST ANNUAL MEAN					26.2	1989
HIGHEST DAILY MEAN	131	Aug 24	167	May 28	954	May 23 1984
LOWEST DAILY MEAN	[a]12	Jan 3	12	Jan 5	8.4	Feb 7 1982
ANNUAL SEVEN-DAY MINIMUM	13	Jan 1	14	Jan 2	8.9	Feb 7 1982
INSTANTANEOUS PEAK FLOW			202	May 28	1120	May 23 1984
INSTANTANEOUS PEAK STAGE			[b]2.95	May 28	4.49	May 23 1984
ANNUAL RUNOFF (AC-FT)	22880		29700		36090	
10 PERCENT EXCEEDS	56		88		94	
50 PERCENT EXCEEDS	28		30		35	
90 PERCENT EXCEEDS	14		15		16	

a-Also occurred Jan 4.
b-Maximum gage height, 3.44 ft, Dec 1, 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 sea level. 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: Oct. 30 to Apr. 12. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	83	74	61	62	75	142	450	1190	314	161	159
2	93	78	72	59	62	73	140	399	1250	289	170	162
3	93	73	71	57	60	72	148	353	1250	273	158	148
4	95	78	70	54	58	72	150	364	1210	269	154	132
5	95	68	66	50	57	74	165	402	1080	279	166	124
6	91	68	65	53	59	79	196	411	935	257	169	119
7	91	68	66	55	62	85	220	378	891	235	158	121
8	94	69	68	58	66	86	208	371	846	204	151	131
9	89	73	70	59	70	85	197	341	761	196	170	131
10	87	76	68	57	70	84	200	309	666	189	176	117
11	90	78	66	55	68	86	210	299	607	169	166	115
12	91	74	64	54	65	84	220	330	582	160	152	117
13	89	74	64	56	65	83	217	386	599	178	148	115
14	90	74	64	58	68	81	208	451	639	191	172	135
15	86	74	66	56	70	83	196	533	693	191	171	140
16	87	76	68	57	68	85	188	594	751	179	154	134
17	87	77	66	56	68	90	200	666	797	168	143	130
18	82	75	66	56	69	89	226	842	808	167	139	123
19	82	72	63	57	74	86	229	899	743	185	130	125
20	85	73	60	57	80	86	201	972	660	185	126	124
21	87	70	60	55	78	90	197	975	639	193	114	120
22	93	70	62	54	78	97	229	1020	643	200	145	121
23	95	74	62	54	81	108	272	1120	595	200	150	112
24	96	72	61	53	86	127	290	1130	545	200	131	107
25	97	69	63	54	89	140	265	1090	490	196	121	100
26	103	66	65	58	86	160	253	1090	449	182	118	103
27	114	66	65	58	82	173	287	1200	409	198	109	104
28	104	67	62	55	79	170	334	1380	389	192	122	98
29	97	70	61	54	---	165	366	1450	382	183	147	93
30	92	72	60	54	---	155	434	1340	320	175	149	82
31	88	---	61	57	---	148	---	1160	---	166	156	---
TOTAL	2858	2177	2019	1731	1980	3171	6788	22705	21819	6363	4596	3642
MEAN	92.2	72.6	65.1	55.8	70.7	102	226	732	727	205	148	121
MAX	114	83	74	61	89	173	434	1450	1250	314	176	162
MIN	82	66	60	50	57	72	140	299	320	160	109	82
AC-FT	5670	4320	4000	3430	3930	6290	13460	45040	43280	12620	9120	7220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	93.4	102	77.1	66.3	69.1	111	248	404	476	193	160	91.5
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	51712		79849			
ANNUAL MEAN	141		219		174	
HIGHEST ANNUAL MEAN					478	1984
LOWEST ANNUAL MEAN					60.4	1977
HIGHEST DAILY MEAN	546	Jun 1	1450	May 29	4040	May 26 1984
LOWEST DAILY MEAN	50	Jan 4	50	Jan 5	2.6	Sep 30 1977
ANNUAL SEVEN-DAY MINIMUM	54	Jan 1	55	Jan 19	7.6	May 4 1967
INSTANTANEOUS PEAK FLOW			1470	May 29	4620	May 23 1984
INSTANTANEOUS PEAK STAGE			4.25	May 29	5.49	May 23 1984
ANNUAL RUNOFF (AC-FT)	102600		158400		126300	
10 PERCENT EXCEEDS	238		597		392	
50 PERCENT EXCEEDS	112		114		98	
90 PERCENT EXCEEDS	64		60		53	

09119000 TOMICHI CREEK AT GUNNISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT									
27...	1000	114	276	8.4	6.0	10.0	46	K12	<1
APR									
08...	1630	143	345	8.2	8.0	9.3	K3	K2	<1
JUN									
17...	0850	800	222	8.3	13.5	7.3	200	380	<1
AUG									
12...	1845	147	245	8.6	20.0	7.4	67	51	<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)
OCT									
27...	<1	430	<1	60	30	<0.1	<1	[a]<0.2	<10
APR									
08...	<1	1500	<1	160	90	<0.1	<1	[a]<0.2	<10
JUN									
17...	1	2800	<1	190	80	<0.1	<1	[a]<0.2	<10
AUG									
12...	<1	300	<1	50	20	<0.1	<1	<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
08...	1700	97.2	265	8.0
NOV				
05...	0920	67.7	333	0.0
DEC				
16...	1615	69.2	262	0.0
FEB				
25...	0925	89.4	250	0.0
APR				
12...	1505	223	309	8.0
MAY				
13...	0930	395	197	11.5
JUN				
04...	1020	1220	213	9.5
JUL				
02...	0945	285	276	14.5
29...	0915	183	287	15.5
AUG				
27...	0925	106	273	13.5

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 sea level. 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. 13-18, 20, 21, 23, 28, 29, and Dec. 2 to Apr. 14. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	51	35	35	39	38	68	248	1760	1000	188	276
2	67	57	37	35	39	36	66	214	1610	955	181	244
3	67	55	40	34	37	35	67	192	1490	918	170	214
4	66	56	41	33	37	35	71	210	1140	836	159	189
5	63	59	40	32	36	36	76	261	971	682	169	172
6	64	68	39	33	37	38	79	244	956	611	167	162
7	66	80	39	35	39	40	74	229	893	631	159	159
8	64	79	40	36	39	39	70	217	752	657	161	156
9	67	64	42	37	38	38	66	196	650	629	166	146
10	66	74	42	37	38	40	65	180	596	583	177	138
11	64	56	42	37	37	41	64	194	687	548	168	130
12	61	53	41	36	37	40	66	256	885	538	157	123
13	62	53	41	39	36	40	66	365	1190	516	148	127
14	62	54	45	39	35	41	68	483	1460	486	155	130
15	61	54	49	38	36	42	66	620	1540	461	151	127
16	60	54	52	39	37	42	69	667	1570	447	138	125
17	57	52	49	40	37	44	73	675	1520	407	128	120
18	58	52	47	39	40	44	77	638	1240	382	123	116
19	58	52	44	39	41	45	83	748	1100	356	119	115
20	57	50	44	38	42	45	78	747	1240	329	122	110
21	56	45	44	38	41	47	79	997	1310	308	122	107
22	56	41	42	36	40	50	85	1290	1310	283	132	103
23	56	41	39	36	42	58	104	1020	1300	268	129	99
24	55	40	39	35	44	64	121	934	1250	254	120	95
25	55	42	40	37	42	69	115	1110	1120	239	115	92
26	54	39	41	39	41	78	118	1380	1120	227	115	92
27	53	40	39	36	39	80	147	1600	1110	220	120	91
28	53	39	36	36	38	78	189	1510	1080	211	165	88
29	52	39	35	36	---	75	225	1350	1070	200	255	87
30	52	37	36	37	---	70	264	1370	1100	198	325	86
31	53	---	35	38	---	67	---	1600	---	200	304	---
TOTAL	1854	1576	1275	1135	1084	1535	2859	21745	35020	14580	5008	4019
MEAN	59.8	52.5	41.1	36.6	38.7	49.5	95.3	701	1167	470	162	134
MAX	69	80	52	40	44	80	264	1600	1760	1000	325	276
MIN	52	37	35	32	35	35	64	180	596	198	115	86
AC-FT	3680	3130	2530	2250	2150	3040	5670	43130	69460	28920	9930	7970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1938 - 1993, BY WATER YEAR (WY)

MEAN	92.9	68.0	52.4	46.1	43.5	55.6	134	537	985	485	204	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1938 - 1993	
ANNUAL TOTAL	63233		91690			
ANNUAL MEAN	173		251		236	
HIGHEST ANNUAL MEAN					413	1984
LOWEST ANNUAL MEAN					88.7	1977
HIGHEST DAILY MEAN	968	Jun 13	1760	Jun 1	2410	Jun 29 1957
LOWEST DAILY MEAN	34	Jan 3	32	Jan 5	22	Jan 21 1976
ANNUAL SEVEN-DAY MINIMUM	37	Feb 5	34	Dec 31	23	Jan 19 1976
INSTANTANEOUS PEAK FLOW			1920	Jun 1	[a]2720	Jul 10 1983
INSTANTANEOUS PEAK STAGE			4.37	Jun 1	4.37	Jun 1 1993
ANNUAL RUNOFF (AC-FT)	125400		181900		171200	
10 PERCENT EXCEEDS	546		942		684	
50 PERCENT EXCEEDS	68		69		85	
90 PERCENT EXCEEDS	39		37		40	

a-Datum then in use, gage height, 4.18 ft.

09124500 LAKE FORK AT GATEVIEW, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT									
27...	1310	54	180	8.3	8.0	9.1	K1	K4	<1
APR									
09...	1120	54	183	7.8	4.0	10.1	<1	<1	<1
JUN									
17...	1220	1520	87	7.7	9.5	8.8	K7	K37	<1
AUG									
13...	1140	147	145	8.1	14.0	7.8	K17	K14	<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)
OCT									
27...	<1	50	<1	20	10	<0.1	<1	[a]<0.2	10
APR									
09...	<1	40	<1	20	20	<0.1	<1	[a]<0.2	30
JUN									
17...	2	1700	<1	210	10	<0.1	<1	[a]<0.2	10
AUG									
13...	1	80	<1	10	<10	<0.1	<1	<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
09...	0940	69.9	186	3.5
NOV				
05...	1145	58.1	198	0.5
DEC				
16...	1050	55.8	189	0.0
FEB				
24...	1540	45.4	182	0.0
APR				
14...	1020	67.7	194	4.5
MAY				
13...	1205	384	140	10.0
20...	1730	660	93	7.0
JUN				
04...	1325	1130	101	8.0
JUL				
02...	1300	942	88	12.0
29...	1210	207	142	18.0
AUG				
27...	1200	120	157	13.5

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.

REVISED RECORDS.--WDR CO-92-2: 1991 minimum contents.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8925.60 ft. above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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, 13,460 acre-ft, June 16 and 17, 1993, elevation, 8,927.15 ft; minimum contents, 2,470 acre-ft, Mar. 20 and 21, 1988, elevation, 8,871.06 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 13,460 acre-ft, June 16 and 17, elevation, 8,927.15 ft; minimum contents, 5,080 acre-ft, Oct. 30, elevation, 8,890.28 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	8,897.75	6,400	-
Oct. 31	8,890.39	5,100	-1,300
Nov. 30	8,893.79	5,680	+580
Dec. 31	8,896.67	6,200	+520
CAL YR 1992	-	-	+1,510
Jan. 31	8,899.03	6,650	+450
Feb. 28	8,900.96	7,020	+370
Mar. 31	8,903.53	7,540	+520
Apr. 30	8,909.85	8,920	+1,380
May 31	8,926.75	13,350	+4,430
June 30	8,926.56	13,290	-60
July 31	8,920.31	11,530	-1,760
Aug. 31	8,902.72	7,580	-3,950
Sept. 30	8,892.42	5,440	-2,140
WTR YR 1993	-	-	-960

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 mi².

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 sea level. Prior to Oct. 12, 1972, at site 0.2 mi downstream, at different datum.

REMARKS.--Estimated daily discharges: Nov. 21 to Apr. 21. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	19	11	11	12	15	14	20	696	488	147	105
2	22	18	11	11	13	14	14	21	629	468	141	103
3	22	18	11	10	13	14	15	22	607	440	134	101
4	22	18	12	11	13	13	15	25	384	358	131	102
5	39	15	12	12	12	14	16	24	297	301	129	104
6	50	15	12	11	11	14	16	92	316	279	128	116
7	49	12	11	11	12	15	15	186	360	284	128	138
8	49	11	11	11	12	17	14	168	281	289	129	137
9	48	11	10	11	13	16	14	165	223	270	129	136
10	47	11	11	10	13	16	14	170	210	243	129	135
11	46	11	12	10	13	15	15	181	257	238	127	134
12	45	15	11	9.8	12	16	15	190	375	235	142	133
13	45	12	11	10	11	16	15	194	509	214	158	116
14	44	12	11	11	12	16	14	196	617	204	159	94
15	45	12	11	11	12	15	14	199	621	193	158	93
16	43	11	10	11	13	16	14	203	658	188	155	90
17	43	9.8	10	10	13	15	14	212	729	166	150	81
18	42	9.8	9.8	11	13	16	15	209	664	163	155	81
19	35	11	9.6	10	14	16	15	209	522	163	141	73
20	29	9.9	8.4	11	15	16	14	209	578	170	108	23
21	29	9.6	9.0	11	16	15	14	209	609	173	109	21
22	28	9.2	9.6	10	17	15	15	240	608	176	109	21
23	28	9.5	10	9.8	16	16	16	264	604	176	108	21
24	28	11	11	9.4	15	17	16	263	587	176	107	21
25	27	9.2	11	10	15	18	15	262	523	175	107	21
26	26	9.3	10	11	17	19	17	359	537	174	108	27
27	24	9.4	11	12	17	19	19	726	534	174	106	26
28	24	9.6	12	11	16	18	22	759	512	162	107	21
29	22	10	11	11	---	17	24	732	523	149	105	20
30	19	11	11	11	---	16	23	700	531	149	103	20
31	19	---	11	12	---	15	---	720	---	147	101	---
TOTAL	1061	359.3	332.4	332.0	381	490	473	8129	15101	7185	3948	2314
MEAN	34.2	12.0	10.7	10.7	13.6	15.8	15.8	262	503	232	127	77.1
MAX	50	19	12	12	17	19	24	759	729	488	159	138
MIN	19	9.2	8.4	9.4	11	13	14	20	210	147	101	20
AC-FT	2100	713	659	659	756	972	938	16120	29950	14250	7830	4590

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	51.4	23.4	16.9	15.1	15.1	16.5	23.9	160	426	217	114	71.3
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	33092.5		40105.7			
ANNUAL MEAN	90.4		110		[a]96.0	
HIGHEST ANNUAL MEAN					180	1984
LOWEST ANNUAL MEAN					40.2	1977
HIGHEST DAILY MEAN	543	May 27	759	May 28	1290	Jun 10 1973
LOWEST DAILY MEAN	8.4	Dec 20	8.4	Dec 20	[b,c].00	Dec 24 1970
ANNUAL SEVEN-DAY MINIMUM	9.1	Jan 10	9.5	Dec 16	.00	Dec 24 1970
INSTANTANEOUS PEAK FLOW			946	May 31	[d]1560	Jun 10 1973
INSTANTANEOUS PEAK STAGE			4.90	May 31	[e]6.05	Jun 10 1973
ANNUAL RUNOFF (AC-FT)	65640		79550		69560	
10 PERCENT EXCEEDS	323		299		255	
50 PERCENT EXCEEDS	22		20		31	
90 PERCENT EXCEEDS	9.8		11		10	

a-Average discharge for 16 years (water years 1955-70), 88.6 ft³/s; 64190 acre-ft/yr, prior to completion of Silver Jack Dam.
b-Also occurred Dec 25-31, 1970, and Jan 1-9, 1971. Result of storage in Silver Jack Dam.
c-Minimum daily discharge prior to construction of Silver Jack Dam, 8.0 ft³/s, Dec 27, 28, 1962, and Jan 13, 1963.
d-Maximum discharge and stage for period of record, 1790 ft³/s, Jun 28, 1957, gage height, 8.32 ft, site and datum then in use.
e-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 sea level. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	596	587	420	508	725	2250	2250	3340	4360	3090	1020	1200
2	592	562	420	508	727	2210	2260	3330	4620	3040	1000	1210
3	568	484	420	503	730	2230	2260	3290	4580	2890	1040	1260
4	575	484	420	515	730	2270	2250	3250	4600	2770	1040	1220
5	569	486	420	508	730	2270	2170	3220	4460	2770	1060	1250
6	575	487	420	508	730	2250	2160	3200	4370	2820	1040	1230
7	576	487	420	587	730	2220	2110	3200	4010	2790	1020	1180
8	564	488	420	647	730	2200	2170	3200	3510	2750	1010	1180
9	566	420	420	523	730	2160	2160	3200	3410	2610	994	1110
10	573	348	420	524	730	2140	2160	3200	3450	2340	1020	1160
11	596	328	420	467	883	2140	2160	3210	3450	2040	1050	1150
12	590	328	421	463	1010	2100	2160	3210	3620	1740	1040	1150
13	574	327	424	494	1010	2090	2160	3200	3430	1540	1060	1160
14	574	327	424	500	1010	2060	2170	3170	3520	1440	1070	1300
15	580	327	424	533	1020	2220	2160	3200	3540	1200	1050	1360
16	601	327	424	568	1020	2590	2100	3200	3410	1060	1060	1280
17	611	327	424	568	983	2610	2070	3260	3490	1140	1070	1320
18	587	327	462	568	962	2620	2060	3350	3610	1170	1050	1310
19	583	327	500	568	1010	2620	2050	3350	4170	1110	1070	1360
20	588	370	500	554	1020	2630	2060	3340	4260	1040	1110	1340
21	588	428	460	598	1020	2630	2080	3450	4220	1050	1200	1340
22	588	428	456	600	1030	2510	2040	3790	4150	1080	1140	1350
23	584	383	474	600	1030	2400	2030	3320	4250	1050	1140	1320
24	580	388	492	600	1140	2280	2010	3320	4120	996	1140	1220
25	585	392	498	600	2160	2280	2000	3370	3350	1010	1080	1150
26	592	412	500	636	2120	2270	2180	4240	3020	993	1060	1070
27	588	412	502	707	2170	2270	2790	4230	3030	1030	1090	705
28	588	412	504	725	2260	2270	3220	4090	3050	1460	1130	651
29	597	413	504	725	---	2290	3360	4140	3020	1480	1130	648
30	600	420	507	724	---	2280	3350	4320	3060	1070	1180	634
31	598	---	507	722	---	2270	---	4330	---	1080	1220	---
TOTAL	18126	12236	14027	17851	30150	71630	68160	107520	113140	53649	33384	34818
MEAN	585	408	452	576	1077	2311	2272	3468	3771	1731	1077	1161
MAX	611	587	507	725	2260	2630	3360	4330	4620	3090	1220	1360
MIN	564	327	420	463	725	2060	2000	3170	3020	993	994	634
AC-FT	35950	24270	27820	35410	59800	142100	135200	213300	224400	106400	66220	69060
a	45220	1330	0	0	0	0	24930	33060	42290	66970	67630	49230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

MEAN	525	722	762	760	761	849	1305	3254	4168	1494	653	468
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	273063		574691			
ANNUAL MEAN	746		1574		1310	
HIGHEST ANNUAL MEAN					2936	1984
LOWEST ANNUAL MEAN					261	1967
HIGHEST DAILY MEAN	3070	May 15	4620	Jun 2	18600	Jun 15 1921
LOWEST DAILY MEAN	327	Nov 13	[b]327	Nov 13	[c]00	Sep 11 1915
ANNUAL SEVEN-DAY MINIMUM	327	Nov 13	327	Nov 13	.30	Oct 26 1950
INSTANTANEOUS PEAK FLOW			5140	May 22	[d]19000	Jun 15 1921
INSTANTANEOUS PEAK STAGE			7.77	May 22	15.80	Jun 15 1921
ANNUAL RUNOFF (AC-FT)	541600		1140000		949200	
10 PERCENT EXCEEDS	914		3350		3180	
50 PERCENT EXCEEDS	782		1080		568	
90 PERCENT EXCEEDS	420		424		180	

a-Diversions, in acre-feet, through Gunnison tunnel, provided by Uncompahgre Valley Water Users Association.
b-Also occurred Nov. 14-19.
c-Also occurred Sep 26, 1936, Oct 8, 1949, Sep 5, 6, 15, 16, 1950.
d-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 mi².

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1941. WDR CO-83-2: Drainage area. WDR CO-85-2: 1984, 1984 (M).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,091 ft above sea level, from topographic map. Prior to Nov. 16, 1938, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Nov. 11-13, 22-30, Dec. 4-7, 11, 13, 14, 17, 19, 20, Jan. 3, 4, 12, Jan. 23 to Feb. 25, and Feb. 27 to Mar. 9. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of a few small hay meadows upstream from station. Saddle Mountain ditch diverts water upstream from station for irrigation of about 800 acres downstream. One small ditch diverts water from Virginia Creek to Iron Creek drainage. Head and Ferrier ditch imports water from Curecanti Creek drainage. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	11	7.8	8.6	8.0	7.2	34	226	611	128	17	14
2	12	11	7.4	8.0	7.9	7.3	37	221	528	113	15	14
3	13	10	7.5	7.3	7.7	7.5	34	261	472	109	14	11
4	11	12	7.4	6.4	7.4	8.0	37	291	384	105	14	10
5	11	9.9	7.4	7.7	7.4	8.7	45	274	331	89	15	9.6
6	11	9.7	7.6	7.6	7.4	8.5	44	202	321	79	13	8.9
7	13	9.8	8.0	7.6	7.6	9.0	36	189	353	78	12	9.0
8	12	9.7	8.4	7.7	7.8	9.7	33	158	277	77	15	8.9
9	12	11	9.4	7.6	7.6	10	36	122	217	72	14	11
10	12	11	8.1	7.6	7.3	11	45	128	194	70	14	13
11	11	10	8.1	7.5	7.2	11	50	196	207	69	16	12
12	11	9.7	8.2	7.2	7.1	18	53	299	233	69	18	13
13	11	9.1	8.2	8.0	7.0	20	49	397	309	63	17	23
14	11	8.7	8.2	7.5	7.0	28	46	396	365	56	18	20
15	12	9.3	8.5	7.3	7.5	38	46	415	378	51	16	19
16	11	9.2	8.3	7.2	7.6	36	49	586	366	45	13	18
17	11	8.6	8.3	7.1	7.3	36	58	842	389	38	12	17
18	11	8.2	8.2	7.2	7.4	43	74	881	360	35	11	17
19	7.5	8.2	8.1	7.3	7.8	45	68	657	298	32	9.9	17
20	7.9	8.2	7.6	7.7	8.0	47	63	657	275	32	9.5	16
21	11	8.6	8.4	7.3	7.6	52	76	667	304	32	14	15
22	12	8.0	8.6	7.2	7.1	62	96	633	272	29	18	14
23	10	8.4	8.3	6.9	7.0	67	103	574	234	26	13	13
24	11	9.0	8.2	6.8	7.0	79	81	536	178	26	11	12
25	11	8.5	8.4	7.3	7.2	84	61	694	155	23	10	12
26	11	7.7	8.5	7.7	6.6	73	83	682	145	21	15	12
27	9.2	7.2	8.6	7.4	6.8	70	165	793	143	19	12	11
28	11	7.0	8.2	7.3	6.9	58	268	882	146	18	11	11
29	11	7.6	8.2	7.2	---	45	304	678	143	20	10	11
30	10	8.0	8.2	7.3	---	42	296	730	144	19	9.5	10
31	15	---	8.4	7.8	---	37	---	744	---	18	11	---
TOTAL	344.6	274.3	252.7	230.3	206.2	1077.9	2470	15011	8732	1661	417.9	402.4
MEAN	11.1	9.14	8.15	7.43	7.36	34.8	82.3	484	291	53.6	13.5	13.4
MAX	15	12	9.4	8.6	8.0	84	304	882	611	128	18	23
MIN	7.5	7.0	7.4	6.4	6.6	7.2	33	122	143	18	9.5	8.9
AC-FT	684	544	501	457	409	2140	4900	29770	17320	3290	829	798

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1993, BY WATER YEAR (WY)

MEAN	10.9	9.53	7.76	7.05	7.83	15.3	79.8	197	125	30.1	11.8	10.5
MAX	35.2	29.9	20.5	18.0	21.5	58.3	192	484	496	122	34.0	23.3
(WY)	1942	1987	1987	1937	1987	1986	1962	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1936 - 1993	
ANNUAL TOTAL	20208.5		31080.3			
ANNUAL MEAN	55.2		85.2		42.8	
HIGHEST ANNUAL MEAN					89.0	1957
LOWEST ANNUAL MEAN					10.5	1977
HIGHEST DAILY MEAN	427	Apr 30	882	May 28	1060	May 28 1979
LOWEST DAILY MEAN	[a]6.0	Feb 5	6.4	Jan 4	1.7	Aug 20 1987
ANNUAL SEVEN-DAY MINIMUM	6.3	Jan 31	6.9	Feb 22	2.1	Jul 27 1963
INSTANTANEOUS PEAK FLOW			1330	May 16	[b]1410	May 15 1984
INSTANTANEOUS PEAK STAGE			4.24	May 16	[c]8.28	May 15 1984
ANNUAL RUNOFF (AC-FT)	40080		61650		31040	
10 PERCENT EXCEEDS	211		297		120	
50 PERCENT EXCEEDS	13		12		11	
90 PERCENT EXCEEDS	7.5		7.4		5.5	

a-Also occurred Feb 6.
b-May have been higher during period of indefinite stage-discharge relationship, May 16-21, 1984.
c-Maximum gage height, 9.26 ft, May 30, 1983.

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 mi^2.

PERIOD OF RECORD.--December 1961 to current year. Monthend active contents provided by U.S. Bureau of Reclamation from December 1961 to September 1987.

REVISED RECORD.--WDR CO-92-2; 1988-91.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,447.50 ft above sea level (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 17,450 acre-ft, May 16 elevation, 6,449.74 ft; minimum contents, 746 acre-ft, November 25-28 , elevation, 6,372.60 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	6,388.23	2,240	-
Oct. 31	6,387.17	2,100	-140
Nov. 30	6,375.67	960	-1,140
Dec. 31	6,384.15	1,730	+770
CAL YR 1992	-	-	-1,030
Jan. 31	6,389.92	2,480	+750
Feb. 28	6,395.71	3,390	+9104
Mar. 31	6,381.20	1,420	-1,970
Apr. 30	6,405.35	5,140	+3,713
May 31	6,449.36	17,320	+12,180
June 30	6,447.74	16,780	-540
July 31	6,447.51	16,710	-70
Aug. 31	6,442.54	15,090	-1,620
Sept. 30	6,427.01	10,440	-4,650
WTR YR 1993	-	-	+8,200

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 sea level, 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. 19 to Mar. 21, Apr. 29 to May 6, and June 2-4. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	192	86	52	48	60	79	439	1900	4650	1840	374	254
2	113	80	56	47	66	78	390	1700	4100	1850	329	234
3	66	76	60	46	68	76	378	1800	3550	1840	304	213
4	64	72	58	43	62	74	379	1900	3100	1840	292	235
5	64	81	54	40	56	72	452	1800	2670	1450	299	212
6	64	80	50	46	54	76	648	1650	2770	1250	288	224
7	63	81	48	50	58	90	623	1550	2950	1320	269	238
8	64	81	52	52	60	105	389	1490	2470	1250	298	266
9	66	84	58	51	66	100	392	1360	2160	1120	322	230
10	70	93	58	50	70	98	519	1320	1890	1150	312	218
11	70	92	58	46	74	94	522	1660	2080	1100	372	214
12	70	83	50	44	73	90	530	2240	2410	1190	289	204
13	70	90	46	47	72	100	574	2720	2840	1120	260	276
14	70	88	48	52	71	110	553	3500	2950	1030	268	246
15	71	93	50	51	68	120	478	4820	3130	949	252	229
16	72	97	52	50	74	140	455	5440	2940	906	256	219
17	72	97	46	51	80	160	449	6490	3030	795	245	209
18	72	96	50	52	88	180	613	5550	2750	738	254	200
19	72	90	48	53	80	180	718	5000	2380	713	258	198
20	72	84	30	52	76	160	652	4850	2300	637	254	193
21	72	76	35	44	80	190	675	5470	2490	618	283	190
22	71	70	45	47	84	215	867	5360	2480	578	374	185
23	70	65	45	49	88	275	1160	4930	2370	525	307	178
24	68	60	42	52	90	355	1280	4710	2160	506	294	181
25	59	55	44	60	86	465	1060	4650	1980	476	268	212
26	88	48	48	64	86	570	1140	4980	2030	463	306	228
27	88	46	52	55	80	602	1490	5470	2110	430	302	213
28	86	47	45	54	80	545	1820	6590	2120	400	280	280
29	89	50	46	54	---	480	1950	5160	2130	380	270	327
30	72	48	47	54	---	492	2100	4760	2240	387	258	331
31	100	---	48	54	---	512	---	4770	---	363	242	---
TOTAL	2400	2289	1521	1558	2050	6883	23695	115590	79230	29214	8979	6837
MEAN	77.4	76.3	49.1	50.3	73.2	222	790	3729	2641	942	290	228
MAX	192	97	60	64	90	602	2100	6590	4650	1850	374	331
MIN	59	46	30	40	54	72	378	1320	1890	363	242	178
AC-FT	4760	4540	3020	3090	4070	13650	47000	229300	157200	57950	17810	13560

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1934 - 1993, BY WATER YEAR (WY)

MEAN	115	91.4	76.5	65.2	68.9	142	723	1928	1480	443	193	148
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1934 - 1993	
ANNUAL TOTAL	126226		280246			
ANNUAL MEAN	345		768		457	
HIGHEST ANNUAL MEAN					829	1984
LOWEST ANNUAL MEAN					114	1977
HIGHEST DAILY MEAN	2170	May 27	6590	May 28	7080	May 24 1984
LOWEST DAILY MEAN	30	Dec 20	30	Dec 20	17	Nov 10 1950
ANNUAL SEVEN-DAY MINIMUM	41	Dec 19	41	Dec 19	25	Feb 17 1978
INSTANTANEOUS PEAK FLOW			8610	May 27	9220	May 24 1984
INSTANTANEOUS PEAK STAGE			7.67	May 27	[a]8.20	May 24 1984
ANNUAL RUNOFF (AC-FT)	250400		555900		331300	
10 PERCENT EXCEEDS	1120		2390		1500	
50 PERCENT EXCEEDS	199		212		128	
90 PERCENT EXCEEDS	57		50		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 sea level, 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: Oct. 28 to Nov. 3, Nov. 5-30, Dec. 6, 7, 14, 20, 21, 23, 25, 29, Jan. 3-5, 12, 13, 24-30, Feb. 4-6, 9, 10, 14, and 19-22. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	3.4	3.1	2.9	2.9	3.0	16	65	278	123	27	24
2	4.3	3.2	3.1	2.9	2.8	3.2	20	64	264	119	27	24
3	4.0	3.0	3.2	2.9	2.7	3.5	16	72	276	105	26	24
4	4.2	2.9	3.1	2.6	2.8	3.7	17	97	259	101	26	26
5	3.9	3.1	3.1	2.8	2.9	4.2	25	140	250	91	26	28
6	4.0	3.3	3.1	2.8	3.0	3.7	29	116	237	81	30	24
7	4.2	3.2	3.2	3.1	3.0	4.4	20	128	232	80	35	23
8	4.1	3.4	3.2	3.4	3.0	5.5	20	118	205	80	35	22
9	4.2	3.5	3.1	3.2	3.1	6.1	20	102	189	80	35	21
10	4.1	3.4	3.1	3.0	3.2	7.7	20	115	182	78	35	25
11	4.0	3.2	3.1	2.9	3.3	7.8	20	129	180	60	36	28
12	3.9	3.2	3.3	2.8	3.0	5.5	21	144	186	57	34	22
13	3.9	3.3	3.3	2.8	2.7	5.2	20	159	196	57	33	28
14	3.9	3.4	3.3	2.8	2.7	5.5	20	168	200	53	33	24
15	3.9	3.4	3.2	2.7	2.7	8.1	20	181	202	52	33	23
16	3.9	3.4	3.0	2.8	2.7	8.6	21	225	200	47	33	22
17	3.9	3.4	3.0	2.9	2.7	9.1	22	299	200	41	29	22
18	3.8	3.4	3.0	2.9	3.0	25	28	256	188	40	28	21
19	3.7	3.3	2.9	2.9	3.1	15	25	247	181	37	28	21
20	3.2	3.5	2.8	2.9	3.2	13	23	243	178	36	28	21
21	3.1	3.3	2.8	2.8	3.1	17	27	255	180	39	31	20
22	3.2	3.0	2.8	2.8	3.2	15	35	263	177	41	33	20
23	3.1	3.2	2.8	2.7	3.3	17	45	249	172	38	28	19
24	3.1	3.3	2.9	2.8	3.2	19	46	254	160	39	27	19
25	3.5	3.2	4.8	2.9	3.2	23	41	241	150	37	26	16
26	3.8	3.5	2.8	2.9	3.0	25	50	280	145	35	29	5.3
27	3.3	3.4	2.8	3.0	3.0	26	69	298	142	34	28	5.6
28	3.5	3.4	3.0	2.8	3.0	21	77	340	140	33	27	5.6
29	3.6	3.3	3.2	2.8	---	18	80	324	135	31	25	5.5
30	3.5	3.2	3.3	2.9	---	14	72	309	130	29	25	5.3
31	3.7	---	3.1	2.9	---	11	---	302	---	28	26	---
TOTAL	117.0	98.7	96.5	89.3	83.5	353.8	965	6183	5814	1802	922	594.3
MEAN	3.77	3.29	3.11	2.88	2.98	11.4	32.2	199	194	58.1	29.7	19.8
MAX	4.5	3.5	4.8	3.4	3.3	26	80	340	278	123	36	28
MIN	3.1	2.9	2.8	2.6	2.7	3.0	16	64	130	28	25	5.3
AC-FT	232	196	191	177	166	702	1910	12260	11530	3570	1830	1180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

MEAN	6.03	5.52	4.62	3.59	4.04	7.07	30.5	99.7	75.3	27.1	14.9	7.96
MAX	16.6	12.9	9.08	5.80	8.62	19.2	89.6	199	194	58.1	29.7	19.8
(WY)	1942	1987	1987	1942	1986	1986	1942	1993	1993	1993	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	7702.0		17119.1			
ANNUAL MEAN	21.0		46.9		24.0	
HIGHEST ANNUAL MEAN					46.9	1993
LOWEST ANNUAL MEAN					7.97	1990
HIGHEST DAILY MEAN	125	May 27	340	May 28	340	May 28 1993
LOWEST DAILY MEAN	[a]2.0	Feb 24	2.6	Jan 4	1.0	Nov 14 1936
ANNUAL SEVEN-DAY MINIMUM	2.2	Feb 19	2.8	Feb 12	1.4	Jan 16 1990
INSTANTANEOUS PEAK FLOW			359	May 28	359	May 28 1993
INSTANTANEOUS PEAK STAGE			3.24	May 28	[b]3.24	May 28 1993
ANNUAL RUNOFF (AC-FT)	15280		33960		17350	
10 PERCENT EXCEEDS	59		180		72	
50 PERCENT EXCEEDS	4.9		17		7.0	
90 PERCENT EXCEEDS	2.9		2.9		3.0	

a-Also occurred Feb 25.
b-Maximum gage height, 3.70 ft, May 22, 1942, 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 31, Feb. 19-25, Apr. 1-9, Apr. 23 to May 4, May 17-20, Aug 18-20. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	12	9.5	7.8	6.1	5.7	12	130	487	23	10	6.6
2	12	13	9.4	7.7	5.9	5.5	12	140	444	22	10	6.4
3	12	13	9.5	7.5	5.8	5.6	12	150	380	21	10	6.2
4	11	13	9.5	7.0	5.6	5.5	11	164	246	21	10	6.3
5	9.5	13	9.4	6.9	5.3	5.4	11	84	243	21	10	7.3
6	9.6	13	9.5	6.9	5.3	5.4	11	51	279	20	10	6.8
7	10	13	8.6	7.3	5.4	5.3	10	43	249	20	10	6.6
8	11	12	8.6	8.1	6.0	5.4	10	43	127	19	10	6.8
9	12	12	8.8	8.1	5.9	5.4	10	37	78	18	10	6.8
10	12	13	8.6	7.8	5.8	5.4	10	37	70	18	9.6	7.1
11	12	12	8.3	7.4	5.7	5.5	12	79	137	18	9.6	6.8
12	12	12	8.3	6.9	5.7	5.7	14	166	217	17	9.6	7.8
13	12	12	8.2	6.8	5.4	5.7	14	266	267	15	9.6	9.8
14	10	12	8.3	6.8	5.4	5.8	10	287	295	14	8.8	9.3
15	8.2	12	8.2	6.9	5.3	6.0	8.9	338	310	14	8.8	9.5
16	8.3	12	8.7	6.8	5.3	5.9	8.9	418	334	14	8.8	9.6
17	10	12	8.4	8.0	5.5	5.8	7.7	690	268	14	8.8	9.3
18	12	12	9.0	7.4	5.4	6.1	13	600	136	13	8.8	9.8
19	12	12	8.9	7.4	5.4	5.8	13	540	98	14	8.0	9.6
20	12	12	8.5	7.0	5.4	5.7	12	490	116	13	7.6	7.3
21	12	12	8.4	6.8	5.4	5.8	22	543	123	13	7.9	6.1
22	12	11	8.4	7.1	5.4	5.8	59	542	113	12	8.1	8.1
23	13	11	8.2	6.5	5.4	5.8	65	505	87	11	8.1	9.5
24	13	11	8.2	6.0	5.4	6.2	70	525	57	11	9.2	9.6
25	12	11	8.0	5.8	5.4	11	75	501	28	11	8.5	9.6
26	13	11	7.8	5.8	5.4	18	80	538	21	11	8.2	10
27	13	10	7.8	5.8	5.7	34	85	591	27	11	7.7	10
28	13	10	7.9	5.7	5.6	26	90	625	33	11	7.3	10
29	13	10	8.2	5.6	---	21	100	470	30	11	7.1	10
30	12	10	8.3	5.5	---	19	120	445	27	11	6.9	10
31	12	---	7.9	5.4	---	14	---	495	---	11	6.5	---
TOTAL	357.6	354	265.3	212.5	155.3	279.2	988.5	10533	5327	473	273.5	248.6
MEAN	11.5	11.8	8.56	6.85	5.55	9.01	32.9	340	178	15.3	8.82	8.29
MAX	13	13	9.5	8.1	6.1	34	120	690	487	23	10	10
MIN	8.2	10	7.8	5.4	5.3	5.3	7.7	37	21	11	6.5	6.1
AC-FT	709	702	526	421	308	554	1960	20890	10570	938	542	493

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	20.3	16.0	12.4	10.3	9.81	11.2	47.5	122	81.6	6.09	6.28	9.38
MAX	84.2	51.6	25.2	21.2	28.3	47.7	165	340	290	19.3	9.11	35.9
(WY)	1987	1987	1987	1987	1987	1986	1987	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	4326.8		19467.5			
ANNUAL MEAN	11.8		53.3		29.8	
HIGHEST ANNUAL MEAN					55.1	1984
LOWEST ANNUAL MEAN					4.95	1977
HIGHEST DAILY MEAN	150	Apr 14	[a]690	May 17	1110	Jun 7 1984
LOWEST DAILY MEAN	3.9	Jul 24	[b]5.3	Feb 5	.55	Jul 10 1977
ANNUAL SEVEN-DAY MINIMUM	4.9	Mar 6	5.4	Feb 13	.58	Jul 4 1977
INSTANTANEOUS PEAK FLOW			[c]857	May 28	1880	Jun 7 1984
INSTANTANEOUS PEAK STAGE			[c]8.10	May 28	11.82	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	8580		38610		21600	
10 PERCENT EXCEEDS	13		138		65	
50 PERCENT EXCEEDS	8.2		10		8.6	
90 PERCENT EXCEEDS	5.5		5.7		3.0	

a-Estimated during period of no gage height record, May 17-20.
b-Also occurred Feb 6, 15, 16, and Mar 7.
c-May have been higher during period of no gage height record May 17-20.

09135900 LEROUX CREEK AT HOTCHKISS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT									
26...	1515	12	1440	8.3	14.0	8.6	67	44	<1
APR									
08...	0715	10	1090	8.4	3.5	11.1	34	K18	<1
JUN									
16...	0945	272	153	8.0	9.0	9.3	K78	180	<1
AUG									
11...	1905	9.6	1330	8.2	17.0	7.5	K670	650	<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)
OCT									
26...	<1	180	<1	40	20	<0.1	14	[a]<0.2	<10
APR									
08...	<1	270	<1	40	30	<0.1	15	[a]<0.2	<10
JUN									
16...	<1	1300	<1	90	<10	<0.1	1	[a]<0.2	10
AUG									
11...	<1	150	<1	40	30	<0.1	15	<0.2	<10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
08...	1310	11.5	1300	13.0
NOV				
05...	1340	13.4	1230	10.0
DEC				
17...	1415	8.44	1140	6.0
FEB				
25...	1310	5.44	1210	8.0
APR				
01...	1520	11.5	1060	13.0
MAY				
04...	1100	164	177	7.0
06...	1400	47.4	313	8.0
17...	1405	708	140	7.0
20...	1405	452	144	5.5
JUL				
30...	1025	5.58	1390	16.0
SEP				
02...	1540	5.15	1360	19.0

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 21-29, Nov. 1-4, 22, and Jan. 10-15. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	2.0	2.2	2.6	3.0	3.7	7.2	76	235	224	108	61
2	16	2.3	2.2	2.6	3.0	3.8	7.8	92	245	216	93	62
3	14	2.6	2.2	2.6	3.1	3.8	7.5	114	257	213	92	62
4	14	2.8	2.2	2.6	3.1	3.8	7.4	111	230	207	92	60
5	15	3.2	2.2	2.8	3.1	3.7	8.7	75	224	185	92	60
6	16	2.7	2.3	3.1	3.2	3.8	8.3	55	230	160	65	66
7	18	2.6	2.2	3.0	3.2	4.0	7.5	51	224	166	66	64
8	17	2.1	2.2	2.7	3.2	4.3	7.2	45	196	162	69	48
9	9.1	2.2	2.2	3.1	3.2	4.7	7.4	40	173	155	60	48
10	8.2	2.2	2.2	3.0	3.2	4.5	7.7	61	165	147	65	41
11	8.1	2.2	2.2	3.1	3.3	4.4	8.1	116	200	144	98	40
12	8.7	2.4	2.3	3.0	3.2	4.2	8.5	177	243	142	81	40
13	8.2	2.1	2.3	3.2	3.2	4.2	8.1	239	271	135	73	46
14	8.4	2.1	2.3	3.2	3.3	4.2	8.1	257	291	139	70	35
15	8.3	2.3	2.4	3.2	3.3	4.2	9.0	259	310	131	69	47
16	9.0	2.4	2.4	3.3	3.3	4.2	9.7	271	344	128	68	48
17	9.0	2.3	2.4	3.2	3.3	4.4	11	277	324	122	66	62
18	8.8	2.3	2.4	3.1	3.3	4.4	12	241	279	108	85	62
19	6.7	2.4	2.5	3.0	3.3	4.5	11	234	273	85	84	62
20	7.4	2.5	2.4	3.0	3.4	4.6	11	242	271	87	100	54
21	7.0	2.5	2.4	2.9	3.5	4.7	15	281	271	107	101	53
22	7.0	2.5	2.4	2.9	3.4	5.1	23	243	272	100	105	31
23	6.0	2.4	2.4	2.9	3.4	5.9	34	237	264	96	78	29
24	6.0	2.5	2.4	2.9	3.4	7.3	33	225	259	100	71	25
25	7.0	2.3	2.5	2.9	3.5	9.0	25	256	247	94	69	25
26	6.0	2.2	2.7	2.9	3.5	11	35	268	239	100	78	25
27	5.0	2.2	2.8	2.9	3.5	9.7	55	266	239	95	44	20
28	4.0	2.2	2.6	2.9	3.7	8.5	86	267	238	125	39	21
29	4.0	2.3	2.6	2.9	---	7.9	101	243	235	118	37	39
30	4.1	2.2	2.6	2.9	---	8.1	93	244	234	117	32	39
31	2.3	---	2.6	2.9	---	7.4	---	258	---	112	32	---
TOTAL	308.3	71.0	73.7	91.3	92.1	168.0	673.2	5821	7483	4220	2282	1375
MEAN	9.95	2.37	2.38	2.95	3.29	5.42	22.4	188	249	136	73.6	45.8
MAX	40	3.2	2.8	3.3	3.7	11	101	281	344	224	108	66
MIN	2.3	2.0	2.2	2.6	3.0	3.7	7.2	40	165	85	32	20
AC-FT	612	141	146	181	183	333	1340	11550	14840	8370	4530	2730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

MEAN	16.9	7.81	5.52	5.15	5.18	6.79	34.4	126	137	76.6	55.2	33.9
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1939 - 1993	
ANNUAL TOTAL	11672.8		22658.6			
ANNUAL MEAN	31.9		62.1		42.8	
HIGHEST ANNUAL MEAN					75.7	1983
LOWEST ANNUAL MEAN					10.6	1977
HIGHEST DAILY MEAN	195	May 27	344	Jun 16	480	Jun 26 1983
LOWEST DAILY MEAN	2.0	Nov 1	2.0	Nov 1	.80	Jan 15 1977
ANNUAL SEVEN-DAY MINIMUM	2.2	Nov 8	2.2	Nov 8	.89	Jan 9 1977
INSTANTANEOUS PEAK FLOW			[a]418	May 21	[b]824	Jun 7 1984
INSTANTANEOUS PEAK STAGE			3.11	May 21	[c]3.67	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	23150		44940		31020	
10 PERCENT EXCEEDS	81		236		114	
50 PERCENT EXCEEDS	14		9.0		16	
90 PERCENT EXCEEDS	2.4		2.4		3.7	

a-From rating extended above 300 ft³/s.
b-From rating curve extended above 310 ft³/s.
c-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 sea level, from topographic map. Prior to June 8, 1917, nonrecording gage at present site at datum 0.50 ft, higher.

REMARKS.--Estimated daily discharges: Dec. 14, Jan. 24-26. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	5.1	4.0	4.2	4.4	5.2	9.2	73	270	114	33	26
2	6.7	5.9	4.2	4.2	4.4	5.4	9.9	83	255	105	32	27
3	5.8	4.8	4.2	4.1	4.3	5.3	8.9	99	251	100	33	21
4	5.5	4.4	4.0	4.5	4.3	5.3	9.7	94	212	89	32	17
5	6.6	5.1	3.9	4.7	5.4	5.2	13	61	195	71	32	17
6	6.2	4.8	3.9	4.5	5.6	5.1	13	36	205	56	22	19
7	6.5	4.6	3.9	5.1	4.3	5.4	10	33	202	56	21	17
8	6.8	4.5	3.7	5.1	4.5	5.8	9.2	28	158	63	24	16
9	7.2	4.7	4.0	3.4	5.1	6.3	9.5	21	124	70	26	13
10	6.1	5.1	3.8	4.2	4.7	6.2	11	42	107	71	27	22
11	6.0	4.6	4.0	4.7	4.7	6.4	12	92	123	72	46	25
12	6.5	5.3	4.1	4.5	4.7	5.8	13	133	152	73	33	25
13	6.2	5.4	4.0	4.5	4.5	5.9	12	190	191	64	32	39
14	6.4	5.4	4.1	4.7	5.6	5.6	11	248	217	64	32	29
15	6.6	5.1	4.1	4.7	5.0	6.0	13	268	230	62	31	31
16	6.7	5.1	4.0	4.8	4.8	6.1	15	347	245	57	30	32
17	6.6	4.6	4.2	4.5	4.6	6.4	16	403	239	54	27	32
18	6.6	4.2	4.1	4.4	4.7	7.1	20	315	211	49	30	31
19	6.5	4.5	4.2	4.4	5.0	7.0	16	280	201	54	29	31
20	6.2	4.5	4.4	4.4	5.2	6.9	16	295	215	54	35	26
21	7.4	4.1	4.9	4.2	5.0	7.2	24	352	215	58	35	23
22	7.4	5.0	5.1	4.3	5.7	8.1	39	320	207	53	39	27
23	6.4	4.4	5.6	4.3	4.7	9.3	58	296	196	54	27	28
24	6.4	4.7	5.5	4.6	4.6	12	60	288	178	57	22	29
25	6.8	4.6	5.1	4.8	4.8	16	42	309	154	54	25	30
26	7.7	5.0	5.6	5.0	4.7	21	61	317	140	46	34	30
27	5.3	5.6	5.8	4.7	5.1	19	88	317	133	39	26	28
28	5.2	6.0	5.3	4.8	5.2	13	117	319	131	47	24	28
29	6.8	4.3	5.7	4.6	---	11	120	250	121	41	23	31
30	5.1	3.6	4.9	4.5	---	11	106	257	122	39	17	32
31	6.3	---	4.4	4.3	---	9.4	---	284	---	36	15	---
TOTAL	200.0	145.0	138.7	139.7	135.6	255.4	962.4	6450	5600	1922	894	782
MEAN	6.45	4.83	4.47	4.51	4.84	8.24	32.1	208	187	62.0	28.8	26.1
MAX	7.7	6.0	5.8	5.1	5.7	21	120	403	270	114	46	39
MIN	5.1	3.6	3.7	3.4	4.3	5.1	8.9	21	107	36	15	13
AC-FT	397	288	275	277	269	507	1910	12790	11110	3810	1770	1550

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1993, BY WATER YEAR (WY)

MEAN	10.2	5.26	3.41	3.19	3.30	4.64	34.2	110	83.0	35.5	22.5	15.0
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1918 - 1993	
ANNUAL TOTAL	6777.4		17624.8			
ANNUAL MEAN	18.5		48.3		27.6	
HIGHEST ANNUAL MEAN					62.5	1983
LOWEST ANNUAL MEAN					7.87	1977
HIGHEST DAILY MEAN	108	May 27	403	May 17	640	May 30 1920
LOWEST DAILY MEAN	[a]2.8	Sep 26	3.4	Jan 9	[b].00	Sep 25 1939
ANNUAL SEVEN-DAY MINIMUM	3.3	Feb 11	3.9	Dec 4	.11	Mar 12 1954
INSTANTANEOUS PEAK FLOW			590	May 21	[c]1190	May 13 1941
INSTANTANEOUS PEAK STAGE			3.10	May 21	3.10	May 21 1993
ANNUAL RUNOFF (AC-FT)	13440		34960		20000	
10 PERCENT EXCEEDS	50		190		73	
50 PERCENT EXCEEDS	6.1		11		9.3	
90 PERCENT EXCEEDS	3.7		4.4		2.0	

a-Also occurred Sep 27.
b-No flow at times some years.
c-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 above sea level, National Weather Service Datum (levels by National Weather Service). Prior to May 1976 nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Dec. 20-27. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	911	954	632	663	914	2270	2960	5510	11600	4970	1150	1370
2	898	900	643	660	914	2260	2980	6250	11100	4700	1110	1380
3	891	830	644	652	900	2250	2890	5740	10700	4550	1060	1410
4	850	832	629	632	876	2260	2880	7480	9490	4450	1020	1400
5	845	837	625	659	864	2240	3050	7020	8600	4050	1060	1380
6	842	841	626	671	858	2260	3140	6080	8420	3740	1130	1410
7	845	812	610	770	879	2230	3130	5750	8720	3700	1080	1340
8	871	797	595	867	935	2230	2960	5830	7130	3750	1110	1350
9	895	796	626	739	1020	2260	2810	5360	6460	3720	1230	1360
10	908	744	621	686	1020	2220	3040	5170	6040	3320	1200	1280
11	932	711	602	608	966	2260	3100	5650	6050	3200	1290	1320
12	945	666	610	613	1150	2210	3190	6840	6690	2790	1280	1320
13	947	664	607	655	1130	2170	3100	8220	7230	2460	1210	1490
14	950	660	579	693	1110	2160	3090	9390	7620	2150	1230	1570
15	959	656	574	701	1120	2170	3070	11000	7910	1880	1250	1680
16	951	652	600	735	1130	2660	3010	12700	7730	1680	1230	1570
17	986	640	591	832	1120	2840	2920	15400	8040	1580	1200	1580
18	940	623	600	850	1070	2930	3100	13800	7220	1660	1160	1580
19	944	612	647	823	1180	3170	3270	12300	7360	1600	1110	1600
20	958	630	620	796	1420	3070	3140	11800	7360	1430	1130	1610
21	961	784	630	782	1330	3080	3220	13000	7580	1350	1240	1590
22	967	816	625	802	1190	2850	3560	12900	7480	1330	1430	1580
23	962	831	645	851	1180	2780	4330	11400	7400	1340	1440	1550
24	927	778	650	783	1180	2890	3960	11400	7180	1450	1360	1470
25	932	770	665	753	1970	3010	3550	10700	6240	1360	1280	1380
26	938	658	668	770	2320	3190	3850	12300	5620	1270	1340	1380
27	967	595	670	845	2300	3020	5440	13300	5570	1200	1430	1220
28	984	599	677	870	2290	2920	7300	14900	5570	1160	1410	1040
29	1060	661	684	865	---	2980	6080	12500	5170	1130	1390	1070
30	998	647	684	870	---	2970	6460	11600	5280	1160	1360	1090
31	999	---	668	877	---	2930	---	11700	---	1180	1340	---
TOTAL	28963	21996	19547	23373	34336	80740	108580	302990	224560	75310	38260	42370
MEAN	934	733	631	754	1226	2605	3619	9774	7485	2429	1234	1412
MAX	1060	954	684	877	2320	3190	7300	15400	11600	4970	1440	1680
MIN	842	595	574	608	858	2160	2810	5170	5170	1130	1020	1040
AC-FT	57450	43630	38770	46360	68110	160100	215400	601000	445400	149400	75890	84040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	1358	1516	1623	1712	1827	2006	2530	4599	4153	2003	1131	1191
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	463379		1001025			
ANNUAL MEAN	1266		2743		2165	
HIGHEST ANNUAL MEAN					4670	1984
LOWEST ANNUAL MEAN					601	1990
HIGHEST DAILY MEAN	4420	May 15	15400	May 17	20300	Jun 7 1984
LOWEST DAILY MEAN	574	Dec 15	574	Dec 15	208	Aug 11 1977
ANNUAL SEVEN-DAY MINIMUM	594	Dec 12	594	Dec 12	215	Aug 10 1977
INSTANTANEOUS PEAK FLOW			17400	May 28	25500	Jun 7 1984
INSTANTANEOUS PEAK STAGE			11.39	May 28	13.15	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	919100		1986000		1569000	
10 PERCENT EXCEEDS	2420		7320		4100	
50 PERCENT EXCEEDS	986		1340		1540	
90 PERCENT EXCEEDS	663		654		487	

09144250 GUNNISON RIVER AT DELTA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1990 to September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
28...	1310	988	849	8.6	12.0	11.2	67	33	340	87	31
APR											
07...	0945	3020	517	8.2	4.5	10.0	250	120	200	49	19
JUN											
15...	1730	7830	264	8.1	13.0	8.4	110	<3	100	28	8.4
AUG											
12...	0805	1290	802	8.1	16.0	8.2	--	330	330	84	28

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											
28...	50	1	3.6	148	300	7.1	0.3	13	581	0.79	1550
APR											
07...	28	0.9	2.5	115	150	4.9	0.2	13	337	0.46	2750
JUN											
15...	11	0.5	1.4	71	58	1.6	0.2	13	165	0.22	3490
AUG											
12...	45	1	3.3	139	280	5.9	0.3	15	549	0.75	1910

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (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)
OCT								
28...	0.34	--	<0.01	--	0.34	--	0.02	--
APR								
07...	0.31	0.31	--	0.01	0.32	0.32	--	0.02
JUN								
15...	0.22	--	--	<0.01	0.22	0.22	--	0.03
AUG								
12...	0.85	--	--	<0.01	0.85	0.85	--	0.03

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-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								
28...	0.28	--	0.3	--	0.04	--	0.01	--
APR								
07...	--	0.18	--	0.2	--	0.02	--	0.01
JUN								
15...	--	1.6	--	1.6	--	0.02	--	0.01
AUG								
12...	--	0.27	--	0.3	--	0.02	--	<0.01

09144250 GUNNISON RIVER AT DELTA, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT										
28...	<1	<1	450	<1	50	26	<0.1	5	[a]<0.2	<3
APR										
07...	<1	<1	4800	<1	150	18	<0.1	2	[a]<0.2	<3
JUN										
15...	<1	<1	4200	<1	140	12	<0.1	<1	[a]<0.2	<3
AUG										
12...	<1	2	1200	<1	70	28	<0.1	4	[a]<0.2	10

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
01...	1330	903	914	14.0
NOV				
19...	1240	616	1100	6.0
JAN				
04...	1225	617	827	0.0
FEB				
11...	1245	963	856	4.0
25...	1350	2160	497	3.5
APR				
01...	1315	3270	385	6.5
20...	0938	3290	446	5.0
MAY				
05...	1345	6720	372	9.0
17...	1140	15900	272	8.5
21...	0805	13200	260	9.0
25...	1040	10700	255	10.0
JUN				
28...	1255	5820	987	11.0
AUG				
02...	1440	1080	788	18.5
16...	1440	1220	802	17.0
30...	1243	1340	1020	14.5

a-Analysis based on preliminary method.

09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO

LOCATION.--Lat 38°11'02", long 107°44'43", in SW¼NE¼ sec.4, T.45 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 15 ft downstream from bridge, 0.2 mi downstream from Dry Creek, 0.5 mi upstream from Dallas Creek, and 2.3 mi north of Ridgway.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,877.58 ft above sea level, (levels by U.S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 26-28, Dec. 15-29, Jan. 2-4, and 22-25. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	67	58	44	45	45	60	184	961	665	183	195
2	70	70	58	43	44	45	64	148	884	631	172	163
3	69	65	58	41	43	44	70	145	809	625	170	144
4	67	66	57	38	41	43	70	165	602	548	167	133
5	67	66	56	42	41	44	70	207	512	442	178	127
6	67	66	55	41	41	47	69	170	513	418	171	124
7	68	68	52	43	42	50	67	176	504	450	162	124
8	68	70	54	46	43	55	63	160	430	465	176	121
9	71	72	53	45	47	62	63	149	374	445	178	113
10	73	70	53	43	45	61	65	154	351	429	182	107
11	72	69	53	44	45	56	67	202	407	419	189	102
12	71	65	54	42	44	50	69	279	576	415	174	99
13	72	68	52	42	42	47	69	361	820	380	165	127
14	72	67	49	43	40	48	68	420	981	367	167	129
15	72	69	48	45	43	51	68	479	990	349	162	116
16	66	71	48	45	43	53	70	477	1010	338	150	110
17	65	69	46	46	42	53	71	515	934	301	142	100
18	61	71	46	45	41	65	76	496	721	292	132	98
19	63	66	45	45	47	64	77	531	637	277	127	98
20	63	67	44	43	57	63	73	537	777	256	132	93
21	66	64	45	42	48	66	76	704	858	251	141	92
22	65	60	47	41	44	63	87	721	880	242	153	88
23	64	63	45	40	41	63	127	550	879	232	138	89
24	63	61	44	39	41	67	141	563	807	228	133	82
25	64	60	43	42	44	74	115	651	741	215	123	76
26	64	54	42	44	43	79	128	835	765	214	157	76
27	64	50	43	42	44	73	169	992	756	207	142	75
28	65	54	44	43	45	67	224	943	732	199	225	76
29	65	58	44	43	---	63	256	817	739	196	194	74
30	64	57	45	43	---	65	253	841	755	195	193	73
31	68	---	44	44	---	61	---	968	---	187	179	---
TOTAL	2081	1943	1525	1329	1226	1787	2945	14540	21705	10878	5057	3224
MEAN	67.1	64.8	49.2	42.9	43.8	57.6	98.2	469	723	351	163	107
MAX	73	72	58	46	57	79	256	992	1010	665	225	195
MIN	61	50	42	38	40	43	60	145	351	187	123	73
AC-FT	4130	3850	3020	2640	2430	3540	5840	28840	43050	21580	10030	6390

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 1993, BY WATER YEAR (WY)

MEAN	86.5	67.2	51.2	43.5	44.4	58.2	112	324	591	337	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1959 - 1993	
ANNUAL TOTAL	60014		68240			
ANNUAL MEAN	164		187		165	
HIGHEST ANNUAL MEAN					270	1984
LOWEST ANNUAL MEAN					72.6	1977
HIGHEST DAILY MEAN	684	Jun 13	1010	Jun 16	1740	Jun 24 1983
LOWEST DAILY MEAN	32	Jan 3	38	Jan 4	26	Jan 13 1963
ANNUAL SEVEN-DAY MINIMUM	36	Jan 1	41	Jan 21	30	Feb 13 1990
INSTANTANEOUS PEAK FLOW			[a]1130	Jun 14	[b]2100	Jun 24 1983
INSTANTANEOUS PEAK STAGE			4.65	Jun 14	5.73	Jun 24 1983
ANNUAL RUNOFF (AC-FT)	119000		135400		119500	
10 PERCENT EXCEEDS	460		555		432	
50 PERCENT EXCEEDS	72		70		78	
90 PERCENT EXCEEDS	43		43		42	

a-Also occurred May 27, gage height, 4.64 ft.
b-From rating curve extended above 1800 ft³/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 sea level, from topographic map. Mar. 1, 1922 to Oct. 31, 1927, nonrecording gage at different datum.

REMARKS.--Estimated daily discharges: Nov. 25 to Mar. 5, and Aug. 25-31. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	20	24	16	14	14	23	70	59	109	43	72
2	19	20	24	15	13	13	25	62	58	101	41	61
3	19	20	23	14	12	12	26	70	49	105	40	58
4	18	17	22	10	11	16	26	73	29	97	37	55
5	18	16	21	15	11	18	27	80	18	64	40	57
6	18	17	20	18	11	18	26	71	13	51	38	50
7	17	20	21	15	12	20	24	80	11	56	38	45
8	17	21	22	14	13	23	21	71	5.8	65	44	41
9	18	21	21	12	14	25	22	68	4.9	60	49	39
10	18	20	20	11	13	23	26	56	4.6	62	61	38
11	18	19	20	10	12	23	26	57	4.3	68	59	36
12	19	24	20	11	11	18	28	54	5.3	76	51	35
13	21	23	20	11	11	17	26	53	8.9	66	44	41
14	21	23	19	12	10	20	24	49	25	61	46	42
15	20	25	20	13	11	21	24	50	48	67	42	36
16	21	24	19	13	12	27	28	57	69	71	36	35
17	22	24	19	13	13	27	33	83	78	65	32	35
18	22	23	19	12	11	33	45	69	64	63	28	33
19	22	25	18	12	14	33	49	63	54	58	28	33
20	21	26	17	12	18	31	46	60	71	53	33	35
21	20	25	17	13	15	33	52	58	90	50	42	34
22	20	26	18	13	14	31	79	54	101	44	40	31
23	20	30	18	14	13	30	93	46	104	44	34	27
24	19	24	16	11	13	31	102	38	101	46	29	27
25	19	23	15	13	12	35	78	31	89	42	21	27
26	19	21	15	14	13	36	108	36	90	39	39	33
27	19	16	15	13	13	36	130	46	90	37	36	33
28	19	19	16	13	14	33	127	60	92	38	50	32
29	19	21	16	12	---	32	110	48	95	38	68	32
30	19	23	17	12	---	29	88	45	137	39	62	32
31	20	---	17	13	---	26	---	57	---	42	60	---
TOTAL	603	656	589	400	354	784	1542	1815	1668.8	1877	1311	1185
MEAN	19.5	21.9	19.0	12.9	12.6	25.3	51.4	58.5	55.6	60.5	42.3	39.5
MAX	22	30	24	18	18	36	130	83	137	109	68	72
MIN	17	16	15	10	10	12	21	31	4.3	37	21	27
AC-FT	1200	1300	1170	793	702	1560	3060	3600	3310	3720	2600	2350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1993, BY WATER YEAR (WY)

MEAN	24.0	24.5	20.4	17.9	19.0	25.0	59.8	52.5	62.0	75.7	59.4	38.4
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1922 - 1993	
ANNUAL TOTAL	12910.37		12784.8			
ANNUAL MEAN	35.3		35.0		39.7	
HIGHEST ANNUAL MEAN					86.4	1984
LOWEST ANNUAL MEAN					13.8	1990
HIGHEST DAILY MEAN	193	Jun 1	137	Jun 30	740	May 3 1924
LOWEST DAILY MEAN	.41	May 7	4.3	Jun 11	.21	Jun 19 1981
ANNUAL SEVEN-DAY MINIMUM	2.1	May 13	6.4	Jun 7	.38	May 11 1981
INSTANTANEOUS PEAK FLOW			218	Apr 26	[a]1120	Aug 15 1923
INSTANTANEOUS PEAK STAGE			[b]4.42	Apr 26	[c]4.40	Aug 15 1923
ANNUAL RUNOFF (AC-FT)	25610		25360		28750	
10 PERCENT EXCEEDS	76		69		92	
50 PERCENT EXCEEDS	23		26		24	
90 PERCENT EXCEEDS	14		13		11	

a-Maximum discharge observed, datum then in use, from rating curve extended above 160 ft^3/s.
b-Maximum gage height, 4.77 ft, Dec 25, backwater from ice.
c-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 mi^2.

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is above sea level, (levels by U.S. Bureau of Reclamation); gage readings published are to datum.

REMARKS.--Reservoir is formed by an earthfill dam. Dam completed Mar. 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, 49,990 acre-ft, May 11-12, 1993, elevation 6835.16 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 77,230 acre-ft, July 4 and 14, elevation 6,865.58 ft; minimum contents, 49,990 acre-ft, May 11 and 12, elevation, 6,835.16.

MONTHEND ELEVATION AND CONTENTS, AT 2400 WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	6,858.31	70,090	-
Oct. 31	6,856.78	68,630	-1,460
Nov. 30	6,855.24	67,180	-1,450
Dec. 31	6,852.32	64,490	-2,700
CAL YR 1992	-	-	+1,530
Jan. 31	6,851.53	63,770	-720
Feb. 28	6,851.27	63,530	-240
Mar. 31	6,845.92	58,800	-4,730
Apr. 30	6,836.55	51,080	-7,720
May 31	6,849.00	61,500	+10,410
June 30	6,864.45	76,090	+14,600
July 31	6,860.57	72,270	-3,820
Aug. 31	6,855.90	67,800	-4,470
Sept. 30	6,860.61	72,310	+4,510
WTR YR 1993	-	-	+2,220

09147025 UNCOMPAHGRE RIVER BELOW RIDGWAY RESERVOIR, CO

LOCATION.--Lat 38°14'17", long 107°45'31", in NE¼SE¼ 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 mi².

PERIOD OF RECORD.--October 1988 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,650 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	118	112	103	109	71	75	269	285	420	537	386	82
2	120	112	103	109	71	75	274	285	403	531	395	81
3	119	111	103	109	71	75	276	280	423	540	399	78
4	119	109	105	106	71	88	279	280	432	555	396	79
5	118	110	106	86	71	98	281	280	432	532	402	77
6	118	109	104	60	69	98	283	275	430	527	396	79
7	115	109	103	60	68	98	280	274	428	489	387	78
8	115	109	105	65	68	98	277	274	422	453	386	76
9	115	109	106	68	68	98	282	276	414	457	386	72
10	115	109	106	68	68	98	283	274	420	453	386	68
11	115	109	106	66	68	98	284	274	440	447	384	68
12	115	109	106	69	68	98	281	264	425	442	366	65
13	115	109	109	68	68	98	276	261	416	441	377	66
14	115	109	107	68	69	98	275	264	418	440	362	65
15	115	109	106	68	71	98	276	269	419	439	360	69
16	115	109	106	68	71	95	277	269	444	437	316	71
17	118	109	106	68	71	95	276	272	441	443	294	64
18	116	107	107	68	68	138	274	280	427	437	289	61
19	115	106	108	68	71	173	271	291	428	451	298	58
20	115	106	106	68	72	192	271	296	424	451	306	60
21	115	106	106	68	72	192	274	328	421	438	296	60
22	112	106	106	70	73	215	274	354	442	434	293	61
23	112	108	106	71	73	256	278	357	469	425	254	62
24	112	106	106	71	73	272	293	362	476	395	148	61
25	112	106	105	71	75	239	287	367	492	385	115	62
26	113	109	103	71	75	247	280	380	525	380	117	62
27	114	109	103	71	75	269	280	380	510	376	92	63
28	112	109	103	71	75	267	280	398	532	379	76	64
29	112	109	103	71	---	264	282	415	534	384	79	64
30	112	105	108	71	---	266	285	419	532	384	79	66
31	112	---	109	71	---	264	---	425	---	391	79	---
TOTAL	3564	3254	3269	2296	1984	4835	8358	9708	13439	13873	8899	2042
MEAN	115	108	105	74.1	70.9	156	279	313	448	448	287	68.1
MAX	120	112	109	109	75	272	293	425	534	555	402	82
MIN	112	105	103	60	68	75	269	261	403	376	76	58
AC-FT	7070	6450	6480	4550	3940	9590	16580	19260	26660	27520	17650	4050

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

MEAN	84.7	83.9	80.9	58.0	57.6	85.8	242	256	362	357	307	137
MAX	115	108	105	76.2	77.4	156	381	327	530	448	535	238
(WY)	1993	1993	1993	1991	1991	1993	1991	1991	1990	1993	1992	1991
MIN	55.4	43.1	41.9	41.3	40.5	39.3	36.8	159	199	186	188	68.1
(WY)	1991	1990	1990	1992	1990	1990	1990	1989	1989	1989	1989	1993

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1989 - 1993	
ANNUAL TOTAL	82240		75521			
ANNUAL MEAN	225		207		177	
HIGHEST ANNUAL MEAN					222	1992
LOWEST ANNUAL MEAN					117	1989
HIGHEST DAILY MEAN	662	Aug 7	555	Jul 4	911	Jun 12 1990
LOWEST DAILY MEAN	[a]37	Jan 27	58	Sep 19	[b]34	Apr 21 1990
ANNUAL SEVEN-DAY MINIMUM	38	Jan 26	60	Sep 18	34	Apr 21 1990
INSTANTANEOUS PEAK FLOW			594	Jul 2	1160	Jun 13 1990
INSTANTANEOUS PEAK STAGE			3.04	Jul 2	3.56	Jun 13 1990
ANNUAL RUNOFF (AC-FT)	163100		149800		127900	
10 PERCENT EXCEEDS	513		431		407	
50 PERCENT EXCEEDS	128		115		105	
90 PERCENT EXCEEDS	40		68		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 sea level. See WSP 1713 or 1733 for history of changes prior to Sept. 30, 1949.

REMARKS.--Estimated daily discharges: Dec. 20, 26-27, Jan. 4, 24-26, Feb. 5-7, June 22-23, and June 30 to July 2. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	125	128	139	90	82	321	468	1070	890	352	95
2	98	128	131	142	88	80	326	426	962	790	350	91
3	97	125	133	138	87	80	332	436	913	729	349	87
4	97	124	129	136	86	94	335	481	751	689	353	86
5	98	127	129	119	81	108	345	536	703	645	355	86
6	98	132	128	78	79	111	340	458	705	625	346	86
7	96	132	124	77	86	112	336	438	704	589	328	84
8	97	130	129	82	88	115	330	423	623	542	351	81
9	97	131	129	87	88	120	332	427	579	531	336	80
10	96	132	129	87	87	120	334	430	545	515	353	78
11	96	133	130	83	86	117	333	479	575	507	349	78
12	97	127	130	85	85	112	340	561	667	507	327	78
13	100	133	131	86	85	108	340	650	797	496	313	84
14	100	132	128	87	86	113	341	707	910	486	308	89
15	101	135	127	86	88	113	338	751	922	479	306	87
16	104	135	132	86	86	108	347	755	904	478	287	86
17	105	130	129	86	85	119	347	896	806	462	263	85
18	105	128	138	86	83	170	368	804	686	461	260	83
19	105	125	135	87	86	207	387	788	642	456	257	82
20	105	128	129	84	97	236	378	747	712	446	255	80
21	106	127	133	85	88	240	408	898	755	440	257	81
22	105	123	133	88	83	265	408	939	800	430	255	80
23	106	135	132	89	88	317	441	805	970	412	230	79
24	105	127	133	82	88	350	440	790	959	390	147	78
25	106	124	134	90	86	319	408	849	890	375	115	76
26	115	124	133	87	84	339	461	997	931	366	119	79
27	117	123	136	87	84	354	558	1150	952	354	108	83
28	118	125	136	88	83	341	626	1150	979	355	98	84
29	123	129	138	89	---	328	644	1020	980	357	93	82
30	124	126	139	89	---	322	592	997	960	355	86	74
31	127	---	140	89	---	319	---	1070	---	354	82	---
TOTAL	3244	3855	4085	2904	2411	5919	11836	22326	24352	15511	7988	2482
MEAN	105	128	132	93.7	86.1	191	395	720	812	500	258	82.7
MAX	127	135	140	142	97	354	644	1150	1070	890	355	95
MIN	96	123	124	77	79	80	321	423	545	354	82	74
AC-FT	6430	7650	8100	5760	4780	11740	23480	44280	48300	30770	15840	4920

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 1993, BY WATER YEAR (WY)

MEAN	131	106	99.2	83.5	80.9	114	296	488	604	398	264	169
MAX	224	137	132	105	102	191	542	926	1052	677	480	391
(WY)	1988	1986	1993	1986	1986	1993	1992	1987	1986	1986	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1987 - 1993	
ANNUAL TOTAL	98122		106913			
ANNUAL MEAN	268		293		[a]225	
HIGHEST ANNUAL MEAN					327	1987
LOWEST ANNUAL MEAN					129	1989
HIGHEST DAILY MEAN	742	Apr 18	1150	May 27	1630	May 17 1987
LOWEST DAILY MEAN	44	Jan 16	74	Sep 30	[b]25	Apr 28 1990
ANNUAL SEVEN-DAY MINIMUM	49	Jan 12	79	Sep 20	29	Sep 24 1989
INSTANTANEOUS PEAK FLOW			1360	May 28	[c]1740	Jun 11 1990
INSTANTANEOUS PEAK STAGE			4.21	May 28	[d]4.48	Jun 11 1990
ANNUAL RUNOFF (AC-FT)	194600		212100		163000	
10 PERCENT EXCEEDS	627		751		571	
50 PERCENT EXCEEDS	133		132		124	
90 PERCENT EXCEEDS	55		84		60	

a-Average discharge for 76 years (water years 1904-05, 1913-86), 271 ft³/s, 196,300 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 discharge and stage for period of record, 4080 ft³/s, Jun 13, 14, 1921, gage height unknown.
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 September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	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											
28...	0730	119	655	8.3	9.0	8.7	K4	K2	300	94	16
APR											
08...	1220	318	647	8.4	7.0	9.7	K10	K2	280	85	16
JUN											
15...	1020	930	366	7.8	10.0	8.9	K50	K20	160	51	8.3
JUL											
13...	1215	497	379	8.4	11.5	--	--	--	150	49	7.4
AUG											
12...	1410	322	390	8.7	16.0	8.0	27	K16	170	54	7.9
SEP											
09...	0700	81	558	8.3	10.0	--	--	--	260	82	14

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)
OCT											
28...	20	0.5	2.3	130	210	3.5	0.4	10	434	0.59	139
APR											
08...	21	0.5	2.2	116	220	4.0	0.3	9.4	427	0.58	367
JUN											
15...	13	0.4	1.4	73	95	19	0.2	9.4	241	0.33	605
JUL											
13...	9.9	0.3	1.4	76	110	1.7	0.3	8.7	234	0.32	287
AUG											
12...	11	0.4	1.6	83	110	2.0	0.3	8.3	245	0.33	213
SEP											
09...	18	0.5	2.2	135	170	2.5	0.3	12	382	0.52	78.4

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)
OCT										
28...	<1	2	150	<1	40	12	<0.1	<1	[a]<0.2	<3
APR										
08...	<1	1	170	<1	40	4	<0.1	1	[a]<0.2	4
JUN										
15...	<1	2	3500	<1	230	13	<0.1	<1	[a]<0.2	<3
AUG										
12...	<1	3	590	<1	40	7	<0.1	<1	<0.2	<3

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
06...	1620	96.4	645	17.5
NOV				
18...	1425	132	650	10.0
JAN				
05...	1435	137	702	4.0
FEB				
23...	1515	89.8	743	7.5
MAR				
17...	1330	60.6	728	5.5
APR				
23...	1105	414	594	5.5
MAY				
13...	1700	499	529	7.0
28...	1310	1060	391	9.5
JUN				
18...	1330	--	424	9.5
JUL				
02...	1315	713	354	12.0
AUG				
05...	1605	358	403	16.0
SEP				
02...	1310	90.7	578	16.5

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 sea level. 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.--Estimated daily discharges: Oct. 30 to Nov. 19, and May 25 to June 16. Records good except for estimated daily discharges, which are poor. 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 upstream from station, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	380	340	254	251	202	176	332	589	1900	236	187	374
2	361	330	262	259	197	174	316	438	1850	191	183	397
3	305	330	266	246	194	177	326	413	1800	264	183	361
4	295	320	272	205	192	172	310	459	1600	322	180	339
5	285	310	269	221	186	177	335	633	1200	325	185	321
6	293	300	266	206	186	165	417	590	1000	256	172	323
7	300	290	254	196	193	184	408	549	1300	261	187	323
8	319	290	258	200	194	211	341	550	1100	231	216	306
9	344	300	258	211	194	189	319	495	1000	281	272	306
10	336	310	259	200	197	211	295	441	700	268	261	303
11	329	330	255	197	191	234	307	436	800	273	343	296
12	334	310	258	190	189	214	334	559	900	262	341	291
13	347	290	261	191	185	198	324	740	950	228	295	435
14	355	300	254	195	182	205	292	844	850	225	288	574
15	372	320	255	193	186	206	273	872	750	215	319	473
16	395	310	261	193	185	190	285	1020	650	210	303	443
17	370	305	241	211	185	196	368	1430	522	233	256	421
18	345	300	266	219	186	182	407	1390	453	238	248	420
19	356	290	262	205	186	183	470	1220	341	222	227	428
20	365	300	226	200	233	174	405	1040	373	204	225	413
21	358	301	245	194	223	143	361	962	416	200	342	399
22	378	295	239	193	190	152	344	1050	398	205	657	381
23	406	302	233	196	186	256	410	991	388	225	581	351
24	441	301	238	187	186	343	443	869	399	245	496	358
25	455	279	237	179	184	403	360	880	372	238	376	428
26	487	261	232	195	183	387	315	1000	357	217	511	483
27	535	253	238	199	181	395	457	1500	334	192	618	497
28	379	262	252	192	176	415	667	2000	315	186	588	472
29	294	277	271	193	---	373	751	1700	265	177	536	445
30	320	254	305	186	---	372	771	1800	279	182	485	436
31	350	---	279	189	---	363	---	1900	---	176	396	---
TOTAL	11189	8960	7926	6292	5352	7420	11743	29360	23562	7188	10457	11797
MEAN	361	299	256	203	191	239	391	947	785	232	337	393
MAX	535	340	305	259	233	415	771	2000	1900	325	657	574
MIN	285	253	226	179	176	143	273	413	265	176	172	291
AC-FT	22190	17770	15720	12480	10620	14720	23290	58240	46740	14260	20740	23400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 1993, BY WATER YEAR (WY)

MEAN	391	244	158	132	128	153	310	511	576	322	285	369
MAX	831	373	256	220	208	305	1107	2542	1763	1170	808	944
(WY)	1942	1959	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1939 - 1993	
ANNUAL TOTAL	118773		141246			
ANNUAL MEAN	325		387		299	
HIGHEST ANNUAL MEAN					688	1984
LOWEST ANNUAL MEAN					155	1951
HIGHEST DAILY MEAN	969	May 28	[a]2000	May 28	[b]4520	May 15 1984
LOWEST DAILY MEAN	103	Jan 20	143	Mar 21	[b]20	Dec 26 1962
ANNUAL SEVEN-DAY MINIMUM	113	Jan 16	174	Feb 28	42	Mar 14 1959
INSTANTANEOUS PEAK FLOW			[c]1730	May 17	[d]5800	May 15 1984
INSTANTANEOUS PEAK STAGE			[c]6.28	May 17	8.85	May 15 1984
ANNUAL RUNOFF (AC-FT)	235600		280200		216300	
10 PERCENT EXCEEDS	529		680		598	
50 PERCENT EXCEEDS	300		300		196	
90 PERCENT EXCEEDS	134		186		105	

a-Estimated.
b-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.
c-Maximum recorded, may have been higher during period of no gage-height record May 25 to Jun 16.
d-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 September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
28...	1010	527	1190	8.4	11.0	9.2	760	700	510	140	38
APR											
07...	1355	405	1010	8.3	8.5	9.7	1100	300	410	110	32
JUN											
15...	1500	617	966	8.2	17.0	8.0	760	K450	420	120	29
JUL											
13...	0750	200	1500	8.2	15.0	--	--	--	610	170	45
AUG											
11...	1520	350	1460	8.2	21.5	7.1	2300	2000	610	170	45
SEP											
10...	1310	292	1540	8.4	18.0	--	--	--	680	190	50

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											
28...	68	1	3.4	188	460	8.0	0.5	15	846	1.15	1200
APR											
07...	63	1	3.3	147	390	8.1	0.3	12	712	0.97	779
JUN											
15...	53	1	3.0	148	370	7.3	0.5	14	694	0.94	1160
JUL											
13...	86	2	3.5	209	620	9.1	0.6	17	1080	1.46	581
AUG											
11...	91	2	4.1	203	610	9.9	0.6	18	1090	1.48	1030
SEP											
10...	93	2	3.5	199	630	9.5	0.6	16	1110	1.51	877

DATE	NITRO-GEN, NITRATE TOTAL (MG/L AS N)	NITRO-GEN, NITRATE DIS-SOLVED (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)
OCT								
28...	1.68	--	0.02	--	1.70	--	0.02	--
APR								
07...	1.19	1.19	--	0.01	1.20	1.20	--	0.04
JUN								
15...	1.79	1.79	--	0.01	1.80	1.80	--	0.05
AUG								
11...	3.58	3.58	--	0.02	3.60	3.60	--	0.04

DATE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-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								
28...	0.48	--	0.50	--	0.17	--	0.03	--
APR								
07...	--	0.26	--	0.30	--	0.02	--	0.02
JUN								
15...	--	0.15	--	0.20	--	0.03	--	0.03
AUG								
11...	--	0.36	--	0.40	--	0.03	--	0.02

K-Based on non-ideal colony count.

