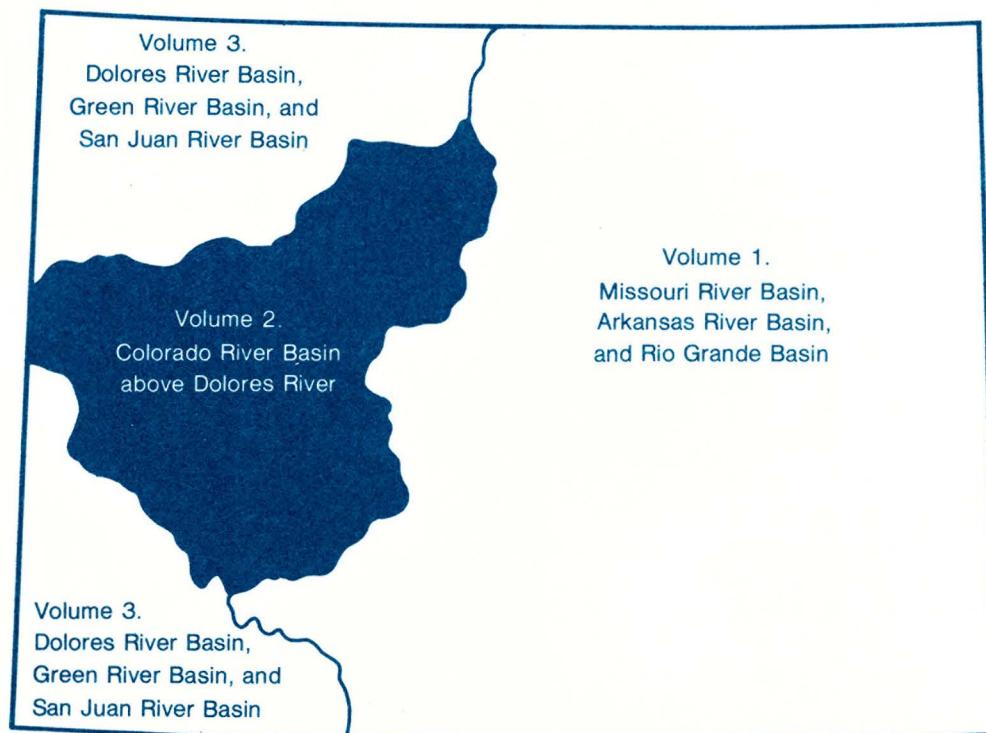


Water Resources Data Colorado Water Year 1983

Volume 2. Colorado River Basin above Dolores River



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-83-2
Prepared in cooperation with the State of Colorado
and with other agencies

CALENDAR FOR WATER YEAR 1983

1982

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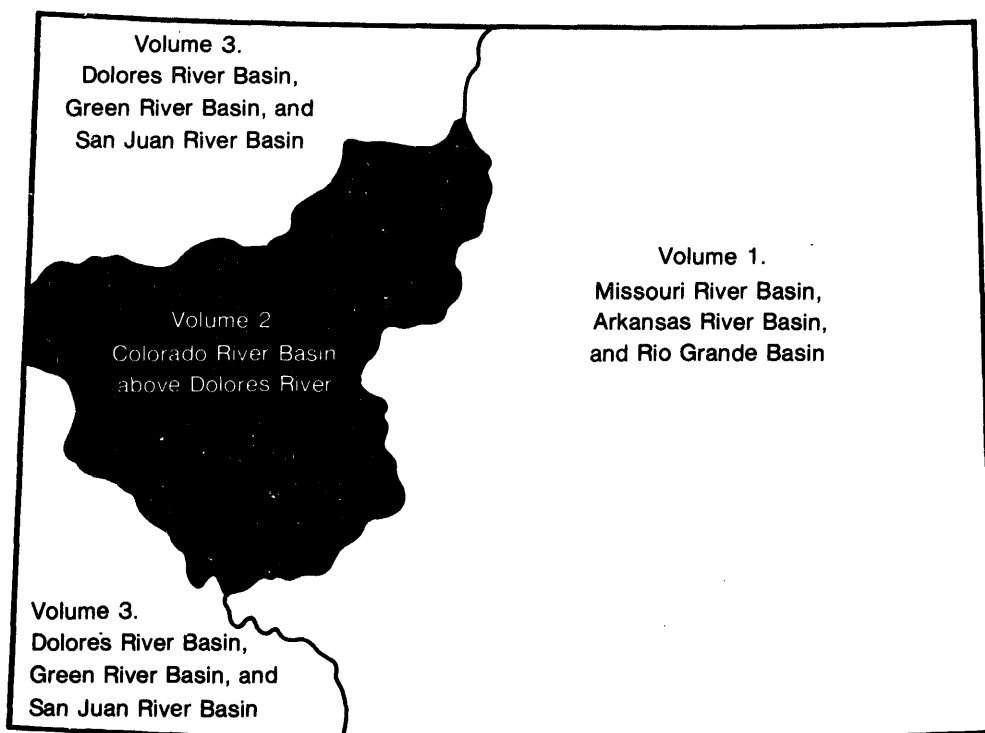
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Water Resources Data Colorado Water Year 1983

Volume 2. Colorado River Basin above Dolores River

by R.C. Ugland, J.T. Steinheimer, J.L. Blattner, and R.G. Kretschman



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-83-2
Prepared in cooperation with the State of Colorado
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Colorado write to:

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U.S. Geological Survey
Box 25046, Mail Stop 415
Denver Federal Center
Lakewood, CO 80225

1984

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 3 volumes:

- Volume 1. Missouri River, Arkansas River, and Rio Grande basins in Colorado,
- Volume 2. Colorado River basin in Colorado, above the Dolores River, and
- Volume 3. Dolores River, Green River, and San Juan River basins in Colorado.

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:

L. Arnold	D. W. Grey	R. F. Middelburg, Jr.
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This report was prepared in cooperation with the State of Colorado and with other agencies under the general supervision of J. F. Blakey, District Chief, Colorado.

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WATER RESOURCES DATA FOR COLORADO, 1983

VOLUME 2: COLORADO RIVER BASIN ABOVE THE DOLORES RIVER

By R. C. Ugland, J. T. Steinheimer, J. L. Blattner, and R. G. Kretschman

INTRODUCTION

Water-resources data for the 1983 water year for Colorado 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, 2, and 3) contains discharge records for 400 streamflow-gaging stations, stage and contents of 23 lakes and reservoirs, low-flow data for 6 partial-record stations, peak flow information for 19 crest-stage partial-record stations and 20 miscellaneous sites; water-quality data for 132 streamflow-gaging stations and 291 miscellaneous sites; and water levels for 55 observation wells. Locations of lake- and streamflow-gaging stations and water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2, and locations of observation wells are shown in figure 3. Six pertinent stations in bordering States also are included in this report. The records were collected and computed by the Colorado District. These data were collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado and represent that part of the National Water Data System.

Records of discharge and stage of streams, and contents and stage of lakes and reservoirs are published in a series of U.S. Geological Survey Water-Supply Papers entitled, "Surface-water Supply of the United States." These water-supply papers were published in an annual series through September 30, 1960, and then in 5-year compilations for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1955 in an annual series of water-supply papers entitled "Water Levels and Artesian Pressures in Wells in the United States," and from 1955 to the present time, in a 5-year series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be purchased from Eastern Distribution Branch Text Products Section, U.S. Geological Survey, 604 South Pickett Street, Alexandria, VA 22304.

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

Beginning with the 1971 water year, water data on streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CO-83-2." These water-data reports are for sale, in paper copy or in microfiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

Additional information, including current prices, for ordering specific reports may be obtained from the District Chief at the address given on the back of the title page or by telephone (303) 236-4882.

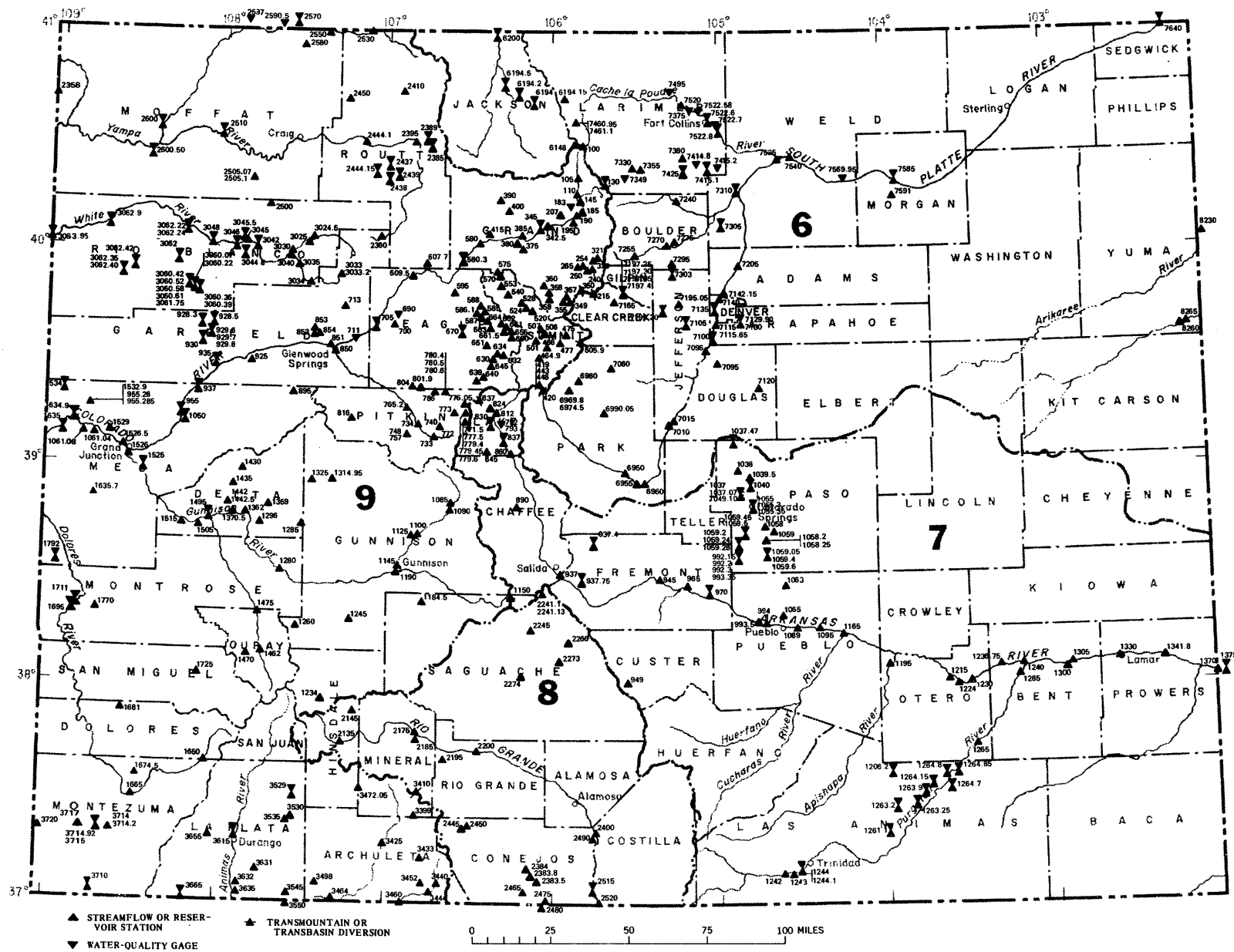
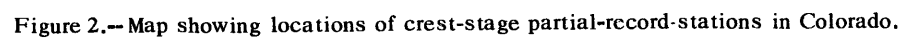


Figure 1.--Map showing locations of lake and stream-gaging stations and water-quality stations in Colorado.