09149500 UNCOMPAHGRE RIVER AT DELTA, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT										
28...	<1	<1	2600	<1	140	22	<0.1	11	[a]<0.2	<3
APR										
07...	<1	<1	9000	<1	260	25	<0.1	12	[a]<0.2	<3
JUN										
15...	<1	1	6700	<1	300	20	<0.1	8	[a]<0.2	9
AUG										
11...	<1	2	8100	<1	350	43	<0.1	14	[a]<0.2	5

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
01...	1135	387	1340	12.0
NOV				
19...	1030	279	1780	5.5
JAN				
04...	1535	195	1740	1.0
FEB				
11...	1100	177	1860	5.0
25...	0940	176	1910	3.5
APR				
20...	1300	443	1030	9.0
MAY				
14...	1220	960	751	13.5
17...	1750	1570	620	13.5
25...	1515	865	478	16.0
JUN				
16...	1600	616	976	19.0
29...	1535	306	1270	11.5
AUG				
06...	1135	183	1670	17.0
SEP				
03...	1040	364	1580	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 sea level. See WSP 1733 or 1924 for history of changes prior to October 1959.

REMARKS.--Estimated daily discharges: Oct. 1-8, and Dec. 24 to Jan. 12. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1500	2370	1120	960	1280	2710	3710	8680	15300	5890	1820	2330
2	1600	2120	1120	970	1330	2690	3630	8230	14800	5450	1750	2380
3	1620	2120	1140	960	1290	2650	3630	8300	14100	5350	1700	2370
4	1610	1640	1120	960	1260	2680	3580	9070	12400	5340	1680	2380
5	1640	1470	1100	960	1230	2710	3670	9070	11100	5210	1690	2330
6	1630	1420	1110	940	1210	2710	3970	8180	10500	4790	1770	2410
7	1620	1430	1100	900	1230	2720	4260	7390	10700	4640	1740	2340
8	1600	1390	1060	920	1260	2730	3880	7680	9330	4580	1770	2280
9	1630	1380	1070	930	1450	2740	3610	7050	8140	4530	1980	2280
10	1650	1350	1110	940	1510	2730	3650	6710	7390	4300	2060	2200
11	1660	1330	1090	930	1430	2750	3780	7170	7290	4100	2900	2210
12	1680	1260	1080	920	1480	2730	3890	8570	7760	3690	2320	2190
13	1700	1190	1090	923	1550	2660	3920	10400	8640	3450	2190	2370
14	1700	1190	1050	979	1520	2620	3830	12000	9050	3120	2180	2590
15	1720	1170	1020	1010	1510	2620	3750	13200	9370	2870	2230	2770
16	1740	1170	1050	1020	1530	2940	3720	15500	9380	2560	2190	2660
17	1790	1200	1040	1150	1530	3220	3740	18900	9410	2440	2000	2580
18	1760	1180	1050	1350	1490	3370	3870	20500	8850	2480	1920	2580
19	1740	1130	1080	1240	1510	3600	4330	17300	8440	2480	1820	2610
20	1750	1160	1050	1210	1770	3640	4210	15800	8410	2260	1830	2630
21	1740	1230	993	1110	1930	3630	4090	16700	8570	2090	1960	2570
22	1760	1390	965	1150	1630	3540	4450	17900	8560	2050	2730	2520
23	1780	1390	951	1200	1550	3350	5210	16800	8390	2080	2710	2480
24	1780	1390	950	1140	1540	3520	6000	15400	8150	2210	2500	2400
25	1810	1310	950	1040	1770	3760	5590	14600	7270	2240	2280	2330
26	1830	1260	940	1080	2630	4010	5290	15500	6290	2110	2270	2320
27	1860	1100	940	1130	2570	4130	6480	17200	6080	1950	2700	2320
28	1880	1060	940	1230	2680	4310	8600	18900	6100	1890	2670	1990
29	1970	1120	920	1230	---	4140	9660	18100	5960	1830	2590	1920
30	1990	1150	940	1240	---	3900	9900	16000	5890	1830	2550	1970
31	2070	---	950	1230	---	3800	---	15500	---	1840	2380	---
TOTAL	53810	41070	32089	32952	44670	99310	141900	402300	271620	101650	66880	71310
MEAN	1736	1369	1035	1063	1595	3204	4730	12980	9054	3279	2157	2377
MAX	2070	2370	1140	1350	2680	4310	9900	20500	15300	5890	2900	2770
MIN	1500	1060	920	900	1210	2620	3580	6710	5890	1830	1680	1920
AC-FT	106700	81460	63650	65360	88600	197000	281500	798000	538800	201600	132700	141400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1897 - 1993, BY WATER YEAR (WY)

MEAN	1394	1394	1298	1230	1245	1405	3102	7590	7219	2477	1339	1306
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1897 - 1993	
ANNUAL TOTAL	714949		1359561			
ANNUAL MEAN	1953		3725		2586	
HIGHEST ANNUAL MEAN					5187	1984
LOWEST ANNUAL MEAN					838	1934
HIGHEST DAILY MEAN	6360	May 28	20500	May 18	35200	May 23 1920
LOWEST DAILY MEAN	920	Dec 29	900	Jan 7	106	Jul 20 1934
ANNUAL SEVEN-DAY MINIMUM	940	Dec 24	923	Jan 7	116	Jul 14 1934
INSTANTANEOUS PEAK FLOW			21600	May 18	[a]35700	May 23 1920
INSTANTANEOUS PEAK STAGE			13.16	May 18	14.95	May 23 1920
ANNUAL RUNOFF (AC-FT)	1418000		2697000		1873000	
10 PERCENT EXCEEDS	3620		8750		6260	
50 PERCENT EXCEEDS	1630		2240		1300	
90 PERCENT EXCEEDS	1120		1070		690	

a-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. Daily water temperature data are good. Daily specific conductance data are good except for June 30 to July 27 which are fair.

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, 1,420 microsiemens November 14 and 16, may have been higher during period of missing record November 9-13; minimum, 282 microsiemens May 14, may have been lower during period of missing record May 17 to June 9.
WATER TEMPERATURES: Maximum, 22.8°C July 31 and August 1; minimum, 0.0°C on many days in December and January.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
01...	1300	1140	1150	8.3	1.5	3.0	12.2	K5	60	480	120	44
FEB												
23...	1230	1560	876	8.1	2.5	37	11.3	73	380	360	86	36
MAY												
26...	1020	15500	274	8.0	13.0	200	--	210	490	110	30	7.8
JUL												
27...	0955	1800	888	8.3	18.0	26	7.8	K24	51	390	110	28
AUG												
25...	1100	2290	960	8.3	18.5	56	6.7	240	250	410	110	32
SEP												
08...	1235	2290	967	8.3	17.5	14	8.3	130	240	440	120	34

DATE	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)	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												
01...	76	2	4.4	211	--	173	450	11	0.5	14	918	831
FEB												
23...	60	1	3.3	168	--	138	330	9.2	0.3	15	643	626
MAY												
26...	12	0.5	1.8	74	--	61	62	2.3	0.2	12	179	166
JUL												
27...	48	1	3.0	189	--	155	340	6.9	0.4	14	653	651
AUG												
25...	50	1	3.6	165	--	135	360	6.9	0.4	16	696	666
SEP												
08...	50	1	4.0	170	2	143	380	7.0	0.5	15	712	703

a-Field dissolved bicarbonate, determined by incremetal 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.

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 TOTAL (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 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											
01...	1.25	2830	0.03	1.30	1.30	0.10	0.20	<0.01	--	0.02	<0.01
FEB											
23...	0.87	2710	0.02	0.78	0.78	0.05	0.40	0.06	0.03	--	0.02
MAY											
26...	0.24	7490	<0.01	0.18	0.18	0.03	0.30	0.09	0.02	--	0.01
JUL											
27...	0.89	3170	0.02	1.40	1.40	0.02	0.50	0.06	<0.01	--	<0.01
AUG											
25...	0.95	4300	<0.01	1.30	1.30	0.03	<0.20	0.02	0.03	--	0.03
SEP											
08...	0.97	4400	<0.01	1.20	1.20	0.03	0.40	0.04	<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												
01...	30	49	<3	19	71	41	<10	2	9	<1	1300	<6
MAY												
26...	350	41	<3	72	10	9	<10	1	1	<1	270	<6
JUL												
27...	<10	47	<3	3	46	11	<10	<1	6	<1	1100	<6
SEP												
08...	10	40	<3	8	57	13	<10	1	5	<1	1100	<6

MISCELLANEOUS FIELD MEASUREMENTS AND CROSS SECTION PROFILES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SAMPLE LOCAT. X-SECT. LOOKING UPSTRM. (FT FM R BANK)	SPE-CIFIC CON-DUCT-ANCE (US/CM)	PH (STAND-ARD UNITS)	TEMPER-ATURE WATER (DEG C)
OCT						
02...	1130	1620	--	1090	--	13.5
NOV						
13...	1025	1220	--	1330	--	3.5
APR						
21...	1215	4160	--	484	--	8.5
JUN						
03...	0945	14300	--	290	--	11.5
15...	1030	9590	--	348	--	14.0
30...	1145	5680	--	390	--	15.0
SEP						
03...	1025	2380	140	995	8.40	18.0
03...	1030	2380	170	998	8.40	18.0
03...	1035	2380	200	1000	8.40	18.0
03...	1040	2380	230	999	8.40	18.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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
DEC					
01...	1300	1140	27	83	54
FEB					
23...	1230	1560	108	455	96
MAY					
26...	1020	15500	1180	49400	69
JUN					
03...	0945	14300	746	28800	65
15...	1030	9590	454	11800	46
30...	1145	5680	167	2560	58
JUL					
27...	0955	1800	62	301	95
AUG					
25...	1100	2290	151	934	94
SEP					
03...	1020	2380	96	617	90
08...	1235	2290	61	377	88

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1090	1100	1240	1030	892	581	571	358	---	391	878	1050
2	1090	1140	1250	1040	903	576	567	343	---	406	887	1050
3	1120	1080	1260	1070	943	574	573	326	---	422	913	1030
4	1130	1180	1250	1070	935	569	566	313	---	437	920	1030
5	1150	1250	1240	1090	918	553	565	307	---	449	919	1020
6	1130	1280	1230	1070	899	556	575	302	---	463	925	1030
7	1140	1290	1230	1030	881	579	629	300	---	480	936	1030
8	1140	1280	1210	1000	883	579	595	300	---	496	943	1020
9	1130	---	1210	976	885	583	586	296	---	511	952	1010
10	1130	---	1230	1010	944	581	590	295	420	527	965	1000
11	1110	---	1200	1120	989	587	562	294	412	544	979	1010
12	1100	---	1180	1100	971	602	554	293	397	573	979	1010
13	1090	---	1180	1110	895	595	547	291	377	591	994	1010
14	1090	1410	1200	1100	845	578	554	298	355	594	1010	1050
15	1090	1400	1190	1080	816	585	552	322	333	612	1010	1080
16	1090	1410	1170	1120	806	610	545	317	329	630	1020	1030
17	1090	1400	1190	1100	798	548	547	---	333	650	1010	1010
18	1080	1380	1170	1130	794	525	548	---	337	672	991	1000
19	1070	1360	1160	1250	813	522	527	---	341	691	991	989
20	1080	1370	1200	1210	820	490	502	---	342	711	990	983
21	1080	1350	1170	1210	907	482	502	---	342	734	982	982
22	1060	1290	1170	1160	937	482	466	---	344	754	991	979
23	1060	1170	1190	1090	890	476	454	---	344	776	988	982
24	1060	1170	1200	1090	883	489	461	---	341	794	985	968
25	1060	1200	1180	1070	872	495	449	---	346	819	978	952
26	1050	1200	1130	1010	659	490	436	---	358	845	984	952
27	1070	1200	1130	997	605	479	419	---	371	866	1080	947
28	1060	1260	1110	970	591	531	400	---	379	863	1090	952
29	1050	1290	1060	923	---	727	386	---	384	860	1040	1010
30	1080	1300	1010	908	---	634	369	---	388	870	995	1030
31	1070	---	1020	899	---	587	---	---	---	880	1030	---
MEAN	1090	---	1180	1070	856	556	520	---	---	642	979	1010

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.0	13.0	9.6	8.6	2.2	1.1	.2	.0	3.8	2.3	5.4	3.2
2	15.9	13.1	8.8	7.7	2.7	1.5	2.8	.2	4.1	3.3	5.5	3.8
3	15.7	13.1	7.7	5.8	3.1	1.6	2.8	1.1	4.6	2.9	5.4	3.7
4	15.8	13.4	6.4	5.0	2.6	1.4	1.1	.0	4.5	2.8	5.2	3.4
5	15.1	12.5	6.2	4.8	1.9	1.1	.1	.0	4.0	2.3	5.3	3.6
6	14.9	12.4	6.4	4.8	2.4	1.1	.0	.0	3.4	1.9	6.2	4.1
7	13.5	11.1	6.8	4.9	1.7	.8	.1	.0	3.1	2.3	6.8	4.8
8	11.8	9.5	7.2	5.4	1.3	.5	1.2	.0	4.0	3.0	7.1	5.2
9	12.2	9.4	---	---	1.5	.1	2.9	1.2	5.2	4.0	7.5	5.6
10	12.9	9.9	---	---	2.2	.5	3.3	2.4	5.6	3.9	7.9	6.1
11	13.3	10.4	---	---	2.3	1.2	3.5	2.6	5.5	4.5	7.6	6.3
12	13.6	10.7	---	---	2.7	1.7	2.6	1.0	5.1	4.0	6.3	4.1
13	13.6	10.9	---	---	2.6	1.0	1.0	.5	5.1	3.3	5.2	3.5
14	13.7	11.3	5.2	3.5	1.2	.0	1.5	.6	4.1	2.5	5.7	3.8
15	13.8	11.5	6.0	4.0	1.0	.5	2.2	1.4	3.5	2.0	7.7	5.3
16	13.0	11.6	6.4	4.9	1.4	.4	3.9	2.2	3.7	2.0	8.4	6.7
17	13.2	11.0	6.8	5.3	.5	.0	4.3	3.4	4.0	2.3	7.1	5.9
18	12.9	11.0	7.2	5.9	.9	.2	4.9	3.7	4.4	2.2	7.7	5.8
19	13.2	10.8	6.7	5.7	1.1	.0	4.4	4.1	6.0	3.7	7.8	6.6
20	13.1	10.8	6.4	5.7	.2	.0	5.0	3.8	7.1	5.1	7.6	6.4
21	12.1	10.6	5.9	4.8	.2	.0	4.5	3.2	5.7	3.4	8.0	6.2
22	12.2	10.3	4.9	4.2	.3	.0	4.4	3.1	3.7	2.1	8.0	6.5
23	13.5	10.9	4.7	3.6	.2	.0	4.1	2.4	4.4	2.0	8.2	6.5
24	13.1	11.2	3.8	2.1	.0	.0	2.4	.9	5.6	4.0	8.8	7.1
25	13.4	11.6	2.4	1.3	.0	.0	1.5	.0	5.0	3.9	9.3	7.7
26	13.8	11.9	2.0	.6	.0	.0	1.8	.0	4.2	3.4	9.0	7.7
27	12.9	11.5	1.5	.3	.0	.0	2.6	.7	5.0	3.2	7.7	6.2
28	11.8	10.9	1.3	.4	.0	.0	3.0	1.3	5.0	3.8	6.2	5.4
29	11.9	10.9	2.3	1.1	.0	.0	3.1	1.5	---	---	7.2	5.2
30	11.4	10.9	2.5	1.0	.0	.0	3.3	1.6	---	---	7.8	6.6
31	10.9	9.6	---	---	.0	.0	2.9	1.8	---	---	7.8	6.4
MONTH	16.0	9.4	---	---	3.1	.0	5.0	.0	7.1	1.9	9.3	3.2

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.2	6.7	8.7	7.6	---	---	16.4	14.8	22.8	19.1	18.3	16.5
2	7.7	6.7	8.8	8.1	---	---	16.7	14.7	22.2	18.7	19.4	16.5
3	7.6	5.9	9.2	8.1	---	---	16.1	14.6	21.4	18.3	19.4	16.3
4	8.5	7.1	9.7	8.4	---	---	14.6	12.8	20.3	17.9	19.1	16.1
5	8.7	7.9	8.4	7.4	---	---	14.5	12.2	20.5	17.4	20.0	16.7
6	7.9	6.9	7.8	7.0	---	---	16.2	14.1	22.0	18.3	18.9	17.0
7	7.1	6.1	8.7	7.4	---	---	17.1	14.8	20.7	18.4	18.8	16.8
8	7.8	6.2	8.4	7.5	---	---	16.6	15.4	20.0	18.1	19.1	16.2
9	8.5	7.0	9.0	7.3	---	---	16.2	14.0	20.8	17.4	19.5	16.2
10	8.7	7.6	10.0	9.0	13.0	11.3	17.5	15.1	21.8	19.1	19.4	16.5
11	8.5	7.2	10.9	9.8	13.4	12.7	18.1	16.4	20.7	17.6	19.3	16.1
12	8.2	7.5	10.8	10.3	13.4	12.3	19.1	17.0	20.9	18.2	18.6	16.0
13	7.8	6.6	10.9	10.4	13.6	12.9	19.2	17.4	21.2	18.4	17.6	15.4
14	8.3	6.8	11.2	10.0	13.9	13.1	19.5	17.3	19.7	17.2	15.4	13.6
15	9.0	7.3	11.2	10.1	14.6	13.1	20.1	17.4	18.7	16.1	15.8	13.3
16	9.4	7.9	11.3	9.7	14.2	13.1	20.2	17.8	20.3	16.9	16.5	14.0
17	9.4	8.1	---	---	13.9	12.3	20.7	17.7	19.6	17.2	17.3	14.9
18	9.2	8.4	---	---	12.3	11.9	20.9	17.8	20.2	16.0	16.2	14.5
19	8.4	6.7	---	---	13.5	12.3	20.5	17.6	20.0	17.3	15.4	13.4
20	8.5	7.0	---	---	14.6	13.5	21.1	17.6	19.2	17.1	16.3	13.9
21	9.2	7.6	---	---	14.9	13.9	20.9	17.9	18.5	17.0	16.9	14.1
22	9.8	8.4	---	---	14.4	13.5	19.5	17.2	17.7	16.3	17.3	14.7
23	9.8	8.9	---	---	14.6	13.3	18.5	17.0	19.5	16.5	17.4	14.8
24	9.3	8.2	---	---	13.8	12.8	19.3	16.1	20.0	17.1	16.4	14.5
25	8.6	7.6	---	---	14.3	12.9	20.9	17.6	19.0	17.4	16.2	13.4
26	9.9	8.4	---	---	15.6	13.9	21.8	18.2	19.3	16.6	15.8	13.1
27	10.5	9.2	---	---	16.5	14.7	21.2	18.0	19.2	17.6	15.8	12.9
28	10.0	9.1	---	---	16.3	14.9	21.9	17.7	18.7	16.5	16.0	12.8
29	9.3	8.1	---	---	16.9	14.6	21.4	18.3	18.9	17.3	16.2	13.1
30	8.8	7.8	---	---	16.5	15.1	22.7	18.9	19.0	16.7	16.2	13.2
31	---	---	---	---	---	---	22.8	19.5	18.8	16.8	---	---
MONTH	10.5	5.9	---	---	---	---	22.8	12.2	22.8	16.0	20.0	12.8

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 mi².

PERIOD OF RECORD.--October 1975 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,505 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	61	9.0	6.2	5.2	7.1	4.9	47	59	67	68	99
2	73	63	9.0	6.1	5.5	7.1	5.0	45	59	70	77	91
3	68	58	9.0	6.1	5.0	7.1	4.9	46	56	68	83	87
4	63	51	9.0	5.9	4.8	7.3	4.6	45	60	69	76	87
5	57	26	8.8	5.8	4.7	7.4	4.8	53	58	60	76	89
6	57	16	8.8	5.8	4.8	7.4	4.7	41	61	54	78	93
7	63	14	8.4	5.9	5.0	7.4	4.4	57	59	56	80	77
8	70	13	8.2	6.1	6.3	7.4	4.2	47	56	56	84	81
9	73	13	8.2	6.1	6.3	7.2	4.2	48	56	56	81	78
10	76	12	8.1	5.9	6.3	7.0	4.2	50	51	64	78	83
11	78	12	7.9	6.1	5.9	6.9	4.2	45	54	71	75	83
12	73	11	7.9	6.0	6.0	6.4	4.1	47	57	87	77	81
13	71	11	7.9	5.8	5.8	6.4	4.2	47	51	85	75	81
14	66	11	7.8	5.6	6.0	6.4	47	45	51	78	79	75
15	64	11	7.7	5.6	6.1	6.4	77	40	52	77	77	75
16	67	11	7.6	5.6	6.1	6.2	78	37	52	63	78	74
17	68	10	7.4	5.9	6.1	6.1	79	58	59	66	75	77
18	69	9.9	7.4	6.2	6.3	6.3	79	48	70	79	84	83
19	68	9.8	7.2	7.0	6.7	5.6	77	50	74	80	89	86
20	67	9.5	7.0	5.8	7.1	5.6	78	61	75	81	86	86
21	70	9.6	6.9	5.4	6.2	5.6	76	70	75	77	88	84
22	70	9.3	6.7	5.4	6.7	5.4	76	63	75	89	82	84
23	70	9.4	6.6	5.3	6.4	5.4	67	66	58	84	81	84
24	74	9.3	6.4	5.1	8.6	5.4	70	67	59	77	79	80
25	76	9.3	6.5	5.1	7.0	5.4	62	63	61	70	83	83
26	74	9.1	6.4	5.1	6.8	5.4	55	60	64	72	93	83
27	73	9.0	6.6	5.1	6.7	5.8	57	66	61	72	84	78
28	75	9.1	6.5	5.1	6.9	6.2	54	61	59	72	87	76
29	73	9.0	6.5	5.1	---	5.3	47	54	72	76	91	76
30	69	9.0	6.4	5.1	---	5.2	45	51	67	77	90	76
31	86	---	6.3	5.1	---	4.9	---	57	---	70	89	---
TOTAL	2169	525.3	234.1	176.4	171.3	194.7	1182.4	1635	1821	2223	2523	2470
MEAN	70.0	17.5	7.55	5.69	6.12	6.28	39.4	52.7	60.7	71.7	81.4	82.3
MAX	86	63	9.0	7.0	8.6	7.4	79	70	75	89	93	99
MIN	57	9.0	6.3	5.1	4.7	4.9	4.1	37	51	54	68	74
AC-FT	4300	1040	464	350	340	386	2350	3240	3610	4410	5000	4900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	78.2	19.3	14.0	6.14	4.68	8.06	45.6	69.3	68.5	73.8	78.5	80.3
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	13283.1		15325.2			
ANNUAL MEAN	36.3		42.0		45.8	
HIGHEST ANNUAL MEAN					54.0	1978
LOWEST ANNUAL MEAN					35.2	1992
HIGHEST DAILY MEAN	93	Aug 17	99	Sep 1	150	May 12 1980
LOWEST DAILY MEAN	3.0	Feb 12	4.1	Apr 12	2.0	Jan 31 1979
ANNUAL SEVEN-DAY MINIMUM	3.1	Feb 9	4.2	Apr 7	2.5	Jan 22 1982
INSTANTANEOUS PEAK FLOW			127	Oct 31	[a]390	Jul 23 1983
INSTANTANEOUS PEAK STAGE			4.86	Oct 31	[b]6.21	Sep 8 1991
ANNUAL RUNOFF (AC-FT)	26350		30400		33150	
10 PERCENT EXCEEDS	72		81		89	
50 PERCENT EXCEEDS	42		51		56	
90 PERCENT EXCEEDS	3.4		5.4		4.1	

a-Gage height unknown.
b-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 sea level, from topographic map. May 1951, to October 1979, water-stage recorder at site 5.7 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 18 to Jan. 13, May 28 to June 9. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3110	5070	2960	2250	2700	4340	6660	15600	39000	20300	5590	4660
2	3100	4380	2970	2300	2840	4270	6560	14500	38400	18900	5480	4770
3	3050	4570	2990	2300	2860	4260	6780	14100	37000	18200	5320	4810
4	2950	4050	3060	2300	2830	4200	6460	14800	35000	18100	5120	4680
5	2870	3950	3040	2250	2780	4390	6420	16500	31000	17600	4950	4510
6	2820	3600	3010	2200	2690	4350	7100	16900	27000	15500	4930	4460
7	2800	3780	2950	2220	2630	4410	7750	15500	25500	13800	4980	4540
8	2850	3550	2870	2200	2730	4550	7110	15600	26000	12800	5020	4500
9	2980	3560	2780	2200	2940	4600	6570	14400	22500	12900	5220	4560
10	3050	3590	2830	2200	3390	4560	6250	13300	19800	12700	5550	4630
11	3060	3540	2880	2260	3340	4770	6380	13200	18100	12300	6260	4340
12	3090	3460	2980	2250	3060	4680	6480	14800	18500	12100	5940	4300
13	3100	3350	2980	2350	3160	4510	6660	18200	20700	11800	5670	4350
14	3080	3280	2910	2520	3060	4290	6630	22200	23500	11500	5270	4910
15	3090	3370	2800	2620	2950	4300	6180	25500	25400	10800	5240	5360
16	3110	3370	2710	2700	2910	4800	6010	29200	27000	10200	5090	5280
17	3120	3340	2710	2880	3000	5340	6020	35100	27300	9730	4870	5090
18	3120	3380	2450	3100	3000	5670	6140	39400	27800	9270	4480	5040
19	3110	3310	2350	3170	2990	6130	6610	37100	25700	9040	4150	4960
20	3100	3250	2270	2990	3910	6080	6940	34800	24200	8440	4100	4870
21	3070	3340	2200	2840	4450	5920	6680	36000	24000	7990	4190	4790
22	3070	3430	2200	2760	3650	5840	6910	38600	24800	7650	4880	4690
23	3150	3420	2200	2770	3140	5520	7700	40100	25400	7260	5650	4600
24	3180	3400	2200	2780	3190	5640	9110	36700	24500	7080	5560	4520
25	3200	3400	2200	2580	3280	6000	9880	35700	23000	7120	4870	4400
26	3350	3200	2250	2460	4060	6370	8850	35400	20700	6840	4610	4340
27	3530	2940	2250	2490	4250	6940	9480	41100	20000	6490	4950	4290
28	3530	2780	2200	2650	4240	7740	12000	44000	20200	6280	5230	4060
29	3840	2810	2200	2710	---	8070	14300	42000	20100	5950	5090	3900
30	3890	2870	2250	2630	---	7320	15500	39000	19600	5720	4980	3910
31	5540	---	2250	2650	---	7030	---	38400	---	5620	4780	---
TOTAL	99910	105340	80900	78580	90030	166890	232120	847700	761700	339980	158020	138120
MEAN	3223	3511	2610	2535	3215	5384	7737	27350	25390	10970	5097	4604
MAX	5540	5070	3060	3170	4450	8070	15500	44000	39000	20300	6260	5360
MIN	2800	2780	2200	2200	2630	4200	6010	13200	18100	5620	4100	3900
AC-FT	198200	208900	160500	155900	178600	331000	460400	1681000	1511000	674400	313400	274000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

MEAN	3849	3937	3544	3335	3438	3822	5881	14230	17380	7618	3778	3544
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	1598860		3099290			
ANNUAL MEAN	4368		8491		6200	
HIGHEST ANNUAL MEAN					13470	1984
LOWEST ANNUAL MEAN					2559	1977
HIGHEST DAILY MEAN	15800	May 28	44000	May 28	68300	May 27 1984
LOWEST DAILY MEAN	[a]2200	Dec 21	[b]2200	Dec 21	960	Sep 7 1956
ANNUAL SEVEN-DAY MINIMUM	2210	Dec 21	2210	Dec 21	1110	Sep 2 1956
INSTANTANEOUS PEAK FLOW			44300	May 28	69800	May 27 1984
INSTANTANEOUS PEAK STAGE			[c]13.13	May 28	[c]16.12	May 27 1984
ANNUAL RUNOFF (AC-FT)	3171000		6147000		4491000	
10 PERCENT EXCEEDS	7830		23200		13900	
50 PERCENT EXCEEDS	3410		4610		3890	
90 PERCENT EXCEEDS	2810		2670		2220	

a-also occurred Dec 22-25, 28, 29.
b-Also occurred Dec 22-25, 28, 29, Jan 6, 8-10.
c-From high-water mark.

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued
(National stream-quality accounting network station)

PERIOD OF RECORD.--October 1969 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.--October 1979, 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. Data from the old site are stored with this station. Maximum and minimum specific conductance data available in district office. Daily records of water temperature and specific conductance are good. Interruptions in data are due to sensor fouling or 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, 1,520 microsiemens Dec. 25, may have been higher during period of missing record, Dec. 27 to Jan. 19; minimum recorded, 310 microsiemens May 30, 31, and June 2, may have been lower during the runoff period of missing record.
WATER TEMPERATURE: Maximum, 23.9°C Aug. 1; minimum, 0.0°C on several days during December.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
14...	1230	3000	1290	8.5	13.0	14	9.6	100	290	450
NOV										
13...	1400	3300	1350	8.5	4.0	--	11.2	--	--	450
MAR										
10...	1130	4660	936	8.2	8.0	510	9.7	K64	1800	270
APR										
14...	1300	6730	780	8.3	8.5	150	9.5	150	150	260
MAY										
12...	1255	14500	538	8.2	13.0	150	9.1	120	420	180
JUN										
24...	1300	24700	350	8.2	14.5	63	9.2	180	480	140
JUL										
22...	1025	7550	703	8.3	18.0	--	7.8	--	--	240
AUG										
18...	1025	4300	1090	8.2	19.5	45	7.9	140	360	400
SEP										
07...	1055	4610	1130	8.5	19.0	--	7.5	--	--	410

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										
14...	120	37	99	2	4.2	185	10	168	--	390
NOV										
13...	120	37	110	2	4.3	--	--	--	178	390
MAR										
10...	70	24	85	2	3.4	188	--	154	--	230
APR										
14...	65	23	65	2	3.0	184	--	150	--	200
MAY										
12...	49	15	33	1	2.4	160	--	131	--	110
JUN										
24...	40	10	19	0.7	1.4	115	--	94	--	67
JUL										
22...	67	18	48	1	2.2	--	--	--	115	180
AUG										
18...	110	31	81	2	4.2	225	--	184	--	310
SEP										
07...	110	33	83	2	4.4	--	--	--	164	330

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.

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
OCT									
14...	90	0.4	8.9	892	855	1.21	7230	0.02	0.01
NOV									
13...	100	0.3	10	--	878	1.19	7830	--	--
MAR									
10...	69	0.3	11	554	587	0.75	6970	--	0.02
APR									
14...	49	0.3	11	524	510	0.71	9520	--	0.01
MAY									
12...	25	0.2	12	342	327	0.47	13400	--	<0.01
JUN									
24...	15	0.2	9.8	212	221	0.29	14100	--	<0.01
JUL									
22...	44	0.3	8.5	--	437	0.59	8910	--	--
AUG									
18...	67	0.4	12	726	732	0.99	8430	--	<0.01
SEP									
07...	71	0.4	12	--	742	1.01	9240	--	--

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)
OCT									
14...	0.74	0.74	0.03	0.01	0.40	0.09	0.02	0.02	<0.01
MAR									
10...	0.47	0.47	--	0.08	0.60	0.23	0.02	--	0.01
APR									
14...	0.47	0.47	--	0.04	0.60	0.24	0.02	--	0.02
MAY									
12...	0.43	0.43	--	0.03	0.40	0.17	0.02	--	0.02
JUN									
24...	0.25	0.25	--	0.05	0.20	0.03	0.03	--	0.02
AUG									
18...	0.92	0.92	--	0.04	0.30	0.03	<0.01	--	0.01

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	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, DISOLVED (UG/L AS V)
OCT												
14...	<10	45	<3	<3	48	8	<10	2	8	<1	1400	6
APR												
14...	40	57	<3	9	28	4	<10	<1	3	<1	660	6
JUN												
24...	20	45	<3	27	11	5	<10	<1	1	<1	310	6
AUG												
18...	<10	62	<3	<3	39	3	<10	2	5	<1	1100	6

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

MISCELLANEOUS FIELD MEASUREMENTS AND CROSS SECTION PROFILES, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	SAMPLE LOCATION, CROSS SECTION (FT FM L BANK)	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)	OXYGEN, DISSOLVED (MG/L)	SEDIMENT, SUSPENDED (MG/L)
OCT							
14...	1235	170	1270	8.6	13.0	9.7	118
14...	1237	270	1280	8.6	13.0	9.6	103
14...	1239	310	1280	8.6	13.0	9.6	125
14...	1241	350	1280	8.6	13.0	9.7	103
14...	1243	380	1280	8.6	13.0	9.6	119
14...	1245	400	1290	8.6	13.0	9.6	81
MAR							
10...	1140	215	944	8.2	8.0	9.7	1530
10...	1145	360	946	8.2	8.0	9.7	1540
10...	1150	420	946	8.2	8.0	9.7	1520
10...	1155	465	946	8.2	8.0	9.7	1500
10...	1200	495	943	8.2	8.0	9.7	1460
APR							
14...	1240	200	--	--	8.5	9.6	636
14...	1245	350	--	--	8.5	9.6	544
14...	1250	430	--	--	8.5	9.5	450
14...	1255	490	--	--	8.5	9.5	432
JUN							
24...	1235	175	--	--	--	--	303
24...	1240	280	--	--	--	--	274
24...	1245	370	--	--	--	--	256
24...	1250	430	--	--	--	--	222
24...	1255	490	--	--	--	--	204

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					
14...	1230	3000	108	875	--
MAR					
10...	1130	4660	1510	19000	96
APR					
14...	1300	6730	516	9380	78
MAY					
12...	1255	14500	827	32300	53
JUN					
24...	1300	24700	252	16800	64
AUG					
18...	1025	4300	101	1170	96

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1280	1190	1420	---	1270	915	---	446	324	---	888	1120
2	1280	1220	1400	---	1260	909	---	460	320	---	888	1110
3	1280	1260	1360	---	1250	904	---	459	319	---	898	1110
4	1290	1210	1350	---	1260	914	---	463	326	---	913	1120
5	1290	1250	1320	---	1250	892	---	450	351	---	934	1110
6	1310	1310	1310	---	1240	907	---	463	374	---	987	1110
7	1310	1320	1310	---	1230	894	---	484	371	---	977	1130
8	1310	1330	1330	---	1230	915	---	512	372	---	983	1140
9	1330	1330	1340	---	1250	909	---	528	408	---	983	1130
10	1310	1310	1350	---	1230	889	---	536	438	---	1000	1120
11	1300	1290	1370	---	1200	891	---	542	462	---	1020	1120
12	1290	1320	1360	---	1230	876	---	513	457	---	994	1130
13	1290	1350	1340	---	1260	879	---	464	423	---	1030	1130
14	1300	1370	1300	---	1190	869	775	410	381	---	1010	1120
15	1320	1370	1300	---	1170	871	804	383	357	---	1030	1150
16	1320	1360	1310	---	1170	887	797	381	337	---	1050	1110
17	1330	1360	1330	---	1170	840	786	385	---	---	1070	1070
18	1310	1350	1380	---	1180	794	781	385	---	---	1080	1070
19	1310	1340	---	---	1160	753	772	370	---	---	1090	1070
20	1310	1340	1370	1310	1180	693	739	366	---	---	1110	1070
21	1320	1330	1470	1310	1050	665	725	361	---	---	1120	1080
22	1320	1320	1470	1350	1130	656	719	341	---	705	1120	1080
23	1300	1320	1450	1340	1200	685	704	337	---	734	1090	1090
24	1300	1270	1480	1310	1160	712	686	343	---	758	1090	1080
25	1310	1280	1470	1310	1180	666	657	343	---	781	1050	1080
26	1300	1290	1410	1340	1140	625	692	343	---	798	1060	1090
27	1280	1310	---	1310	968	592	664	326	---	826	1080	1100
28	1290	1340	---	1320	931	616	599	325	---	844	1120	1110
29	1280	1380	---	1310	---	650	520	325	---	852	1110	1140
30	1250	1400	---	1270	---	720	457	321	---	866	1090	1180
31	1250	---	---	1240	---	693	---	323	---	877	1090	---
MEAN	1300	1310	---	---	1180	796	---	409	---	---	1030	1110

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.6	14.5	10.3	9.0	1.6	.3	.5	.1	3.5	2.5	6.4	4.6
2	16.7	14.6	9.7	8.4	2.2	.9	.9	.3	4.7	3.0	6.4	4.7
3	16.2	14.5	8.4	6.9	2.2	.9	.8	.1	4.2	2.8	6.3	4.6
4	16.2	14.4	6.9	5.7	1.9	.9	.1	.1	4.2	2.7	6.4	4.7
5	15.8	13.9	6.2	5.5	1.6	.9	.1	.1	3.9	2.3	6.5	4.7
6	15.1	13.7	6.3	5.2	2.1	.9	.1	.1	3.6	2.0	6.9	5.0
7	14.1	12.4	6.3	5.5	1.9	1.1	.2	.1	3.4	2.6	7.7	5.8
8	12.9	11.0	6.5	5.3	1.4	.4	.6	.1	3.6	2.7	8.3	6.4
9	12.8	10.7	7.5	6.4	2.3	1.0	1.4	.3	4.6	3.5	8.4	7.0
10	13.0	11.0	7.0	6.0	1.7	.6	1.5	.9	5.6	4.1	8.9	7.2
11	13.4	11.3	6.0	4.9	1.8	.6	1.5	.6	6.0	4.7	9.3	8.2
12	13.6	11.6	5.1	4.0	2.4	1.1	.6	.1	5.8	4.8	8.2	6.5
13	13.7	11.8	4.7	3.4	2.2	1.3	.6	.1	5.2	3.9	6.7	5.4
14	14.0	12.2	5.1	3.7	1.3	.4	1.1	.1	4.4	3.6	6.7	5.2
15	14.2	12.9	5.4	4.2	1.1	.4	2.0	1.0	4.4	2.9	8.4	6.4
16	13.4	12.2	5.6	4.7	1.1	.3	2.4	1.4	4.3	3.2	9.6	7.6
17	13.7	11.8	6.2	5.1	.8	.1	2.9	2.2	4.4	3.4	9.3	8.5
18	13.3	11.7	6.5	5.4	.4	.1	3.5	2.2	4.9	3.1	9.4	8.3
19	13.6	11.8	6.3	5.6	.2	.1	3.5	2.8	6.1	4.3	9.6	8.0
20	13.5	11.9	5.9	5.2	.1	.0	3.0	2.4	6.7	5.6	9.4	8.4
21	12.9	11.6	5.5	4.4	.1	.0	4.0	2.5	5.9	4.6	9.6	8.1
22	13.2	11.2	4.9	4.5	.1	.1	3.8	2.7	4.9	3.7	9.8	8.3
23	13.1	11.7	4.6	3.9	.1	.1	3.4	2.3	4.9	3.8	10.2	8.5
24	13.1	11.7	3.9	2.6	.1	.0	2.6	1.7	4.5	3.7	10.6	8.9
25	14.0	12.8	2.6	1.7	.1	.0	1.8	.6	5.3	4.0	11.5	10.0
26	13.8	12.4	1.7	.7	.1	.0	1.8	.2	5.3	4.4	11.1	10.5
27	13.3	12.3	1.2	.1	.1	.0	2.1	.5	5.6	4.1	10.9	8.6
28	12.7	12.1	1.2	.2	.1	.1	2.4	.7	6.2	4.5	8.6	7.6
29	12.7	11.9	2.1	.8	.1	.1	2.8	1.2	---	---	8.2	6.7
30	12.3	11.7	1.7	.6	.2	.1	3.2	1.7	---	---	8.7	7.3
31	11.7	10.3	---	---	.3	.1	3.1	1.8	---	---	9.5	7.6
MONTH	16.7	10.3	10.3	.1	2.4	.0	4.0	.1	6.7	2.0	11.5	4.6

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.7	8.1	11.5	9.2	13.9	12.6	17.0	15.7	23.9	22.3	20.5	18.7
2	9.7	8.7	11.9	9.6	13.4	12.6	17.2	15.9	23.1	21.4	20.5	18.8
3	9.8	7.8	12.3	9.6	13.0	12.0	16.9	15.5	22.6	21.4	20.0	18.2
4	10.2	8.3	12.1	10.6	12.6	11.6	15.5	13.6	21.8	20.8	20.3	18.3
5	10.1	9.5	11.0	9.5	12.3	10.9	14.4	12.7	21.8	20.2	20.4	18.6
6	10.0	8.7	10.4	8.6	13.1	11.7	15.7	13.2	22.1	20.2	20.5	18.5
7	9.0	8.2	10.7	9.0	12.9	11.6	17.1	14.5	21.9	20.6	20.1	18.8
8	9.4	7.1	10.5	9.0	12.0	10.4	18.0	16.0	21.1	20.1	20.0	17.8
9	9.8	8.6	10.9	8.0	13.6	11.3	18.3	16.0	21.8	19.6	20.0	17.9
10	10.5	9.2	13.0	9.5	14.7	12.2	18.7	16.6	22.6	20.9	19.9	18.1
11	10.9	9.6	14.2	11.0	15.7	13.7	19.4	17.2	22.1	20.8	19.6	17.7
12	10.7	9.4	14.7	12.0	16.0	14.1	19.6	17.6	21.9	21.1	19.0	17.8
13	10.3	8.4	14.8	12.1	16.1	14.2	19.8	17.7	21.7	20.1	18.4	16.9
14	10.0	8.2	14.7	12.4	15.9	14.1	19.5	17.7	21.4	20.0	16.9	15.6
15	10.7	8.5	14.1	12.1	15.8	14.4	19.4	17.2	20.4	18.8	16.1	14.5
16	11.0	9.9	13.6	12.1	15.8	14.4	19.5	17.5	20.5	18.8	16.4	14.8
17	11.6	9.9	12.2	11.2	15.2	13.6	20.0	17.4	21.3	19.2	16.9	14.9
18	11.5	10.6	12.1	10.4	13.6	12.6	20.1	17.5	21.2	19.4	16.3	15.2
19	11.0	9.0	13.1	10.8	14.3	12.2	19.9	17.7	20.5	19.4	16.3	14.5
20	10.8	9.0	13.1	11.2	15.6	13.4	20.1	18.3	20.7	19.0	16.3	14.5
21	11.3	9.6	13.7	11.8	16.0	14.9	20.1	18.5	20.9	19.8	16.6	14.8
22	12.1	10.6	13.0	12.0	15.7	14.6	20.0	18.4	20.7	18.8	17.3	15.4
23	12.2	11.2	12.7	11.2	15.6	14.4	19.4	18.6	20.6	19.0	16.9	15.6
24	12.1	10.8	13.3	11.4	15.2	13.7	19.4	17.6	21.0	19.2	16.5	15.0
25	11.6	9.6	13.6	11.7	15.0	13.3	20.1	18.5	20.5	18.9	16.3	14.5
26	12.5	10.1	13.6	12.2	15.9	14.0	20.5	19.0	20.8	16.4	16.2	14.1
27	13.6	11.4	12.8	11.9	16.6	15.0	21.2	19.3	20.3	19.1	15.7	13.8
28	13.7	11.8	12.1	11.3	16.8	15.5	21.4	19.5	21.1	18.9	15.7	13.6
29	13.1	10.6	12.9	11.1	16.5	15.2	22.1	20.4	21.1	19.3	15.6	13.7
30	12.0	9.8	13.7	12.1	17.2	15.6	23.0	20.7	20.3	18.7	15.4	13.8
31	---	---	13.9	12.5	---	---	23.2	21.6	20.8	19.2	---	---
MONTH	13.7	7.1	14.8	8.0	17.2	10.4	23.2	12.7	23.9	18.4	20.5	13.6

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 sea level.

REMARKS.--Estimated daily discharges: Nov. 2 to Mar. 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1885 occurred Oct. 5, 1911.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	25	18	16	14	15	39	312	1240	574	75	112
2	27	25	18	16	14	14	42	287	1140	533	70	96
3	26	24	19	15	14	14	41	296	1010	501	65	77
4	26	24	19	14	13	14	46	305	716	422	65	67
5	25	23	19	14	12	14	52	308	622	349	71	63
6	25	23	18	15	13	15	50	255	600	326	65	62
7	24	22	18	16	14	16	44	221	545	317	61	59
8	22	22	16	17	15	17	41	191	470	308	63	52
9	26	22	16	15	14	19	47	168	425	286	66	49
10	25	22	16	16	14	21	58	175	389	269	75	49
11	25	22	16	16	14	21	67	238	458	251	74	46
12	25	22	15	14	13	20	79	333	634	242	61	44
13	25	22	15	13	13	20	70	383	1020	225	59	57
14	24	22	15	15	13	20	74	451	1170	210	75	54
15	24	22	15	16	14	21	69	520	1260	195	69	51
16	23	22	14	16	14	22	74	644	1320	183	58	48
17	23	21	15	16	14	23	79	930	1210	160	54	46
18	22	21	14	16	14	25	100	843	1020	149	50	43
19	22	20	14	15	15	27	91	820	975	137	52	42
20	22	20	14	15	16	31	97	912	1020	127	66	40
21	22	20	14	14	14	34	128	1070	1090	121	65	38
22	23	20	14	15	13	39	167	1060	1090	113	62	37
23	22	20	14	14	14	43	199	911	1060	106	55	34
24	22	19	14	13	14	52	190	916	999	101	50	34
25	26	18	14	13	14	63	161	1060	927	94	49	33
26	27	19	14	13	14	72	197	1190	926	91	69	32
27	24	20	15	13	14	61	276	1300	902	87	67	32
28	24	19	15	14	15	50	337	1220	861	81	134	30
29	27	19	16	14	---	43	373	1090	860	83	143	30
30	29	18	16	14	---	41	374	1210	690	86	143	30
31	31	---	16	14	---	37	---	1260	---	78	121	---
TOTAL	766	638	486	457	389	924	3662	20879	26649	6805	2252	1487
MEAN	24.7	21.3	15.7	14.7	13.9	29.8	122	674	888	220	72.6	49.6
MAX	31	25	19	17	16	72	374	1300	1320	574	143	112
MIN	22	18	14	13	12	14	39	168	389	78	49	30
AC-FT	1520	1270	964	906	772	1830	7260	41410	52860	13500	4470	2950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 1993, BY WATER YEAR (WY)

MEAN	44.9	29.9	22.2	19.2	18.7	30.5	129	459	567	170	81.1	61.9
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1952 - 1993	
ANNUAL TOTAL	42274		65394			
ANNUAL MEAN	116		179		136	
HIGHEST ANNUAL MEAN					230	1957
LOWEST ANNUAL MEAN					40.1	1977
HIGHEST DAILY MEAN	696	May 27	1320	Jun 16	1810	Jun 10 1952
LOWEST DAILY MEAN	10	Feb 19	12	Feb 5	4.8	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	11	Feb 18	13	Jan 23	6.3	Dec 11 1989
INSTANTANEOUS PEAK FLOW			1490	Jun 16	[a]2170	May 24 1984
INSTANTANEOUS PEAK STAGE			5.23	Jun 16	[b]5.95	May 24 1984
ANNUAL RUNOFF (AC-FT)	83850		129700		98720	
10 PERCENT EXCEEDS	429		700		404	
50 PERCENT EXCEEDS	30		38		40	
90 PERCENT EXCEEDS	15		14		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 mi^2.

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 sea level, 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. 9, 13-17, 20, 22, 23, Nov. 26 to Mar. 10, Mar. 12, and Mar. 13. Records good except for period May 12 to June 1, which are fair, and 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	74	99	50	50	60	60	369	2040	4460	1220	216	317
2	73	82	55	50	55	55	410	1870	3740	1120	208	290
3	70	72	65	46	55	50	395	1890	3200	1060	197	249
4	67	56	55	40	55	55	450	2030	2570	939	181	215
5	65	59	55	44	48	60	538	2000	2090	738	180	200
6	63	62	50	46	46	70	557	1550	2100	674	188	198
7	62	64	38	50	50	80	458	1450	1900	651	179	190
8	61	67	50	50	55	95	428	1280	1620	638	177	178
9	57	65	50	48	60	120	472	1070	1440	596	191	166
10	60	69	50	46	60	130	610	1080	1270	543	204	157
11	60	68	48	42	60	137	718	1440	1380	513	244	152
12	59	56	46	40	55	120	801	2070	1800	495	217	147
13	57	55	42	42	50	110	690	2740	2420	475	196	168
14	56	55	34	48	48	132	674	3140	2860	431	202	197
15	55	55	38	50	55	199	641	3530	3010	405	212	139
16	53	55	40	50	50	215	717	3940	3110	378	186	124
17	53	60	42	50	48	217	793	4060	2910	344	166	114
18	53	64	42	50	50	265	990	3940	2200	328	163	107
19	53	59	42	50	55	308	952	3740	1870	302	153	103
20	51	60	42	50	70	319	900	3680	2020	276	181	96
21	48	56	40	48	65	350	1030	4100	2250	260	196	89
22	52	55	42	44	60	398	1250	4470	2270	250	208	85
23	54	55	42	44	60	454	1510	3790	2130	235	188	82
24	52	50	44	42	60	515	1530	3670	1980	260	168	79
25	62	50	44	44	60	610	1270	3800	1710	255	153	77
26	68	44	42	44	60	670	1500	4200	1650	248	178	75
27	65	40	40	48	60	615	1920	4690	1590	239	241	70
28	62	46	40	50	60	468	2210	4760	1550	234	325	68
29	74	65	42	55	---	403	2410	3780	1440	229	405	66
30	83	50	46	60	---	388	2470	3810	1440	235	395	65
31	119	---	48	55	---	358	---	4240	---	227	353	---
TOTAL	1941	1793	1404	1476	1570	8026	29663	93850	65980	14798	6651	4263
MEAN	62.6	59.8	45.3	47.6	56.1	259	989	3027	2199	477	215	142
MAX	119	99	65	60	70	670	2470	4760	4460	1220	405	317
MIN	48	40	34	40	46	50	369	1070	1270	227	153	65
AC-FT	3850	3560	2780	2930	3110	15920	58840	186200	130900	29350	13190	8460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1896 - 1993, BY WATER YEAR (WY)

MEAN	135	84.4	58.9	52.6	56.7	124	758	1746	1379	413	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1896 - 1993	
ANNUAL TOTAL	143365		231415			
ANNUAL MEAN	392		634		436	
HIGHEST ANNUAL MEAN					790	1942
LOWEST ANNUAL MEAN					87.0	1977
HIGHEST DAILY MEAN	2220	May 28	4760	May 28	6950	May 5 1922
LOWEST DAILY MEAN	34	Dec 14	34	Dec 14	8.0	Aug 16 1896
ANNUAL SEVEN-DAY MINIMUM	40	Dec 13	40	Dec 13	12	Aug 10 1896
INSTANTANEOUS PEAK FLOW			5500	May 28	[a]10000	Oct 5 1911
INSTANTANEOUS PEAK STAGE			6.84	May 28	10.20	Oct 5 1911
ANNUAL RUNOFF (AC-FT)	284400		459000		316200	
10 PERCENT EXCEEDS	1500		2090		1400	
50 PERCENT EXCEEDS	112		152		121	
90 PERCENT EXCEEDS	46		46		40	

a-Site and datum then in use, from rating curve extended above 2800 ft^3/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 2.5 mi southeast of Dolores and 3.0 mi upstream from mouth.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 15 to Mar. 11. Records fair 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	1.0	.00	.50	.80	2.0	77	329	164	.20	.33	.00
2	.02	.83	.00	.46	.80	2.0	84	306	137	.13	.17	.00
3	.02	.97	.00	.46	.80	2.4	76	294	112	.08	.05	.00
4	.01	1.4	.00	.42	.70	2.6	99	303	83	.04	.02	.00
5	.02	1.3	.00	.42	.70	3.0	140	304	67	.04	.02	.00
6	.01	.97	.00	.40	.70	4.0	145	198	62	.04	.01	.00
7	.01	.84	.00	.40	.70	5.0	96	177	56	.04	.01	.00
8	.01	.82	.03	.40	.70	6.0	83	173	49	.04	.01	.00
9	.01	.68	.05	.40	.80	8.0	102	123	43	.04	.01	.00
10	.01	.54	.15	.40	.80	10	151	120	41	.04	.01	.00
11	.01	.53	.23	.44	.90	20	184	134	35	.04	.01	.00
12	.01	.73	.29	.48	.90	43	189	334	30	.10	.00	.00
13	.01	.49	.36	.52	1.0	39	123	391	32	.28	.00	.01
14	.02	.39	.42	.60	1.0	27	106	360	30	.29	.02	.00
15	.01	.41	.40	.60	1.4	20	81	419	5.5	.25	.07	.00
16	.01	.39	.40	.70	1.4	32	111	460	3.2	.41	.08	.00
17	.01	.35	.36	.70	2.0	46	142	482	2.7	.36	.06	.00
18	.02	.35	.36	.80	2.0	86	234	482	2.4	.23	.11	.00
19	.02	.31	.34	.80	2.4	115	227	396	2.1	.14	.14	.00
20	.02	.36	.32	.80	3.0	115	175	358	1.8	.18	.22	.00
21	.05	.41	.30	.90	2.4	140	201	373	1.5	.25	.18	.00
22	.07	.33	.30	.90	2.4	169	273	364	1.4	.42	.05	.00
23	.11	.31	.30	.90	2.2	180	318	308	1.3	.33	.02	.00
24	.13	.30	.30	1.0	2.2	210	301	261	1.0	.16	.01	.00
25	.34	.15	.30	1.0	2.0	230	190	259	.75	.16	.01	.00
26	.32	.04	.30	1.0	2.0	212	307	240	.59	.20	.02	.00
27	.31	.02	.32	1.0	2.0	180	378	282	.44	.19	.01	.00
28	.53	.01	.34	1.0	2.0	102	407	273	.35	.24	.20	.00
29	.84	.01	.38	.90	---	79	430	202	.33	.22	.02	.00
30	.68	.00	.46	.90	---	80	409	186	.23	.26	.01	.00
31	1.2	---	.50	.90	---	72	---	178	---	.29	.01	---
TOTAL	4.86	15.24	7.51	21.10	40.70	2242.0	5839	9069	966.59	5.69	1.89	0.01
MEAN	.16	.51	.24	.68	1.45	72.3	195	293	32.2	.18	.061	.000
MAX	1.2	1.4	.50	1.0	3.0	230	430	482	164	.42	.33	.01
MIN	.01	.00	.00	.40	.70	2.0	76	120	.23	.04	.00	.00
AC-FT	9.6	30	15	42	81	4450	11580	17990	1920	11	3.7	.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

MEAN	3.01	6.84	2.70	1.52	2.08	35.2	141	117	6.82	.26	.27	1.31
MAX	17.7	45.2	14.8	5.00	5.11	72.3	265	293	32.2	.87	1.62	5.16
(WY)	1987	1987	1987	1987	1987	1993	1987	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	9653.03		18213.59			
ANNUAL MEAN	26.4		49.9		26.2	
HIGHEST ANNUAL MEAN					49.9	1993
LOWEST ANNUAL MEAN					.43	1990
HIGHEST DAILY MEAN	350	Apr 14	[a]482	May 17	555	Apr 2 1986
LOWEST DAILY MEAN	[b].00	Aug 22	[b].00	Nov 30	[b].00	Jul 11 1984
ANNUAL SEVEN-DAY MINIMUM	.00	Aug 25	.00	Nov 30	.00	Aug 30 1984
INSTANTANEOUS PEAK FLOW			623	May 18	744	Apr 2 1986
INSTANTANEOUS PEAK STAGE			6.67	May 18	7.23	Apr 2 1986
ANNUAL RUNOFF (AC-FT)	19150		36130		18970	
10 PERCENT EXCEEDS	121		201		86	
50 PERCENT EXCEEDS	.75		.50		.95	
90 PERCENT EXCEEDS	.01		.00		.00	

a-Also occurred May 18.
b-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 sea level, from topographic map. Prior to Aug. 1, 1971, nonrecording gage at different datum.

REMARKS.--Estimated daily discharges: Nov. 27 to Jan. 17. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	81	37	36	65	74	952	3940	2910	630	92	271
2	58	80	37	38	62	77	951	3730	2810	626	92	124
3	58	68	38	40	58	75	1050	3320	2780	560	91	114
4	52	56	38	42	55	136	1220	3220	2570	337	93	83
5	45	53	38	44	58	135	1250	3050	2190	318	95	79
6	49	50	38	50	59	122	1520	2970	1710	247	97	78
7	53	48	38	60	60	101	1400	2900	1560	235	99	97
8	54	47	40	80	61	99	1110	2790	1530	451	108	78
9	55	47	44	120	64	102	1080	2650	1490	507	155	75
10	56	46	42	90	85	107	1530	2550	1200	328	131	75
11	56	46	40	70	106	117	2010	2510	1000	218	119	74
12	57	48	37	60	81	128	2300	2340	947	214	119	72
13	57	52	37	55	70	128	2480	2510	937	208	102	69
14	57	48	37	60	66	115	2360	2790	936	200	101	71
15	57	46	38	65	65	110	2340	2860	1370	175	104	77
16	57	46	38	65	68	110	2450	3020	2300	155	104	74
17	57	46	39	75	66	119	2580	3150	2570	151	105	71
18	57	45	39	84	64	154	3340	3880	2560	139	102	73
19	58	45	38	92	73	488	3400	4050	2260	107	102	75
20	58	46	38	87	224	673	3140	4230	1850	102	102	75
21	59	47	37	74	254	726	3080	3940	1710	97	144	74
22	59	47	36	58	152	861	3280	3860	1780	93	140	72
23	59	50	35	49	100	947	3800	4130	1660	92	114	62
24	59	48	33	52	87	1120	4170	4080	1460	92	107	45
25	63	41	32	59	81	1400	4030	3660	1120	91	105	42
26	87	39	33	56	81	1570	3920	3190	1040	86	154	57
27	75	37	33	51	77	1700	4080	2920	916	82	122	67
28	65	36	34	52	75	1470	3760	2820	831	81	133	68
29	63	36	35	54	---	1130	3830	3230	762	77	122	69
30	64	36	35	53	---	1020	4120	3190	637	90	121	69
31	112	---	35	52	---	1000	---	3060	---	90	117	---
TOTAL	1874	1461	1149	1923	2417	16114	76533	100540	49396	6879	3492	2430
MEAN	60.5	48.7	37.1	62.0	86.3	520	2551	3243	1647	222	113	81.0
MAX	112	81	44	120	254	1700	4170	4230	2910	630	155	271
MIN	45	36	32	36	55	74	951	2340	637	77	91	42
AC-FT	3720	2900	2280	3810	4790	31960	151800	199400	97980	13640	6930	4820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	99.3	112	86.2	84.5	98.4	312	1191	1329	749	143	99.1	91.9
MAX	257	399	254	198	181	774	2551	3243	1647	337	242	171
(WY)	1987	1987	1987	1985	1987	1985	1993	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	103432		264208			
ANNUAL MEAN	283		724		[a]366	
HIGHEST ANNUAL MEAN					724	1993
LOWEST ANNUAL MEAN					53.5	1990
HIGHEST DAILY MEAN	3090	May 28	4230	May 20	4690	May 5 1986
LOWEST DAILY MEAN	[b]30	Jan 18	32	Dec 25	[c]4.0	Jun 21 1990
ANNUAL SEVEN-DAY MINIMUM	32	Jan 16	34	Dec 23	8.6	Jun 15 1990
INSTANTANEOUS PEAK FLOW			4550	Apr 27	[d]5230	May 5 1986
INSTANTANEOUS PEAK STAGE			9.23	Apr 27	9.23	Apr 27 1993
ANNUAL RUNOFF (AC-FT)	205200		524100		265500	
10 PERCENT EXCEEDS	1010		2880		1200	
50 PERCENT EXCEEDS	61		92		85	
90 PERCENT EXCEEDS	36		40		36	

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 Jan 25.
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, 1,890 microsiemens Jan. 4 but may have been higher during period of deleted record Jan. 17-26; minimum recorded, 250 microsiemens Apr. 12, but may have been lower during period of deleted record Apr. 23 to June 15.
WATER TEMPERATURES: Maximum recorded, 27.8°C August 1; minimum recorded, 0.0°C many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
06...	1410	53	651	8.0	14.0	160	43	12	69	2
NOV										
12...	1200	49	810	8.5	2.5	180	48	14	85	3
DEC										
22...	1100	24	1240	8.8	0.0	230	61	18	140	4
JAN										
26...	1200	66	1140	8.2	0.0	310	79	27	110	3
MAR										
22...	1230	825	460	8.1	8.5	170	47	12	25	0.8
APR										
20...	1330	3190	291	7.9	6.5	120	37	7.8	13	0.5
MAY										
19...	1400	4410	360	8.0	13.5	150	45	9.4	14	0.5
JUN										
15...	0700	932	386	8.1	15.5	140	41	10	20	0.7
JUL										
07...	1600	215	500	8.2	23.0	140	42	9.6	46	2
AUG										
09...	1200	135	644	8.3	22.5	150	43	9.2	74	3
SEP										
07...	1405	105	738	8.1	21.0	220	62	16	68	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)
OCT									
06...	3.9	117	48	110	0.2	1.3	358	0.49	51.2
NOV									
12...	3.9	135	70	120	0.2	3.5	426	0.58	56.3
DEC									
22...	6.2	173	86	220	0.2	6.2	641	0.87	41.6
JAN									
26...	4.1	155	290	130	0.2	5.4	739	1.00	132
MAR									
22...	2.7	104	110	16	0.1	6.0	281	0.38	626
APR									
20...	1.9	90	53	--	0.2	5.2	--	--	--
MAY									
19...	2.2	103	83	7.2	0.1	5.9	229	0.31	2720
JUN									
15...	2.1	105	66	16	0.1	5.0	223	0.30	562
JUL									
07...	2.7	111	50	62	0.1	4.8	284	0.39	165
AUG									
09...	4.0	103	36	110	0.1	1.0	339	0.46	124
SEP									
07...	3.2	114	140	72	0.2	2.9	433	0.59	123

09169500 DOLORES RIVER AT BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG. C, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	582	671	1050	1150	1100	1070	381	---	---	329	607	740
2	579	632	1010	1580	1060	1050	380	---	---	321	590	642
3	584	654	1040	1520	1050	1030	375	---	---	---	580	647
4	602	659	1030	1820	1110	1030	345	---	---	---	562	673
5	646	694	992	1490	1200	1020	312	---	---	---	556	712
6	651	759	943	1260	1130	926	300	---	---	---	563	739
7	609	1440	986	1160	1190	848	303	---	---	---	548	854
8	613	1350	1010	1090	1210	804	334	---	---	413	530	923
9	621	1020	1040	846	1070	754	335	---	---	304	610	759
10	632	893	1080	999	948	778	306	---	---	323	469	666
11	610	808	1050	895	962	817	274	---	---	419	541	624
12	609	838	1030	948	993	886	259	---	---	448	495	600
13	610	774	976	1140	1210	897	321	---	---	470	542	603
14	615	785	957	1430	1430	898	316	---	---	474	555	577
15	608	799	1010	1480	1240	863	311	---	---	469	636	542
16	611	795	1020	1210	1130	844	296	---	287	502	975	532
17	613	805	1030	---	1110	824	284	---	271	508	652	535
18	622	819	993	---	1100	839	272	---	271	519	534	531
19	623	804	1020	---	1070	761	286	---	277	592	534	539
20	628	808	1110	---	741	550	290	---	286	636	530	549
21	629	827	1130	---	655	541	285	---	286	653	512	521
22	633	844	1200	---	698	461	284	---	279	665	642	522
23	628	825	1180	---	797	378	---	---	277	670	613	533
24	630	842	1130	---	941	361	---	---	277	680	620	566
25	657	865	1150	---	1040	386	---	---	300	676	622	615
26	700	885	1140	---	1050	380	---	---	303	676	647	634
27	593	943	1160	1480	1050	383	---	---	303	670	674	616
28	598	1010	1090	1270	1060	358	---	---	312	667	645	610
29	607	979	1070	1300	---	369	---	---	310	665	656	606
30	630	1010	1230	1270	---	389	---	---	327	662	687	592
31	637	---	859	1250	---	382	---	---	---	624	732	---
MEAN	620	861	1060	---	1050	706	---	---	---	---	602	627

09169500 DOLORES RIVER AT BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	20.0	13.4	9.5	6.4	.7	.1	.2	.1	2.2	.2	7.1	2.9
2	19.4	13.5	7.6	5.9	.8	.1	.3	.1	2.2	.0	7.1	2.8
3	18.2	13.0	6.4	4.2	1.1	.1	.2	.0	3.4	.0	7.4	2.3
4	18.4	12.9	6.0	2.0	.8	.2	.2	.0	2.9	.0	7.1	3.0
5	17.7	12.1	6.5	2.7	.8	.2	.2	.0	2.2	.0	6.8	2.4
6	17.1	12.7	6.6	2.5	.7	.1	.3	.1	2.5	.0	8.1	3.5
7	14.7	10.0	6.3	2.1	1.0	.2	.2	.1	3.3	.0	8.9	4.0
8	13.6	7.7	6.5	2.3	.3	.1	.2	.1	2.7	2.0	9.5	4.8
9	14.9	8.8	8.0	4.7	.8	.2	.2	.1	4.3	2.3	10.2	5.6
10	15.4	9.1	6.9	5.4	.8	.1	.2	.1	5.0	2.3	11.3	7.1
11	15.8	9.7	7.2	4.4	.5	.1	.2	.1	4.7	2.2	10.0	7.9
12	15.9	9.9	4.5	1.7	.9	.1	.2	.0	5.4	1.7	8.5	4.5
13	15.8	10.0	5.3	1.0	.7	.1	.2	.1	5.5	1.0	6.6	3.1
14	15.6	10.5	5.5	1.1	.6	.0	.2	.1	2.5	.0	7.0	3.5
15	16.3	11.9	5.6	1.3	.7	.1	.3	.1	2.8	.2	9.4	5.8
16	14.4	10.6	5.7	1.7	.6	.0	.3	.1	2.0	.0	10.9	6.4
17	15.4	10.1	6.2	2.3	.4	.0	.8	.1	3.8	.1	9.4	7.4
18	14.3	9.4	6.2	2.4	.3	.1	.9	.4	3.0	.0	11.4	7.9
19	15.0	10.4	5.7	3.0	.3	.0	.8	.5	5.2	2.1	10.3	7.7
20	15.3	9.6	4.9	3.4	.2	.0	.7	.2	5.1	3.1	9.4	8.0
21	14.3	10.0	5.4	2.2	.2	.0	.9	.0	5.0	2.0	9.8	7.7
22	15.1	10.6	4.1	1.5	.3	.0	.9	.0	4.5	1.2	9.8	6.7
23	14.9	10.3	3.7	1.7	.3	.0	1.0	.3	3.8	1.8	10.1	6.5
24	14.8	10.7	2.7	.5	.4	.0	.7	.2	3.4	2.5	9.9	6.9
25	14.7	12.8	1.2	.2	.4	.0	.5	.0	3.4	2.0	9.1	7.0
26	14.1	11.3	1.0	.0	.4	.0	.8	.0	3.6	2.1	8.1	6.5
27	13.4	9.9	1.0	.1	.3	.0	1.9	.0	5.6	2.2	7.4	5.5
28	12.8	10.8	1.1	.1	.2	.1	1.7	.0	4.8	3.1	5.5	4.1
29	12.0	10.5	1.4	.1	.3	.2	1.8	.0	---	---	6.8	3.8
30	10.8	10.1	1.0	.0	.3	.1	2.2	.0	---	---	7.4	4.7
31	10.1	8.4	---	---	.3	.1	2.4	.0	---	---	9.2	5.5
MONTH	20.0	7.7	9.5	.0	1.1	.0	2.4	.0	5.6	.0	11.4	2.3

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.8	5.4	10.4	8.0	12.4	9.8	21.6	17.5	27.8	22.5	21.1	16.5
2	8.7	6.4	9.7	8.0	12.8	10.1	21.4	18.0	26.8	21.9	23.2	19.0
3	9.5	5.7	10.6	7.7	12.4	10.0	---	---	25.4	21.5	22.7	18.3
4	9.3	6.4	11.3	9.2	11.4	9.0	---	---	23.6	21.2	23.3	18.1
5	8.6	6.8	10.1	8.7	11.1	8.9	---	---	25.2	20.4	23.8	19.7
6	7.8	6.3	10.1	8.2	12.4	10.4	---	---	25.9	20.8	22.8	19.4
7	7.1	5.1	11.4	9.1	12.1	10.9	---	---	25.1	21.0	23.0	18.8
8	8.2	4.7	10.1	8.5	11.3	10.3	22.7	19.8	23.7	21.3	22.6	18.3
9	9.1	5.6	10.0	7.6	11.8	10.7	22.5	19.0	24.6	20.9	22.4	17.5
10	9.0	6.8	11.8	8.8	13.7	11.5	22.1	17.9	25.9	22.7	22.3	18.0
11	8.0	6.5	12.8	9.8	14.2	12.9	23.0	18.8	24.9	21.5	22.3	17.5
12	7.5	6.7	13.8	10.6	15.2	13.4	24.1	20.6	23.8	20.9	21.5	17.7
13	6.8	4.4	13.6	11.5	16.1	14.2	24.2	20.6	23.5	20.2	19.7	16.8
14	6.8	4.5	14.7	11.8	16.7	15.0	24.4	20.2	24.6	20.2	18.6	13.8
15	7.3	4.7	14.1	12.3	18.1	15.7	24.7	20.4	24.2	20.4	18.2	13.5
16	8.5	5.8	13.9	11.8	15.7	13.2	23.6	20.3	23.6	19.7	18.4	14.9
17	8.2	6.4	13.3	11.5	13.6	11.5	24.6	20.0	22.3	19.3	19.1	14.9
18	8.8	6.8	12.8	10.9	11.5	9.6	25.4	19.9	23.6	18.7	17.2	14.9
19	7.6	5.7	14.1	11.8	13.6	9.5	24.9	20.7	23.3	19.9	17.5	12.7
20	8.0	5.0	13.9	11.5	15.0	11.7	25.2	20.1	22.6	19.9	18.1	13.4
21	9.0	5.9	14.8	12.5	15.5	13.4	24.5	20.5	22.5	18.0	18.7	13.9
22	9.1	6.8	14.8	12.7	15.3	13.1	24.0	19.2	20.4	18.5	18.6	14.5
23	9.9	7.3	14.6	12.1	15.4	13.0	23.6	20.5	24.1	18.8	18.5	14.6
24	9.8	7.5	14.6	11.4	15.5	12.7	23.5	19.3	24.9	19.7	17.8	13.6
25	9.9	7.3	15.2	11.3	17.0	13.4	24.4	20.2	22.7	20.4	17.8	13.4
26	10.6	7.6	16.4	12.4	18.2	13.9	24.8	19.4	23.7	19.4	17.4	13.3
27	12.2	9.0	12.6	10.4	19.1	14.4	26.1	20.2	22.0	20.2	18.0	12.8
28	12.2	9.7	12.3	10.1	19.3	15.5	26.7	20.7	24.3	19.5	18.2	13.1
29	11.7	9.3	12.2	10.0	20.2	16.4	26.6	21.8	24.5	21.1	18.1	13.4
30	10.6	8.7	12.9	9.8	21.1	16.7	27.4	23.1	24.2	20.1	17.6	13.2
31	---	---	12.7	9.9	---	---	27.3	22.7	21.6	19.9	---	---
MONTH	12.2	4.4	16.4	7.6	21.1	8.9	---	---	27.8	18.0	23.8	12.7

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 1,000 ft downstream from former surface water station, 1.3 mi northwest of Bedrock, and 2.6 mi upstream from mouth.

DRAINAGE AREA.-- 53.3 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 1992 TO SEPTEMBER 1993

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									
12...	1130	1110	8.3	3.0	580	120	69	37	0.7
DEC									
21...	1300	1200	8.2	0.0	610	130	70	36	0.6
JAN									
26...	1130	1220	8.3	0.5	680	130	86	46	0.8
MAR									
22...	1510	459	8.1	9.0	210	50	20	11	0.3
APR									
20...	1115	308	7.8	4.5	140	34	13	7.0	0.3
MAY									
19...	1240	367	7.9	12.0	160	41	15	7.7	0.3
JUN									
15...	0630	695	8.0	14.5	330	77	33	16	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								
12...	3.8	238	380	32	0.4	13	798	1.09
DEC								
21...	3.4	252	420	31	0.3	14	856	1.16
JAN								
26...	4.4	251	430	47	0.4	12	906	1.23
MAR								
22...	2.8	110	130	8.2	<0.1	8.4	296	0.40
APR								
20...	2.3	85	69	--	0.2	9.1	--	--
MAY								
19...	2.4	93	91	5.7	0.1	8.6	227	0.31
JUN								
15...	2.3	147	210	13	0.2	5.0	445	0.60

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 sea level, 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. 7, Dec. 12-16, 18, 19, and Dec. 21 to Jan. 8. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	91	36	38	78	88	939	4040	2800	652	94	434
2	59	87	36	38	78	91	931	3770	2650	645	94	209
3	60	81	36	40	73	89	1010	3500	2560	609	92	161
4	51	61	34	42	65	139	991	3330	2360	346	93	113
5	41	54	34	44	64	157	1210	3180	1960	317	96	94
6	46	50	34	50	68	139	1460	3040	1560	262	97	86
7	53	50	32	60	70	120	1390	2990	1420	220	100	99
8	54	49	32	80	72	116	1110	2750	1410	429	105	78
9	55	49	34	148	81	117	1040	2560	1390	490	151	72
10	56	49	40	108	99	122	1370	2460	1180	381	136	70
11	56	50	36	98	119	128	1880	2390	976	220	119	69
12	58	51	36	72	106	142	2170	2170	922	215	123	68
13	58	55	34	57	89	151	2350	2280	910	207	108	64
14	58	52	34	63	79	136	2280	2640	915	201	99	65
15	59	50	34	73	78	129	2290	2720	1230	181	103	69
16	58	50	34	66	78	128	2350	2950	2100	155	105	70
17	60	50	40	76	84	136	2400	3150	2460	153	105	69
18	59	50	36	84	77	181	3200	3840	2480	141	105	67
19	60	49	38	114	82	416	3280	4000	2210	112	104	69
20	61	49	38	102	232	654	3100	4360	1830	106	108	70
21	61	51	38	84	276	707	2960	4110	1690	100	135	71
22	62	51	38	76	194	806	3050	3970	1760	96	179	70
23	63	53	36	71	124	910	3400	4390	1670	96	123	65
24	63	52	36	56	106	1080	3720	4150	1530	94	111	48
25	66	42	36	59	100	1370	3670	3660	1190	95	112	41
26	84	40	36	60	98	1560	3690	3110	1090	93	192	45
27	91	38	34	57	94	1700	3920	2720	1000	86	165	62
28	71	38	34	53	90	1460	3720	2550	889	83	165	65
29	69	36	34	56	---	1120	3820	3030	841	80	165	65
30	68	36	36	62	---	1010	4160	3080	663	85	187	67
31	116	---	36	59	---	988	---	2900	---	89	187	---
TOTAL	1935	1564	1102	2146	2854	16090	72861	99790	47646	7039	3858	2695
MEAN	62.4	52.1	35.5	69.2	102	519	2429	3219	1588	227	124	89.8
MAX	116	91	40	148	276	1700	4160	4390	2800	652	192	434
MIN	41	36	32	38	64	88	931	2170	663	80	92	41
AC-FT	3840	3100	2190	4260	5660	31910	144500	197900	94510	13960	7650	5350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	109	122	91.6	92.9	111	326	1234	1343	758	149	106	101
MAX	269	430	262	208	207	811	2552	3219	1588	369	274	203
(WY)	1987	1987	1987	1985	1987	1985	1985	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	105568		259580			
ANNUAL MEAN	288		711		[a]379	
HIGHEST ANNUAL MEAN					711	1993
LOWEST ANNUAL MEAN					55.3	1990
HIGHEST DAILY MEAN	3090	May 29	4390	May 23	4550	May 6 1986
LOWEST DAILY MEAN	31	Jan 18	[b]32	Dec 7	[c]7.1	Jun 21 1990
ANNUAL SEVEN-DAY MINIMUM	33	Jan 16	34	Dec 3	10	Jun 16 1990
INSTANTANEOUS PEAK FLOW			4680	May 20	[d]5260	May 6 1986
INSTANTANEOUS PEAK STAGE			10.13	May 20	10.82	May 6 1986
ANNUAL RUNOFF (AC-FT)	209400		514900		274300	
10 PERCENT EXCEEDS	1050		2730		1250	
50 PERCENT EXCEEDS	64		99		95	
90 PERCENT EXCEEDS	36		40		37	

a-Average discharge for 12 years (water years 1972-83), 502 ft³/s;363700 acre-ft/yr, prior to completion of McPhee Dam.
b-Also occurred Dec 8.
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 floodmarks.

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. Interruptions in daily record are the result of severe probe fouling or instrument malfunctions. Daily specific conductance record is fair. Daily water temperature record is good.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum recorded, 57,700 microsiemens, June 22, 1990 (may have been higher June 19-22 when probe was out of water); minimum recorded, 274 microsiemens, Apr. 22, 1993 (may have been lower during period of missing record Apr. 3-20).
WATER TEMPERATURE: Maximum, 33.3°C, July 1, 1990; minimum, 0.0°C, many days during winter months.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum 25,900 microsiemens, Nov. 30; minimum recorded, 274 microsiemens, Apr. 22 (may have been lower during period of missing record Apr. 3-20).
WATER TEMPERATURE: Maximum, 30.0°C, July 28; minimum, 0.0°C, many days during winter months.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
07...	0930	52	2720	8.0	8.0	210	48	22	480	14
NOV										
12...	1400	51	4500	8.2	4.0	300	66	32	770	19
DEC										
21...	1615	50	15100	7.9	0.0	550	110	66	2300	43
JAN										
26...	1500	59	17900	7.9	2.5	740	130	100	3400	55
MAR										
22...	1700	770	705	8.1	11.0	150	41	11	57	2
APR										
20...	1515	3300	334	7.8	7.5	120	37	7.7	17	0.7
MAY										
19...	1750	4560	352	8.1	14.5	140	42	8.7	14	0.5
JUN										
15...	1315	1220	480	8.2	17.5	150	42	11	36	1
JUL										
08...	1000	457	700	8.1	20.0	160	44	11	82	3
AUG										
09...	1350	114	1940	8.2	26.0	170	43	15	310	10
SEP										
07...	1535	108	2360	8.2	26.0	240	61	22	370	10

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									
07...	24	125	89	750	0.2	1.3	1490	2.03	209
NOV									
12...	38	141	140	1200	0.3	3.4	2330	3.17	321
DEC									
21...	100	178	63	3800	0.4	5.7	6550	8.91	884
JAN									
26...	180	174	490	5500	0.5	5.4	9910	13.5	1580
MAR									
22...	4.4	105	120	90	<0.1	5.6	392	0.53	815
APR									
20...	2.3	90	54	15	0.1	5.3	192	0.26	1710
MAY									
19...	2.3	105	63	9.1	0.1	5.8	208	0.28	2560
JUN									
15...	2.8	107	66	43	0.1	5.1	270	0.37	890
JUL									
08...	4.8	109	64	120	0.2	5.0	396	0.54	489
AUG									
09...	14	106	59	490	0.2	1.3	996	1.35	307
SEP									
07...	33	119	130	580	0.3	2.4	1270	1.73	370

09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2660	1900	10000	---	7300	4480	406	300	362	469	2900	1140
2	2730	2240	8500	---	6730	4300	414	298	366	471	2880	1510
3	2770	2240	8160	---	7230	4250	---	300	363	474	2820	1650
4	3050	3510	8990	---	8590	3200	---	310	359	658	2730	2570
5	3860	4470	7680	8680	8810	2410	---	301	366	757	2690	3020
6	4440	4840	6990	8620	7820	2430	---	303	380	949	2650	3020
7	2890	5220	7430	6370	7840	2800	---	308	---	1190	2590	2440
8	3000	5820	13300	4590	7950	3020	---	313	---	777	2520	3150
9	3060	5590	6400	1940	6580	3010	---	319	---	575	1760	3210
10	2930	5390	10200	3050	4950	2940	---	325	---	738	1630	3110
11	2970	5010	11500	3740	3600	2770	---	328	---	1470	2100	3150
12	2940	4680	7810	4950	4400	2490	---	330	---	1560	2000	3240
13	3070	4160	6810	6480	5680	2440	---	338	---	1620	2340	3340
14	3090	4610	10500	6840	7090	2620	---	336	---	1640	2540	3120
15	3040	5130	11200	5470	7340	2790	---	332	---	1820	2360	2840
16	2960	5390	9370	5920	7150	2790	---	345	---	2170	2590	2890
17	2950	5490	12700	5420	6460	2740	---	349	---	2140	2480	3040
18	3070	5500	10700	4610	7140	2350	---	372	---	2250	2300	3010
19	3030	5530	9670	3650	7160	1850	---	383	---	3200	2310	2850
20	2980	6020	11100	4080	2570	1210	---	363	---	3530	2250	2860
21	2980	5600	11900	6550	1150	960	294	359	---	3570	2230	2880
22	2880	6140	12900	8860	1480	677	294	352	---	3610	1340	2940
23	2810	6130	8990	10200	2740	500	295	338	---	3750	1850	3190
24	2960	6110	10100	15700	3430	457	303	333	---	3650	2100	5030
25	3080	8810	11100	17000	3640	434	299	335	---	3520	2140	6210
26	2460	8680	11200	14000	3720	415	292	342	---	3670	1610	5500
27	1860	10400	13000	11400	4040	401	291	372	---	3760	1690	3160
28	2750	9980	12500	12300	4290	369	299	375	415	3730	1590	3110
29	2960	8980	10200	11200	---	365	302	372	422	3800	1790	3100
30	3020	10000	---	8590	---	386	300	365	460	3530	1760	3100
31	1860	---	---	10000	---	391	---	365	---	3080	1900	---
MEAN	2940	5790	---	---	5600	2010	---	337	---	2200	2210	3110

09171100 DOLORES RIVER NEAR BEDROCK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	21.4	10.9	10.4	5.5	.2	.0	.0	.0	3.7	2.1	9.9	2.4
2	20.8	11.0	7.3	4.8	1.0	.0	.0	.0	4.3	.9	9.9	2.2
3	18.9	10.5	8.1	3.1	2.8	.0	.0	.0	5.7	.0	10.2	2.0
4	20.2	10.7	7.6	1.0	1.6	.0	.0	.0	6.1	.0	9.6	2.0
5	19.6	9.1	8.0	2.2	.0	.0	.0	.0	6.0	.0	9.0	2.0
6	18.4	10.3	8.4	1.5	1.0	.0	.0	.0	5.9	.0	10.9	3.1
7	15.9	7.0	8.2	1.4	2.7	.0	.0	.0	5.1	1.0	12.2	3.5
8	15.7	5.3	8.1	1.0	.0	.0	.7	.0	3.7	2.9	12.8	3.9
9	16.7	6.9	9.7	4.4	3.4	.0	1.0	.0	6.6	2.9	13.1	4.7
10	17.3	7.0	6.5	4.5	1.7	.0	1.1	.0	7.1	2.3	14.5	6.9
11	17.8	7.7	8.4	3.2	.0	.0	2.0	.0	6.5	2.4	12.9	7.6
12	18.1	7.9	5.7	.6	3.2	.0	2.1	.0	7.4	1.7	9.9	3.8
13	17.3	7.9	6.7	.0	1.3	.0	1.2	.0	6.6	1.5	8.8	3.0
14	16.3	8.5	7.4	.1	.0	.0	2.7	.0	4.3	.7	9.2	2.8
15	17.4	10.1	7.7	.3	.6	.0	3.5	.0	4.9	.6	12.5	5.8
16	14.7	9.1	7.5	.8	3.4	.0	2.6	.1	4.8	.0	13.8	6.0
17	17.0	7.9	8.2	1.2	.0	.0	2.1	.3	5.9	1.1	11.4	6.7
18	16.1	7.4	8.5	1.5	.9	.0	3.5	.2	5.4	.1	13.8	7.9
19	16.5	8.8	7.2	2.2	.0	.0	1.9	.4	7.8	3.0	12.3	6.9
20	16.8	7.6	4.9	2.9	.0	.0	3.6	.1	7.4	4.0	11.3	7.6
21	15.4	8.4	6.8	1.3	.0	.0	5.0	.0	5.1	2.8	11.3	6.4
22	16.5	9.0	5.0	.7	.0	.0	4.6	.0	6.9	1.5	11.0	6.9
23	16.2	8.6	5.2	.8	.0	.0	4.3	.0	7.1	1.1	10.7	6.8
24	15.4	8.8	3.7	.0	.0	.0	2.7	.0	4.9	2.9	10.5	6.7
25	15.3	11.8	.2	.0	.0	.0	4.2	.0	4.2	2.0	10.5	6.4
26	15.5	10.5	.0	.0	.0	.0	4.9	.0	5.5	1.8	9.4	6.4
27	13.9	8.4	.0	.0	.0	.0	5.5	.0	8.5	1.7	7.6	6.3
28	12.5	10.0	.9	.0	.0	.0	5.5	.0	5.7	3.6	6.3	5.0
29	12.8	10.4	3.4	.0	.0	.0	5.9	.0	---	---	7.4	4.3
30	10.5	9.6	.0	.0	.0	.0	4.9	.7	---	---	8.1	5.4
31	9.8	7.8	---	---	.0	.0	5.2	.0	---	---	9.5	6.0
MONTH	21.4	5.3	10.4	.0	3.4	.0	5.9	.0	8.5	.0	14.5	2.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.4	6.0	11.0	8.5	12.6	10.3	22.1	17.2	29.7	19.9	22.6	17.7
2	8.6	7.3	10.3	8.5	13.1	10.3	22.2	17.7	28.6	18.9	25.2	17.2
3	10.1	6.2	11.2	8.2	12.8	10.5	20.2	17.7	25.2	18.4	25.1	16.3
4	9.3	7.6	11.3	9.4	11.8	9.7	17.7	15.5	24.8	18.7	26.3	15.8
5	8.9	7.0	10.6	9.4	11.3	9.7	21.2	14.9	27.7	18.9	25.6	18.2
6	7.8	6.3	10.4	8.6	12.9	10.8	23.4	16.3	29.0	18.4	26.0	17.3
7	9.1	5.1	12.0	9.5	12.5	10.8	25.0	17.2	27.0	19.2	26.1	17.3
8	9.7	6.3	11.0	9.0	13.1	10.0	23.4	19.6	25.2	19.5	25.2	16.0
9	9.7	7.4	10.7	8.1	13.9	10.7	22.7	18.9	29.4	19.6	25.6	15.2
10	8.7	7.4	12.4	9.2	16.3	11.5	22.7	17.8	28.1	21.0	24.1	15.6
11	8.0	7.5	13.3	10.1	16.6	13.3	24.7	18.0	26.3	19.7	25.2	14.7
12	7.6	5.7	14.5	11.1	17.9	13.5	26.0	19.0	25.9	19.9	22.7	15.2
13	7.6	5.4	14.0	12.3	18.8	14.5	26.1	19.1	25.4	18.6	21.4	15.0
14	8.1	5.9	15.0	12.3	19.6	15.3	25.9	18.9	26.2	18.4	21.9	11.6
15	8.5	6.9	14.6	12.4	18.4	15.8	26.0	18.9	26.4	18.8	20.7	11.4
16	9.1	7.3	13.9	12.0	16.4	14.4	25.0	18.2	25.0	17.7	20.8	13.3
17	9.3	7.6	13.8	11.6	14.4	12.1	26.9	18.0	24.1	17.3	20.7	13.1
18	8.4	6.5	13.4	11.1	12.2	10.1	27.7	17.4	27.0	16.3	16.6	13.6
19	8.4	5.7	14.4	12.3	13.7	10.1	27.0	18.0	25.2	18.2	20.7	10.9
20	8.4	5.7	14.3	11.7	15.2	12.2	26.8	17.8	24.1	18.5	21.1	11.0
21	9.4	6.8	15.1	12.5	15.8	14.0	25.9	18.0	23.6	19.1	21.0	11.5
22	9.4	7.5	14.8	12.7	15.8	14.1	24.6	16.6	23.6	17.4	20.8	12.1
23	10.2	7.9	14.9	12.4	15.9	13.3	23.8	18.6	26.0	16.2	20.6	12.0
24	10.1	8.2	14.9	11.6	15.9	13.2	26.2	17.7	27.9	17.4	20.4	10.3
25	10.3	7.9	15.4	11.5	17.8	13.3	26.7	18.4	22.5	18.4	20.8	9.9
26	11.1	8.0	16.2	12.9	18.6	14.0	26.6	17.4	25.4	18.9	20.5	9.5
27	12.4	9.2	13.7	11.1	19.5	14.3	28.6	17.8	22.4	19.4	21.2	9.9
28	12.5	10.0	12.6	10.6	19.3	15.6	30.0	18.1	26.8	17.8	21.3	10.3
29	12.0	9.7	12.7	10.6	20.5	16.6	29.6	19.6	26.9	19.3	21.1	10.5
30	11.0	9.2	13.4	10.0	21.3	16.8	29.7	21.2	27.2	18.7	20.3	10.5
31	---	---	13.2	10.3	---	---	29.6	20.4	23.5	18.6	---	---
MONTH	12.5	5.1	16.2	8.1	21.3	9.7	30.0	14.9	29.7	16.2	26.3	9.5

09172500 SAN MIGUEL RIVER NEAR PLACERVILLE, CO

LOCATION.--Lat 38°02'33", long 108°07'54", in NW¼NE¼ sec.25, T.44 N., R.12 W., San Miguel County, Hydrologic Unit 14030003, on right bank 1.5 mi downstream from Specie Creek in vicinity of mile marker 88.68 on State Highway 145 and 4.5 mi northwest of Placerville, CO.

DRAINAGE AREA.--310 mi².

PERIOD OF RECORD.--January to December 1909, September 1910 to December 1912, April 1930 to September 1934, April 1942 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Placerville," 1910-12.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,030 ft above sea level, 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. 23, 24, Nov. 27 to Feb. 7. Records good except for period May 28 to July 7, which are fair and 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	99	81	65	48	55	72	84	489	1470	1050	268	306
2	100	82	65	48	55	70	87	454	1520	1010	260	264
3	94	75	65	48	50	69	83	467	1420	1010	241	229
4	90	69	65	46	50	68	82	507	1220	867	208	198
5	90	73	60	44	50	68	85	543	1090	674	245	183
6	89	72	60	46	55	71	89	423	1050	689	241	176
7	89	76	60	48	60	73	95	431	995	761	220	172
8	90	77	60	50	65	75	88	434	924	771	208	163
9	91	75	60	50	66	77	90	368	847	726	187	159
10	92	76	60	50	61	81	95	358	782	697	259	153
11	91	76	60	48	61	81	104	425	805	682	292	144
12	90	71	60	48	64	75	115	503	906	682	241	141
13	88	78	60	48	67	69	112	567	1120	639	227	168
14	86	78	55	48	65	77	111	613	1270	606	233	145
15	86	76	55	50	73	77	114	649	1370	578	226	131
16	86	76	55	50	70	74	126	746	1340	555	203	128
17	86	74	55	55	68	76	142	920	1420	482	175	125
18	84	72	50	55	68	82	172	826	1080	464	169	120
19	84	71	50	50	72	86	190	807	979	426	161	117
20	72	73	50	50	77	86	192	821	1090	397	175	110
21	73	70	50	48	68	87	233	923	1160	389	178	106
22	77	64	50	48	70	90	338	1020	1190	372	173	103
23	78	65	50	48	70	91	438	895	1250	351	153	100
24	78	55	50	46	73	93	403	888	1210	342	152	96
25	80	49	48	48	71	96	303	940	1110	306	148	93
26	81	40	48	50	72	109	450	1080	1150	311	202	93
27	79	55	48	50	72	108	696	1300	1130	293	195	91
28	76	60	50	50	72	98	732	1360	1150	272	319	88
29	77	65	50	50	---	91	688	1250	1160	279	304	90
30	76	65	50	50	---	94	633	1260	1180	281	341	96
31	82	---	50	50	---	83	---	1370	---	274	296	---
TOTAL	2634	2089	1714	1518	1820	2547	7170	23637	34388	17236	6900	4288
MEAN	85.0	69.6	55.3	49.0	65.0	82.2	239	762	1146	556	223	143
MAX	100	82	65	55	77	109	732	1370	1520	1050	341	306
MIN	72	40	48	44	50	68	82	358	782	272	148	88
AC-FT	5220	4140	3400	3010	3610	5050	14220	46880	68210	34190	13690	8510

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1911 - 1993, BY WATER YEAR (WY)

MEAN	110	82.9	67.7	62.0	61.8	74.0	231	565	791	444	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1911 - 1993	
ANNUAL TOTAL	80818		105941			
ANNUAL MEAN	221		290		235	
HIGHEST ANNUAL MEAN					414	1983
LOWEST ANNUAL MEAN					88.8	1977
HIGHEST DAILY MEAN	893	May 27	1520	Jun 2	2740	Jun 21 1983
LOWEST DAILY MEAN	40	Nov 26	40	Nov 26	26	Jan 5 1960
ANNUAL SEVEN-DAY MINIMUM	45	Feb 15	47	Jan 1	31	Dec 25 1976
INSTANTANEOUS PEAK FLOW			1620	Jun 2	[a]10000	Sep 5 1909
INSTANTANEOUS PEAK STAGE			4.97	Jun 2	8.06	Jun 6 1985
ANNUAL RUNOFF (AC-FT)	160300		210100		170300	
10 PERCENT EXCEEDS	622		930		642	
50 PERCENT EXCEEDS	91		91		104	
90 PERCENT EXCEEDS	46		50		55	

a-Result of failure of Trout and Middle Reservoir Dams.

09177000 SAN MIGUEL RIVER AT URAVAN, CO

LOCATION.--Lat 38°21'26", long 108°42'44", in SW¼NE¼ sec.2, T.47 N., R.17 W., Montrose County, Hydrologic Unit 14030003, on right bank 20 ft downstream from bridge on State Highway 141, 400 ft downstream from Tabeguache Creek, and 1.5 mi southeast of Uravan.

DRAINAGE AREA.--1,499 mi².

PERIOD OF RECORD.--August 1954 to September 1962, October 1973 to current year.

REVISED RECORDS.--WRD Colo. 1974: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,000 ft above sea level, from topographic map. Prior to Sept. 3, 1959, at site 0.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 5, Nov. 28 to Dec. 7, Dec. 9-13, 15-19, Dec. 22 to Jan. 8, Jan. 13, 24-26, Aug. 8, and 9. 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 ft³/s, by slope-area measurement at site 5.5 mi, downstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	160	65	65	129	120	426	1660	2390	1150	169	322
2	40	144	70	70	117	113	516	1500	2280	1070	161	309
3	45	145	70	70	108	109	456	1520	2110	1040	152	249
4	41	116	70	70	90	106	484	1660	1780	940	141	212
5	38	105	70	80	85	107	673	1590	1480	773	120	186
6	54	107	65	90	76	111	770	1370	1380	688	154	172
7	118	103	60	100	107	111	594	1190	1330	715	146	156
8	114	107	59	150	118	97	497	1310	1220	757	140	150
9	111	111	60	240	140	91	535	1070	1120	758	130	134
10	114	111	65	132	140	91	684	989	997	693	156	127
11	114	120	65	118	113	105	780	1100	945	657	237	116
12	111	116	65	88	108	107	805	1450	993	650	223	103
13	111	103	65	85	107	91	735	1720	1260	609	181	111
14	105	107	65	99	99	95	722	1890	1530	567	170	139
15	105	91	65	116	105	141	805	1980	1710	525	172	116
16	103	65	70	108	109	140	908	2170	1750	500	158	101
17	100	60	70	130	109	142	1070	3370	1820	446	132	96
18	100	60	70	142	106	166	1390	3150	1550	416	110	92
19	100	60	70	150	120	230	1270	2520	1310	381	96	92
20	96	69	67	126	256	238	1210	2420	1400	345	115	87
21	87	102	57	108	162	276	1380	2580	1480	320	215	74
22	92	105	60	99	127	339	1880	2680	1450	312	205	68
23	94	105	60	109	117	367	2310	2360	1450	296	151	57
24	94	109	60	90	118	463	2260	2190	1420	284	114	55
25	101	76	60	80	118	629	1630	2180	1290	266	111	53
26	109	72	60	80	116	798	1890	2320	1260	228	133	49
27	101	71	60	101	116	780	2600	2600	1260	211	208	48
28	103	65	60	97	116	582	2830	2870	1240	187	197	49
29	105	65	60	89	---	453	2610	2520	1170	170	301	48
30	105	65	65	100	---	494	2340	2360	1290	177	284	49
31	155	---	65	102	---	451	---	2340	---	181	294	---
TOTAL	2906	2895	1993	3284	3332	8143	37060	62629	43665	16312	5276	3620
MEAN	93.7	96.5	64.3	106	119	263	1235	2020	1455	526	170	121
MAX	155	160	70	240	256	798	2830	3370	2390	1150	301	322
MIN	38	60	57	65	76	91	426	989	945	170	96	48
AC-FT	5760	5740	3950	6510	6610	16150	73510	124200	86610	32350	10460	7180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1993, BY WATER YEAR (WY)

MEAN	135	117	93.2	87.5	108	182	857	1198	1030	451	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1954 - 1993	
ANNUAL TOTAL	110808		191115			
ANNUAL MEAN	303		524		382	
HIGHEST ANNUAL MEAN					758	1984
LOWEST ANNUAL MEAN					89.3	1977
HIGHEST DAILY MEAN	1500	Apr 15	3370	May 17	5440	May 16 1984
LOWEST DAILY MEAN	26	Sep 14	38	Oct 5	9.4	Aug 10 1977
ANNUAL SEVEN-DAY MINIMUM	31	Sep 10	50	Sep 24	14	Aug 8 1977
INSTANTANEOUS PEAK FLOW			3870	Apr 28	[a]8050	May 10 1983
INSTANTANEOUS PEAK STAGE			7.04	Apr 28	10.14	May 10 1983
ANNUAL RUNOFF (AC-FT)	219800		379100		276600	
10 PERCENT EXCEEDS	878		1640		1080	
50 PERCENT EXCEEDS	104		134		134	
90 PERCENT EXCEEDS	60		65		58	

a-From rating curve extended above 4100 ft³/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 mi².

PERIOD OF RECORD.--October 1988 to current year. Water-quality data available, July 1984 to September 1992.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,240 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 4-6, 11-13, Nov. 18 to Dec. 13, Dec. 29 to Jan. 5, Jan. 12 to Mar. 14, and Mar. 19-25. Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 12,000 acres upstream from station. Natural flow of stream affected by 2 diversions for irrigation to Egeria Creek into Colorado River basin and by storage in Stillwater, Yampa and YamColo Reservoirs (total capacity, 15,820 acre-ft). 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	45	34	30	31	37	65	136	139	109	87	57
2	34	44	34	30	31	37	70	125	112	118	84	60
3	30	42	34	30	32	38	57	125	112	115	80	56
4	30	43	32	30	33	38	66	135	114	131	80	51
5	30	44	30	30	34	39	91	174	98	152	95	53
6	30	44	32	30	34	39	100	129	97	131	98	55
7	34	44	32	29	34	40	73	121	148	104	86	60
8	35	48	35	30	35	40	66	116	135	95	92	75
9	36	47	36	31	36	39	81	103	120	91	94	59
10	33	54	34	33	37	40	93	96	104	84	89	54
11	31	54	35	28	36	45	89	111	93	81	126	52
12	31	54	36	28	35	47	91	132	88	88	90	49
13	30	54	36	28	34	50	80	153	91	91	74	67
14	27	54	37	27	34	52	70	158	84	91	76	59
15	25	44	46	28	35	53	78	172	80	81	90	49
16	27	36	48	29	34	51	86	181	90	75	75	42
17	28	23	34	30	34	60	90	170	107	77	72	46
18	28	20	36	31	35	70	117	165	136	78	67	48
19	28	19	36	32	36	72	100	153	141	76	64	55
20	27	19	29	31	35	74	89	163	122	79	66	55
21	29	23	34	30	34	74	81	171	121	77	73	50
22	31	24	35	29	34	72	110	171	118	75	72	44
23	32	26	30	28	35	72	140	162	121	84	67	42
24	32	28	33	29	36	74	145	152	122	94	60	41
25	34	30	29	30	36	76	123	163	116	111	60	47
26	39	30	24	31	36	78	136	162	117	104	68	48
27	35	30	22	30	35	77	168	168	119	91	64	49
28	34	30	32	30	36	82	169	163	119	84	59	48
29	38	30	31	29	---	72	148	161	109	83	56	45
30	37	32	30	29	---	65	158	160	102	97	56	41
31	45	---	30	30	---	63	---	149	---	88	57	---
TOTAL	994	1115	1036	920	967	1766	3030	4600	3375	2935	2377	1557
MEAN	32.1	37.2	33.4	29.7	34.5	57.0	101	148	112	94.7	76.7	51.9
MAX	45	54	48	33	37	82	169	181	148	152	126	75
MIN	25	19	22	27	31	37	57	96	80	75	56	41
AC-FT	1970	2210	2050	1820	1920	3500	6010	9120	6690	5820	4710	3090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

MEAN	39.3	44.2	36.4	31.3	34.5	55.3	94.0	81.8	85.5	91.9	66.3	40.3
MAX	48.0	48.1	44.7	38.0	38.0	79.7	136	148	112	118	77.8	51.9
(WY)	1989	1989	1989	1992	1989	1989	1989	1993	1993	1991	1989	1993
MIN	32.1	37.2	29.2	21.4	29.4	38.7	49.7	38.5	52.3	79.9	49.3	31.2
(WY)	1993	1993	1990	1990	1991	1992	1990	1990	1990	1992	1992	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1989 - 1993	
ANNUAL TOTAL	17456		24672			
ANNUAL MEAN	47.7		67.6		58.5	
HIGHEST ANNUAL MEAN					67.6	1993
LOWEST ANNUAL MEAN					44.8	1990
HIGHEST DAILY MEAN	115	May 27	181	May 16	232	Apr 8 1989
LOWEST DAILY MEAN	[a]19	Nov 19	[a]19	Nov 19	[b]14	Jan 24 1990
ANNUAL SEVEN-DAY MINIMUM	22	Nov 17	22	Nov 17	15	Jan 22 1990
INSTANTANEOUS PEAK FLOW			232	Apr 28	277	Apr 7 1991
INSTANTANEOUS PEAK STAGE			[c]3.07	Apr 28	3.58	Apr 7 1991
ANNUAL RUNOFF (AC-FT)	34620		48940		42380	
10 PERCENT EXCEEDS	75		131		103	
50 PERCENT EXCEEDS	39		54		46	
90 PERCENT EXCEEDS	30		30		30	

a-Also occurred Nov 20.
b-Also occurred Jan 25-26.
c-Maximum gage height, 6.45 ft, Nov 26, backwater from ice.

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, 0.3 mi downstream from Stagecoach Reservoir, 1.0 mi downstream from Morrison Creek, and 6.5 mi east of Oak Creek.

DRAINAGE AREA.--278 mi^2.

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. Water-quality data available, July 1984 to September 1992. 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 sea level, from topographic map. September 1939 to Nov. 15, 1939, nonrecording gage, Nov. 16 1939, to September 1944 and October 1956 to September 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). 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	47	62	68	75	55	69	85	171	100	79	92
2	63	51	62	67	86	61	72	85	160	100	86	85
3	61	47	62	64	86	66	60	84	149	101	88	91
4	46	52	80	73	75	67	58	89	149	99	92	83
5	55	53	97	75	76	74	72	100	140	98	92	82
6	53	52	82	69	61	66	80	106	130	86	93	91
7	53	51	61	63	62	60	80	106	136	85	96	85
8	55	46	61	63	66	60	71	104	140	90	96	90
9	55	52	62	60	78	61	73	104	141	94	102	93
10	54	57	62	57	78	61	58	103	142	92	106	91
11	55	58	61	57	75	60	58	100	133	89	114	81
12	55	58	59	60	63	63	58	100	125	88	118	79
13	54	58	58	64	61	52	71	100	115	83	117	85
14	55	54	60	64	53	51	73	97	113	77	106	87
15	55	28	61	66	53	62	73	97	111	77	105	87
16	54	44	60	70	60	70	74	100	97	76	109	89
17	54	58	60	69	68	71	70	99	112	77	76	89
18	54	56	61	71	68	72	60	99	104	78	104	86
19	64	52	58	72	68	64	70	99	107	78	101	84
20	56	54	58	72	62	51	81	101	111	76	101	91
21	53	53	60	73	58	50	75	113	116	78	99	92
22	53	53	60	77	58	63	74	141	113	77	98	91
23	53	55	61	79	66	59	72	159	111	80	100	93
24	51	59	60	72	63	65	61	160	104	79	98	93
25	51	60	62	75	60	68	60	163	106	77	85	85
26	54	59	60	78	58	64	74	173	106	83	93	85
27	58	59	58	77	53	50	81	175	106	79	93	90
28	54	60	59	77	51	50	81	185	104	81	92	75
29	49	60	58	78	---	50	83	182	105	84	90	74
30	50	60	60	73	---	50	85	183	101	78	91	77
31	53	---	59	62	---	63	---	180	---	61	90	---
TOTAL	1690	1606	1944	2145	1841	1879	2127	3772	3658	2601	3010	2596
MEAN	54.5	53.5	62.7	69.2	65.7	60.6	70.9	122	122	83.9	97.1	86.5
MAX	64	60	97	79	86	74	85	185	171	101	118	93
MIN	46	28	58	57	51	50	58	84	97	61	76	74
AC-FT	3350	3190	3860	4250	3650	3730	4220	7480	7260	5160	5970	5150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 1993, BY WATER YEAR (WY)

MEAN	46.3	51.8	51.8	52.3	48.7	43.8	50.0	66.7	70.9	69.1	64.1	57.3
MAX	59.9	66.9	63.1	69.2	65.7	60.6	70.9	122	122	132	97.1	86.5
(WY)	1992	1992	1992	1993	1993	1993	1993	1993	1993	1991	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1989 - 1993	
ANNUAL TOTAL	19926		28869			
ANNUAL MEAN	54.4		79.1		[a]56.1	
HIGHEST ANNUAL MEAN					79.1	1993
LOWEST ANNUAL MEAN					32.1	1989
HIGHEST DAILY MEAN	97	Dec 5	185	May 28	[b]251	Jul 27 1991
LOWEST DAILY MEAN	28	Nov 15	28	Nov 15	[c,d]9.4	Jun 1 1989
ANNUAL SEVEN-DAY MINIMUM	43	Apr 27	49	Nov 15	10	May 29 1989
INSTANTANEOUS PEAK FLOW			210	May 26	[e]257	Jul 26 1991
INSTANTANEOUS PEAK STAGE			2.78	May 26	[f]2.92	Jul 26 1991
ANNUAL RUNOFF (AC-FT)	39520		57260		40650	
10 PERCENT EXCEEDS	68		106		90	
50 PERCENT EXCEEDS	53		74		50	
90 PERCENT EXCEEDS	44		53		25	

a-Average discharge for 25 years (water years 1940-44, 1957-72, 1985-88), 89.4 ft^3/s; 64770 acre-ft/yr, prior to completion of Stagecoach Reservoir.
b-Maximum daily discharge for period of record, 1020 ft^3/s, Apr 16, 1962.
c-Also occurred Jun 2 and 3, 1989.
d-Minimum daily discharge for period of record, 8.9 ft^3/s, May 22, 1963.
e-Maximum discharge and stage for period of record, 1400 ft^3/s, Apr 16, 1962, gage height, 7.56 ft, from rating curve extended above 570 ft^3/s, site and datum then in use.
f-Maximum gage height, 8.08 ft, Mar 8, 1987, backwater from ice.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: June 16, 17. Records good except for winter period, which is fair, and 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.10	.10	.09	.10	.10	.11	.12	7.8	17	.48	.03
2	.15	.09	.10	.09	.10	.10	.11	.12	8.4	15	.42	.05
3	.12	.09	.10	.09	.10	.10	.11	.12	7.8	9.7	.38	.05
4	.11	.09	.10	.09	.10	.10	.11	.18	5.8	6.2	.39	.03
5	.11	.09	.10	.09	.10	.10	.11	.29	5.0	5.5	.38	.02
6	.12	.09	.10	.09	.10	.10	.11	.26	5.9	4.7	.34	.03
7	.18	.09	.09	.09	.10	.10	.11	.29	6.6	4.9	.28	.07
8	.18	.09	.09	.09	.10	.10	.11	.31	4.8	5.8	.32	.06
9	.18	.09	.09	.09	.10	.10	.11	.33	3.6	5.7	.27	.03
10	.21	.09	.10	.09	.10	.10	.11	.35	3.9	5.9	.32	.02
11	.21	.10	.09	.09	.10	.10	.11	.49	5.6	6.3	.49	.02
12	.17	.10	.09	.09	.10	.10	.11	.66	9.4	5.3	.50	.02
13	.14	.10	.10	.09	.10	.10	.11	.90	12	5.0	.25	.24
14	.12	.10	.10	.09	.10	.10	.11	1.1	15	4.4	.26	.19
15	.12	.10	.10	.09	.10	.10	.11	1.4	22	3.9	.29	.11
16	.13	.10	.10	.09	.10	.10	.11	1.6	58	3.5	.17	.14
17	.13	.10	.10	.09	.10	.11	.11	1.8	38	3.1	.13	.22
18	.12	.10	.09	.10	.10	.10	.11	1.9	23	2.6	.11	.08
19	.12	.09	.10	.09	.10	.10	.11	2.2	19	2.4	.09	.34
20	.12	.09	.09	.09	.10	.10	.11	2.6	24	2.2	.08	.25
21	.12	.10	.09	.09	.10	.10	.11	2.8	26	2.1	.11	.06
22	.12	.09	.09	.10	.10	.10	.11	2.9	26	1.9	.11	.02
23	.11	.09	.09	.10	.10	.10	.11	2.9	17	1.7	.09	.01
24	.11	.09	.10	.09	.10	.11	.11	3.4	11	3.6	.06	.10
25	.12	.10	.09	.10	.10	.11	.11	3.8	13	1.8	.04	.11
26	.13	.09	.09	.10	.10	.11	.11	4.1	19	1.2	.10	.06
27	.09	.09	.09	.10	.10	.11	.11	4.4	27	1.1	.07	.06
28	.08	.09	.09	.10	.10	.11	.12	5.1	23	.91	.05	.04
29	.09	.10	.09	.10	---	.11	.12	5.6	27	.74	.04	.04
30	.09	.10	.09	.10	---	.11	.12	6.1	21	.64	.03	.04
31	.10	---	.09	.10	---	.11	---	6.7	---	.55	.04	---
TOTAL	4.02	2.83	2.93	2.89	2.80	3.19	3.33	64.82	495.6	135.34	6.69	2.54
MEAN	.13	.094	.095	.093	.10	.10	.11	2.09	16.5	4.37	.22	.085
MAX	.21	.10	.10	.10	.10	.11	.12	6.7	58	17	.50	.34
MIN	.08	.09	.09	.09	.10	.10	.11	.12	3.6	.55	.03	.01
AC-FT	8.0	5.6	5.8	5.7	5.6	6.3	6.6	129	983	268	13	5.0

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

MEAN	.14	.094	.087	.064	.067	.060	.47	4.22	11.0	1.39	.14	.11
MAX	.36	.15	.21	.13	.10	.11	1.37	8.67	19.3	4.37	.22	.15
(WY)	1987	1987	1987	1987	1993	1989	1987	1992	1988	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1987 - 1993	
ANNUAL TOTAL	552.82		726.98			
ANNUAL MEAN	1.51		1.99		1.49	
HIGHEST ANNUAL MEAN					1.99	1993
LOWEST ANNUAL MEAN					1.12	1989
HIGHEST DAILY MEAN	47	May 27	58	Jun 16	58	Jun 16 1993
LOWEST DAILY MEAN	[a].03	Jan 29	.01	Sep 23	[b].00	Jan 24 1988
ANNUAL SEVEN-DAY MINIMUM	.04	Jan 24	.04	Aug 30	.00	Jan 23 1988
INSTANTANEOUS PEAK FLOW			156	Jun 16	156	Jun 16 1993
INSTANTANEOUS PEAK STAGE			3.57	Jun 16	3.57	Jun 16 1993
INSTANTANEOUS LOW FLOW			.01	Sep 23	.00	Jan 24 1988
ANNUAL RUNOFF (AC-FT)	1100		1440		1080	
10 PERCENT EXCEEDS	3.0		5.6		4.5	
50 PERCENT EXCEEDS	.10		.11		.10	
90 PERCENT EXCEEDS	.05		.09		.04	

a-Also occurred Jan 30.
b-Also occurred Jan 25-29, Mar 14-19, 26-30, 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 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,860 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 31 to June 20. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.02	.01	.00	.01	.01	.01	.01	5.0	19	.03	.10
2	.04	.02	.01	.01	.01	.01	.01	.01	7.0	18	.03	.09
3	.03	.02	.01	.01	.01	.01	.01	.02	6.0	15	.03	.06
4	.02	.02	.01	.01	.01	.01	.01	.02	4.0	5.0	.04	.05
5	.02	.02	.01	.01	.01	.01	.01	.03	4.0	3.2	.04	.04
6	.02	.02	.01	.01	.01	.01	.01	.02	4.5	2.7	.04	.03
7	.03	.02	.01	.01	.01	.01	.01	.03	5.0	3.1	.07	.04
8	.04	.02	.01	.01	.01	.01	.01	.03	4.0	4.5	.24	.05
9	.04	.02	.01	.01	.01	.01	.01	.04	3.0	5.5	.28	.04
10	.04	.02	.01	.01	.01	.01	.01	.04	3.0	5.4	.33	.03
11	.03	.02	.01	.01	.01	.01	.01	.05	4.0	6.2	.35	.03
12	.02	.02	.01	.01	.01	.01	.01	.07	8.0	5.8	.36	.02
13	.02	.02	.01	.01	.01	.01	.01	.10	10	5.0	.36	.04
14	.02	.02	.01	.01	.01	.01	.01	.12	14	4.3	.68	.11
15	.02	.02	.01	.01	.01	.01	.01	.14	20	3.5	1.1	.13
16	.02	.01	.01	.01	.01	.01	.01	.16	19	2.6	1.1	.16
17	.02	.01	.01	.01	.01	.01	.01	.18	18	2.5	1.0	.35
18	.02	.01	.01	.01	.01	.01	.01	.19	16	2.6	.63	.36
19	.01	.01	.01	.01	.01	.01	.01	.21	16	1.8	.56	.50
20	.01	.02	.01	.01	.01	.01	.01	.25	20	1.4	.56	.58
21	.01	.01	.01	.01	.01	.01	.01	.26	26	1.0	.70	.61
22	.01	.01	.01	.01	.01	.01	.01	.28	31	.72	.73	.53
23	.01	.01	.01	.01	.01	.01	.01	.28	24	.46	.81	.41
24	.01	.01	.01	.01	.01	.01	.01	.32	10	.69	.82	.32
25	.01	.01	.01	.01	.01	.01	.01	.34	12	1.0	.84	.33
26	.01	.01	.01	.01	.01	.01	.01	.37	19	.74	1.4	.30
27	.01	.01	.01	.01	.01	.01	.01	.40	28	.35	.81	.27
28	.01	.01	.01	.01	.01	.01	.01	.45	27	.17	.41	.23
29	.02	.01	.01	.01	---	.01	.01	1.0	33	.08	.27	.17
30	.03	.01	.01	.01	---	.01	.01	3.0	26	.10	.18	.11
31	.02	---	.01	.01	---	.01	---	4.0	---	.08	.12	---
TOTAL	0.67	0.46	0.31	0.30	0.28	0.31	0.30	12.42	426.5	122.49	14.92	6.09
MEAN	.022	.015	.010	.010	.010	.010	.010	.40	14.2	3.95	.48	.20
MAX	.05	.02	.01	.01	.01	.01	.01	4.0	33	19	1.4	.61
MIN	.01	.01	.01	.00	.01	.01	.01	.01	3.0	.08	.03	.02
AC-FT	1.3	.9	.6	.6	.6	.6	.6	25	846	243	30	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

MEAN	.021	.034	.051	.034	.036	.024	.088	2.98	15.1	1.97	.11	.046
MAX	.061	.14	.34	.26	.29	.18	.68	9.23	31.2	5.26	.48	.20
(WY)	1985	1986	1986	1986	1986	1986	1986	1992	1986	1986	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	559.63		585.05			
ANNUAL MEAN	1.53		1.60		1.70	
HIGHEST ANNUAL MEAN					3.69	1986
LOWEST ANNUAL MEAN					.85	1987
HIGHEST DAILY MEAN	52	May 27	33	Jun 29	52	May 27 1992
LOWEST DAILY MEAN	[a].00	Jan 1	.00	Jan 1	[a].00	Jan 1 1985
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.01	Dec 26	.00	Jan 1 1985
INSTANTANEOUS PEAK FLOW			66	Jun 29	[b]81	Jun 14 1991
INSTANTANEOUS PEAK STAGE			2.06	Jun 29	[c]2.34	Jun 14 1991
ANNUAL RUNOFF (AC-FT)	1110		1160		1230	
10 PERCENT EXCEEDS	3.6		4.0		3.8	
50 PERCENT EXCEEDS	.02		.02		.02	
90 PERCENT EXCEEDS	.00		.01		.00	

a-No flow many days each year.
b-From rating curve extended above 33 ft³/s.
c-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 upstream from Fish Creek Reservoir, and 7.5 mi east of Steamboat Springs.

DRAINAGE AREA.--1.37 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,955 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 31 to Nov. 11 and May 4 to June 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36	.52	.35	.32	.27	.26	.27	.44	6.0	41	.99	.24
2	.35	.50	.35	.33	.28	.26	.28	.41	7.0	40	.91	.30
3	.34	.50	.35	.34	.28	.26	.27	.44	8.0	24	1.0	.25
4	.32	.50	.37	.34	.29	.26	.27	.47	10	14	1.0	.22
5	.33	.50	.35	.33	.29	.25	.29	.50	13	16	1.2	.26
6	.33	.50	.35	.31	.29	.24	.28	.55	15	16	1.0	.27
7	.44	.50	.37	.32	.28	.24	.28	.60	17	17	.90	.39
8	.46	.50	.35	.32	.28	.25	.28	.64	12	19	1.0	.31
9	.47	.50	.35	.32	.28	.24	.28	.70	8.5	17	.89	.24
10	.77	.50	.36	.32	.28	.25	.28	.75	9.3	16	1.2	.20
11	.65	.50	.36	.32	.28	.26	.28	.85	15	15	1.4	.17
12	.50	.51	.36	.33	.28	.26	.28	1.2	24	13	.92	.17
13	.42	.47	.36	.30	.28	.26	.28	1.3	33	14	.72	.51
14	.34	.48	.37	.29	.28	.26	.28	1.4	33	11	.64	.74
15	.25	.46	.37	.29	.28	.27	.28	1.5	39	8.5	.73	.58
16	.24	.46	.36	.29	.28	.26	.28	1.6	55	7.1	.56	.90
17	.25	.45	.35	.31	.27	.27	.28	1.8	54	6.0	.46	1.3
18	.23	.44	.35	.30	.27	.27	.28	1.9	41	5.0	.44	.52
19	.23	.43	.35	.31	.28	.26	.28	2.0	37	4.2	.41	.89
20	.38	.43	.35	.31	.28	.26	.28	2.0	43	3.7	.44	2.4
21	.28	.43	.34	.31	.28	.26	.28	2.4	47	3.2	.75	1.1
22	.30	.43	.33	.31	.27	.26	.29	2.7	53	2.8	.63	.66
23	.29	.44	.33	.31	.26	.26	.38	2.9	38	2.6	.51	.51
24	.26	.44	.33	.31	.27	.27	.34	3.1	28	8.1	.42	.60
25	.29	.44	.33	.28	.27	.28	.31	3.4	35	3.5	.32	.70
26	.53	.43	.33	.30	.26	.34	.29	3.7	46	2.5	.53	.54
27	.39	.41	.32	.31	.26	.29	.30	4.0	54	2.2	.41	.44
28	.39	.38	.31	.30	.26	.28	.39	4.8	57	1.6	.49	.41
29	.53	.37	.30	.30	---	.28	.40	4.8	65	1.4	.38	.39
30	.53	.36	.31	.29	---	.28	.46	5.0	47	1.3	.44	.37
31	.52	---	.32	.27	---	.27	---	5.6	---	1.1	.25	---
TOTAL	11.97	13.78	10.68	9.59	7.73	8.21	9.02	63.45	949.8	337.8	21.94	16.58
MEAN	.39	.46	.34	.31	.28	.26	.30	2.05	31.7	10.9	.71	.55
MAX	.77	.52	.37	.34	.29	.34	.46	5.6	65	41	1.4	2.4
MIN	.23	.36	.30	.27	.26	.24	.27	.41	6.0	1.1	.25	.17
AC-FT	24	27	21	19	15	16	18	126	1880	670	44	33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	.54	.43	.31	.22	.19	.24	1.77	12.3	27.3	3.28	.49	.40
MAX	1.38	.73	.45	.43	.45	.47	8.56	24.4	42.1	10.9	.80	.58
(WY)	1987	1987	1987	1987	1987	1985	1987	1992	1991	1993	1985	1985
MIN	.17	.20	.19	.084	.054	.075	.26	2.05	6.42	.80	.23	.18
(WY)	1989	1989	1989	1986	1988	1989	1986	1993	1987	1987	1988	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	1353.17		1460.55			
ANNUAL MEAN	3.70		4.00		3.94	
HIGHEST ANNUAL MEAN					4.94	1986
LOWEST ANNUAL MEAN					2.95	1987
HIGHEST DAILY MEAN	56	May 27	65[b]	Jun 29	97[a]	Jun 14 1991
LOWEST DAILY MEAN	.21	Sep 30	.17	Sep 11	.00[c]	Feb 18 1988
ANNUAL SEVEN-DAY MINIMUM	.23	Feb 11	.25	Mar 4	.01	Feb 16 1988
INSTANTANEOUS PEAK FLOW			123	Jun 29	178	Jun 15 1991
INSTANTANEOUS PEAK STAGE			3.36	Jun 29	3.09[d]	Jun 15 1991
ANNUAL RUNOFF (AC-FT)	2680		2900		2850	
10 PERCENT EXCEEDS	15		12		13	
50 PERCENT EXCEEDS	.44		.38		.36	
90 PERCENT EXCEEDS	.24		.26		.15	

a-From rating curve extended above 60 ft³/s.
b-Also occurred Sep 12.
c-Also occurred Feb 19-20, 1988.
d-Maximum gage height, 4.56 ft, Jun 6, 1986.

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 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 9,875 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29 to Nov. 15 and May 4 to Jun. 7. 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. At times it is not possible to determine peak flows at this site.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.69	.80	.77	.61	.65	.73	.72	1.0	9.0	57	4.5	1.2
2	.58	.80	.77	.63	.70	.70	.72	.94	10	54	4.1	1.5
3	.57	.80	.77	.59	.72	.68	.72	.95	14	45	4.2	1.3
4	.55	.70	.73	.57	.71	.69	.71	1.0	16	31	4.3	1.2
5	.53	.70	.76	.56	.71	.67	.76	1.0	18	31	4.8	1.2
6	.55	.80	.79	.55	.67	.68	.72	1.1	20	30	4.3	1.2
7	.75	.80	.72	.59	.73	.69	.72	1.2	24	30	3.7	1.8
8	.72	.80	.72	.62	.73	.68	.72	1.3	26	32	4.3	1.5
9	.80	.80	.74	.57	.75	.68	.71	1.4	17	31	3.5	1.2
10	1.1	.80	.76	.57	.74	.68	.72	1.5	20	30	4.5	1.1
11	1.1	.80	.75	.57	.71	.68	.72	1.6	28	30	5.7	1.0
12	.87	.80	.75	.54	.71	.67	.72	1.7	39	28	4.0	1.0
13	.73	.80	.71	.54	.69	.63	.72	1.8	53	28	2.8	2.4
14	.65	.80	.67	.56	.67	.67	.72	2.0	51	24	2.9	2.9
15	.58	.80	.72	.60	.68	.68	.72	2.2	59	21	3.3	2.4
16	.58	.97	.68	.65	.69	.68	.72	2.4	68	19	2.2	3.9
17	.61	.96	.68	.66	.70	.68	.72	2.6	73	17	1.9	5.3
18	.56	.93	.72	.64	.71	.70	.72	2.8	62	15	1.8	2.0
19	.55	.90	.68	.64	.72	.70	.72	3.0	58	13	1.6	4.4
20	.53	1.0	.65	.61	.74	.68	.72	3.2	63	12	1.6	6.5
21	.53	.95	.68	.63	.71	.68	.72	3.5	67	11	2.8	3.1
22	.57	.90	.68	.63	.69	.68	.75	3.8	73	10	2.3	1.8
23	.55	.95	.68	.61	.69	.68	.93	4.1	59	10	1.7	1.4
24	.54	.89	.60	.59	.72	.70	.84	4.4	48	22	1.5	1.7
25	.62	.87	.63	.60	.72	.75	.78	4.8	54	12	1.3	2.1
26	.88	.82	.60	.65	.70	.84	.76	5.2	63	8.9	2.4	1.6
27	.77	.80	.60	.61	.71	.80	.78	5.6	70	8.0	1.7	1.3
28	.72	.80	.65	.63	.71	.74	.96	6.0	69	7.0	1.5	1.2
29	.80	.80	.64	.63	---	.72	1.0	6.6	78	6.3	1.3	1.1
30	.80	.76	.66	.65	---	.72	1.1	7.0	64	5.9	1.3	1.1
31	.80	---	.60	.63	---	.72	---	8.0	---	5.2	1.2	---
TOTAL	21.18	25.10	21.56	18.73	19.78	21.68	23.04	93.69	1373.0	684.3	89.0	61.4
MEAN	.68	.84	.70	.60	.71	.70	.77	3.02	45.8	22.1	2.87	2.05
MAX	1.1	1.0	.79	.66	.75	.84	1.1	8.0	78	57	5.7	6.5
MIN	.53	.70	.60	.54	.65	.63	.71	.94	9.0	5.2	1.2	1.0
AC-FT	42	50	43	37	39	43	46	186	2720	1360	177	122

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	1.12	.87	.62	.44	.45	.56	2.42	18.4	45.3	7.89	1.48	1.12
MAX	2.50	1.47	1.15	.65	.71	1.16	10.2	34.3	71.4	22.1	2.87	2.05
(WY)	1987	1987	1986	1986	1993	1986	1987	1989	1988	1993	1993	1993
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	1845.04		2452.46			
ANNUAL MEAN	5.04		6.72		6.70	
HIGHEST ANNUAL MEAN					8.21	1986
LOWEST ANNUAL MEAN					5.01	1992
HIGHEST DAILY MEAN	47	May 17	78	Jun 29	[a]126	Jun 11 1990
LOWEST DAILY MEAN	[b].40	Feb 17	[c].53	Oct 5	.13	Mar 21 1988
ANNUAL SEVEN-DAY MINIMUM	.40	Feb 21	.55	Oct 18	.14	Mar 18 1988
INSTANTANEOUS PEAK FLOW			123	Jun 29	[a]126	Jun 11 1990
INSTANTANEOUS PEAK STAGE			4.20	Jun 29	[d]10.92	May 16 1993
ANNUAL RUNOFF (AC-FT)	3660		4860		4860	
10 PERCENT EXCEEDS	16		23		24	
50 PERCENT EXCEEDS	.85		.80		.80	
90 PERCENT EXCEEDS	.46		.61		.30	

a-Maximum daily discharge.
b-Also occurred Feb 18, 21, 22, 24-27.
c-Also occurred Oct 20 and 21.
d-Maximum gage height, backwater from ice.

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 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,855 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. 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 1992 TO SEPTEMBER 1993
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	51	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	73	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	66	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	43	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	33	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	36	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	33	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	31	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	27	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	22	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	17	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	7.6	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.3	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.72	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	4.5	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	57	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	64	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	71	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	59	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	289.50	629.76	0.00	0.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	9.65	20.3	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	71	73	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	574	1250	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	.11	.060	.002	.000	.000	.000	.011	14.8	61.7	8.50	.088	.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	9.65	1.24	.000	.000
(WY)	1986	1986	1986	1985	1985	1985	1986	1988	1993	1987	1987	1985

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	2420.49		919.26			
ANNUAL MEAN	6.61		2.52		7.06	
HIGHEST ANNUAL MEAN					9.94	1986
LOWEST ANNUAL MEAN					2.52	1993
HIGHEST DAILY MEAN	108	May 27	73	Jul 2	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			104	Jun 29	[c]195	Jun 10 1990
INSTANTANEOUS PEAK STAGE			1.52	Jun 29	[d]1.82	Jun 10 1990
ANNUAL RUNOFF (AC-FT)	4800		1820		5120	
10 PERCENT EXCEEDS	19		.00		17	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

a-No flow most days.
b-No flow many days most years.
c-Also occurred Jun 16, 1991, gage height, 1.88 ft.
d-Maximum gage height for period of record, 5.23 ft, May 30, 1991, backwater from snow.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 10-14 and Jan. 2-15. Records good except for estimated daily 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	5.1	4.4	1.7	5.3	5.2	11	34	412	381	14	2.2
2	1.6	2.3	3.9	1.6	5.4	5.1	11	35	389	368	12	5.2
3	1.5	3.5	4.2	1.6	5.4	5.2	11	38	373	309	12	4.6
4	1.5	8.2	4.0	1.7	5.4	5.1	11	57	273	199	10	3.7
5	1.8	8.4	4.0	1.8	7.2	5.0	13	70	255	176	13	4.5
6	1.6	8.1	3.9	1.8	7.0	4.9	13	51	293	168	12	3.4
7	3.0	7.2	4.2	1.9	6.4	4.5	12	43	301	177	11	5.8
8	2.6	6.8	3.8	1.8	6.2	5.0	11	38	242	194	12	5.6
9	3.1	5.4	3.8	1.7	6.7	5.1	11	35	220	185	12	5.1
10	2.5	5.2	3.9	1.6	6.2	4.7	12	35	219	175	13	4.4
11	5.1	5.0	3.9	1.6	6.0	4.5	12	51	271	172	21	3.7
12	4.2	5.0	4.5	1.6	6.1	4.7	12	88	364	154	14	3.2
13	3.2	5.2	4.0	1.7	6.0	4.2	11	140	418	148	11	7.7
14	3.3	5.3	4.6	1.8	6.7	4.1	13	174	431	132	7.9	7.9
15	2.2	5.4	4.7	1.6	6.1	4.4	10	209	505	114	11	8.7
16	1.6	5.9	4.3	1.7	7.1	4.5	10	236	575	97	7.9	9.2
17	1.8	5.9	3.5	2.3	6.0	5.1	11	246	600	83	6.1	17
18	1.6	6.0	4.0	3.7	5.9	4.7	13	264	503	71	5.4	9.0
19	1.7	5.4	4.1	3.4	5.2	4.6	12	282	462	61	4.5	13
20	1.5	5.4	3.8	3.2	5.2	4.8	12	369	504	54	4.2	16
21	1.5	5.5	3.5	3.0	5.2	4.8	12	408	524	48	6.2	16
22	1.6	5.7	3.3	3.3	5.4	4.9	14	389	524	44	9.3	11
23	1.6	5.2	3.0	3.7	5.0	5.1	19	316	422	43	5.0	8.7
24	1.5	5.0	2.9	3.7	5.2	6.6	17	330	342	72	3.4	7.4
25	1.5	5.4	2.9	3.2	5.9	11	16	357	352	54	2.9	9.6
26	1.7	5.4	2.8	3.2	5.4	15	16	392	429	43	5.4	9.3
27	2.8	5.4	2.5	3.9	5.0	15	16	364	495	39	4.8	7.1
28	2.5	5.4	2.8	3.9	4.9	14	16	394	489	36	4.0	6.9
29	4.6	5.0	2.4	4.3	---	14	19	403	518	34	2.9	6.6
30	5.4	4.6	2.4	5.2	---	14	38	402	456	27	2.6	6.0
31	6.5	---	2.1	4.9	---	12	---	412	---	16	1.9	---
TOTAL	78.2	167.3	112.1	82.1	163.5	211.8	415	6662	12161	3874	262.4	228.5
MEAN	2.52	5.58	3.62	2.65	5.84	6.83	13.8	215	405	125	8.46	7.62
MAX	6.5	8.4	4.7	5.2	7.2	15	38	412	600	381	21	17
MIN	1.5	2.3	2.1	1.6	4.9	4.1	10	34	219	16	1.9	2.2
AC-FT	155	332	222	163	324	420	823	13210	24120	7680	520	453
a	169	144	171	194	171	191	138	150	212	399	358	289

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1967 - 1993, BY WATER YEAR (WY)

MEAN	10.4	9.96	7.42	6.04	5.86	8.76	36.1	210	377	80.5	9.43	7.37
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	2.52	3.07	2.55	2.46	3.42	5.02	8.21	85.5	124	9.82	1.39	2.62
(WY)	1993	1989	1989	1989	1989	1984	1983	1983	1987	1987	1972	1983

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1967 - 1993	
ANNUAL TOTAL	16992.6		24417.9			
ANNUAL MEAN	46.4		66.9			
HIGHEST ANNUAL MEAN					98.6	1984
LOWEST ANNUAL MEAN					41.6	1989
HIGHEST DAILY MEAN	615	May 27	600	Jun 17	814	Jun 21 1968
LOWEST DAILY MEAN	[b]1.5	Oct 3	[b]1.5	Oct 3	.01	Aug 7 1972
ANNUAL SEVEN-DAY MINIMUM	1.6	Oct 19	1.6	Oct 19	.11	Aug 7 1972
INSTANTANEOUS PEAK FLOW			714	Jun 16	1110	Jun 20 1968
INSTANTANEOUS PEAK STAGE			2.65	Jun 16	3.14	Jun 20 1968
ANNUAL RUNOFF (AC-FT)	33700		48430			
10 PERCENT EXCEEDS	173		312		239	
50 PERCENT EXCEEDS	6.7		6.0		9.6	
90 PERCENT EXCEEDS	3.0		2.2		3.9	

a-Diversions, in acre-feet, by Mount Werner Water and Sanitation District, and City of Steamboat Springs.
b-Also occurred Oct 4, 20, 21, 24 and 25.

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 sea level. 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.--No estimated daily discharges. Records good. 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, YamColo, Stagecoach, and Catamount Reservoirs, (total capacity 56,895 acre-ft) and pumping of water to ski area for snow making during winter.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	137	67	83	119	96	288	856	2840	1160	153	118
2	90	137	66	84	121	99	334	840	2760	1080	152	121
3	90	134	69	82	126	105	309	796	2750	982	150	121
4	87	139	66	83	120	106	293	845	2260	820	148	120
5	81	139	59	106	123	105	392	1030	2020	828	153	116
6	80	137	67	83	136	108	500	935	2030	723	160	113
7	92	137	73	85	122	101	380	811	2180	638	158	116
8	93	138	67	84	125	102	317	774	1820	622	156	124
9	95	136	68	82	119	102	334	673	1680	592	162	130
10	93	134	69	83	121	101	392	614	1580	560	171	128
11	96	130	80	86	122	110	397	715	1660	534	202	121
12	99	131	83	83	119	108	421	912	1880	495	209	113
13	102	134	80	80	116	104	398	1250	2240	474	196	131
14	98	132	78	84	96	105	349	1590	2250	458	173	148
15	96	132	77	84	92	107	359	1820	2580	405	176	148
16	90	131	80	88	96	109	403	1950	2770	362	174	141
17	89	133	82	107	104	115	405	2050	2820	326	155	147
18	85	132	81	119	108	134	499	2070	2600	295	138	138
19	87	132	80	112	114	144	483	2100	2320	270	145	142
20	111	133	82	115	115	144	394	2380	2310	261	145	166
21	106	118	88	115	103	141	377	2670	2260	242	143	163
22	107	69	84	113	94	144	415	2790	2220	231	157	147
23	104	74	84	114	100	158	563	2580	1960	223	150	135
24	104	67	82	102	106	174	585	2540	1550	275	143	128
25	104	76	84	110	109	200	567	2580	1440	285	136	130
26	107	67	83	117	109	226	665	2740	1470	241	134	126
27	109	78	84	116	109	245	825	2730	1520	220	141	121
28	110	62	87	114	99	275	924	2810	1540	208	138	118
29	131	68	89	118	---	313	902	2900	1500	199	129	111
30	137	62	88	123	---	326	871	2760	1340	188	124	107
31	152	---	84	120	---	286	---	2830	---	169	120	---
TOTAL	3115	3429	2411	3075	3143	4693	14341	54941	62150	14366	4791	3888
MEAN	100	114	77.8	99.2	112	151	478	1772	2072	463	155	130
MAX	152	139	89	123	136	326	924	2900	2840	1160	209	166
MIN	80	62	59	80	92	96	288	614	1340	169	120	107
AC-FT	6180	6800	4780	6100	6230	9310	28450	109000	123300	28490	9500	7710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1993, BY WATER YEAR (WY)

MEAN	134	125	103	98.3	101	166	660	1730	1807	363	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1910 - 1993	
ANNUAL TOTAL	102911		174343			
ANNUAL MEAN	281		478		463	
HIGHEST ANNUAL MEAN					821	1984
LOWEST ANNUAL MEAN					169	1977
HIGHEST DAILY MEAN	2130	May 27	2900	May 29	5870	Jun 14 1921
LOWEST DAILY MEAN	59	Dec 5	59	Dec 5	[a]4.0	Sep 8 1934
ANNUAL SEVEN-DAY MINIMUM	65	Nov 30	65	Nov 30	4.9	Sep 9 1944
INSTANTANEOUS PEAK FLOW			3280	Jun 17	[b]6820	Jun 14 1921
INSTANTANEOUS PEAK STAGE			6.33	Jun 17	[c]7.08	Jun 14 1921
ANNUAL RUNOFF (AC-FT)	204100		345800		335500	
10 PERCENT EXCEEDS	930		1820		1510	
50 PERCENT EXCEEDS	121		135		135	
90 PERCENT EXCEEDS	84		83		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 September 1993 (Discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
28...	1015	62	306	8.2	0.0	11.5	K3	K4	130	34	11
MAR											
27...	1120	217	275	8.2	2.5	10.3	67	--	120	32	9.6
JUN											
08...	1200	1830	71	7.4	5.5	8.9	70	K35	30	8.1	2.3
SEP											
08...	1000	119	295	7.8	12.0	8.4	29	26	130	32	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)
NOV										
28...	12	0.5	1.9	121	33	5.2	0.2	9.5	179	0.24
MAR										
27...	9.0	0.4	2.1	109	31	4.9	<0.1	11	166	0.23
JUN										
08...	2.4	0.2	0.70	30	6.7	0.70	<0.1	9.0	48	0.06
SEP										
08...	9.2	0.4	1.9	115	33	3.6	0.2	7.4	167	0.23

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 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, DIS-SOLVED (MG/L AS P)
NOV										
28...	30.0	--	--	--	--	0.30	--	0.04	--	--
MAR										
27...	97.4	<0.01	0.24	0.02	0.48	--	0.50	--	0.02	0.02
JUN										
08...	236	<0.01	<0.05	0.02	--	--	<0.20	--	0.02	0.01
SEP										
08...	53.8	<0.01	<0.05	0.05	0.25	--	0.30	--	0.04	0.01

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										
28...	<1.0	2	--	<1	--	50	<0.1	<1	--	<3
MAR										
27...	<1.0	4	440	<1	120	96	<0.1	<1	[a]<0.2	<3
JUN										
08...	<1.0	1	370	<1	30	17	<0.1	<1	--	<3
SEP										
08...	<1.0	5	270	<1	60	31	<0.1	<1	<0.2	<3

a-Analysis 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 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
27...	1150	107	313	9.0
DEC				
07...	1250	54	301	0.5
JAN				
27...	1250	95	357	0.5
APR				
08...	1310	302	267	4.5
MAY				
03...	1600	731	200	7.0
16...	1150	1850	124	9.0
JUN				
01...	1850	2930	69	8.0
JUL				
07...	0830	654	84	11.0
AUG				
03...	1300	150	212	20.0
SEP				
01...	0940	121	291	15.5

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 (Discontinued).

REVISED RECORDS.--WDR CO-92-2: 1991.

GAGE.--Water-stage recorder. Elevation of gage is 7,525 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct 29 to Apr 22, Jul 21 to Aug 3 and Aug 13-25. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	44	42	37	35	34	38	129	1490	1340	240	86
2	40	43	41	36	36	35	38	139	1460	1400	220	85
3	41	44	41	36	35	35	37	160	1650	1340	207	84
4	39	45	41	35	34	35	36	222	1110	947	201	80
5	39	44	40	36	35	34	36	263	969	791	202	81
6	41	44	40	37	35	34	37	215	1020	644	182	82
7	46	45	39	38	35	34	38	187	1070	782	171	88
8	44	46	40	38	35	34	38	178	932	1000	164	88
9	47	45	39	38	35	34	38	170	907	1010	168	76
10	45	44	38	37	35	34	38	183	838	1030	175	67
11	45	43	38	37	34	34	36	255	909	887	217	69
12	46	43	38	36	32	35	37	377	1170	886	187	68
13	44	44	39	36	33	36	38	541	1370	898	161	81
14	42	45	39	35	34	36	38	724	1370	838	155	80
15	41	45	39	35	35	36	38	842	1730	848	150	76
16	40	46	38	36	34	35	40	926	2090	759	145	71
17	42	45	38	36	34	34	42	1040	1900	698	140	109
18	41	45	38	36	35	34	45	969	1740	639	135	97
19	41	44	37	37	36	34	50	970	1460	582	130	120
20	42	44	37	37	36	35	56	1130	1630	577	128	108
21	42	44	38	36	35	35	60	1270	1690	558	126	97
22	41	44	39	35	35	35	58	1420	1730	500	124	82
23	41	45	39	36	36	35	69	1140	1730	450	122	74
24	41	46	38	35	36	35	62	1000	1310	430	120	72
25	41	45	37	35	36	36	63	1120	1320	410	118	76
26	45	44	36	35	35	36	71	1350	1330	390	92	70
27	44	43	36	35	35	36	93	1430	1650	370	86	66
28	45	42	37	35	35	35	118	1470	1460	350	83	63
29	44	42	38	36	---	36	127	1530	1590	320	95	60
30	45	42	39	35	---	37	141	1450	1580	290	96	58
31	45	---	38	36	---	38	---	1430	---	270	92	---
TOTAL	1319	1325	1197	1118	976	1086	1656	24230	42205	22234	4632	2414
MEAN	42.5	44.2	38.6	36.1	34.9	35.0	55.2	782	1407	717	149	80.5
MAX	47	46	42	38	36	38	141	1530	2090	1400	240	120
MIN	39	42	36	35	32	34	36	129	838	270	83	58
AC-FT	2620	2630	2370	2220	1940	2150	3280	48060	83710	44100	9190	4790

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 1993, BY WATER YEAR (WY)

MEAN	44.0	41.0	38.8	34.8	33.2	38.5	124	627	956	306	91.5	59.2
MAX	58.0	51.0	42.0	37.6	35.0	47.5	198	782	1407	717	149	80.5
(WY)	1991	1990	1991	1991	1988	1989	1989	1993	1993	1993	1993	1993
MIN	31.1	23.9	36.6	32.7	30.8	34.5	55.2	433	444	184	62.6	48.0
(WY)	1988	1988	1989	1990	1989	1992	1993	1990	1992	1989	1991	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1988 - 1993	
ANNUAL TOTAL	55727		104392			
ANNUAL MEAN	152		286		200	
HIGHEST ANNUAL MEAN					286	1993
LOWEST ANNUAL MEAN					151	1992
HIGHEST DAILY MEAN	1050	May 27	2090	Jun 16	2090	Jun 16 1993
LOWEST DAILY MEAN	[a]29	Feb 5	32	Feb 12	[b]17	Nov 9 1987
ANNUAL SEVEN-DAY MINIMUM	30	Feb 2	34	Feb 11	18	Nov 9 1987
INSTANTANEOUS PEAK FLOW			2430	Jun 16	2430	Jun 16 1993
INSTANTANEOUS PEAK STAGE			6.13	Jun 16	6.13	Jun 16 1993
ANNUAL RUNOFF (AC-FT)	110500		207100		144700	
10 PERCENT EXCEEDS	506		1110		702	
50 PERCENT EXCEEDS	45		45		48	
90 PERCENT EXCEEDS	32		35		33	

a-Also occurred Feb 6 and 7.
b-Also occurred Nov 10 and 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, 2.5 mi upstream from mouth, and 3.2 mi east of Milner.