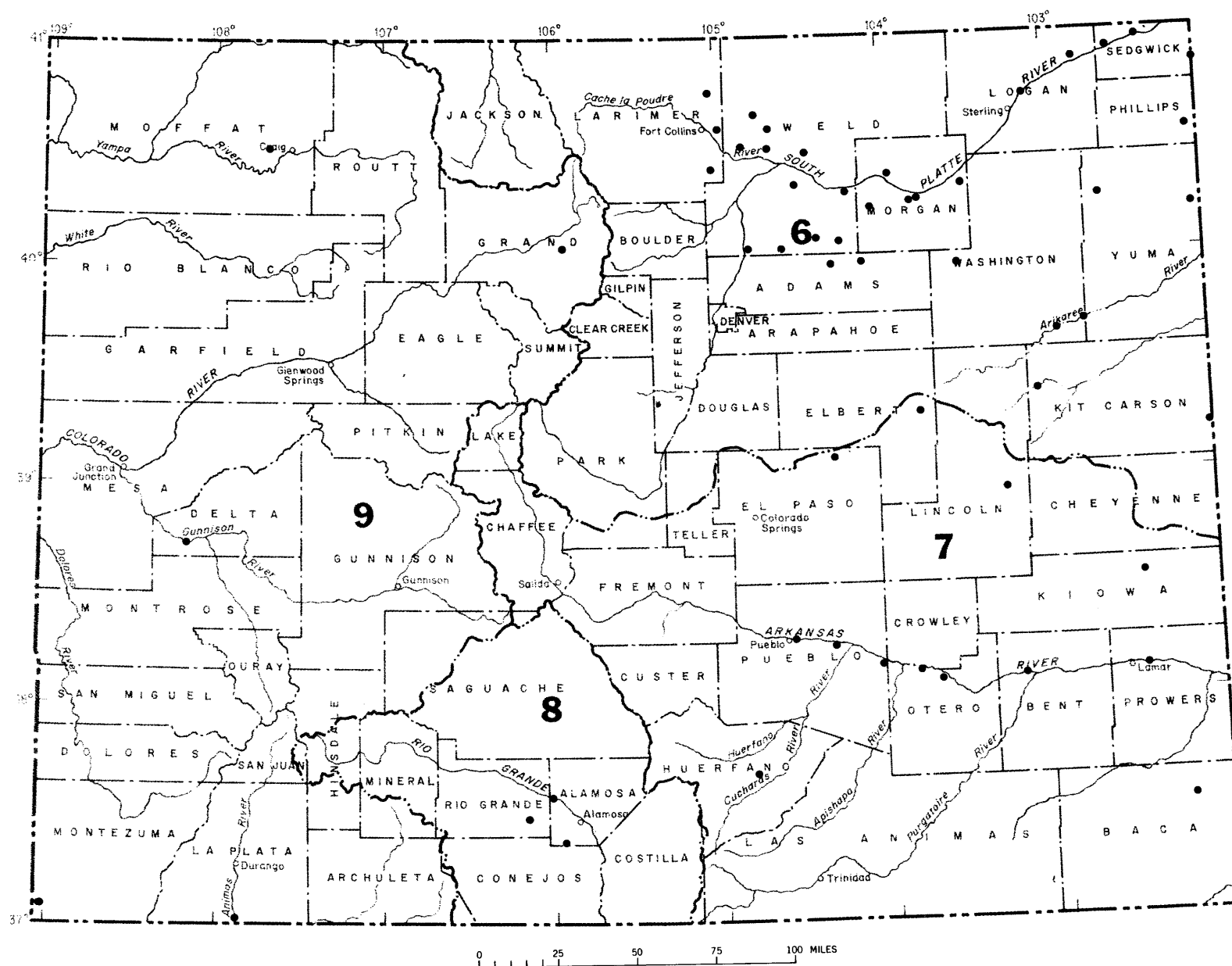


Figure 3.--Location of observation wells in Colorado.

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:

Arkansas River Compact Administration, Frank G. Cooley, Chairman and Federal Representative.
City and County of Denver, Board of Water Commissioners, M. A. Pugsley, President.
City of Aspen, Wayne Chapman, City Manager.
City of Aurora, Thomas Griswald, Manager of Planning and Resources.
City of Colorado Springs, Department of Public Utilities, James D. Phillips, Director.
City of Glenwood Springs, M. Flinn, Manager.
City of Longmont, James Cinea, Water Superintendent.
City of Northglenn, Thomas Ambalam, Director of Natural Resources.
Colorado Department of Highways, Jack Kinstlinger, Executive Director.
Colorado Division of Water Resources, J. A. Danielson, State Engineer.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Colorado Water Conservation Board, J. W. McDonald, Director.
Copper Mountain Water and Sanitation District, William Caffery, District Manager.
Denver Regional Council of Governments, Robert D. Farley, Executive Director.
Eagle County Board of Commissioners, Eric Edeem, Environmental Health Officer.
Grand County, R. Howard Moody, County Commissioner.
Larimer-Weld Regional Council of Governments, T. L. Trembly, Project Manager.
Metropolitan Denver Sewage Disposal District No. 1, Jack B. Enger, Manager.
Mineral County, Nellie M. Wyley, Chairperson, Board of County Commissioners.
Northern Colorado Water Conservation District, Larry Simpson, Manager.
Pitkin County Board of County Commissioners, C. Stewart, County Manager.
Pleasant View Water and Sanitation District, Jeff Isum, District Liaison Officer.
Pueblo Civil Defense, Betty Jo Hopper, Director.
Purgatoire River Water Conservancy District, C. Latuda, President.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
Southwestern Water Conservation District, Edward Searle, Manager.
Uncompahgre Valley Water Users Association, James Herbit, Manager.
Upper Yampa Water Conservancy District, J. Fetcher.
Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
Yellow Jacket Water Conservancy District, F. G. Cooley, Secretary-Council.

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HYDROLOGIC CONDITIONS

Weather Overview of the State for the 1983 Water Year

Weather information and data for the five major drainage basins in Colorado were obtained from published reports of the National Weather Service. Average precipitation and departures from normal for the reference period of 1951-80 water years are shown on a cumulative basis for each one-half of the water year and for the entire water year are shown in table 1. During the first one-half of the water year, all basins received more than normal precipitation. During the last one-half of the water year, the Colorado River, the South Platte River, and the Rio Grande basins received greater-than-normal precipitation, whereas the Arkansas River and the Kansas River basins received less-than-normal precipitation. For the entire water year, all river basins except the Arkansas received greater-than-normal precipitation.

The 1983 water year continued the greater-than-normal precipitation pattern from the preceding year, which was 125 percent above normal. During October and November, 1982, precipitation ranged from 63 percent of normal in the Arkansas River basin to 134 percent of normal in the Yampa and White River basins (subbasins in the Colorado River Basin). Above altitudes of 10,000 feet the snowpack was about 147 percent of normal. From December 1982 through February 1983, precipitation ranged from less than normal to near normal, causing a decrease in the snowpack. Forecasts for the spring runoff were for less-than-normal runoff.

March was the beginning of several months of unseasonably cold temperatures and greater-than-average precipitation. Precipitation for the State was about twice normal and totals in much of the South Platte River basin were more than four times normal.

April was wetter than normal, the wettest areas being along the Front Range and the Upper Colorado River Basin. Most areas received more than twice normal precipitation, and the mountain snowpack continued to increase throughout the State. Many low-altitude snow courses (near 8,000 feet) had near record maximums for April. Water content ranged from 200 to 900 percent of normal. Usually by April most of the snow below an altitude of 8,000 feet has melted, but air temperatures were 5°F to 7°F colder than normal, delaying the melting of the snowpack.

The first 3 weeks of May continued greater-than-normal precipitation and less-than-normal air-temperature patterns. Many precipitation stations received two to three times the normal precipitation. Berthoud Pass (on the Continental Divide between the Colorado River and Platte River basins) had 6.88 inches of precipitation, including 70 inches of new snow. Many high-altitude snowpacks increased where significant melting normally would have occurred. During May 23-28, air temperatures throughout much of the State were in the 80° to 90°F range and temperatures in the mountains were in the 60° to 70°F range. This caused a rapid snowmelt and many rivers were near flood stage in the Colorado River and Cache la Poudre River basins. Air temperatures cooled during May 29 to May 31, easing the threat of flooding.

Table 1.--Precipitation during 1983 water year and departures from normal, in inches

Drainage basin	October-March			April-September			1983 water year		
	Pre- cipi- ta- tion	Normal pre- cipi- ta- tion	Depar- ture from normal	Pre- cipi- ta- tion	Normal pre- cipi- ta- tion	Depar- ture from normal	Pre- cipi- ta- tion	Normal pre- cipi- ta- tion	Depar- ture from normal
Arkansas River-----	4.27	4.05	+0.22	9.27	10.27	-1.00	13.54	14.32	-0.78
Colorado River-----	8.23	7.61	+.62	10.79	7.75	+3.04	19.02	15.36	+3.66
Kansas River-----	4.91	3.55	+1.36	12.67	12.79	-.12	17.58	16.34	+1.24
South Platte River--	5.77	4.26	+1.51	13.30	10.83	+2.47	19.07	15.09	+3.98
Rio Grande-----	4.77	4.53	+.24	8.18	7.00	+1.18	12.95	11.53	+1.42

The first 2 weeks of June continued to be cooler than normal, with greater-than-average precipitation lowering the snowline to 8,000 feet. From June 18 to June 23 a summer heat wave moved into the State and air temperatures in the mountains were in the 60 to 70°F range. Grand Junction, Fort Collins, and Greeley recorded 95°F temperatures. These high temperatures caused a rapid snowmelt, producing flooding in the Colorado River and Cache la Poudre River basins. Widespread thunderstorm activity from June 24 to June 28 added to flooding conditions. During July, with the majority of the snowpack melted and fairly normal air temperatures, floodwaters receded and conditions returned to normal.

Precipitation during August was limited to widespread thunderstorms. Precipitation during September was sparse.

Streamflow

The water year started with greater-than-normal streamflow throughout most of the Upper Colorado River Basin. A lack of precipitation and cold temperatures caused a gradual decrease in runoff until May. Warm temperatures during the last week of May began melting the snowpack at altitudes below 8,000 feet causing streamflow in many rivers to be near flood stage. Cooler temperatures during the first 2 weeks of June slowed the rate of melting and decreased the threat of flooding. During June 18 to June 23, temperatures in the 100°F range combined with thunderstorms to cause a rapid melting of the snowpack, which produced flooding on June 26 and 27 along the downstream reaches of the Gunnison River and along the Colorado River around Grand Junction. Recurrence interval for discharge at gaging station 09152500 Gunnison River at Grand Junction was 5 to 10 years. Property damage to highways, agricultural land, and residential areas in the connected-lakes area of Grand Junction was estimated to be between \$3,000,000 and \$5,000,000. Repair and building of dikes and removing debris from bridges was estimated to cost an additional \$95,000. New peaks of record occurred at numerous gaging stations (table 2). The recurrence interval at 09163500 Colorado River at Colorado-Utah State line was 100 years; elsewhere in the basin the recurrence interval varied between 25 and 100 years.

Monthly and annual mean discharges for the 1983 water year are compared with the median discharge for the reference period of 1951-80 water years for two streamflow-gaging stations in figure 4. The monthly mean discharges at gaging station 09070000 Eagle River below Gypsum ranged from 61 percent of normal during April to 320 percent of normal during July. The water-year mean was 151 percent of normal as compared with 115 percent of normal during the 1982 water year. Gaging station 09112500 East River at Almont had monthly mean discharges ranging from 48 percent of normal during April to 230 percent of normal during July. The water-year mean was 122 percent of normal as compared with 108 percent of normal during the 1982 water year.

Reservoir storage in Taylor Park Reservoir decreased 3,190 acre-ft during the water year.