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 sea level, 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: Oct. 29 to Nov. 10, Nov. 12-21, Nov. 23 to Mar. 30. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	66	66	56	52	52	199	995	3220	2040	365	108
2	62	64	64	56	52	50	248	997	3080	2050	349	107
3	59	62	60	58	52	52	223	1030	3290	2200	334	101
4	58	64	56	56	50	52	240	1210	2540	1540	303	97
5	57	64	54	54	48	50	295	1580	2140	1190	305	100
6	57	62	54	54	49	50	336	1200	2120	1010	314	99
7	58	62	52	56	50	50	314	1080	2320	1060	286	97
8	61	64	51	56	50	50	252	995	1900	1230	270	101
9	61	64	51	54	52	52	282	858	1830	1340	247	96
10	65	64	50	54	52	52	340	851	1540	1330	246	95
11	63	63	47	54	50	54	333	1150	1630	1390	385	90
12	63	64	48	52	52	54	306	1570	1880	1360	302	87
13	63	66	46	52	52	54	306	2160	2310	1310	269	88
14	62	64	44	52	52	54	256	2690	2280	1250	236	94
15	59	62	42	52	50	56	279	3070	2710	1170	230	94
16	57	62	44	52	52	58	298	3140	3140	1070	218	83
17	52	64	45	54	50	60	311	3320	3300	977	194	107
18	51	64	44	56	50	62	437	3370	2990	849	187	130
19	51	62	43	54	50	62	388	3040	2440	760	173	138
20	51	62	43	52	50	62	324	3490	2530	698	165	154
21	53	62	41	50	52	62	314	3640	2590	652	174	135
22	54	63	44	50	52	62	341	3720	2540	578	219	118
23	56	64	44	52	52	62	527	3250	2440	540	179	108
24	57	64	43	50	50	60	566	2870	1890	591	160	102
25	57	64	42	50	49	66	581	2840	1770	645	144	102
26	58	66	46	50	48	74	702	3200	1940	528	137	103
27	62	68	46	52	48	84	997	3170	2160	509	144	100
28	62	70	48	50	50	80	1150	3090	2250	458	136	95
29	62	72	50	52	---	100	1120	3190	2340	423	116	87
30	66	70	52	52	---	150	1190	2960	2370	402	120	86
31	68	---	54	50	---	224	---	3010	---	391	115	---
TOTAL	1827	1932	1514	1642	1416	2110	13455	72736	71480	31541	7022	3102
MEAN	58.9	64.4	48.8	53.0	50.6	68.1	448	2346	2383	1017	227	103
MAX	68	72	66	58	52	224	1190	3720	3300	2200	385	154
MIN	51	62	41	50	48	50	199	851	1540	391	115	83
AC-FT	3620	3830	3000	3260	2810	4190	26690	144300	141800	62560	13930	6150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1905 - 1993, BY WATER YEAR (WY)

MEAN	144	112	91.0	89.2	91.5	176	732	2109	2221	676	169	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	58.9	58.0	48.8	51.5	45.9	52.0	379	940	767	203	77.3	53.2
(WY)	1993	1991	1993	1992	1991	1991	1991	1990	1992	1910	1924	1919

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1905 - 1993	
ANNUAL TOTAL	102049		209777			
ANNUAL MEAN	279		575		569	
HIGHEST ANNUAL MEAN					886	1917
LOWEST ANNUAL MEAN					282	1992
HIGHEST DAILY MEAN	1840	May 27	3720	May 22	5350	Jun 15 1921
LOWEST DAILY MEAN	41	Dec 21	41	Dec 21	[a]26	Aug 29 1990
ANNUAL SEVEN-DAY MINIMUM	43	Dec 19	43	Dec 19	30	Aug 28 1990
INSTANTANEOUS PEAK FLOW			4000	May 21	[b]5530	Jun 15 1921
INSTANTANEOUS PEAK STAGE			6.51	May 21	6.51	May 21 1993
ANNUAL RUNOFF (AC-FT)	202400		416100		411900	
10 PERCENT EXCEEDS	984		2260		1910	
50 PERCENT EXCEEDS	81		87		137	
90 PERCENT EXCEEDS	51		50		70	

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 1992 TO SEPTEMBER 1993

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												
27...	1425	68	163	8.1	0.0	11.2	69	21	4.1	5.8	0.3	1.4
MAR												
27...	0940	84	168	7.8	0.0	10.4	69	20	4.6	5.3	0.3	1.6
JUN												
15...	1300	2560	48	7.4	9.0	8.9	21	6.3	1.2	1.3	0.1	0.50
AUG												
30...	1000	123	97	8.0	12.5	8.2	42	13	2.3	2.5	0.2	1.0

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	NITRO-GEN, NITRITE TOTAL (MG/L AS N)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
NOV											
27...	62	16	2.3	0.3	11	99	0.13	18.2	<0.01	--	0.07
MAR											
27...	63	21	4.6	0.3	11	107	0.15	24.3	--	<0.01	0.19
JUN											
15...	22	3.1	0.3	0.1	6.3	32	0.04	223	--	<0.01	--
AUG											
30...	42	6.7	0.8	0.2	7.3	59	0.08	19.6	--	<0.01	--

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC 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)	CARBON, ORGANIC TOTAL (MG/L AS C)
NOV											
27...	--	0.03	--	--	0.2	--	0.01	--	0.01	--	2.5
MAR											
27...	0.19	--	0.03	--	--	<0.2	--	0.02	--	0.01	3.9
JUN											
15...	<0.05	--	0.02	0.18	--	0.2	--	0.02	--	<0.01	6.7
AUG											
30...	<0.05	--	0.03	--	--	<0.2	--	0.03	--	<0.01	5.8

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)
JUN										
15...	450	<1	<1	<100	<10	<1	<1	<1	1	510
AUG										
30...	30	<1	<1	<100	<10	<1	<1	<1	6	110

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)
JUN										
15...	<1	<10	10	<0.1	<1	<1	<1	<1	30	<10
AUG										
30...	<1	<10	10	<0.1	<1	<1	<1	<1	80	<10

09242500 ELK RIVER NEAR MILNER, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT				
27...	1305	63	142	9.5
DEC				
07...	0955	53	141	0.0
APR				
08...	1115	202	--	3.0
MAY				
04...	0735	1190	158	3.5
JUN				
02...	0655	3390	54	5.0
JUL				
07...	1050	1090	47	10.5
AUG				
03...	0810	326	62	12.5
SEP				
01...	0830	109	97	12.0

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 22 to Mar. 22, and Aug. 2-4. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.09	.16	.22	.27	.48	1.8	26	8.9	1.0	.07	.00
2	.00	.18	.15	.23	.27	.50	2.3	24	8.1	.95	.05	.00
3	.00	.16	.15	.23	.29	.50	2.0	23	8.6	.90	.03	.00
4	.00	.16	.14	.24	.30	.50	2.6	25	9.0	1.1	.01	.00
5	.00	.15	.14	.24	.30	.50	4.6	28	7.9	1.5	.01	.00
6	.00	.14	.13	.25	.31	.54	5.1	27	7.8	1.3	.00	.00
7	.00	.12	.12	.25	.31	.58	3.3	29	7.8	1.1	.00	.00
8	.00	.23	.12	.24	.32	.62	2.8	28	7.7	.95	.00	.00
9	.00	.20	.12	.24	.32	.62	3.1	26	7.6	.88	.01	.00
10	.00	.26	.16	.23	.32	.64	4.0	26	7.1	.80	.03	.00
11	.00	.29	.16	.23	.33	.62	4.2	27	6.0	.73	.07	.00
12	.00	.21	.16	.24	.34	.62	4.3	29	5.2	.53	.07	.00
13	.00	.16	.18	.25	.35	.60	5.0	32	4.4	.65	.06	.00
14	.00	.15	.18	.25	.35	.62	4.3	35	6.2	.85	.03	.00
15	.00	.18	.18	.24	.35	.64	4.3	39	3.7	.83	.01	.00
16	.00	.21	.20	.24	.37	.66	4.9	37	2.8	.61	.00	.00
17	.00	.22	.18	.25	.38	.70	5.4	35	2.6	.48	.00	.00
18	.00	.22	.18	.25	.39	.80	8.1	32	3.5	.43	.00	.00
19	.00	.22	.18	.25	.40	1.0	8.8	29	4.0	.41	.00	.00
20	.00	.21	.18	.25	.40	1.2	8.1	29	3.0	.33	.00	.00
21	.00	.21	.20	.25	.41	1.4	8.0	26	2.4	.26	.00	.00
22	.00	.20	.20	.26	.42	1.6	7.9	24	2.1	.20	.00	.00
23	.00	.20	.20	.25	.43	1.6	9.6	22	2.0	.21	.00	.00
24	.00	.19	.21	.24	.44	2.0	12	20	1.9	.40	.00	.00
25	.00	.19	.21	.24	.45	2.0	12	19	1.7	.62	.00	.00
26	.00	.18	.22	.25	.45	2.0	13	17	1.6	.49	.00	.00
27	.00	.18	.22	.25	.45	1.4	20	15	1.4	.32	.00	.00
28	.00	.17	.22	.25	.45	2.0	25	14	1.2	.22	.00	.00
29	.02	.17	.22	.26	---	2.3	25	12	1.0	.13	.00	.00
30	.04	.16	.21	.26	---	2.3	28	11	1.0	.13	.00	.00
31	.06	---	.21	.27	---	1.7	---	9.9	---	.08	.00	---
TOTAL	0.12	5.61	5.49	7.60	10.17	33.24	249.5	775.9	138.2	19.39	0.45	0.00
MEAN	.004	.19	.18	.25	.36	1.07	8.32	25.0	4.61	.63	.015	.000
MAX	.06	.29	.22	.27	.45	2.3	28	39	9.0	1.5	.07	.00
MIN	.00	.09	.12	.22	.27	.48	1.8	9.9	1.0	.08	.00	.00
AC-FT	.2	11	11	15	20	66	495	1540	274	38	.9	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	.40	.62	.56	.53	.76	1.96	11.4	23.3	5.07	1.54	.58	.29
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	305.73		1245.67			
ANNUAL MEAN	.84		3.41		3.93	
HIGHEST ANNUAL MEAN					13.2	1984
LOWEST ANNUAL MEAN					.50	1977
HIGHEST DAILY MEAN	6.3	Apr 24	39	May 15	297	May 14 1984
LOWEST DAILY MEAN	[a].00	Aug 22	[a].00	Oct 1	[a].00	Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 8	.00	Oct 1	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			42	May 15	[b]329	May 14 1984
INSTANTANEOUS PEAK STAGE			2.70	May 15	4.08	May 14 1984
ANNUAL RUNOFF (AC-FT)	606		2470		2850	
10 PERCENT EXCEEDS	2.4		11		9.8	
50 PERCENT EXCEEDS	.36		.25		.70	
90 PERCENT EXCEEDS	.00		.00		.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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 25 to Mar. 22 and July 8-13. Records good except for estimated daily discharge, which are poor. Natural flow of stream effected by Reservoir No. 1, which is 2.3 mi upstream of the gage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.42	.48	.64	.68	.62	2.9	10	5.5	1.6	.79	.51
2	.90	.50	.50	.66	.68	.62	2.7	8.3	5.5	.50	.80	.59
3	.65	.51	.50	.68	.68	.64	3.0	7.9	6.0	.53	.77	.55
4	.55	.51	.50	.70	.68	.62	3.9	8.1	6.1	1.4	.78	.52
5	.49	.51	.50	.72	.66	.60	6.9	8.4	7.1	1.8	.93	.47
6	.46	.51	.50	.74	.66	.60	6.6	7.9	4.3	2.1	.92	.48
7	.60	.51	.50	.74	.66	.60	3.8	8.5	5.5	2.3	.88	.60
8	.58	.55	.50	.74	.64	.60	3.2	8.8	6.0	4.0	.92	.74
9	.55	.58	.52	.72	.64	.60	4.1	7.9	5.5	3.0	.97	.68
10	.51	.58	.54	.70	.64	.60	5.5	7.6	5.0	2.4	1.1	.61
11	.50	.58	.56	.68	.64	.60	5.5	7.9	9.5	2.2	1.2	.54
12	.48	.58	.56	.70	.62	.60	6.1	9.0	11	2.1	3.2	.51
13	.48	.54	.56	.74	.62	.60	6.2	10	4.6	1.9	5.3	.57
14	.48	.51	.58	.74	.62	.60	5.3	11	.67	1.9	4.6	.61
15	.48	.51	.58	.72	.62	.60	5.1	13	1.7	1.8	3.5	.60
16	.48	.54	.58	.70	.60	.60	6.1	12	2.0	1.8	1.5	.57
17	.45	.51	.58	.72	.60	.64	7.9	11	2.0	1.8	.10	.74
18	.42	.51	.58	.74	.58	.66	16	10	2.0	1.9	.08	.70
19	.42	.51	.58	.74	.56	.68	11	9.4	2.2	1.9	.20	.73
20	.42	.51	.60	.72	.58	.70	9.0	9.3	5.9	1.8	.32	.84
21	.42	.52	.60	.74	.60	.80	8.2	8.1	6.8	1.8	.49	.78
22	.42	.49	.60	.74	.62	.94	9.5	8.1	4.6	1.7	.61	.66
23	.42	.54	.62	.72	.62	.86	14	7.9	1.7	1.5	.62	.58
24	.42	.55	.64	.70	.60	.93	11	7.3	1.4	1.5	.61	.59
25	.42	.54	.64	.70	.60	1.1	10	7.2	1.9	1.4	.60	.62
26	.42	.53	.64	.72	.58	1.2	12	6.7	2.0	1.3	.73	.62
27	.42	.52	.66	.74	.58	1.4	17	6.4	2.0	1.2	.70	.61
28	.42	.51	.68	.74	.60	1.8	15	6.1	4.3	1.2	.66	.58
29	.42	.50	.66	.72	---	2.2	11	5.7	5.6	1.1	.59	.58
30	.42	.48	.64	.70	---	2.1	11	5.5	4.8	.81	.52	.58
31	.42	---	.64	.70	---	2.3	---	5.4	---	.81	.48	---
TOTAL	15.72	15.66	17.82	22.16	17.46	28.01	239.5	260.4	133.17	53.05	35.47	18.36
MEAN	.51	.52	.57	.71	.62	.90	7.98	8.40	4.44	1.71	1.14	.61
MAX	1.2	.58	.68	.74	.68	2.3	17	13	11	4.0	5.3	.84
MIN	.42	.42	.48	.64	.56	.60	2.7	5.4	.67	.50	.08	.47
AC-FT	31	31	35	44	35	56	475	517	264	105	70	36

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	.48	.46	.36	.38	.79	1.80	6.11	4.19	1.37	.67	.37	.25
MAX	3.37	2.24	1.11	1.13	6.34	7.90	14.7	13.0	4.44	1.86	1.43	.80
(WY)	1986	1986	1986	1986	1986	1986	1985	1985	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	304.43		856.78			
ANNUAL MEAN	.83		2.35		1.43	
HIGHEST ANNUAL MEAN					3.69	1986
LOWEST ANNUAL MEAN					.022	1977
HIGHEST DAILY MEAN	4.9	Apr 1	17	Apr 27	33	Apr 22 1980
LOWEST DAILY MEAN	[a].00	Sep 4	.08	Aug 18	[b].00	Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.01	Sep 3	.35	Aug 17	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			27	Apr 18	55	Apr 21 1980
INSTANTANEOUS PEAK STAGE			2.70	Apr 18	3.38	Apr 21 1980
ANNUAL RUNOFF (AC-FT)	604		1700		1040	
10 PERCENT EXCEEDS	1.5		7.9		4.0	
50 PERCENT EXCEEDS	.58		.70		.50	
90 PERCENT EXCEEDS	.30		.50		.00	

a-Also occurred Sep 12 and 15.
b-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 September 1993, (Discontinued).

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 1992 TO SEPTEMBER 1993

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
MAR										
09...	1138	0.60	3130	8.0	0.5	2000	420	240	62	.6
APR										
14...	1600	5.15	1650	8.1	9.5	900	180	110	48	.7
JUN										
15...	1130	1.43	3010	7.9	17.5	2000	370	250	55	.5
SEP										
02...	1015	0.62	3270	7.9	13.0	2200	380	310	64	.6

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									
09...	6.1	392	1600	32	0.1	13	2610	3.55	4.23
APR									
14...	4.5	216	730	6.8	0.6	7.8	1220	1.66	11.2
JUN									
15...	6.8	307	1700	7.1	0.9	6.7	2580	3.51	14.5
SEP									
02...	5.9	227	2100	9.1	<0.1	9.7	3010	4.10	5.05

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	PH (STANDARD UNITS)	TEMPERATURE WATER (DEG C)
OCT					
02...	0900	0.93	3180	--	7.0
NOV					
16...	1050	0.66	3110	--	0.5
DEC					
08...	1045	0.50	3180	--	0.0
MAR					
08...	1405	0.60	3080	--	0.0
22...	1325	0.94	2840	--	1.0
APR					
20...	1600	9.4	1660	8.0	10.0
MAY					
04...	1545	7.7	1740	8.3	15.0
18...	1445	10	2290	7.7	20.0
JUL					
13...	1410	1.8	3140	--	22.5
AUG					
04...	1350	0.81	3210	--	18.5
SEP					
01...	1440	0.48	3240	--	17.0

09243900 FOIDEL CREEK AT MOUTH, NEAR OAK CREEK, CO

LOCATION.--Lat 40°23'25", long 106°59'39", in SE¼SE¼ 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 mi².

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 sea level, from topographic map. Prior to Feb. 19, 1992, at site 600 ft downstream, at same datum.

REMARKS.--Estimated daily discharges: Nov. 16 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.90	.86	.54	.70	.82	1.2	10	15	5.4	3.8	.49	.42
2	.77	.83	.54	.72	.84	1.2	10	13	5.0	2.3	.43	.47
3	.66	.88	.54	.74	.84	1.2	8.1	13	5.9	1.1	.42	.48
4	.53	.70	.54	.76	.86	1.2	10	14	8.8	.69	.41	.41
5	.43	.67	.54	.78	.86	1.2	15	14	7.6	.63	.48	.38
6	.40	.72	.52	.80	.88	1.3	16	15	8.0	.63	.49	.36
7	.48	.73	.52	.80	.90	1.3	10	15	6.6	.80	.70	.51
8	.50	.67	.52	.78	.90	1.3	7.8	16	6.6	.84	.87	.69
9	.50	.79	.54	.78	.90	1.3	8.6	15	8.3	.86	.98	.65
10	.45	.64	.58	.76	.90	1.3	10	14	6.6	1.8	1.1	.53
11	.41	.62	.60	.74	.92	1.2	10	13	5.3	2.1	1.4	.57
12	.41	.68	.60	.78	.94	1.3	9.6	13	7.7	1.8	1.1	.44
13	.39	.83	.62	.82	.94	1.4	11	13	12	1.5	3.0	.56
14	.37	.81	.62	.80	.94	1.3	10	14	10	1.4	3.7	.70
15	.35	.67	.64	.78	.96	1.3	8.9	15	2.2	1.2	3.4	.69
16	.35	.70	.64	.76	.96	1.5	9.7	17	1.4	1.1	2.8	.68
17	.35	.72	.62	.78	.96	2.0	11	16	1.7	1.0	1.1	.84
18	.35	.68	.62	.80	.98	3.0	14	15	2.0	1.0	.49	.88
19	.36	.70	.64	.80	.98	5.0	19	14	2.6	1.0	.35	.99
20	.35	.76	.64	.78	.98	7.0	17	13	2.5	.98	.29	1.0
21	.35	.65	.66	.80	1.1	10	17	13	3.1	.95	.44	.94
22	.35	.60	.66	.82	1.2	15	15	11	6.5	.93	.61	.84
23	.36	.58	.68	.80	1.2	12	16	11	4.9	.88	.59	.76
24	.35	.58	.68	.78	1.2	10	16	9.6	2.8	.98	.50	.76
25	.35	.58	.70	.76	1.1	9.5	15	9.4	1.4	1.1	.47	.85
26	.39	.56	.70	.78	1.1	11	15	8.9	1.1	.98	.52	.82
27	.42	.56	.72	.80	1.1	11	16	8.3	1.3	.79	.56	.79
28	.50	.56	.74	.80	1.1	14	17	8.0	1.4	.71	.51	.79
29	.58	.54	.72	.80	---	14	15	7.1	1.8	.73	.46	.79
30	.58	.54	.70	.80	---	13	15	6.4	4.4	.68	.43	.75
31	.77	---	.68	.80	---	11	---	5.8	---	.55	.38	---
TOTAL	14.31	20.41	19.26	24.20	27.36	168.0	382.7	385.5	144.9	35.81	29.47	20.34
MEAN	.46	.68	.62	.78	.98	5.42	12.8	12.4	4.83	1.16	.95	.68
MAX	.90	.88	.74	.82	1.2	15	19	17	12	3.8	3.7	1.0
MIN	.35	.54	.52	.70	.82	1.2	7.8	5.8	1.1	.55	.29	.36
AC-FT	28	40	38	48	54	333	759	765	287	71	58	40

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	.75	.99	.92	.94	1.54	5.21	14.0	8.60	2.82	1.38	.71	.42
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	506.70		1272.26			
ANNUAL MEAN	1.38		3.49		3.19	
HIGHEST ANNUAL MEAN					7.63	1986
LOWEST ANNUAL MEAN					.070	1977
HIGHEST DAILY MEAN	9.2	Mar 17	19	Apr 19	79	Apr 25 1984
LOWEST DAILY MEAN	[a].00	Sep 9	.29	Aug 20	[b].00	Oct 1 1975
ANNUAL SEVEN-DAY MINIMUM	.00	Sep 9	.35	Oct 15	.00	Oct 1 1975
INSTANTANEOUS PEAK FLOW			25	Mar 23	90	Apr 22 1980
INSTANTANEOUS PEAK STAGE			4.93	Mar 23	5.18	Apr 22 1980
ANNUAL RUNOFF (AC-FT)	1010		2520		2310	
10 PERCENT EXCEEDS	3.3		13		8.5	
50 PERCENT EXCEEDS	.70		.86		.87	
90 PERCENT EXCEEDS	.28		.48		.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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.08	.05	.00	.00	.00	.00	.02	.00	.00	.00	.00
2	.00	.00	.00	.09	.00	.00	.05	.07	.00	.00	.00	.00
3	.00	.07	.05	.02	.00	.01	.00	.00	.00	.00	.00	.00
4	.00	.05	.04	.00	.00	.00	.04	.00	.00	.00	.00	.00
5	.14	.00	.00	.00	.00	.01	.11	.00	.00	.02	.00	.00
6	.12	.00	.00	.08	.01	.00	.00	.08	.00	.01	.09	.00
7	.00	.00	.10	.05	.01	.00	.02	.00	.00	.00	.00	.11
8	.00	.00	.00	.05	.01	.02	.05	.00	.00	.00	.09	.00
9	.00	.00	.00	.05	.09	.00	.00	.00	.01	.05	.00	.00
10	.00	.00	.00	.10	.02	.00	.01	.00	.00	.00	.04	.00
11	.00	.07	.03	.10	.02	.00	.01	.00	.00	.00	.00	.00
12	.00	.02	.02	.00	.10	.00	.02	.00	.00	.00	.00	.02
13	.00	.22	.00	.04	.00	.01	.01	.00	.02	.02	.00	.02
14	.00	.07	.00	.03	.00	.00	.00	.02	.00	.00	.01	.00
15	.00	.07	.02	.00	.02	.00	.08	.05	.00	.00	.00	.00
16	.01	.00	.03	.00	.02	.10	.00	.00	.00	.00	.00	.05
17	.01	.01	.00	.01	.10	.10	.00	.03	.04	.00	.00	.00
18	.01	.03	.00	.03	.02	.01	.08	.00	.10	.00	.00	.04
19	.01	.00	.04	.03	.02	.00	.06	.00	.00	.00	.00	.16
20	.01	.00	.18	.02	.06	.00	.00	.00	.00	.00	.00	.00
21	.00	.23	.00	.16	.02	.00	.00	.00	.00	.00	.00	.00
22	.41	.06	.00	.03	.06	.10	.02	.00	.00	.00	.00	.00
23	.19	.02	.00	.00	.06	.01	.05	.00	.00	.00	.00	.00
24	.05	.00	.10	.00	.10	.00	.02	.00	.00	.20	.00	.05
25	.10	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
28	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.10	.00	.04	.01	---	.04	.00	.00	.00	.00	.00	.00
30	.00	.00	.02	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.02	---	.00	---	.00	---	.00	.00	---
TOTAL	1.27	1.00	0.72	0.92	0.81	0.42	0.63	0.27	0.17	0.30	0.23	0.45

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 sea level, 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. 29 to Apr. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	14	5.0	5.7	5.5	11	8.5	269	357	42	7.5	3.1
2	1.8	13	4.5	5.8	5.6	12	10	282	329	39	7.0	2.6
3	2.7	12	4.5	5.8	5.9	11	9.5	313	353	37	6.5	2.3
4	3.5	13	5.0	5.7	6.0	10	11	410	343	35	6.0	1.9
5	4.1	14	4.0	6.1	6.1	10	13	624	262	35	5.6	1.6
6	4.9	12	4.1	5.7	6.0	11	16	351	227	34	5.5	1.4
7	7.1	12	4.0	6.0	6.5	12	20	276	232	31	6.4	1.1
8	8.4	11	4.2	6.1	6.8	11	23	266	231	28	6.9	1.0
9	8.4	13	4.1	5.8	6.7	12	25	231	280	25	7.0	.89
10	9.4	11	4.3	6.2	6.8	12	26	248	229	22	7.0	.79
11	10	10	4.4	6.1	7.1	10	29	420	198	20	7.0	.71
12	10	11	4.5	6.0	7.3	9.0	32	634	186	18	7.0	.57
13	9.9	9.5	4.5	5.8	7.4	10	31	821	178	17	6.6	.44
14	9.7	9.0	4.6	6.0	7.6	10	31	965	162	16	6.3	.42
15	9.5	9.5	4.5	6.2	7.3	12	34	1050	151	15	5.8	.52
16	9.9	9.0	4.6	6.3	7.5	11	44	968	143	15	5.5	.62
17	10	8.5	4.8	6.1	7.7	12	43	962	134	14	5.1	.86
18	11	8.5	4.7	6.0	8.0	13	45	950	125	13	4.8	1.1
19	11	9.0	4.8	6.0	8.3	12	47	831	118	13	4.4	1.4
20	12	8.0	4.9	6.2	8.7	11	50	936	106	12	4.2	2.1
21	12	7.5	5.0	5.7	8.5	10	63	856	96	11	4.0	2.7
22	12	7.0	4.8	6.0	9.1	11	68	842	89	11	4.0	2.9
23	13	7.0	5.0	5.9	9.0	12	80	737	83	10	4.2	3.3
24	13	7.5	5.1	5.8	8.9	12	87	630	79	9.7	4.0	3.4
25	13	6.0	5.3	6.0	9.4	11	87	572	71	9.9	3.8	3.7
26	13	6.0	5.2	5.7	9.7	10	103	587	64	11	3.7	4.0
27	14	5.5	5.4	5.8	9.9	9.0	155	554	59	10	3.7	3.8
28	14	5.0	5.5	5.6	10	8.5	232	524	54	9.7	3.7	3.8
29	15	5.0	5.6	5.5	---	9.0	295	481	50	9.1	3.6	3.7
30	16	4.5	5.5	5.4	---	9.0	332	434	46	8.6	3.6	3.6
31	15	---	5.4	5.7	---	8.5	---	390	---	8.1	3.4	---
TOTAL	305.3	278.0	147.8	182.7	213.3	332.0	2050.0	18414	5035	589.1	163.8	60.32
MEAN	9.85	9.27	4.77	5.89	7.62	10.7	68.3	594	168	19.0	5.28	2.01
MAX	16	14	5.6	6.3	10	13	332	1050	357	42	7.5	4.0
MIN	1.8	4.5	4.0	5.4	5.5	8.5	8.5	231	46	8.1	3.4	.42
AC-FT	606	551	293	362	423	659	4070	36520	9990	1170	325	120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 1993, BY WATER YEAR (WY)

MEAN	6.54	6.81	5.84	5.27	5.63	10.9	113	361	117	14.1	4.53	3.64
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1953 - 1993	
ANNUAL TOTAL	7906.14		27771.32			
ANNUAL MEAN	21.6		76.1		55.1	
HIGHEST ANNUAL MEAN					113	1984
LOWEST ANNUAL MEAN					16.6	1977
HIGHEST DAILY MEAN	184	May 10	1050	May 15	1890	May 15 1984
LOWEST DAILY MEAN	.13	Sep 22	.42	Sep 14	[a].00	Sep 1 1954
ANNUAL SEVEN-DAY MINIMUM	.17	Sep 19	.58	Sep 10	.00	Sep 12 1955
INSTANTANEOUS PEAK FLOW			1380	May 15	[b]2850	May 20 1984
INSTANTANEOUS PEAK STAGE			6.43	May 15	7.58	May 20 1984
ANNUAL RUNOFF (AC-FT)	15680		55080		39950	
10 PERCENT EXCEEDS	85		264		173	
50 PERCENT EXCEEDS	5.1		9.4		6.8	
90 PERCENT EXCEEDS	1.1		3.7		2.2	

a-Also occurred Sep 12-19, 24, 1955, Aug 27-29, 1961, Aug 14-19, 1977.
b-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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 13-22, Nov. 8-18, 23-30, Dec. 5-9, Dec. 11 to Mar. 19, May 6-13, June 2-29, July 15-16. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	143	341	202	220	224	341	1340	3310	7770	4780	599	227
2	121	304	211	239	239	344	1410	2930	7850	4280	579	210
3	119	279	253	255	252	392	1330	2870	7690	4170	520	218
4	119	225	266	206	241	389	1210	3280	7700	3410	466	209
5	119	235	250	207	230	369	1410	4270	6450	2680	433	206
6	115	250	226	211	246	396	2150	4700	5500	2360	438	190
7	128	239	236	214	246	402	1860	3900	5430	2100	451	178
8	137	270	233	217	240	400	1380	3840	5560	2020	413	199
9	130	272	270	213	247	470	1250	3300	4820	2170	406	218
10	137	277	295	217	249	436	1380	2900	4560	2170	411	222
11	145	281	286	219	261	454	1470	2820	4130	2150	402	198
12	140	256	278	216	276	475	1380	3700	4260	2250	583	201
13	160	213	275	208	288	513	1400	6600	4710	2070	502	198
14	175	237	280	231	249	540	1350	8010	5260	2310	430	199
15	192	271	294	238	258	590	1250	8860	5280	1900	390	232
16	177	261	282	239	254	605	1260	9580	5890	1810	373	240
17	161	263	265	227	236	630	1400	9590	6580	1740	334	258
18	164	240	275	233	231	660	1450	9820	6820	1540	315	272
19	169	258	278	243	251	480	1820	9310	6460	1340	290	303
20	175	255	243	254	284	428	1620	9030	5680	1180	278	310
21	161	241	240	268	295	522	1650	10000	5640	1030	282	335
22	166	223	265	276	270	579	1500	10200	5650	904	293	329
23	156	205	254	281	304	666	1620	10300	5600	830	326	311
24	160	170	240	275	335	797	2040	8870	5190	783	284	273
25	156	155	245	257	360	1090	1960	7910	4280	952	260	251
26	163	185	218	245	342	1310	2080	7950	4000	996	251	275
27	168	191	203	233	346	1420	2380	8440	4140	854	260	258
28	161	189	206	232	338	1550	3410	8320	4410	794	272	250
29	176	226	219	226	---	1650	3520	8190	5000	694	246	243
30	220	194	222	227	---	1790	3390	8190	5390	660	235	231
31	285	---	204	233	---	1600	---	7700	---	625	231	---
TOTAL	4898	7206	7714	7260	7592	22288	52670	208690	167700	57552	11553	7244
MEAN	158	240	249	234	271	719	1756	6732	5590	1857	373	241
MAX	285	341	295	281	360	1790	3520	10300	7850	4780	599	335
MIN	115	155	202	206	224	341	1210	2820	4000	625	231	178
AC-FT	9720	14290	15300	14400	15060	44210	104500	413900	332600	114200	22920	14370

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	312	309	237	217	298	757	2397	4535	3664	855	245	202
MAX	607	505	407	336	841	1718	4835	7524	6274	1857	399	384
(WY)	1987	1985	1985	1985	1986	1986	1985	1985	1986	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	271873		562367			
ANNUAL MEAN	743		1541		1170	
HIGHEST ANNUAL MEAN					1910	1986
LOWEST ANNUAL MEAN					734	1989
HIGHEST DAILY MEAN	4700	May 28	10300	May 23	10300	May 23 1993
LOWEST DAILY MEAN	115	Oct 6	115	Oct 6	1.3	Sep 1 1988
ANNUAL SEVEN-DAY MINIMUM	123	Oct 2	123	Oct 2	13	Aug 31 1988
INSTANTANEOUS PEAK FLOW			10500	May 23	10500	May 23 1993
INSTANTANEOUS PEAK STAGE			9.41	May 23	[a]9.41	May 23 1993
ANNUAL RUNOFF (AC-FT)	539300		1115000		847800	
10 PERCENT EXCEEDS	2300		5320		3720	
50 PERCENT EXCEEDS	280		304		350	
90 PERCENT EXCEEDS	166		193		146	

a-Maximum gage height, 9.68 ft, May 6, 1985.

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 1992 TO SEPTEMBER 1993

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										
28...	1215	189	481	8.3	0.0	11.3	K3	K3	170	42
MAR										
27...	1400	1550	780	7.9	5.0	9.4	160	--	240	47
JUN										
08...	1400	5560	126	7.6	7.5	9.4	140	170	52	14
SEP										
08...	1200	193	356	8.2	15.5	8.1	58	120	120	30

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO	POTAS-SIUM, DIS-SOLVED (MG/L AS K)	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)
NOV											
28...	15	36	1	2.6	150	82	15	0.3	7.6	291	0.40
MAR											
27...	29	64	2	3.7	117	250	15	0.2	9.4	496	0.67
JUN											
08...	4.2	5.2	0.3	0.90	44	19	1.6	0.1	9.1	81	0.11
SEP											
08...	11	24	1	2.5	106	61	8.4	0.2	0.2	201	0.27

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 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, DIS-SOLVED (MG/L AS P)
NOV										
28...	148	--	--	--	--	0.20	--	0.03	--	--
MAR										
27...	2080	0.02	1.60	0.06	--	--	<0.20	--	0.08	0.06
JUN										
08...	1210	<0.01	0.06	0.03	--	--	<0.20	--	0.02	0.01
SEP										
08...	105	<0.01	<0.05	0.03	0.17	--	0.20	--	0.03	<0.01

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										
28...	<1.0	3	--	<1	--	43	<0.1	<1	--	27
MAR										
27...	<1.0	1	7700	<1	380	30	<0.1	13	[a]<0.2	4
JUN										
08...	<1.0	7	610	<1	30	13	<0.1	<1	--	<3
SEP										
08...	<1.0	2	160	<1	30	4	<0.1	<1	<0.2	<3

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 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT				
01...	1015	154	372	12.0
NOV				
18...	1545	242	373	3.5
FEB				
22...	1030	270	443	0.0
MAR				
24...	1045	762	649	2.0
APR				
28...	1038	3880	348	9.5
MAY				
13...	1010	6730	213	11.5
27...	1438	8110	161	10.5
JUL				
16...	1045	1810	108	16.0
AUG				
05...	1316	431	217	18.5
17...	0922	339	298	17.0
19...	0820	288	298	17.5
SEP				
01...	1112	210	330	16.5
03...	1112	209	328	16.0
09...	0724	199	366	15.5
27...	1323	250	336	12.5

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.

PERIOD OF RECORD.--February 1984 to current year. Sediment data available June 1975 to September 1980, and April 1987 to September 1991.

GAGE.--Water stage recorder. Elevation of gage is 6,170 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 13-26, Nov. 29 to Dec. 5, Dec. 7-14, 17, 19, 24-26, 31, Jan. 3, 4, 12, 13, 20, 24-29, Feb. 3-5, 13-15, 18-23, 26, Feb. 28 to Mar. 2, Mar. 4, 5, 7-13, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	63	36	45	48	56	90	465	1700	441	76	36
2	22	52	35	48	47	55	99	445	1500	396	72	39
3	22	54	36	46	46	47	100	481	1360	363	67	36
4	22	46	37	45	45	58	89	702	1210	367	63	29
5	22	38	38	49	44	57	109	931	990	335	68	32
6	23	42	40	43	45	42	146	681	972	299	77	34
7	28	46	41	47	46	44	114	581	1050	247	75	38
8	35	50	41	47	47	46	104	560	900	223	69	44
9	32	52	40	46	48	48	105	459	729	210	69	47
10	38	50	39	47	49	47	108	442	663	199	75	39
11	36	36	42	47	50	48	103	613	684	188	84	36
12	36	28	43	45	50	49	99	908	766	176	86	35
13	36	30	44	44	49	51	108	1300	899	171	70	35
14	34	27	44	43	48	52	100	1670	878	162	61	38
15	33	29	40	41	47	67	105	1930	934	146	58	39
16	32	26	43	43	46	87	105	2150	985	138	55	38
17	31	29	45	47	48	82	106	2040	1040	130	49	40
18	34	30	44	48	47	87	125	2100	939	124	49	46
19	34	32	47	50	46	110	152	1970	795	115	46	45
20	34	28	48	47	44	105	138	2210	763	105	43	50
21	34	27	46	49	48	105	134	2380	739	98	48	49
22	29	29	45	50	50	101	134	2490	774	95	48	42
23	30	30	47	49	46	97	183	1970	730	97	49	37
24	28	31	50	47	47	108	216	1830	635	103	43	36
25	32	28	46	48	47	115	193	1650	554	124	42	40
26	33	30	48	47	54	126	215	1970	517	109	41	38
27	36	32	42	46	55	126	380	1930	506	95	49	37
28	38	35	40	48	55	128	527	1900	511	90	49	36
29	39	34	41	47	---	133	519	1860	501	83	45	35
30	42	34	43	49	---	121	558	1670	492	79	39	34
31	49	---	46	48	---	102	---	1600	---	79	37	---
TOTAL	1001	1098	1317	1446	1342	2500	5264	43888	25716	5587	1802	1160
MEAN	32.3	36.6	42.5	46.6	47.9	80.6	175	1416	857	180	58.1	38.7
MAX	49	63	50	50	55	133	558	2490	1700	441	86	50
MIN	22	26	35	41	44	42	89	442	492	79	37	29
AC-FT	1990	2180	2610	2870	2660	4960	10440	87050	51010	11080	3570	2300

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 1993, BY WATER YEAR (WY)

MEAN	68.5	67.8	59.5	55.7	59.7	97.1	341	1060	653	166	75.6	54.1
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	32.3	36.6	39.2	37.9	40.8	70.3	170	396	179	61.5	32.0	27.1
(WY)	1993	1993	1990	1991	1991	1991	1991	1990	1992	1989	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1984 - 1993	
ANNUAL TOTAL	49115		92121			
ANNUAL MEAN	134		252		206	
HIGHEST ANNUAL MEAN					357	1985
LOWEST ANNUAL MEAN					116	1990
HIGHEST DAILY MEAN	1240	May 1	2490	May 22	3980	May 16 1984
LOWEST DAILY MEAN	[a]22	Oct 2	[a]22	Oct 2	[b]14	Sep 15 1990
ANNUAL SEVEN-DAY MINIMUM	24	Oct 1	24	Oct 1	18	Sep 11 1990
INSTANTANEOUS PEAK FLOW			2940	May 22	4750	May 16 1984
INSTANTANEOUS PEAK STAGE			7.88	May 22	9.96	May 16 1984
ANNUAL RUNOFF (AC-FT)	97420		182700		149200	
10 PERCENT EXCEEDS	427		782		660	
50 PERCENT EXCEEDS	49		49		78	
90 PERCENT EXCEEDS	31		34		38	

a-Also occurred Oct 3-5.
b-Also occurred Sep 16, 1990.

09251000 YAMPA RIVER NEAR MAYBELL, CO

LOCATION.--Lat 40°30'10", long 108°01'45", in NW¼ sec.2, T.6 N., R.95 W., Moffat County, Hydrologic Unit 14050002, on left bank 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 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1904 to October 1905, June 1910 to November 1912, April 1916 to current year. Monthly discharge only for some periods, published in WSP 1313. No winter records prior to 1917.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,900.23 ft above sea level. See WSP 1733 for history of changes prior to Mar. 9, 1937.

REMARKS.--Estimated daily discharges: Nov. 26 to Mar. 22, May 15, 16, and July 2-6. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	211	361	283	278	290	421	1540	4020	9650	4830	542	199
2	200	417	276	294	298	431	1410	3540	9820	4550	528	191
3	186	391	275	305	310	448	1550	3430	9610	4090	516	182
4	172	366	297	288	310	460	1340	3830	9620	3630	503	183
5	173	316	297	270	303	429	1370	4930	8060	3160	485	186
6	174	302	306	267	302	461	2130	5660	6890	2700	498	170
7	180	327	304	275	310	474	2470	4530	6790	2280	514	177
8	181	331	311	277	308	470	1700	4270	6950	2140	508	165
9	200	335	367	273	314	542	1460	3870	6020	2180	500	180
10	200	338	373	276	316	513	1480	3300	5700	2270	496	201
11	201	329	352	276	327	535	1630	3320	5160	2200	506	206
12	208	300	343	275	341	557	1580	4350	5320	2190	524	173
13	206	263	337	271	350	604	1570	6160	5890	2170	659	174
14	211	306	338	275	336	600	1580	8110	6580	2140	552	185
15	227	337	343	279	330	655	1450	9220	6600	2000	491	181
16	209	324	334	281	322	670	1440	10800	7270	1790	432	217
17	193	314	312	274	313	700	1480	10900	8020	1630	412	236
18	198	310	325	276	316	733	1560	11100	8320	1490	414	245
19	203	310	327	285	327	735	1920	10900	7780	1340	372	282
20	209	320	291	291	365	782	2060	10500	6770	1200	330	320
21	198	324	280	303	425	803	1790	11500	6630	1080	301	322
22	199	298	300	309	435	800	1790	12200	6650	986	285	322
23	217	286	298	315	400	1080	1710	12400	6510	892	313	307
24	219	195	288	313	392	1130	2210	11300	5970	849	362	284
25	219	189	291	297	374	1140	2370	10200	4860	844	315	252
26	222	242	275	294	373	1390	2240	10100	4520	1080	273	233
27	226	245	257	291	384	1510	2700	10800	4650	863	245	246
28	239	248	262	295	423	1660	3640	10800	4900	794	265	235
29	253	290	272	290	---	1810	4070	10600	4940	709	252	231
30	260	263	275	290	---	1930	3980	10400	4960	622	226	226
31	304	---	267	293	---	1800	---	9830	---	564	214	---
TOTAL	6498	9177	9456	8876	9594	26273	59220	246870	201410	59263	12833	6711
MEAN	210	306	305	286	343	848	1974	7964	6714	1912	414	224
MAX	304	417	373	315	435	1930	4070	12400	9820	4830	659	322
MIN	172	189	257	267	290	421	1340	3300	4520	564	214	165
AC-FT	12890	18200	18760	17610	19030	52110	117500	489700	399500	117500	25450	13310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1916 - 1993, BY WATER YEAR (WY)

MEAN	345	349	296	272	331	691	2598	6229	5506	1389	386	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1916 - 1993	
ANNUAL TOTAL	309290		656181			
ANNUAL MEAN	845		1798		1554	
HIGHEST ANNUAL MEAN					3025	1984
LOWEST ANNUAL MEAN					477	1977
HIGHEST DAILY MEAN	5660	May 28	12400	May 23	24400	May 17 1984
LOWEST DAILY MEAN	119	Sep 13	165	Sep 8	[a]2.0	Jul 17 1934
ANNUAL SEVEN-DAY MINIMUM	141	Aug 30	178	Sep 3	3.0	Jul 30 1934
INSTANTANEOUS PEAK FLOW			12800	May 22	25100	May 17 1984
INSTANTANEOUS PEAK STAGE			9.37	May 22	12.42	May 17 1984
ANNUAL RUNOFF (AC-FT)	613500		1302000		1126000	
10 PERCENT EXCEEDS	2570		6300		5280	
50 PERCENT EXCEEDS	340		372		400	
90 PERCENT EXCEEDS	194		210		177	

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. Temperature record rated good. Specific conductance record is good except during periods, Oct. 1-5, July 3-5, 6-11, Aug 17-22, 24-28, 28-31, rated fair. Periods of missing record are due to sensor fouling or instrument malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1260 microsiemens Nov. 17, 1985; minimum, 87 microsiemens June 9, 10, 1990.
WATER TEMPERATURE: Maximum, 33.0°C Aug. 29, 1976; minimum, 0.0°C on many days during winter months.
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, not determined; mininum, not determined.
WATER TEMPERATURES: Maximum recorded, 25.6°C July 30, 31 (more than 20 percent missing record); minimum, not determined.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)
DEC												
22...	1430	302	478	8.4	0.0	2.3	11.5	K2	K5	170	41	17
MAR												
22...	1100	800	730	8.5	0.0	30	11.0	12	1000	240	45	32
MAY												
17...	1400	10700	212	8.0	10.0	310	8.4	190	400	87	22	7.7
AUG												
25...	1000	291	404	8.4	18.5	1.9	7.6	K14	300	150	34	15

DATE	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)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)
DEC											
22...	34	1	2.3	161	2	136	--	92	11	0.2	8.9
MAR											
22...	59	2	3.3	155	4	133	--	220	18	0.1	7.2
MAY											
17...	8.1	0.4	1.6	73	--	60	--	34	2.4	0.2	9.1
AUG											
25...	29	1	2.3	--	--	--	114	74	9.5	0.2	0.2

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 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 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											
22...	299	289	0.41	244	0.02	0.22	0.02	<0.2	<0.01	<0.01	<0.01
MAR											
22...	485	469	0.66	1050	<0.01	0.65	0.06	0.60	0.20	0.21	0.07
MAY											
17...	136	126	0.18	3930	0.02	1.10	--	0.30	--	--	--
AUG											
25...	233	233	0.32	183	<0.01	<0.05	0.02	<0.2	<0.01	<0.01	0.01

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.

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	ALUMINUM, DISSOLVED (UG/L AS AL)	BARIUM, DISSOLVED (UG/L AS BA)	COBALT, DISSOLVED (UG/L AS CO)	IRON, DISSOLVED (UG/L AS FE)	LITHIUM DISSOLVED (UG/L AS LI)	MANGANESE, DISSOLVED (UG/L AS MN)	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)
DEC												
22...	<10	48	<3	26	22	10	<10	1	<1	<1	330	6
MAR												
22...	10	50	<3	11	29	27	<10	1	3	<1	430	6
MAY												
17...	<10	33	<3	54	<4	6	<10	2	<1	<1	150	6
AUG												
25...	20	47	<3	19	19	2	<10	<1	<1	<1	270	6

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					
07...	1650	182	12	6.1	--
11...	1430	206	14	7.6	--
18...	1300	197	10	5.5	--
25...	1410	222	9	5.6	--
NOV					
01...	1400	363	26	26	--
07...	1455	334	9	7.8	--
26...	1210	242	15	9.7	--
29...	1445	290	36	28	--
DEC					
06...	1635	306	20	17	--
13...	1450	337	8	7.3	--
20...	1545	291	7	5.7	--
22...	1430	302	14	11	--
JAN					
10...	1430	276	5	3.8	--
16...	1525	281	23	18	--
24...	1515	313	20	17	--
31...	1650	293	46	37	--
FEB					
07...	1145	310	26	22	--
14...	1500	336	12	11	--
24...	1500	392	26	27	--
27...	1500	384	10	11	--
MAR					
07...	1415	474	9	11	--
21...	1330	803	283	613	--
22...	1100	800	123	266	88
28...	1330	1520	449	1840	--
APR					
04...	1645	1270	97	331	--
11...	1130	1670	139	626	--
21...	1245	1650	87	388	--
26...	1350	2150	255	1480	--
MAY					
02...	1040	3440	282	2610	--
09...	1730	3720	213	2140	--
16...	0900	10800	1210	35300	--
17...	1400	10700	1230	35600	62
19...	1800	10800	989	28800	--
23...	1110	12500	965	32700	--
26...	1625	10300	761	21200	--
30...	0855	10500	422	12000	--
JUN					
04...	1920	9790	277	7320	--
09...	1830	5790	253	3950	--
12...	1400	5240	218	3080	--
19...	1045	8300	203	4550	--
27...	1535	4340	100	1180	--
30...	1430	4530	106	1300	--
JUL					
05...	0930	3190	110	946	--
11...	0905	2340	63	398	--
18...	1230	1610	31	137	--
26...	1015	1160	22	69	--
AUG					
05...	1755	477	7	9.0	--
08...	0845	498	5	6.3	--
15...	1625	477	4	5.0	--
22...	1800	298	5	4.3	--
25...	1000	291	7	5.2	--
29...	1200	264	5	3.2	--
SEP					
06...	1500	174	3	1.5	--

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

SPECIFIC CONDUCTANCE, (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	489	620	---	---	---	---	271	437
2	472	---	---	---	481	601	---	---	---	108	277	444
3	499	---	---	---	476	588	---	---	---	112	282	446
4	512	---	---	---	464	569	---	---	---	121	290	455
5	506	---	---	---	460	569	---	---	---	130	300	457
6	507	---	---	---	459	575	---	---	---	155	305	467
7	517	---	---	---	462	564	---	---	---	141	310	465
8	---	---	---	---	467	565	---	---	---	132	317	482
9	---	---	---	---	---	570	---	---	---	131	325	490
10	---	---	---	---	---	617	---	---	---	139	336	488
11	---	---	---	---	---	676	---	---	---	136	339	494
12	---	---	---	---	---	662	---	---	---	128	349	507
13	---	---	---	---	457	---	---	---	---	128	347	494
14	---	---	---	---	472	---	---	---	---	137	339	478
15	---	---	---	---	486	---	690	---	---	139	333	491
16	---	---	---	---	486	---	722	---	---	140	328	498
17	---	---	---	---	489	---	698	---	---	144	366	499
18	---	---	---	---	509	---	680	---	---	145	395	494
19	---	---	---	---	540	---	---	---	---	149	406	482
20	---	---	---	452	534	---	---	---	---	160	408	467
21	---	---	---	460	512	---	---	---	---	181	405	475
22	---	---	---	462	---	---	---	---	---	205	418	485
23	---	---	---	451	---	---	---	---	---	213	404	459
24	---	---	---	450	602	---	---	---	---	218	415	452
25	---	---	---	461	616	---	---	---	---	227	412	454
26	---	---	---	470	637	---	---	---	---	234	411	448
27	---	---	---	486	634	---	---	---	---	220	405	456
28	---	---	---	497	638	---	---	---	---	229	408	463
29	---	---	---	497	---	---	---	---	---	247	409	462
30	---	---	---	497	---	---	---	---	---	261	414	465
31	---	---	---	493	---	---	---	---	---	267	430	---

09251000 YAMPA RIVER NEAR MAYBELL, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.9	11.8	---	---	---	---	---	---	---	---	---	---
2	16.8	11.9	---	---	---	---	---	---	---	---	---	---
3	15.9	11.9	---	---	---	---	---	---	---	---	---	---
4	16.0	11.4	---	---	---	---	---	---	---	---	---	---
5	15.7	10.7	---	---	---	---	---	---	---	---	---	---
6	15.4	10.2	---	---	---	---	---	---	---	---	---	---
7	12.9	8.1	---	---	---	---	---	---	---	---	---	---
8	11.4	6.7	---	---	---	---	---	---	---	---	---	---
9	10.6	8.0	---	---	---	---	---	---	---	---	---	---
10	12.3	7.7	---	---	---	---	---	---	---	---	---	---
11	12.5	8.2	---	---	---	---	---	---	---	---	---	---
12	12.4	8.1	---	---	---	---	---	---	---	---	---	---
13	12.6	8.2	---	---	---	---	---	---	---	---	---	---
14	13.4	10.0	---	---	---	---	---	---	---	---	---	---
15	10.6	7.3	---	---	---	---	---	---	---	---	---	---
16	9.0	6.0	---	---	---	---	---	---	---	---	---	---
17	9.9	5.2	---	---	---	---	---	---	---	---	---	---
18	9.5	5.8	---	---	---	---	---	---	---	---	---	---
19	12.2	6.3	---	---	---	---	---	---	---	---	---	---
20	12.3	8.0	---	---	---	---	---	---	---	---	---	---
21	11.2	7.4	---	---	---	---	---	---	---	---	---	---
22	10.4	6.6	---	---	---	---	---	---	---	---	---	---
23	11.0	7.2	---	---	---	---	---	---	---	---	---	---
24	10.9	7.1	---	---	---	---	---	---	---	---	---	---
25	8.8	7.9	---	---	---	---	---	---	---	---	---	---
26	10.3	6.6	---	---	---	---	---	---	---	---	---	---
27	10.9	7.6	---	---	---	---	---	---	---	---	---	---
28	9.4	8.0	---	---	---	---	---	---	---	---	---	---
29	9.5	7.7	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	---	---	---	---	---	---	---	---	25.4	21.0	22.2	16.5
2	---	---	---	---	---	---	18.5	15.7	21.4	17.8	21.8	15.4
3	---	---	---	---	---	---	18.5	15.4	22.3	18.7	21.2	16.1
4	---	---	---	---	---	---	16.5	13.6	22.7	19.3	21.5	16.4
5	---	---	---	---	---	---	14.4	11.2	22.5	19.5	21.9	16.1
6	---	---	---	---	---	---	14.7	12.2	22.8	19.7	22.0	16.9
7	---	---	---	---	---	---	20.6	14.5	24.0	20.5	22.1	15.3
8	---	---	---	---	---	---	20.9	17.9	24.7	20.5	22.4	16.1
9	---	---	---	---	---	---	21.1	18.0	23.8	19.9	22.0	16.7
10	---	---	---	---	---	---	21.0	17.8	23.6	19.5	21.2	15.7
11	---	---	---	---	---	---	20.8	17.0	23.0	19.4	20.4	15.6
12	---	---	---	---	---	---	20.4	17.2	21.9	19.0	17.6	13.0
13	---	---	---	---	---	---	20.8	17.7	21.1	18.3	15.5	9.8
14	---	---	---	---	---	---	21.3	17.3	21.4	17.3	15.8	11.3
15	---	---	---	---	---	---	21.9	17.9	22.5	17.6	16.6	12.3
16	---	---	---	---	---	---	22.5	18.6	24.0	18.7	15.0	12.0
17	---	---	---	---	---	---	22.7	18.1	22.6	19.4	16.7	13.3
18	---	---	---	---	---	---	22.1	17.6	22.9	17.8	17.3	12.8
19	---	---	---	---	---	---	20.6	17.3	23.0	20.0	16.0	11.9
20	---	---	---	---	---	---	18.8	16.8	22.6	18.3	16.4	11.7
21	---	---	---	---	---	---	19.3	16.3	23.1	18.3	17.1	12.5
22	---	---	---	---	---	---	20.9	16.1	23.6	19.0	17.6	13.3
23	---	---	---	---	---	---	20.5	17.7	23.9	18.7	17.8	13.5
24	---	---	---	---	---	---	22.2	17.0	20.5	17.2	16.0	12.6
25	---	---	---	---	---	---	23.4	17.9	22.2	17.4	15.1	11.1
26	---	---	---	---	---	---	23.8	19.5	22.0	17.1	---	---
27	---	---	---	---	---	---	25.5	21.1	23.0	17.3	---	---
28	---	---	---	---	---	---	25.3	21.0	21.9	16.6	15.9	10.9
29	---	---	---	---	---	---	25.5	20.7	21.5	16.3	16.1	10.9
30	---	---	---	---	---	---	25.6	21.1	22.3	15.7	15.6	10.5
31	---	---	---	---	---	---	25.6	20.7	22.4	16.9	---	---
MONTH	---	---	---	---	---	---	---	---	25.4	15.7	---	---

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 sea level.

REMARKS.--Estimated daily discharges: Nov. 4-7, and Nov. 11 to Mar. 25. Records good except 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 27	2200	*2,530	*7.16	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	44	26	25	22	27	85	327	1820	405	69	29
2	21	36	25	27	22	28	93	353	1820	386	67	29
3	21	34	22	28	21	29	87	426	1930	420	65	29
4	20	37	21	28	20	29	91	643	1630	422	63	28
5	20	39	19	29	19	28	113	692	1390	391	73	28
6	20	37	21	29	20	30	113	494	1300	344	67	29
7	21	35	22	30	22	31	94	492	1380	303	64	30
8	20	33	23	29	24	33	89	438	1420	262	63	32
9	21	31	24	28	25	35	93	398	1350	247	61	30
10	21	26	24	27	25	36	101	499	1140	231	60	27
11	20	42	25	26	24	38	93	779	1100	209	80	25
12	20	50	24	25	23	41	86	1140	1190	160	64	23
13	20	46	22	23	22	44	84	1510	1220	158	60	28
14	20	41	21	24	21	45	78	1720	1180	154	50	33
15	19	39	22	25	19	47	81	1880	1300	140	48	29
16	18	38	23	26	20	50	87	1840	1390	129	54	27
17	18	37	21	27	22	52	87	2020	1360	126	48	39
18	19	37	20	27	24	56	110	1930	1220	115	43	41
19	19	37	21	26	26	62	96	1800	1020	107	41	39
20	19	34	22	25	28	64	95	1930	924	104	40	40
21	19	33	23	26	29	68	91	2050	876	98	43	33
22	19	32	23	27	28	70	107	2250	838	112	59	27
23	19	29	24	26	29	75	147	1980	771	111	46	25
24	19	27	24	24	30	83	151	1770	643	163	39	24
25	21	24	24	23	29	92	157	1780	568	146	36	26
26	28	23	24	22	28	105	196	2030	541	117	38	25
27	29	21	25	22	28	106	307	2160	531	107	42	25
28	27	23	26	21	27	114	376	2130	516	96	38	24
29	28	24	27	20	---	118	396	1980	507	89	33	24
30	37	25	26	19	---	110	416	1880	458	83	32	24
31	57	---	24	20	---	88	---	1830	---	78	31	---
TOTAL	702	1014	718	784	677	1834	4200	43151	33333	6013	1617	872
MEAN	22.6	33.8	23.2	25.3	24.2	59.2	140	1392	1111	194	52.2	29.1
MAX	57	50	27	30	30	118	416	2250	1930	422	80	41
MIN	18	21	19	19	19	27	78	327	458	78	31	23
AC-FT	1390	2010	1420	1560	1340	3640	8330	85590	66120	11930	3210	1730

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 1993, BY WATER YEAR (WY)

MEAN	37.6	35.2	31.5	31.2	32.2	49.2	260	1077	952	161	38.5	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1944 - 1993	
ANNUAL TOTAL	40520		94915		--	
ANNUAL MEAN	111		260		228	
HIGHEST ANNUAL MEAN	--		--		423	1984
LOWEST ANNUAL MEAN	--		--		86.6	1977
HIGHEST DAILY MEAN	887	May 9	2250	May 22	3960	May 24 1984
LOWEST DAILY MEAN	18	Aug 22, Oct 16,17	18	Oct 16,17	4.2	Sep 9 1988
ANNUAL SEVEN-DAY MINIMUM	19	Oct 15	19	Oct 15	6.2	Sep 4 1988
INSTANTANEOUS PEAK FLOW	--		2530	May 27	[a]4780	May 23 1984
INSTANTANEOUS PEAK STAGE	--		7.16	May 27	8.95	Apr 25 1974
ANNUAL RUNOFF (AC-FT)	80370		188300		165400	
10 PERCENT EXCEEDS	386		1140		823	
50 PERCENT EXCEEDS	31		38		40	
90 PERCENT EXCEEDS	20		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 above sea level, from river-profile map. May 28, 1910, to May 25, 1912, nonrecording gage at site 1.5 mi upstream at different datum. July 9, 1931, to May 6, 1932, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.-Estimated daily discharges: Nov. 8 to Mar. 22. Records good except for July 24 to Sept. 30, and 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 20	0500	*1130	*9.02	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	27	16	19	16	17	37	135	558	129	7.3	7.5
2	11	22	15	21	19	18	44	149	608	124	7.5	6.4
3	11	19	14	19	17	17	38	195	675	124	7.3	7.6
4	11	15	13	17	15	18	37	286	497	101	7.4	8.3
5	10	16	12	19	14	17	59	330	403	88	8.0	8.6
6	11	18	14	20	15	19	60	237	387	77	9.2	8.1
7	13	16	13	21	17	20	46	248	392	66	11	8.9
8	13	17	15	21	19	22	41	223	335	64	14	11
9	14	16	17	20	21	21	45	190	422	60	14	10
10	14	12	19	19	20	20	48	220	327	47	15	9.2
11	14	16	21	20	20	20	45	328	337	52	18	7.1
12	13	19	19	18	19	19	39	471	378	50	20	6.3
13	13	20	18	17	18	19	38	626	385	48	18	6.9
14	12	21	16	20	17	22	36	756	350	43	12	7.4
15	12	20	17	20	16	26	43	856	390	38	12	7.4
16	12	18	16	20	17	30	44	806	410	35	12	7.3
17	12	16	15	20	19	29	41	876	379	32	9.4	10
18	12	15	17	18	22	28	57	781	332	30	8.6	11
19	12	13	16	18	24	29	48	695	300	26	7.8	13
20	12	13	15	19	23	30	45	889	283	22	7.0	16
21	12	13	16	18	22	30	53	817	287	21	12	14
22	12	12	17	17	22	31	66	924	285	19	16	13
23	12	12	18	16	22	36	92	733	270	17	13	13
24	13	12	18	15	21	42	79	586	231	23	11	14
25	13	11	18	17	20	49	79	593	190	23	9.8	15
26	14	12	19	16	19	55	104	679	182	16	12	15
27	14	13	19	16	18	61	156	706	189	13	16	15
28	14	13	20	15	17	55	169	721	184	12	15	15
29	15	14	21	15	---	52	179	672	174	11	12	15
30	23	15	19	15	---	47	187	581	159	8.7	11	15
31	40	---	17	14	---	40	---	550	---	7.7	9.9	---
TOTAL	425	476	520	560	529	939	2055	16859	10299	1427.4	363.2	322.0
MEAN	13.7	15.9	16.8	18.1	18.9	30.3	68.5	544	343	46.0	11.7	10.7
MAX	40	27	21	21	24	61	187	924	675	129	20	16
MIN	10	11	12	14	14	17	36	135	159	7.7	7.0	6.3
AC-FT	843	944	1030	1110	1050	1860	4080	33440	20430	2830	720	639

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1932 - 1993, BY WATER YEAR (WY)

MEAN	19.7	18.9	17.1	16.8	18.3	27.4	117	371	250	38.0	9.93	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1932 - 1993	
ANNUAL TOTAL	12262.9		34774.6		--	
ANNUAL MEAN	33.5		95.3		76.5	
HIGHEST ANNUAL MEAN	--		--		157	1984
LOWEST ANNUAL MEAN	--		--		20.5	1934
HIGHEST DAILY MEAN	505	May 9	924	May 22	1500	May 16 1984
LOWEST DAILY MEAN	1.5	Aug 16	6.3	Sep 12	.00	Several days, 1934, 1936, 1954, 1977
ANNUAL SEVEN-DAY MINIMUM	2.2	Sep 11	7.4	Sep 10	.00	Aug 2 1934
INSTANTANEOUS PEAK FLOW	757	May 9	1130	May 20	[a]2250	May 16 1984
INSTANTANEOUS PEAK STAGE	7.27	May 9	9.02	May 20	[b]11.78	May 16 1984
ANNUAL RUNOFF (AC-FT)	24320		68980		55410	
10 PERCENT EXCEEDS	98		333		250	
50 PERCENT EXCEEDS	14		19		19	
90 PERCENT EXCEEDS	4.1		11		7.0	

a-From rating curve extended above 1000 ft³/s.
b-From floodmark.

09257000 LITTLE SNAKE RIVER NEAR DIXON, WY

LOCATION.--Lat 41°01'42", long 107°32'55", in SE¼ NW¼ sec.8, T.12 N., R.90 W., Carbon County, Hydrologic Unit 14050003, on left bank 200 ft upstream from highway bridge, 1,000 ft upstream from Willow Creek, and 0.8 mi west of Dixon.

DRAINAGE AREA.--988 mi².

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 sea level. 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.

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

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

Date	Time	Discharge (ft³/s)	Gage height (ft)	Date	Time	Discharge (ft³/s)	Gage height (ft)
May 18	0700	*5,870	*10.15	No other peak greater than base discharge.			

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	337	1330	4000	890	68	.58
2	---	---	---	---	---	---	453	1240	4070	827	50	.53
3	---	---	---	---	---	---	375	1410	4110	790	11	.53
4	---	---	---	---	---	---	400	1930	3940	827	2.4	.58
5	---	---	---	---	---	---	661	2550	3290	673	4.5	.58
6	---	---	---	---	---	---	765	1940	2840	570	11	.58
7	---	---	---	---	---	---	486	1820	2910	486	5.2	1.0
8	---	---	---	---	---	---	391	1910	2810	387	2.5	1.0
9	---	---	---	---	---	---	435	1570	3580	348	2.8	.65
10	---	---	---	---	---	---	530	1570	2780	301	1.7	.58
11	---	---	---	---	---	---	500	2320	2460	282	3.4	.58
12	---	---	---	---	---	---	375	3200	2520	266	11	.58
13	---	---	---	---	---	---	352	4230	2750	251	4.5	1.4
14	---	---	---	---	---	---	295	4760	2590	226	1.6	1.5
15	---	---	---	---	---	---	371	5040	2700	190	.45	1.5
16	---	---	---	---	---	---	417	4960	3000	165	.26	2.5
17	---	---	---	---	---	---	409	5200	3040	122	.42	1.5
18	---	---	---	---	---	---	612	5230	2870	100	.50	1.1
19	---	---	---	---	---	---	591	4770	2570	81	1.5	1.3
20	---	---	---	---	---	---	375	4920	2230	73	1.5	1.6
21	---	---	---	---	---	---	413	5050	2080	67	1.4	1.9
22	---	---	---	---	---	---	525	5510	2040	68	1.6	1.6
23	---	---	---	---	---	---	890	5020	1960	70	7.0	1.4
24	---	---	---	---	---	---	877	4010	1670	99	2.3	1.3
25	---	---	---	---	---	---	784	3920	1350	233	1.2	1.4
26	---	---	---	---	---	---	943	4380	1230	126	.98	1.3
27	---	---	---	---	---	---	1310	4810	1210	107	.98	1.3
28	---	---	---	---	---	---	1550	4900	1170	94	.90	1.1
29	---	---	---	---	---	---	1600	4700	1130	96	.82	1.0
30	---	---	---	---	---	---	1700	4230	1090	86	.75	.94
31	---	---	---	---	---	---	---	4100	---	75	.65	---
TOTAL	---	---	---	---	---	---	19722	112530	75990	8976	202.81	33.41
MEAN	---	---	---	---	---	---	657	3630	2533	290	6.54	1.11
MAX	---	---	---	---	---	---	1700	5510	4110	890	68	2.5
MIN	---	---	---	---	---	---	295	1240	1090	67	.26	.53
AC-FT	---	---	---	---	---	---	39120	223200	150700	17800	402	66

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 1993 WATER YEAR*		WATER YEARS 1911 - 1971	
ANNUAL MEAN	--		514	
HIGHEST ANNUAL MEAN	--		930	1920
LOWEST ANNUAL MEAN	--		212	1961
HIGHEST DAILY MEAN	5510	May 22	8960	May 23 1920
LOWEST DAILY MEAN	.26	Aug 16	.00	Several days, 1977,1982,1992#
ANNUAL SEVEN-DAY MINIMUM	--		.35	Sep 3 1969
INSTANTANEOUS PEAK FLOW	5870	May 18	[a]13000	May 16 1984#
INSTANTANEOUS PEAK STAGE	10.15	May 18	[b]13.56	May 16 1984#
ANNUAL RUNOFF (AC-FT)			372600	
10 PERCENT EXCEEDS	4090		1850	
50 PERCENT EXCEEDS	387		100	
90 PERCENT EXCEEDS	.92		8.0	

*-During period of operation.
#-For period of record through 1993.
a-From rating curve extended above 10,000 ft3/s, some increase in peak caused by dam failure.
b-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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7 to Mar. 24 and July 14-23. 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)
Apr 27	0930	124	4.57	May 20	0100	99	4.01
May 4	1800	108	4.47	May 28	2400	102	4.04
May 7	2130	*203	*5.17	Jun 15	2230	90	3.93
May 14	2200	184	5.04				

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.48	2.2	1.7	2.0	2.0	2.1	7.6	24	64	33	1.1	2.9
2	.60	2.1	1.8	2.2	2.0	2.6	10	28	65	31	1.1	3.0
3	1.1	1.9	1.5	1.9	1.8	3.4	5.9	44	62	30	1.0	2.9
4	1.3	2.2	1.3	1.8	1.6	4.5	10	62	45	24	2.0	2.9
5	1.4	2.2	1.1	2.0	1.9	6.0	22	70	38	18	1.8	3.0
6	1.2	1.9	1.4	2.1	1.7	7.0	18	40	38	16	4.1	2.9
7	.77	1.8	1.6	2.1	1.8	8.0	9.4	92	38	16	4.1	3.1
8	.70	1.7	1.7	2.2	1.9	9.0	18	40	32	15	4.2	3.2
9	.61	1.8	1.8	2.3	2.1	10	12	22	39	15	4.2	3.0
10	.58	2.0	1.9	2.4	2.0	9.0	15	29	30	15	4.0	2.8
11	.59	2.2	2.0	2.2	1.8	11	7.8	51	34	16	4.6	2.7
12	.75	2.4	1.8	1.9	1.6	10	5.3	79	45	15	4.2	2.5
13	1.5	2.3	1.5	1.6	1.5	12	4.5	102	49	14	3.8	2.8
14	1.4	2.1	1.3	1.8	1.3	10	13	111	47	11	3.4	3.1
15	1.4	1.9	1.5	2.0	1.2	9.0	13	103	61	9.0	3.7	2.8
16	1.4	1.7	1.6	2.1	1.4	10	14	84	66	7.6	3.7	2.9
17	1.4	1.6	1.5	2.2	1.6	11	19	79	64	6.0	3.5	3.6
18	1.4	1.5	1.4	2.3	1.8	9.6	18	50	58	4.8	3.4	3.2
19	1.4	1.4	1.5	1.9	2.0	12	9.9	46	50	4.0	3.4	3.2
20	1.4	1.5	1.6	1.7	1.9	13	10	73	46	3.2	3.4	3.1
21	1.4	1.6	1.7	1.9	1.8	11	9.5	63	50	2.5	4.0	2.7
22	1.5	1.8	1.8	2.0	1.9	11	25	77	51	2.1	4.7	2.6
23	1.5	2.0	1.9	1.9	1.8	12	21	50	49	1.7	3.7	2.6
24	1.5	1.9	2.0	1.8	1.9	16	13	41	41	5.3	3.4	2.6
25	1.5	1.7	2.1	1.7	1.8	22	20	43	36	2.9	3.3	2.7
26	1.7	1.5	2.2	1.6	1.7	24	25	60	37	1.9	4.8	1.9
27	1.7	1.4	2.3	1.5	1.7	19	54	76	41	1.6	3.9	1.9
28	1.6	1.3	2.4	1.4	1.8	16	49	77	43	1.4	3.5	1.8
29	1.9	1.4	2.3	1.5	---	16	44	72	43	1.2	3.3	1.7
30	2.6	1.5	2.1	1.6	---	11	36	60	38	1.2	3.3	1.7
31	3.6	---	1.8	1.8	---	7.0	---	58	---	1.1	3.1	---
TOTAL	41.88	54.5	54.1	59.4	49.3	334.2	538.9	1906	1400	326.5	105.7	81.8
MEAN	1.35	1.82	1.75	1.92	1.76	10.8	18.0	61.5	46.7	10.5	3.41	2.73
MAX	3.6	2.4	2.4	2.4	2.1	24	54	111	66	33	4.8	3.6
MIN	.48	1.3	1.1	1.4	1.2	2.1	4.5	22	30	1.1	1.0	1.7
AC-FT	83	108	107	118	98	663	1070	3780	2780	648	210	162

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1954 - 1993, BY WATER YEAR (WY)

MEAN	3.12	2.63	2.41	2.49	2.70	5.75	20.1	33.7	34.5	10.1	3.22	2.45
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1954 - 1993	
ANNUAL TOTAL	2492.76		4952.28		--	
ANNUAL MEAN	6.81		13.6		10.3	
HIGHEST ANNUAL MEAN	--		--		24.6	1984
LOWEST ANNUAL MEAN	--		--		2.61	1977
HIGHEST DAILY MEAN	81	May 9	111	May 14	280	May 10 1984
LOWEST DAILY MEAN	.48	Sep 30	.48	Oct 1	.00	Several days, 1955, 1977, 1982, 1990
ANNUAL SEVEN-DAY MINIMUM	.74	Oct 6	.74	Oct 6	.00	Jul 31 1977
INSTANTANEOUS PEAK FLOW	--		203	May 7	[a]476	May 10 1984
INSTANTANEOUS PEAK STAGE	--		5.17	May 7	[b]7.08	Apr 18 1984
ANNUAL RUNOFF (AC-FT)	4940		9820		7440	
10 PERCENT EXCEEDS	20		46		32	
50 PERCENT EXCEEDS	2.0		2.9		3.2	
90 PERCENT EXCEEDS	1.1		1.4		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 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)	TEMPER-ATURE AIR (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)
JUN											
23...	1415	1960	127	14.5	22.0	49	14	3.4	6.0	0.4	1.0
JUL											
23...	1135	89	290	16.0	15.0	120	32	9.0	16	0.6	1.7
AUG											
25...	1310	8.8	407	21.5	25.0	160	41	13	28	1	2.8
SEP											
28...	0955	20	397	11.0	14.0	170	45	14	28	0.9	3.0

DATE	ALKA-LINITY LAB (MG/L AS CACO3)	SULFATE DIS-SOLVED (MG/L AS SO4)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL)	FLUO-RIDE, DIS-SOLVED (MG/L AS F)	SILICA, DIS-SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L)	SOLIDS, DIS-SOLVED (TONS PER AC-FT)	SOLIDS, DIS-SOLVED (TONS PER DAY)	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
JUN										
23...	50	13	1.5	0.1	11	80	0.11	423	--	--
JUL										
23...	128	25	3.1	1.3	15	180	0.24	43.2	17	4.1
AUG										
25...	164	46	6.1	0.3	5.1	241	0.33	5.72	12	0.29
SEP										
28...	178	56	6.7	0.4	12	272	0.37	14.7	9	0.49

09259990 SAND WASH NEAR SUNBEAM, CO

WATER-QUALITY RECORDS

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

REMARKS.--No data published for the 1992 water year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
MAR 24...	1700	12	515	8.4	15.0	7.6	44	14	2.1	88

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)
MAR 24...	6	0.9	114	130	4.6	0.2	10	318	0.43	10.7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
MAR 24...	1700	12	3770	127

09260000 LITTLE SNAKE RIVER NEAR LILY, CO

LOCATION.--Lat 40°32'50", long 108°25'25", in NW¼NE¼ sec.20, T.7 N., R.98 W., Moffat County, Hydrologic Unit 14050003, on left bank 170 ft downstream from highway bridge, 6.0 mi north of Lily, and 10 mi upstream from mouth.

DRAINAGE AREA.--3,730 mi², approximately.

PERIOD OF RECORD.--June to August 1904 (published as "near Maybell"), October 1921 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1713: 1959.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,685 ft above sea level, 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: Oct. 2-17, Nov. 20, 21, Nov. 28 to Mar. 24, Apr. 17-29, and July 3-5. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	76	91	39	53	83	721	1390	3800	1090	143	44
2	29	126	86	40	50	102	580	1410	3550	1040	119	44
3	35	169	83	37	52	131	465	1100	3630	920	117	39
4	37	137	80	42	47	171	477	1150	3690	935	100	37
5	36	126	85	40	46	187	456	1470	4020	911	97	39
6	37	125	90	43	50	317	519	2380	3050	870	86	36
7	37	112	88	41	59	282	674	2290	2540	734	74	37
8	37	120	82	41	61	379	835	1740	2540	649	56	40
9	42	114	85	43	58	432	611	1820	2480	560	66	81
10	42	113	83	38	60	509	508	1500	3320	477	67	57
11	49	65	76	39	62	445	543	1290	2650	433	71	39
12	53	52	73	39	63	560	546	1700	2230	398	98	34
13	44	96	72	35	57	574	520	2620	2200	382	80	33
14	49	104	73	37	49	688	412	3800	2390	364	63	30
15	49	100	66	39	44	799	369	4850	2250	334	70	32
16	48	122	65	40	46	672	394	5270	2310	303	71	35
17	47	115	60	38	48	447	520	5240	2640	266	277	37
18	56	105	58	43	53	497	585	5260	2840	232	567	38
19	58	107	55	43	58	597	580	5270	2820	214	531	43
20	56	117	49	44	57	934	660	4640	2450	162	484	42
21	54	118	50	47	59	1290	655	4700	2090	123	422	114
22	54	88	57	44	57	1060	510	4890	1930	108	337	95
23	59	44	59	49	61	830	540	5180	1880	106	59	83
24	59	62	62	51	60	785	555	5470	1770	136	59	73
25	61	101	56	50	53	912	850	4280	1640	142	61	60
26	69	111	53	44	51	869	770	3790	1410	294	70	50
27	66	114	50	40	59	871	675	4070	1240	350	71	43
28	62	101	48	47	61	931	830	4510	1180	256	73	56
29	64	95	45	50	---	1060	1260	4640	1160	211	69	54
30	70	96	41	51	---	965	1360	4480	1110	172	55	49
31	160	---	40	52	---	1040	---	4050	---	163	46	---
TOTAL	1643	3131	2061	1326	1534	19419	18980	106250	72810	13335	4559	1494
MEAN	53.0	104	66.5	42.8	54.8	626	633	3427	2427	430	147	49.8
MAX	160	169	91	52	63	1290	1360	5470	4020	1090	567	114
MIN	24	44	40	35	44	83	369	1100	1110	106	46	30
AC-FT	3260	6210	4090	2630	3040	38520	37650	210700	144400	26450	9040	2960

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 1993, BY WATER YEAR (WY)

MEAN	111	118	97.3	87.9	120	374	1092	2570	1877	294	69.8	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1922 - 1993	
ANNUAL TOTAL	81387.35		246542			
ANNUAL MEAN	222		675		573	
HIGHEST ANNUAL MEAN					1252	1984
LOWEST ANNUAL MEAN					110	1934
HIGHEST DAILY MEAN	1800	May 11	5470	May 24	13400	May 18 1984
LOWEST DAILY MEAN	.05	Sep 21	24	Oct 1	[a].00	Jul 30 1924
ANNUAL SEVEN-DAY MINIMUM	.10	Sep 21	34	Oct 1	.00	Jul 30 1924
INSTANTANEOUS PEAK FLOW			5950	May 15	16700	May 18 1984
INSTANTANEOUS PEAK STAGE			6.31	May 15	[b]9.85	May 18 1984
ANNUAL RUNOFF (AC-FT)	161400		489000		415200	
10 PERCENT EXCEEDS	740		2340		1950	
50 PERCENT EXCEEDS	75		101		124	
90 PERCENT EXCEEDS	4.1		41		12	

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 SE¼SW¼ sec.21, T.6 N., R.99 W., Moffat County, Hydrologic Unit 1405002, in Dinosaur National Monument, on left bank at Deerlodge Park, 1,250 ft upstream from Disappointment Draw and 5.5 mi downstream from Little Snake River.

DRAINAGE AREA.--7,660 mi², approximately.

PERIOD OF RECORD.--August 1975 and January 1978 (discharge measurements only), April 1982 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,600 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 25 to Mar. 29, Apr. 25, 26, May 14-17, and June 5-11. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	268	434	420	350	400	940	2250	5010	12700	6070	774	324
2	256	516	420	370	420	990	1880	4860	12500	5480	755	315
3	244	603	410	380	430	1050	1820	4210	12500	4780	701	301
4	235	520	380	380	450	1080	1800	4180	12400	4310	676	286
5	218	478	390	370	460	1120	1760	5110	12100	3850	635	283
6	214	427	420	360	450	1090	1920	6830	9940	3280	628	287
7	210	390	410	350	430	1070	2760	6960	9330	2800	643	271
8	219	416	400	360	450	1210	2750	5530	9490	2460	653	283
9	228	423	390	370	460	1250	2080	5480	8500	2320	612	270
10	246	441	400	380	470	1270	1850	4690	8100	2350	584	292
11	256	442	410	400	480	1300	1870	3620	7590	2270	578	278
12	256	414	420	390	490	1330	1990	4380	7500	2230	587	291
13	256	385	390	380	510	1370	1960	7310	7460	2180	565	259
14	259	375	380	370	530	1390	1920	11900	8270	2100	669	244
15	256	415	400	370	550	1410	1830	13500	8420	2010	592	254
16	283	451	410	360	530	1460	1810	14100	8720	1890	561	250
17	267	566	390	370	530	1490	1810	14100	9810	1730	521	306
18	252	444	380	380	510	1520	1860	14200	10700	1580	516	326
19	252	462	370	380	530	1550	1960	14800	10700	1520	479	355
20	256	463	380	390	570	1570	2380	13900	9370	1380	441	379
21	265	483	370	390	600	1590	2340	14200	8540	1210	459	425
22	252	463	360	380	660	1630	2170	15200	8320	1100	476	478
23	259	421	380	390	700	1680	2000	15700	8320	1050	447	459
24	290	293	390	380	740	1700	2100	15900	8050	1080	451	446
25	280	405	370	360	790	1580	2600	13700	7110	1050	482	416
26	298	420	380	340	810	1750	2780	12900	6220	1180	425	379
27	294	400	360	330	860	2030	2820	13500	5850	1380	404	339
28	293	380	350	320	900	2260	3360	14200	5980	1130	392	347
29	307	350	360	350	---	2550	4810	14300	6070	1030	406	338
30	340	330	380	360	---	2620	4980	14100	5900	922	396	323
31	447	---	370	380	---	2700	---	13400	---	825	361	---
TOTAL	8256	13010	12040	11440	15710	47550	70220	321770	266460	68547	16869	9804
MEAN	266	434	388	369	561	1534	2341	10380	8882	2211	544	327
MAX	447	603	420	400	900	2700	4980	15900	12700	6070	774	478
MIN	210	293	350	320	400	940	1760	3620	5850	825	361	244
AC-FT	16380	25810	23880	22690	31160	94320	139300	638200	528500	136000	33460	19450

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

MEAN	582	621	458	409	594	1436	3894	8496	7473	1956	568	357
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1983 - 1993	
ANNUAL TOTAL	394166		861676			
ANNUAL MEAN	1077		2361		2240	
HIGHEST ANNUAL MEAN					4286	1984
LOWEST ANNUAL MEAN					1062	1992
HIGHEST DAILY MEAN	6920	May 29	15900	May 24	32300	May 18 1984
LOWEST DAILY MEAN	180	Sep 4	210	Oct 7	29	Sep 11 1989
ANNUAL SEVEN-DAY MINIMUM	193	Aug 30	224	Oct 3	36	Sep 5 1989
INSTANTANEOUS PEAK FLOW			16400	May 23	33200	May 18 1984
INSTANTANEOUS PEAK STAGE			12.00	May 23	19.13	May 18 1984
ANNUAL RUNOFF (AC-FT)	781800		1709000		1623000	
10 PERCENT EXCEEDS	3160		8290		6620	
50 PERCENT EXCEEDS	441		530		700	
90 PERCENT EXCEEDS	256		291		225	

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.