WATER RESOURCES DATA FOR COLORADO, 1983

Table 2.--Summary of flood stage and discharge at gaging stations where new peak discharges for the period of record occurred during the 1983 water year

[mi², square mile; ft, feet; ft³/s, cubic foot per second]

Station number	Station name	Drainage area (mi ²)	Period of record	Maximum previously known			Maximum during 1983 water year		
				Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
09025000	Vasquez Creek near Winter Park----	27.8	1907, 1909, 1933-83	6-10-52	3.13	470	6-27	4.14	526
09025400	Elk Creek near Fraser-----	7.15	1970-83	5-08-74	2.67	88	6-27	3.03	91
09032000	Ranch Creek near Fraser-----	19.9	1934-83	6-28-57	3.72	402	6-27	3.96	451
09034900	Bobtail Creek near Jones Pass-----	5.49	1965-83	6-20-68	4.71	135	6-25	4.80	199
09035800	Darling Creek near Leal-----	8.18	1965-83	6-20-68	3.62	224	6-27	4.28	234
09039000	Troublesome Creek near Pearmont-----	44.6	1953-83	6-20-78	2.63	507	6-25	2.81	630
09047700	Keystone Gulch near Dillon-----	9.10	1957-83	6-05-58	2.75	90	6-27	3.01	118
09050700	Blue River below Dillon-----	335	1960-83	5-23-70	3.63	1,800	6-22	3.95	1,990
09052800	Slate Creek at upper station, near Dillon-----	14.2	1966-83	6-19-74	5.56	266	8-05	6.14	485
09054000	Black Creek below Black Lake, near Dillon-----	15.0	1942-49, 1966-83	7-01-43	4.74	384	6-25	4.74	555
09055300	Cataract Creek near Kremmling-----	12.0	1966-83	6-21-67	5.43	321	6-25	5.20	353
09058500	Piney River below Piney Lake, near Minturn-----	13.0	1947-54, 1963-83	7-05-75	5.47	413	6-19	4.86	439
09058700	Freeman Creek near Minturn-----	2.94	1964-83	5-28-76	2.60	35	6-11	2.22	43
09059500	Piney River near State Bridge-----	86.2	1944-83	6-08-52	4.41	593	6-27	5.82	1,220
09063200	Wearyman Creek near Redcliff-----	8.78	1964-83	6-18-65	3.23	**140	6-20	3.61	155
09065500	Gore Creek at upper station, near Minturn-----	14.3	1947-56, 1963-83	6-10-52	*6.58	588	6-24	2.60	**662
09073400	Roaring Fork River near Aspen-----	108	1964-83	7-01-65	*5.20	1,310	6-25	4.45	1,370
09074800	Castle Creek above Aspen-----	32.2	1969-83	6-14-73	3.75	428	6-25	3.78	468
09076520	Owl Creek near Aspen-----	6.60	1974-83	5-25-79	1.82	42	5-30	2.30	54
09078600	Fryingpan River near Thomasville---	134	1975-83	6-16-78	3.94	1,060	6-20	4.16	1,220
09081600	Crystal River above Avalanche Creek near Redstone-----	167	1955-83	7-01-57	6.12	3,980	6-25	6.12	4,180

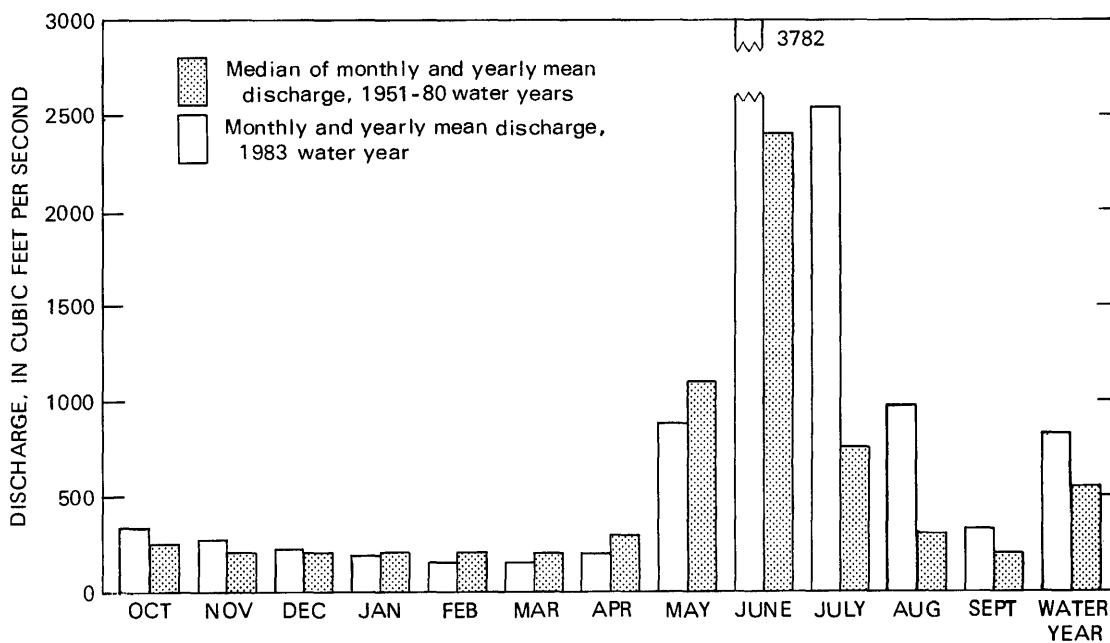
Table 2.--Summary of flood stage and discharge at gaging stations where new peak discharges for the period of record occurred during the 1983 water year--Continued

Station number	Station name	Drainage area (mi ²)	Period of record	Maximum previously known			Maximum during water year 1983		
				Date	Gage height (feet)	Discharge (ft ³ /s)	Date	Gage height (ft)	Discharge (ft ³ /s)
09085100	Colorado River below Glenwood Springs-----	6,013	1966-83	6-15-73	9.48	20,500	6-25	11.74	27,900
09085200	Canyon Creek above New Castle-----	23.8	1969-83	6-08-75	4.86	932	6-19	5.78	966
09089500	West Divide Creek near Raven-----	64.6	1955-83	5-12-62	5.41	790	5-28	6.00	847
09092850	East Middle Fork Parachute Creek near Rio Blanco---	22.1	1976-83	5-17-79	3.39	186	5-27	5.65	645
09092960	East Fork Parachute Creek near Anvil Points-----	14.5	1976-83	5-22-79	3.60	226	5-30	4.21	364
09092970	East Fork Parachute Creek near Rulison-----	20.4	1976-83	5-11-80	2.87	174	5-30	4.14	462
09093700	Colorado River near De Beque-----	7,370	1966-83	6-15-73	11.07	22,500	6-26	13.89	32,300
09105000	Plateau Creek near Cameo-----	592	1935-83	6-15-73	7.99	4,550	6-22	8.51	5,010
09129600	Smith Fork near Lazear-----	166	1976-83	5-23-80	5.37	512	6-02	7.12	814
09136200	Gunnison River near Lazear-----	5,241	1962-83	5-13-62	6.30	1,480	6-26	8.27	19,700
09137050	Currant Creek near Read-----	56.9	1976-83	5-22-80	5.12	420	5-29	4.86	524
09144250	Gunnison River at Delta-----	5,628	1976-83	5-24-80	-----	12,100	6-26	12.74	20,800
09146200	Uncompahgre River near Ridgeway-----	149	1958-83	9-06-70	5.38	1,890	6-24	5.73	2,100
09163500	Colorado River near Colorado-Utah State line-----	17,843	1951-83	6-09-57	15.02	19,300	6-27	15.02	62,100

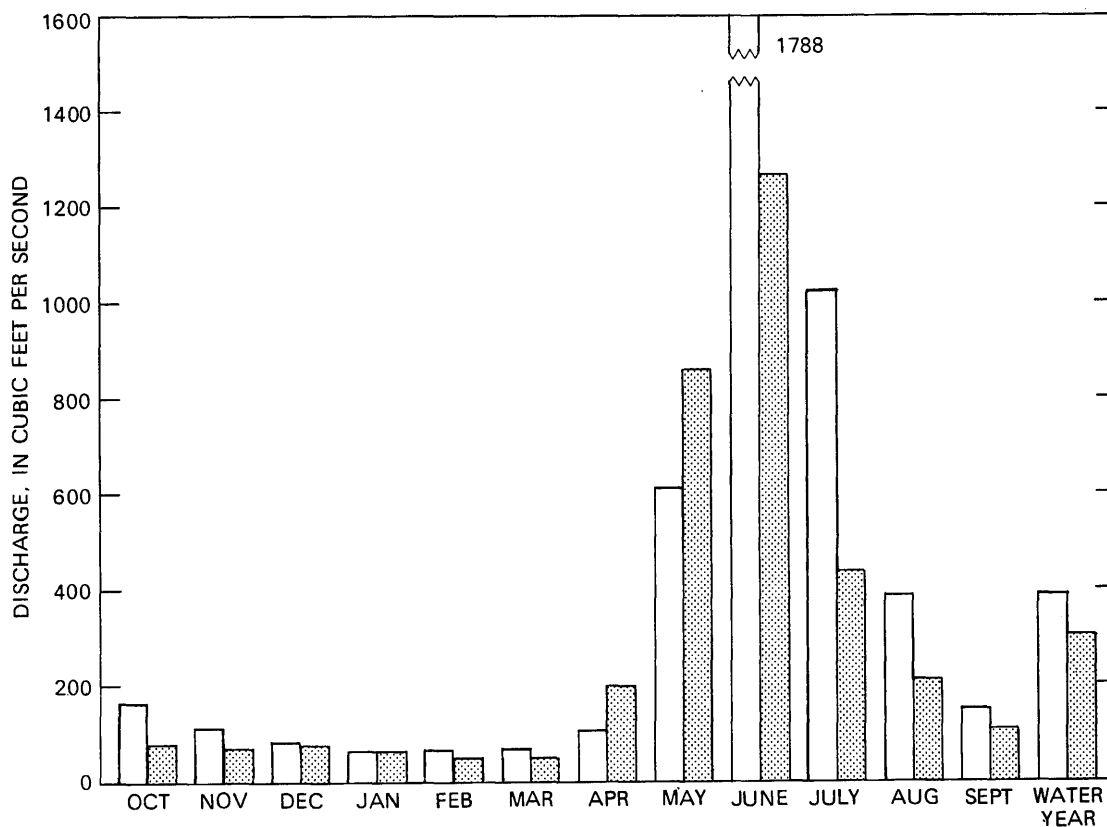
*Different datum.

**About.

WATER RESOURCES DATA FOR COLORADO, 1983



A. Eagle Creek below Gypsum. Drainage area 944 square miles
(2,445 square kilometers)



B. East River at Almont. Drainage area 289 square miles
(749 square kilometers)

Figure 4.--Discharge for 1983 water year compared with median discharge for 1951-80 water years at two representative streamflow-gaging stations.

Chemical Quality of Streamflow

The highest flows ever sampled in the Colorado River basin occurred at gaging station 09163500 Colorado River near Colorado-Utah State line (fig. 5A). During the 1983 water year, the high runoff resulted in smaller than usual concentrations of dissolved solids. At gaging station 09070500 Colorado River near Dotsero, a new minimum daily specific conductance record of 157 micromhos was set on June 23. At gaging station 09095500 Colorado River near Cameo (fig. 5C), which has a much longer period of record (1933 to 1983), the record minimum for daily specific conductance is 235 micromhos--only 16 micromhos less than this year's minimum measurement of 251 micromhos, occurring June 30.

On May 30 at gaging station 09163500 Colorado River near Colorado-Utah State line, during a major flood peak, a dissolved-vanadium concentration of 26 $\mu\text{g/L}$ (micrograms per liter) was measured. This is more than 12 times the normal concentration previously measured. This anomalous concentration of vanadium probably was due to a flushing effect in the early part of the snowmelt runoff.

Total concentrations for copper (49 $\mu\text{g/L}$) and mercury (0.4 $\mu\text{g/L}$) seemed large in the August sampling at gaging station 09034500 Colorado River at Hot Sulphur Springs. Other concentrations measured during the water year ranged from 2 to 3 $\mu\text{g/L}$ for total copper and <0.1 to 0.1 $\mu\text{g/L}$ for total mercury. Farther downstream at gaging station 09058030 Colorado River near Radium no unusually high values of copper or mercury were observed. The highest value observed was 14 $\mu\text{g/L}$ in total copper and 0.1 $\mu\text{g/L}$ total mercury.

Ground Water

Water levels indicate the response of an aquifer to recharge and discharge. Recharge and discharge can be either natural or manmade. Water levels will rise when recharge is plentiful and discharge is small and will decline when recharge is small and discharge is large. Water levels also are used to help define hydrologic units and their water-supply potential.

The aquifer systems within the State can be grouped into two categories: unconsolidated aquifers and consolidated aquifers. The unconsolidated aquifers receive recharge from precipitation, return flow from irrigation, and leakage from canals and streams. Discharge of ground water may be by seepage to streams, seeps, or springs, by loss to evapotranspiration, or by withdrawal by wells. The consolidated aquifers receive recharge from precipitation and streams crossing outcrop areas. These aquifers primarily discharge water to springs and streams, although locally some discharge is by wells.

East of the Continental Divide, because of intensive use of ground water, the major fluctuations in water levels are declines caused by pumping wells. West of the Divide, where withdrawals are small, water-level fluctuations reflect mostly changes in natural conditions.

Ground water is being mined from unconsolidated aquifers in the Northern High Plains and from consolidated aquifers in the Denver Basin. The aquifers in the alluvial valleys in eastern Colorado have been affected by both surface-water irrigation and ground-water pumpage. Most of the aquifers in western Colorado are still under natural conditions except where ground water is being pumped for the production and development of oil, gas, coal, and shale oil.

WATER RESOURCES DATA FOR COLORADO, 1983

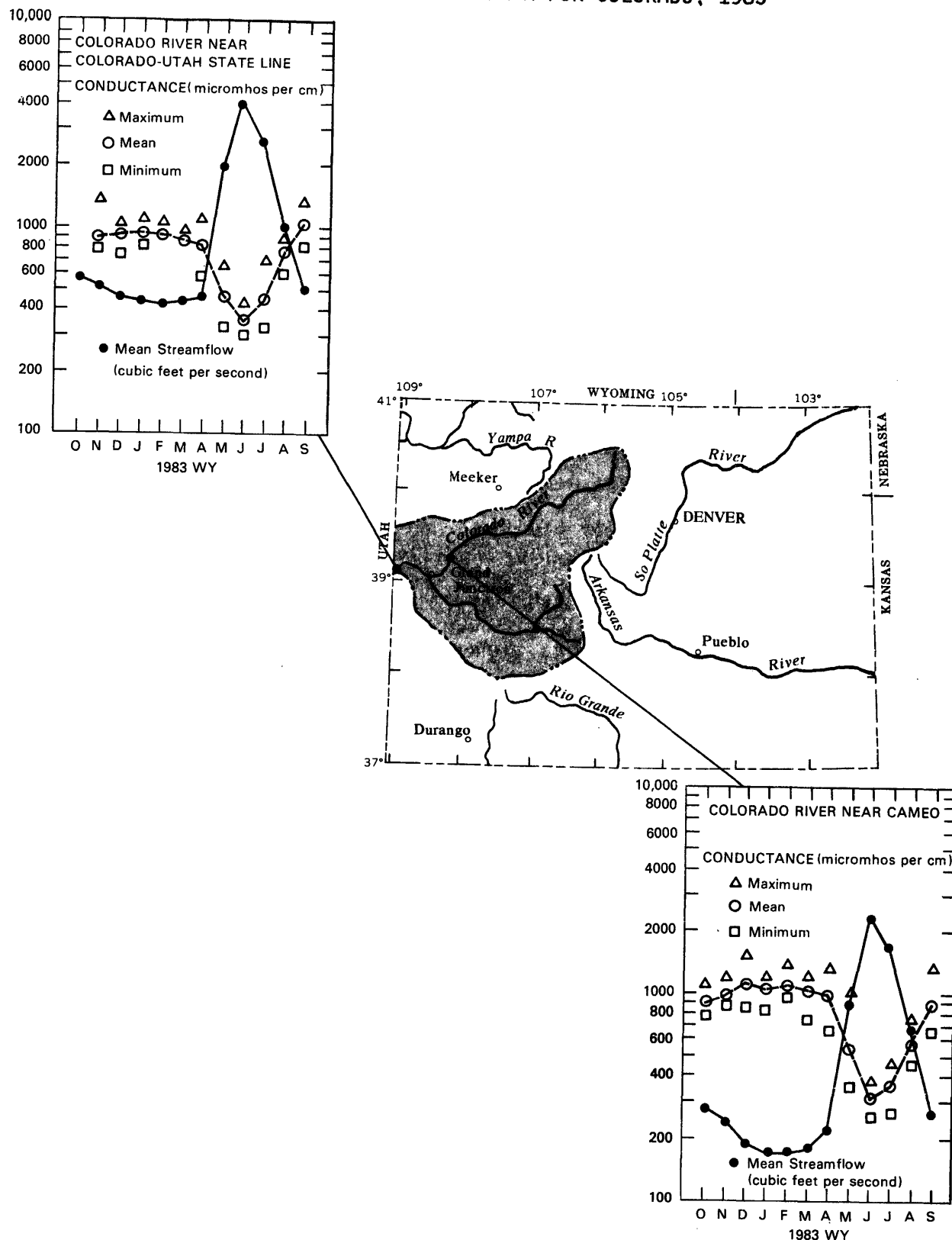


Figure 5A.--Histogram of monthly, maximum, minimum conductance and mean streamflow for gaging station 09163500 Colorado River near Colorado-Utah State line. Figure 5B.--Location of gaging stations 09095500 Colorado River near Cameo and 09163500 Colorado River near Colorado-Utah State line. Figure 5C.--Histogram of monthly, maximum, minimum, mean conductance and mean streamflow for gaging station 09095500 Colorado River near Cameo.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting inch-pound units to International System of units (SI) 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 equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

Algal-growth potential (AGP) refers to the results of an algal assay test which determines the nutrients that are limiting to growth, as well as to quantify the biological response to changes in concentrations of algal growth-limiting nutrients. These measurements are made by inoculating a water samples with an algal test organism and evaluating its growth response to various additions of nutrients overtime. The water samples are spiked with .005 mg/L phosphorus and .075 mg/L nitrogen, and the algal growth potential results are reported in milligrams per liter.

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.

Bacteria are microscopic unicellular organisms, typically spherical, rod like, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, 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 which 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 intestines 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 which 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 intestines of warm-blooded 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 organisms which produce red or pink colonies within 48 hours at $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter (mg/L), necessary for the decomposition of organic matter by microorganisms, 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 of 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 those for 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 60°C for zooplankton and 105°C for 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 mass 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. It represents a runoff of approximately 0.0372 inch from 1 square mile, or 0.3468 millimeter from 1 square kilometer.

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 pigments in plants.

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 the 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.

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

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 period.

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 μ m membrane filter. This may include some very small (colloidal) suspended particles as well as the amount of substance present in true chemical solution. It 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 oxygen (DO) is the dissolved-oxygen content of water in equilibrium with air and is a function of atmospheric pressure and temperature and dissolved-solids concentration of the water. The capacity of water for dissolved-oxygen decreases as dissolved solids or temperature increase or as atmospheric pressure decreases. Dissolved-solids concentration has the least effect on dissolved-oxygen concentration. Photosynthesis and respiration may cause diel variations in dissolved-oxygen concentration in water from some streams.

Drainage area of a stream at a specific 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.

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. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

Hardness of water is the physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

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

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent 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 sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) 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.

Partial-record station is a particular site where limited streamflow 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 suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Table 3.--Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter

Ion	Multi- ply by	Ion	Multi- ply by
Aluminum (Al^{+3})*.....	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as N.....	.07139	Iron (Fe^{+3})*.....	.05372
Barium (Ba^{+2}).....	.01456	Lead (Pb^{+2})*.....	.00965
Bicarbonate (HCO_3^{-1})...	.01639	Lithium (Li^{+1})*.....	.14411
Bromide (Br^{-1}).....	.01251	Magnesium (Mg^{+2}).....	.08226
Calcium (Ca^{+2}).....	.04990	Manganese (Mn^{+2})*.....	.03640
Carbonate (CO_3^{-2}).....	.03333	Nickel (Ni^{+2})*.....	.03406
Chloride (Cl^{-1}).....	.02821	Nitrate as N.....	.07139
Chromium (Cr^{+6})*.....	.11539	Nitrite as N.....	.07139
Cobalt (Co^{+2})*.....	.03394	Phosphate, ortho as P.....	.09686
Copper (Cu^{+2})*.....	.03148	Potassium (K^{+1}).....	.02557
Cyanide (CN^{-1}).....	.03844	Sodium (Na^{+1}).....	.04350
Fluoride (F^{-1}).....	.05264	Strontium (Sr^{+2})*.....	.02283
Hydrogen (H^{+1}).....	.99209	Sulfate (SO_4^{-2}).....	.02082
Hydroxide (OH^{-1}).....	.05880	Zinc (Zn^{+2})*.....	.03060

*Constituents reported in micrograms per liter; multiply by factor and divide results by 1,000.

Table 4.--*Factors for conversion of sediment concentration
in milligrams per liter to parts per million**

[All values calculated to three significant figures]

Range of concentration in 1,000 mg/L	Di- vide by	Range of concentration in 1,000 mg/L	Di- vide by	Range of concentration in 1,000 mg/L	Di- vide by	Range of concentration in 1,000 mg/L	Di- vide by
0 - 8	1.00	201-217	1.13	411-424	1.26	619-634	1.39
8.05- 24	1.01	218-232	1.14	427-440	1.27	636-650	1.40
24.2 - 40	1.02	234-248	1.15	443-457	1.28	652-666	1.41
40.5 - 56	1.03	250-264	1.16	460-473	1.29	668-682	1.42
56.5 - 72	1.04	266-280	1.17	476-489	1.30	684-698	1.43
72.5 - 88	1.05	282-297	1.18	492-506	1.31	700-715	1.44
88.5 -104	1.06	299-313	1.19	508-522	1.32	717-730	1.45
105 -120	1.07	315-329	1.20	524-538	1.33	732-747	1.46
121 -136	1.08	331-345	1.21	540-554	1.34	749-762	1.47
137 -152	1.09	347-361	1.22	556-570	1.35	765-780	1.48
153 -169	1.10	363-378	1.23	572-585	1.36	782-796	1.49
170 -185	1.11	380-393	1.24	587-602	1.37	798-810	1.50
186 -200	1.12	395-409	1.25	604-617	1.38		

*Based on water density of 1.000 g/mL and a specific gravity of sediment of 2.65.

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

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

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material 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.

Periphyton is the assemblage of microorganisms attached to, and growing upon, solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticide network is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams whose waters are used for irrigation or in streams in areas where potential contamination could result from the application of the commonly used insecticides and herbicides.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

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 mL of sample.

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

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 disintegrations per minute (dpm).

Polychlorinated biphenyls (PCB's) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Radiochemical network is a network of regularly sampled water-quality stations where samples are collected monthly or twice a year (at high and low flow) to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Radioisotopes are isotopic forms of an element that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight, but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus. For example: Ordinary chlorine is a mixture of isotopes having atomic weights 35 and 37, with the natural mixture having atomic weight about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron (Rose and Rose, 1966). There are 275 isotopes of the 81 stable elements in addition to over 800 radioactive isotopes.

Radioisotopes that are determined in this program are natural uranium in $\mu\text{g/L}$ (micrograms per liter), radium as radium-226 in PC/L (pCi/L, picocuries per liter), gross beta radiation as equivalent strontium/yttrium-90 or cesium-137 in PC/L, and gross alpha radiation as micrograms of uranium equivalent per liter ($\mu\text{g/L}$). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay-sized) sediments in the samples are also determined.

Recoverable from bottom material 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 only 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.

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.

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 (0.09 m) above the bed) expressed as milligrams of dry sediments per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge in cfs times concentration in mg/L times 0.0027.

Suspended-sediment load is that quantity of suspended sediment passing a section in a specified period.

Total sediment discharge or *total sediment load* is the sum of the suspended-sediment discharge and the bedload discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

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

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks and is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the number and specific chemical types of ions in solution and can be used for approximating the dissolved-solids content in the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream or from well to well, 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 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.

Suspended, recoverable 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 μm 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 would be 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 constituent.

Suspended, total the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45 μm 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.

Thermograph is a thermometer that continuously and automatically records, on a chart, the water temperature of a stream. "Temperature recorder" is the term used to indicate the location of the thermograph.

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 water 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 in milligrams per liter by 0.00136.

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

Total 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 determines all of the constituent in the sample.)

Total in bottom material the total amount of a given constituent in a representative sample of bottom material. 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 judge when the results should be reported as "total in bottom material."

Total, recoverable 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 would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Water year in the U.S. Geological Survey 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, 1981, is called the "1981 water year."

Weighted average is used in this report to indicate the 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.

WRD is an abbreviation for "Water-Data Report" in the summary REVISIONS paragraph to refer to State annual basic-data reports published prior to 1975.

WDR is used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to State annual basic-data reports published after 1975.

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

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 community is dominated by small crustaceans and rotifers.

DOWNSTREAM ORDER AND STATION NUMBER

Stations are listed in a downstream direction along the main stream, and stations on tributaries are listed between stations on the main stream in the order in which those tributaries enter the main stream. Stations on tributaries entering above all mainstream stations are listed before the first mainstream station. Stations on tributaries to tributaries are listed in a similar manner. In the list of gaging stations in the front of this report the rank of tributaries is indicated by indentation, each indentation representing one rank.

As an added means of identification, each gaging station and each partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and continuous-record gaging stations; therefore, the station number for a partial-record station indicates downstream order position in a list made up of both types of stations. Water-quality stations located at or near gaging stations or partial-record stations have the same number as the gaging or partial-record station.