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 sea level, 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: Nov. 24 to Dec. 12, Dec. 18 to Jan. 21, and Jan. 26 to Feb. 1. 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. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	160	158	155	150	150	166	426	1260	785	281	230
2	148	164	160	160	150	147	176	435	1400	740	281	224
3	148	156	162	160	147	151	169	490	1650	744	279	221
4	146	152	160	155	137	135	169	628	1350	692	280	212
5	148	154	160	150	135	146	188	628	929	632	283	218
6	153	157	155	145	144	150	185	483	986	561	277	211
7	158	157	155	150	150	149	172	437	1000	520	273	215
8	152	163	155	155	149	150	168	397	837	498	285	214
9	151	162	150	160	149	150	173	370	741	482	282	210
10	150	160	150	155	148	150	179	386	703	469	296	210
11	150	152	150	150	147	151	178	511	752	457	297	207
12	149	163	150	150	147	147	183	720	833	442	286	204
13	148	157	148	155	137	147	182	994	909	433	270	225
14	147	153	136	160	134	149	173	1080	934	419	266	213
15	146	153	163	155	156	153	174	1150	1010	402	262	207
16	146	152	158	150	149	150	177	1380	1100	388	255	204
17	147	152	162	145	146	151	178	1360	1100	377	247	209
18	147	152	160	140	160	156	191	1380	1030	357	245	203
19	146	151	155	140	149	153	187	1380	948	347	243	220
20	144	154	150	140	149	151	178	1410	942	336	243	211
21	144	148	155	141	148	151	178	1370	948	325	244	204
22	144	153	160	147	140	152	203	1430	973	316	245	196
23	144	152	160	142	147	156	245	1290	945	310	236	194
24	143	152	150	135	149	164	250	1210	869	339	232	194
25	151	153	155	147	148	176	239	1200	817	320	230	201
26	160	154	155	150	148	186	270	1320	788	321	249	208
27	154	156	155	145	149	186	356	1290	782	316	246	194
28	156	155	160	145	150	183	454	1280	802	305	239	191
29	162	155	155	150	---	175	483	1210	832	296	237	188
30	159	157	155	155	---	173	504	1150	831	296	234	186
31	170	---	150	155	---	167	---	1190	---	288	233	---
TOTAL	4659	4659	4807	4642	4112	4855	6728	29985	29001	13513	8056	6224
MEAN	150	155	155	150	147	157	224	967	967	436	260	207
MAX	170	164	163	160	160	186	504	1430	1650	785	297	230
MIN	143	148	136	135	134	135	166	370	703	288	230	186
AC-FT	9240	9240	9530	9210	8160	9630	13340	59480	57520	26800	15980	12350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1993, BY WATER YEAR (WY)

MEAN	198	183	168	161	156	160	277	776	852	395	246	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1910 - 1993	
ANNUAL TOTAL	81882		121241			
ANNUAL MEAN	224		332		315	
HIGHEST ANNUAL MEAN					523	1984
LOWEST ANNUAL MEAN					157	1977
HIGHEST DAILY MEAN	793	May 9	1650	Jun 3	3150	May 30 1912
LOWEST DAILY MEAN	123	Jan 11	134	Feb 14	90	Feb 21 1955
ANNUAL SEVEN-DAY MINIMUM	128	Jan 9	141	Jan 18	106	Jul 26 1977
INSTANTANEOUS PEAK FLOW			1760	Jun 3	3550	May 24 1984
INSTANTANEOUS PEAK STAGE			5.88	Jun 3	[a]6.76	May 24 1984
ANNUAL RUNOFF (AC-FT)	162400		240500		228500	
10 PERCENT EXCEEDS	458		917		722	
50 PERCENT EXCEEDS	157		173		196	
90 PERCENT EXCEEDS	140		147		140	

a-Maximum gage height, 7.22 ft, Jan 9, 1961, backwater from ice.

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 mi².

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 sea level, 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: Nov. 21 to Mar. 9. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	46	43	37	38	34	39	51	507	474	83	63
2	45	46	45	35	37	33	38	50	504	452	82	62
3	45	46	44	35	35	33	37	54	468	384	80	60
4	44	47	43	34	35	34	36	63	356	282	80	58
5	44	47	44	33	35	35	36	64	322	241	80	60
6	47	47	40	35	35	36	36	62	328	220	79	60
7	46	47	39	37	34	38	37	56	332	226	77	60
8	47	47	41	38	35	38	38	53	285	235	77	60
9	48	47	43	38	37	40	37	51	249	219	79	58
10	47	47	42	38	37	39	37	50	233	202	84	56
11	47	48	41	36	37	37	36	57	253	192	92	55
12	46	53	41	34	36	37	36	75	315	177	80	54
13	46	53	39	34	34	38	36	110	405	165	76	64
14	45	50	38	36	35	36	39	136	461	153	73	61
15	45	48	36	37	37	36	37	159	582	144	72	59
16	46	49	38	37	36	36	37	191	674	137	70	58
17	46	48	38	37	36	36	38	211	672	129	69	59
18	46	47	40	36	35	35	37	225	575	121	69	58
19	45	47	38	36	36	35	37	249	479	115	68	59
20	44	47	36	36	38	36	38	304	503	111	68	60
21	44	45	32	36	38	36	38	367	561	108	69	58
22	44	44	35	34	36	37	38	413	633	104	73	56
23	44	43	36	34	36	38	39	373	651	102	68	55
24	44	47	36	35	38	38	39	355	565	110	66	55
25	46	46	36	37	37	38	38	341	550	105	64	55
26	47	43	36	37	36	38	40	349	563	99	72	55
27	46	39	35	35	36	38	47	348	602	95	69	55
28	46	37	35	34	36	38	52	370	635	92	67	54
29	47	44	37	34	---	37	55	390	680	88	64	54
30	48	43	38	35	---	37	54	415	555	86	63	53
31	48	---	38	37	---	37	---	452	---	84	63	---
TOTAL	1417	1388	1203	1107	1011	1134	1182	6444	14498	5452	2276	1734
MEAN	45.7	46.3	38.8	35.7	36.1	36.6	39.4	208	483	176	73.4	57.8
MAX	48	53	45	38	38	40	55	452	680	474	92	64
MIN	44	37	32	33	34	33	36	50	233	84	63	53
AC-FT	2810	2750	2390	2200	2010	2250	2340	12780	28760	10810	4510	3440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1993, BY WATER YEAR (WY)

MEAN	57.3	53.7	49.5	47.1	45.2	45.4	61.5	194	419	148	70.1	58.6
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	38.8	35.7	33.0	31.0	39.4	84.5	68.3	50.2	40.0	26.4
(WY)	1977	1978	1993	1993	1981	1981	1993	1977	1977	1977	1977	1977

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1975 - 1993	
ANNUAL TOTAL	24952		38846			
ANNUAL MEAN	68.2		106		103	
HIGHEST ANNUAL MEAN					172	1978
LOWEST ANNUAL MEAN					49.4	1977
HIGHEST DAILY MEAN	[a]321	May 25	680	Jun 29	2020	Jun 25 1983
LOWEST DAILY MEAN	32	Dec 21	32	Dec 21	[b]21	Sep 29 1977
ANNUAL SEVEN-DAY MINIMUM	35	Dec 21	34	Feb 27	22	Sep 24 1977
INSTANTANEOUS PEAK FLOW			914	Jun 29	[c]2750	Jun 25 1983
INSTANTANEOUS PEAK STAGE			5.50	Jun 29	6.57	Jun 25 1983
ANNUAL RUNOFF (AC-FT)	49490		77050		74660	
10 PERCENT EXCEEDS	154		336		215	
50 PERCENT EXCEEDS	47		47		56	
90 PERCENT EXCEEDS	38		36		40	

a-Also occurred May 26.
b-Also occurred Sep 30, 1977.
c-From rating curve extended above 850 ft³/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 November 1983 to May 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 29 to Nov. 2, Nov. 5 to Dec. 19, Dec. 22-29, Jan. 1-4, 7-16, Jan. 30 to Feb. 2, Feb. 7-9, 25-27, Mar. 3-4, 13-14. Records good 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	63	61	61	64	64	69	137	1200	889	155	98
2	62	62	61	62	64	70	70	132	1210	828	150	100
3	61	63	61	62	65	70	68	140	1070	789	147	96
4	61	63	61	62	52	70	67	172	904	646	145	92
5	61	62	61	57	45	72	73	179	811	575	138	97
6	61	62	61	56	54	63	74	163	827	516	135	97
7	66	62	60	60	60	64	71	154	860	490	129	97
8	62	61	61	60	60	71	72	143	751	482	129	96
9	66	61	61	61	60	62	70	134	651	466	130	92
10	65	60	61	60	60	61	71	132	610	435	135	87
11	64	61	62	60	58	59	69	156	679	415	153	85
12	63	62	61	60	58	60	71	185	845	397	144	83
13	63	62	60	61	58	60	71	210	1020	373	127	100
14	61	62	60	61	58	60	71	251	1070	346	120	96
15	61	62	61	60	58	61	70	405	1140	304	117	92
16	60	62	61	62	58	61	69	511	1190	286	118	88
17	61	61	61	64	59	61	71	546	1290	269	117	88
18	60	60	61	65	61	61	76	555	1190	246	118	88
19	60	60	60	64	64	61	75	588	1030	232	116	89
20	59	60	52	63	57	63	70	719	1110	225	116	91
21	59	60	59	61	54	62	72	820	1170	204	116	87
22	59	62	61	56	55	62	79	907	1190	195	116	83
23	59	62	60	54	60	64	88	854	1190	190	114	83
24	58	62	60	54	63	66	90	827	1070	195	109	83
25	62	62	60	58	64	68	88	877	983	194	99	79
26	64	62	60	64	64	74	94	953	998	183	111	79
27	62	62	60	65	64	76	113	970	1020	178	110	79
28	62	62	61	63	69	75	132	1120	1040	175	103	79
29	64	62	62	63	---	69	142	1140	1050	165	101	79
30	64	61	64	63	---	67	151	1130	1010	162	97	79
31	64	---	58	63	---	67	---	1180	---	159	94	---
TOTAL	1916	1848	1873	1885	1666	2024	2467	16390	30179	11209	3809	2662
MEAN	61.8	61.6	60.4	60.8	59.5	65.3	82.2	529	1006	362	123	88.7
MAX	66	63	64	65	69	76	151	1180	1290	889	155	100
MIN	58	60	52	54	45	59	67	132	610	159	94	79
AC-FT	3800	3670	3720	3740	3300	4010	4890	32510	59860	22230	7560	5280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 1993, BY WATER YEAR (WY)

MEAN	94.3	82.5	75.1	69.7	68.1	69.9	117	467	855	264	115	94.4
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1976 - 1993	
ANNUAL TOTAL	48025		77928			
ANNUAL MEAN	131		214		199	
HIGHEST ANNUAL MEAN					301	1984
LOWEST ANNUAL MEAN					97.0	1977
HIGHEST DAILY MEAN	796	May 21	1290	Jun 17	2660	Jun 15 1978
LOWEST DAILY MEAN	[a]46	Jan 14	45	Feb 5	[b]40	Feb 1 1980
ANNUAL SEVEN-DAY MINIMUM	49	Feb 4	56	Feb 4	40	Feb 1 1980
INSTANTANEOUS PEAK FLOW			1490	Jun 17	3770	Jun 22 1983
INSTANTANEOUS PEAK STAGE			5.02	Jun 17	6.18	Jun 22 1983
ANNUAL RUNOFF (AC-FT)	95260		154600		144400	
10 PERCENT EXCEEDS	383		827		540	
50 PERCENT EXCEEDS	64		70		90	
90 PERCENT EXCEEDS	57		60		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.

09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO

LOCATION.--Lat 39°58'28", long 107°37'30", in NW¼NE¼ sec.17, T.1 S., R.91 W., Rio Blanco County, Hydrologic Unit 14050005, on right bank 30 ft downstream from highway bridge, 0.8 mi upstream from mouth, and 1.0 mi south of Buford.

DRAINAGE AREA.--177 mi².

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 sea level, from topographic map. Prior to Nov. 30, 1920, nonrecording gage at site 200 ft downstream, at different datum. Oct. 1951 to Apr. 1981, at site 500 ft downstream, at different datum.

REMARKS.--Estimated daily discharges: Nov. 22, 23, Nov. 25 to Mar. 11. Records good except for estimated daily discharges, which are poor. Diversions upstream for irrigation of about 1,100 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	103	90	86	96	86	92	192	1350	885	181	141
2	75	105	90	88	94	86	100	185	1430	818	178	143
3	75	91	90	88	88	88	94	185	1420	799	172	134
4	75	95	90	85	84	89	93	210	1190	670	167	129
5	76	103	90	82	78	90	100	232	998	589	169	130
6	83	95	90	80	86	92	104	222	992	507	164	124
7	95	93	90	84	94	92	95	218	1060	496	159	124
8	89	100	90	88	94	92	91	209	960	500	166	122
9	99	100	92	92	92	94	101	195	821	490	172	120
10	94	99	92	86	90	92	103	191	738	455	182	114
11	99	82	92	86	90	87	100	204	820	437	189	115
12	106	85	92	86	88	81	102	239	1000	410	169	113
13	99	114	92	90	86	76	104	316	1170	387	161	125
14	94	90	90	93	86	97	95	401	1180	359	165	128
15	93	95	90	92	86	93	101	485	1290	325	174	122
16	92	94	90	90	88	90	107	590	1430	304	173	120
17	92	94	90	88	88	90	103	658	1510	282	171	121
18	93	95	90	90	90	95	112	665	1370	265	175	117
19	92	95	84	90	92	94	110	694	1120	250	168	118
20	92	100	78	88	90	89	105	813	1130	240	167	119
21	92	89	84	90	86	91	107	944	1180	228	167	116
22	92	89	92	89	84	88	115	1110	1200	220	172	111
23	92	90	88	85	86	93	127	1040	1210	219	167	110
24	92	91	86	85	88	96	134	1010	1080	235	157	109
25	94	92	86	90	88	101	130	1020	975	233	152	108
26	100	88	86	92	90	105	135	1180	962	218	166	107
27	94	88	82	92	90	111	160	1170	985	208	164	106
28	94	88	86	90	88	109	184	1210	1020	201	150	106
29	100	90	88	90	---	104	189	1220	1020	195	145	106
30	103	90	86	92	---	100	200	1210	1000	189	145	105
31	114	---	84	94	---	96	---	1260	---	186	140	---
TOTAL	2853	2823	2740	2741	2480	2887	3493	19478	33611	11800	5147	3563
MEAN	92.0	94.1	88.4	88.4	88.6	93.1	116	628	1120	381	166	119
MAX	114	114	92	94	96	111	200	1260	1510	885	189	143
MIN	73	82	78	80	78	76	91	185	738	186	140	105
AC-FT	5660	5600	5430	5440	4920	5730	6930	38630	66670	23410	10210	7070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1919 - 1993, BY WATER YEAR (WY)

MEAN	129	119	110	105	106	107	158	617	1017	307	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1919 - 1993	
ANNUAL TOTAL	60064		93616			
ANNUAL MEAN	164		256		256	
HIGHEST ANNUAL MEAN					363	1985
LOWEST ANNUAL MEAN					129	1977
HIGHEST DAILY MEAN	915	May 21	1510	Jun 17	2970	Jun 25 1983
LOWEST DAILY MEAN	[a]72	Jan 24	73	Oct 1	47	Jan 15 1981
ANNUAL SEVEN-DAY MINIMUM	74	Jan 22	79	Oct 1	62	Jan 10 1981
INSTANTANEOUS PEAK FLOW			1630	Jun 17	3150	Jun 26 1983
INSTANTANEOUS PEAK STAGE			4.85	Jun 17	[b]6.27	Jun 26 1983
ANNUAL RUNOFF (AC-FT)	119100		185700		185200	
10 PERCENT EXCEEDS	420		961		625	
50 PERCENT EXCEEDS	95		102		128	
90 PERCENT EXCEEDS	77		86		90	

a-Also occurred Jan 25, 26, and Mar 10, 11.
b-Maximum gage height, 7.07 ft, Jun 30, 1957, site and datum then in use.

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.

PERIOD OF RECORD.--October 1961 to current year. Water-quality data available, March 1970 to September 1992.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 6,400 ft above sea level, from topographic map. Oct. 1, 1961, to Sept. 30, 1976, at site 76 ft upstream at datum 2.00 ft, higher.

REMARKS.--Estimated daily discharge: Dec. 13 to Mar. 18. Records good except for estimated daily discharges, which are poor. Diversion upstream from station for irrigation of about 8,000 acres and about 4,000 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	274	234	285	230	265	322	776	3350	1730	338	281
2	154	293	251	290	225	260	349	769	3410	1610	330	259
3	176	283	254	285	230	255	330	834	3600	1600	319	255
4	175	274	244	280	235	250	327	1010	2890	1500	280	214
5	176	287	237	290	245	255	370	1050	2220	1360	273	213
6	186	290	240	285	270	250	364	876	2210	1170	250	213
7	229	293	248	280	295	245	330	799	2420	1040	242	206
8	250	307	247	285	270	240	318	748	2080	972	239	211
9	258	310	245	280	265	235	327	686	1780	950	265	204
10	258	313	234	255	265	240	338	677	1560	890	261	223
11	254	284	234	226	260	235	331	804	1590	858	281	224
12	253	272	236	210	255	225	342	1040	1820	821	313	210
13	245	317	230	200	220	220	349	1350	2220	774	309	214
14	240	296	225	240	225	240	323	1630	2550	718	303	235
15	239	292	230	260	280	270	348	1880	2870	678	300	233
16	237	289	225	250	260	265	434	2170	3120	652	250	231
17	240	286	227	270	260	270	416	2310	3360	625	293	233
18	240	287	230	275	255	310	401	2460	3170	594	300	235
19	240	287	235	280	280	290	399	2540	2740	601	277	242
20	240	297	215	275	285	279	379	2900	2600	570	334	243
21	236	287	240	270	260	277	376	3300	2610	547	291	254
22	234	258	245	260	240	274	420	3660	2630	542	289	240
23	234	310	250	245	260	287	499	3240	2600	548	269	240
24	234	270	255	230	270	308	525	3010	2380	572	249	238
25	248	251	265	240	260	330	497	2860	2130	523	245	237
26	264	238	265	235	255	357	552	3210	1990	464	242	239
27	253	239	280	245	255	368	661	3280	1990	400	240	234
28	251	237	290	255	260	374	769	3390	2070	381	228	226
29	263	246	300	225	---	354	820	3330	1970	350	218	218
30	267	236	295	230	---	347	871	3170	1900	337	218	221
31	307	---	300	225	---	330	---	3110	---	355	256	---
TOTAL	7225	8403	7706	7961	7170	8705	13087	62869	73830	24732	8502	6926
MEAN	233	280	249	257	256	281	436	2028	2461	798	274	231
MAX	307	317	300	290	295	374	871	3660	3600	1730	347	281
MIN	144	236	215	200	220	220	318	677	1560	337	218	204
AC-FT	14330	16670	15280	15790	14220	17270	25960	124700	146400	49060	16860	13740

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

MEAN	349	335	301	287	280	299	510	1506	1758	566	298	260
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1962 - 1993	
ANNUAL TOTAL	128956		237116			
ANNUAL MEAN	352		650		563	
HIGHEST ANNUAL MEAN					966	1984
LOWEST ANNUAL MEAN					208	1977
HIGHEST DAILY MEAN	1320	May 21	3660	May 22	5360	Jun 26 1983
LOWEST DAILY MEAN	60	Sep 8	144	Oct 1	[a]6.5	Jul 19 1977
ANNUAL SEVEN-DAY MINIMUM	68	Sep 3	177	Oct 1	8.8	Jul 16 1977
INSTANTANEOUS PEAK FLOW			3970	May 22	5740	Jun 26 1983
INSTANTANEOUS PEAK STAGE			5.40	May 22	7.07	Jun 26 1983
ANNUAL RUNOFF (AC-FT)	255800		470100		407700	
10 PERCENT EXCEEDS	699		2100		1370	
50 PERCENT EXCEEDS	264		280		324	
90 PERCENT EXCEEDS	137		227		216	

a-Also occurred Jul 20, 21, 1977.

09304500 WHITE RIVER NEAR MEEKER, CO

LOCATION.--Lat 40°02'01", long 107°51'42", in NE¼NE¼ sec.30, T.1 N., R.93 W., Rio Blanco County, Hydrologic Unit 14050005, on left bank 1.0 mi upstream from Curtis Creek and 2.5 mi east of Meeker.

DRAINAGE AREA.--755 mi².

PERIOD OF RECORD.--June 1901 to December 1906, October 1909 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Meeker" 1901-13.

REVISED RECORDS.--WDR CO-79-3: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,300 ft above sea level, 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. 23, Nov. 26 to Dec. 19, Dec. 21-25, Dec. 28 to Jan. 16, Jan. 25-27, Jan. 29 to Feb. 3, Mar 1-9. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	323	251	317	254	294	352	770	3310	1900	496	422
2	230	340	248	325	250	298	376	743	3300	1750	479	384
3	227	327	245	320	255	290	371	776	3320	1740	443	380
4	223	313	248	312	261	287	358	968	2850	1580	394	328
5	222	325	252	320	275	294	413	1080	2430	1400	363	326
6	240	330	246	315	299	291	474	880	2410	1210	351	323
7	292	335	249	309	329	297	399	797	2550	1080	351	319
8	308	345	250	316	301	295	368	766	2280	1020	358	323
9	309	343	256	310	297	290	366	685	1970	977	381	316
10	308	343	250	283	294	295	374	664	1780	919	403	324
11	302	314	257	251	288	295	370	760	1840	887	455	323
12	301	303	248	236	285	280	378	1020	2090	855	495	308
13	298	341	247	229	247	257	392	1420	2430	818	461	314
14	290	320	251	270	253	304	372	1750	2540	775	449	330
15	288	318	255	295	311	315	375	2030	2800	753	434	329
16	284	318	250	281	288	313	470	2310	3050	726	379	331
17	288	316	252	298	291	319	467	2440	3190	698	429	333
18	286	317	257	301	284	362	445	2560	2960	685	413	339
19	286	318	263	300	299	357	449	2620	2580	682	395	363
20	283	327	243	299	307	344	418	2990	2520	661	442	369
21	282	314	269	298	280	339	401	3380	2580	642	367	369
22	279	281	274	289	260	338	434	3670	2660	621	376	346
23	279	304	280	271	284	350	524	3270	2670	629	355	339
24	279	294	285	253	293	372	558	3040	2470	742	327	337
25	285	282	296	265	287	390	528	2920	2250	659	314	343
26	310	270	293	262	284	413	554	3240	2160	597	335	351
27	294	255	307	270	282	421	647	3240	2150	571	350	341
28	294	247	320	285	291	449	765	3350	2180	561	335	331
29	307	253	330	252	---	442	800	3320	2100	530	320	327
30	310	258	329	257	---	407	861	3170	2090	513	333	322
31	362	---	330	250	---	375	---	3190	---	527	380	---
TOTAL	8764	9274	8331	8839	7929	10373	14059	63819	75510	27708	12163	10190
MEAN	283	309	269	285	283	335	469	2059	2517	894	392	340
MAX	362	345	330	325	329	449	861	3670	3320	1900	496	422
MIN	218	247	243	229	247	257	352	664	1780	513	314	308
AC-FT	17380	18390	16520	17530	15730	20570	27890	126600	149800	54960	24130	20210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 1993, BY WATER YEAR (WY)

MEAN	389	368	331	312	307	340	547	1554	1902	679	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1910 - 1993	
ANNUAL TOTAL	148606		256959			
ANNUAL MEAN	406		704		624	
HIGHEST ANNUAL MEAN					1044	1984
LOWEST ANNUAL MEAN					274	1977
HIGHEST DAILY MEAN	1520	May 21	3670	May 22	6320	May 25 1984
LOWEST DAILY MEAN	155	Sep 9	218	Oct 1	78	Jul 16 1977
ANNUAL SEVEN-DAY MINIMUM	165	Aug 26	236	Oct 1	86	Jul 13 1977
INSTANTANEOUS PEAK FLOW			3980	May 22	6950	May 25 1984
INSTANTANEOUS PEAK STAGE			5.15	May 22	[a]6.12	May 25 1984
ANNUAL RUNOFF (AC-FT)	294800		509700		451800	
10 PERCENT EXCEEDS	792		2260		1470	
50 PERCENT EXCEEDS	303		335		370	
90 PERCENT EXCEEDS	215		256		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.

PERIOD OF RECORD.--October 1961 to current year. Water-quality data available, April 1974 to September 1992.

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 23 to Mar. 8. 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. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	283	426	300	370	290	330	433	886	3360	2020	512	523
2	282	458	300	375	290	335	468	835	3400	1910	494	463
3	294	432	295	370	295	330	473	833	3380	1880	466	474
4	278	388	295	365	300	325	442	945	3040	1800	409	397
5	278	400	300	370	310	320	573	1120	2530	1640	393	419
6	288	405	305	365	320	325	721	1060	2430	1450	393	413
7	363	412	300	370	360	330	576	976	2620	1320	391	409
8	374	424	300	370	350	367	495	991	2400	1200	417	419
9	370	419	305	360	345	407	475	871	2080	1140	455	396
10	362	419	300	340	340	444	460	819	1870	1070	479	406
11	358	377	305	300	335	450	450	916	1860	1060	557	405
12	361	347	300	280	330	361	443	1160	2060	1050	608	381
13	359	416	300	260	320	280	468	1540	2440	1020	542	399
14	348	385	305	280	310	409	461	1910	2600	951	529	428
15	344	387	310	320	325	529	429	2200	2790	913	538	412
16	341	389	315	320	320	487	526	2520	3050	869	463	408
17	345	387	310	325	320	482	560	2770	3310	822	515	423
18	331	390	305	330	325	615	520	2950	3170	764	512	431
19	330	389	310	335	330	527	530	2970	2790	766	454	464
20	330	403	310	340	325	461	494	3290	2650	738	540	461
21	327	382	320	335	315	436	456	3580	2690	694	476	445
22	329	310	325	330	330	422	469	3870	2760	679	465	407
23	328	355	330	325	330	425	505	3500	2780	685	430	406
24	325	350	335	320	325	455	569	3280	2570	842	393	401
25	330	335	345	315	330	476	587	3090	2300	766	372	414
26	374	320	350	310	325	509	579	3390	2170	680	413	416
27	350	305	360	315	320	519	638	3410	2170	602	461	399
28	349	300	370	320	325	570	755	3510	2190	593	430	379
29	374	300	380	315	---	628	829	3460	2120	548	429	368
30	380	305	385	305	---	537	881	3330	2130	531	460	363
31	485	---	380	295	---	471	---	3280	---	549	489	---
TOTAL	10570	11315	9950	10230	9040	13562	16265	69262	77710	31552	14485	12529
MEAN	341	377	321	330	323	437	542	2234	2590	1018	467	418
MAX	485	458	385	375	360	628	881	3870	3400	2020	608	523
MIN	278	300	295	260	290	280	429	819	1860	531	372	363
AC-FT	20970	22440	19740	20290	17930	26900	32260	137400	154100	62580	28730	24850

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 1993, BY WATER YEAR (WY)

MEAN	448	410	366	336	335	389	593	1568	1895	740	426	390
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1962 - 1993	
ANNUAL TOTAL	176047		286470			
ANNUAL MEAN	481		785		659	
HIGHEST ANNUAL MEAN					1069	1985
LOWEST ANNUAL MEAN					290	1977
HIGHEST DAILY MEAN	1840	May 27	3870	May 22	6060	Jun 26 1983
LOWEST DAILY MEAN	200	Sep 4	260	Jan 13	85	Jun 28 1977
ANNUAL SEVEN-DAY MINIMUM	222	Sep 9	295	Oct 1	90	Jun 25 1977
INSTANTANEOUS PEAK FLOW			4170	May 22	6590	Jun 26 1983
INSTANTANEOUS PEAK STAGE			4.11	May 22	4.97	Jun 26 1983
ANNUAL RUNOFF (AC-FT)	349200		568200		477100	
10 PERCENT EXCEEDS	992		2340		1480	
50 PERCENT EXCEEDS	348		417		410	
90 PERCENT EXCEEDS	271		308		281	

09306007 PICEANCE CREEK BELOW RIO BLANCO, CO

LOCATION.--Lat 39°49'34", long 108°10'57", in SE¼SE¼ sec.32, T.2 S., R.96 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 20 ft downstream from private bridge, 1,100 ft upstream from Stewart Gulch, and 14.3 mi west of Rio Blanco.

DRAINAGE AREA.--177 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,366 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 25-30, Dec. 4, 7, Dec. 13 to Jan. 15, Jan. 21-31, Feb. 4-6, and Feb. 13-22. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.5	11	7.2	6.8	4.6	7.5	39	155	82	24	28	19
2	4.7	12	7.2	6.6	4.7	8.1	54	148	76	24	27	18
3	5.8	11	6.9	6.6	4.3	8.4	48	150	76	24	26	17
4	6.6	9.6	7.0	6.8	4.4	10	52	164	74	25	27	17
5	6.2	9.4	6.8	7.0	4.6	7.5	79	170	70	25	25	18
6	5.8	9.4	6.5	6.8	4.8	7.2	97	156	70	22	23	18
7	6.5	9.4	6.6	6.6	4.8	7.6	75	147	65	22	22	18
8	6.4	8.8	6.7	6.8	5.3	8.8	61	142	62	20	23	17
9	6.2	8.8	6.7	6.6	5.3	9.6	66	131	54	19	21	17
10	6.5	9.6	6.7	6.8	5.6	9.4	71	124	49	20	20	17
11	6.5	9.9	6.7	6.6	5.7	8.4	72	127	45	20	19	17
12	5.7	9.3	6.9	6.6	6.0	8.2	89	137	37	21	19	17
13	5.7	7.9	6.8	6.4	6.0	7.3	80	159	36	21	21	17
14	6.1	7.2	6.8	6.2	6.0	5.6	76	180	34	22	24	17
15	6.4	6.5	6.7	6.0	6.2	7.4	70	190	31	23	24	17
16	6.1	7.5	6.8	5.6	6.2	7.7	73	246	28	22	23	17
17	6.2	7.8	6.8	5.7	6.2	6.3	79	271	27	19	22	16
18	6.3	8.5	6.8	5.3	6.2	7.7	90	256	27	20	22	17
19	6.3	8.1	6.8	5.6	6.2	6.4	93	209	27	20	22	17
20	6.8	8.3	7.0	5.2	6.4	5.7	84	201	24	18	21	17
21	7.1	8.3	7.0	5.2	6.2	5.1	82	190	24	18	21	16
22	6.9	8.5	7.2	5.0	6.4	4.1	93	170	24	18	21	16
23	6.7	7.4	6.8	5.0	6.9	4.9	110	149	25	18	20	16
24	6.7	7.2	7.0	5.0	6.8	6.3	123	133	28	20	19	16
25	7.1	7.2	7.0	5.0	6.7	17	117	126	26	20	19	16
26	7.2	7.4	7.2	4.8	6.5	30	118	122	26	19	19	15
27	9.2	7.2	7.0	4.6	6.5	59	135	120	27	19	19	15
28	8.5	7.0	6.8	4.5	7.1	41	155	109	26	20	18	15
29	8.8	7.2	6.6	4.5	---	59	163	97	26	21	18	16
30	9.1	7.4	6.8	4.5	---	70	163	90	24	26	18	15
31	14	---	7.0	4.5	---	44	---	87	---	28	18	---
TOTAL	212.6	254.8	212.8	179.2	162.6	495.2	2707	4856	1250	658	669	501
MEAN	6.86	8.49	6.86	5.78	5.81	16.0	90.2	157	41.7	21.2	21.6	16.7
MAX	14	12	7.2	7.0	7.1	70	163	271	82	28	28	19
MIN	4.5	6.5	6.5	4.5	4.3	4.1	39	87	24	18	18	15
AC-FT	422	505	422	355	323	982	5370	9630	2480	1310	1330	994

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 1993, BY WATER YEAR (WY)

MEAN	9.28	10.6	9.47	8.75	9.23	16.0	42.3	68.0	28.1	16.6	16.1	10.2
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1975 - 1993	
ANNUAL TOTAL	2521.08		12158.2			
ANNUAL MEAN	6.89		33.3		20.4	
HIGHEST ANNUAL MEAN					55.0	1984
LOWEST ANNUAL MEAN					5.02	1977
HIGHEST DAILY MEAN	34	May 24	271	May 17	410	May 15 1984
LOWEST DAILY MEAN	[a].06	Jul 21	4.1	Mar 22	[a].06	Jul 21 1992
ANNUAL SEVEN-DAY MINIMUM	.06	Jul 21	4.5	Jan 29	.06	Jul 21 1992
INSTANTANEOUS PEAK FLOW			281	May 17	[b]520	Jul 19 1977
INSTANTANEOUS PEAK STAGE			5.20	May 17	[c]7.01	Jul 19 1977
ANNUAL RUNOFF (AC-FT)	5000		24120		14810	
10 PERCENT EXCEEDS	12		102		42	
50 PERCENT EXCEEDS	6.6		16		9.6	
90 PERCENT EXCEEDS	1.5		5.8		3.5	

a-also occurred Jul 22-24, 26, 1992.
b-From rating curve based on indirect measurement of peak flow.
c-Maximum gage height, 7.47 ft, May 16,1984.

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 1992 TO SEPTEMBER 1993

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										
16...	1400	7.1	1290	8.3	6.5	10.2	440	83	55	120
MAR										
23...	1315	4.9	1250	8.1	14.5	11.6	410	77	53	120
MAY										
05...	1230	174	--	8.4	9.0	8.5	290	63	33	67
SEP										
02...	1130	18	1210	8.4	12.0	9.0	420	84	50	120

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										
16...	3	2.7	390	260	19	0.8	12	790	1.08	15.2
MAR										
23...	3	3.2	428	270	21	0.7	13	818	1.11	10.8
MAY										
05...	2	2.7	275	150	9.1	0.4	15	512	0.70	241
SEP										
02...	3	2.4	354	270	16	0.8	16	779	1.06	37.5

DATE	NITRO-GEN, NITRATE 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 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									
16...	0.45	0.01	0.46	0.46	0.03	0.27	0.30	0.03	0.02
MAR									
23...	0.17	0.03	0.20	0.20	0.05	0.12	0.17	0.05	<0.01
MAY									
05...	1.30	<0.01	1.30	1.30	0.04	0.36	0.40	0.03	0.02
SEP									
02...	1.26	0.04	1.30	1.30	0.05	0.25	0.30	0.03	0.03

09306007 PICEANCE CREEK BELOW RIO BLANCO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
16...	--	--	210	--	--	--	--	--	--	1800	--
MAR											
23...	2	100	210	<1	20	10	160	4	1	1700	8
MAY											
05...	3	92	90	<1	18	13	20	7	1	830	7
SEP											
02...	2	100	180	<1	12	15	63	4	<1	1600	<3

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					APR				
07...	1340	6.23	1130	10.0	23...	1215	115	931	8.0
DEC					29...	1115	176	843	6.5
15...	1400	6.58	1247	3.0	MAY				
JAN					27...	1120	124	842	11.0
11...	1315	6.90	1230	3.5	JUN				
FEB					30...	1355	22.2	1220	17.5
23...	1410	6.68	1230	4.5	AUG				
					03...	1405	23.2	1230	17.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					
16...	1400	7.1	15	0.29	--
MAR					
23...	1315	4.9	67	0.89	--
MAY					
05...	1230	174	1700	799	72
SEP					
02...	1130	18	29	1.4	--

09306022 STEWART GULCH ABOVE WEST FORK NEAR RIO BLANCO, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 39°49'09", long 108°11'08", in SE¼NE¼ sec.5, T.3 S., R.96 W., Rio Blanco County, Hydrologic Unit 14050006, on left bank 0.6 mi upstream from mouth, about 300 ft above confluence with West Fork Stewart Gulch, and 14.2 mi west of Rio Blanco.

DRAINAGE AREA.--44.0 mi².

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 1992 TO SEPTEMBER 1993

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
MAR											
23...	1445	2.3	1370	--	14.0	9.3	510	87	71	120	2
MAY											
12...	1125	2.7	1390	8.2	14.0	7.8	540	92	74	120	2
AUG											
03...	1200	2.6	1380	8.3	15.0	10.0	530	95	71	120	2
SEP											
02...	1230	0.35	1420	8.2	12.5	8.1	570	98	77	130	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)	NITROGEN, NITRITE DISSOLVED (MG/L AS N)
MAR										
23...	1.4	394	370	9.9	0.2	15	920	1.25	5.74	0.03
MAY										
12...	1.5	353	430	11	0.3	14	963	1.31	6.97	0.02
AUG										
03...	1.1	368	410	9.3	0.2	15	947	1.29	6.64	<0.01
SEP										
02...	1.4	383	--	--	0.2	17	811	1.10	0.77	0.03

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)
MAR										
23...	1.40	0.07	0.33	0.40	0.04	<0.01	100	2600	139	0.87
MAY										
12...	1.30	0.04	--	<0.20	<0.01	0.01	90	2700	82	0.59
AUG										
03...	0.32	0.03	0.27	0.30	<0.01	0.01	90	2700	7	0.05
SEP										
02...	1.30	0.04	0.16	0.20	0.02	0.01	30	3000	4	0.00

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 mi².

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, 0.0°C on many days during winter months each year.
DISSOLVED OXYGEN: Maximum, 12.9 mg/L Mar. 29, 1979; minimum, 3.6 mg/L Sept. 29, 1978.
SEDIMENT CONCENTRATIONS: Maximum daily, 7,030 mg/L July 29, 1979; no flow many days during 1978.
SEDIMENT LOADS: Maximum daily, 61 tons July 29, 30, 1979; no flow many days during 1978.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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
MAR											
25...	1400	1.9	1420	7.9	13.0	--	520	90	72	120	2
MAY											
12...	1300	2.5	1430	8.2	17.0	10.3	560	97	77	120	2
AUG											
03...	1000	4.8	1440	8.2	12.0	9.2	570	100	76	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)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N)
MAR											
25...	1.7	416	350	18	0.3	15	920	1.25	4.77	0.02	0.14
MAY											
12...	2.2	406	400	14	0.4	15	973	1.32	6.67	<0.01	0.11
AUG											
03...	1.7	459	390	13	0.3	17	1000	1.36	13.0	<0.01	1.20

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)
MAR										
25...	0.14	0.02	0.18	0.20	<0.01	<0.01	150	3100	20	0.10
MAY										
12...	0.11	0.03	0.57	0.60	<0.01	<0.01	140	3200	72	0.49
AUG										
03...	1.20	0.02	--	<0.20	<0.01	<0.01	160	3200	29	0.38

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 24 to Mar. 3. Records fair except for estimated daily discharges, which are poor. Diversions for irrigation upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	13	22	19	13	21	56	177	136	27	39	41
2	7.6	15	21	19	14	21	63	165	128	27	42	39
3	8.1	15	20	19	13	21	64	160	121	25	42	38
4	9.1	16	20	20	13	22	64	169	119	25	40	38
5	8.8	21	20	20	13	22	79	187	112	29	44	39
6	9.6	25	19	19	14	26	103	177	107	28	42	37
7	11	23	19	18	14	29	96	169	108	25	42	31
8	8.7	23	19	18	15	43	81	168	98	26	48	31
9	9.0	23	19	19	15	47	83	151	90	25	54	32
10	8.6	22	19	18	16	46	84	137	83	26	49	32
11	9.4	22	20	18	16	38	86	132	76	26	47	32
12	9.7	22	20	19	17	29	96	143	69	29	46	32
13	9.7	22	21	18	17	27	98	172	67	28	45	34
14	9.8	22	22	18	17	29	94	198	68	28	47	34
15	9.3	21	23	17	18	34	87	215	63	28	46	34
16	9.7	21	22	16	18	33	86	242	61	26	45	32
17	9.4	21	20	16	17	30	94	293	56	24	42	30
18	8.9	21	21	15	17	31	100	316	60	23	40	32
19	8.4	21	20	15	18	30	109	292	55	24	40	36
20	8.8	22	20	15	18	27	102	279	48	23	40	35
21	9.6	21	21	15	18	25	94	284	51	24	40	34
22	9.2	21	21	14	18	24	99	278	49	26	42	34
23	8.3	21	20	14	18	24	117	272	41	27	44	32
24	8.1	21	20	14	19	23	134	249	35	29	45	26
25	8.5	20	20	14	18	28	137	230	29	27	42	29
26	9.6	21	21	13	18	31	130	203	29	27	41	25
27	8.9	22	20	13	20	50	140	190	27	28	43	23
28	9.7	21	19	13	21	60	164	175	27	28	41	22
29	9.5	21	19	13	---	64	178	159	26	31	40	21
30	9.1	21	20	13	---	74	183	143	25	30	39	21
31	14	---	20	13	---	64	---	141	---	38	39	---
TOTAL	285.6	621	628	505	463	1073	3101	6266	2064	837	1336	956
MEAN	9.21	20.7	20.3	16.3	16.5	34.6	103	202	68.8	27.0	43.1	31.9
MAX	14	25	23	20	21	74	183	316	136	38	54	41
MIN	7.5	13	19	13	13	21	56	132	25	23	39	21
AC-FT	566	1230	1250	1000	918	2130	6150	12430	4090	1660	2650	1900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	21.7	26.3	24.3	21.9	24.8	34.1	44.8	65.5	31.1	23.3	31.0	21.6
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	5184.1		18135.6			
ANNUAL MEAN	14.2		49.7		30.9	
HIGHEST ANNUAL MEAN					96.5	1985
LOWEST ANNUAL MEAN					8.30	1967
HIGHEST DAILY MEAN	41	Jul 15	316	May 18	534	May 5 1985
LOWEST DAILY MEAN	1.4	May 22	7.5	Oct 1	.15	Jun 7 1981
ANNUAL SEVEN-DAY MINIMUM	3.5	May 16	8.7	Oct 19	.96	Apr 27 1966
INSTANTANEOUS PEAK FLOW			323	May 18	550	May 5 1985
INSTANTANEOUS PEAK STAGE			7.20	May 18	[a]7.70	May 5 1985
ANNUAL RUNOFF (AC-FT)	10280		35970		22390	
10 PERCENT EXCEEDS	21		135		60	
50 PERCENT EXCEEDS	15		26		20	
90 PERCENT EXCEEDS	6.8		13		6.4	

a-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 fair. Periods of missing or deleted record are due to instrument malfunction or sensor fouling. Daily water temperatures rated good except for mid-February to the end of March which is 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 2,080 microsiemens Oct. 2; minimum, not determined.
WATER TEMPERATURES: Maximum 20.8°C July 28; minimum, 0.0°C many days during the winter period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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...	1320	20	1650	8.1	5.0	10.7	560	86	82	170
MAR										
25...	1130	28	1500	8.1	8.5	8.9	510	81	73	150
SEP										
01...	1200	41	1500	8.3	13.5	9.3	540	93	73	150

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									
18...	3	3.0	443	420	17	0.6	13	1060	1.45
MAR									
25...	3	2.8	484	360	18	0.6	15	997	1.36
SEP									
01...	3	2.7	429	380	16	0.7	18	998	1.36

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									
18...	58.0	0.01	0.41	0.07	0.33	0.40	0.05	0.05	--
MAR									
25...	75.3	0.03	0.57	0.08	0.32	0.40	0.04	0.02	4.9
SEP									
01...	111	0.03	0.89	0.03	0.27	0.30	0.02	0.03	4.7

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											
18...	--	--	220	--	--	--	--	--	--	3100	--
MAR											
25...	3	80	180	<1	17	9	82	5	1	2900	10
SEP											
01...	2	93	200	<1	23	12	16	5	<1	2600	19

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
NOV				
16...	1615	20.2	1680	6.5
DEC				
15...	1520	23.0	1520	0.0
JAN				
11...	1505	17.7	1530	3.0
FEB				
25...	1300	18.4	1580	4.0
APR				
23...	1045	117	1110	8.5
25...	1200	177	955	8.5
MAY				
27...	1500	200	915	11.5
JUN				
30...	1620	22.9	1770	20.5
JUL				
04...	1430	39.4	1740	14.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					
18...	1320	20	306	17	--
MAR					
25...	1130	28	758	57	68
SEP					
01...	1200	41	318	35	--

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2040	---	---	---	---	---	---	---	---	---	---	---
2	2050	---	---	---	---	---	---	---	---	---	---	1490
3	2030	---	---	---	---	---	---	---	---	---	---	1480
4	1970	---	---	---	---	---	---	---	1130	---	---	1460
5	1940	---	---	---	---	---	---	---	1140	---	---	---
6	1910	---	---	---	---	---	---	---	1160	---	---	---
7	1870	---	---	---	---	---	---	---	1170	---	---	---
8	1980	---	---	---	---	---	---	---	1200	---	---	---
9	1980	---	---	---	---	---	---	---	1230	---	---	---
10	1990	---	---	---	---	---	---	---	1270	---	---	---
11	1940	---	---	1550	---	---	---	---	1290	---	---	---
12	1950	---	---	1550	---	---	---	---	1340	---	---	---
13	1960	---	---	1550	---	---	---	---	1360	---	---	---
14	1930	---	---	---	---	---	---	---	1360	---	---	---
15	1930	---	---	1460	---	---	---	---	1370	---	---	---
16	1900	---	1460	1470	---	---	---	---	1370	---	---	---
17	1880	---	1600	---	---	1320	---	---	1380	---	---	---
18	1840	---	1640	---	---	1360	---	---	1370	---	---	---
19	1820	1560	1550	---	---	1410	---	---	1370	---	---	---
20	1770	1520	1820	---	---	1480	---	---	---	---	---	---
21	1690	1550	1610	---	---	1490	---	---	---	---	---	---
22	1610	1570	1620	---	---	1500	---	---	---	---	---	---
23	1600	1500	1650	---	---	1490	---	---	---	---	---	---
24	---	1460	1620	---	---	1480	---	---	---	---	---	---
25	---	1440	1550	---	1520	1490	---	---	---	---	---	---
26	---	1470	1570	---	1520	1440	---	---	---	---	---	---
27	---	1480	1570	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---	---	---	---

09306200 PICEANCE CREEK BELOW RYAN GULCH NEAR RIO BLANCO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	16.3	7.4	6.3	3.6	1.4	.0	.0	.0	2.7	.0	5.7	.0
2	16.2	7.5	6.6	4.9	3.3	.7	3.6	.0	3.4	1.4	6.6	.0
3	15.2	7.6	6.0	2.9	2.6	.3	3.2	.0	3.8	1.3	6.5	.0
4	15.5	8.2	6.5	1.6	1.6	.0	.0	.0	1.5	.3	6.4	.0
5	14.7	6.2	7.0	3.6	.2	.0	.0	.0	.4	.0	6.7	.0
6	14.4	6.7	7.6	4.2	.1	.0	.0	.0	.1	.0	8.5	1.1
7	12.7	6.7	7.7	4.4	.0	.0	.0	.0	1.4	.0	8.8	1.1
8	12.0	3.7	7.3	4.1	.9	.0	.0	.0	3.5	1.4	9.4	1.4
9	14.0	6.7	7.6	4.1	2.5	.1	2.2	.0	4.6	2.5	8.4	.9
10	13.9	5.1	5.0	3.2	4.0	1.6	3.0	1.5	5.3	3.3	8.6	2.7
11	14.3	5.4	4.7	.2	3.7	1.3	3.2	.0	5.4	3.0	8.8	3.4
12	14.6	5.8	4.9	.6	3.4	2.0	.0	.0	4.3	2.1	6.2	.2
13	14.5	6.2	6.2	1.4	2.2	.0	.0	.0	2.5	.6	8.4	1.1
14	14.1	6.6	6.7	1.9	.2	.0	.0	.0	1.0	.4	8.8	2.9
15	12.3	6.2	6.6	2.0	.1	.0	3.4	.0	.5	.0	9.4	4.1
16	9.7	5.0	6.6	2.5	.9	.0	3.9	1.7	.2	.0	9.9	3.5
17	12.9	4.3	6.4	2.4	.9	.0	3.7	2.5	.1	.0	8.3	4.9
18	12.6	4.4	5.6	3.0	.7	.0	5.0	1.4	1.9	.0	9.1	4.8
19	14.4	6.6	5.1	2.8	.2	.0	4.0	2.6	6.0	1.9	10.0	3.5
20	12.9	5.0	4.2	2.0	1.3	.0	2.8	.0	4.9	2.0	8.2	3.7
21	10.7	5.0	4.4	.9	.1	.0	4.6	1.2	2.9	.6	11.6	4.6
22	12.0	5.4	2.4	.0	.3	.0	3.7	.8	2.6	.4	11.6	3.2
23	12.1	5.4	3.5	1.2	.6	.0	2.5	.0	3.2	.4	12.5	3.9
24	11.3	5.1	2.0	.0	.4	.0	.4	.0	3.8	2.0	12.8	4.3
25	11.4	7.1	.0	.0	.2	.0	.6	.0	---	---	12.5	5.5
26	12.4	7.1	.0	.0	.0	.0	.4	.0	5.4	.1	12.2	6.6
27	10.7	5.5	.0	.0	.0	.0	.5	.0	6.9	.0	10.4	4.7
28	9.6	7.3	.0	.0	.0	.0	.3	.0	5.9	.0	6.3	2.0
29	10.7	7.4	.0	.0	.0	.0	.5	.0	---	---	7.1	5.1
30	8.8	7.1	.1	.0	.0	.0	.4	.0	---	---	7.0	5.5
31	7.3	5.2	---	---	.0	.0	.2	.0	---	---	8.9	3.8
MONTH	16.3	3.7	7.7	.0	4.0	.0	5.0	.0	---	---	12.8	.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	9.8	5.0	11.0	6.3	---	---	19.8	10.9	20.4	11.6	16.6	10.7
2	9.6	5.5	10.5	6.0	---	---	20.2	10.6	19.6	11.3	17.8	11.6
3	7.4	3.6	13.0	7.8	---	---	16.2	11.2	19.7	11.4	17.6	9.1
4	9.4	5.0	12.0	7.2	---	---	13.0	8.8	15.5	11.8	15.2	9.8
5	9.4	7.1	10.4	5.6	15.0	9.2	17.8	7.9	16.9	12.0	16.8	11.3
6	7.4	4.4	9.5	5.9	14.9	9.1	18.8	8.6	18.4	12.3	16.1	10.3
7	7.5	4.4	8.4	5.0	11.9	8.3	18.8	8.6	16.8	11.7	17.4	10.4
8	8.8	4.0	13.0	4.9	13.2	6.7	19.0	10.9	16.8	11.8	17.8	9.6
9	9.1	6.1	14.5	8.0	16.3	9.3	18.8	9.4	18.2	11.7	17.9	9.4
10	9.6	7.1	13.9	9.1	17.2	8.4	17.5	9.9	18.5	13.4	17.5	9.7
11	9.3	6.4	13.7	9.4	16.7	10.2	20.1	10.5	18.2	12.2	17.5	9.0
12	9.2	7.1	14.4	8.0	17.5	9.5	18.5	11.1	18.4	12.0	15.6	10.2
13	7.6	4.9	14.9	8.7	18.4	9.4	18.1	11.4	19.3	11.1	13.1	9.4
14	7.9	5.4	15.7	8.1	19.9	9.6	19.6	10.6	17.3	11.6	13.9	5.5
15	8.2	6.3	14.9	7.8	19.1	10.5	19.9	10.0	17.2	11.5	15.0	6.7
16	8.4	7.6	15.5	9.0	18.8	11.0	18.7	9.7	18.3	10.7	14.7	8.5
17	8.5	6.4	---	---	15.0	11.3	19.7	9.9	18.2	11.1	15.7	9.8
18	8.8	8.0	---	---	16.4	9.9	20.6	9.0	18.1	10.3	13.0	9.4
19	8.2	6.2	---	---	19.3	9.0	19.2	9.5	15.5	10.8	13.8	9.0
20	8.7	6.1	---	---	19.7	10.1	20.8	10.5	17.3	11.0	14.9	7.2
21	9.2	7.2	---	---	20.0	11.6	19.4	10.0	17.8	12.8	15.1	7.8
22	9.9	8.2	---	---	19.0	10.4	17.0	9.5	18.7	11.9	15.6	8.4
23	10.7	9.1	---	---	17.3	10.4	16.8	11.2	18.9	11.0	14.7	7.9
24	10.5	7.9	---	---	18.3	7.4	18.6	11.4	19.3	11.4	13.9	6.6
25	11.6	4.9	---	---	19.8	8.5	18.9	10.0	15.9	11.7	13.9	5.9
26	12.2	7.5	---	---	20.4	9.7	19.5	10.0	17.5	12.0	14.1	5.5
27	13.3	8.4	---	---	20.3	10.4	20.5	10.3	15.9	11.1	14.6	6.0
28	12.3	7.6	---	---	19.3	10.4	20.8	9.6	18.1	10.7	14.4	6.8
29	11.5	6.9	---	---	19.8	10.0	20.5	10.7	15.6	10.9	13.9	6.7
30	10.4	8.0	---	---	20.2	9.9	18.9	12.9	17.1	10.4	13.9	7.1
31	---	---	---	---	---	---	20.0	11.8	15.4	11.2	---	---
MONTH	13.3	3.6	---	---	---	---	20.8	7.9	20.4	10.3	17.9	5.5

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 sea level, 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: Nov. 27 to Feb. 24, Mar. 9-11, 16-19, Mar. 29 to Apr. 5, May 17, 19-22, 24, May 31 to June 7, Aug. 6-24, and Sept. 23-28. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	17	24	21	14	21	76	258	170	30	38	44
2	6.4	20	23	21	15	22	80	240	160	29	39	45
3	6.7	20	22	21	14	22	78	218	155	30	40	42
4	7.6	23	22	21	14	22	76	219	150	30	37	41
5	7.7	28	22	21	15	23	75	244	140	30	42	43
6	7.5	32	21	20	15	25	74	232	130	32	45	44
7	7.4	32	21	19	15	32	85	228	120	30	50	37
8	7.6	31	21	19	16	41	89	218	117	30	54	33
9	7.2	32	22	20	16	58	79	196	117	29	56	36
10	7.7	31	22	19	16	56	122	176	102	28	56	37
11	8.1	30	22	18	17	46	105	163	92	30	54	40
12	8.3	29	23	18	18	39	104	172	88	29	52	39
13	8.0	29	23	17	18	32	113	196	82	32	52	37
14	9.3	29	24	17	19	34	119	228	74	29	54	39
15	8.9	27	25	17	19	58	80	257	80	27	52	39
16	8.4	27	24	16	18	70	77	276	71	30	50	36
17	8.3	27	24	16	18	64	91	341	69	27	49	35
18	8.8	24	23	16	19	56	97	378	67	24	48	38
19	8.9	24	23	16	19	45	102	371	65	23	47	41
20	8.8	27	22	16	19	40	121	359	59	23	46	42
21	9.2	26	22	16	20	38	107	354	55	25	47	42
22	9.4	26	23	15	21	39	128	351	66	24	48	39
23	7.6	26	22	15	22	36	193	353	58	23	49	37
24	6.6	30	23	14	23	34	181	319	49	27	49	33
25	8.4	28	23	14	23	34	165	299	40	28	48	32
26	9.7	21	23	14	35	38	173	262	34	27	48	33
27	10	22	22	14	21	62	209	240	33	25	48	30
28	11	22	21	14	21	125	237	224	33	25	45	27
29	11	22	22	14	---	122	238	206	30	27	47	25
30	11	23	22	14	---	105	247	186	30	31	47	23
31	17	---	21	14	---	86	---	180	---	36	45	---
TOTAL	268.7	785	697	527	520	1525	3721	7944	2536	870	1482	1109
MEAN	8.67	26.2	22.5	17.0	18.6	49.2	124	256	84.5	28.1	47.8	37.0
MAX	17	32	25	21	35	125	247	378	170	36	56	45
MIN	6.2	17	21	14	14	21	74	163	30	23	37	23
AC-FT	533	1560	1380	1050	1030	3020	7380	15760	5030	1730	2940	2200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 1993, BY WATER YEAR (WY)

MEAN	28.1	33.7	29.2	26.5	30.5	46.7	58.8	79.5	38.7	28.3	34.6	25.2
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1965 - 1993	
ANNUAL TOTAL	5789.17		21984.7			
ANNUAL MEAN	15.8		60.2		38.4	
HIGHEST ANNUAL MEAN					109	1985
LOWEST ANNUAL MEAN					12.5	1990
HIGHEST DAILY MEAN	62	Jul 16	378	May 18	525	May 28 1983
LOWEST DAILY MEAN	.84	Jun 25	6.2	Oct 1	[a].50	Jul 21 1966
ANNUAL SEVEN-DAY MINIMUM	1.0	Jun 19	7.1	Oct 1	.84	Jul 30 1971
INSTANTANEOUS PEAK FLOW			403	May 18	[b]628	Sep 7 1978
INSTANTANEOUS PEAK STAGE			[c]5.21	May 18	7.04	Sep 7 1978
ANNUAL RUNOFF (AC-FT)	11480		43610		27790	
10 PERCENT EXCEEDS	28		172		79	
50 PERCENT EXCEEDS	18		30		25	
90 PERCENT EXCEEDS	2.8		14		3.8	

a-Also occurred Jul 22, 1966.
b-On basis of slope-area measurement of peak flow.
c-Maximum gage height, 5.43 ft, Feb 16, backwater from ice.

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 1992 TO SEPTEMBER 1993

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										
17...	1515	28	2280	8.2	6.0	10.3	570	72	95	340
MAR										
24...	1650	35	2020	8.2	14.5	9.1	480	67	75	280
MAY										
05...	1650	251	1040	8.3	11.0	8.4	310	59	40	110
SEP										
01...	1430	45	1810	8.3	18.5	9.6	460	59	76	250

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										
17...	6	3.5	715	460	41	0.9	12	1460	1.98	109
MAR										
24...	6	3.3	686	390	39	0.9	16	1290	1.75	121
MAY										
05...	3	3.0	342	230	15	0.5	15	685	0.93	464
SEP										
01...	5	3.0	543	430	30	1.0	17	1200	1.63	144

DATE	NITRO-GEN, NITRATE 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 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)
MAY										
05...	1.19	0.01	1.20	1.20	0.04	0.36	0.40	0.06	0.04	6.9
SEP										
01...	0.53	0.03	0.56	0.56	0.02	0.38	0.40	0.02	0.02	5.8

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											
17...	--	--	310	--	--	--	--	--	--	3000	--
MAR											
24...	--	--	280	--	--	--	--	--	--	2600	--
MAY											
05...	3	100	120	<1	21	14	16	8	1	1200	16
SEP											
01...	3	80	280	<1	9	20	4	6	<1	2300	<3

09306222 PICEANCE CREEK AT WHITE RIVER, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
OCT				
06...	1510	7.41	3490	14.5
DEC				
16...	1040	--	2170	0.0
JAN				
13...	1125	17.0	2750	0.0
FEB				
26...	1140	29.7	2190	0.0
APR				
22...	1445	118	1330	12.0
29...	1620	240	1040	13.0
JUN				
30...	1040	28	2180	14.0
AUG				
04...	1640	36.4	2180	19.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					
17...	1515	28	179	13	91
MAR					
24...	1650	35	847	80	76
MAY					
05...	1650	251	2710	1840	91
SEP					
01...	1430	45	77	9.3	--

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: June 6-16. Records good. No diversions upstream from station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.39	.30	.25	.29	.30	.28	.28	6.2	10	2.1	.96	.92
2	.38	.34	.25	.29	.30	.28	.28	6.5	9.7	2.1	.97	.92
3	.36	.28	.25	.28	.30	.26	.28	6.6	9.2	2.2	.95	.93
4	.36	.26	.25	.28	.30	.25	.30	7.2	8.9	2.5	.97	.96
5	.36	.28	.25	.29	.30	.25	.36	7.4	8.4	2.3	.95	.97
6	.36	.29	.25	.32	.30	.25	.35	7.8	8.0	2.0	.91	1.0
7	.37	.30	.25	.32	.30	.26	.34	8.2	7.8	1.8	.94	1.0
8	.36	.29	.25	.32	.30	.29	.34	8.4	7.5	1.7	1.0	.96
9	.36	.28	.26	.32	.30	.36	.40	8.4	7.2	1.8	1.0	.92
10	.35	.26	.27	.32	.30	.44	.49	8.7	6.8	1.8	.98	.90
11	.36	.24	.27	.32	.30	.38	.57	9.0	6.6	1.6	1.0	.91
12	.35	.24	.28	.32	.30	.32	.67	9.7	6.4	1.6	.97	.94
13	.33	.23	.28	.33	.30	.31	.62	11	5.8	1.5	.96	.98
14	.32	.23	.27	.34	.30	.39	.78	12	5.4	1.4	.96	.98
15	.31	.23	.28	.34	.30	.49	1.2	14	5.0	1.4	.98	.93
16	.31	.24	.28	.34	.30	.51	1.5	15	4.8	1.4	.96	.94
17	.31	.24	.28	.34	.30	.41	1.6	16	4.9	1.3	.95	.92
18	.30	.23	.28	.32	.29	.38	2.0	17	4.7	1.2	.93	.93
19	.31	.23	.26	.32	.31	.30	2.0	18	4.3	1.2	.95	.93
20	.30	.23	.27	.32	.30	.29	2.2	18	3.9	1.2	.95	.92
21	.30	.23	.28	.32	.30	.27	2.4	18	3.5	1.2	.98	.90
22	.30	.23	.28	.32	.30	.26	2.6	17	3.4	1.3	.98	.89
23	.29	.23	.30	.32	.30	.25	2.9	16	3.1	1.3	.94	.90
24	.29	.23	.30	.32	.30	.25	3.3	15	3.2	1.4	.91	.93
25	.30	.24	.30	.32	.30	.25	3.7	14	3.0	1.3	.97	.95
26	.30	.25	.30	.32	.29	.25	4.0	14	2.6	1.2	1.0	.96
27	.30	.25	.30	.32	.28	.26	4.3	13	2.2	1.1	.98	.93
28	.29	.25	.30	.30	.28	.29	4.6	12	2.3	1.1	.98	.92
29	.29	.25	.30	.30	---	.28	5.2	12	2.2	1.1	.97	.93
30	.32	.25	.30	.30	---	.29	5.9	11	2.1	1.0	.96	.94
31	.36	---	.29	.30	---	.28	---	11	---	.95	.94	---
TOTAL	10.19	7.63	8.53	9.76	8.35	9.63	55.46	368.1	162.9	47.05	29.85	28.11
MEAN	.33	.25	.28	.31	.30	.31	1.85	11.9	5.43	1.52	.96	.94
MAX	.39	.34	.30	.34	.31	.51	5.9	18	10	2.5	1.0	1.0
MIN	.29	.23	.25	.28	.28	.25	.28	6.2	2.1	.95	.91	.89
AC-FT	20	15	17	19	17	19	110	730	323	93	59	56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 1993, BY WATER YEAR (WY)

MEAN	1.11	.89	.82	.80	.87	1.25	2.67	7.92	4.82	2.07	1.59	1.37
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	.25	.27	.30	.30	.31	.22	.15	.094	.17	.29	.32
(WY)	1991	1993	1992	1977	1993	1977	1992	1992	1992	1992	1977	1991

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1974 - 1993	
ANNUAL TOTAL	99.04		745.56			
ANNUAL MEAN	.27		2.04		2.26	
HIGHEST ANNUAL MEAN					7.75	1984
LOWEST ANNUAL MEAN					.27	1992
HIGHEST DAILY MEAN	1.9	Aug 17	[a]18	May 19	207	Jun 1 1983
LOWEST DAILY MEAN	[b].09	Jun 3	[c].23	Nov 13	[d].06	Apr 10 1974
ANNUAL SEVEN-DAY MINIMUM	.09	Jun 9	.23	Nov 18	.07	Apr 10 1974
INSTANTANEOUS PEAK FLOW			19	May 20	[e]1780	Aug 18 1984
INSTANTANEOUS PEAK STAGE			[f]2.61	May 20	6.12	Aug 18 1984
ANNUAL RUNOFF (AC-FT)	196		1480		1630	
10 PERCENT EXCEEDS	.38		7.2		4.3	
50 PERCENT EXCEEDS	.28		.38		.89	
90 PERCENT EXCEEDS	.10		.26		.30	

a-Also occurred May 20, 21.
b-Also occurred Jun 4-7, 9-23, 25, and Jul 18-22.
c-Also occurred Nov 14, 15, 18-24.
d-Also occurred Apr 11-14, 1974.
e-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.
f-Also occurred May 19.

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 1992 TO SEPTEMBER 1993

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...	1050	0.23	1600	7.8	8.0	11.5	620	110	84	130
MAR										
25...	0910	0.25	1600	7.8	10.5	8.9	610	110	81	130
MAY										
12...	1515	9.9	1120	8.2	22.5	6.7	440	83	57	76
SEP										
01...	0915	0.99	1480	7.8	11.5	7.5	580	100	79	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)	SOLIDS, DIS-SOLVED (TONS PER DAY)
NOV										
18...	2	1.4	395	420	14	0.3	17	1020	1.38	0.63
MAR										
25...	2	1.4	490	410	14	0.3	22	1070	1.45	0.72
MAY										
12...	2	1.5	318	290	10	0.3	22	743	1.01	19.9
SEP										
01...	2	1.4	437	430	14	0.4	22	1050	1.42	2.79

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, 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)
MAR							
25...	0.02	0.11	0.03	0.30	0.01	<0.01	5.6
MAY							
12...	0.01	2.40	0.03	0.50	<0.01	<0.01	10
SEP							
01...	0.03	0.79	0.02	0.20	--	0.02	5.3

09306242 CORRAL GULCH NEAR RANGELY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 18...	--	--	140	--	--	--	--	--	--	2800	--
MAR 25...	4	61	150	<1	14	21	34	21	<1	2700	6
MAY 12...	7	93	90	<1	6	13	9	37	1	1600	<3
SEP 01...	4	61	130	<1	13	22	12	22	<1	2500	<3

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 07...	0850	0.36	1560	6.0	MAY 27...	1255	14.1	1280	11.0
JAN 12...	1325	0.31	1600	6.5	AUG 04...	1025	1.11	1430	12.5
FEB 23...	1515	0.30	1590	4.0					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 18...	1050	0.23	16	0.01	--
MAR 25...	0910	0.25	45	0.03	--
MAY 12...	1515	9.9	1160	31	95
SEP 01...	0915	0.99	17	0.05	--

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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 10, Dec. 21 to Jan. 3, and Feb. 19-23. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.5	2.6	2.4	2.6	2.6	3.1	4.1	3.6	3.0	2.6	3.1
2	2.1	3.0	2.7	2.4	2.5	2.7	3.1	4.0	3.6	2.9	2.6	3.1
3	2.1	2.9	2.6	2.3	2.4	2.8	3.0	4.1	3.8	3.0	2.7	3.1
4	2.1	2.7	2.7	2.3	2.3	2.8	3.1	4.6	4.1	3.2	2.9	3.1
5	2.1	2.7	2.8	2.4	2.3	2.9	6.5	5.0	3.8	3.3	2.8	3.4
6	2.0	2.7	2.8	2.6	2.3	5.0	6.2	4.4	3.7	3.2	2.5	3.2
7	2.1	2.7	2.9	2.5	2.6	7.9	4.2	5.7	3.7	3.1	2.5	3.2
8	2.0	2.7	2.9	2.5	2.4	15	3.8	5.5	3.8	3.1	2.6	3.4
9	2.1	2.7	2.9	2.5	2.4	25	3.7	4.9	3.7	3.0	2.6	3.4
10	2.2	2.6	3.0	2.5	2.4	44	3.6	4.8	3.6	3.0	3.9	3.4
11	2.3	2.6	3.0	2.5	2.5	39	3.6	4.7	3.6	2.9	4.4	3.2
12	2.7	2.7	3.0	2.4	2.4	8.9	3.6	4.7	3.5	3.0	3.1	3.3
13	2.6	2.8	2.9	2.4	2.4	4.2	4.1	4.9	3.4	3.0	2.9	3.4
14	2.6	2.8	2.5	2.5	2.4	5.3	3.8	5.3	3.4	3.0	2.9	3.3
15	2.6	2.8	3.0	2.5	2.3	22	3.7	5.4	3.3	2.9	3.0	3.4
16	2.4	2.8	2.8	2.5	2.4	20	4.2	9.2	3.2	3.0	2.9	3.5
17	2.4	2.8	2.9	2.5	2.5	10	4.0	8.8	3.2	3.0	2.9	3.6
18	2.3	2.8	2.9	2.5	2.4	9.4	4.3	6.1	3.4	3.0	2.9	3.5
19	2.4	2.8	2.6	2.5	2.5	4.7	3.9	5.2	3.3	3.0	3.0	3.6
20	2.4	3.0	2.5	2.5	2.6	4.1	3.9	5.3	3.3	3.0	3.1	3.6
21	2.4	2.9	2.5	2.5	2.6	3.9	3.9	4.3	3.3	3.0	3.4	3.6
22	2.5	2.7	2.6	2.5	2.5	3.6	3.9	3.9	3.3	3.1	3.4	3.7
23	2.5	3.0	2.5	2.5	2.5	3.5	3.9	3.5	3.3	3.2	3.1	3.7
24	2.5	2.6	2.6	2.4	2.6	2.8	4.0	3.2	3.2	3.3	3.1	3.8
25	2.5	2.6	2.5	2.3	2.6	2.4	4.0	3.5	3.2	3.2	3.1	3.8
26	2.4	2.9	2.4	2.3	2.5	2.5	4.0	3.7	3.1	3.0	3.4	3.7
27	2.3	2.7	2.4	2.3	2.6	2.9	3.9	4.2	3.1	3.0	3.2	3.8
28	2.4	2.7	2.5	2.3	2.5	4.4	3.9	4.1	3.0	2.8	3.2	3.7
29	2.5	2.7	2.6	2.4	---	4.6	4.0	3.8	3.0	2.8	3.2	3.7
30	2.6	2.7	2.5	2.3	---	4.4	4.1	3.8	3.0	2.9	3.3	3.8
31	3.1	---	2.4	2.4	---	3.2	---	3.7	---	2.7	3.2	---
TOTAL	73.3	82.6	83.5	75.4	69.0	276.5	119.0	148.4	102.5	93.6	94.4	104.1
MEAN	2.36	2.75	2.69	2.43	2.46	8.92	3.97	4.79	3.42	3.02	3.05	3.47
MAX	3.1	3.0	3.0	2.6	2.6	44	6.5	9.2	4.1	3.3	4.4	3.8
MIN	2.0	2.5	2.4	2.3	2.3	2.4	3.0	3.2	3.0	2.7	2.5	3.1
AC-FT	145	164	166	150	137	548	236	294	203	186	187	206

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 1993, BY WATER YEAR (WY)

MEAN	1.84	2.22	1.90	1.82	3.70	3.80	2.63	4.38	3.26	2.98	2.02	2.92
MAX	5.30	5.94	4.76	4.63	12.7	8.92	5.24	24.1	19.9	18.5	6.16	17.1
(WY)	1989	1989	1989	1990	1980	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1973 - 1993	
ANNUAL TOTAL	823.0		1322.3			
ANNUAL MEAN	2.25		3.62		2.37	
HIGHEST ANNUAL MEAN					4.80	1989
LOWEST ANNUAL MEAN					1.28	1977
HIGHEST DAILY MEAN	15	Jul 24	44	Mar 10	500	Sep 7 1978
LOWEST DAILY MEAN	[a]1.0	Jul 5	[b]2.0	Oct 6	[c].00	Sep 11 1978
ANNUAL SEVEN-DAY MINIMUM	1.1	Jun 30	2.1	Oct 2	.00	Dec 15 1978
INSTANTANEOUS PEAK FLOW			96	Mar 10	[d]6800	Sep 7 1978
INSTANTANEOUS PEAK STAGE			[e]6.61	Mar 10	12.97	Sep 7 1978
ANNUAL RUNOFF (AC-FT)	1630		2620		1720	
10 PERCENT EXCEEDS	2.9		4.3		4.7	
50 PERCENT EXCEEDS	2.2		3.0		1.9	
90 PERCENT EXCEEDS	1.3		2.4		.72	

a-Also occurred Jul 6.
b-Also occurred Oct 8.
c-Also occurred Sep 12-16, 1978, and Dec 15, 1978 to Jan 14, 1979.
d-On basis of contracted-opening, and flow-over-road measurement of peak flow.
e-Maximum gage height, 8.58 ft, Dec 29, backwater from ice.

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 Sep. 07, 1978; minimum daily, no flow several days during Sept. 1978, many days during 1979.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
17...	1330	2.5	3770	8.3	6.0	10.9	830	52	170	640
MAR										
24...	1015	3.3	3740	8.3	8.0	9.6	870	65	170	650
AUG										
31...	1725	2.9	3010	8.6	17.0	8.3	670	50	130	490
SEP										
29...	1400	3.8	3010	8.6	12.0	11.3	690	58	130	500

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									
17...	10	3.5	1110	900	100	1.3	7.8	2540	3.46
MAR									
24...	10	3.8	1150	930	95	1.2	17	2630	3.58
AUG									
31...	8	2.7	897	660	85	1.5	13	2000	2.71
SEP									
29...	8	2.6	892	710	82	1.3	12	2040	2.77

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									
17...	17.2	--	--	--	--	--	--	--	--
MAR									
24...	23.3	0.03	1.5	0.22	0.58	0.8	0.10	0.07	8.7
AUG									
31...	15.7	0.06	4.7	0.02	0.48	0.5	0.02	0.02	8.3
SEP									
29...	21.0	--	--	--	--	--	--	--	--

09306255 YELLOW CREEK NEAR WHITE RIVER, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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											
17...	--	--	580	--	--	--	--	--	--	4200	--
MAR											
24...	6	200	580	<1	<10	100	80	32	2	5000	<10
AUG											
31...	4	100	500	<1	10	100	<10	29	<1	4100	<10
SEP											
29...	--	--	510	--	--	--	--	--	--	4300	--

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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					APR				
06...	1350	2.1	3830	12.5	23...	1435	3.9	3740	15.5
DEC					MAY				
16...	1135	2.7	3700	0.0	06...	1315	4.6	3890	9.0
JAN					AUG				
12...	1100	2.1	3740	0.0	05...	1200	2.9	3710	15.0
FEB									
24...	1035	2.6	3560	1.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
NOV					AUG				
17...	1330	2.5	166	1.1	31...	1725	2.9	37	0.29
MAR					SEP				
24...	1015	3.3	310	2.7	29...	1400	3.8	37	0.38

09306290 WHITE RIVER BELOW BOISE CREEK, NEAR RANGELY, CO

LOCATION (REVISED).--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 at bridge on County Road 73, 0.5 mi downstream from Boise Creek, and 16.4 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 26 to Mar. 22, and July 11-22.. Records good except for 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	510	330	405	320	350	545	1080	3400	2020	491	519
2	293	484	325	400	320	350	521	997	3470	1900	470	531
3	306	539	320	400	325	350	589	989	3440	1820	456	477
4	299	505	330	400	325	345	537	1090	3350	1770	419	468
5	300	530	330	400	340	340	684	1290	2740	1570	407	444
6	302	539	335	400	360	345	1210	1300	2470	1360	400	453
7	336	562	340	395	380	365	842	1160	2570	1220	405	448
8	377	560	335	390	375	400	667	1170	2530	1110	416	444
9	383	569	330	380	370	440	596	1040	2210	1000	443	448
10	378	567	330	360	360	470	572	995	1910	950	472	436
11	373	556	335	350	350	460	570	975	1810	940	568	447
12	370	405	335	335	345	450	559	1130	1960	900	565	437
13	370	412	330	320	340	380	595	1380	2300	860	553	423
14	368	434	325	310	335	450	603	1730	2560	830	513	450
15	367	410	330	320	340	520	553	2020	2630	800	521	461
16	363	404	335	335	345	515	579	2340	2940	760	496	452
17	359	443	330	340	340	580	664	2560	3230	710	480	460
18	359	464	335	350	345	620	633	2870	3320	670	496	478
19	356	428	340	360	350	590	652	2940	3040	640	470	487
20	355	431	340	365	345	530	632	3110	2670	610	492	503
21	355	502	350	360	340	525	583	3400	2680	600	541	489
22	355	393	350	355	350	540	576	3690	2750	600	509	472
23	355	393	355	350	355	533	637	3770	2790	578	477	459
24	355	419	370	345	360	548	731	3490	2700	665	440	450
25	356	355	370	335	355	541	768	3200	2420	698	428	468
26	386	350	390	335	350	560	740	3340	2230	606	427	461
27	406	340	400	340	345	616	794	3520	2200	540	469	459
28	395	335	400	340	350	882	934	3590	2220	519	482	448
29	410	330	405	335	---	1100	1020	3590	2190	493	458	428
30	405	325	410	330	---	839	1070	3450	2130	482	482	413
31	463	---	410	325	---	652	---	3340	---	485	483	---
TOTAL	11144	13494	10850	11065	9715	16186	20656	70546	78860	28706	14729	13813
MEAN	359	450	350	357	347	522	689	2276	2629	926	475	460
MAX	463	569	410	405	380	1100	1210	3770	3470	2020	568	531
MIN	289	325	320	310	320	340	521	975	1810	482	400	413
AC-FT	22100	26770	21520	21950	19270	32100	40970	139900	156400	56940	29210	27400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 1993, BY WATER YEAR (WY)

MEAN	549	531	459	404	401	559	848	1913	2196	963	559	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	359	362	301	260	268	355	440	566	717	359	202	237
(WY)	1993	1991	1991	1991	1991	1991	1990	1990	1992	1989	1990	1990

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1983 - 1993	
ANNUAL TOTAL	182416		299764			
ANNUAL MEAN	498		821		821	
HIGHEST ANNUAL MEAN					1345	1984
LOWEST ANNUAL MEAN					428	1990
HIGHEST DAILY MEAN	1650	May 10	3770	May 23	6170	May 26 1984
LOWEST DAILY MEAN	216	Sep 16	289	Oct 1	126	Sep 7 1989
ANNUAL SEVEN-DAY MINIMUM	226	Sep 10	304	Oct 1	157	Aug 11 1990
INSTANTANEOUS PEAK FLOW			4160	May 22	6440	Jun 7 1984
INSTANTANEOUS PEAK STAGE			6.74	May 22	8.45	Jun 7 1984
ANNUAL RUNOFF (AC-FT)	361800		594600		595100	
10 PERCENT EXCEEDS	900		2320		1700	
50 PERCENT EXCEEDS	377		464		535	
90 PERCENT EXCEEDS	280		335		325	

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 1992 TO SEPTEMBER 1993

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										
17...	1045	395	756	8.3	3.0	11.2	290	73	27	45
MAR										
24...	1315	588	940	--	10.5	9.3	330	76	35	75
JUN										
29...	1530	2160	344	8.3	17.5	8.2	160	43	12	14
AUG										
31...	1445	499	740	8.3	19.0	9.7	300	71	30	46

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										
17...	1	1.5	197	180	12	0.2	11	468	0.64	499
MAR										
24...	2	2.6	216	270	17	0.2	14	620	0.84	985
JUN										
29...	0.5	1.0	124	57	3.3	0.1	12	218	0.30	1270
AUG										
31...	1	1.8	195	180	10	0.4	14	471	0.64	635

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N)	PHOS-PHORUS DIS-SOLVED (MG/L AS P)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P)	CARBON, ORGANIC TOTAL (MG/L AS C)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C)	CYANIDE TOTAL (MG/L AS CN)
NOV										
17...	<0.01	<0.05	0.02	--	<0.2	0.02	0.02	--	2.2	--
MAR										
24...	0.01	0.18	0.06	0.74	0.8	0.03	<0.01	--	4.3	--
JUN										
29...	<0.01	0.06	0.03	--	<0.2	<0.01	0.02	4.3	3.8	<0.01
AUG										
31...	0.02	<0.05	0.02	0.28	0.3	0.02	<0.01	3.7	3.6	<0.01

DATE	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL)	ALUM-INUM, DIS-SOLVED (UG/L AS AL)	ANTI-MONY, TOTAL (UG/L AS SB)	ANTI-MONY, DIS-SOLVED (UG/L AS SB)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS-SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA)	BARIUM, DIS-SOLVED (UG/L AS BA)	BERYL-LIUM, TOTAL RECOV-ERABLE (UG/L AS BE)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE)
JUN										
29...	1200	30	<1	<1	<1	<1	<100	40	<10	<0.5
AUG										
31...	250	<10	<1	<1	1	1	<100	51	<10	<0.5

09306290 WHITE RIVER BELOW BOISE CREEK NEAR RANGELY, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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)
NOV 17...	50	--	--	--	--	--	--	--	--	--
MAR 24...	70	--	--	--	--	--	--	--	--	--
JUN 29...	30	<1	<1	1	<1	<1	<1	2	<1	1700
AUG 31...	70	<1	<1	<1	<1	<1	<1	2	<1	270

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)
NOV 17...	5	--	--	--	--	--	--	--	--	--
MAR 24...	170	--	--	--	--	--	--	--	--	--
JUN 29...	31	2	<1	20	60	5	<0.1	<0.1	<1	1
AUG 31...	21	<1	<1	20	20	4	<0.1	<0.1	1	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 29...	3	<1	<1	<1	<1	<1	370	350	20	5
AUG 31...	1	<1	1	1	<1	<1	860	860	<10	6

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
OCT 06...	1215	291	761	12.0
MAY 06...	1145	1337	600	8.0
28...	1310	3520	328	11.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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 06...	1215	291	50	39	--
NOV 17...	1045	395	58	62	--
MAR 24...	1315	588	540	857	96
MAY 06...	1145	1340	1090	3930	63
28...	1310	3520	739	7020	61
JUN 29...	1530	2160	200	1170	51
AUG 31...	1445	499	36	49	--

09339900 EAST FORK SAN JUAN RIVER ABOVE SAND CREEK, NEAR PAGOSA SPRINGS, CO

LOCATION.--Lat 37°23'23", long 106°50'26", in NE¼ 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 mi².