Gaps are left in the sequential allocation of numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete 8-digit number for each station, such as 07083000, which appears just to the left of the station name, includes the 2-digit part number "07" plus the 6-digit downstream order number "083000." In this report the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are for Part 6 (Missouri River basin), Part 7 (Lower Mississippi River basin), and Part 8 (Western Gulf of Mexico basins). Records for Part 9 (Colorado River Basin) are in Volumes 2 and 3. All records for a drainage basin encompassing more than one State can be arranged in downstream order by assembling pages from the various State reports by station number to include all records in the basin.

SPECIAL NETWORKS AND PROGRAMS

Some of the stations for which data are published in this report are included in special networks and programs. These stations are identified by their title, set in parentheses, under the station name.

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

Irrigation-network stations are water-quality stations located at or near certain streamflow gaging stations west of the main stem of the Mississippi River. Data collected at these stations are used to evaluate the chemical quality of surface waters used for irrigation and the changes resulting from the drainage of irrigated lands. Prior to water year 1966, the data for these stations were published in the annual Water-Supply Paper series, "Quality of Surface Water for Irrigation, Western States."

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated in the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are: (1) To depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in streamflow and stream quality.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and Computation of Data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 5-, 15-, 30- or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the U.S. Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. 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 computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by hydrologists and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and winter discharge measurements, consideration being given to

the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

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 on the basis of recorded range in stage, adjoining good record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, adjoining good record, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current water year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are affected by the

revisions, the fact is brought out by notations 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 revised figure was first published is given.

The type of gage currently in use, the datum of the present gage above mean sea level, referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS."

Information pertaining to the accuracy of the discharge records, to conditions which affect the natural flow of the gaging station, availability of water-quality records, and reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE;" it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance.

The maximum discharge (or contents) and the maximum gage height, the minimum discharge if there is little or no regulation (or minimum contents), and the minimum gage height, if it is significant, are given under "EXTREMES." The minimum daily discharge is given if there is extensive regulation (also the minimum discharge and gage height if they are abnormally low). Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second (ft^3/s) during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily

discharges, respectively, for the month. Discharge for the month also may be expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indefinite stage-discharge relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations and at miscellaneous sites follow the information for continuous record sites. Data for partial-record discharge 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 of discharge measurements at miscellaneous sites.

Accuracy of field data and computed results

The accuracy of streamflow data 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 observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" means within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second (ft^3/s) for discharges of less than $1 \text{ ft}^3/\text{s}$; to tenths between 1.0 and $10 \text{ ft}^3/\text{s}$; to whole numbers between 10 and $1,000 \text{ ft}^3/\text{s}$; and to 3 significant figures above $1,000 \text{ ft}^3/\text{s}$. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures 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. However, because all the effects cannot be measured or evaluated, satisfactory adjustments generally cannot be made. For some stations, available figures of diversions or change in contents of reservoirs are included as supplemental data. Even at those stations where adjustments can be made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Data Available

Information of a more detailed nature than that published for most of the gaging stations, such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of Discharge Collected by Agencies other than the Geological Survey

Records of discharge not published by the Geological Survey were collected at many sites in Colorado during the water year by the following agencies: City of Colorado Springs; Colorado Division of Water Resources; Forest Service, U.S. Department of Agriculture; City and County of Denver, Board of Water Commissioners; National Weather Service, Department of Commerce; and the Bureau of Reclamation.

Access to WATSTORE DATA

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

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

General inquiries about WATSTORE may be directed to:

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

EXPLANATION OF WATER-QUALITY RECORDS

Collection and Examination of Data

Water samples for analyses usually are collected at or near streamflow-gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data, the period of daily record for parameters that are measured on a daily basis (such as, specific conductance, pH, dissolved oxygen, water temperature, sediment discharge), extremes for the period of daily record, extremes for current year, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling, or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water Analysis

Most methods for collecting and analyzing water samples are described in "U.S. Geological Survey Techniques of Water-Resources Investigations," which are listed on page 39.

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.

Chemical-quality data 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 determination of carbonate and bicarbonate in the laboratory.

Prior to the 1968 water year, data for chemical constituents and concentrations of suspended sediment were reported in parts per million (ppm) and water temperatures were reported in degrees Fahrenheit (°F). In October 1967, the Geological Survey began reporting data for chemical constituents and concentrations of suspended

sediment in milligrams per liter (mg/L) and water temperatures in degrees Celsius (°C). In waters with a density of 1.000 grams per milliliter (g/mL), parts per million and milligrams per liter can be considered equal. In waters with a density greater than 1.000 g/mL, values in parts per million should be multiplied by the density to convert to milligrams per liter. Temperature reported in degrees Celsius may be converted to degrees Fahrenheit by using table 3.

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 district office.

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 ensure the most recent updates.

Water Temperatures

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

In October 1968, the Geological Survey began reporting many of the chemical constituents as well as the minor elements in micrograms per liter instead of milligrams per liter. See "Definition of Terms," and table 5 for converting English units to SI units.

The biological information includes qualitative and quantitative analyses of plankton, periphyton, Chlorophyll a and b, biomass and bottom organisms. Microbiological information includes quantitative identification of selected bacteriological indicator organisms.

Solutes

Most methods for collecting and analyzing water samples to determine the kinds and concentrations of solutes are described by Brown, Skougstad, and Fishman (1970). Analysis of pesticides and organic substances in water are described by Goerlitz and Lamar (1967), Lamar, Goerlitz, and Law (1965), and Goerlitz and Brown (1972). The collection and analysis of aquatic, biological, and microbiological samples are described by Slack and others (1973).

Table 5.--Degrees Celsius (°C) to degrees Fahrenheit (°F)*
(Temperature reported to nearest 0.5°C)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0.0	32	10.0	50	20.0	68	30.0	86	40.0	104
.5	33	10.5	51	20.5	69	30.5	87	40.5	105
1.0	34	11.0	52	21.0	70	31.0	88	41.0	106
1.5	35	11.5	53	21.5	71	31.5	89	41.5	107
2.0	36	12.0	54	22.0	72	32.0	90	42.0	108
2.5	36	12.5	54	22.5	72	32.5	90	42.5	108
3.0	37	13.0	55	23.0	73	33.0	91	43.0	109
3.5	38	13.5	56	23.5	74	33.5	92	43.5	110
4.0	39	14.0	57	24.0	75	34.0	93	44.0	111
4.5	40	14.5	58	24.5	76	34.5	94	44.5	112
5.0	41	15.0	59	25.0	77	35.0	95	45.0	113
5.5	42	15.5	60	25.5	78	35.5	96	45.5	114
6.0	43	16.0	61	26.0	79	36.0	97	46.0	115
6.5	44	16.5	62	26.5	80	36.5	98	46.5	116
7.0	45	17.0	63	27.0	81	37.0	99	47.0	117
7.5	45	17.5	63	27.5	81	37.5	99	47.5	117
8.0	46	18.0	64	28.0	82	38.0	00	48.0	118
8.5	47	18.5	65	28.5	83	38.5	01	48.5	119
9.0	48	19.0	66	29.0	84	39.0	02	49.0	120
9.5	49	19.5	67	29.5	85	39.5	103	49.5	121

*°C=5/9(°F-32°) or °F=9/5(°C)+32°.

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 loads 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. A blank in the daily mean concentration column of the suspended-sediment discharge table indicates the value in the sediment discharge column was estimated. A zero value in the sediment-discharge column when there are nonzero values in the mean discharge and mean concentration columns indicates the load is less than 0.005 ton per day.

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 in predicting long-term sediment-discharge characteristics of the streams.

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

WATER RESOURCES DATA FOR COLORADO, 1983

WATER-SUPPLY PAPERS

The annual series of Water-Supply Papers that give information on quality of surface waters in Colorado are shown in the following table:

Table 6.--*Water-Supply Paper numbers and parts, water years 1941-71*

Year	Part 6	Part 7	Part 8	Part 9	Irrigation (1951-65) ¹
1941	942	942	942	942	----
1942	950	950	950	950	----
1943	970	970	970	970	----
1944	1022	1022	1022	1022	----
1945	1030	1030	1030	1030	----
1946	1050	1050	1050	1050	----
1947	1102	1102	1102	1102	----
1948	1132	1133	1133	1133	----
1949	1162	1163	1163	1163	----
1950	1187	1188	1188	1189	----
1951	1198	1199	1199	1200	1264
1952	1251	1252	1252	1253	1362
1953	1291	1292	1292	1293	1380
1954	1351	1352	1352	1353	1430
1955	1401	1402	1402	1403	1465
1956	1451	1452	1452	1453	1485
1957	1521	1522	1522	1523	1524
1958	1572	1573	1573	1574	1575
1959	1643	1644	1644	1645	1699
1960	1743	1744	1744	1745	1746
1961	1883	1884	1884	1885	1886
1962	1943	1944	1944	1945	1946
1963	1949	1950	1950	1951	1952
1964	1956	1957	1957	1958	1960
1965	1963	1964	1964	1965	1967
1966	1993	1994	1994	1995	----
1967	2013	2014	2014	2015	----
1968	2095	2096	2097	2098	----
1969	2145	2146	2147	2148	----
1970	2155	2156	2157	2158	----
1971	2165	² 2166	² 2167	² 2168	----

¹Annual series, "Quality of Surface Waters for Irrigation, Western States."

²In preparation.

Information about reports and other data on quality of water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

EXPLANATION OF GROUND-WATER-LEVEL RECORDS

Collection of Data

Only ground-water level data from a basic national network of observation wells are published herein. These water-level measurements are intended to provide a record of water-level changes in important aquifers.

The locations of wells are referenced by two systems. One system is based on latitude and longitude, and the second is based on the U.S. Bureau of Land Management system of land subdivision. The latitude and longitude grid system facilitates machine processing of data and plotting of data points.

The latitude and longitude grid system is used to provide the geographic location of each well. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude; N designates north; the next seven digits denote degrees, minutes, and seconds of longitude; and the last two digits are sequential numbers for wells within a 1-second grid, as shown below in figure 6.

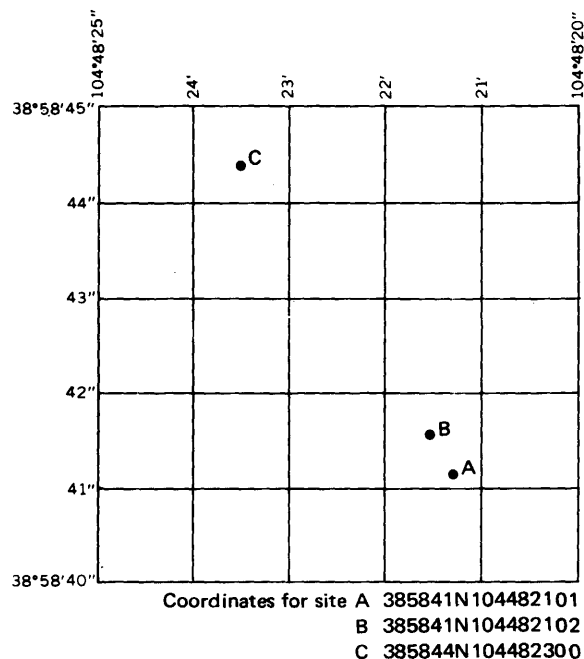


Figure 6.--System for numbering wells and miscellaneous sites (latitude and longitude).

The local well number locates a well within a 10-acre (4.0-ha) 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 (10 km) by townships and is subdivided in the east-west direction every 6 mi (10 km) by ranges. The first number of the well location designates the township and the second number designates the range.

The 36-mi² (93-km²) area described by the township and range designation is subdivided into 1-mi² (2.59-km²) areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres (259 ha), is subdivided into quarter sections. The 160-acre (64.8-ha) 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 (16.2-ha) area is designated in the same manner by the second letter following the section. The quarter-quarter section is subdivided into quarter-quarter-quarter sections. The 10-acre (4.0-ha) 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 (4.0-ha) 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.

The local number is provided for continuity with older reports.

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

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several

hundred feet, the error of determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water, the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

Publications

Publication of ground-water level data for the United States in water-supply papers was begun by the Geological Survey in 1935. From 1935 through 1939, a single water-supply paper covering the entire nation was issued each year (Water-Supply Papers 777, 817, 840, 845, and 886). From 1940 through 1974, separate water-supply papers were issued for six sections of the United States. Water-level data for Colorado are included in the water-supply papers listed below, each report containing one or more calendar years (January through December) of data. Data in this report are for the 12-month water year ending September 30.

Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.	Calendar year	WSP no.
1940	910	1945	1027	1950	1169	1955	1408
1941	940	1946	1075	1951	1195	1956-60	1760
1942	948	1947	1100	1952	1225	1961-65	1845
1943	990	1948	1130	1953	1269	1966-70	1980
1944	1020	1949	1160	1954	1325		

Information about reports and other data on ground water in Colorado may be obtained from the district office at the address given on the back of the title page of this report.

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NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

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HYDROLOGIC-DATA STATION RECORDS

45

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. Altitude of gage is 8,750 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion above station by Grand River ditch (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 62.6 ft³/s; 45,350 acre-ft/yr.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 857 ft³/s at 2000 June 19, gage height, 7.27 ft; minimum daily, 7.6 ft³/s Mar. 28 to Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	38	22	12	9.0	8.5	7.6	18	319	685	195	44
2	62	34	21	12	9.0	8.0	7.6	20	311	683	159	41
3	56	29	19	12	9.0	8.0	7.6	23	300	719	148	43
4	51	32	18	12	9.0	8.0	7.6	27	327	656	165	70
5	48	37	18	12	9.0	8.0	7.6	37	352	619	179	57
6	46	34	18	12	8.6	8.0	8.0	36	285	623	169	43
7	45	32	18	12	8.5	8.0	8.0	39	284	664	144	39
8	44	30	18	12	8.5	8.0	8.0	48	307	759	132	39
9	40	30	18	12	8.5	8.0	8.0	65	356	737	123	39
10	45	30	18	12	8.5	8.0	8.0	86	376	761	114	35
11	45	28	18	12	8.5	8.0	8.0	101	482	693	106	33
12	44	31	18	12	8.5	8.0	8.0	96	569	614	114	31
13	43	30	18	12	8.5	8.0	8.0	84	441	503	118	30
14	41	29	18	12	8.5	8.0	8.0	73	323	447	99	38
15	42	27	18	12	8.5	8.0	8.0	66	290	361	104	39
16	43	26	17	12	8.5	8.0	8.2	62	327	285	90	34
17	40	24	15	12	8.5	8.0	8.4	54	374	259	97	32
18	39	22	15	12	8.5	8.0	8.5	59	515	239	97	31
19	37	22	15	12	8.5	8.0	8.8	51	590	228	98	34
20	35	22	15	12	8.5	8.0	9.2	49	716	225	104	36
21	36	22	14	12	8.5	8.0	9.6	56	759	264	85	31
22	34	22	14	12	8.5	8.0	10	66	768	315	76	35
23	34	22	14	12	8.5	8.0	11	85	771	323	69	34
24	33	22	14	12	8.5	8.0	12	127	763	246	65	35
25	34	22	14	10	8.5	8.0	16	175	759	202	62	36
26	35	22	14	9.0	8.5	8.0	20	216	721	203	58	33
27	42	22	13	9.0	8.5	7.7	19	286	701	202	56	33
28	36	22	12	9.0	8.5	7.6	16	328	707	202	53	32
29	35	22	12	9.0	---	7.6	16	323	687	168	51	34
30	37	22	12	9.0	---	7.6	17	321	681	153	52	32
31	41	---	12	9.0	---	7.6	---	289	---	149	48	---
TOTAL	1312	807	500	352.0	240.6	246.6	307.7	3366	15161	13187	3230	1123
MEAN	42.3	26.9	16.1	11.4	8.59	7.95	10.3	109	505	425	104	37.4
MAX	69	38	22	12	9.0	8.5	20	328	771	761	195	70
MIN	33	22	12	9.0	8.5	7.6	7.6	18	284	149	48	30
AC-FT	2600	1600	992	698	477	489	610	6680	30070	26160	6410	2230
CAL YR 1982	TOTAL	22507.5	MEAN	61.7	MAX 391	MIN 5.4	AC-FT	44640				
WTR YR 1983	TOTAL	39832.9	MEAN	109	MAX 771	MIN 7.6	AC-FT	79010				

COLORADO RIVER MAIN STEM

09011000 COLORADO RIVER NEAR GRAND LAKE, CO

LOCATION.--Lat 40°13'08", long 105°51'25", in NE¼SW¼ sec.13, T.3 N., R.76 W., Grand County, Hydrologic Unit 14010001, on left bank 200 ft downstream from bridge on U.S. Highway 34, 400 ft upstream from high-water line of Shadow Mountain Lake at elevation 8,367 ft, and 3.0 mi southwest of town of Grand Lake.

DRAINAGE AREA.--102 mi².

PERIOD OF RECORD.--Streamflow records, July 1904 to September 1918, October 1933 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as Grand River (North Fork) near Grand Lake 1904 and as North Fork of Grand River near Grand Lake 1905-18. Water-quality data available 1970 to 1978.

REVISED RECORDS.--WSP 1213: 1914. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,380 ft, from topographic map. Prior to June 15, 1934, nonrecording gage at present site and datum. June 15, 1934, to Sept. 26, 1944, water-stage recorder at site 1,100 ft downstream, at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 200 acres of hay meadows above station and about 2,000 acres below. Transmountain diversion above station by Grand River ditch through La Poudre Pass to Cache la Poudre River basin (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--64 years (water years 1905-18, 1934-83), 89.6 ft³/s; 64,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,840 ft³/s June 15, 16, 1918, gage height, 7.0 ft, from rating curve extended above 1,100 ft³/s; maximum gage height, 8.21 ft, Apr. 20, 1971 (backwater from ice); minimum daily discharge, 1.7 ft³/s July 18, 19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,290 ft³/s at 0900 June 21, gage height, 6.80 ft; minimum daily, 15 ft³/s July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	49	27	21	20	18	15	38	552	832	255	53
2	71	44	26	21	20	16	15	40	565	804	216	50
3	64	44	26	20	20	17	15	42	522	882	182	48
4	60	50	26	20	20	17	15	42	554	839	201	75
5	57	50	26	21	20	18	15	57	605	709	230	78
6	55	52	27	20	20	19	16	55	522	699	240	55
7	54	49	27	21	20	16	16	55	515	733	182	48
8	54	40	26	21	20	16	16	60	522	1070	161	46
9	50	37	26	21	19	16	16	82	540	1010	144	49
10	50	33	25	21	20	16	16	123	554	1080	132	43
11	51	36	25	21	19	16	15	150	636	912	118	40
12	54	34	25	21	19	16	15	151	830	711	122	38
13	52	34	24	21	19	17	15	132	781	546	147	35
14	50	34	24	21	19	17	15	109	580	457	119	36
15	51	34	24	21	19	18	15	101	499	383	125	44
16	52	34	24	21	19	18	15	92	520	287	106	39
17	50	34	24	21	18	17	15	77	562	241	124	36
18	48	33	24	22	18	18	16	73	715	206	117	34
19	47	32	23	21	18	17	16	71	933	189	116	36
20	42	32	23	21	18	17	17	65	1170	175	131	42
21	44	32	23	21	18	17	18	74	1220	198	108	37
22	42	32	23	21	18	16	19	94	1200	274	92	39
23	42	32	23	21	18	16	20	136	1160	319	83	39
24	41	32	23	21	18	16	24	220	1150	242	76	40
25	42	31	23	20	18	16	28	310	1090	151	73	42
26	44	30	23	20	17	16	50	392	1020	142	69	40
27	53	29	22	20	18	16	43	489	913	213	65	39
28	48	28	22	20	18	15	39	576	941	285	64	39
29	41	27	21	20	---	15	37	574	880	224	61	40
30	46	27	21	20	---	15	37	560	818	194	64	38
31	50	---	21	20	---	15	---	514	---	176	59	---
TOTAL	1581	1085	747	642	528	513	624	5554	23069	15183	3982	1318
MEAN	51.0	36.2	24.1	20.7	18.9	16.5	20.8	179	769	490	128	43.9
MAX	76	52	27	22	20	19	50	576	1220	1080	255	78
MIN	41	27	21	20	17	15	15	38	499	142	59	34
AC-FT	3140	2150	1480	1270	1050	1020	1240	11020	45760	30120	7900	2610
CAL YR 1982	TOTAL	22298.6	MEAN	61.1	MAX	338	MIN	7.8	AC-FT	44230		
WTR YR 1983	TOTAL	54826.0	MEAN	150	MAX	1220	MIN	15	AC-FT	108700		

GRAND LAKE OUTLET BASIN

47

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

LOCATION.--Lat 40°19'40", long 105°34'39", in SW1/4 sec.9, T.4 N., R.73W., Larimer County, Hydrologic Unit 10190006, on right bank at upstream end of Aspen Creek siphon, 700 ft downstream from east portal, and 4.5 mi southwest of Estes Park.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,250 ft, 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.--Records excellent. 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.--37 years, 273 ft³/s; 197,800 acre-ft/yr.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	133	224	251	377	296	192	47	1.0	2.0	502	477
2	382	152	179	201	389	387	191	97	1.0	2.0	502	452
3	376	247	180	257	399	298	190	7.9	43	3.0	500	263
4	440	223	196	255	410	314	190	3.2	2.0	3.0	465	260
5	372	152	200	250	412	330	199	1.4	2.0	3.0	445	269
6	381	197	218	250	412	347	191	2.0	.50	1.0	457	293
7	440	208	199	349	410	375	127	1.4	.00	2.0	453	292
8	547	198	210	301	425	293	123	1.0	.00	2.0	459	314
9	545	217	243	358	413	302	128	1.1	.00	2.0	469	313
10	497	250	289	355	413	347	128	2.2	.00	10	548	311
11	469	225	238	361	414	342	129	.40	.00	202	531	300
12	339	195	213	360	404	304	129	.10	.00	318	415	434
13	312	214	187	317	405	296	105	169	.00	404	379	297
14	204	199	253	316	413	363	99	32	.00	321	408	168
15	104	206	211	222	414	327	123	4.5	.00	273	519	186
16	4.2	205	274	237	421	384	140	81	.00	400	386	197
17	67	201	274	298	391	366	12	104	.00	402	392	189
18	127	204	271	304	399	347	.66	.50	.00	402	447	203
19	78	202	297	300	404	295	.76	1.7	.00	403	418	205
20	39	200	301	357	353	303	.76	7.4	.00	403	365	154
21	225	200	296	330	426	354	.96	6.9	.00	440	344	123
22	223	200	189	267	241	360	.76	8.2	.00	513	373	148
23	154	199	297	267	266	360	.70	9.3	3.0	445	359	160
24	6.4	232	290	329	270	362	.76	7.8	3.0	400	364	177
25	284	187	292	350	270	193	.80	.60	3.0	462	377	157
26	212	167	290	406	298	195	.62	1.0	3.0	524	369	147
27	286	140	290	400	303	203	.71	.00	3.0	539	370	148
28	278	123	290	400	396	188	.62	.00	2.0	542	376	146
29	325	136	219	402	---	171	.70	.00	3.0	516	431	144
30	27	213	259	398	---	190	139	1.0	1.0	494	453	145
31	10	---	268	357	---	188	---	2.0	---	494	458	---
TOTAL	7825.6	5825	7637	9805	10548	9380	2543.81	601.60	70.50	8927.0	13334	7072
MEAN	252	194	246	316	377	303	84.8	19.4	2.35	288	430	236
MAX	547	250	301	406	426	387	199	169	43	542	548	477
MIN	4.2	123	179	201	241	171	.62	.00	.00	1.0	344	123
AC-FT	15520	11550	15150	19450	20920	18610	5050	1190	140	17710	26450	14030
CAL YR 1982	TOTAL	108129.77	MEAN	296	MAX	568	MIN	.00	AC-FT	214500		
WTR YR 1983	TOTAL	83569.51	MEAN	229	MAX	548	MIN	.00	AC-FT	165800		

GRAND LAKE OUTLET BASIN

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 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT 05...	1600	542	30	32	7.6	11.0	8.2	12	3.8	.70	1.3
NOV 29...	1530	244	45	47	7.1	3.5	8.6	17	5.1	.99	1.7
JAN 05...	0900	396	65	58	7.3	2.0	8.6	21	6.2	1.3	2.0
FEB 08...	0830	408	57	63	6.6	1.5	9.0	23	7.0	1.4	2.3
MAR 23...	0800	459	60	65	--	2.0	7.7	24	7.5	1.4	2.4
APR 20...	1030	.90	68	69	7.7	6.0	7.5	22	6.7	1.4	4.4
MAY 11...	0730	4.5	40	43	8.1	4.0	8.0	13	3.7	.99	2.8
JUL 13...	0830	415	19	23	7.0	9.0	7.4	7	2.2	.40	1.0
AUG 03...	0800	502	21	25	6.8	15.0	8.9	8	2.5	.46	1.1
SEP 07...	0830	51	47	47	7.3	15.0	9.0	16	4.8	.99	3.0
28...	1630	197	36	39	7.3	13.0	7.5	14	4.2	.82	1.5