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1959, published as San Juan River above Sand Creek, near Pagosa Springs.

REVISED RECORDS.--WSP 1713: 1957.

GAGE.--Water-stage recorder. Elevation of gage is 7,940 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 13, Nov. 25 to Dec. 2, Dec. 7, and Dec. 10 to Mar. 24. Records good except for estimated daily discharges, which are poor. Diversions upstream from station for irrigation of about 500 acres of hay meadows upstream from station. Several 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	24	13	11	12	11	44	271	691	316	56	215
2	30	21	14	10	11	10	46	215	680	291	53	167
3	29	19	15	9.5	11	10	45	190	627	278	49	131
4	28	19	13	9.0	11	11	46	217	547	254	47	106
5	27	18	13	10	9.5	12	53	234	521	215	53	92
6	26	19	12	10	9.0	13	54	203	515	202	47	88
7	25	18	10	11	10	14	49	181	510	190	45	89
8	24	19	11	11	12	17	46	163	446	184	43	80
9	23	19	13	10	12	20	51	148	381	171	42	67
10	23	19	11	9.5	12	23	62	150	341	158	59	61
11	23	19	10	8.5	12	27	73	201	369	150	46	56
12	22	18	10	8.5	11	23	81	288	453	150	42	52
13	21	18	8.0	10	10	20	79	422	514	143	48	72
14	21	18	8.5	10	10	20	74	508	588	131	84	68
15	21	19	9.0	11	11	20	72	525	641	120	57	60
16	21	19	9.5	11	10	22	75	559	675	113	48	55
17	21	19	10	11	9.5	26	77	563	627	101	44	52
18	20	19	10	11	10	30	86	516	532	92	41	50
19	20	18	10	11	11	33	85	539	496	82	45	47
20	19	19	10	10	12	35	90	565	495	76	55	44
21	20	18	9.5	9.5	12	40	109	654	475	74	54	42
22	20	18	10	9.0	11	42	154	703	520	68	62	40
23	19	18	10	9.0	11	55	183	598	492	65	54	38
24	19	18	10	9.0	11	60	181	561	451	61	47	37
25	21	13	9.5	8.5	11	71	151	550	426	58	42	36
26	21	10	9.5	10	11	80	166	777	405	57	42	35
27	20	10	9.5	10	11	71	217	1180	376	54	91	34
28	20	13	9.5	11	11	60	283	829	355	52	504	33
29	23	16	10	11	---	52	341	622	370	54	368	32
30	21	13	10	12	---	47	331	620	360	66	312	30
31	31	---	11	12	---	44	---	626	---	61	270	---
TOTAL	711	528	328.5	314.0	305.0	1019	3404	14378	14879	4087	2850	2009
MEAN	22.9	17.6	10.6	10.1	10.9	32.9	113	464	496	132	91.9	67.0
MAX	32	24	15	12	12	80	341	1180	691	316	504	215
MIN	19	10	8.0	8.5	9.0	10	44	148	341	52	41	30
AC-FT	1410	1050	652	623	605	2020	6750	28520	29510	8110	5650	3980

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 1993, BY WATER YEAR (WY)

MEAN	35.2	22.5	14.1	11.9	12.6	25.4	106	300	338	116	54.5	43.7
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1957 - 1993	
ANNUAL TOTAL	31828.0		44812.5			
ANNUAL MEAN	87.0		123		90.2	
HIGHEST ANNUAL MEAN					155	1985
LOWEST ANNUAL MEAN					31.5	1977
HIGHEST DAILY MEAN	455	May 21	1180	May 27	1180	May 27 1993
LOWEST DAILY MEAN	7.0	Feb 18	8.0	Dec 13	3.4	Dec 26 1958
ANNUAL SEVEN-DAY MINIMUM	8.6	Feb 14	9.3	Dec 11	3.7	Dec 13 1958
INSTANTANEOUS PEAK FLOW			1290	May 27	[a]2260	Sep 14 1970
INSTANTANEOUS PEAK STAGE			5.60	May 27	6.75	Sep 14 1970
ANNUAL RUNOFF (AC-FT)	63130		88890		65330	
10 PERCENT EXCEEDS	297		482		272	
50 PERCENT EXCEEDS	32		42		29	
90 PERCENT EXCEEDS	9.5		10		9.8	

a-From rating curve extended above 460 ft³/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 sea level. 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: Dec. 9, 12, 13, 15, 16, 18, 19, Dec. 29 to Jan. 3, Jan. 6-8, 10, 11, 14-16, 21, and 23. Records good except for periods June 11 to July 9 and Aug. 24-30 , which are fair, and 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	109	57	60	69	71	343	1390	3070	1360	170	1020
2	115	96	70	60	69	62	391	1080	2920	1210	159	824
3	112	88	78	55	63	62	361	957	2580	1140	140	642
4	108	74	66	46	67	68	397	1040	2110	1050	125	538
5	102	87	65	53	54	72	488	1150	1910	879	152	468
6	98	76	64	55	53	86	565	988	1820	818	131	436
7	93	78	43	60	60	96	395	897	1710	768	114	441
8	86	81	63	60	70	116	355	814	1390	733	116	430
9	90	83	60	57	71	149	404	727	1160	691	114	350
10	85	78	60	55	74	177	529	741	1050	632	196	314
11	83	85	58	50	72	167	635	982	1190	599	142	292
12	82	74	55	46	68	140	661	1390	1590	589	99	270
13	79	78	50	49	59	128	570	1940	2070	577	116	342
14	79	86	40	55	56	128	519	2220	2460	486	369	369
15	79	94	46	60	68	136	489	2320	2760	435	272	302
16	74	97	48	60	60	179	510	2360	2910	411	189	275
17	74	93	50	62	57	211	513	2510	2690	380	157	264
18	72	90	50	61	57	218	596	2260	2210	340	161	242
19	70	87	50	62	64	258	543	2300	2000	301	205	217
20	69	92	51	61	86	298	572	2350	2070	279	229	204
21	68	82	46	55	79	349	692	2540	2120	267	224	179
22	70	82	52	53	69	428	905	2680	2130	241	310	170
23	73	86	51	52	72	475	1060	2410	2100	219	271	162
24	71	59	53	51	73	551	1030	2350	1990	207	249	151
25	78	61	52	49	71	660	854	2340	1770	192	197	140
26	87	49	49	55	71	779	942	2930	1710	184	179	134
27	78	48	49	60	69	803	1160	3980	1660	170	334	129
28	73	57	48	62	71	522	1350	3540	1600	162	2600	124
29	94	79	50	66	---	368	1570	2910	1640	157	2640	120
30	90	60	55	69	---	328	1580	2740	1610	192	1720	114
31	146	---	60	68	---	318	---	2900	---	183	1310	---
TOTAL	2698	2389	1689	1767	1872	8403	20979	61736	60000	15852	13390	9663
MEAN	87.0	79.6	54.5	57.0	66.9	271	699	1991	2000	511	432	322
MAX	146	109	78	69	86	803	1580	3980	3070	1360	2640	1020
MIN	68	48	40	46	53	62	343	727	1050	157	99	114
AC-FT	5350	4740	3350	3500	3710	16670	41610	122500	119000	31440	26560	19170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1936 - 1993, BY WATER YEAR (WY)

MEAN	146	92.2	63.6	55.3	61.1	140	569	1290	1350	394	177	148
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1936 - 1993	
ANNUAL TOTAL	143550		200438			
ANNUAL MEAN	392		549		374	
HIGHEST ANNUAL MEAN					730	1941
LOWEST ANNUAL MEAN					115	1977
HIGHEST DAILY MEAN	2330	May 21	3980	May 27	4640	May 13 1941
LOWEST DAILY MEAN	[a]40	Feb 18	40	Dec 14	[b]9.7	Sep 20 1956
ANNUAL SEVEN-DAY MINIMUM	48	Dec 13	48	Dec 13	12	Sep 19 1956
INSTANTANEOUS PEAK FLOW			4280	May 27	25000	Oct 5 1911
INSTANTANEOUS PEAK STAGE			6.95	May 27	[c]17.80	Oct 5 1911
ANNUAL RUNOFF (AC-FT)	284700		397600		271100	
10 PERCENT EXCEEDS	1350		1960		1160	
50 PERCENT EXCEEDS	134		157		108	
90 PERCENT EXCEEDS	55		55		43	

a-Also occurred Dec 14.
b-Also occurred Oct 6, 1956.
c-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 mi².

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

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,858.04 ft above sea level, (levels by U. S. Bureau of Reclamation).

REMARKS.--Estimated daily discharges: Nov. 1 to Dec. 17, Dec. 19-21, 28-31, Jan. 12-14, 22, 24-31, Feb. 2, 5-7, 12-14, 18, 22, 23, Mar. 2-5, 13, 14, and Aug. 27 to Sept. 7. Records good except for estimated daily discharges, which are poor. Flows controlled by diversion dam upstream.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	26	18	23	19	16	56	58	485	309	59	70
2	17	24	18	17	18	16	60	55	412	286	59	50
3	16	22	16	15	16	16	56	56	226	277	55	40
4	16	18	18	17	17	16	62	58	66	226	47	50
5	16	20	18	16	14	16	76	58	67	189	46	50
6	16	20	18	18	16	18	74	55	72	198	44	50
7	16	20	14	18	16	21	62	54	79	226	39	60
8	16	20	16	17	18	28	61	53	81	216	37	69
9	16	22	18	17	18	34	72	52	71	196	37	59
10	16	22	18	18	18	35	94	54	69	184	116	54
11	15	22	18	16	17	30	102	61	69	180	47	49
12	15	20	18	14	16	26	96	111	89	183	43	45
13	15	20	16	10	16	24	97	255	174	173	50	138
14	14	20	12	14	16	22	95	123	253	154	167	120
15	14	22	14	18	17	25	94	260	241	151	61	88
16	14	24	14	15	16	30	99	430	302	140	47	72
17	14	26	14	15	17	35	104	323	284	125	42	63
18	14	24	15	15	16	35	116	173	179	113	39	57
19	14	24	14	15	19	38	108	148	181	89	47	52
20	14	24	12	15	22	48	123	190	193	85	101	48
21	14	22	14	14	19	62	164	340	178	84	80	44
22	16	20	16	14	16	82	212	356	211	77	83	40
23	15	20	16	14	16	95	163	254	230	73	55	39
24	15	18	17	12	18	110	83	213	226	66	46	37
25	16	18	16	12	17	132	56	260	217	58	41	35
26	16	16	16	12	17	126	125	664	261	60	40	33
27	14	18	16	14	16	109	156	1130	282	55	120	32
28	16	18	18	16	16	97	58	565	320	53	700	31
29	22	18	22	16	---	71	61	367	401	58	200	30
30	20	18	20	16	---	60	61	387	371	89	100	29
31	32	---	20	16	---	54	---	437	---	68	80	---
TOTAL	499	626	510	479	477	1527	2846	7600	6290	4441	2728	1634
MEAN	16.1	20.9	16.5	15.5	17.0	49.3	94.9	245	210	143	88.0	54.5
MAX	32	26	22	23	22	132	212	1130	485	309	700	138
MIN	14	16	12	10	14	16	56	52	66	53	37	29
AC-FT	990	1240	1010	950	946	3030	5650	15070	12480	8810	5410	3240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	40.5	30.7	20.0	16.6	18.2	36.3	50.0	115	123	62.7	37.2	38.2
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	16.1	13.5	8.52	7.58	10.0	17.5	20.4	40.5	18.9	19.7	15.0	15.8
(WY)	1993	1990	1990	1990	1990	1981	1974	1990	1977	1972	1972	1974

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	20194		29657			
ANNUAL MEAN	55.2		81.3		50.1	
HIGHEST ANNUAL MEAN					135	1985
LOWEST ANNUAL MEAN					19.5	1977
HIGHEST DAILY MEAN	755	Aug 24	1130	May 27	1330	Jun 8 1985
LOWEST DAILY MEAN	[a]12	Dec 14	10	Jan 13	1.0	Jan 28 1981
ANNUAL SEVEN-DAY MINIMUM	14	Dec 14	13	Jan 21	6.8	Dec 31 1989
INSTANTANEOUS PEAK FLOW			Not determined		3130	Aug 24 1992
INSTANTANEOUS PEAK STAGE			Not determined		5.14	Aug 24 1992
ANNUAL RUNOFF (AC-FT)	40050		58820		36330	
10 PERCENT EXCEEDS	138		214		103	
50 PERCENT EXCEEDS	26		40		22	
90 PERCENT EXCEEDS	15		15		14	

a-Also occurred Dec 20.

09344000 NAVAJO RIVER AT BANDED PEAK RANCH, NEAR CHROMO, CO

LOCATION.--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 mi².

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 sea level, (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. 26, Dec. 14-28, Jan. 4, 5, 12-14, 24-26, 28, Feb. 3, 5-7, May 17, 28, 30, and 31. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	39	32	34	32	31	67	296	744	471	73	199
2	31	38	33	34	31	32	70	255	721	433	75	161
3	31	37	34	33	30	32	68	255	648	427	65	135
4	31	35	34	32	31	31	76	269	512	388	61	115
5	33	36	35	30	30	31	89	273	470	330	63	107
6	36	35	34	31	30	32	90	241	450	303	60	99
7	36	35	34	32	30	33	77	223	432	290	64	98
8	35	36	34	40	31	36	73	206	343	284	69	89
9	35	37	34	34	32	38	83	193	299	266	69	78
10	35	38	34	32	31	40	105	204	289	237	86	74
11	34	39	34	30	31	38	121	255	324	222	68	71
12	33	37	34	30	31	37	131	314	412	212	63	69
13	33	38	34	30	31	36	133	397	546	204	81	99
14	33	39	30	30	31	36	130	451	636	186	142	105
15	32	40	30	30	32	37	128	473	705	168	97	93
16	32	41	32	32	34	39	128	555	741	158	76	85
17	31	41	32	32	33	42	134	580	698	143	67	81
18	31	40	32	32	32	43	143	497	589	129	63	76
19	32	40	34	32	35	45	138	509	530	111	64	73
20	32	40	32	31	35	50	152	537	534	101	122	69
21	32	38	28	31	35	56	176	564	520	100	92	64
22	32	37	30	31	32	70	214	591	555	93	99	60
23	31	38	30	31	31	85	238	571	575	86	77	62
24	31	35	30	26	32	100	215	578	560	83	68	61
25	32	35	30	24	32	118	194	611	512	84	64	58
26	32	32	30	22	31	123	220	763	514	82	62	56
27	31	32	30	24	33	113	261	829	509	75	199	55
28	33	31	32	24	32	92	314	720	522	74	821	53
29	36	32	35	29	---	78	356	672	570	73	440	50
30	35	32	34	31	---	70	346	700	547	74	293	46
31	45	---	34	31	---	66	---	730	---	76	247	---
TOTAL	1029	1103	1005	945	891	1710	4670	14312	16007	5963	3990	2541
MEAN	33.2	36.8	32.4	30.5	31.8	55.2	156	462	534	192	129	84.7
MAX	45	41	35	40	35	123	356	829	744	471	821	199
MIN	31	31	28	22	30	31	67	193	289	73	60	46
AC-FT	2040	2190	1990	1870	1770	3390	9260	28390	31750	11830	7910	5040

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1937 - 1993, BY WATER YEAR (WY)

MEAN	50.1	37.6	30.6	28.1	29.2	42.8	138	329	373	136	69.4	53.2
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1937 - 1993	
ANNUAL TOTAL	40741		54166			
ANNUAL MEAN	111		148		110	
HIGHEST ANNUAL MEAN					195	1941
LOWEST ANNUAL MEAN					44.8	1977
HIGHEST DAILY MEAN	684	May 21	829	May 27	1180	May 13 1941
LOWEST DAILY MEAN	24	Jan 3	22	Jan 26	[a]8.4	Sep 29 1960
ANNUAL SEVEN-DAY MINIMUM	26	Jan 16	26	Jan 23	12	Feb 5 1949
INSTANTANEOUS PEAK FLOW			1090	Aug 28	[b]1480	Jun 9 1980
INSTANTANEOUS PEAK STAGE			3.80	Aug 28	[c]4.55	Jun 9 1980
ANNUAL RUNOFF (AC-FT)	80810		107400		79660	
10 PERCENT EXCEEDS	311		510		302	
50 PERCENT EXCEEDS	41		62		44	
90 PERCENT EXCEEDS	30		31		24	

a-Result of temporary blockage by channel alteration upstream.
b-From rating curve extended above 840 ft³/s, on basis of float-area measurement at gage height, 4.44 ft.
c-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 NE1/4 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 sea level, (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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	48	36	38	36	39	115	100	286	468	59	81
2	36	47	36	37	35	38	127	94	262	437	59	78
3	36	42	34	35	33	39	127	94	194	381	59	74
4	37	36	37	34	35	40	139	96	107	338	65	70
5	39	40	38	34	31	40	163	96	99	265	75	71
6	42	38	38	36	32	41	164	94	99	242	71	75
7	41	40	32	39	34	44	135	94	98	245	73	95
8	40	41	34	35	36	48	131	93	95	247	76	103
9	41	43	37	37	37	54	154	92	94	229	77	90
10	40	44	36	37	36	57	195	93	96	200	91	85
11	39	45	36	34	35	57	228	102	97	188	76	84
12	39	42	37	31	35	56	242	109	115	177	71	82
13	38	42	36	30	34	51	223	132	177	173	80	89
14	37	43	31	32	35	53	205	147	183	167	120	95
15	37	46	35	34	37	54	195	152	236	155	83	99
16	37	48	34	34	33	62	198	198	312	148	75	93
17	37	47	34	35	34	73	208	279	342	135	75	87
18	33	47	34	34	34	75	227	154	248	124	72	83
19	26	46	38	35	41	88	216	212	216	111	74	80
20	26	47	36	33	44	102	226	222	231	78	128	77
21	29	43	32	33	35	117	273	224	214	65	96	73
22	37	42	34	33	36	140	359	238	246	63	115	68
23	35	42	34	33	36	160	260	156	290	62	88	66
24	34	38	34	29	38	181	122	171	309	63	77	68
25	36	36	34	30	39	216	99	199	294	62	71	66
26	36	32	33	30	38	220	119	413	344	69	69	64
27	36	34	32	32	40	207	166	623	370	74	158	62
28	38	36	36	34	40	151	181	462	423	63	840	60
29	44	37	44	35	---	125	159	244	536	62	158	57
30	42	36	42	34	---	113	127	225	537	60	95	51
31	55	---	39	34	---	109	---	235	---	63	88	---
TOTAL	1162	1248	1103	1051	1009	2850	5483	5843	7150	5214	3414	2326
MEAN	37.5	41.6	35.6	33.9	36.0	91.9	183	188	238	168	110	77.5
MAX	55	48	44	39	44	220	359	623	537	468	840	103
MIN	26	32	31	29	31	38	99	92	94	60	59	51
AC-FT	2300	2480	2190	2080	2000	5650	10880	11590	14180	10340	6770	4610

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	54.6	47.1	38.9	35.4	36.6	57.8	58.0	136	145	84.6	64.7	59.6
MAX	161	132	71.9	51.3	52.7	135	183	271	720	219	124	146
(WY)	1987	1987	1987	1985	1986	1989	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	26697		37853			
ANNUAL MEAN	72.9		104		69.0	
HIGHEST ANNUAL MEAN					158	1985
LOWEST ANNUAL MEAN					41.5	1977
HIGHEST DAILY MEAN	554	Aug 24	840	Aug 28	1160	Jun 9 1985
LOWEST DAILY MEAN	[a]26	Jan 10	[b]26	Oct 19	[c]10	Oct 10 1980
ANNUAL SEVEN-DAY MINIMUM	28	Jan 10	31	Oct 18	13	Oct 7 1980
INSTANTANEOUS PEAK FLOW			1210	Aug 28	1330	May 24 1984
INSTANTANEOUS PEAK STAGE			4.93	Aug 28	[d]4.92	May 24 1984
ANNUAL RUNOFF (AC-FT)	52950		75080		49970	
10 PERCENT EXCEEDS	174		230		119	
50 PERCENT EXCEEDS	42		64		48	
90 PERCENT EXCEEDS	33		34		30	

a-Also occurred Oct 19 and 20.
b-Also occurred Oct 20.
c-Also occurred Oct 11, 1981.
d-Maximum gage height, 4.93 ft, Aug 28, 1993.

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 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 7,756.10 ft above sea level, (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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.3	2.5	2.1	3.0	2.9	19	25	28	27	3.0	3.3
2	2.8	2.7	2.5	2.1	3.2	2.8	20	26	28	25	3.0	3.4
3	2.6	2.6	2.6	2.1	3.2	2.9	19	29	28	24	3.0	3.3
4	2.5	2.0	2.6	2.1	3.3	2.9	21	29	28	22	3.0	3.2
5	2.5	2.8	2.8	2.1	3.3	2.9	27	29	28	20	3.1	3.1
6	2.5	2.4	2.8	2.1	3.3	3.0	29	30	28	17	3.3	3.0
7	2.4	2.6	2.6	2.2	3.2	3.6	22	30	28	16	3.5	2.8
8	2.5	2.8	2.8	2.4	3.2	4.6	21	29	28	15	3.7	3.3
9	2.6	2.9	2.6	2.2	3.2	5.6	29	30	28	14	3.9	3.7
10	2.6	2.9	2.6	2.6	3.0	6.1	43	30	28	13	3.3	3.8
11	2.6	3.0	2.6	2.6	2.9	5.8	56	30	28	12	3.1	3.9
12	2.6	2.6	2.6	2.5	2.8	4.9	59	28	28	11	3.7	3.6
13	2.5	2.8	2.8	2.5	2.6	4.8	57	28	28	11	3.5	3.8
14	2.5	3.0	2.5	2.5	2.6	4.6	60	25	28	10	3.8	3.6
15	2.5	3.2	2.6	2.5	2.6	4.9	54	25	28	9.4	3.4	3.2
16	2.5	3.5	2.5	2.4	2.6	7.2	57	23	28	8.8	3.7	3.2
17	2.5	3.2	2.5	2.4	2.6	8.8	57	23	28	8.2	3.6	4.1
18	2.5	3.2	2.5	2.4	2.6	8.6	64	39	28	7.8	3.9	4.1
19	2.4	3.0	2.6	2.4	2.8	11	63	28	28	7.2	3.1	3.9
20	2.2	2.8	2.5	2.4	3.2	15	65	28	27	7.0	3.4	3.9
21	2.2	3.0	2.5	2.4	3.0	17	69	28	28	6.8	3.8	3.6
22	2.5	2.9	2.5	2.4	2.9	21	70	28	27	6.3	3.7	3.8
23	2.5	2.8	2.5	2.4	2.8	25	51	28	27	5.4	3.2	4.3
24	2.4	2.5	2.5	2.2	2.9	30	29	28	27	4.9	3.4	4.4
25	2.5	2.6	2.5	2.2	2.9	36	30	27	27	4.9	3.1	4.6
26	2.5	2.5	2.5	2.2	2.8	41	30	28	27	3.2	3.9	4.6
27	2.6	2.5	2.5	2.2	2.8	38	26	28	28	2.4	3.6	4.6
28	2.8	2.5	2.5	2.2	3.0	22	26	27	28	2.6	3.8	4.6
29	3.5	2.6	2.8	2.2	---	18	26	28	28	2.0	3.5	4.6
30	3.2	2.5	2.8	2.2	---	16	25	28	28	2.0	3.7	4.6
31	3.9	---	2.8	2.2	---	16	---	28	---	3.0	3.3	---
TOTAL	81.2	83.7	80.5	71.4	82.3	392.9	1224	870	834	328.9	107.0	113.9
MEAN	2.62	2.79	2.60	2.30	2.94	12.7	40.8	28.1	27.8	10.6	3.45	3.80
MAX	3.9	3.5	2.8	2.6	3.3	41	70	39	28	27	3.9	4.6
MIN	2.2	2.0	2.5	2.1	2.6	2.8	19	23	27	2.0	3.0	2.8
AC-FT	161	166	160	142	163	779	2430	1730	1650	652	212	226

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	6.85	5.37	2.84	2.50	2.58	8.50	14.2	24.9	19.0	7.46	4.09	4.03
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	2707.0		4269.8			
ANNUAL MEAN	7.40		11.7		8.59	
HIGHEST ANNUAL MEAN					18.6	1987
LOWEST ANNUAL MEAN					2.34	1977
HIGHEST DAILY MEAN	42	Jun 10	70	Apr 22	202	May 18 1973
LOWEST DAILY MEAN	[a]2.0	Jan 21	[b]2.0	Nov 4	[c].00	Apr 14 1974
ANNUAL SEVEN-DAY MINIMUM	2.0	Jan 21	2.1	Jan 1	.02	Jul 21 1984
INSTANTANEOUS PEAK FLOW			[d]70	Apr 22	[e]235	May 30 1979
ANNUAL RUNOFF (AC-FT)	5370		8470		6230	
10 PERCENT EXCEEDS	25		28		27	
50 PERCENT EXCEEDS	3.9		3.4		3.6	
90 PERCENT EXCEEDS	2.2		2.5		1.4	

a-Also occurred Jan 22-28.
b-Also occurred Jul 29, and 30.
c-Also occurred Oct 21, 1988.
d-Maximum daily discharge.
e-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 mi^2.

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, October 1969 to September 1974. Sediment data available October 1970 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 sea level, (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. 25-27, Dec. 4-6, and Dec. 9 to Feb. 28. Records good except flows over 425 ft^3/s, which are fair, and 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. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	52	38	37	45	61	245	196	283	457	54	108
2	38	51	44	36	45	58	283	169	277	426	53	100
3	38	46	47	34	42	57	280	162	222	371	52	91
4	40	43	44	30	43	58	303	159	131	352	56	85
5	39	42	42	33	38	57	347	165	105	275	66	83
6	45	40	40	35	35	58	370	162	107	249	66	87
7	46	43	34	36	40	61	265	162	117	242	65	100
8	45	43	33	36	46	70	242	156	110	252	70	117
9	43	44	36	36	50	81	279	153	108	242	73	100
10	42	46	36	34	52	90	368	150	110	210	83	98
11	43	49	36	32	50	91	429	156	110	189	67	93
12	46	46	34	29	47	87	430	165	103	180	60	91
13	45	45	32	31	42	79	387	180	184	174	68	100
14	44	46	26	33	41	77	350	206	195	174	112	117
15	43	47	28	36	48	83	317	195	213	153	88	117
16	43	49	30	37	45	112	324	247	302	147	72	105
17	43	48	30	38	43	149	328	441	359	132	70	98
18	42	48	31	38	44	165	379	246	271	120	67	91
19	35	49	31	38	52	194	345	279	232	108	70	87
20	39	50	31	37	70	230	344	280	252	85	137	83
21	38	48	30	35	68	262	389	277	231	70	106	79
22	44	46	31	33	60	307	494	296	252	68	131	72
23	44	46	32	32	62	335	429	212	303	67	98	68
24	42	42	32	31	62	389	239	204	324	63	83	72
25	42	36	32	31	62	489	187	220	312	61	77	72
26	42	32	31	32	62	511	201	391	351	66	73	70
27	42	32	31	33	60	479	251	583	365	62	147	68
28	42	40	31	35	60	284	273	448	404	57	1150	68
29	49	47	31	38	---	222	258	280	488	55	295	63
30	48	38	34	40	---	210	233	266	531	52	148	60
31	55	---	36	44	---	224	---	256	---	55	129	---
TOTAL	1332	1334	1054	1080	1414	5630	9569	7462	7352	5214	3886	2643
MEAN	43.0	44.5	34.0	34.8	50.5	182	319	241	245	168	125	88.1
MAX	55	52	47	44	70	511	494	583	531	457	1150	117
MIN	35	32	26	29	35	57	187	150	103	52	52	60
AC-FT	2640	2650	2090	2140	2800	11170	18980	14800	14580	10340	7710	5240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	64.5	54.8	40.7	35.9	40.8	93.3	132	177	154	89.3	70.4	65.2
MAX	204	179	81.7	59.5	71.5	214	319	419	648	222	139	165
(WY)	1987	1987	1987	1985	1986	1985	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	32097		47970			
ANNUAL MEAN	87.7		131		[a]85.0	
HIGHEST ANNUAL MEAN					184	1985
LOWEST ANNUAL MEAN					39.4	1977
HIGHEST DAILY MEAN	685	Aug 24	1150	Aug 28	[b]1250	Jun 9 1985
LOWEST DAILY MEAN	24	Feb 19	26	Dec 14	[c]8.0	Aug 7 1977
ANNUAL SEVEN-DAY MINIMUM	29	Feb 14	30	Dec 14	12	Aug 5 1977
INSTANTANEOUS PEAK FLOW			1800	Aug 28	[d,e]1800	Aug 28 1993
INSTANTANEOUS PEAK STAGE			5.53	Aug 28	[f]5.53	Aug 28 1993
ANNUAL RUNOFF (AC-FT)	63660		95150		61610	
10 PERCENT EXCEEDS	201		320		178	
50 PERCENT EXCEEDS	57		68		56	
90 PERCENT EXCEEDS	32		34		31	

a-Average discharge for 58 years (water years 1913-70), 155 ft^3/s; 112300 acre-ft/yr, prior to diversions through Azotea tunnel.
b-Maximum daily discharge for period of record, 2830 ft^3/s , Jun 15, 1921.
c-Also occurred Sep 25, 1953.
d-From rating curve extended above 1620 ft^3/s.
e-Maximum discharge and stage for period of record, 2840 ft^3/s, Apr 23, 1942, gage height, 6.55 ft, from rating curve extended above 1100 ft^3/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 mi², approximately.

PERIOD OF RECORD.--Streamflow records, October 1961 to current year. Water-quality data available, July 1969 to August 1973. Sediment data available, August 1973. Statistical summary computed for 1971 to current year.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 6,090 ft above sea level, from river-profile map.

REMARKS.--Estimated daily discharges: Nov. 27 to Mar. 1 and Apr. 14-22. Records fair 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	205	298	120	180	240	310	1240	1920	4160	2170	279	1460
2	191	215	110	180	240	331	1380	1670	3970	1980	263	1200
3	181	205	170	160	230	361	1370	1430	3580	1820	240	954
4	177	181	170	150	220	385	1360	1470	2740	1780	226	854
5	172	161	170	160	190	362	1620	1560	2380	1480	230	745
6	167	170	160	180	200	461	1970	1450	2290	1350	272	725
7	164	149	140	180	230	546	1460	1330	2220	1250	240	691
8	161	158	120	180	260	647	1150	1290	1870	1240	230	716
9	155	170	160	180	260	797	1150	1170	1610	1180	230	596
10	158	173	160	170	260	903	1410	1130	1410	1070	336	520
11	158	180	150	170	250	948	1670	1280	1460	991	355	477
12	155	187	150	150	230	755	1730	1630	1720	950	237	444
13	155	167	140	160	210	574	1580	2130	2280	989	221	503
14	155	170	130	180	240	541	1400	2650	2820	864	520	854
15	149	180	120	190	240	704	1200	2740	3100	771	664	630
16	149	198	130	190	230	1010	1300	2860	3330	734	373	528
17	149	209	140	200	220	1130	1300	3360	3180	675	306	491
18	149	198	140	200	230	1230	1400	2920	2720	618	264	444
19	146	195	140	200	310	1430	1300	2810	2330	549	235	417
20	137	191	140	190	290	1560	1500	2880	2370	491	526	386
21	137	191	140	190	270	1680	1700	3030	2380	444	500	345
22	140	177	150	180	270	1890	2000	3250	2400	405	607	322
23	149	174	150	170	270	1990	2170	2930	2500	368	520	305
24	149	170	150	170	270	2080	1850	2830	2470	350	407	279
25	149	135	150	170	270	2150	1580	2670	2230	322	334	273
26	155	126	140	190	270	2450	1510	3560	2210	305	300	263
27	161	130	140	210	280	2890	1880	5010	2190	284	366	253
28	158	150	140	220	280	2000	1900	5250	2220	254	4740	244
29	170	180	150	230	---	1440	2090	4290	2290	249	4340	239
30	204	140	160	230	---	1200	2110	3970	2430	299	2480	217
31	202	---	180	230	---	1210	---	3940	---	310	1880	---
TOTAL	5007	5328	4510	5740	6960	35965	47280	80410	74860	26542	22721	16375
MEAN	162	178	145	185	249	1160	1576	2594	2495	856	733	546
MAX	205	298	180	230	310	2890	2170	5250	4160	2170	4740	1460
MIN	137	126	110	150	190	310	1150	1130	1410	249	221	217
AC-FT	9930	10570	8950	11390	13810	71340	93780	159500	148500	52650	45070	32480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1971 - 1993, BY WATER YEAR (WY)

MEAN	322	246	170	155	191	588	1162	1792	1866	655	337	290
MAX	932	983	406	296	481	1319	2524	3195	4080	1677	733	880
(WY)	1987	1987	1987	1987	1986	1985	1979	1973	1985	1979	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1971 - 1993	
ANNUAL TOTAL	232859		331698			
ANNUAL MEAN	636		909		[a]649	
HIGHEST ANNUAL MEAN					1201	1985
LOWEST ANNUAL MEAN					200	1977
HIGHEST DAILY MEAN	3620	Aug 25	5250	May 28	[b]6700	Mar 12 1985
LOWEST DAILY MEAN	110	Dec 2	110	Dec 2	[c]28	Sep 14 1974
ANNUAL SEVEN-DAY MINIMUM	134	Dec 13	134	Dec 13	39	Sep 14 1978
INSTANTANEOUS PEAK FLOW			8200	Aug 28	[d]8200	Aug 28 1993
INSTANTANEOUS PEAK STAGE			7.00	Aug 28	[e]7.00	Aug 28 1993
ANNUAL RUNOFF (AC-FT)	461900		657900		469900	
10 PERCENT EXCEEDS	1720		2390		1750	
50 PERCENT EXCEEDS	288		322		290	
90 PERCENT EXCEEDS	150		150		110	

a-Average discharge for 9 years (water years 1962-70), 632 ft³/s; 457900 acre-ft/yr, prior to completion of Azotea tunnel.
b-Also maximum daily discharge for period of record.
c-Minimum daily discharge for period of record, about 5 ft³/s, Dec 10, 1961, result of freezeup.
d-Maximum discharge and stage for period of record, 9730 ft³/s, Sep 6, 1970, gage height, 8.34 ft, from rating curve extended above 6000 ft³/s, on basis of slope-area measurement of peak flow.
e-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 NE¼SW¼ sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, on left bank 2.5 mi upstream from Navajo Reservoir, 3.0 mi downstream from Ignacio Creek, and 4.6 mi northeast of Arboles Post Office.

DRAINAGE AREA.--629 mi².

PERIOD OF RECORD.--Streamflow records, August 1962 to current year. Gage operated 1895-99 and 1910-27 at site 7.5 mi downstream at elevation 6,000 ft. Low-flow records probably not equivalent. Water-quality data available, July 1969 to August 1973, December 1988 to May 1989.

GAGE.--Water-stage recorder. Datum of gage is 6,147.52 ft above sea level, Colorado State Highway Department benchmark.

REMARKS.--Estimated daily discharges: Nov. 16-19, 21, 23, 25-30, Dec. 9 to Jan. 17, Jan. 24-30, Feb. 2-15, and Mar. 25 to Apr. 13. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	116	91	72	86	184	920	2020	2290	867	102	1120
2	112	91	82	72	86	194	960	1740	2190	774	93	845
3	109	91	73	72	82	181	1000	1570	1950	717	89	629
4	106	79	75	66	88	190	1100	1630	1650	657	85	507
5	104	77	78	64	80	194	1200	1700	1480	564	88	417
6	102	78	79	66	78	218	1200	1510	1400	529	97	384
7	99	73	73	74	84	264	1100	1370	1330	514	99	359
8	95	69	64	80	90	333	1000	1310	1160	425	99	330
9	81	75	65	74	94	392	1100	1170	1060	395	97	286
10	80	80	65	75	88	453	1300	1140	908	364	99	257
11	79	84	65	75	88	492	1400	1370	930	330	118	230
12	79	84	65	68	88	427	1500	1780	1120	312	109	212
13	77	81	65	60	85	369	1400	2120	1430	316	104	259
14	77	80	65	70	78	344	1330	2370	1680	286	173	356
15	75	75	65	75	82	408	1240	2470	1850	261	251	279
16	71	75	65	76	93	520	1280	2500	1940	241	170	253
17	71	75	65	78	87	552	1230	2760	1860	230	142	234
18	69	75	62	81	86	664	1470	2450	1590	206	124	208
19	69	75	62	80	109	835	1390	2370	1390	188	134	201
20	69	71	62	79	285	901	1280	2370	1430	170	308	188
21	69	74	62	80	199	931	1370	2480	1480	162	286	175
22	69	71	62	80	149	1120	1630	2570	1480	153	381	162
23	69	74	62	77	139	1200	1840	2290	1470	148	313	153
24	69	73	62	74	141	1290	1880	2190	1430	138	254	145
25	69	80	62	66	134	1400	1540	2140	1310	129	205	137
26	78	85	62	70	136	1500	1550	2320	1240	121	198	134
27	80	90	65	75	145	1500	1810	2610	1190	112	236	131
28	77	95	68	76	168	1300	1910	2560	1120	104	1470	126
29	78	95	70	76	---	1100	2090	2300	1060	99	2430	121
30	90	90	74	80	---	1000	2140	2180	1050	101	1900	116
31	104	---	74	84	---	950	---	2210	---	108	1380	---
TOTAL	2592	2431	2109	2295	3148	21406	42160	63570	43468	9721	11634	8954
MEAN	83.6	81.0	68.0	74.0	112	691	1405	2051	1449	314	375	298
MAX	116	116	91	84	285	1500	2140	2760	2290	867	2430	1120
MIN	69	69	62	60	78	181	920	1140	908	99	85	116
AC-FT	5140	4820	4180	4550	6240	42460	83620	126100	86220	19280	23080	17760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

MEAN	179	126	91.6	75.9	93.2	305	917	1326	1071	348	215	211
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1963 - 1993	
ANNUAL TOTAL	157317		213488			
ANNUAL MEAN	430		585		414	
HIGHEST ANNUAL MEAN					822	1979
LOWEST ANNUAL MEAN					94.0	1977
HIGHEST DAILY MEAN	2030	Apr 14	2760	May 17	5360	Sep 6 1970
LOWEST DAILY MEAN	[a]62	Dec 18	60	Jan 13	19	Nov 29 1989
ANNUAL SEVEN-DAY MINIMUM	62	Dec 18	62	Dec 18	26	Dec 11 1989
INSTANTANEOUS PEAK FLOW			3280	Aug 29	[b]8370	Sep 6 1970
INSTANTANEOUS PEAK STAGE			4.67	Aug 29	[c]6.38	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	312000		423500		299800	
10 PERCENT EXCEEDS	1280		1720		1210	
50 PERCENT EXCEEDS	167		162		152	
90 PERCENT EXCEEDS	73		70		54	

a-Also occurred Dec 19-26.
b-From rating curve extended above 4400 ft³/s, on basis of slope-area measurement of peak flow.
c-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 mi².

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 sea level.

REMARKS.--Estimated daily discharges: Nov. 26 to Dec. 3, Dec. 7, 8, 12-21, 24, 25, and Dec. 27 to Mar. 29. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	53	37	30	24	22	24	55	351	1020	517	124	358
2	51	37	30	24	21	24	57	291	946	496	117	262
3	50	36	30	23	23	22	56	270	755	480	112	197
4	48	34	29	22	22	22	59	270	593	394	107	158
5	46	36	29	22	20	23	65	285	521	316	109	141
6	43	34	27	22	21	24	63	256	474	335	103	127
7	42	36	26	25	23	26	60	232	439	350	92	120
8	39	37	25	26	24	28	59	216	366	344	90	105
9	39	37	26	24	23	30	61	196	314	315	104	96
10	38	37	26	24	22	33	67	200	314	293	111	92
11	37	38	25	24	22	34	73	259	435	296	107	86
12	36	37	24	20	21	34	72	401	644	308	94	81
13	36	37	23	22	21	32	69	619	867	296	92	98
14	35	37	23	24	21	32	71	804	924	271	124	98
15	34	39	23	26	22	34	68	820	986	263	129	98
16	33	41	22	24	22	36	74	768	964	245	103	98
17	32	40	22	24	22	40	77	753	843	221	92	98
18	32	39	22	25	22	45	95	689	621	208	84	92
19	31	38	22	25	25	50	94	743	608	186	119	88
20	30	39	22	23	26	54	96	830	741	168	127	82
21	30	38	21	22	23	58	112	967	830	168	156	76
22	31	36	21	23	21	64	151	891	793	160	168	71
23	30	37	21	22	23	70	199	786	737	155	125	66
24	29	33	20	21	24	80	200	823	689	147	110	61
25	35	30	19	20	24	90	176	914	641	134	98	58
26	36	30	17	21	23	100	200	1030	632	137	98	56
27	34	30	18	22	23	100	242	1090	593	130	133	53
28	34	30	20	22	23	88	314	974	529	129	551	51
29	36	30	22	22	---	70	379	851	572	127	709	49
30	36	30	24	22	---	59	403	897	571	150	528	46
31	39	---	24	22	---	56	---	1020	---	137	474	---
TOTAL	1155	1070	733	712	629	1482	3767	19496	19962	7876	5290	3162
MEAN	37.3	35.7	23.6	23.0	22.5	47.8	126	629	665	254	171	105
MAX	53	41	30	26	26	100	403	1090	1020	517	709	358
MIN	29	30	17	20	20	22	55	196	314	127	84	46
AC-FT	2290	2120	1450	1410	1250	2940	7470	38670	39590	15620	10490	6270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 1993, BY WATER YEAR (WY)

MEAN	80.1	44.4	27.3	20.9	19.6	32.9	113	403	530	247	134	118
MAX	280	104	52.0	42.5	44.5	80.8	226	629	927	548	233	455
(WY)	1973	1987	1986	1986	1986	1989	1989	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1963 - 1993	
ANNUAL TOTAL	48424		65334			
ANNUAL MEAN	132		179		148	
HIGHEST ANNUAL MEAN					226	1973
LOWEST ANNUAL MEAN					63.3	1977
HIGHEST DAILY MEAN	576	Jul 25	1090	May 27	3020	Sep 6 1970
LOWEST DAILY MEAN	17	Dec 26	17	Dec 26	6.7	Dec 28 1976
ANNUAL SEVEN-DAY MINIMUM	19	Dec 22	19	Dec 22	7.4	Dec 23 1976
INSTANTANEOUS PEAK FLOW			1190	May 31	[a]7050	Sep 6 1970
INSTANTANEOUS PEAK STAGE			[b]2.87	May 31	[c]6.51	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	96050		129600		107000	
10 PERCENT EXCEEDS	380		620		417	
50 PERCENT EXCEEDS	54		59		62	
90 PERCENT EXCEEDS	22		22		17	

a-From rating curve extended above 1400 ft³/s, on basis of slope-area measurement of peak flow.
b-Maximum gage height, 2.92 ft, Jun 15.
c-Maximum 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: 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 1992 TO SEPTEMBER 1993

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)	CALCIUM DIS-SOLVED (MG/L AS CA)
OCT											
20...	1030	29	87	7.6	4.0	0.3	10.1	K1	K5	37	11
MAR											
30...	1000	54	78	7.6	1.0	1.0	11.1	K2	K2	33	9.9
JUN											
08...	1200	359	59	7.5	3.5	1.7	10.3	<1	K1	26	7.9
AUG											
17...	1115	94	46	7.3	8.5	0.2	9.3	<1	19	20	6.0

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)	BICAR-[A] BONATE WATER DIS IT FIELD MG/L AS HCO3	ALKA-[B] LINITY 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)
OCT											
20...	2.3	1.1	0.1	0.6	41	34	7.9	0.6	0.2	3.8	44
MAR											
30...	2.0	1.1	0.1	0.7	35	29	5.9	0.7	0.2	4.4	44
JUN											
08...	1.6	0.6	0.0	0.4	26	22	5.2	0.2	0.2	3.3	41
AUG											
17...	1.2	0.7	0.1	0.4	17	14	5.6	0.2	0.3	2.8	24

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 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 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										
20...	48	0.06	3.45	<0.01	0.11	0.02	<0.2	<0.01	<0.01	0.01
MAR										
30...	43	0.06	6.42	<0.01	0.12	0.01	<0.2	<0.01	<0.01	<0.01
JUN										
08...	33	0.06	39.7	<0.01	0.11	0.02	<0.2	<0.01	<0.01	<0.01
AUG										
17...	26	0.03	6.09	<0.01	0.06	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)
OCT												
20...	30	14	<3	<3	<4	2	<10	<1	<1	<1.0	32	<6
MAR												
30...	70	14	<3	23	<4	3	<10	<1	<1	<1.0	28	<6
JUN												
08...	50	10	<3	14	<4	11	<10	2	<1	<1.0	18	<6
AUG												
17...	20	9	<3	13	<4	2	<10	<1	<1	<1.0	18	<6

A-Field dissolved bicarbonate, determined by incremental titration method.
B-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 1992 TO SEPTEMBER 1993

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L)	URANIUM NATURAL DIS-SOLVED (UG/L AS U)
OCT									
20...	1030	1.3	1.0	1.1	<0.6	<0.6	<0.6	<0.02	0.48
JUN									
08...	1200	1.0	1.0	1.1	<0.6	<0.6	<0.6	0.06	0.40

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
APR 1993				
27...	1300	236	73	4.0
MAY				
27...	1600	1060	52	5.5
JUN				
03...	1030	779	52	3.5

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SEDI-MENT, SUS-PENDED (MG/L)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY)
OCT				
20...	1030	29	2	0.16
MAR				
30...	1000	54	3	0.36
JUN				
08...	1200	359	3	2.5
AUG				
17...	1115	94	0	0.05

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 sea level (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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, 124,600 acre-ft, June 23, elevation, 7,664.62 ft; minimum, 29,220 acre-ft, Apr. 2, elevation, 7,619.94 ft.

MONTHEND ELEVATION AND CONTENTS, AT 0900, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	7,642.85	70,640	-
Oct. 31	7,636.10	56,420	-14,220
Nov. 30	7,637.14	58,510	+2,090
Dec. 31	7,638.10	60,480	+1,970
CAL YR 1992			-6,950
Jan. 31	7,639.17	62,710	+2,230
Feb. 28	7,633.75	51,830	-10,880
Mar. 31	7,620.19	29,560	-22,270
Apr. 30	7,628.58	42,460	+12,900
May 31	7,658.25	107,730	+65,270
June 30	7,664.31	123,760	+16,030
July 31	7,658.25	107,730	-16,030
Aug. 31	7,651.03	89,640	-18,090
Sept. 30	7,649.18	85,200	-4,440
WTR YR 1993			+14,560

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. Datum of gage is 6,143.59 ft above sea level.

REMARKS.--Estimated daily discharges: Nov. 24 to Jan. 16, Jan. 19-29, Feb. 1-7, and May 8-10. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	143	75	80	80	267	727	508	1140	698	199	339
2	179	113	75	80	80	242	705	453	1280	606	196	268
3	179	101	80	75	80	244	553	378	1320	476	173	221
4	182	91	80	70	80	805	568	319	1250	416	176	220
5	173	87	85	75	80	857	627	280	990	350	192	217
6	170	83	80	75	80	935	669	275	500	261	189	213
7	159	83	80	80	80	983	558	235	407	211	188	203
8	155	83	80	80	89	1100	491	210	390	197	212	182
9	150	81	80	80	162	1170	513	190	363	202	213	158
10	140	80	80	75	182	1200	590	190	332	202	199	161
11	128	91	80	70	211	1360	672	258	389	206	209	182
12	130	103	75	70	362	1240	684	275	395	206	203	185
13	130	97	70	70	349	1050	617	334	405	206	223	472
14	135	91	65	75	347	977	563	335	694	196	274	335
15	145	87	60	80	340	1130	509	322	1430	189	287	222
16	143	83	65	90	327	1440	526	318	1650	199	260	203
17	166	81	70	93	271	1350	520	331	1660	209	259	199
18	173	79	70	89	140	1290	590	347	1670	199	255	182
19	182	78	70	90	333	1240	568	313	1430	192	252	176
20	156	83	70	85	512	941	533	278	1120	185	290	188
21	124	81	70	80	352	881	544	271	979	199	299	188
22	127	87	70	75	835	935	590	255	968	202	339	162
23	127	83	70	75	831	936	633	241	991	196	288	153
24	127	80	70	75	799	936	646	217	1020	192	256	145
25	132	80	70	75	796	975	540	256	1090	192	224	140
26	172	75	70	75	796	1010	469	282	1060	189	230	145
27	131	70	70	75	796	1180	369	388	954	179	351	145
28	128	75	70	75	759	1050	534	635	799	185	864	135
29	150	75	70	75	---	891	585	1210	714	185	1020	140
30	158	75	75	79	---	764	533	1720	685	209	561	147
31	173	---	80	81	---	754	---	1310	---	199	758	---
TOTAL	4703	2599	2275	2422	10149	30133	17226	12934	28075	7733	9639	6026
MEAN	152	86.6	73.4	78.1	362	972	574	417	936	249	311	201
MAX	182	143	85	93	835	1440	727	1720	1670	698	1020	472
MIN	124	70	60	70	80	242	369	190	332	179	173	135
AC-FT	9330	5160	4510	4800	20130	59770	34170	25650	55690	15340	19120	11950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

MEAN	197	141	104	76.3	99.4	207	351	450	503	308	218	206
MAX	672	709	396	182	362	972	1339	1719	1555	1381	878	706
(WY)	1987	1987	1983	1985	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	77943		133914			
ANNUAL MEAN	213		367		243	
HIGHEST ANNUAL MEAN					582	1973
LOWEST ANNUAL MEAN					77.4	1959
HIGHEST DAILY MEAN	703	Jun 10	1720	May 30	4560	Jul 27 1957
LOWEST DAILY MEAN	45	Jan 5	60	Dec 15	6.1	May 1 1977
ANNUAL SEVEN-DAY MINIMUM	50	Jan 1	67	Dec 13	8.3	Apr 30 1977
INSTANTANEOUS PEAK FLOW			2000	Mar 16	[a]6400	Jul 27 1957
INSTANTANEOUS PEAK STAGE			6.34	Mar 16	[b]8.95	Jul 27 1957
ANNUAL RUNOFF (AC-FT)	154600		265600		175700	
10 PERCENT EXCEEDS	443		976		532	
50 PERCENT EXCEEDS	176		203		132	
90 PERCENT EXCEEDS	65		75		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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 25 to Feb. 12, Apr. 1-4, 7-10, and Apr. 13-22. Records good except for estimated daily discharges, which are poor. Part of flow is return waste from irrigation. Nearly all irrigation in this basin is water diverted from Los Pinos River which causes a considerable change in the annual pattern and natural flow. Several measurements of specific conductance and water temperature were obtained and are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	25	8.0	6.8	16	55	24	33	62	63	64	74
2	43	13	7.2	6.6	16	54	23	30	60	56	63	55
3	45	10	6.4	6.2	12	51	22	26	56	60	59	48
4	48	9.5	5.8	6.0	9.4	41	22	17	61	61	57	45
5	47	9.0	5.6	6.4	8.4	37	25	39	64	57	64	45
6	42	8.5	5.8	7.0	8.0	41	27	34	67	51	64	46
7	40	8.5	6.0	7.4	8.0	67	23	35	68	52	61	44
8	39	8.5	7.0	7.2	8.8	136	22	39	64	52	61	44
9	41	8.5	7.6	6.8	16	170	22	38	67	57	60	44
10	40	8.0	6.4	6.4	27	159	22	31	60	57	60	43
11	40	8.9	5.8	6.2	37	150	25	34	65	57	64	44
12	42	9.0	5.8	6.0	34	83	28	33	61	57	64	49
13	40	8.5	5.4	6.4	15	41	24	38	63	55	74	179
14	43	7.6	5.2	6.8	6.1	35	23	51	63	61	132	101
15	43	7.6	5.4	7.0	3.6	42	22	48	61	67	111	51
16	46	7.2	5.2	7.4	2.5	46	20	64	61	67	92	51
17	42	7.2	5.0	7.4	2.7	43	19	77	67	69	81	50
18	43	7.2	5.0	7.2	3.0	34	18	94	66	63	75	49
19	40	6.8	5.0	7.0	7.5	45	17	87	67	61	77	48
20	40	8.0	5.2	6.8	90	36	16	72	64	68	92	44
21	40	8.5	5.6	6.6	120	30	15	69	67	65	103	36
22	39	8.0	6.0	6.4	44	32	14	71	64	63	103	36
23	40	7.6	6.0	6.4	17	28	15	69	61	67	75	38
24	40	7.2	6.0	6.4	10	29	16	65	59	64	69	40
25	39	7.0	6.0	6.6	5.7	29	33	68	62	64	71	41
26	33	6.2	6.0	7.0	4.9	32	12	86	63	61	82	43
27	25	6.6	6.0	7.2	4.5	72	13	107	62	60	135	45
28	23	7.4	6.2	7.6	23	74	14	89	60	59	301	44
29	28	8.0	6.2	7.4	---	47	17	89	65	58	229	42
30	33	8.0	6.4	8.0	---	34	28	67	64	70	73	46
31	33	---	6.6	9.2	---	30	---	73	---	61	177	---
TOTAL	1219	261.0	185.8	213.8	560.1	1803	621	1773	1894	1883	2893	1565
MEAN	39.3	8.70	5.99	6.90	20.0	58.2	20.7	57.2	63.1	60.7	93.3	52.2
MAX	48	25	8.0	9.2	120	170	33	107	68	70	301	179
MIN	23	6.2	5.0	6.0	2.5	28	12	17	56	51	57	36
AC-FT	2420	518	369	424	1110	3580	1230	3520	3760	3730	5740	3100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

MEAN	35.4	10.7	5.48	4.58	10.3	18.8	14.1	39.6	57.3	65.8	66.2	58.6
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	13841.2		14871.7			
ANNUAL MEAN	37.8		40.7		32.7	
HIGHEST ANNUAL MEAN					47.7	1987
LOWEST ANNUAL MEAN					15.6	1977
HIGHEST DAILY MEAN	236	Aug 24	301	Aug 28	778	Sep 6 1970
LOWEST DAILY MEAN	3.8	Jan 16	2.5	Feb 16	1.0	Feb 25 1951
ANNUAL SEVEN-DAY MINIMUM	4.8	Jan 13	5.1	Dec 14	1.0	Dec 7 1959
INSTANTANEOUS PEAK FLOW			458	Aug 28	[a]1980	Sep 6 1970
INSTANTANEOUS PEAK STAGE			2.83	Aug 28	[b]4.62	Sep 6 1970
ANNUAL RUNOFF (AC-FT)	27450		29500		23660	
10 PERCENT EXCEEDS	71		72		71	
50 PERCENT EXCEEDS	35		39		24	
90 PERCENT EXCEEDS	5.9		6.3		3.3	

a-From rating curve extended above 160 ft³/s, on the 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 SE¼NW¼ 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 mi².

PERIOD OF RECORD.--June to October 1903 (staff gage) monthly discharge only. Published in WSP 1313. October 1991 to September 1993 (Discontinued).

REVISED RECORDS.--WDR CO 92-2: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,290 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 28, and Nov. 1 to Apr. 21. Records fair 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	46	29	23	17	17	17	24	111	836	684	143	210
2	43	28	23	17	16	17	24	107	707	700	136	183
3	40	28	24	16	16	16	24	111	567	650	125	155
4	39	28	23	14	16	16	24	128	354	488	117	136
5	39	28	23	15	15	17	24	136	282	343	139	124
6	40	28	22	16	16	18	24	113	296	377	120	114
7	39	28	21	17	16	19	23	105	228	448	109	110
8	35	28	21	17	16	21	23	93	164	463	113	100
9	33	29	21	17	17	22	23	83	137	410	113	96
10	32	30	21	17	17	22	24	84	137	388	123	93
11	32	30	21	17	17	21	25	108	201	383	114	85
12	31	28	21	16	17	20	26	165	422	392	102	80
13	30	27	21	16	16	18	26	259	763	372	99	96
14	30	27	20	16	16	18	27	383	923	360	105	87
15	31	28	19	17	16	19	28	447	965	354	97	84
16	31	28	18	17	16	20	30	423	982	328	88	86
17	31	29	18	17	16	21	33	390	856	291	84	84
18	31	29	18	17	16	23	37	359	556	278	78	83
19	31	29	17	17	17	23	36	443	552	253	77	79
20	31	28	17	17	20	24	34	498	757	241	77	71
21	31	28	17	16	19	24	39	663	864	231	107	66
22	31	27	18	16	17	24	44	624	891	206	106	62
23	31	26	17	15	16	24	51	465	887	194	90	59
24	31	25	17	15	16	25	50	501	805	184	81	56
25	32	24	16	16	16	26	46	610	718	170	76	54
26	31	24	16	16	16	28	54	767	734	176	83	52
27	30	21	16	16	16	28	70	830	735	168	91	50
28	30	22	17	16	17	26	84	696	684	159	182	48
29	31	23	17	16	---	24	98	609	760	155	366	46
30	30	23	17	16	---	24	113	688	777	176	305	45
31	31	---	17	17	---	24	---	878	---	157	245	---
TOTAL	1034	810	597	505	462	669	1188	11877	18540	10179	3891	2694
MEAN	33.4	27.0	19.3	16.3	16.5	21.6	39.6	383	618	328	126	89.8
MAX	46	30	24	17	20	28	113	878	982	700	366	210
MIN	30	21	16	14	15	16	23	83	137	155	76	45
AC-FT	2050	1610	1180	1000	916	1330	2360	23560	36770	20190	7720	5340

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

MEAN	33.4	27.0	19.1	15.0	16.1	20.1	53.0	344	510	262	105	72.8
MAX	33.4	27.0	19.3	16.3	16.5	21.6	66.4	383	618	328	126	89.8
(WY)	1992	1992	1993	1993	1993	1993	1992	1993	1993	1993	1993	1993
MIN	33.4	27.0	18.9	13.8	15.7	18.6	39.6	304	403	196	84.5	55.8
(WY)	1993	1993	1992	1992	1992	1992	1993	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1992 - 1993	
ANNUAL TOTAL	37779		52446			
ANNUAL MEAN	103		144		123	
HIGHEST ANNUAL MEAN					144	1993
LOWEST ANNUAL MEAN					103	1992
HIGHEST DAILY MEAN	575	Jun 13	982	Jun 16	[a]982	Jun 16 1993
LOWEST DAILY MEAN	12	Jan 1	14	Jan 4	12	Jan 1 1992
ANNUAL SEVEN-DAY MINIMUM	13	Jan 16	16	Jan 21	13	Jan 16 1992
INSTANTANEOUS PEAK FLOW			1250	Jun 13	[b]1250	Jun 13 1993
INSTANTANEOUS PEAK STAGE			[c]3.70	Jun 13	[d]3.70	Jun 13 1993
ANNUAL RUNOFF (AC-FT)	74930		104000		89410	
10 PERCENT EXCEEDS	329		474		372	
50 PERCENT EXCEEDS	34		31		32	
90 PERCENT EXCEEDS	15		16		16	

a-Maximum daily discharge during period Jun to Oct, 1903, 990 ft³/s, Jun 17, 1903.
b-Also occurred Jun 17, 1903.
c-Maximum gage height, 3.73 ft, May 31.
d-Maximum gage height during period Jun to Oct, 1903, 4.90 ft, Jun 17, 1903.

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 mi².

PERIOD OF RECORD.--October 1991 to September 1993 (Discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 9,380 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 7 to Apr. 22. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	15	12	9.8	10	10	14	47	292	136	31	30
2	17	15	13	9.8	10	10	15	41	272	133	30	28
3	17	15	13	9.4	9.6	10	16	46	220	125	29	26
4	16	14	13	8.6	9.4	10	16	51	171	108	28	24
5	16	14	12	9.2	9.4	10	16	51	155	89	31	24
6	16	14	12	9.4	9.4	11	16	40	155	89	28	23
7	16	15	12	9.6	9.4	12	15	36	133	95	27	23
8	16	15	12	10	9.6	13	15	32	114	90	28	23
9	16	16	12	10	10	14	15	29	100	84	27	22
10	16	15	12	9.8	10	14	15	31	97	77	27	22
11	15	15	12	9.8	10	13	16	48	126	72	26	21
12	15	15	12	9.4	10	12	16	84	181	69	25	21
13	15	15	12	9.4	9.6	11	16	111	249	65	25	25
14	16	15	11	9.6	9.2	11	16	148	276	63	26	22
15	16	15	11	10	9.4	12	16	155	275	61	24	22
16	15	15	11	10	9.8	12	16	133	273	56	24	21
17	15	15	10	10	9.6	13	17	121	247	52	23	21
18	15	15	10	10	9.4	15	18	133	186	49	23	20
19	15	15	10	10	11	15	18	151	171	46	23	20
20	16	14	10	10	13	14	18	175	201	44	22	20
21	15	14	10	9.6	11	15	22	215	214	43	24	20
22	15	13	10	9.2	10	15	30	200	218	42	23	20
23	15	14	10	9.0	9.6	15	38	160	216	40	22	20
24	15	14	10	8.8	9.4	16	36	169	199	38	22	20
25	15	13	9.8	9.4	9.8	17	28	205	175	36	21	19
26	15	12	9.6	9.8	10	18	35	241	168	37	23	19
27	14	11	9.6	9.8	10	17	51	268	161	36	24	19
28	15	12	9.6	9.8	10	16	65	247	149	34	34	19
29	15	13	9.6	9.8	---	15	76	232	157	34	43	19
30	15	13	10	9.8	---	15	70	249	150	34	35	19
31	15	---	10	9.8	---	14	---	279	---	32	30	---
TOTAL	481	426	340.2	298.6	277.6	415	771	4128	5701	2009	828	652
MEAN	15.5	14.2	11.0	9.63	9.91	13.4	25.7	133	190	64.8	26.7	21.7
MAX	18	16	13	10	13	18	76	279	292	136	43	30
MIN	14	11	9.6	8.6	9.2	10	14	29	97	32	21	19
AC-FT	954	845	675	592	551	823	1530	8190	11310	3980	1640	1290

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

MEAN	14.8	13.7	10.8	9.13	10.1	13.5	30.4	114	143	55.8	24.9	21.1
MAX	15.5	14.2	11.0	9.63	10.2	13.7	35.2	133	190	64.8	26.7	21.7
(WY)	1993	1993	1993	1993	1992	1992	1992	1993	1993	1993	1993	1993
MIN	14.0	13.3	10.6	8.63	9.91	13.4	25.7	93.9	95.1	46.8	23.0	20.5
(WY)	1992	1992	1992	1992	1993	1993	1993	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1992 - 1993	
ANNUAL TOTAL	11833.7		16327.4			
ANNUAL MEAN	32.3		44.7		38.4	
HIGHEST ANNUAL MEAN					44.7	1993
LOWEST ANNUAL MEAN					32.1	1992
HIGHEST DAILY MEAN	131	May 20	292	Jun 1	292	Jun 1 1993
LOWEST DAILY MEAN	7.5	Jan 2	8.6	Jan 4	7.5	Jan 2 1992
ANNUAL SEVEN-DAY MINIMUM	8.4	Jan 1	9.4	Jan 21	8.4	Dec 30 1991
INSTANTANEOUS PEAK FLOW			337	Jun 1	337	Jun 1 1993
INSTANTANEOUS PEAK STAGE			2.58	Jun 1	2.58	Jun 1 1993
ANNUAL RUNOFF (AC-FT)	23470		32390		27820	
10 PERCENT EXCEEDS	90		153		100	
50 PERCENT EXCEEDS	16		16		16	
90 PERCENT EXCEEDS	9.5		9.8		9.6	

09359010 MINERAL CREEK AT SILVERTON, CO

LOCATION.--Lat 37°48'10", long 107°40'20", in NW¼NE¼ 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 mi².

PERIOD OF RECORD.--October 1991 to September 1993 (Discontinued).

GAGE.--Water-stage recorder. Datum of gage is 9,245.98 ft above sea level, from San Juan County bench mark.

REMARKS.--Estimated daily discharges: Nov. 3-8, 12-17, 19, and Nov. 22 to Apr. 1. 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 ft³/s, gage height not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	28	24	18	18	18	25	115	802	531	131	146
2	41	28	24	18	18	18	25	101	694	522	124	125
3	40	28	24	17	17	17	24	106	489	487	114	108
4	39	28	24	15	17	17	25	118	374	376	105	95
5	38	28	23	17	16	18	25	115	340	291	129	87
6	37	28	23	17	16	19	25	94	346	320	111	83
7	38	28	22	17	17	20	24	86	297	359	102	79
8	34	29	22	18	17	22	24	75	250	357	109	73
9	34	29	22	18	19	24	24	67	213	334	113	67
10	34	30	22	18	18	24	25	70	209	315	109	64
11	34	30	22	18	18	23	26	96	278	306	103	61
12	33	29	22	17	18	21	27	142	421	305	93	58
13	32	28	21	17	17	19	27	204	624	281	92	70
14	32	28	20	17	16	19	28	255	764	261	110	64
15	31	29	20	18	17	20	29	296	763	250	100	61
16	30	29	20	18	17	22	32	287	863	228	86	61
17	30	29	19	18	17	25	36	280	790	206	80	57
18	29	29	19	18	17	25	40	283	470	203	75	56
19	29	29	18	18	18	25	36	309	451	186	76	53
20	28	28	18	18	22	26	35	356	593	184	78	50
21	28	27	18	17	20	25	43	452	693	184	91	47
22	29	27	19	17	18	25	57	458	724	173	91	46
23	29	26	18	16	17	27	71	357	738	166	80	44
24	29	25	18	16	17	29	69	372	669	156	73	43
25	30	25	18	17	17	31	60	469	616	145	67	41
26	29	24	17	17	17	29	71	575	641	151	83	40
27	28	21	17	17	17	27	97	660	594	146	92	38
28	28	22	18	17	18	25	125	668	534	140	174	38
29	29	24	18	17	---	25	150	552	607	140	194	37
30	29	24	18	17	---	25	148	622	627	156	170	36
31	30	---	18	18	---	25	---	766	---	145	153	---
TOTAL	1003	817	626	536	491	715	1453	9406	16474	8004	3308	1928
MEAN	32.4	27.2	20.2	17.3	17.5	23.1	48.4	303	549	258	107	64.3
MAX	42	30	24	18	22	31	150	766	863	531	194	146
MIN	28	21	17	15	16	17	24	67	209	140	67	36
AC-FT	1990	1620	1240	1060	974	1420	2880	18660	32680	15880	6560	3820

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

MEAN	30.3	26.0	19.2	15.3	16.1	20.7	56.3	274	436	219	98.5	60.1
MAX	32.4	27.2	20.2	17.3	17.5	23.1	64.2	303	549	258	107	64.3
(WY)	1993	1993	1993	1993	1993	1993	1992	1993	1993	1993	1993	1993
MIN	28.3	24.7	18.3	13.4	14.7	18.4	48.4	244	323	180	90.3	55.9
(WY)	1992	1992	1992	1992	1992	1992	1993	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1992 - 1993	
ANNUAL TOTAL	33111		44761			
ANNUAL MEAN	90.5		123		106	
HIGHEST ANNUAL MEAN					123	1993
LOWEST ANNUAL MEAN					89.7	1992
HIGHEST DAILY MEAN	[a]439	Jun 13	863	Jun 16	863	Jun 16 1993
LOWEST DAILY MEAN	12	Jan 2	15	Jan 4	12	Jan 2 1992
ANNUAL SEVEN-DAY MINIMUM	13	Jan 12	17	Jan 21	13	Jan 12 1992
INSTANTANEOUS PEAK FLOW			1210	Jun 16	1210	Jun 16 1993
INSTANTANEOUS PEAK STAGE			3.16	Jun 16	3.16	Jun 16 1993
ANNUAL RUNOFF (AC-FT)	65680		88780		76910	
10 PERCENT EXCEEDS	258		373		305	
50 PERCENT EXCEEDS	35		31		31	
90 PERCENT EXCEEDS	14		17		16	

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 mi².

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,200 ft above sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 3 to Apr. 1. 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 1100 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	81	70	52	52	50	65	296	1870	1370	322	370
2	97	85	70	50	50	50	63	270	1710	1340	308	330
3	93	84	70	48	48	48	62	285	1460	1270	290	291
4	91	82	70	45	46	48	64	325	1140	1020	275	263
5	89	82	68	48	46	49	67	330	1050	810	316	244
6	89	82	64	49	46	52	66	268	1060	856	281	232
7	90	84	64	50	48	56	64	245	939	927	264	225
8	82	86	64	52	50	60	65	215	799	916	274	208
9	84	88	64	52	52	68	66	194	713	853	277	197
10	83	88	64	50	50	66	68	201	708	800	280	191
11	82	86	64	50	50	62	72	271	900	779	267	180
12	82	80	64	49	50	56	74	412	1270	774	243	173
13	83	82	62	48	47	52	75	596	1780	728	241	204
14	85	82	58	50	46	54	78	738	2060	690	265	186
15	83	84	58	52	48	56	81	840	2090	661	247	184
16	81	88	58	52	48	58	88	814	2160	612	222	182
17	81	86	54	54	47	58	96	783	1930	552	207	173
18	82	88	54	52	46	70	105	787	1440	533	194	170
19	80	82	54	52	52	68	95	898	1380	487	195	166
20	75	82	52	50	62	68	95	1030	1660	464	197	157
21	78	80	54	48	54	70	108	1330	1810	452	238	149
22	83	74	56	47	48	68	141	1350	1820	424	239	142
23	79	76	54	46	46	68	172	1080	1830	406	209	138
24	78	74	52	46	46	74	166	1130	1690	386	192	133
25	79	74	50	47	48	78	144	1360	1570	361	180	130
26	80	66	50	50	48	84	173	1610	1590	372	206	127
27	79	62	50	48	48	78	237	1740	1530	360	223	127
28	82	64	52	48	50	74	296	1610	1440	346	381	124
29	83	70	52	50	---	70	353	1450	1500	343	523	121
30	83	70	52	50	---	70	358	1580	1510	372	459	119
31	85	---	52	50	---	66	---	1830	---	346	401	---
TOTAL	2601	2392	1820	1535	1372	1949	3657	25868	44409	20610	8416	5636
MEAN	83.9	79.7	58.7	49.5	49.0	62.9	122	834	1480	665	271	188
MAX	100	88	70	54	62	84	358	1830	2160	1370	523	370
MIN	75	62	50	45	46	48	62	194	708	343	180	119
AC-FT	5160	4740	3610	3040	2720	3870	7250	51310	88090	40880	16690	11180

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 1993, BY WATER YEAR (WY)

MEAN	82.9	75.3	55.6	44.8	47.5	61.3	151	748	1170	549	236	161
MAX	83.9	79.7	58.7	49.5	49.0	62.9	180	834	1480	665	271	188
(WY)	1993	1993	1993	1993	1993	1993	1992	1993	1993	1993	1993	1993
MIN	82.0	70.9	52.5	40.2	46.1	59.7	122	662	859	433	201	133
(WY)	1992	1992	1992	1992	1992	1992	1993	1992	1992	1992	1992	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1992 - 1993	
ANNUAL TOTAL	86609		120265			
ANNUAL MEAN	237		329		282	
HIGHEST ANNUAL MEAN					329	1993
LOWEST ANNUAL MEAN					235	1992
HIGHEST DAILY MEAN	1160	Jun 13	2160	Jun 16	2160	Jun 16 1993
LOWEST DAILY MEAN	35	Jan 2	45	Jan 4	35	Jan 2 1992
ANNUAL SEVEN-DAY MINIMUM	39	Jan 18	47	Jan 21	39	Jan 18 1992
INSTANTANEOUS PEAK FLOW			2580	Jun 16	2580	Jun 16 1993
INSTANTANEOUS PEAK STAGE			4.87	Jun 16	4.87	Jun 16 1993
ANNUAL RUNOFF (AC-FT)	171800		238500		204500	
10 PERCENT EXCEEDS	723		1100		813	
50 PERCENT EXCEEDS	89		85		86	
90 PERCENT EXCEEDS	44		50		47	

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 sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 2, 1921.

REMARKS.--Estimated daily discharges: Dec. 9-14, 16-27, Jan. 4, 12, 13, 25 and Jan. 26. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	332	275	224	201	210	230	607	2440	6270	2980	634	1130
2	326	255	217	209	211	235	643	2130	5910	2840	589	1010
3	320	262	239	210	194	225	659	2040	5110	2790	558	867
4	309	244	233	190	219	218	667	2100	4030	2500	531	747
5	298	242	232	182	193	220	760	2250	3390	1940	548	661
6	294	247	224	183	187	225	806	1990	3240	1800	554	621
7	287	247	211	217	200	240	746	1740	3010	1850	512	584
8	289	253	198	227	224	255	695	1620	2630	1900	509	551
9	272	251	200	203	226	283	703	1430	2310	1770	553	513
10	267	250	200	210	210	307	804	1340	2050	1650	548	482
11	262	251	200	216	209	337	937	1530	2200	1570	560	453
12	259	254	190	200	206	344	1020	2140	2880	1580	538	433
13	251	243	190	160	201	326	989	2780	4040	1590	499	463
14	245	247	190	207	201	314	957	3240	4830	1470	521	507
15	244	250	192	227	201	326	914	3830	5150	1360	636	467
16	240	252	180	215	205	344	919	4030	5370	1300	572	457
17	240	250	190	214	201	370	974	4460	5440	1150	516	458
18	240	250	180	214	205	414	1090	4070	4100	1100	478	445
19	236	250	180	223	215	465	1080	4160	3370	1030	444	443
20	235	250	180	209	249	521	1060	4270	3760	948	514	425
21	235	248	180	198	240	561	1150	4980	4150	909	557	409
22	235	232	180	203	202	635	1360	5450	4340	825	665	396
23	235	231	180	204	215	713	1710	4750	4260	800	596	376
24	231	220	170	194	230	794	1860	4450	4120	769	525	361
25	237	213	180	180	236	901	1580	4940	3660	716	468	353
26	245	233	180	180	230	1020	1550	5640	3610	694	446	341
27	245	235	190	201	225	990	1930	6290	3490	684	507	331
28	240	224	199	202	235	840	2260	6480	3270	662	780	321
29	261	229	200	204	---	726	2590	5550	3030	635	1570	316
30	260	219	217	206	---	666	2760	5370	3340	686	1520	310
31	284	---	208	207	---	622	---	6010	---	690	1310	---
TOTAL	8154	7307	6134	6296	5980	14667	35780	113500	116360	43188	19758	15231
MEAN	263	244	198	203	214	473	1193	3661	3879	1393	637	508
MAX	332	275	239	227	249	1020	2760	6480	6270	2980	1570	1130
MIN	231	213	170	160	187	218	607	1340	2050	635	444	310
AC-FT	16170	14490	12170	12490	11860	29090	70970	225100	230800	85660	39190	30210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1898 - 1993, BY WATER YEAR (WY)

MEAN	411	286	221	202	205	292	849	2310	2890	1208	579	455
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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1898 - 1993	
ANNUAL TOTAL	268811		392355			
ANNUAL MEAN	734		1075		824	
HIGHEST ANNUAL MEAN					1366	1917
LOWEST ANNUAL MEAN					302	1977
HIGHEST DAILY MEAN	3500	May 27	6480	May 28	10700	Jun 19 1949
LOWEST DAILY MEAN	[a]153	Feb 19	160	Jan 13	94	Mar 2 1913
ANNUAL SEVEN-DAY MINIMUM	162	Jan 20	179	Dec 18	100	Dec 19 1917
INSTANTANEOUS PEAK FLOW			6800	May 28	[b]25000	Oct 5 1911
INSTANTANEOUS PEAK STAGE			6.81	May 28	11.00	Oct 5 1911
ANNUAL RUNOFF (AC-FT)	533200		778200		597200	
10 PERCENT EXCEEDS	2150		3380		2240	
50 PERCENT EXCEEDS	337		444		340	
90 PERCENT EXCEEDS	178		201		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 7,948.00 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

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, 40,160 acre-ft, June 30, elevation, 8,148.03 ft; minimum contents, 17,840 acre-ft, Mar. 18, elevation, 8,104.63

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet
Sept. 30	8,114.34	21,910	-
Oct. 31	8,111.60	20,700	-1,210
Nov. 30	8,110.74	20,330	-370
Dec. 31	8,111.43	20,630	+300
CAL YR 1992			-4,970
Jan. 31	8,112.14	20,940	+310
Feb. 28	8,108.42	19,360	-1,580
Mar. 31	8,107.00	18,780	-580
Apr. 30	8,118.92	24,030	+5,250
May 31	8,139.16	34,840	+10,810
June 30	8,147.91	40,090	+5,250
July 31	8,133.30	31,510	-8,580
Aug. 31	8,120.12	24,610	-6,900
Sept. 30	8,120.62	24,860	+250
WTR YR 1993			+2,950

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T.32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi downstream from Florida River, 2.5 mi upstream from Colorado-New Mexico State line, 8.5 mi north of Cedar Hill, and at mile 32.9.

DRAINAGE AREA.--1,090 mi², approximately.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

GAGE.--Water-stage recorder. Elevation of gage is 5,960 ft above sea level, 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	405	340	268	e276	282	473	1020	2820	6310	3330	734	1540
2	387	292	272	e286	287	477	1070	2420	6190	3080	678	1270
3	380	300	280	268	261	471	1100	2390	5650	2990	647	1100
4	373	285	282	280	265	464	1140	2640	4580	2760	623	964
5	355	288	290	272	268	478	1280	2820	3660	2190	637	869
6	348	288	280	278	244	517	1300	2570	3430	1960	668	808
7	346	290	278	330	249	587	1140	2260	3240	1970	611	773
8	349	291	268	302	281	689	1050	2110	2860	2010	613	732
9	342	296	272	259	389	819	1070	1890	2510	1890	645	684
10	362	292	270	254	342	916	1230	1760	2280	1780	659	656
11	361	298	270	259	325	1080	1450	1860	2350	1680	678	612
12	341	296	278	250	304	991	1540	2470	2980	1660	664	589
13	299	285	280	250	335	782	1420	3180	4140	1680	628	865
14	287	289	275	248	335	736	1320	3670	5070	1570	661	790
15	283	290	272	260	339	882	1240	4290	5540	1480	782	670
16	282	291	278	263	342	1190	1200	4470	5990	1430	733	640
17	281	289	290	263	341	1180	1280	4900	6030	1300	657	617
18	278	298	302	260	331	1240	1440	4490	4860	1230	624	597
19	279	303	e290	e262	374	1470	1460	4460	3740	1150	607	577
20	284	300	e285	257	653	1280	1400	4590	3830	1060	645	564
21	281	298	e251	251	542	1250	1490	5300	4460	1020	720	541
22	296	278	e251	255	422	1380	1730	5910	4910	940	810	530
23	291	274	e272	255	398	1410	2130	5350	4870	903	772	518
24	287	260	e280	246	395	1480	2300	5080	4650	868	685	497
25	289	250	e298	284	398	1590	1950	5540	4080	815	628	477
26	300	278	e299	e255	386	1730	1920	6220	3990	784	598	467
27	296	282	e296	250	394	1810	2360	6880	3920	772	684	444
28	287	272	e288	255	448	1510	2730	7130	3690	742	1020	426
29	310	275	e273	258	---	1310	3100	6240	3330	714	1860	409
30	323	264	e304	265	---	1100	3240	5730	3610	747	2130	393
31	356	---	e304	275	---	1050	---	5930	---	797	2110	---
TOTAL	9938	8632	8696	8226	9930	32342	48100	127370	126750	47302	25211	20619
MEAN	321	288	281	265	355	1043	1603	4109	4225	1526	813	687
MAX	405	340	304	330	653	1810	3240	7130	6310	3330	2130	1540
MIN	278	250	251	246	244	464	1020	1760	2280	714	598	393
AC-FT	19710	17120	17250	16320	19700	64150	95410	252600	251400	93820	50010	40900

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 1993, BY WATER YEAR (WY)

MEAN	339	376	289	295	330	654	1255	2891	2755	1014	657	701
MAX	369	482	323	335	355	1043	1603	4109	4225	1526	813	937
(WY)	1988	1988	1992	1988	1988	1993	1993	1993	1993	1993	1993	1991
MIN	321	288	264	265	282	454	733	1485	2094	746	531	501
(WY)	1993	1993	1988	1993	1992	1992	1988	1988	1988	1988	1991	1992

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1985 - 1993	
ANNUAL TOTAL	339044		473116			
ANNUAL MEAN	926		1296		984	
HIGHEST ANNUAL MEAN					1296	1993
LOWEST ANNUAL MEAN					719	1988
HIGHEST DAILY MEAN	4800	May 28	7130	May 28	7250	Jun 9 1985
LOWEST DAILY MEAN	236	Feb 20	244	Feb 6	109	Nov 10 1989
ANNUAL SEVEN-DAY MINIMUM	265	Feb 15	254	Jan 9	119	Nov 6 1989
INSTANTANEOUS PEAK FLOW			8600	May 28	13100	Jun 19 1949
INSTANTANEOUS PEAK STAGE			9.97	May 28	11.45	Jun 19 1949
ANNUAL RUNOFF (AC-FT)	672500		938400		712600	
10 PERCENT EXCEEDS	2610		3710		2700	
50 PERCENT EXCEEDS	443		640		586	
90 PERCENT EXCEEDS	276		271		272	

e-Estimated.

09365500 LA PLATA RIVER AT HESPERUS, CO

LOCATION.--Lat 37°17'23", long 108°02'24", in NE¼SW¼ sec.14, T.35 N., R.11 W., La Plata County, Hydrologic Unit 14080105, on right bank at Hesperus 700 ft downstream from U.S. Highway 160.

DRAINAGE AREA.--37 mi², approximately.

PERIOD OF RECORD.--June to August 1904, May 1905 to September 1906, August to November 1910, June 1917 to current year. Monthly discharge only for some periods, published in WSP 1313. Records for Nov. 11 to Dec. 31, 1910, published in WSP 289, have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1243: 1906(M). WSP 1563: 1923 (monthly figures only). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 8,104.71 ft above sea level. 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. 21, 22, Nov. 24 to Dec. 2, Dec. 5-7, 9-11, 13-31, Jan. 4-9, 11-14, 19-22, 24-29, Feb. 3-7, 9-16, 18-25, Mar. 2-8, and Mar. 12-14. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	8.0	6.8	5.7	5.5	41	209	471	120	28	53
2	10	10	8.0	6.9	5.6	5.5	41	169	434	115	26	43
3	10	8.9	7.9	6.7	5.5	6.0	42	171	362	104	26	37
4	10	8.1	8.0	6.0	5.5	6.5	46	182	279	84	26	32
5	11	8.0	8.0	7.0	5.5	7.0	51	178	232	67	23	28
6	10	7.7	7.0	8.0	5.5	7.0	52	144	184	67	22	26
7	9.8	7.6	7.0	7.0	5.5	7.0	44	131	149	68	19	23
8	10	7.6	7.2	8.0	5.4	7.0	44	114	129	67	20	22
9	12	7.6	7.0	7.0	5.5	7.5	49	100	114	60	24	21
10	11	8.0	7.0	6.6	5.5	7.9	59	96	105	54	24	20
11	11	8.4	7.0	7.0	5.0	8.4	76	124	132	55	23	19
12	10	7.7	7.0	6.0	5.0	8.0	79	210	200	54	17	19
13	9.7	7.8	7.5	6.0	4.5	7.0	71	292	261	48	16	27
14	9.6	8.0	7.0	6.0	4.5	8.0	69	245	264	43	16	19
15	9.4	8.0	6.5	6.0	4.0	8.7	66	241	270	40	15	17
16	9.0	8.3	6.5	6.0	4.0	9.7	73	368	264	36	14	17
17	8.8	8.4	6.5	6.1	4.4	10	90	401	239	33	20	16
18	8.5	8.4	6.0	6.0	4.0	10	110	318	165	33	20	16
19	8.4	9.0	7.0	6.0	6.0	12	102	329	161	32	19	15
20	8.2	9.6	6.5	6.0	5.0	12	101	383	202	34	19	15
21	8.3	9.5	6.5	5.5	5.0	14	118	479	229	35	25	14
22	8.8	9.5	6.5	6.5	4.5	15	155	527	222	31	29	14
23	8.4	9.7	6.5	5.9	5.0	19	203	486	203	30	18	14
24	8.0	9.0	6.5	5.0	5.0	26	190	476	186	32	19	13
25	9.2	8.5	6.5	5.0	5.0	35	148	531	163	31	21	13
26	9.3	8.5	7.0	5.5	5.2	46	157	533	159	36	23	13
27	8.6	8.5	7.0	6.0	5.2	52	202	541	153	34	23	13
28	9.2	8.5	7.5	6.0	5.3	63	223	533	141	32	73	12
29	11	8.0	7.5	5.5	---	55	272	384	151	31	89	12
30	10	8.0	7.5	5.4	---	47	271	430	142	32	72	12
31	14	---	7.0	5.3	---	44	---	509	---	31	64	---
TOTAL	303.2	254.8	218.6	192.7	141.8	576.7	3245	9834	6366	1569	873	615
MEAN	9.78	8.49	7.05	6.22	5.06	18.6	108	317	212	50.6	28.2	20.5
MAX	14	10	8.0	8.0	6.0	63	272	541	471	120	89	53
MIN	8.0	7.6	6.0	5.0	4.0	5.5	41	96	105	30	14	12
AC-FT	601	505	434	382	281	1140	6440	19510	12630	3110	1730	1220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1918 - 1993, BY WATER YEAR (WY)

MEAN	15.3	10.6	8.25	7.04	7.41	14.8	83.7	174	134	38.4	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1918 - 1993	
ANNUAL TOTAL	17664.3		24189.8			
ANNUAL MEAN	48.3		66.3		44.9	
HIGHEST ANNUAL MEAN					90.5	1941
LOWEST ANNUAL MEAN					9.94	1977
HIGHEST DAILY MEAN	379	May 27	541	May 27	934	Jun 28 1927
LOWEST DAILY MEAN	[a]6.0	Jan 15	[b]4.0	Feb 15	1.0	Feb 22 1939
ANNUAL SEVEN-DAY MINIMUM	6.5	Dec 15	4.3	Feb 12	1.9	Oct 13 1917
INSTANTANEOUS PEAK FLOW			660	May 22	[c]1880	Sep 22 1941
INSTANTANEOUS PEAK STAGE			3.86	May 22	[d]4.30	Sep 22 1941
ANNUAL RUNOFF (AC-FT)	35040		47980		32500	
10 PERCENT EXCEEDS	164		205		128	
50 PERCENT EXCEEDS	13		14		13	
90 PERCENT EXCEEDS	7.0		5.8		5.0	

a-Also occurred Dec 18.
b-Also occurred Feb 16 and 18.
c-Present datum, from rating curve extended above 620 ft³/s, on basis of slope-area measurement of peak flow.
d-Maximum gage height, 5.13 ft, Sep 6, 1970.

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 mi².

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1934 (M), 1936 (M).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,975.15 ft above sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934.

REMARKS.--Estimated daily discharges: Nov. 21, 22, Nov. 24 to Dec. 3, Dec. 5-11, Dec. 14 to Jan. 2, Jan. 4-9, 12, 13, and Jan. 24-29. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	11	7.0	12	17	32	202	315	335	64	14	39
2	4.3	8.6	8.0	12	16	29	226	215	281	62	13	22
3	3.6	8.0	9.0	13	15	29	225	184	200	67	11	17
4	3.9	7.8	9.4	12	15	37	256	169	140	54	11	15
5	4.2	7.5	9.0	14	15	38	279	180	97	48	12	14
6	4.0	7.3	7.0	14	15	41	291	159	68	48	11	15
7	3.6	7.2	6.0	15	14	41	255	135	55	43	10	13
8	4.1	7.1	7.0	15	17	45	238	132	48	42	9.9	12
9	4.4	6.8	8.0	15	34	52	240	109	44	41	13	9.9
10	4.2	6.4	7.0	15	28	58	261	89	43	35	13	8.7
11	4.2	7.5	8.0	15	24	67	298	87	49	40	14	8.2
12	4.3	7.1	9.6	12	21	91	315	119	69	46	11	8.3
13	4.3	6.8	10	13	20	90	274	181	86	41	12	41
14	4.1	6.8	9.0	14	19	84	257	211	103	37	13	31
15	4.0	6.9	8.0	14	19	80	238	190	125	32	14	19
16	4.3	7.1	8.0	13	20	87	241	220	131	26	8.9	17
17	4.6	7.0	6.0	15	19	106	252	325	153	24	6.9	15
18	5.3	7.0	8.0	17	18	112	292	293	85	21	5.4	14
19	4.7	7.0	7.0	24	26	181	273	253	62	21	3.5	13
20	4.2	7.2	5.0	17	42	196	247	254	61	21	4.2	13
21	3.8	7.0	6.0	17	35	175	251	320	70	16	8.2	12
22	4.4	7.0	6.0	16	27	208	287	432	92	16	12	11
23	4.2	7.2	6.0	15	26	216	334	383	78	15	6.5	10
24	4.2	7.0	6.0	15	26	237	407	307	82	14	4.9	10
25	6.4	7.0	6.0	15	25	253	338	303	79	17	4.1	10
26	6.9	7.0	6.0	14	26	275	296	344	77	19	4.8	10
27	6.2	7.0	6.0	14	27	302	343	399	68	19	9.5	10
28	5.7	7.0	8.0	13	29	248	320	419	70	17	20	9.9
29	6.8	7.0	9.0	13	---	220	360	337	65	14	43	10
30	7.7	7.0	9.0	14	---	200	351	265	92	14	31	10
31	9.9	---	9.0	15	---	198	---	289	---	15	66	---
TOTAL	152.1	218.3	233.0	452	635	4028	8447	7618	3008	989	420.8	448.0
MEAN	4.91	7.28	7.52	14.6	22.7	130	282	246	100	31.9	13.6	14.9
MAX	9.9	11	10	24	42	302	407	432	335	67	66	41
MIN	3.6	6.4	5.0	12	14	29	202	87	43	14	3.5	8.2
AC-FT	302	433	462	897	1260	7990	16750	15110	5970	1960	835	889

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1993, BY WATER YEAR (WY)

MEAN	14.0	11.8	12.0	11.5	16.9	35.6	110	113	67.1	20.3	12.0	11.4
MAX	260	99.2	53.9	38.3	53.9	130	363	506	306	99.4	65.1	126
(WY)	1942	1942	1987	1942	1924	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1921 - 1993	
ANNUAL TOTAL	13385.09		26649.2			
ANNUAL MEAN	36.6		73.0		36.3	
HIGHEST ANNUAL MEAN					109	1973
LOWEST ANNUAL MEAN					4.44	1977
HIGHEST DAILY MEAN	353	May 28	432	May 22	1120	May 4 1941
LOWEST DAILY MEAN	.56	Aug 21	3.5	Aug 19	[a].00	Jul 3 1922
ANNUAL SEVEN-DAY MINIMUM	1.2	Aug 16	4.0	Oct 2	.00	Jul 3 1922
INSTANTANEOUS PEAK FLOW			518	May 22	[b]4750	Aug 24 1927
INSTANTANEOUS PEAK STAGE			5.46	May 22	11.36	Aug 24 1927
ANNUAL RUNOFF (AC-FT)	26550		52860		26290	
10 PERCENT EXCEEDS	107		256		87	
50 PERCENT EXCEEDS	12		17		12	
90 PERCENT EXCEEDS	4.0		6.0		1.6	

a-No flow at times in many years.
b-Present datum, from rating curve extended above 750 ft³/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 sea level. See WSP 1713 or 1733 for history of changes prior to Mar. 11, 1954.

REMARKS.--Estimated daily discharges: Nov. 2-10, 23, 24, Nov. 26 to Dec. 15, Dec. 17 to Feb. 11, Feb. 20 to Mar. 2, Mar. 5-8, Apr. 3-8, July 17-19, 23-25, July 30 to Aug. 2, and Sept. 10-30. Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 10,000 acres upstream from station. One diversion upstream from station for irrigation of about 100 acres downstream from station. Flow regulated by Jackson Gulch Reservoir, capacity, 10,000 acre-ft since March 1949. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	73	20	24	62	130	171	443	360	64	.60	63
2	22	43	20	23	58	125	173	389	330	46	3.0	49
3	19	27	20	21	45	119	170	372	283	39	4.0	41
4	19	26	20	21	36	95	160	358	234	32	4.0	33
5	19	24	20	23	32	90	155	344	182	28	4.9	28
6	16	23	20	25	30	95	160	300	150	26	5.5	27
7	16	23	21	27	29	110	165	246	150	24	5.8	25
8	16	23	21	26	35	140	160	255	124	22	5.6	25
9	16	23	21	24	120	165	152	214	107	16	6.0	23
10	17	22	20	23	150	171	178	180	92	14	12	25
11	18	22	20	21	85	207	226	197	78	12	13	27
12	18	23	19	21	61	201	258	305	80	9.7	16	30
13	16	24	18	23	51	120	216	411	109	7.0	12	60
14	16	25	20	25	42	98	177	441	156	6.1	6.7	72
15	16	24	20	27	39	105	159	436	179	5.6	7.6	54
16	16	24	18	27	39	144	154	460	204	5.1	14	43
17	16	24	17	27	35	209	186	644	223	4.3	6.5	41
18	16	23	17	27	35	185	242	588	188	3.2	3.9	39
19	17	23	17	26	34	410	272	522	140	2.5	5.5	38
20	16	23	19	25	290	290	240	487	123	1.8	6.9	38
21	16	24	21	23	260	222	236	479	135	1.0	23	36
22	14	22	21	23	220	262	293	532	150	.63	44	34
23	14	22	11	23	160	258	373	517	125	.60	31	34
24	13	20	21	23	130	271	398	447	104	.62	23	35
25	22	11	21	24	125	284	330	402	90	.64	20	39
26	38	13	21	26	125	318	308	421	82	2.3	21	38
27	29	17	21	27	125	340	383	491	81	1.8	35	36
28	23	19	21	28	125	286	415	539	78	1.0	50	35
29	23	19	22	27	---	248	456	456	73	.69	111	34
30	30	21	23	30	---	240	486	386	60	.58	87	34
31	46	---	24	40	---	199	---	361	---	.44	69	---
TOTAL	617	730	615	780	2578	6137	7452	12623	4470	378.60	657.50	1136
MEAN	19.9	24.3	19.8	25.2	92.1	198	248	407	149	12.2	21.2	37.9
MAX	46	73	24	40	290	410	486	644	360	64	111	72
MIN	13	11	11	21	29	90	152	180	60	.44	.60	23
AC-FT	1220	1450	1220	1550	5110	12170	14780	25040	8870	751	1300	2250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 1993, BY WATER YEAR (WY)

MEAN	26.5	19.4	14.4	13.5	25.6	58.0	129	181	85.0	29.4	29.5	26.8
MAX	459	113	45.5	45.6	92.1	198	330	642	395	185	364	137
(WY)	1942	1987	1942	1942	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1921 - 1993	
ANNUAL TOTAL	25362.5		38174.10			
ANNUAL MEAN	69.3		105		52.4	
HIGHEST ANNUAL MEAN					138	1973
LOWEST ANNUAL MEAN					4.28	1959
HIGHEST DAILY MEAN	604	May 27	644	May 17	3050	Oct 14 1941
LOWEST DAILY MEAN	6.6	Jul 22	.44	Jul 31	[a].00	Jul 12 1922
ANNUAL SEVEN-DAY MINIMUM	7.0	Jun 30	1.1	Jul 26	.00	Jul 12 1922
INSTANTANEOUS PEAK FLOW			852	May 17	[b]5300	Oct 14 1941
INSTANTANEOUS PEAK STAGE			4.65	May 17	[c]7.30	Oct 14 1941
ANNUAL RUNOFF (AC-FT)	50310		75720		37950	
10 PERCENT EXCEEDS	204		312		147	
50 PERCENT EXCEEDS	23		33		16	
90 PERCENT EXCEEDS	11		11		.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 mi².

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 sea level, 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. 1-5, Nov. 17 to Feb. 11, Mar. 31 to Apr. 8, and June 23 to Aug. 2. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	2.4	.94	1.1	2.8	5.4	17	35	15	4.2	6.0	4.2
2	10	1.4	.92	1.1	2.7	4.0	16	36	14	4.3	5.8	4.6
3	12	1.2	.90	1.0	2.2	3.0	15	47	13	4.7	5.0	6.9
4	14	1.1	.90	.98	1.8	2.0	14	34	13	5.4	4.2	3.2
5	16	1.1	.92	1.0	1.5	1.6	14	35	15	5.2	5.0	1.4
6	16	1.1	.94	1.1	1.4	1.6	14	34	14	6.2	4.6	1.1
7	16	1.1	.96	1.2	1.4	1.8	15	32	15	5.6	5.0	1.4
8	15	1.1	.98	1.2	1.5	2.0	16	37	15	5.2	5.0	1.6
9	15	1.2	.98	1.1	4.4	1.8	17	46	15	5.2	5.8	1.3
10	15	1.2	.94	1.1	7.0	1.8	21	56	15	5.2	4.7	9.2
11	16	1.3	.92	1.0	5.0	2.0	25	91	14	5.2	4.6	3.4
12	16	1.2	.90	.96	3.4	1.3	24	28	12	4.6	6.2	3.2
13	16	1.1	.86	1.0	3.2	1.1	22	25	11	4.6	6.3	9.8
14	15	1.1	.90	1.1	3.0	1.3	21	24	12	4.4	14	12
15	13	1.1	.92	1.2	2.8	1.3	21	23	14	4.0	5.5	4.2
16	9.6	1.1	.86	1.3	3.0	1.8	21	22	17	3.8	4.2	3.8
17	8.5	1.1	.80	1.3	2.8	4.2	22	22	15	5.6	5.4	3.8
18	8.0	1.1	.78	1.3	2.6	7.4	27	20	9.7	4.8	7.9	4.6
19	7.5	1.1	.80	1.2	15	14	27	20	10	5.0	9.0	4.2
20	8.0	1.1	.86	1.2	100	15	26	19	8.5	4.1	8.5	4.2
21	7.5	1.1	.96	1.1	13	15	27	19	5.1	4.5	8.0	3.2
22	8.0	1.0	.98	1.1	7.1	15	31	18	5.8	5.2	7.1	2.2
23	7.1	1.0	.54	1.1	5.9	16	30	18	6.0	5.6	6.3	2.0
24	6.7	.94	.84	1.1	5.9	18	29	18	5.6	5.2	6.7	7.8
25	16	.52	.98	1.1	5.9	19	39	17	5.2	5.2	5.9	5.8
26	11	.60	.98	1.2	5.9	23	45	17	5.0	5.0	6.3	2.4
27	8.6	.74	.98	1.2	5.5	25	40	17	5.2	5.2	7.3	3.2
28	8.0	.86	.98	1.3	5.0	20	46	18	4.6	5.0	9.9	2.2
29	15	.88	1.0	1.3	---	18	35	23	4.2	4.8	14	2.4
30	14	.94	1.0	1.3	---	18	37	22	4.2	4.8	5.5	2.4
31	14	---	1.1	1.6	---	18	---	17	---	5.6	3.2	---
TOTAL	372.0	32.78	28.32	35.84	221.7	279.4	754	890	318.1	153.4	202.9	121.7
MEAN	12.0	1.09	.91	1.16	7.92	9.01	25.1	28.7	10.6	4.95	6.55	4.06
MAX	16	2.4	1.1	1.6	100	25	46	91	17	6.2	14	12
MIN	6.7	.52	.54	.96	1.4	1.1	14	17	4.2	3.8	3.2	1.1
AC-FT	738	65	56	71	440	554	1500	1770	631	304	402	241

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 1993, BY WATER YEAR (WY)

MEAN	12.0	8.48	2.02	1.20	3.28	4.16	10.8	16.9	12.8	11.6	12.2	13.6
MAX	20.3	15.4	5.25	1.94	7.92	9.01	25.1	28.7	18.2	16.8	18.9	22.7
(WY)	1988	1988	1987	1992	1993	1993	1993	1993	1987	1992	1991	1987
MIN	3.22	1.07	.73	.61	1.08	1.25	4.43	11.3	7.80	4.95	4.42	4.06
(WY)	1990	1990	1990	1990	1991	1990	1991	1989	1990	1993	1992	1993

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1987 - 1993	
ANNUAL TOTAL	3152.33		3410.14			
ANNUAL MEAN	8.61		9.34		9.41	
HIGHEST ANNUAL MEAN					11.2	1987
LOWEST ANNUAL MEAN					6.19	1990
HIGHEST DAILY MEAN	48	May 22	100	Feb 20	100	Feb 20 1993
LOWEST DAILY MEAN	.33	Aug 21	.52	Nov 25	[a].33	Aug 21 1992
ANNUAL SEVEN-DAY MINIMUM	.78	Nov 24	.78	Nov 24	.55	Jan 20 1990
INSTANTANEOUS PEAK FLOW			[b]		[c]366	Jul 31 1989
INSTANTANEOUS PEAK STAGE			3.67	Feb 20	5.63	Jul 31 1989
ANNUAL RUNOFF (AC-FT)	6250		6760		6820	
10 PERCENT EXCEEDS	19		22		20	
50 PERCENT EXCEEDS	6.6		5.2		7.8	
90 PERCENT EXCEEDS	.98		.98		.98	

a-May have been less during period of no gage-height record, Oct 1 to Apr 30, 1989, and Nov. 17 to Feb. 11, 1993.
b-See REMARKS.
c-On basis of slope-conveyance computation of peak flow.

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE¼NE¼ sec.21, T.32 N., R.20 W., Montezuma County, Hydrologic Unit 14080201, on left bank 1,300 ft upstream from bridge on U.S. Highway 160, 0.1 mi north of New Mexico-Colorado State line, 1.0 mi east of Four Corners Monument, 3.0 mi downstream from Mancos River, and at mile 187.2.

DRAINAGE AREA.--14,600 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,900 ft above sea level, from topographic map.

REMARKS.--Water-discharge records fair except for estimated daily discharges, which are poor. Flow partly regulated by Navajo Reservoir (09355100).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	793	1150	853	e990	930	3510	5730	7530	9480	4650	e636	4350
2	846	1110	886	e995	971	3860	5690	7380	10000	4280	e637	2750
3	751	1030	928	e1000	944	4170	5650	6990	10300	3840	e639	2340
4	722	969	963	e1010	911	4490	5680	7100	10000	3510	614	1860
5	696	960	e960	e1020	868	4650	5750	7430	9130	3260	588	1690
6	680	966	e965	e1020	911	4830	5920	7200	8310	2690	548	1540
7	683	909	e970	1030	882	4780	6020	6820	8060	2360	557	1440
8	670	927	e950	1930	908	4900	5850	6610	7800	2260	583	1280
9	657	934	937	3490	1340	5010	5690	6550	7430	2230	577	1210
10	757	877	947	2440	1530	4980	5740	6280	7220	2150	589	1070
11	705	912	895	1580	1360	5180	5990	5870	7050	2080	641	987
12	750	1010	870	1360	1300	5200	6310	5580	7090	1960	615	933
13	739	907	910	1090	1180	4970	6160	5900	7410	1820	673	1770
14	750	885	911	1030	1190	4870	6080	6270	8160	1630	1010	2530
15	671	854	946	976	1100	4940	6000	6560	8590	1500	1850	2090
16	735	849	951	1020	1110	5490	5920	7090	8950	1390	1590	1590
17	808	812	889	1280	1130	5700	5870	7660	9250	1290	1190	1360
18	829	862	914	1830	1130	5550	6040	7740	9260	1240	1000	1310
19	819	832	1120	2510	1100	6200	6130	6990	7910	1160	901	1190
20	859	870	1010	2600	1580	6110	6060	6880	6830	1110	849	1190
21	805	882	e1010	1940	2480	6020	5930	6840	7050	990	1590	1100
22	843	856	e1000	1320	2180	6280	6050	7400	7360	909	1870	973
23	862	892	e995	1190	1770	6290	6370	7830	7260	881	2250	945
24	865	884	e990	1070	1950	6310	6700	7230	6890	808	1630	884
25	807	880	e985	993	2480	6450	7030	6950	6460	802	1320	777
26	936	885	e980	947	2810	6530	6670	7260	5910	819	1170	847
27	1020	851	e975	853	3110	6720	6680	7970	5790	e762	1260	777
28	1090	820	e970	847	3450	6600	6970	9200	5640	e656	2050	732
29	1150	846	e975	854	---	6420	7220	9800	5290	e650	4240	731
30	1190	862	e980	889	---	6120	7430	9680	4750	e645	4700	719
31	1110	---	e985	933	---	5930	---	9240	---	e640	3350	---
TOTAL	25598	27283	29620	42037	42605	169060	185330	225830	230630	54972	41717	42965
MEAN	826	909	955	1356	1522	5454	6178	7285	7688	1773	1346	1432
MAX	1190	1150	1120	3490	3450	6720	7430	9800	10300	4650	4700	4350
MIN	657	812	853	847	868	3510	5650	5580	4750	640	548	719
AC-FT	50770	54120	58750	83380	84510	335300	367600	447900	457500	109000	82750	85220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 1993, BY WATER YEAR (WY)

MEAN	1317	1470	1537	1664	1803	2316	3420	4773	5093	2488	1455	1379
MAX	2959	3732	3466	3300	3365	5454	7893	10220	10370	6846	3016	3243
(WY)	1987	1987	1987	1987	1987	1993	1979	1979	1979	1979	1986	1986
MIN	634	838	799	760	739	707	613	1030	1236	743	259	467
(WY)	1978	1980	1990	1990	1990	1990	1990	1981	1989	1989	1978	1989

SUMMARY STATISTICS	FOR 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1978 - 1993	
ANNUAL TOTAL	747115		1117647			
ANNUAL MEAN	2041		3062		2392	
HIGHEST ANNUAL MEAN					4180	1987
LOWEST ANNUAL MEAN					991	1990
HIGHEST DAILY MEAN	8900	May 29	10300	Jun 3	16400	May 29 1979
LOWEST DAILY MEAN	409	Aug 21	548	Aug 6	110	Aug 17 1978
ANNUAL SEVEN-DAY MINIMUM	461	Aug 16	579	Aug 4	126	Aug 14 1978
INSTANTANEOUS PEAK FLOW			10600	Jun 2	16900	May 29 1979
INSTANTANEOUS PEAK STAGE			5.10	Jun 2	[a]6.25	May 29 1979
ANNUAL RUNOFF (AC-FT)	1482000		2217000		1733000	
10 PERCENT EXCEEDS	5860		7140		5610	
50 PERCENT EXCEEDS	1010		1320		1610	
90 PERCENT EXCEEDS	674		777		729	

a-Maximum gage height, 14.43 ft, Dec. 12, 1978, backwater from ice.
e-Estimated

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 September 1993 (discontinued).

REVISED RECORDS.--WSP 1313: 1927, 1927 (M).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,700 ft above sea level, 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: Dec. 5, 13, 15-25, Dec. 28 to Jan. 5, and Jan. 7-28. Records good except for 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	86	90	42	42	118	131	87	45	87	53	54	108
2	93	63	34	40	92	125	83	48	91	58	50	112
3	91	59	31	36	70	117	77	48	85	60	50	101
4	87	52	32	41	58	110	72	47	79	55	55	98
5	87	49	30	44	51	107	82	50	83	70	66	92
6	84	48	34	47	50	123	87	54	85	63	69	79
7	75	47	46	44	52	138	88	64	94	64	65	69
8	79	47	41	42	58	144	73	88	88	56	65	75
9	83	52	32	38	247	147	66	92	87	56	86	73
10	82	51	32	36	197	142	62	79	92	56	71	87
11	76	57	35	36	111	157	59	71	87	59	84	94
12	75	58	33	42	93	144	57	68	79	60	77	91
13	67	53	29	45	81	105	55	66	76	61	73	157
14	62	52	31	45	73	99	54	85	70	61	90	132
15	59	51	31	47	72	106	55	87	68	59	170	112
16	54	47	30	47	72	117	59	83	72	61	120	110
17	48	40	30	47	74	117	59	105	79	67	110	108
18	45	42	30	47	70	145	52	99	80	64	108	101
19	46	41	30	45	181	163	48	93	80	60	105	104
20	43	44	35	41	735	115	50	95	72	57	132	101
21	42	41	37	41	308	101	56	92	75	62	122	95
22	41	41	37	39	155	97	45	87	69	63	114	96
23	39	41	37	39	129	86	46	88	56	58	103	90
24	39	35	36	41	124	93	46	91	50	53	96	106
25	70	32	36	43	117	88	42	86	50	60	92	107
26	64	44	36	48	119	88	41	89	56	53	142	106
27	46	45	36	52	123	107	36	97	56	52	140	101
28	42	46	38	52	127	135	44	105	57	55	287	102
29	55	44	41	53	---	117	43	102	57	55	207	102
30	69	47	44	59	---	117	43	95	48	54	146	103
31	143	---	44	79	---	100	---	91	---	55	119	---
TOTAL	2072	1459	1090	1398	3757	3681	1767	2490	2208	1820	3268	3012
MEAN	66.8	48.6	35.2	45.1	134	119	58.9	80.3	73.6	58.7	105	100
MAX	143	90	46	79	735	163	88	105	94	70	287	157
MIN	39	32	29	36	50	86	36	45	48	52	50	69
AC-FT	4110	2890	2160	2770	7450	7300	3500	4940	4380	3610	6480	5970

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 1993, BY WATER YEAR (WY)

MEAN	54.9	48.1	33.8	29.8	46.9	52.5	43.2	66.9	77.5	75.7	76.7	79.3
MAX	135	95.2	55.7	52.4	134	119	93.2	166	186	136	172	205
(WY)	1942	1988	1985	1942	1993	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1927 - 1993	
ANNUAL TOTAL	25292		28022			
ANNUAL MEAN	69.1		76.8		57.4	
HIGHEST ANNUAL MEAN					81.7	1941
LOWEST ANNUAL MEAN					19.1	1951
HIGHEST DAILY MEAN	333	Sep 20	735	Feb 20	1480	Sep 9 1927
LOWEST DAILY MEAN	25	Jan 2	29	Dec 13	[a]2.0	Nov 30 1926
ANNUAL SEVEN-DAY MINIMUM	27	Apr 13	30	Dec 13	2.0	Sep 16 1928
INSTANTANEOUS PEAK FLOW			890	Feb 20	[b]5560	Sep 9 1927
INSTANTANEOUS PEAK STAGE			7.00	Feb 20	7.20	Sep 4 1991
ANNUAL RUNOFF (AC-FT)	50170		55580		41610	
10 PERCENT EXCEEDS	113		118		104	
50 PERCENT EXCEEDS	56		66		47	
90 PERCENT EXCEEDS	31		40		19	

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, gage height 5.72 ft, site and datum then in use.

09371500 MCELMO CREEK NEAR CORTEZ, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1982 to September 1993 (Discontinued). Water-quality analysis since August 1987.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1982 to September 1993 (Discontinued).
WATER TEMPERATURES: February 1982 to September 1993 (Discontinued).

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 Apr. 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 3,500 microsiemens Apr. 20; minimum, 1,250 microsiemens Aug 20.
WATER TEMPERATURES: Maximum 24.7°C July 30; minimum 0.0°C, many days during November through February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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										
02...	1330	93	1520	8.4	13.5	850	210	79	63	0.9
NOV										
09...	1230	52	2280	8.5	5.5	1300	280	140	120	1
DEC										
17...	1330	27	2900	8.5	0.0	1600	330	200	210	2
JAN										
29...	1310	55	2960	8.4	2.0	1700	350	200	200	2
FEB										
25...	1255	111	2780	8.4	2.0	1600	330	190	190	2
APR										
09...	1335	68	2510	8.3	10.0	1400	290	170	160	2
MAY										
13...	1115	68	2160	8.3	15.0	1100	250	120	110	1
JUN										
04...	1430	80	1720	8.5	16.5	790	180	83	75	1
AUG										
11...	1300	89	1510	8.2	20.0	790	190	76	60	0.9
18...	1200	108	1460	8.3	17.0	830	210	73	54	0.8
SEP										
03...	1030	101	1860	8.3	15.0	1000	240	100	83	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)	SOLIDS, DISSOLVED (TONS PER DAY)
OCT									
02...	3.4	209	700	16	0.3	9.7	1210	1.64	303
NOV									
09...	4.5	237	1200	25	--	9.7	1920	2.62	270
DEC									
17...	4.6	286	1800	39	0.4	13	2770	3.77	202
JAN									
29...	5.5	290	1600	42	0.3	11	2580	3.51	384
FEB									
25...	5.8	284	1500	44	0.4	10	2440	3.32	731
APR									
09...	4.2	234	1300	35	0.3	8.5	2110	2.87	387
MAY									
13...	5.1	151	1100	28	0.3	4.5	1710	2.32	314
JUN									
04...	3.8	180	730	17	0.3	10	1210	1.64	261
AUG									
11...	4.8	229	640	14	0.3	12	1130	1.54	273
18...	3.4	196	640	13	0.3	11	1120	1.53	327
SEP									
03...	4.0	230	850	18	0.4	13	1450	1.97	394

09371500 MCELMO CREEK NEAR CORTEZ, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1650	2020	2530	2740	2840	2880	---	2470	---	---	1570	---
2	1630	2140	2530	2740	3050	2710	---	2430	---	---	1500	---
3	1610	2170	2840	2930	3040	2720	---	2370	---	---	1540	---
4	1620	2160	2910	2880	3020	2760	---	2380	---	---	1570	1680
5	1600	2180	2870	2950	3000	2720	---	2360	1520	---	1540	1610
6	1600	2170	2840	2860	3030	2570	---	2360	1480	---	1480	1650
7	1650	2180	2750	---	3060	2290	---	2300	1440	---	1450	1650
8	1650	2200	2860	---	3090	2200	---	2340	1440	---	1410	1590
9	1680	2380	2860	---	---	2210	---	2340	1490	---	1520	1610
10	1650	2360	2850	---	---	2230	2720	2150	1520	---	1520	1550
11	1700	2350	2870	---	---	2130	2740	2110	1560	---	1510	1500
12	1710	2410	2980	---	2910	2120	2750	2180	1560	---	1490	1560
13	1760	2440	2920	---	2970	2420	2740	2170	1540	---	1480	1720
14	1790	2460	2920	---	---	2570	2730	2100	1490	---	1600	1610
15	1820	2430	2900	---	---	2550	2760	1910	1490	---	1610	1680
16	1870	2420	2840	---	---	2360	2740	1980	1460	---	1530	1650
17	1950	2490	2950	---	---	2240	2810	2000	1400	---	1530	1560
18	2050	2470	2930	---	---	2280	2750	1960	1300	---	1510	1540
19	2030	2360	2800	---	---	2010	2700	1910	---	---	1440	1550
20	2020	2380	2910	---	---	2130	2750	1870	---	---	1420	1520
21	2010	2480	2940	---	---	2290	2300	1810	---	---	---	1550
22	2060	2660	2890	---	---	2280	2560	1750	---	---	---	1550
23	2060	2710	2850	---	---	2050	2600	1740	---	---	---	1590
24	2050	2650	2910	---	---	---	2540	1690	---	1440	---	1540
25	2240	2670	2980	---	2940	---	2570	1770	---	1470	---	1470
26	2200	2760	3010	---	3130	---	2610	1800	---	1520	1530	1520
27	2160	2430	2890	---	3070	---	2750	1730	---	1560	1590	1510
28	2150	2450	2190	---	2930	---	2660	1630	---	1560	---	1490
29	2230	2420	2300	---	---	---	2620	---	---	1550	---	1450
30	2250	2540	2450	3070	---	---	2600	---	---	1550	---	1450
31	2020	---	2650	2930	---	---	---	---	---	1550	---	---
MEAN	1890	2400	2800	---	---	---	---	---	---	---	---	---

09371500 MCELMO CREEK NEAR CORTEZ, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.3	11.0	7.6	5.1	.0	.0	.0	.0	3.7	1.5	6.9	3.9
2	15.0	10.9	8.0	5.7	.0	.0	.0	.0	3.6	1.7	6.1	2.3
3	14.5	10.3	6.1	3.6	.1	.0	.0	.0	3.1	.3	5.8	1.7
4	14.4	10.2	4.6	1.6	.2	.0	.0	.0	2.9	.0	5.9	1.4
5	13.7	9.4	4.8	1.6	.1	.0	.0	.0	2.7	.0	6.0	1.3
6	13.9	10.0	4.8	1.3	.4	.0	.0	.0	3.3	.0	7.3	2.4
7	11.7	8.5	5.2	1.6	.0	.0	.0	.0	3.4	.5	7.3	2.7
8	10.1	5.9	5.7	1.8	.0	.0	.0	.0	3.4	2.3	7.3	2.9
9	10.9	6.1	6.4	3.6	.6	.0	.2	.0	2.9	1.8	6.8	3.6
10	11.7	6.8	5.3	3.3	.6	.0	.2	.0	3.2	1.6	7.2	3.7
11	11.9	7.1	4.5	2.4	.7	.0	.7	.0	3.4	1.3	7.5	5.3
12	12.3	7.4	3.4	.7	1.3	.4	.0	.0	4.0	1.0	5.9	2.9
13	12.4	7.6	4.1	.8	1.4	.0	.0	.0	3.7	.8	5.2	1.1
14	12.3	7.8	4.7	1.3	.0	.0	1.0	.0	---	---	5.9	1.9
15	12.6	8.2	5.2	1.7	.0	.0	3.0	1.0	---	---	8.8	4.8
16	11.8	8.4	5.5	2.2	.0	.0	3.2	1.8	---	---	9.2	5.3
17	11.8	7.0	5.7	2.5	.0	.0	2.4	1.6	---	---	8.0	5.5
18	11.6	6.8	5.6	2.8	.0	.0	2.9	1.2	---	---	9.4	6.3
19	12.1	7.2	5.1	2.8	.0	.0	2.8	1.2	---	---	9.0	6.0
20	12.4	7.3	4.2	2.2	.0	.0	1.8	.0	---	---	8.4	5.7
21	11.8	8.2	3.6	.7	.0	.0	2.1	.0	---	---	11.1	6.2
22	13.1	8.3	3.2	.6	.0	.0	2.9	.0	---	---	10.6	5.8
23	13.5	8.6	2.9	.3	.0	.0	2.2	.0	---	---	11.3	5.7
24	12.8	9.3	.6	.0	.0	.0	.8	.0	---	---	11.4	6.2
25	12.2	9.9	.0	.0	.0	.0	.5	.0	3.0	1.1	12.7	7.6
26	11.8	8.5	.0	.0	.0	.0	1.1	.0	4.7	2.0	10.8	8.6
27	11.1	7.5	.0	.0	.0	.0	2.2	.0	6.0	2.6	9.2	6.4
28	10.6	9.3	.0	.0	.0	.0	2.4	.0	5.7	4.0	6.8	5.6
29	10.1	8.6	.0	.0	.2	.0	2.9	.0	---	---	9.3	4.8
30	9.5	8.6	.0	.0	.3	.1	4.2	2.2	---	---	8.5	6.0
31	9.1	7.1	---	---	.3	.0	4.8	2.1	---	---	10.1	5.0
MONTH	15.3	5.9	8.0	.0	1.4	.0	4.8	.0	---	---	12.7	1.1

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.5	5.6	16.3	10.1	20.7	14.8	23.4	15.1	23.7	17.9	20.5	15.4
2	9.6	7.0	14.7	8.7	19.0	15.1	23.7	15.8	24.5	16.8	19.8	15.6
3	11.3	4.9	16.8	9.4	18.2	12.9	22.9	16.9	22.0	16.4	19.9	14.3
4	11.1	6.3	15.0	11.2	16.6	11.9	20.6	14.8	20.3	16.3	20.0	14.2
5	11.0	7.7	12.7	9.1	16.7	13.1	21.2	14.2	23.2	17.0	20.9	15.8
6	9.3	7.5	13.2	7.5	17.5	13.1	22.5	14.6	22.3	16.4	20.6	15.4
7	10.2	5.5	14.0	10.1	17.6	11.8	23.2	15.5	22.5	16.1	20.7	15.2
8	11.3	4.7	11.1	7.7	17.3	12.6	23.8	16.1	20.5	17.6	19.8	14.0
9	12.5	6.1	14.0	6.3	16.0	11.6	24.4	16.6	23.1	17.6	19.5	13.4
10	13.8	8.0	16.6	8.5	19.3	11.7	23.7	16.7	23.7	19.0	19.7	14.0
11	13.5	8.3	18.3	10.3	19.5	13.6	24.5	17.2	21.9	16.9	19.6	13.9
12	10.7	8.2	19.5	11.4	21.0	13.8	23.1	18.1	22.3	16.8	17.2	13.7
13	11.6	5.7	20.4	13.6	21.8	14.3	22.6	16.7	21.0	17.0	15.9	13.6
14	10.4	5.7	19.1	12.8	22.7	15.0	22.6	16.6	18.7	16.7	15.0	10.7
15	11.3	5.3	19.1	12.9	21.1	15.2	23.5	16.3	20.2	15.1	15.5	10.7
16	13.2	7.8	18.5	15.1	20.6	16.3	20.5	16.2	20.8	15.5	16.6	12.2
17	14.8	8.3	16.2	13.7	18.0	14.4	22.5	16.3	18.7	15.7	16.9	12.3
18	13.8	9.8	18.4	11.9	19.4	12.6	22.2	14.8	20.8	14.5	14.9	12.0
19	13.2	6.9	18.9	13.1	21.4	13.6	22.4	15.2	20.7	16.5	15.0	10.4
20	13.6	6.3	20.0	14.1	22.9	14.9	23.2	15.9	19.1	16.9	16.0	10.6
21	14.4	8.1	20.3	15.2	21.8	16.6	22.1	15.8	19.8	16.6	16.5	10.9
22	15.7	9.3	19.8	13.9	21.9	14.7	20.9	14.6	20.6	15.5	17.2	11.5
23	16.6	10.6	19.8	13.5	22.4	14.9	22.4	15.5	20.8	15.0	17.0	11.8
24	15.2	10.8	20.0	13.6	21.8	14.5	21.4	15.9	20.9	15.0	15.5	11.5
25	15.8	7.9	21.2	14.1	22.3	13.4	23.2	15.6	18.6	15.5	14.9	10.0
26	16.8	9.3	21.5	16.4	22.5	14.7	22.7	15.5	18.8	16.5	14.6	9.7
27	17.4	12.0	19.9	16.2	23.1	15.5	22.8	15.3	18.3	17.0	14.6	9.4
28	18.3	11.5	19.3	14.7	21.1	16.0	23.4	15.9	18.1	15.8	14.9	9.7
29	17.2	9.8	20.0	14.5	23.4	16.0	24.3	18.2	20.0	16.5	15.1	10.1
30	16.0	10.5	21.4	14.1	23.6	15.5	24.7	19.1	20.2	16.5	14.8	9.8
31	---	---	21.3	14.4	---	---	24.3	17.8	19.2	17.1	---	---
MONTH	18.3	4.7	21.5	6.3	23.6	11.6	24.7	14.2	24.5	14.5	20.9	9.4

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 water temperature data are fair. Daily specific conductance data are poor.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 3,710 microsiemens, Mar. 28, 1992; minimum, 1,030 microsiemens, May 25, 1992.
WATER TEMPERATURE: Maximum, 25.7°C, July 30, 1993; minimum, 0.0°C during winter months each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum, 3,560 microsiemens, Dec. 17; minimum, 1,180 microsiemens, Aug. 28.
WATER TEMPERATURE: Maximum, 25.7°C, July 30; minimum, 0.0°C on many days Nov. to Feb.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

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
DEC										
17...	1200	--	3320	8.8	0.0	1800	380	210	220	2
JAN										
29...	1215	--	3070	8.4	1.0	1700	340	210	220	2
JUN										
04...	1300	--	1690	8.3	15.5	800	180	85	79	1
AUG										
11...	1200	--	1560	8.2	19.5	1000	220	110	100	1
25...	1345	93	1540	8.2	18.5	840	210	77	58	0.9
SEP										
03...	1105	101	1790	8.3	16.0	1000	250	93	73	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)
DEC									
17...	4.9	297	1800	43	0.3	12	2850	3.87	--
JAN									
29...	6.1	291	1700	48	0.3	10	2710	3.68	--
JUN									
04...	3.8	221	720	17	0.3	9.7	1230	1.67	--
AUG									
11...	5.5	235	690	14	0.3	13	1290	1.76	--
25...	3.4	214	680	13	0.3	3.0	1170	1.60	295
SEP									
03...	3.8	223	790	16	0.4	13	1370	1.87	374

09371520 MCELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1660	2200	2580	2790	---	2880	1550	2420	1850	1260	1470	1510
2	1680	2250	2330	2850	---	2680	1680	2360	1780	1270	1430	1680
3	1610	2260	2500	2870	---	2730	1850	2300	1680	1360	1440	1680
4	1610	2260	2660	3030	---	2810	2440	2280	1670	1330	1450	1640
5	1600	2300	2710	3060	---	2750	2640	2230	1630	1290	1470	1570
6	1600	2320	2740	2950	---	2620	2650	2190	1590	1260	1430	1600
7	1630	2350	2770	2690	---	2320	2900	2150	1540	1240	1430	1610
8	1650	2370	2790	---	---	2190	2950	2200	1550	1250	1420	1550
9	1670	2390	2840	---	---	2130	2630	2200	1590	1280	1490	1560
10	1680	2400	2860	2160	---	2130	2610	2070	1640	1290	1520	1480
11	---	2370	2870	2550	---	2020	2630	2120	1660	1300	1490	1430
12	---	2440	2900	2730	---	1990	2640	2190	1670	1300	1440	1460
13	---	2400	2960	2860	---	2220	2630	2240	1650	1230	1450	1560
14	---	2410	2990	2920	---	2430	2630	2140	1620	1230	1520	1510
15	---	2310	3210	3030	---	2370	2650	2040	1630	1290	1520	1540
16	---	2300	3170	3030	---	2220	2630	2040	1610	1370	1460	1530
17	---	2400	3270	2950	---	2050	2680	2070	1560	1390	1440	1500
18	---	2400	3210	2790	---	2070	2630	1990	1500	1380	1440	1500
19	---	2240	3140	2590	---	1950	2590	1930	1530	1390	1410	1490
20	---	2220	3280	2610	---	1940	2590	1780	1530	1430	1520	1470
21	---	2290	3320	2910	2100	2040	2330	1680	1530	1450	1460	1490
22	---	2450	3260	3030	2620	2260	2410	1680	1520	1460	1480	1560
23	---	2540	3210	3090	2860	2240	2490	1780	1590	1420	1470	1650
24	---	2580	3190	3100	2960	2110	2410	1740	1700	1430	1470	1600
25	2090	2620	3200	3170	2990	2060	2460	1810	1630	1440	1450	1520
26	2190	2670	3220	3200	3120	2020	2530	1880	1600	1460	1430	1540
27	2180	2480	3190	3200	3080	2010	2670	1860	1540	1460	1490	1540
28	2200	2310	2970	3180	2950	2010	2650	1850	1500	1370	1420	1520
29	2250	2330	2490	3170	---	1760	2520	1800	1390	1390	1500	1490
30	2280	2420	2520	3150	---	1680	2510	1830	1330	1470	1580	1470
31	2200	---	2670	---	---	1520	---	1850	---	1470	1320	---

09371520 MCELMO CREEK ABOVE TRAIL CANYON NEAR CORTEZ, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.8	11.8	8.3	6.3	.1	.0	.0	.0	3.8	1.9	6.6	3.9
2	15.6	11.6	8.7	6.8	.1	.0	.0	.0	3.5	1.8	5.8	2.5
3	15.1	11.1	7.0	4.9	.1	.0	.0	.0	3.1	.5	5.4	2.0
4	14.9	10.9	5.4	2.9	.2	.0	.0	.0	3.1	.0	5.6	1.7
5	14.4	10.2	5.5	2.7	.1	.0	.0	.0	3.2	.0	5.8	1.6
6	14.5	10.8	5.5	2.5	.6	.0	.0	.0	3.5	.0	6.9	2.6
7	12.3	9.4	5.8	2.7	.1	.0	.0	.0	3.4	.6	6.9	2.8
8	10.7	6.8	6.2	2.9	.1	.0	.1	.0	3.4	2.4	7.0	3.1
9	11.4	7.1	7.2	4.5	.7	.0	.3	.0	3.2	2.0	6.7	3.8
10	12.2	7.8	6.5	4.3	.8	.0	.2	.0	3.0	1.7	7.1	3.9
11	12.5	8.1	5.6	3.3	.6	.0	1.1	.0	3.3	1.6	7.1	5.2
12	12.8	8.3	4.4	1.9	1.3	.4	.0	.0	3.6	1.2	5.9	3.0
13	12.9	8.6	4.9	1.9	1.5	.0	.1	.0	3.8	1.1	4.7	1.3
14	13.0	8.7	5.5	2.3	.1	.0	1.2	.0	3.0	.9	5.7	2.1
15	13.1	9.0	5.9	2.6	.1	.0	3.2	.5	3.4	1.7	8.2	4.8
16	12.5	9.2	6.3	3.1	.0	.0	3.3	1.9	3.8	1.6	8.8	5.5
17	12.3	8.0	6.2	3.4	.1	.0	2.6	1.8	4.7	2.5	7.8	5.5
18	12.3	7.8	6.1	3.5	.0	.0	2.9	1.5	4.5	1.3	9.3	6.2
19	12.5	8.1	5.1	3.4	.0	.0	2.9	1.4	4.4	3.9	8.7	6.2
20	12.8	8.3	4.7	2.8	.0	.0	1.9	.0	4.2	1.5	8.3	5.8
21	12.2	9.0	3.6	1.8	.0	.0	2.3	.0	2.6	.7	10.7	6.1
22	13.4	9.1	3.4	1.3	.0	.0	3.0	.0	3.2	.3	10.4	5.9
23	13.9	9.5	2.8	.6	.0	.0	2.1	.0	4.3	.9	11.0	5.7
24	13.4	9.9	1.2	.0	.0	.0	1.3	.0	3.7	2.0	11.0	6.3
25	12.9	10.7	.1	.0	.0	.0	1.1	.0	2.8	1.3	12.5	7.6
26	12.5	9.5	.1	.0	.0	.0	1.6	.0	5.0	2.1	10.8	8.6
27	11.7	8.5	.1	.0	.0	.0	2.3	.0	5.6	2.8	9.1	6.5
28	11.3	10.0	.1	.0	.0	.0	2.7	.0	5.6	4.0	6.6	5.6
29	10.7	9.4	.1	.0	.0	.0	3.1	.0	---	---	8.9	4.8
30	10.3	9.4	.1	.0	.0	.0	4.1	2.3	---	---	8.4	5.9
31	9.9	8.1	---	---	.0	.0	4.7	2.3	---	---	9.8	5.1
MONTH	15.8	6.8	8.7	.0	1.5	.0	4.7	.0	5.6	.0	12.5	1.3

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	10.1	5.7	15.9	10.2	21.6	15.4	23.7	15.6	24.7	18.4	20.9	15.9
2	9.3	7.6	14.7	9.1	19.7	15.7	24.2	16.3	24.6	17.2	20.4	16.1
3	10.9	4.9	16.9	9.6	18.6	13.3	23.5	17.4	22.0	16.9	20.3	14.8
4	10.9	6.4	15.4	11.3	17.1	12.4	21.3	15.4	20.7	16.7	20.3	14.7
5	11.0	7.7	12.6	9.7	17.0	13.5	21.8	14.7	23.5	17.4	21.2	16.2
6	9.5	7.6	13.2	8.0	18.0	13.4	22.9	15.1	22.9	17.0	20.9	16.0
7	9.9	5.6	14.0	10.5	17.6	12.3	23.6	16.0	22.7	16.6	20.9	15.8
8	10.9	4.8	11.7	8.4	17.7	13.2	24.1	16.5	20.8	18.2	20.0	14.6
9	12.0	6.2	14.1	6.9	15.9	12.1	24.5	17.2	23.7	18.0	19.9	14.0
10	13.3	8.0	16.6	9.2	19.5	12.1	24.4	17.1	24.2	19.3	20.2	14.6
11	13.2	8.2	18.7	10.9	19.9	14.2	25.1	17.7	22.1	17.5	20.0	14.4
12	10.8	8.2	20.0	12.1	21.5	14.2	23.5	18.6	22.7	17.3	17.6	14.1
13	11.2	5.9	20.8	14.1	22.3	14.8	23.1	17.2	21.3	17.6	16.1	13.8
14	10.3	5.8	19.6	13.5	23.3	15.5	23.2	17.0	19.1	16.9	15.3	11.0
15	11.2	5.5	19.7	13.5	21.6	15.8	24.0	16.7	20.8	15.5	16.1	11.1
16	13.0	7.9	18.4	15.6	21.3	16.9	20.8	16.8	21.2	16.1	17.0	12.7
17	14.7	8.4	16.6	14.1	18.5	15.0	22.8	16.7	19.1	16.1	17.1	12.7
18	13.8	10.4	18.5	12.4	19.8	13.0	22.6	15.3	21.4	14.9	15.3	12.4
19	13.0	7.1	19.8	13.7	21.9	14.1	22.8	15.6	21.3	17.0	15.4	10.8
20	13.5	6.4	20.4	14.7	22.7	15.4	23.7	16.3	19.5	17.4	16.4	11.1
21	14.4	8.3	20.8	15.8	22.6	17.3	22.7	16.2	20.4	17.0	16.9	11.4
22	15.7	9.3	20.2	14.5	22.4	15.2	21.4	15.1	21.1	16.1	17.2	11.9
23	16.5	10.4	21.0	14.0	22.8	15.4	22.6	15.9	21.3	15.5	17.2	12.2
24	15.8	11.4	20.2	14.2	22.0	15.0	21.4	16.5	21.4	15.6	15.7	12.0
25	15.8	8.1	22.1	14.5	22.6	13.8	23.2	16.0	19.0	16.0	14.9	10.6
26	16.8	9.2	22.4	16.9	23.0	15.0	23.2	16.0	19.0	16.9	14.8	10.3
27	17.5	11.7	20.3	16.7	23.4	16.0	23.3	15.6	18.6	17.4	14.7	10.0
28	18.1	11.5	19.7	15.2	21.9	16.4	24.0	16.2	18.3	16.2	14.8	10.2
29	17.1	10.0	20.2	15.1	23.8	16.6	25.2	18.7	20.4	17.0	15.0	10.4
30	16.2	10.7	22.1	14.6	23.8	15.9	25.7	19.5	20.8	16.9	14.8	10.3
31	---	---	21.8	15.0	---	---	24.9	18.3	19.9	17.5	---	---
MONTH	18.1	4.8	22.4	6.9	23.8	12.1	25.7	14.7	24.7	14.9	21.2	10.0

09372000 McELMO CREEK NEAR COLORADO-UTAH STATE LINE

LOCATION.--Lat 37°19'27", long 109°00'54", in NE1/4 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 sea level, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 17 to Jan. 25. 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 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	90	143	58	50	125	161	119	42	42	34	40	120
2	95	92	48	46	119	155	104	44	51	36	37	112
3	97	83	44	42	86	134	96	40	57	39	32	110
4	92	83	40	42	69	121	92	36	59	46	35	95
5	89	76	38	48	62	112	89	41	79	43	40	89
6	89	73	40	54	59	121	88	47	83	53	46	73
7	81	70	44	54	58	152	95	49	94	43	57	64
8	81	71	55	50	57	171	95	71	89	43	59	58
9	81	71	46	48	242	180	89	96	87	43	63	57
10	81	70	40	44	299	172	84	77	94	43	67	60
11	79	76	42	42	161	187	81	70	89	44	56	65
12	76	79	40	42	115	189	78	61	78	38	70	71
13	75	76	36	46	94	136	76	56	72	39	73	167
14	62	73	38	52	81	114	73	60	68	36	114	166
15	61	70	38	54	76	114	73	79	64	33	153	112
16	60	70	36	54	73	131	75	70	62	31	123	101
17	58	60	35	54	75	138	79	93	68	48	99	97
18	56	54	35	54	75	151	73	104	79	40	90	92
19	49	54	36	52	111	232	68	92	78	42	95	91
20	46	54	38	50	1160	156	65	84	70	33	134	92
21	44	56	44	46	897	131	73	76	68	37	135	84
22	44	52	44	46	286	114	64	73	73	43	121	81
23	42	52	44	46	192	106	62	73	65	47	97	81
24	44	50	42	46	165	104	61	71	52	42	84	86
25	64	41	42	48	161	104	56	55	47	43	79	94
26	121	44	42	53	155	97	55	38	44	42	125	92
27	64	55	42	54	157	97	47	42	49	43	198	87
28	53	57	44	57	161	160	47	54	39	40	413	83
29	79	58	46	51	---	160	47	59	35	40	466	81
30	81	58	48	60	---	141	44	56	35	39	203	83
31	128	---	50	68	---	138	---	41	---	43	157	---
TOTAL	2262	2021	1315	1553	5371	4379	2248	1950	1970	1266	3561	2744
MEAN	73.0	67.4	42.4	50.1	192	141	74.9	62.9	65.7	40.8	115	91.5
MAX	128	143	58	68	1160	232	119	104	94	53	466	167
MIN	42	41	35	42	57	97	44	36	35	31	32	57
AC-FT	4490	4010	2610	3080	10650	8690	4460	3870	3910	2510	7060	5440

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 1993, BY WATER YEAR (WY)

MEAN	54.1	49.1	39.3	33.2	49.8	59.8	42.6	48.0	54.5	50.9	61.3	54.8
MAX	161	122	95.4	68.4	192	197	148	108	105	132	160	226
(WY)	1973	1988	1966	1969	1993	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 1992 CALENDAR YEAR		FOR 1993 WATER YEAR		WATER YEARS 1951 - 1993	
ANNUAL TOTAL	25921.5		30640			
ANNUAL MEAN	70.8		83.9		50.3	
HIGHEST ANNUAL MEAN					94.6	1973
LOWEST ANNUAL MEAN					16.2	1977
HIGHEST DAILY MEAN	348	May 27	1160	Feb 20	1200	Aug 7 1967
LOWEST DAILY MEAN	3.6	Apr 27	31	Jul 16	[a].08	Sep 9 1977
ANNUAL SEVEN-DAY MINIMUM	10	Apr 24	36	Dec 13	.14	Sep 21 1956
INSTANTANEOUS PEAK FLOW			1810	Feb 20	[b]3040	Aug 7 1967
INSTANTANEOUS PEAK STAGE			7.16	Feb 20	[c,d]7.58	Aug 7 1967
ANNUAL RUNOFF (AC-FT)	51420		60770		36420	
10 PERCENT EXCEEDS	115		138		95	
50 PERCENT EXCEEDS	61		68		37	
90 PERCENT EXCEEDS	35		40		12	

a-Also occurred Sep 10, 1977.
b-From rating curve extended above 2100 ft^3/s.
c-From floodmark 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 1992 TO SEPTEMBER 1993

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										
02...	1020	100	1800	8.1	12.0	1000	240	99	92	1
NOV										
09...	1045	73	2400	8.4	6.0	1300	290	150	140	2
DEC										
17...	1050	34	3010	9.0	0.0	1700	350	200	220	2
JAN										
29...	1100	59	3140	8.3	2.0	1700	350	210	220	2
MAR										
02...	1445	161	2740	8.3	7.5	1400	300	170	170	2
APR										
08...	1345	97	2540	8.2	10.0	1400	280	170	170	2
JUN										
04...	1205	59	1940	8.2	15.0	910	200	100	100	1
AUG										
11...	1015	55	1970	8.4	20.5	780	190	74	--	0.9
18...	1315	90	1810	8.1	20.5	1000	250	98	88	1
SEP										
03...	1215	109	1980	7.9	18.5	1100	240	110	94	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									
02...	4.2	231	860	20	0.4	10	1460	1.99	395
NOV									
09...	4.9	263	1200	28	--	10	1970	2.68	388
DEC									
17...	5.1	287	1800	42	0.3	13	2800	3.81	257
JAN									
29...	5.7	298	1700	51	0.3	11	2730	3.71	434
MAR									
02...	6.1	262	1400	39	0.3	11	2250	3.06	980
APR									
08...	4.6	235	1300	36	0.4	9.9	2110	2.87	553
JUN									
04...	4.6	248	920	23	0.3	11	1510	2.05	240
AUG									
11...	5.1	169	880	19	0.4	13	1340	1.82	199
18...	4.2	243	790	19	0.3	13	1410	1.92	342
SEP									
03...	4.2	239	880	22	0.3	14	1510	2.05	444

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 NW1/4 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 1992 TO SEPTEMBER 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09010000	0	0	0	0	0	0	0	583	10,300	9,910	3,260	718

Water year 1993, 24,770

09013000 Alva B. Adams Tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW1/4 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 1992 TO SEPTEMBER 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09013000	6,870	22,340	29,050	26,110	21,600	345	5,290	21,580	6,100	16,560	28,830	21,680

Water year 1993, 206,400

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 1992 TO SEPTEMBER 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09021500	0	0	0	0	0	0	0	0	378	613	206	60

Water year 1993, 1,260

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 SW1/4SW1/4 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 1992 TO SEPTEMBER 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09050590	2,750	9,080	6,350	6,110	5,650	6,380	3,890	3,850	21,450	27,160	17,720	13,780

Water year 1993, 124,200

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 SE¼ 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 SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ 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 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09042000	0	0	0	0	0	0	0	1,390	4,780	2,550	1,930	387

Water year 1993, 11,040

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 1992 TO SEPTEMBER 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09063700	97	0	0	0	0	9,120	7,590	0	2,130	8,110	1,030	28

Water year 1993, 28,110

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 1992 TO SEPTEMBER 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09077160	163	137	141	141	150	201	226	15,670	43,870	25,120	2,390	523

Water year 1993, 88,740

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 1992 TO SEPTEMBER 1993

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
09077500	44	0	0	0	0	0	0	415	2,740	1,430	243	112

Water year 1993, 4,980

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
09046000	Boreas Pass Ditch	09062500	Wurtz Ditch	09341000	Treasure Pass Ditch
09047300	Vidler Tunnel	09073000	Twin Lakes Tunnel	09247000	Don LaFont Ditches 1&2
		09115000	Larkspur Ditch	09348000	Williams Creek Squaw Pass 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 1993

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	1965-93	a	a

*Also a crest-stage partial-record station.
a-Not determined.

SUMMARY OF FLOOD DISCHARGES

COLORADO RIVER BASIN

The following is the peak flow at the State Highway 13 crossing in Rifle, CO for a flood that occurred May 15, 1993. The flood was the result of intense late afternoon precipitation centered over Government Creek, a principal tributary to Rifle Creek that enters below Rifle Gap Reservoir. Maximum rainfall for the storm was as much as 5 inches in some locations with a basin average of about 3 inches. The peak flow was computed by indirect methods as a Type 3 contracted opening. Due to a very small contraction ratio, the results are considered poor.

Lat	Long	Site	Drainage area (mi^2)	Discharge (ft^3/s)
393217	1074658	Rifle Creek at Rifle, CO	-	4,830

The following is the peak flow for Roubideau Creek at the former gage site (station number 09150500) for a flood that occurred on August 10, 1993. The flood was the result of a very intense localized early evening thunderstorm that centered on the lower portion of the basin. Results are rated poor due to non-ideal field conditions and a computed Froude number that exceeds standard conditions.

Lat	Long	Site	Drainage area (mi^2)	Discharge (ft^3/s)
384406	1080940	Roubideau Creek at mouth near Delta, CO	242	8,000

The following is the peak flow for a site near Cortez, CO (station number 09371500) that occurred as the result of rainfall on snow, February 20, 1993. The peak flow was computed using the four section slope-area method. The results are considered poor due to erratic definition of the high-water marks.

Lat	Long	Site	Drainage area (mi^2)	Discharge (ft^3/s)
371923	1084022	McElmo Creek near Cortez, CO	230	890

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 1993 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.	1965-93	a	f2.56	a	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.	1979-93	a	9.69	636	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	1979-93	a	10.55	115	6/06/84	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.	1979-93	a	3.71	299	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, 1979-93	4-28-93	3.05	240	a1980	3.64'	600

* Also a low-flow partial-record station.
a-Not determined.
f-Affected by backwater from ice.

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.--Elevation of gage is 8,050 ft above sea level, from topographic map.

SNOW-COURSE DATA, WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993

Date	Depth (inches)	Water Content (inches)	Density (percent)
Mar. 9	39.9	12.2	30.6

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. Missing record Oct. 1991 to June 1992.