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINIT LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)
OCT 05...	.2	.40	17	<5.0	.30	.10	3.6	--	--	<.100
NOV 29...	.2	.60	21	6.0	.50	.10	3.4	31	20	<.100
JAN 05...	.2	.80	27	5.0	.40	.10	3.7	36	38	.100
FEB 08...	.2	.80	29	5.0	.40	.20	4.0	39	42	.100
MAR 23...	.2	.80	29	5.1	.40	.20	4.2	39	49	.100
APR 20...	.4	.90	31	5.0	.60	.30	6.1	44	.11	<.100
MAY 11...	.3	.60	16	7.4	.70	.20	11	37	.45	<.100
JUL 13...	.2	.30	10	3.9	.30	.10	3.5	18	20	<.100
AUG 03...	.2	.40	11	3.6	.20	<.10	3.4	18	25	<.100
SEP 07...	.3	.50	22	4.4	.30	.30	4.6	32	4.4	<.100
28...	.2	.50	17	4.4	.30	.10	3.9	26	14	<.100

GRAND LAKE OUTLET BASIN

49

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	NICKEL, DIS- SOLVED (UG/L AS NI)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT										
05...	<.100	1.0	--	<1	1	29	2	1	2	<3
NOV										
29...	<.100	.60	--	--	--	20	--	<1	--	--
JAN										
05...	<.100	.50	.60	--	--	26	--	1	--	--
FEB										
08...	.100	.40	.50	--	--	29	--	3	--	--
MAR										
23...	.110	.50	.60	<1	1	46	<1	10	1	8
APR										
20...	<.100	1.0	--	--	--	48	--	12	--	--
MAY										
11...	<.100	.60	--	--	--	100	--	3	--	--
JUL										
13...	<.100	.50	--	--	--	45	--	4	--	--
AUG										
03...	<.100	.70	--	--	--	73	--	2	--	--
SEP										
07...	<.100	.30	--	<1	3	100	1	2	<1	5
28...	<.100	.60	--	--	--	59	--	1	--	--

COLORADO RIVER MAIN STEM

09014500 SHADOW MOUNTAIN LAKE NEAR GRAND LAKE, CO

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

DRAINAGE AREA.--185 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. 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 furnished 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, 17,710 acre-ft, Oct. 31, elevation, 8,366.91 ft; minimum, 14,960 acre-ft, June 19, elevation, 8,365.00 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	8,366.78	17,480	-
Oct. 31.	8,366.91	17,710	+230
Nov. 30.	8,366.65	17,240	-470
Dec. 31.	8,366.68	17,280	+40
CAL YR 1982			-130
Jan. 31.	8,366.69	17,280	0
Feb. 28.	8,366.81	17,490	+210
Mar. 31.	8,366.65	17,250	-240
Apr. 30.	8,366.62	17,160	-90
May 31.	8,366.50	16,980	-180
June 30.	8,366.09	16,410	-570
July 31.	8,366.37	16,690	+280
Aug. 31.	8,366.65	17,210	+520
Sept. 30.	8,366.75	17,410	+200
WTR YR 1983			-70

COLORADO RIVER BASIN

51

09018300 GRANBY PUMP CANAL NEAR GRAND LAKE, CO

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

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

REMARKS.--No flow at time of visit for October, April, May, June, July and September of 1983 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)
NOV 03...	0645	354	60	6.8	6.5	6.8	40	<1	<.100	1.1	--	.010
DEC 10...	0630	351	58	7.2	3.0	9.3	--	--	<.100	.80	--	.030
JAN 07...	0730	348	60	--	2.5	--	K12	<1	.100	.50	.60	.030
FEB 18...	0730	635	60	7.1	2.0	10.1	36	<1	.100	.70	.80	.040
MAR 30...	0730	620	61	7.7	2.5	7.4	70	<1	.100	.50	.60	.010
AUG 25...	0630	228	60	7.1	6.0	4.8	<1	<1	.100	.50	.60	<.010

K BASED ON NON-IDEAL COLONY COUNT.

COLORADO RIVER MAIN STEM

09018500 LAKE GRANBY NEAR GRANBY, CO

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

DRAINAGE AREA.--312 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. 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 furnished 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, 463,300 acre-ft July 31, elevation, 8,279.69 ft; minimum, 193,300 acre-ft Apr. 17, elevation, 8,236.24 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	8,250.50	271,900	-
Oct. 31.	8,249.11	263,800	-8,100
Nov. 30.	8,247.91	256,900	-6,900
Dec. 31.	8,246.12	246,700	-10,200
CAL YR 1982			+42,400
Jan. 31.	8,242.97	229,100	-17,600
Feb. 28.	8,239.44	210,100	-19,000
Mar. 31.	8,236.64	195,400	-14,700
Apr. 30.	8,237.02	197,400	+2,000
May 31.	8,244.90	239,800	+42,400
June 30.	8,272.33	411,200	+171,400
July 31.	8,279.69	463,300	+52,100
Aug. 31.	8,278.88	457,500	-5,800
Sept. 30.	8,277.84	450,000	-7,500
WTR YR 1983			+178,100

COLORADO RIVER MAIN STEM

53

09019500 COLORADO RIVER NEAR GRANBY, CO

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

DRAINAGE AREA.--323 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,960 ft, 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.--Records good. Flow regulated by Lake Granby (station 09018500) since Sept. 13, 1949. Several diversions for irrigation of hay meadows above station. Transmountain diversions above station by Eureka and Grand River ditches and Alva B. Adams tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

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

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

EXTREMES FOR CURRENT SEASON.--Maximum discharge, 2,510 ft³/s at 1600 July 11, gage height, 5.39 ft; minimum daily, 16 ft³/s Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	31	71	215	317	34
2							---	54	72	374	291	20
3							---	76	72	377	269	20
4							---	71	72	374	278	22
5							---	75	72	374	278	21
6							---	76	71	359	278	20
7							---	81	70	359	239	20
8							---	85	66	449	190	20
9							---	99	68	616	127	20
10							---	99	72	1350	74	20
11							---	82	70	2420	50	20
12							---	55	62	2460	46	20
13							---	51	66	2240	47	20
14							---	58	70	1660	47	20
15							---	60	71	1460	48	20
16							---	61	72	1190	46	20
17							---	65	75	906	44	20
18							---	67	76	735	45	20
19							---	67	75	580	46	17
20							---	67	75	564	45	16
21							---	67	72	576	44	18
22							---	70	72	685	46	19
23							29	70	74	804	46	18
24							30	68	72	828	46	19
25							32	70	72	599	47	19
26							32	72	72	293	47	19
27							32	72	83	212	47	20
28							31	76	85	236	47	20
29							32	74	81	281	47	20
30							32	75	81	305	48	24
31							---	72	---	308	48	---
TOTAL							---	2166	2182	24189	3318	606
MEAN							---	69.9	72.7	780	107	20.2
MAX							---	99	85	2460	317	34
MIN							---	31	62	212	44	16
AC-FT							---	4300	4330	47980	6580	1200

WILLOW CREEK BASIN

09020700 WILLOW CREEK RESERVOIR NEAR GRANBY, CO

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

DRAINAGE AREA.--134 mi².

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

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

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 9,060 acre-ft, Aug. 3, 1953, elevation, 8,129.99 ft; minimum since first filling to spillway, 1,470 acre-ft, Apr. 24, 1974, elevation, 8,090.14 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 8,850 acre-ft, June 18, elevation, 8,129.27 ft; minimum, 5,620 acre-ft, Dec. 3, elevation, 8,116.45 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	8,125.72	7,840	-
Oct. 31.	8,125.73	7,840	0
Nov. 30.	8,124.18	7,430	-410
Dec. 31.	8,118.90	6,150	-1,280
CAL YR 1982			+80
Jan. 31.	8,120.62	6,550	+400
Feb. 28.	8,121.98	6,900	+350
Mar. 31.	8,124.10	7,410	+510
Apr. 30.	8,119.42	6,270	-1,140
May 31.	8,121.24	6,700	+430
June 30.	8,126.19	7,970	+1,270
July 31.	8,127.04	8,200	+230
Aug. 31.	8,125.94	7,900	-300
Sept. 30.	8,123.02	7,140	-760
WTR YR 1983			-700

FRASER RIVER BASIN

55

09024000 FRASER RIVER NEAR WINTER PARK, CO

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

DRAINAGE AREA.--27.6 mi².

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

REVISED RECORDS.--WSP 929: Drainage area.

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

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station through Berthoud Pass ditch (see elsewhere in this report) and to Moffat water tunnel (not known since 1968). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft³/s June 13, 1918, gage height, 2.9 ft; minimum daily determined, 2 ft³/s Mar. 30, Apr. 9, 1912, Jan 23, 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 624 ft³/s at 2000 June 27, gage height, 2.94 ft; minimum daily, 3.5 ft³/s Oct. 3-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	5.2	4.7	5.5	5.0	4.5	4.5	6.2	81	335	102	22
2	3.6	5.2	4.8	6.0	5.0	4.5	4.5	6.2	82	304	69	22
3	3.5	6.4	4.6	6.2	5.0	4.5	4.5	6.3	87	320	38	22
4	3.5	8.6	4.7	6.5	5.0	4.5	4.5	6.7	104	288	42	23
5	3.5	7.0	4.9	6.5	5.0	5.0	4.5	7.6	98	256	60	21
6	3.5	7.7	4.8	6.5	5.0	5.0	4.5	7.5	91	252	59	21
7	3.5	6.9	4.8	6.5	5.0	5.0	4.5	7.4	96	280	51	21
8	3.7	5.5	4.8	6.5	5.0	5.0	4.5	8.2	104	380	39	23
9	3.7	5.1	4.8	6.5	5.0	5.0	4.5	11	117	440	38	25
10	3.8	5.9	4.7	6.5	5.0	5.0	4.8	13	131	350	35	20
11	4.7	5.5	4.5	6.5	4.7	5.0	4.8	16	162	280	33	20
12	4.9	5.8	4.5	6.5	4.5	5.0	4.8	15	191	230	30	19
13	3.6	6.0	4.7	6.5	4.5	5.0	4.8	13	174	168	21	19
14	3.8	7.0	4.8	6.5	4.5	5.0	4.8	12	153	82	25	20
15	3.9	7.5	5.5	6.5	4.5	5.0	4.8	12	157	30	47	18
16	3.9	8.0	4.8	6.0	4.5	5.0	4.5	11	161	17	63	12
17	4.2	8.0	4.7	6.0	4.5	5.0	4.6	10	182	16	41	11
18	8.9	6.0	4.7	6.0	4.5	5.0	4.9	10	228	24	23	10
19	9.0	4.8	5.0	6.0	4.5	5.0	5.3	9.5	287	54	24	11
20	8.7	5.0	5.3	5.0	4.5	5.0	5.7	9.4	260	102	24	11
21	9.1	5.1	4.8	5.0	4.5	5.0	5.6	10	282	93	25	10
22	8.8	5.4	4.7	5.0	4.5	5.0	5.5	12	305	107	30	10
23	8.7	5.4	4.7	5.0	4.5	5.0	5.9	15	323	143	40	10
24	8.5	5.4	4.6	5.0	4.5	5.0	6.6	18	330	130	29	10
25	8.5	5.6	4.9	5.0	4.5	4.5	7.9	24	375	185	21	9.3
26	8.7	5.7	5.1	5.0	4.5	4.5	7.8	54	435	186	23	9.2
27	9.1	5.7	5.3	5.0	4.5	4.5	7.1	76	410	171	23	9.2
28	8.6	5.9	5.3	5.0	4.5	4.5	7.1	80	430	124	23	8.7
29	12	4.6	5.3	5.0	---	4.5	6.8	84	370	109	22	8.7
30	5.4	4.8	5.3	5.0	---	4.5	6.5	81	345	107	24	8.5
31	5.2	---	5.3	5.0	---	4.5	---	77	---	105	23	---
TOTAL	184.2	180.7	151.4	179.7	131.2	149.5	161.1	729.0	6551	5668	1147	464.6
MEAN	5.94	6.02	4.88	5.80	4.69	4.82	5.37	23.5	218	183	37.0	15.5
MAX	12	8.6	5.5	6.5	5.0	5.0	7.9	84	435	440	102	25
MIN	3.5	4.6	4.5	5.0	4.5	4.5	4.5	6.2	81	16	21	8.5
AC-FT	365	358	300	356	260	297	320	1450	12990	11240	2280	922

CAL YR 1982 TOTAL 3944.3 MEAN 10.8 MAX 139 MIN 3.3 AC-FT 7820
WTR YR 1983 TOTAL 15697.4 MEAN 43.0 MAX 440 MIN 3.5 AC-FT 31140

NOTE.--NO GAGE-HEIGHT RECORD JAN. 1 TO MAR. 28.