RAINFALL ACCUMULATED (INCHES), WATER YEAR OCTOBER 1992 TO SEPTEMBER 1993
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.35	.00	.00	.00	.00	.01	.05	.00	.00	.00	.00
2	.00	.08	.00	.12	.00	.00	.07	.14	.00	.00	.00	.00
3	.00	.02	.00	.06	.00	.03	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.02	.09	.00	.00	.00	.00	.05
5	.00	.05	.27	.00	.00	.03	.20	.00	.00	.04	.01	.00
6	.15	.02	.23	.13	.03	.02	.02	.15	.00	.04	.01	.00
7	.15	.00	.10	.11	.03	.02	.08	.00	.00	.00	.00	.30
8	.00	.27	.02	.10	.04	.05	.10	.00	.01	.00	.22	.00
9	.00	.11	.00	.10	.18	.00	.03	.00	.03	.07	.00	.00
10	.00	.14	.11	.17	.05	.00	.06	.00	.00	.00	.12	.00
11	.00	.02	.03	.21	.05	.00	.06	.00	.00	.00	.00	.00
12	.00	.00	.01	.01	.20	.04	.08	.00	.00	.00	.00	.07
13	.00	.00	.20	.08	.00	.05	.03	.00	.05	.00	.00	.09
14	.00	.00	.16	.07	.00	.02	.00	.05	.00	.00	.06	.00
15	.00	.00	.09	.02	.06	.00	.14	.07	.00	.00	.00	.00
16	.01	.00	.00	.02	.06	.19	.00	.00	.00	.00	.00	.08
17	.00	.00	.00	.04	.22	.21	.00	.05	.06	.00	.00	.02
18	.00	.34	.22	.07	.04	.04	.15	.00	.12	.00	.00	.08
19	.00	.02	.08	.06	.04	.02	.12	.00	.00	.00	.00	.36
20	.00	.00	.25	.05	.17	.00	.00	.00	.00	.00	.00	.00
21	.01	.00	.00	.30	.04	.02	.00	.00	.00	.00	.00	.00
22	.00	.29	.00	.07	.13	.19	.09	.00	.00	.00	.00	.00
23	.01	.00	.00	.02	.12	.03	.10	.00	.00	.00	.00	.00
24	.00	.00	.19	.00	.24	.00	.06	.00	.00	.26	.00	.11
25	.07	.42	.00	.00	.06	.00	.00	.00	.00	.00	.00	.00
26	.00	.02	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00
28	.18	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.09	.00	.08	.04	---	.07	.00	.00	.00	.00	.00	.00
30	.04	.00	.23	.02	---	.00	.00	.00	.00	.00	.00	.00
31	.40	---	.00	.05	---	.00	---	.00	---	.00	.00	---
TOTAL	1.11	2.26	2.27	1.92	1.91	1.08	1.49	0.51	0.27	0.41	0.42	1.16

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 1992				
01...	1030	18.6	76	6.5
NOV				
19...	1005	12.2	73	0.0
JAN 1993				
06...	1031	6.73	77	0.0
MAR				
02...	1330	6.26	74	0.0
APR				
13...	1244	11.2	72	0.0
JUN 1993				
10...	1120	222	51	5.0
24...	1015	413	42	3.5
JUL				
15...	0900	142	53	7.0
AUG				
18...	1625	25.7	70	--
SEP				
21...	1750	26.4	70	10.5
09019500	COLORADO RIVER NEAR GRANBY, CO (LAT 40 07 15N LONG 105 54 00W)			
OCT 1992				
01...	1342	16.1	66	11.0
APR 1993				
29...	1151	36.0	90	6.5
JUN 1993				
09...	1651	75.4	76	10.5
AUG				
13...	1015	42.5	--	9.5
09022000	FRASER RIVER AT UPPER STATION, NEAR WINTER PARK, CO (LAT 39 50 45N LONG 105 45 05W)			
NOV 1992				
16...	1250	4.12	79	0.0
JAN 1993				
04...	1224	2.56	88	0.0
FEB				
22...	1235	1.92	89	0.0
APR				
05...	1515	2.34	202	2.0
MAY 1993				
17...	1455	21.9	--	3.5
JUN				
08...	1500	48.3	69	3.5
21...	1619	102	44	5.5
JUL				
13...	1035	38.9	48	6.0
AUG				
16...	1130	11.3	68	7.0
09024000	FRASER RIVER AT WINTER PARK, CO (LAT 39 54 00N LONG 105 46 34W)			
NOV 1992				
17...	1120	4.77	89	0.0
JAN 1993				
05...	1007	7.53	94	0.0
FEB				
22...	1640	2.82	106	0.0
APR				
05...	1238	8.77	170	2.5
MAY 1993				
11...	1451	14.3	146	7.5
JUN				
08...	1345	61.1	59	4.5
23...	1030	212	42	5.0
JUL				
13...	1515	53.1	49	9.5
AUG				
16...	1420	15.3	75	11.0
09025000	VASQUEZ CREEK AT WINTER PARK, CO (LAT 39 55 13N LONG 105 47 05W)			
NOV 1992				
17...	0920	2.66	42	0.0
JAN 1993				
06...	1348	5.44	51	0.0
FEB				
24...	1458	3.81	51	0.0
APR				
05...	1827	5.94	66	0.5
MAY 1993				
10...	1055	6.23	69	2.5
JUN				
08...	0925	58.5	31	2.5
23...	1815	198	25	6.5
JUL				
13...	1654	32.5	29	11.0
AUG				
17...	0930	7.09	43	--
SEP				
22...	0955	17.5	44	3.5
09025400	ELK CREEK NEAR FRASER, CO (LAT 39 55 09N LONG 105 49 31W)			
NOV 1992				
17...	1500	0.31	52	0.0
JAN 1993				
05...	1707	1.88	51	0.0
FEB				
24...	1057	1.11	50	0.0
APR				
06...	1520	1.28	52	0.5
MAY				
10...	1402	3.28	45	4.0
JUN 1993				
09...	1345	22.9	37	6.5
22...	1730	29.7	31	--
JUL				
14...	1740	7.22	36	13.5
AUG				
18...	1310	0.95	49	--
SEP				
22...	1440	1.15	50	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)
09026500 ST. LOUIS CREEK NEAR FRASER, CO (LAT 39 54 36N LONG 105 52 40W)				
NOV 1992				
18...	1620	7.01	73	0.0
JAN 1993				
05...	1510	9.27	93	0.0
FEB				
23...	1600	6.09	89	0.0
APR				
15...	1233	6.88	92	1.0
MAY				
17...	1158	49.4	--	3.0
JUN 1993				
07...	1253	136	61	4.0
22...	1450	221	58	8.0
JUL				
14...	0952	30.0	70	6.0
AUG				
18...	0955	18.2	73	--
SEP				
22...	1225	12	78	5.0
09032000 RANCH CREEK NEAR FRASER, CO (LAT 39 57 00N LONG 105 45 54W)				
NOV 1992				
18...	1040	2.87	47	0.0
JAN 1993				
05...	1230	5.48	48	0.0
FEB				
23...	1146	3.75	47	0.0
APR				
06...	1157	3.57	50	0.5
MAY				
11...	1212	6.21	55	3.5
JUN 1993				
08...	1120	95.5	32	2.0
21...	1345	142	28	6.0
JUL				
14...	1530	18.3	31	9.5
AUG				
17...	1145	5.68	43	10.0
09032100 CABIN CREEK NEAR FRASER, CO (LAT 39 59 09N LONG 105 44 40W)				
NOV 1992				
18...	1205	2.06	42	0.0
DEC				
30...	1330	3.85	--	0.0
FEB 1993				
18...	1320	1.14	50	0.0
MAR				
30...	1225	1.36	45	0.0
APR 1993				
27...	1250	1.72	--	0.5
JUN				
09...	1048	2.01	30	4.0
22...	1033	13.7	27	5.0
JUL				
14...	1240	22.0	33	10.0
AUG				
17...	1415	4.26	44	--
09034250 COLORADO RIVER AT WINDY GAP, NEAR GRANBY, CO (LAT 40 06 30N LONG 106 00 13W)				
OCT 1992				
07...	1310	98.0	132	8.0
NOV				
18...	1645	94.0	141	1.5
DEC				
07...	1515	81.0	137	0.5
JAN 1993				
28...	1325	86.3	130	0.0
FEB				
23...	0900	66.3	129	1.0
MAR				
22...	1547	92.0	141	2.0
APR 1993				
22...	1420	197	194	7.5
MAY				
20...	0800	--	89	6.5
JUN				
09...	0830	578	90	7.5
JUL				
15...	0925	393	120	15.5
AUG				
10...	1308	263	132	16.0
SEP				
16...	0920	136	129	9.0
09034900 BOBTAIL CREEK NEAR JONES PASS, CO (LAT 39 45 37N LONG 105 54 21W)				
OCT 1992				
16...	1520	2.65	62	1.0
NOV				
20...	1135	1.47	65	0.5
JAN 1993				
06...	1200	0.69	71	0.0
FEB				
25...	1135	0.73	73	0.0
APR				
01...	1230	0.54	77	0.0
14...	1530	0.61	71	0.0
MAY 1993				
13...	1120	5.63	52	0.0
JUN				
15...	1140	70.5	32	2.0
JUL				
29...	1030	18.2	45	6.5
SEP				
09...	1100	6.32	58	5.0
09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO (LAT 39 46 44N LONG 105 55 40W)				
OCT 1992				
16...	1205	7.37	65	--
NOV				
20...	1200	4.87	90	0.0
JAN 1993				
06...	1325	2.93	88	0.0
FEB				
25...	1310	2.51	78	0.0
APR				
01...	1332	2.78	73	0.0
14...	1513	2.58	71	0.0
MAY 1993				
13...	1200	17.7	51	0.0
JUN				
15...	1255	181	32	3.5
JUL				
29...	1205	41.2	44	8.5
SEP				
09...	1320	15.9	64	6.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO (LAT 39 47 22N LONG 106 01 18W)				
OCT 1992				
14...	1530	12.0	66	5.0
NOV				
20...	1430	12.8	52	0.0
JAN 1993				
13...	1235	4.80	42	0.0
APR				
21...	1345	9.60	71	1.5
MAY				
26...	1610	155	43	5.0
JUN 1993				
10...	1400	135	48	8.0
16...	1030	297	37	--
30...	0855	340	33	4.0
JUL				
13...	0925	201	38	5.5
AUG				
02...	1000	68.1	48	8.0
SEP				
01...	1245	30.5	58	9.5
09035800 DARLING CREEK NEAR LEAL, CO (LAT 39 48 17N LONG 106 01 11W)				
OCT 1992				
14...	1200	3.46	76	2.5
NOV				
20...	1340	2.80	75	0.5
JAN 1993				
13...	1130	2.35	--	0.0
MAR				
03...	1240	1.98	80	0.0
APR				
26...	1530	2.01	80	1.5
MAY 1993				
27...	1325	32.7	54	3.0
JUN				
16...	1130	56.1	44	--
JUL				
13...	1135	35.8	61	5.0
AUG				
03...	0930	16.3	61	5.0
SEP				
02...	0915	8.39	72	6.0
09035900 SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO (LAT 39 47 44N LONG 106 01 49W)				
OCT 1992				
14...	1705	10.7	86	4.5
NOV				
20...	1530	13.1	87	0.0
JAN 1993				
13...	1325	8.32	--	0.0
MAR				
03...	1410	7.10	92	0.0
APR				
21...	1540	7.69	91	0.5
MAY				
27...	1505	123	57	4.0
JUN 1993				
10...	1330	101	62	7.0
23...	1125	234	44	5.0
30...	1300	212	44	7.5
JUL				
13...	1430	122	50	9.0
AUG				
02...	1245	49.3	64	8.0
SEP				
01...	1100	25.1	77	7.5
09036000 WILLIAMS FORK NEAR LEAL, CO (LAT 39 49 53N LONG 106 03 15W)				
OCT 1992				
15...	1045	33.9	79	4.5
NOV				
30...	1535	25.4	81	0.5
JAN 1993				
13...	1710	21.4	85	0.5
MAR				
04...	1550	17.6	86	2.0
APR				
26...	1845	36.2	79	4.0
MAY				
26...	1540	384	55	6.0
JUN 1993				
16...	1500	667	42	--
24...	1045	750	43	3.5
JUL				
16...	1030	313	48	7.5
AUG				
03...	1200	150	61	9.0
SEP				
02...	1115	72.9	73	8.0
09037500 WILLIAMS FORK NEAR PARSHALL, CO (LAT 40 00 01N LONG 106 10 45W)				
OCT 1992				
15...	1350	46.7	102	8.0
NOV				
30...	1320	45.0	100	0.0
JAN 1993				
13...	1520	35.3	104	0.0
MAR				
03...	1545	33.2	104	0.5
APR 1993				
21...	1100	35.8	108	3.0
JUL				
15...	1240	226	61	12.0
AUG				
19...	0945	48.2	105	--
SEP				
21...	1200	72.3	94	9.0
09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO (LAT 40 02 07N LONG 106 12 17W)				
OCT 1992				
08...	1130	114	107	11.5
NOV				
19...	1300	114	116	6.0
DEC				
08...	1505	27.7	116	2.5
JAN 1993				
27...	1450	13.2	135	2.5
MAR				
22...	1300	101	126	3.5
APR				
21...	1440	242	123	3.5
MAY 1993				
20...	0940	251	114	5.0
JUN				
22...	1410	210	99	7.0
30...	1425	440	89	8.5
JUL				
14...	1455	399	80	12.0
AUG				
12...	1150	111	79	10.0
SEP				
16...	1210	234	79	10.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09039000 TROUBLESOME CREEK NEAR PEARMONT, CO (LAT 40 13 03N LONG 106 18 45W)				
OCT 1992				
06...	1445	10.5	107	9.5
15...	1720	10.5	104	8.0
DEC				
09...	1325	8.05	94	0.0
JAN 1993				
27...	1025	11.2	97	0.0
FEB				
23...	1115	13.8	94	0.0
MAR				
23...	1550	11.2	92	2.0
APR				
22...	0945	12.0	95	3.0
MAY 1993				
20...	1415	109	91	10.0
JUN				
10...	1300	103	75	9.0
JUL				
14...	0930	32.4	84	9.0
AUG				
11...	1235	22.0	97	14.5
SEP				
15...	1515	16.1	103	10.5
09046490 BLUE RIVER AT BLUE RIVER, CO (LAT 39 27 21N LONG 106 01 52W)				
OCT 1992				
22...	1200	12.9	165	6.0
NOV				
16...	1120	10.0	180	2.5
DEC				
16...	1030	7.60	188	0.5
JAN 1993				
25...	1020	4.90	189	0.5
FEB				
23...	1505	4.70	196	0.5
MAR				
22...	1530	3.05	183	1.5
APR 1993				
27...	1545	7.06	185	2.5
MAY				
25...	1230	87.9	142	7.0
JUN				
22...	1420	153	125	10.5
JUL				
14...	1145	91.7	104	13.0
AUG				
17...	1435	14.4	153	14.0
SEP				
20...	1510	24.4	148	10.0
09046600 BLUE RIVER NEAR DILLON, CO (LAT 39 32 55N LONG 106 02 19W)				
OCT 1992				
22...	1030	36.9	158	6.5
NOV				
17...	1430	30.6	160	5.5
DEC				
17...	0950	22.8	165	3.5
FEB 1993				
01...	1205	16.9	168	3.0
MAR				
02...	1120	23.3	165	0.0
24...	1445	20.9	177	10.0
APR				
28...	1210	47.0	184	7.5
MAY 1993				
21...	1015	294	140	5.5
JUN				
22...	1810	455	111	9.5
JUL				
14...	1430	230	113	11.0
AUG				
17...	1615	74.1	140	13.0
SEP				
21...	1115	59.0	152	9.0
09047500 SNAKE RIVER NEAR MONTEZUMA, CO (LAT 39 36 20N LONG 105 56 33W)				
OCT 1992				
21...	1000	18.0	125	2.0
NOV				
17...	1030	18.0	133	0.5
DEC				
15...	1150	21.6	130	0.0
JAN 1993				
27...	1030	11.4	131	0.0
FEB				
24...	1100	10.0	144	0.5
MAR				
24...	1230	12.4	144	1.0
APR 1993				
21...	1130	12.2	156	0.5
MAY				
26...	1045	189	90	3.5
JUN				
21...	1400	407	59	8.5
JUL				
12...	1215	226	66	7.5
AUG				
16...	1430	58.0	96	12.5
SEP				
21...	0900	43.3	109	3.5
09047700 KEYSTONE GULCH NEAR DILLON, CO (LAT 39 35 40N LONG 105 58 19W)				
OCT 1992				
21...	1100	2.60	85	1.5
NOV				
17...	1200	4.00	89	0.0
DEC				
15...	1445	3.10	101	0.0
JAN 1993				
27...	1200	1.85	87	0.0
FEB				
24...	1445	1.90	91	0.0
MAR				
24...	0930	1.60	87	0.5
APR 1993				
21...	1530	2.55	81	0.5
MAY				
25...	0910	24.5	70	2.5
JUN				
21...	1530	42.2	55	8.5
JUL				
12...	1345	16.3	69	9.0
AUG				
16...	1630	5.10	78	12.0
SEP				
17...	1420	4.50	79	9.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09050100 TENMILE CREEK BELOW NORTH TENMILE CREEK, AT FRISCO, CO (LAT 39 34 37N LONG 106 06 33W)				
OCT 1992				
21...	1500	22.6	587	5.0
NOV				
18...	1315	25.8	833	0.5
DEC				
16...	1645	20.8	912	1.0
JAN 1993				
27...	1550	21.5	764	0.5
MAR				
02...	1330	24.9	1200	0.5
25...	1005	27.0	1290	2.5
APR				
28...	1430	49.1	916	8.5
MAY 1993				
26...	1400	466	317	6.0
JUN				
23...	1040	698	205	5.0
JUL				
13...	1600	303	270	11.0
AUG				
19...	1045	64.1	310	8.0
SEP				
21...	1245	38.2	477	7.5
09050700 BLUE RIVER BELOW DILLON, CO (LAT 39 37 32N LONG 106 03 57W)				
OCT 1992				
23...	1140	103	249	6.0
NOV				
02...	1500	440	237	9.5
18...	1350	--	255	5.5
DEC				
17...	1420	--	237	3.5
FEB 1993				
01...	1230	--	231	3.5
MAR				
02...	1500	110	297	3.5
25...	1215	--	326	3.5
APR 1993				
28...	1515	--	342	4.0
MAY				
27...	1425	394	321	3.5
JUN				
23...	1150	1010	208	11.5
JUL				
13...	1100	426	209	10.0
AUG				
19...	0900	102	248	5.5
SEP				
21...	1430	--	240	7.0
09051050 STRAIGHT CREEK BELOW LASKEY GULCH NEAR DILLON, CO (LAT 39 38 23N LONG 106 02 23W)				
OCT 1992				
23...	0945	5.10	120	1.5
NOV				
18...	0915	5.40	166	0.0
DEC				
17...	1230	4.82	137	0.0
FEB 1993				
01...	1030	3.41	249	0.0
MAR				
02...	0950	2.90	355	0.0
25...	1415	6.55	304	0.5
APR				
28...	1040	6.38	305	3.0
MAY 1993				
21...	1310	26.2	168	7.0
JUN				
22...	1615	120	66	10.0
JUL				
12...	1630	60.0	68	10.5
AUG				
12...	0920	18.1	93	6.5
SEP				
17...	1130	10.7	112	6.0
09052000 ROCK CREEK NEAR DILLON, CO (LAT 39 43 23N LONG 106 07 41W)				
OCT 1992				
08...	1755	4.92	65	2.0
DEC				
01...	0945	3.92	70	0.0
JAN 1993				
14...	1600	3.40	72	0.5
MAR				
02...	1635	3.25	72	0.0
APR				
09...	1550	4.70	74	2.5
MAY				
11...	1325	11.6	61	5.0
JUN 1993				
08...	0900	58.2	34	3.0
24...	1230	109	25	5.5
29...	1030	107	25	6.0
JUL				
14...	0900	90.1	33	6.5
AUG				
18...	0940	23.5	44	7.5
SEP				
22...	0815	11.0	53	4.0
09052400 BOULDER CREEK AT UPPER STATION, NEAR DILLON, CO (LAT 39 43 41N LONG 106 10 22W)				
OCT 1992				
09...	1110	3.95	49	1.0
NOV				
19...	1545	2.57	57	0.0
JAN 1993				
14...	1450	1.46	74	0.0
MAR				
04...	1755	1.48	74	0.0
MAY				
11...	1015	4.06	61	0.0
JUN 1993				
08...	1300	39.0	37	3.0
24...	0910	98.6	28	2.0
29...	1215	89.4	26	2.5
JUL				
15...	1200	70.1	25	7.0
AUG				
18...	1200	20.8	35	9.5
SEP				
21...	0930	8.25	45	2.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO (LAT 39 45 47N LONG 106 11 31W)				
OCT 1992				
08...	1120	5.89	52	2.0
DEC				
01...	1330	3.44	82	0.0
JAN 1993				
26...	1450	2.99	68	0.0
MAR				
12...	1540	3.12	72	0.0
APR				
28...	1115	10.7	101	1.0
28...	1155	10.7	101	1.0
MAY 1993				
28...	1010	117	35	3.0
JUN				
10...	1100	49.3	40	5.0
JUL				
02...	1055	161	22	7.5
AUG				
04...	1045	63.2	43	9.5
SEP				
10...	0945	22.5	36	7.5
09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO (LAT 39 47 57N LONG 106 16 04W)				
OCT 1992				
23...	1220	4.40	31	8.5
NOV				
19...	1025	5.02	32	3.5
MAR 1993				
13...	1235	2.91	41	0.0
MAY				
15...	1330	71.2	40	4.0
JUN 1993				
08...	1550	74.4	33	8.5
17...	1100	183	25	--
JUL				
14...	1200	136	21	8.5
AUG				
04...	1650	69.2	24	10.5
18...	1505	43.7	33	9.5
SEP				
21...	1230	23.0	24	11.5
09055300 CATARACT CREEK NEAR KREMMLING, CO (LAT 39 50 07N LONG 106 18 57W)				
OCT 1992				
08...	1600	2.37	42	9.5
NOV				
18...	1640	2.45	47	3.5
JAN 1993				
14...	1145	1.28	56	2.0
MAR				
04...	1220	1.1	60	1.5
APR				
22...	1110	2.02	66	1.5
MAY				
24...	1240	77.2	47	5.5
JUN 1993				
09...	1000	51.2	42	6.0
23...	1600	145	26	10.0
29...	1530	139	24	10.0
JUL				
14...	1430	84.9	23	13.0
AUG				
18...	1600	12.7	30	16.0
SEP				
21...	1615	6.88	37	13.0
09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO (LAT 39 52 49N LONG 106 20 00W)				
OCT 1992				
07...	1540	363	195	12.0
NOV				
18...	1200	251	198	6.0
JAN 1993				
12...	1235	216	203	3.0
MAR				
02...	1155	205	210	3.0
APR				
22...	1515	318	260	2.5
MAY 1993				
24...	1500	683	233	5.5
JUL				
01...	0830	1230	180	9.0
15...	1530	983	170	10.0
AUG				
18...	1410	401	193	11.0
SEP				
22...	1100	303	167	12.0
09057520 BLUE RIVER BELOW SPRUCE CREEK NEAR KREMMLING, CO (LAT 39 57 49N LONG 106 21 35W)				
OCT 1992				
07...	1815	286	199	11.0
NOV				
18...	1450	196	202	6.5
JAN 1993				
12...	1500	153	206	3.0
MAR				
02...	1410	136	215	4.5
APR				
23...	1120	250	267	5.0
MAY 1993				
24...	1715	531	229	8.5
JUN				
09...	1700	543	202	8.5
JUL				
15...	0930	893	172	11.0
AUG				
18...	1015	368	163	12.0
SEP				
20...	1235	323	167	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)
09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO (LAT 39 42 29N LONG 106 25 38W)				
OCT 1992				
10...	1259	4.64	52	9.5
JAN 1993				
12...	1205	3.68	16	0.0
MAR				
03...	1020	1.80	65	0.0
APR				
15...	1030	4.45	74	0.0
MAY				
13...	1350	59.4	55	3.0
JUN 1993				
10...	0950	65.3	39	5.0
29...	1405	170	25	8.5
AUG				
04...	1040	33.5	32	13.0
SEP				
03...	0855	9.01	43	7.0
09058610 DICKSON CREEK NEAR VAIL, CO (LAT 39 42 14N LONG 106 27 25W)				
OCT 1992				
05...	1422	0.96	407	10.0
JAN 1993				
12...	1540	1.06	402	0.0
MAR				
03...	1100	0.88	405	0.0
APR				
14...	1400	1.01	403	0.5
MAY				
13...	1145	6.61	236	1.0
JUN 1993				
10...	1340	18.9	246	8.0
30...	0910	15.3	257	7.5
AUG				
04...	1515	3.14	338	14.0
SEP				
02...	1245	2.52	358	10.5
09058700 FREEMAN CREEK NEAR MINTURN, CO (LAT 39 41 55N LONG 106 26 41W)				
APR 1993				
14...	1500	0.05	227	0.5
MAY				
13...	1025	3.11	109	0.0
JUN 1993				
10...	1240	10.4	118	9.0
30...	1110	3.47	175	12.0
JUL				
04...	1230	0.50	229	15.0
SEP				
02...	1405	0.30	233	12.0
09058800 EAST MEADOW CREEK NEAR MINTURN CO (LAT 39 43 54N LONG 106 25 36W)				
APR 1993				
15...	1400	0.78	77	0.5
JUN				
11...	1300	17.4	37	3.0
29...	0930	34.2	34	3.5
AUG 1993				
04...	0830	3.28	49	5.5
SEP				
03...	1050	1.77	68	3.0
09059500 PINEY RIVER NEAR STATE BRIDGE, CO (LAT 39 48 00N LONG 106 35 00W)				
OCT 1992				
06...	0939	13.6	343	6.0
NOV				
17...	0943	24.2	322	0.0
JAN 1993				
12...	1448	12.1	351	0.0
MAR				
02...	1030	19.1	371	0.0
MAY 1993				
11...	1404	125	235	8.5
JUL				
13...	1025	233	116	10.0
AUG				
17...	1455	36.3	261	15.5
09063000 EAGLE RIVER AT RED CLIFF, CO (LAT 39 30 34N LONG 106 22 00W)				
OCT 1992				
06...	1050	12.0	253	6.5
NOV				
18...	1305	17.6	246	0.0
JAN 1993				
14...	1310	11.0	223	0.5
MAR				
03...	1610	13.8	--	0.0
APR				
13...	1300	11.2	221	3.5
MAY 1993				
12...	0945	79.5	182	2.5
20...	1730	245	147	8.5
JUN				
02...	1735	353	--	6.0
09...	1450	218	140	8.5
18...	1140	313	129	--
JUL				
01...	1300	155	159	10.5
AUG				
31...	1535	16.4	235	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)
09063200 WEARYMAN CREEK NEAR RED CLIFF, CO (LAT 39 31 14N LONG 106 19 06W)									
OCT 1992					MAY 1993				
06...	0835	2.58	302	3.0	12...	1310	6.14	307	4.0
NOV					21...	1045	20.9	261	3.5
18...	0930	1.77	390	0.0	JUN				
JAN 1993					02...	1530	58.4	233	4.0
14...	0945	1.45	286	0.0	30...	1510	78.5	200	7.0
MAR					AUG				
03...	1500	2.78	294	0.0	03...	1205	10.6	256	7.0
APR					30...	1515	5.14	275	7.0
06...	1345	1.27	300	1.0					
09063400 TURKEY CREEK NEAR RED CLIFF, CO (LAT 39 31 32N LONG 106 20 08W)									
OCT 1992					MAY 1993				
06...	0937	5.80	298	4.0	12...	1346	23.6	266	5.5
NOV					21...	1200	104	231	4.5
18...	1102	5.56	213	0.0	JUN				
JAN 1993					02...	1309	117	204	4.5
14...	1115	3.66	286	0.0	28...	1615	225	170	7.5
MAR					JUL				
03...	1435	2.68	279	0.0	01...	1020	173	173	5.0
APR					AUG				
06...	1135	3.50	287	1.0	03...	1335	23.0	245	9.0
					30...	1635	9.78	269	8.0
09063900 MISSOURI CREEK NEAR GOLD PARK, CO (LAT 39 23 25N LONG 106 28 10W)									
OCT 1992					JUN 1993				
06...	1218	2.68	39	5.0	02...	1050	22.2	28	2.0
JAN 1993					JUL				
13...	1320	2.66	40	0.0	01...	1425	22.3	21	8.5
MAR					AUG				
04...	1000	0.86	42	0.0	03...	0810	6.92	25	6.5
APR					31...	1115	7.70	25	8.0
05...	1315	1.17	40	0.0					
09064000 HOMESTAKE CREEK AT GOLD PARK, CO (LAT 39 24 20N LONG 106 25 58W)									
OCT 1992					JUN 1993				
06...	1409	16.5	38	8.0	02...	1250	105	27	4.0
NOV					JUL				
17...	1020	14.0	35	0.0	01...	1545	57.2	25	12.5
JAN 1993					AUG				
13...	1440	9.58	22	0.0	03...	0930	25.3	28	7.0
MAR					31...	1230	23.6	30	9.0
04...	1250	8.65	37	0.0					
APR									
05...	1530	8.24	39	1.0					
09064500 HOMESTAKE CREEK NEAR RED CLIFF, CO (LAT 39 28 24N LONG 106 22 02W)									
OCT 1992					MAY 1993				
06...	1534	16.4	43	11.0	12...	1650	185	34	8.0
NOV					21...	0845	275	36	3.5
17...	1200	28.1	40	0.0	JUN				
JAN 1993					02...	1410	234	28	7.5
15...	1200	7.86	45	0.0	JUL				
MAR					01...	1705	98.9	27	16.0
04...	1215	8.01	36	0.0	AUG				
APR					03...	1100	35.2	33	11.0
06...	0930	16.3	41	0.5	31...	1350	28.5	34	11.0
09064600 EAGLE RIVER NEAR MINTURN, CO (LAT 39 33 14N LONG 106 24 07W)									
OCT 1992					MAY 1993				
07...	0915	36.5	189	3.0	20...	1410	730	120	8.0
NOV					JUL				
17...	1300	43.9	205	0.0	14...	0815	277	124	9.0
JAN 1993					21...	0930	175	139	8.5
11...	1424	28.8	380	0.0	AUG				
MAR					18...	0945	69.6	157	10.0
02...	1315	37.1	348	0.0					
APR									
13...	1405	44.2	221	4.0					

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09065100 CROSS CREEK NEAR MINTURN, CO (LAT 39 34 05N LONG 106 24 45W)				
OCT 1992				
07...	1032	10.8	52	4.0
JAN 1993				
13...	1003	4.71	54	0.0
MAR				
02...	1655	4.70	65	0.0
APR				
14...	0922	7.20	68	0.5
JUN 1993				
03...	0920	327	104	3.0
JUL				
14...	0945	308	23	8.0
AUG				
18...	1055	35.6	35	12.0
09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO (LAT 39 37 40N LONG 106 16 24W)				
OCT 1992				
14...	1128	4.41	72	3.0
NOV				
17...	1241	5.05	65	0.5
DEC				
16...	1405	4.10	63	0.0
JAN 1993				
26...	1530	2.27	73	0.0
MAR				
01...	1430	2.69	73	0.5
23...	1550	2.59	77	0.5
APR				
28...	1105	14.9	73	2.0
MAY 1993				
19...	1138	96.8	44	3.0
JUN				
07...	1600	106	38	2.0
22...	1208	217	34	5.0
JUL				
07...	0926	96.4	37	3.0
AUG				
09...	1300	29.6	46	9.5
SEP				
15...	1250	12.3	58	4.5
09066000 BLACK GORE CREEK NEAR MINTURN, CO (LAT 39 35 47N LONG 106 15 52W)				
OCT 1992				
14...	1340	2.79	197	4.5
NOV				
17...	1052	2.82	190	0.0
DEC				
15...	1208	2.26	146	0.0
JAN 1993				
26...	1225	1.83	201	0.5
FEB				
26...	1330	2.24	217	0.0
MAR				
23...	1300	2.46	378	0.0
APR				
26...	1455	6.53	--	2.0
MAY 1993				
19...	0916	52.2	150	2.0
JUN				
07...	1420	116	117	2.5
21...	1034	139	88	5.5
JUL				
06...	1410	60.5	96	8.5
AUG				
11...	1342	9.16	150	11.0
SEP				
15...	1045	4.93	181	4.0
09066100 BIGHORN CREEK NEAR MINTURN, CO (LAT 39 38 24N LONG 106 17 34W)				
OCT 1992				
15...	0932	1.56	73	4.0
NOV				
17...	1349	1.44	65	0.5
DEC				
15...	1405	1.20	81	0.0
JAN 1993				
27...	1300	1.00	78	0.0
FEB				
24...	1310	0.71	78	1.5
MAR				
24...	1303	0.84	80	0.5
APR				
28...	0935	4.83	73	1.5
MAY 1993				
19...	1424	38.6	44	3.5
JUN				
08...	1002	28.7	43	2.0
21...	1315	64.8	36	5.5
JUL				
07...	1103	28.7	39	4.0
AUG				
09...	1102	11.9	44	6.5
SEP				
15...	1430	4.59	56	6.0
09066150 PITKIN CREEK NEAR MINTURN, CO (LAT 39 38 37N LONG 106 18 07W)				
OCT 1992				
14...	0922	2.32	88	3.5
NOV				
18...	1140	2.33	78	1.0
DEC				
16...	1045	1.64	78	0.0
JAN 1993				
27...	1154	1.24	90	0.0
FEB				
24...	1126	1.49	82	0.5
MAR				
24...	1126	1.30	96	1.0
APR				
27...	1050	3.74	127	2.0
MAY 1993				
18...	1452	43.1	69	3.5
JUN				
08...	1125	37.5	58	3.0
21...	1711	91.6	39	4.5
JUL				
07...	1711	38.0	46	5.5
AUG				
09...	1415	14.7	53	8.5
SEP				
16...	0931	9.34	61	4.0

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)
09066200 BOOTH CREEK NEAR MINTURN, CO (LAT 39 39 02N LONG 106 19 16W)									
OCT 1992					MAY 1993				
13...	1248	1.52	122	--	18...	1230	53.4	111	4.0
NOV					JUN				
18...	0923	1.93	103	1.0	09...	1115	33.0	88	4.5
DEC					21...	1427	78.0	51	6.5
16...	1135	1.04	75	0.0	JUL				
JAN 1993					06...	1545	35.0	54	9.0
27...	1036	0.73	133	0.0	AUG				
FEB					09...	1504	7.30	70	10.5
24...	1000	1.02	130	0.5	SEP				
MAR					16...	1048	5.30	78	5.0
24...	1025	1.19	142	2.5					
APR									
27...	1213	4.71	155	4.5					
09066300 MIDDLE CREEK NEAR MINTURN, CO (LAT 39 38 50N LONG 106 22 48W)									
OCT 1992					MAY 1993				
13...	1415	0.88	208	--	18...	1035	17.6	212	3.0
NOV					JUN				
18...	1037	0.56	192	1.0	09...	1000	25.1	174	3.0
DEC					22...	1012	52.8	126	4.0
16...	1251	0.55	184	0.0	JUL				
JAN 1993					07...	1600	22.2	127	8.5
27...	0924	0.31	226	0.0	AUG				
FEB					13...	1140	3.20	198	8.5
25...	1000	0.28	229	0.5	SEP				
MAR					16...	1230	1.73	198	5.5
25...	0920	0.37	228	1.0					
APR									
27...	1332	1.52	244	3.5					
09066310 GORE CREEK, LOWER STATION, AT VAIL, COLORADO (LAT 39 38 28N LONG 106 23 37W)									
OCT 1992					MAY 1993				
13...	1025	18.0	291	4.0	20...	1530	480	149	6.5
NOV					JUN				
19...	1022	16.4	261	0.5	08...	1420	524	149	5.0
DEC					21...	1950	1200	89	6.0
17...	1125	14.5	294	0.0	JUL				
JAN 1993					08...	0945	464	104	5.5
28...	1010	9.43	396	--	AUG				
FEB					13...	1316	87.7	171	11.5
25...	1215	10.5	328	0.5	SEP				
MAR					16...	1342	45.1	213	9.0
25...	1100	21.6	345	3.5					
APR									
28...	1302	61.0	282	8.5					
09066400 RED SANDSTONE CREEK NEAR MINTURN, CO (LAT 39 40 58N LONG 106 24 03W)									
OCT 1992					JUN 1993				
10...	1619	1.88	103	6.5	01...	1955	101	43	2.0
JAN 1993					10...	1550	50.0	54	6.5
13...	0920	1.36	90	0.0	17...	1548	101	46	6.0
MAR					30...	1210	50.1	46	6.5
03...	1155	0.64	83	0.0	AUG				
APR					04...	1630	4.28	85	9.0
14...	1130	1.51	90	0.5	SEP				
MAY					02...	1515	2.76	96	8.5
13...	1430	22.5	67	1.5					
09067000 BEAVER CREEK AT AVON, CO (LAT 39 37 47N LONG 106 31 20W)									
OCT 1992					APR 1993				
07...	1245	3.67	245	5.0	14...	1105	3.89	477	1.0
NOV					JUN				
16...	1530	3.60	281	1.0	03...	1000	95.5	111	3.5
JAN 1993					JUL				
11...	1630	2.61	316	0.0	13...	1720	44.6	92	11.0
MAR					AUG				
01...	1500	2.72	308	1.0	18...	1220	8.40	193	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)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09067005 EAGLE RIVER AT AVON, CO (LAT 39 37 54N LONG 106 31 19W)									
OCT 1992					MAY 1993				
06...	1542	95.4	355	10.0	20...	1230	2060	144	5.0
NOV					JUN				
16...	1308	90.1	359	1.0	02...	1446	2600	164	8.0
JAN 1993					JUL				
11...	1430	71.0	379	0.0	14...	1206	1090	125	10.0
MAR					AUG				
01...	1325	59.7	365	2.0	18...	1446	209	237	14.0
APR									
14...	1200	91.4	386	3.5					
09070000 EAGLE RIVER BELOW GYPSUM, CO (LAT 39 38 58N LONG 106 57 11W)									
OCT 1992					MAY 1993				
05...	1504	163	1110	13.0	20...	0745	2800	230	6.5
NOV					JUN				
16...	1400	226	998	5.0	01...	1540	4080	184	10.0
JAN 1993					JUL				
11...	1210	158	1040	0.5	12...	1450	1860	234	13.5
MAR					AUG				
01...	1430	183	1080	3.5	16...	1425	421	655	17.5
APR									
12...	1437	237	974	9.0					
09070500 COLORADO RIVER NEAR DOTSERO, CO (LAT 39 38 40N LONG 107 04 40W)									
OCT 1992					MAY 1993				
05...	1200	907	584	12.0	18...	1700	7770	227	9.5
NOV					JUN				
16...	1150	1000	551	2.5	01...	1250	11100	194	11.0
MAR 1993					JUL				
01...	1220	795	530	2.0	12...	1225	4530	254	13.0
APR					AUG				
12...	1215	1240	607	9.0	16...	1205	1530	490	16.5
09071300 GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO (LAT 39 43 04N LONG 107 18 51W)									
OCT 1992					AUG 1993				
07...	1357	0.33	282	4.5	06...	1015	3.54	252	10.5
APR 1993					SEP				
28...	1200	0.06	305	0.5	01...	1315	2.28	257	12.5
JUL									
02...	1415	99.4	194	11.0					
20...	1530	9.62	241	14.5					
09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO (LAT 39 08 28N LONG 106 46 25W)									
OCT 1992					JUN 1993				
07...	0810	31.8	74	3.5	04...	0810	233	28	3.0
NOV					25...	0805	319	33	4.5
04...	0805	20.8	83	0.5	JUL				
DEC					28...	0810	62.6	50	9.0
16...	0815	17.3	80	0.5	SEP				
APR 1993					01...	0755	27.7	68	8.0
28...	0805	33.0	70	2.5					
09073400 ROARING FORK RIVER NEAR ASPEN, CO (LAT 39 10 48N LONG 106 48 05W)									
OCT 1992					MAY 1993				
06...	1450	44.8	83	9.0	19...	1055	246	48	3.5
NOV					21...	1130	305	45	4.5
03...	1400	47.3	85	0.5	JUN				
DEC					03...	1530	444	41	7.5
15...	1425	37.8	84	0.5	24...	1325	472	36	7.0
MAR 1993					JUL				
30...	1020	38.3	88	1.0	27...	1535	103	58	15.0
APR					AUG				
27...	1340	58.7	86	8.0	31...	1440	<50.8	77	11.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)	DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09074000 HUNTER CREEK NEAR ASPEN, CO (LAT 39 12 21N LONG 106 47 49W)									
OCT 1992					JUN 1993				
06...	1310	11.5	68	9.0	02...	1415	183	35	6.0
NOV					23...	1430	216	27	9.0
03...	1230	7.90	64	0.5	JUL				
DEC					27...	1340	47.3	43	14.0
15...	1245	6.92	68	0.5	AUG				
APR 1993					31...	1250	22.2	60	11.0
27...	1105	18.7	60	4.5					
MAY									
21...	0855	154	40	2.5					
09074800 CASTLE CREEK ABOVE ASPEN, CO (LAT 39 05 15N LONG 106 48 42W)									
OCT 1992					JUN 1993				
06...	0815	20.7	362	4.5	02...	0830	237	210	3.5
NOV					24...	0830	307	174	2.5
03...	0755	16.2	392	0.5	JUL				
DEC					27...	0800	101	243	5.5
15...	0755	12.7	399	0.0	AUG				
APR 1993					31...	0805	42.8	309	7.0
27...	0755	15.8	407	3.5					
MAY									
20...	1715	93.0	288	6.5					
09075700 MAROON CREEK ABOVE ASPEN, CO (LAT 39 07 25N LONG 106 54 17W)									
OCT 1992					JUN 1993				
06...	1015	42.5	527	5.5	02...	1125	286	280	6.5
NOV					24...	1040	485	219	6.5
03...	1015	30.8	580	3.0	JUL				
DEC					27...	1035	236	281	7.5
15...	1015	22.4	--	0.0	AUG				
MAY 1993					31...	1015	90.7	416	7.5
12...	1145	25.7	--	7.5					
20...	1300	90.4	480	6.5					
09080400 FRYINGPAN RIVER NEAR RUEDI, CO (LAT 39 21 56N LONG 106 49 30W)									
OCT 1992					APR 1993				
07...	1110	257	238	7.5	26...	1220	228	282	5.0
NOV					JUN				
04...	1055	106	234	8.5	01...	1440	1060	208	5.5
DEC					23...	1140	313	162	7.0
16...	1120	101	214	5.0	JUL				
FEB 1993					26...	1305	117	144	8.5
22...	1335	94.1	270	4.0	AUG				
MAR					30...	1340	168	151	9.0
29...	1315	215	274	5.0					
09081600 CRYSTAL RIVER ABOVE AVALANCHE CREEK, NEAR REDSTONE, CO (LAT 39 13 56N LONG 107 13 36W)									
OCT 1992					MAY 1993				
07...	1340	78.0	521	9.5	19...	1710	1290	216	8.5
NOV					JUN				
04...	1315	65.0	574	3.0	03...	1230	1790	181	7.0
DEC					25...	1130	1740	162	7.0
16...	1405	54.8	629	3.5	JUL				
FEB 1993					28...	1140	672	211	10.0
24...	0940	51.5	661	3.0	SEP				
MAR					01...	1100	213	370	11.0
31...	0845	105	533	4.0					
APR									
28...	1105	342	360	6.5					
09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO (LAT 39 32 37N LONG 107 19 44W)									
OCT 1992					APR 1993				
08...	0825	706	595	5.5	15...	0844	744	523	6.0
NOV					MAY				
18...	1120	599	610	5.0	17...	1400	4530	245	7.5
JAN 1993					JUN				
14...	0845	478	548	1.0	04...	0845	4740	234	6.5
FEB					JUL				
28...	1035	458	620	2.5	01...	1054	5910	208	9.0
MAR					AUG				
11...	0935	497	570	6.0	05...	1022	1600	421	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)
09086000 WEST ELK CREEK NEAR NEW CASTLE, CO (LAT 39 39 59N LONG 107 37 35W)				
OCT 1992				
01...	1345	0.27	824	11.0
NOV				
18...	1545	0.29	714	3.0
JAN 1993				
13...	1430	0.15	739	0.0
FEB				
24...	1035	0.26	774	0.5
APR				
15...	1115	0.80	994	3.5
MAY 1993				
13...	0920	3.55	575	5.5
18...	1330	8.37	566	7.5
28...	1125	8.98	611	9.5
JUL				
01...	1415	3.69	650	12.0
AUG				
05...	1310	2.00	681	14.5
09086470 MAIN ELK CREEK NEAR NEW CASTLE, CO (LAT 39 40 41N LONG 107 34 21W)				
OCT 1992				
08...	1258	10.4	338	4.5
NOV				
19...	0915	10.7	338	2.5
JAN 1993				
13...	1640	10.4	340	0.5
FEB				
24...	1135	10.7	350	1.0
APR				
15...	1305	17.9	360	4.5
MAY 1993				
13...	1115	248	338	6.0
18...	1430	764	322	6.5
28...	1420	1060	220	7.0
JUL				
02...	1200	263	260	9.0
AUG				
04...	1310	36.0	330	12.0
09086970 EAST ELK CREEK ABOVE BOILER CREEK NEAR NEW CASTLE, CO (LAT 39 40 05N LONG 107 31 28W)				
OCT 1992				
08...	1025	5.67	267	4.0
NOV				
18...	1430	5.85	258	3.5
FEB 1993				
24...	1515	3.81	275	1.5
APR				
15...	1545	8.93	273	4.0
MAY 1993				
13...	1300	62.2	229	6.0
20...	0940	237	198	4.0
JUN				
03...	1320	319	192	5.5
JUL				
02...	1255	222	190	8.0
AUG				
04...	1255	24.9	252	9.5
09089500 WEST DIVIDE CREEK NEAR RAVEN, CO (LAT 39 19 52N LONG 107 34 46W)				
OCT 1992				
05...	1305	1.56	464	11.0
NOV				
02...	1305	4.24	--	2.0
DEC				
14...	1235	3.40	419	0.5
FEB 1993				
19...	1205	2.96	392	0.5
MAR				
30...	1306	19.6	393	2.0
MAY 1993				
04...	1200	239	248	5.0
18...	1500	546	201	10.0
JUN				
18...	1140	174	170	7.5
JUL				
24...	1435	14.9	242	18.0
09093700 COLORADO RIVER NEAR DE BEQUE, CO (LAT 39 21 45N LONG 108 09 07W)				
OCT 1992				
02...	1030	1820	1040	13.5
NOV				
18...	1320	1850	1020	5.5
FEB 1993				
01...	1430	1300	1343	2.5
MAR				
16...	0910	1740	1050	7.0
APR				
28...	1325	4530	609	13.0
MAY 1993				
20...	0915	16700	310	10.5
JUN				
02...	1010	21600	276	11.0
JUL				
08...	0915	8800	410	14.0
AUG				
04...	1015	3610	643	17.5
SEP				
03...	1015	2570	890	15.5
09105000 PLATEAU CREEK NEAR CAMEO, CO (LAT 39 11 00N LONG 108 16 10W)				
OCT 1992				
01...	0915	98.5	733	15.0
NOV				
08...	1140	136	665	4.5
FEB 1993				
02...	1258	87.7	735	3.5
MAR				
16...	1250	109	687	8.5
APR				
22...	1353	413	435	9.5
28...	1020	1070	312	6.0
MAY 1993				
28...	1120	3230	200	8.0
JUL				
07...	1505	331	400	18.5
AUG				
04...	1345	110	603	20.0
SEP				
03...	1325	165	673	16.5

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09106150 COLORADO RIVER BELOW GRAND VALLEY DIVERSION NEAR PALISADE, CO (LAT 39 05 55N LONG 108 21 16W)				
OCT 1992				
01...	1255	592	1050	15.0
NOV				
19...	0845	1870	1020	4.5
FEB 1993				
05...	1450	1340	1230	3.0
MAR				
17...	1420	1950	1030	8.5
APR				
27...	1400	3300	664	14.0
MAY 1993				
19...	1425	18400	350	11.5
JUN				
03...	1320	21500	290	11.5
09...	1210	12000	299	11.5
JUL				
08...	1515	7530	440	16.0
AUG				
03...	1515	2380	642	21.5
09107000 TAYLOR RIVER AT TAYLOR PARK, CO (LAT 38 50 59N LONG 106 34 21W)				
OCT 1992				
08...	1045	37.3	129	1.0
NOV				
04...	1045	36.6	125	0.0
DEC				
15...	1125	45.8	128	0.0
APR 1993				
13...	1155	40.4	120	2.5
MAY				
11...	1020	141	88	2.5
19...	1400	392	71	6.5
JUN 1993				
02...	1340	632	64	7.5
17...	1130	777	63	6.5
30...	1550	607	79	13.0
JUL				
27...	1530	147	108	15.0
AUG				
25...	1040	77.5	118	10.5
09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO (LAT 38 49 06N LONG 106 36 31W)				
OCT 1992				
08...	1425	248	100	11.0
NOV				
04...	1210	96.2	104	6.5
DEC				
15...	1240	93.2	110	3.5
APR 1993				
13...	1425	250	114	2.5
MAY 1993				
11...	1235	299	114	4.0
19...	1605	--	87	6.5
JUN				
02...	1630	437	106	4.5
30...	1350	525	82	8.0
JUL				
27...	1310	386	117	10.0
AUG				
25...	1245	290	82	11.0
09110000 TAYLOR RIVER AT ALMONT, CO (LAT 38 39 52N LONG 106 50 41W)				
OCT 1992				
07...	1150	284	123	7.5
NOV				
04...	1435	139	149	0.5
DEC				
15...	1530	123	147	0.0
FEB 1993				
23...	1010	152	151	0.0
APR				
13...	1620	289	131	7.0
MAY 1993				
11...	1530	431	120	8.5
18...	1005	821	--	6.5
JUN				
02...	1055	1300	121	6.0
30...	1030	975	113	8.5
JUL				
27...	1035	582	114	--
AUG				
25...	1510	379	115	13.5
09113100 CASTLE CREEK ABOVE MOUTH NEAR BALDWIN, CO (LAT 38 46 09N LONG 107 05 02W)				
OCT 1992				
07...	1420	6.80	89	4.5
NOV				
03...	1450	7.33	89	0.0
DEC				
16...	1350	5.27	92	0.0
APR 1993				
14...	1645	5.07	101	1.5
MAY				
12...	1045	38.2	82	3.0
19...	1040	113	65	2.5
JUN 1993				
03...	1400	167	56	5.5
17...	1505	237	46	8.0
JUL				
01...	1055	209	44	6.5
28...	1500	49.8	50	14.0
AUG				
26...	1255	54.3	56	9.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09114500 GUNNISON RIVER NEAR GUNNISON, CO (LAT 38 32 31N LONG 106 56 57W)				
OCT 1992				
06...	0940	320	219	9.0
NOV				
04...	1625	277	246	2.5
DEC				
14...	1430	240	227	0.0
FEB 1993				
23...	1500	218	203	2.0
APR				
16...	1030	463	209	3.5
MAY 1993				
12...	1650	1750	175	10.5
18...	1300	3470	162	6.5
JUN				
03...	1645	3970	153	9.0
JUL				
01...	1635	2910	164	13.0
28...	1020	1170	199	10.0
AUG				
26...	1640	849	194	--
09115500 TOMICHI CREEK AT SARGENTS, CO (LAT 38 23 42N LONG 106 25 19W)				
OCT 1992				
06...	1255	33.6	154	10.5
NOV				
02...	1440	26.9	144	0.0
DEC				
17...	1050	30.4	141	0.0
FEB 1993				
24...	1005	30.6	150	0.0
APR				
15...	1300	45.0	187	4.0
MAY 1993				
10...	1410	109	125	9.5
20...	1125	486	116	6.0
JUN				
01...	1450	574	101	12.5
18...	0940	293	94	7.0
29...	1345	147	123	15.0
JUL				
26...	1410	50.8	157	17.0
AUG				
24...	1425	38.9	184	18.0
09118450 COCHETOPA CREEK BELOW ROCK CREEK NEAR PARLIN, CO (LAT 38 20 08N LONG 106 46 18W)				
OCT 1992				
06...	1530	30.4	211	10.5
NOV				
03...	1005	8.97	259	0.0
DEC				
17...	1320	17.4	255	0.0
FEB 1993				
24...	1235	21.2	239	0.0
APR				
15...	1450	53.3	272	6.0
MAY 1993				
10...	1620	65.1	183	13.0
20...	1350	159	126	7.0
JUN				
01...	1705	149	145	17.0
29...	1610	43.1	241	19.5
JUL				
26...	1625	26.6	307	19.5
AUG				
24...	1645	36.2	200	18.5
09126000 CIMARRON RIVER NEAR CIMARRON, CO (LAT 38 15 45N LONG 107 32 39W)				
OCT 1992				
05...	1230	52.0	135	12.0
NOV				
16...	1515	9.79	126	3.0
JAN 1993				
05...	0940	12.1	143	1.0
FEB				
22...	1430	20.6	137	0.0
APR				
21...	1140	13.4	133	4.0
MAY 1993				
12...	1200	181	--	4.5
28...	1345	766	96	5.0
JUN				
17...	1600	723	79	8.0
30...	1505	496	77	9.5
AUG				
04...	1110	134	85	10.0
SEP				
01...	1400	108	113	12.0
09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO (LAT 38 31 45N LONG 107 38 54W)				
OCT 1992				
07...	1055	550	206	12.0
NOV				
17...	0950	309	231	7.5
JAN 1993				
06...	0910	521	233	1.5
FEB				
24...	1155	985	222	2.0
APR				
21...	1740	2030	252	4.5
MAY 1993				
11...	1300	3120	231	5.5
JUN				
17...	1200	--	161	9.5
30...	1130	3240	--	12.0
AUG				
03...	1520	1060	293	13.5
SEP				
01...	1115	1300	174	12.0
09128500 SMITH FORK NEAR CRAWFORD, CO (LAT 38 43 40N LONG 107 30 22W)				
OCT 1992				
08...	1255	9.28	162	8.0
NOV				
05...	1150	10.2	163	3.0
DEC				
17...	1220	8.39	157	0.0
FEB 1993				
25...	1050	7.70	167	0.0
APR				
01...	1325	33.5	183	8.0
30...	1130	288	109	6.0
MAY 1993				
19...	0850	596	90	5.5
27...	1805	643	85	4.0
JUN				
16...	1310	352	77	10.0
JUL				
30...	0815	20.2	132	12.0
SEP				
02...	1300	14.2	151	16.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09132500 NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO (LAT 38 55 33N LONG 107 26 01W)				
OCT 1992				
08...	0805	62.1	147	1.0
NOV				
05...	0750	80.8	171	0.5
DEC				
17...	0830	45.5	225	0.0
MAR 1993				
04...	1115	74.0	231	0.0
APR				
01...	0905	451	216	3.0
30...	0845	2050	138	4.5
MAY 1993				
18...	1440	4770	122	9.0
27...	1600	4730	--	9.5
JUN				
04...	1230	3110	102	9.0
17...	1300	3100	90	10.5
JUL				
29...	0810	393	109	12.0
SEP				
02...	0810	264	135	10.0
09134000 MINNESOTA CREEK NEAR PAONIA, CO (LAT 38 52 13N LONG 107 30 06W)				
OCT 1992				
08...	1010	3.15	464	3.0
NOV				
05...	0935	3.11	613	1.5
DEC				
17...	0940	2.74	542	0.5
APR 1993				
01...	1105	12.5	1190	6.0
29...	0805	71.8	419	3.5
MAY 1993				
18...	1055	265	242	8.0
JUN				
17...	1010	209	160	9.0
21...	1155	172	154	10.5
JUL				
29...	1030	32.1	267	13.0
SEP				
02...	1020	23.3	265	13.0
09143000 SURFACE CREEK NEAR CEDAREDGE, CO (LAT 38 59 05N LONG 107 51 13W)				
OCT 1992				
09...	1005	7.98	97	3.5
NOV				
06...	0835	3.65	157	0.5
MAY 1993				
04...	1410	106	112	2.0
19...	1335	212	86	4.5
28...	1102	221	68	3.0
JUN 1993				
18...	1015	301	62	5.5
AUG				
03...	1040	90.8	70	11.0
SEP				
03...	0840	58.6	69	9.0
09143500 SURFACE CREEK AT CEDAREDGE, CO (LAT 38 54 06N LONG 107 55 14W)				
OCT 1992				
09...	1235	6.68	111	7.5
NOV				
06...	1030	4.43	176	1.0
DEC				
18...	0910	4.85	173	0.0
FEB 1993				
26...	0855	4.83	174	1.0
APR				
02...	1005	10.2	197	4.0
MAY 1993				
05...	1020	62.8	133	4.0
20...	1045	225	107	5.5
28...	1339	244	101	8.0
JUN				
18...	1225	202	74	8.0
AUG				
03...	1235	31.5	72	13.5
SEP				
03...	1020	19.1	87	11.0
09146200 UNCOMPAHGRE RIVER NEAR RIDGWAY, CO (LAT 38 11 02N LONG 107 44 43W)				
OCT 1992				
06...	0910	72.0	756	8.0
NOV				
18...	1225	63.0	752	7.5
JAN 1993				
06...	1620	44.1	876	5.0
FEB				
23...	1240	42.5	1050	5.0
APR				
22...	1300	79.2	654	8.5
MAY 1993				
13...	1050	313	347	8.5
17...	1330	492	314	10.0
28...	1100	967	227	8.5
JUN				
18...	1250	731	427	9.0
JUL				
01...	1300	655	603	10.5
AUG				
04...	1545	167	593	16.0
31...	1410	174	592	12.0
09147000 DALLAS CREEK NEAR RIDGWAY, CO (LAT 38 10 40N LONG 107 45 28W)				
OCT 1992				
06...	1120	18.5	819	10.0
NOV				
18...	1040	22.0	760	3.0
JAN 1993				
06...	1425	18.8	639	0.0
FEB				
23...	1030	12.1	832	0.0
APR				
22...	1100	65.1	360	3.5
MAY 1993				
12...	1530	46.6	419	15.0
17...	1215	79.8	335	10.0
JUN				
18...	0955	69.4	549	9.0
JUL				
01...	1030	129	439	10.0
AUG				
04...	1410	41.2	778	15.5
31...	1120	60.0	551	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)
09147025 UNCOMPAHGRE RIVER BELOW RIDGWAY RESERVOIR, CO (LAT 38 14 17N LONG 107 45 31W)				
OCT 1992				
06...	1310	118	559	14.5
NOV				
17...	1515	109	592	9.0
JAN 1993				
07...	1140	61.0	656	3.5
FEB				
11...	1435	68.9	688	3.0
24...	1450	72.0	699	3.5
MAR				
16...	1215	101	713	4.5
APR 1993				
22...	1530	276	679	5.5
MAY				
13...	1300	199	666	7.5
JUL				
01...	1610	550	384	9.5
AUG				
05...	1155	398	349	11.5
SEP				
02...	1100	80.7	390	14.5
09153290 REED WASH NEAR MACK, CO (LAT 39 12 41N LONG 108 48 11W)				
OCT 1992				
01...	1455	65.4	1922	16.5
NOV				
18...	0935	9.91	4360	8.0
FEB 1993				
01...	1210	5.01	4700	6.5
MAR				
16...	1410	6.46	4600	13.5
APR 1993				
22...	0850	86.2	1170	11.0
MAY				
28...	1435	55.6	1320	15.5
JUL				
07...	1120	55.3	1485	15.0
AUG				
17...	1105	77.0	1643	17.5
09165000 DOLORES RIVER BELOW RICO, CO (LAT 37 38 20N LONG 108 03 35W)				
OCT 1992				
08...	1005	19.8	400	1.0
NOV				
13...	1040	14.6	497	0.0
JAN 1993				
27...	1130	13.4	495	0.0
MAR				
16...	1155	21.6	473	2.0
APR				
21...	1320	127	319	3.5
MAY 1993				
18...	1350	688	178	6.0
24...	1000	866	150	3.5
28...	1110	1230	134	4.5
JUN				
14...	1240	1030	125	7.0
AUG				
04...	1130	65.6	346	12.0
SEP				
08...	1045	55.7	354	7.5
09166500 DOLORES RIVER AT DOLORES, CO (LAT 37 28 21N LONG 108 29 49W)				
OCT 1992				
08...	1150	61.8	385	7.0
NOV				
13...	1215	57.3	448	1.0
JAN 1993				
27...	1245	44.3	460	0.0
MAR				
16...	1340	205	356	3.0
APR				
19...	1315	906	236	5.0
30...	1005	2540	183	3.0
MAY 1993				
17...	1030	4310	157	4.5
24...	0755	3690	152	4.0
28...	0900	5110	138	4.5
JUN				
14...	1030	3040	127	6.0
AUG				
04...	0955	176	295	15.5
09166950 LOST CANYON CREEK NEAR DOLORES, CO. (LAT 37 26 45N LONG 108 28 03W)				
OCT 1992				
05...	1330	0.04	810	16.0
NOV				
13...	1250	0.44	431	1.0
JAN 1993				
27...	1355	0.99	272	0.0
MAR				
16...	1430	31.7	227	3.0
APR 1993				
19...	1115	211	72	2.5
30...	0725	469	52	2.0
MAY				
17...	0715	528	54	4.5
JUN				
18...	1330	2.60	288	19.0
AUG				
02...	1400	0.15	546	25.0
09172500 SAN MIGUEL RIVER NEAR PLACERVILLE, CO (LAT 38 02 05N LONG 108 07 15W)				
OCT 1992				
07...	1515	87.0	443	11.5
NOV				
13...	0900	71.7	450	0.0
DEC				
21...	1220	49.3	438	0.0
JAN 1993				
27...	0900	48.1	420	0.0
MAR				
23...	1325	86.5	430	10.0
APR				
21...	1120	208	369	6.0
MAY 1993				
20...	1425	799	279	11.0
28...	1350	1280	216	7.5
JUN				
14...	1600	1150	188	12.0
AUG				
10...	1430	255	282	15.5
SEP				
08...	0850	161	342	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)
09177000 SAN MIGUEL RIVER AT URAVAN, CO (LAT 38 21 26N LONG 108 42 44W)				
OCT 1992				
07...	1315	114	1010	12.5
NOV				
12...	1520	113	927	4.5
DEC				
22...	1000	86.5	1070	0.0
JAN 1993				
26...	1630	74.2	1070	2.5
MAR				
23...	1115	391	487	7.5
APR				
21...	0745	1520	330	7.0
MAY				
20...	1145	2400	350	11.5
JUN				
15...	1820	1770	285	15.0
AUG				
10...	0730	129	893	22.0
10...	1200	132	1000	22.5
SEP				
07...	1815	156	921	22.0
09237450 YAMPA RIVER ABOVE STAGECOACH RESERVIOR, CO (LAT 40 16 09N LONG 106 52 49W)				
NOV 1992				
06...	1540	44	450	2.5
16...	1155	60.1	429	0.0
APR 1993				
19...	1300	82.1	620	3.0
MAY				
18...	1005	176	390	8.0
JUN				
01...	1330	141	348	12.0
07...	1300	160	434	9.5
15...	1310	83.0	479	17.0
JUL 1993				
13...	0845	88.8	504	13.5
AUG				
03...	1540	85.2	442	18.5
SEP				
01...	1145	59.7	424	12.0
09237500 YAMPA RIVER BELOW STAGECOACH RESERVOIR, CO (LAT 40 17 15N LONG 106 49 33W)				
NOV 1992				
06...	1430	51.4	470	8.0
16...	1310	53.1	477	6.0
JAN 1993				
27...	0910	78.7	484	2.5
MAR				
10...	1215	70.3	480	2.0
APR				
19...	1205	79.0	--	4.0
MAY 1993				
03...	1310	80.8	497	4.5
18...	1115	98.0	495	6.0
JUN				
01...	1425	169	455	10.5
JUL				
13...	0950	88.7	480	6.0
AUG				
03...	1630	89.1	433	17.5
SEP				
01...	1250	95.1	424	16.5
09238705 LONG LAKE INLET NEAR BUFFALO PASS, CO (LAT 40 28 25N LONG 106 40 46W)				
OCT 1992				
01...	0808	0.07	48	1.5
27...	0720	0.07	46	2.0
AUG 1993				
31...	0920	0.12	42	5.5
09238710 FISH CREEK TRIBUTARY BELOW LONG LAKE, NEAR BUFFLAO PASS, CO (LAT 40 28 36N LONG 106 41 13W)				
OCT 1992				
01...	0840	0.05	23	7.0
27...	0745	0.01	24	3.5
AUG 1993				
31...	0950	0.11	18	15.0
09238750 MIDDLE FORK FISH CREEK NEAR BUFFALO PASS, CO (LAT 40 29 54N LONG 106 41 30W)				
OCT 1992				
01...	1025	0.23	37	4.5
27...	0855	0.30	35	3.0
AUG 1993				
31...	1140	0.34	37	6.0
09238770 GRANITE CREEK NEAR BUFFALO PASS, CO (LAT 40 29 35N LONG 106 41 31W)				
OCT 1992				
01...	1300	0.81	43	4.5
27...	0825	0.81	40	3.0
AUG 1993				
31...	1045	0.92	40	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)
09238900 FISH CREEK AT UPPER STATION NEAR STEAMBOAT SPRINGS, CO (LAT 40 28 30N LONG 106 47 11W)				
DEC 1992				
07...	1345	3.97	37	0.0
APR 1993				
21...	1320	11.5	46	3.5
MAY				
04...	1705	66.8	22	4.0
JUN 1993				
01...	1700	422	17	3.5
AUG				
03...	1415	11.1	26	14.5
09240900 ELK RIVER ABOVE CLARK, CO (LAT 40 44 38N LONG 106 51 13W)				
OCT 1992				
27...	1030	42.3	95	4.5
DEC				
07...	1130	38.9	93	0.0
JAN 1993				
27...	1430	35.3	94	0.0
MAR				
23...	0950	34.8	97	0.5
APR				
21...	1145	59.7	103	1.0
MAY 1993				
04...	1035	190	58	2.5
16...	1430	810	53	5.5
JUN				
02...	0915	1410	37	3.0
07...	1010	1050	42	2.0
AUG				
03...	1055	207	45	9.5
25...	1210	118	58	11.0
09243700 MIDDLE CREEK NEAR OAK CREEK, CO (LAT 40 23 08N LONG 106 59 33W)				
NOV 1992				
16...	0900	0.16	1070	0.0
MAR 1993				
08...	1130	0.62	898	0.5
22...	0940	2.82	829	0.0
APR				
20...	1140	7.99	642	7.0
MAY 1993				
04...	1320	26.6	418	12.5
18...	1320	30.6	432	15.5
JUN				
01...	0850	8.71	534	13.0
AUG				
04...	1205	0.01	776	20.0
09245000 ELKHEAD CREEK NEAR ELKHEAD, CO (LAT 40 40 11N LONG 107 17 04W)				
OCT 1992				
02...	1415	1.64	328	13.5
DEC				
05...	1125	4.07	324	0.0
APR 1993				
20...	1150	50.3	394	0.5
MAY				
04...	1020	377	180	3.5
19...	1347	799	116	10.0
JUN 1993				
10...	1133	222	150	10.5
JUL				
13...	1035	16.4	200	14.5
AUG				
13...	1045	6.85	251	15.0
SEP				
01...	0924	3.03	276	11.5
09249750 WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO (LAT 40 26 14N LONG 107 38 50W)				
OCT 1992				
01...	1235	25.0	550	13.0
NOV				
27...	1210	30.1	798	0.5
JAN 1993				
27...	1620	45.2	577	0.0
FEB				
22...	1215	50.6	587	0.0
MAR				
25...	1235	121	647	8.5
APR				
27...	1045	411	528	10.5
MAY				
28...	0855	2100	163	7.5
JUN 1993				
01...	0923	1680	179	9.0
JUL				
15...	1024	141	350	17.0
AUG				
05...	1016	66.2	431	16.0
17...	1122	47.1	428	17.0
19...	1033	47.8	445	16.0
SEP				
01...	0840	36	468	17.5
03...	0840	36.6	510	12.5
09...	0926	48.8	471	13.0
09260000 LITTLE SNAKE RIVER NEAR LILY, CO (LAT 40 32 50N LONG 108 25 25W)				
OCT 1992				
17...	0850	45.0	741	1.5
NOV				
17...	1238	122	596	3.5
JAN 1993				
25...	1117	44.9	719	0.0
MAR				
29...	1450	1100	557	7.0
APR				
16...	1230	414	643	10.5
MAY 1993				
10...	1051	1500	301	12.0
19...	0850	5240	172	12.0
JUN				
14...	1145	2600	265	17.0
JUL				
12...	1038	399	324	20.5
AUG				
26...	1040	73.2	781	16.0
SEP				
28...	0956	50.2	886	9.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09260050 YAMPA RIVER AT DEERLODGE PARK, CO (LAT 40 27 02N LONG 108 31 20W)				
OCT 1992				
02...	1025	245	532	12.5
NOV				
17...	1115	423	522	3.0
JAN 1993				
25...	1430	356	719	0.0
APR				
26...	1230	2730	512	13.0
MAY 1993				
27...	1050	12900	170	12.5
JUN				
17...	1117	8910	135	15.0
AUG				
11...	1110	568	398	21.5
SEP				
28...	1346	354	514	18.0
09303000 NORTH FORK WHITE RIVER AT BUFORD, CO (LAT 39 59 15N LONG 107 36 50W)				
OCT 1992				
05...	1105	143	350	10.0
26...	1250	163	340	8.0
DEC				
03...	1040	162	345	0.0
JAN 1993				
21...	1055	148	343	1.0
MAR				
05...	1150	139	362	0.0
APR				
15...	1245	175	369	6.5
MAY 1993				
13...	0925	826	216	4.0
20...	1400	1260	182	10.0
JUN				
04...	1435	965	185	9.0
JUL				
09...	0930	497	223	8.0
AUG				
05...	1130	289	297	11.0
30...	1325	244	312	12.5
09303300 SOUTH FORK WHITE RIVER AT BUDGES RESORT, CO (LAT 39 50 36N LONG 107 20 03W)				
OCT 1992				
07...	1150	46.5	154	3.0
APR 1993				
28...	0800	50.1	144	1.0
JUL 1993				
02...	1035	360	101	6.0
20...	1000	112	138	8.5
AUG				
05...	1400	79.6	149	13.0
SEP				
01...	1040	61.6	151	7.0
09303400 SOUTH FORK WHITE RIVER NEAR BUDGES RESORT, CO (LAT 39 51 51N LONG 107 32 00W)				
OCT 1992				
26...	1030	63.5	200	5.5
DEC				
03...	0815	61.2	200	0.0
JAN 1993				
21...	0820	61.9	195	0.0
MAR				
05...	0940	79.7	198	0.0
MAY				
20...	1010	673	202	4.5
JUN 1993				
04...	1030	898	197	4.0
JUL				
09...	1115	464	166	8.5
AUG				
05...	1005	138	201	9.5
30...	0945	98.4	214	9.0
09304000 SOUTH FORK WHITE RIVER AT BUFORD, CO (LAT 39 58 28N LONG 107 37 29W)				
OCT 1992				
26...	1140	102	280	9.0
DEC				
03...	0940	90.3	274	0.0
29...	1635	331	435	0.0
JAN 1993				
21...	0935	90.1	263	0.5
MAR				
05...	1050	61.3	308	0.0
11...	1225	87.2	269	6.0
APR 1993				
15...	1110	102	292	5.5
MAY				
05...	1225	231	255	8.0
20...	1220	841	223	8.0
JUL				
09...	0800	501	211	8.5
AUG				
05...	0845	175	306	10.0
30...	1130	144	286	12.0
09304200 WHITE RIVER ABOVE COAL CREEK, NEAR MEEKER, CO (LAT 40 00 18N LONG 107 49 29W				
OCT 1992				
01...	1530	139	442	12.0
NOV				
09...	1400	311	387	4.5
JAN 1993				
20...	1637	277	398	2.0
FEB				
19...	1350	279	400	3.5
MAR				
12...	1445	221	412	4.5
APR				
15...	1338	323	414	7.5
MAY 1993				
22...	0714	3800	204	5.5
25...	1400	2700	212	9.5
JUN				
04...	1305	2660	212	7.0
JUL				
15...	1437	686	310	15.0
AUG				
12...	1438	327	383	16.0
26...	1410	236	393	15.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND	SPE-CIFIC CON-DUCT-ANCE (US/CM)	TEMPER-ATURE WATER (DEG C)
09304500 WHITE RIVER NEAR MEEKER, CO (LAT 40 02 01N LONG 107 51 42W)				
OCT 1992				
30...	1145	313	466	7.5
NOV				
30...	1145	249	534	0.0
DEC				
29...	1635	331	435	0.0
JAN 1993				
26...	1639	252	501	0.5
FEB				
26...	1530	265	514	2.0
MAR				
11...	1425	313	525	8.5
APR				
30...	0930	912	399	8.0
MAY 1993				
18...	0856	2500	229	6.0
JUN				
01...	1405	3260	226	10.0
29...	1904	1970	261	12.5
JUL				
20...	0907	659	410	12.5
AUG				
28...	1145	340	514	15.0
SEP				
30...	1354	310	496	12.0
09304800 WHITE RIVER BELOW MEEKER, CO (LAT 40 00 48N LONG 108 05 33W)				
OCT 1992				
07...	1633	377	649	10.0
NOV				
19...	1115	398	565	2.0
DEC				
16...	1345	317	524	0.0
JAN 1993				
13...	1630	253	570	0.0
FEB				
24...	1205	330	593	2.0
MAR 1993				
08...	1330	332	570	6.0
26...	0845	558	750	7.0
MAY				
07...	1210	950	467	7.0
28...	0956	3710	250	8.0
JUL				
01...	1103	2150	306	13.0
AUG				
05...	1455	408	557	19.5
SEP				
03...	0950	495	590	11.5
09339900 EAST FORK SAN JUAN RIVER ABOVE SAND CREEK, NEAR PAGOSA SPRINGS, CO (LAT 37 23 23N LONG 106 50 26W)				
OCT 1992				
06...	1155	27.0	143	9.0
NOV				
10...	1135	17.8	144	3.5
MAR 1993				
24...	1000	55.9	207	1.5
APR				
29...	1540	323	107	9.5
MAY 1993				
17...	1300	530	83	7.0
28...	1120	824	75	8.0
JUL				
09...	1210	171	88	13.0
AUG				
30...	1220	303	95	11.0
09342500 SAN JUAN RIVER AT PAGOSA SPRINGS, CO (LAT 37 15 58N LONG 107 00 37W)				
OCT 1992				
06...	1010	98.0	157	9.0
NOV				
10...	0945	75.0	160	2.0
JAN 1993				
28...	1025	62.7	169	0.0
MAR				
10...	1330	182	227	1.0
APR 1993				
13...	1030	563	139	4.0
29...	1050	1470	105	5.0
MAY				
17...	1120	2440	68	6.0
28...	1000	3620	58	6.0
JUL				
09...	1100	695	74	12.5
AUG				
30...	1040	1740	72	10.5
09346000 NAVAJO RIVER AT EDITH, CO (LAT 37 00 10N LONG 106 54 25W)				
OCT 1992				
06...	1420	46.0	252	14.0
NOV				
10...	1400	47.2	243	4.5
JAN 1993				
28...	1340	36.2	268	0.0
MAR				
10...	1050	91.4	353	3.0
APR 1993				
13...	1240	353	255	5.5
29...	1250	230	234	9.0
MAY				
17...	1430	425	195	9.5
JUL				
09...	1520	229	187	15.5
AUG				
30...	1430	127	214	16.5
09346400 SAN JUAN RIVER NEAR CARRACAS, CO (LAT 37 00 49N LONG 107 18 42W)				
OCT 1992				
07...	0945	162	311	10.0
DEC				
02...	1230	112	384	0.0
MAR 1993				
09...	1100	589	540	3.0
APR				
22...	1125	2060	226	8.5
MAY 1993				
18...	0900	3090	149	8.5
JUN				
01...	1055	4320	116	9.0
JUL				
29...	1000	244	260	19.0
AUG				
29...	1635	3890	162	15.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09349800 PIEDRA RIVER NEAR ARBOLES, CO (LAT 37 05 18N LONG 107 23 50W)				
OCT 1992				
07...	1120	99.9	331	10.5
DEC				
02...	1410	93.4	437	1.0
FEB 1993				
12...	1035	85.3	437	0.5
MAR				
09...	1205	325	388	3.0
APR				
13...	1620	1330	238	7.5
MAY 1993				
18...	1105	2440	135	8.5
28...	1515	2560	116	11.5
JUL				
29...	1120	102	417	20.0
AUG				
31...	1445	1390	148	14.5
09355000 SPRING CREEK AT LA BOCA, CO (LAT 37 00 40N LONG 107 35 47W)				
OCT 1992				
07...	1425	42.0	349	13.0
DEC				
03...	1155	6.11	971	0.5
FEB 1993				
12...	1355	34.3	876	0.5
MAR				
08...	0950	94.4	589	0.5
APR				
22...	1650	14.6	486	19.0
MAY 1993				
18...	1515	68.1	366	18.5
JUL				
29...	1420	67.3	320	25.0
AUG				
29...	1350	430	330	19.0
31...	1330	363	314	17.5
09358000 ANIMAS RIVER AT SILVERTON, CO (LAT 37 48 40N LONG 107 39 32W)				
OCT 1992				
14...	1300	27.0	320	5.5
15...	1030	30.0	325	4.5
DEC				
01...	1045	21.9	337	0.0
MAR 1993				
04...	1205	24.1	375	0.0
APR				
01...	1425	24.3	430	3.0
22...	1225	40.9	406	7.5
MAY 1993				
12...	1530	155	262	11.0
20...	1700	479	157	8.0
26...	1935	957	119	3.5
JUN				
16...	1230	835	116	7.0
JUL				
20...	1420	210	176	12.5
09358550 CEMENT CREEK AT SILVERTON, CO (LAT 37 49 11N LONG 107 39 47W)				
OCT 1992				
14...	0900	16.0	1080	3.5
15...	1400	16.0	1260	9.5
DEC				
01...	1000	12.3	870	0.0
MAR 1993				
04...	1240	17.0	1180	0.0
APR				
22...	1130	26.4	850	6.5
MAY 1993				
12...	1420	63.3	533	10.0
20...	1900	--	266	3.5
26...	1335	221	240	6.0
JUN				
16...	1300	255	204	7.5
JUL				
20...	1310	42.8	602	12.5
09359010 MINERAL CREEK AT SILVERTON, CO (LAT 37 48 10N LONG 107 40 20W)				
OCT 1992				
13...	1200	32.3	454	6.0
14...	1015	32.0	440	3.0
15...	1345	31.0	540	6.5
DEC				
01...	1150	25.4	535	0.0
MAR 1993				
04...	1045	15.2	638	0.0
APR				
01...	1205	30.1	537	1.5
22...	1330	49.8	401	8.5
MAY 1993				
12...	1255	119	266	9.0
20...	2015	435	149	3.0
26...	1935	657	125	4.0
JUN				
16...	0900	722	104	3.5
JUL				
20...	1000	175	174	6.5
09359020 ANIMAS RIVER BELOW SILVERTON, CO (LAT 37 47 25N LONG 107 40 01W)				
OCT 1992				
13...	1100	80.7	515	5.0
14...	1100	81.0	515	4.5
15...	0830	79.0	500	3.5
APR 1993				
01...	1020	67.0	612	1.0
MAY 1993				
12...	1200	342	305	8.5
21...	0930	1220	173	3.0
26...	1900	1640	141	9.0
JUN				
16...	1030	1900	125	3.5
JUL				
20...	1100	434	220	8.0

MISCELLANEOUS STATION ANALYSES

DATE	TIME	DISCHARGE, INST. CUBIC FEET PER SECOND	SPECIFIC CONDUCTANCE (US/CM)	TEMPERATURE WATER (DEG C)
09361500 ANIMAS RIVER AT DURANGO, CO (LAT 37 16 45N LONG 107 52 47W)				
DEC 1992				
29...	1130	187	564	1.0
JAN 1993				
28...	1345	201	550	3.0
MAR				
29...	1205	717	453	7.5
APR				
26...	1455	1570	312	8.5
MAY 1993				
27...	1135	6580	177	7.5
JUN				
24...	1440	4250	148	8.5
JUL				
28...	1125	648	408	15.0
SEP				
28...	1130	332	568	13.0
09371000 MANCOS RIVER NEAR TOWAOC, CO (LAT 37 01 39N LONG 108 44 27W)				
OCT 1992				
05...	1050	19.1	1340	11.5
NOV				
10...	1215	22.0	1720	5.0
FEB 1993				
11...	1130	89.0	1770	3.0
MAR				
02...	1035	88.0	1970	5.0
APR 1993				
08...	1035	162	680	5.0
23...	1215	425	515	12.5
30...	1305	534	403	11.5
MAY				
17...	1320	802	725	11.0
JUN				
18...	1040	181	460	13.5
AUG				
02...	1055	4.50	2000	23.5
09371002 NAVAJO WASH NEAR TOWAOC, CO (LAT 37 12 03N LONG 108 41 50W)				
OCT 1992				
05...	1215	15.8	1600	11.5
NOV				
10...	1320	1.20	5690	5.5
FEB 1993				
11...	1255	5.10	4850	3.5
MAR				
02...	1210	4.10	5860	4.5
APR 1993				
08...	1045	17.0	1360	6.0
23...	1100	27.0	927	10.0
MAY				
17...	1435	21.0	1240	13.0
JUN				
18...	1200	7.60	1780	15.5
AUG				
02...	1220	5.80	1990	21.5

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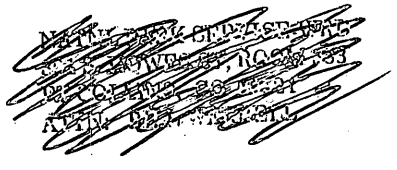
CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
	Length	
inch (in.)	2.54×10^{1}	millimeter
	2.54×10^{-2}	meter
foot (ft)	3.048×10^{-1}	meter
mile (mi)	1.609×10^{0}	kilometer
	Area	
acre	4.047×10^{3}	square meter
	4.047×10^{-1}	square hectometer
	4.047×10^{-3}	square kilometer
square mile (mi^2)	2.590×10^{0}	square kilometer
	Volume	
gallon (gal)	3.785×10^{0}	liter
	3.785×10^{0}	cubic decimeter
	3.785×10^{-3}	cubic meter
million gallons (Mgal)	3.785×10^{3}	cubic meter
	3.785×10^{-3}	cubic hectometer
cubic foot (ft^3)	2.832×10^{1}	cubic decimeter
	2.832×10^{-2}	cubic meter
cubic–foot–per–second day [(ft^3/s) d]	2.447×10^{3}	cubic meter
	2.447×10^{-3}	cubic hectometer
acre–foot (acre–ft)	1.233×10^{3}	cubic meter
	1.233×10^{-3}	cubic hectometer
	1.233×10^{-6}	cubic kilometer
	Flow	
cubic foot per second (ft^3/s)	2.832×10^{1}	liter per second
	2.832×10^{1}	cubic decimeter per second
	2.832×10^{-2}	cubic meter per second
gallon per minute (gal/min)	6.309×10^{-2}	liter per second
	6.309×10^{-2}	cubic decimeter per second
	6.309×10^{-5}	cubic meter per second
million gallons per day (Mgal/d)	4.381×10^{1}	cubic decimeter per second
	4.381×10^{-2}	cubic meter per second
	Mass	
ton (short)	9.072×10^{-1}	megagram or metric ton

Sea level: In this report "sea level" refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment for the first–order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

U.S. DEPARTMENT OF THE INTERIOR
U.S. Geological Survey, Mail Stop 415
Box 25046, Denver Federal Center
Denver, CO 80225



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