FRASER RIVER BASIN

09025000 VASQUEZ CREEK NEAR 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 northwest of Winter Park, 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, and as "near West Portal" 1934-39. Records for May 26, 1937, to September 1959, equivalent to earlier records if diversion to Moffat water tunnel is added to flow past station.

REVISED RECORDS.--See PERIOD OF RECORD.

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

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 526 ft³/s at 2200 June 27, gage height, 4.14 ft; minimum daily, 1.9 ft³/s Jan. 21 to Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	6.4	4.1	2.7	1.9	2.0	3.0	4.5	67	311	28	8.6
2	5.0	6.4	4.1	2.7	1.9	2.0	3.0	4.5	75	300	23	8.6
3	5.3	6.4	4.1	2.7	1.9	2.0	3.2	4.5	79	306	22	8.4
4	5.6	6.4	4.1	2.7	1.9	2.0	3.5	5.1	88	274	25	10
5	5.6	6.4	4.1	2.7	1.9	2.0	3.5	5.5	89	257	31	9.1
6	5.6	6.4	3.7	2.5	1.9	2.0	3.5	5.6	78	261	32	9.2
7	5.0	6.4	3.7	2.5	1.9	2.0	3.5	5.4	80	279	40	9.2
8	5.2	6.4	3.7	2.5	1.9	2.0	3.7	6.0	92	291	32	9.2
9	5.7	6.4	3.7	2.5	1.9	2.0	3.8	8.1	109	296	26	9.1
10	5.7	6.2	3.7	2.5	1.9	2.0	3.8	11	123	277	15	9.0
11	6.0	6.0	3.7	2.2	1.9	2.0	3.8	12	153	245	15	8.8
12	6.2	5.5	3.7	2.2	1.9	2.1	3.7	10	183	219	18	8.7
13	6.4	5.6	3.7	2.2	2.0	2.2	3.8	8.7	160	202	17	8.7
14	6.6	5.6	3.7	2.2	2.0	2.3	3.8	7.5	131	191	16	9.0
15	6.6	5.2	3.5	2.2	2.0	2.3	3.9	6.9	133	177	17	8.9
16	6.6	4.8	3.5	2.0	2.0	2.3	3.6	7.4	144	165	17	5.0
17	6.5	4.8	3.5	2.0	2.0	2.3	3.7	9.4	168	153	15	4.3
18	6.4	4.7	3.5	2.0	2.0	2.3	3.7	13	226	143	11	27
19	6.2	4.7	3.5	2.0	2.0	2.3	4.0	13	267	146	10	29
20	6.7	4.5	3.5	2.0	2.0	2.4	4.4	13	305	168	10	15
21	6.8	4.5	3.2	1.9	2.0	2.4	4.5	13	361	159	10	6.0
22	7.3	4.5	3.2	1.9	2.0	2.4	4.2	16	347	167	16	10
23	6.4	4.5	3.2	1.9	2.0	2.4	4.2	19	347	137	47	5.2
24	6.4	4.5	3.2	1.9	2.0	2.4	4.8	23	385	125	38	4.7
25	6.5	4.5	3.2	1.9	2.0	2.4	6.2	29	417	75	9.6	4.7
26	6.5	4.1	3.0	1.9	2.0	2.6	6.1	38	380	28	9.3	13
27	6.7	4.1	3.0	1.9	2.0	2.8	4.9	49	396	26	9.2	26
28	6.2	4.1	3.0	1.9	2.0	2.9	4.6	56	386	25	9.0	22
29	6.4	4.1	3.0	1.9	---	3.0	5.0	63	332	23	8.9	12
30	6.6	4.1	3.0	1.9	---	3.0	4.8	69	314	22	9.7	6.9
31	6.3	---	3.0	1.9	---	3.0	---	60	---	25	9.4	---
TOTAL	190.0	158.2	108.8	67.9	54.8	71.8	122.2	596.1	6415	5473	596.1	325.3
MEAN	6.13	5.27	3.51	2.19	1.96	2.32	4.07	19.2	214	177	19.2	10.8
MAX	7.3	6.4	4.1	2.7	2.0	3.0	6.2	69	417	311	47	29
MIN	5.0	4.1	3.0	1.9	1.9	2.0	3.0	4.5	67	22	8.9	4.3
AC-FT	377	314	216	135	109	142	242	1180	12720	10860	1180	645

CAL YR 1982 TOTAL 3259.3 MEAN 8.93 MAX 97 MIN 2.6 AC-FT 6460
WTR YR 1983 TOTAL 14179.2 MEAN 38.8 MAX 417 MIN 1.9 AC-FT 28120

NOTE.--NO GAGE-HEIGHT RECORD NOV. 26 TO DEC. 31. JAN. 8 TO MAR. 29.

FRASER RIVER BASIN

57

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. Altitude of gage is 8,805 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Transmountain diversions above station to Moffat water tunnel. Diversions for irrigation of about 100 acres of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 91 ft³/s June 27, 1983, gage height, 3.03 ft; minimum daily, 0.10 ft³/s Jan. 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 91 ft³/s at 2000 June 27, gage height, 3.03 ft; minimum daily, 0.25 ft³/s Dec. 25 to Jan. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	.51	.40	.25	.30	.36	.54	1.0	38	47	8.9	1.2
2	1.2	.50	.40	.25	.30	.37	.54	.93	39	44	6.9	1.0
3	1.3	.50	.40	.25	.30	.38	.54	.93	38	39	3.1	1.0
4	1.3	.50	.40	.25	.30	.43	.54	1.0	39	33	3.1	1.2
5	1.3	.50	.40	.25	.30	.43	.45	1.2	36	31	3.6	1.2
6	1.3	.50	.40	.25	.30	.44	.45	1.4	33	31	3.1	.97
7	1.2	.52	.40	.25	.30	.41	.45	1.3	34	32	2.4	.90
8	1.3	.40	.40	.25	.30	.44	.45	1.6	34	30	2.2	1.0
9	1.2	.38	.40	.25	.35	.44	.40	2.4	37	33	1.9	1.1
10	1.4	.38	.40	.25	.35	.45	.40	3.5	39	31	1.7	1.1
11	1.3	.44	.40	.30	.35	.47	.35	5.0	46	27	1.6	.98
12	1.3	.44	.40	.30	.35	.49	.35	5.2	51	25	2.7	.98
13	1.3	.41	.40	.30	.35	.51	.35	4.2	49	23	3.3	.94
14	1.3	.40	.40	.30	.35	.52	.35	3.0	39	22	2.2	1.0
15	.98	.40	.40	.30	.35	.52	.35	2.4	35	21	2.2	1.2
16	.73	.40	.35	.30	.35	.50	.35	2.2	35	18	1.8	1.1
17	.63	.40	.35	.30	.35	.50	.35	3.0	39	17	1.9	.98
18	.58	.40	.35	.30	.35	.50	.38	2.0	47	16	2.0	.98
19	.55	.40	.35	.30	.35	.52	.44	2.0	55	16	2.1	1.3
20	.56	.40	.30	.30	.35	.51	.44	1.8	58	19	1.6	1.1
21	.56	.40	.30	.30	.38	.51	.44	2.4	58	18	1.7	1.0
22	.56	.40	.30	.30	.38	.55	.44	3.5	56	18	2.3	1.0
23	.56	.40	.30	.30	.38	.56	.48	6.1	53	19	1.7	.90
24	.58	.40	.30	.30	.37	.56	.60	10	50	15	1.4	.80
25	.51	.40	.25	.30	.38	.56	.72	16	49	13	1.4	.74
26	.52	.40	.25	.30	.38	.52	.92	23	47	13	1.2	.70
27	.52	.40	.25	.30	.36	.52	1.0	32	58	12	1.2	.70
28	.52	.40	.25	.30	.36	.52	1.8	32	61	12	1.2	.70
29	.52	.40	.25	.30	---	.52	1.0	35	53	10	1.3	.66
30	.45	.40	.25	.30	---	.54	1.0	33	48	9.1	1.4	.64
31	.47	---	.25	.30	---	.54	---	33	---	9.4	1.7	---
TOTAL	27.80	12.78	10.65	8.80	9.59	15.09	16.87	272.06	1354	703.5	74.8	29.07
MEAN	.90	.43	.34	.28	.34	.49	.56	8.78	45.1	22.7	2.41	.97
MAX	1.4	.52	.40	.30	.38	.56	1.8	35	61	47	8.9	1.3
MIN	.45	.38	.25	.25	.30	.36	.35	.93	33	9.1	1.2	.64
AC-FT	55	25	21	17	19	30	33	540	2690	1400	148	58

CAL YR 1982 TOTAL 787.13 MEAN 2.16 MAX 29 MIN .25 AC-FT 1560
WTR YR 1983 TOTAL 2535.01 MEAN 6.95 MAX 61 MIN .25 AC-FT 5030

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO FEB. 23.

FRASER RIVER BASIN

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, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Moffat water tunnel not known since 1959. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 365 ft³/s at 2100 June 27, gage height, 2.62 ft; minimum daily, 6.3 ft³/s Apr. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	8.7	8.0	8.0	8.0	7.4	7.0	6.9	59	301	97	20
2	10	9.0	8.0	8.0	8.0	7.4	7.2	7.0	60	291	38	20
3	10	9.0	8.0	8.0	8.0	7.6	7.1	7.0	58	280	33	20
4	10	9.0	8.0	8.0	8.0	7.5	7.2	7.5	65	270	40	22
5	10	9.0	8.0	8.0	8.0	7.4	7.0	8.1	69	263	67	21
6	11	9.0	8.0	8.0	8.0	7.2	7.0	8.5	64	266	69	20
7	10	9.0	8.0	8.0	8.0	7.9	7.0	8.1	67	270	66	19
8	11	9.0	8.0	8.0	8.0	7.4	7.4	9.1	74	276	63	20
9	11	9.0	8.0	8.0	8.0	7.3	6.7	11	91	284	46	20
10	11	9.0	8.0	8.0	8.0	7.5	6.7	13	118	303	24	20
11	12	8.0	8.0	8.0	8.0	7.5	6.6	13	142	289	23	19
12	12	8.0	8.0	8.0	8.0	7.5	6.6	12	168	270	33	19
13	12	8.0	8.0	8.0	8.0	7.6	6.8	12	150	268	30	18
14	12	8.0	8.0	8.0	8.0	7.8	6.8	10	119	256	27	19
15	11	8.0	8.0	8.0	8.0	7.5	6.8	9.3	118	238	26	20
16	9.5	8.0	8.0	8.0	8.0	7.5	6.8	8.8	127	225	24	12
17	9.2	8.0	8.0	8.0	8.0	7.5	6.6	10	145	210	25	12
18	9.3	8.0	8.0	8.0	8.0	7.5	6.6	9.6	175	202	29	21
19	9.6	8.0	8.0	8.0	8.0	7.5	6.4	8.4	217	193	30	36
20	8.5	8.0	8.0	8.0	8.0	7.5	6.3	8.2	246	210	26	23
21	8.8	8.0	8.0	8.0	8.1	7.5	6.3	8.6	254	212	24	14
22	8.6	8.0	8.0	8.0	7.5	7.5	6.4	9.9	259	186	27	16
23	8.3	8.0	8.0	8.0	7.5	7.5	6.6	12	262	119	53	12
24	8.7	8.0	8.0	8.0	8.0	7.5	7.4	17	279	106	23	12
25	9.4	8.0	8.0	8.0	8.0	7.5	8.9	23	311	98	23	11
26	10	8.0	8.0	8.0	7.3	7.5	9.0	32	300	97	22	19
27	12	8.0	8.0	8.0	7.7	7.8	7.5	43	313	95	22	29
28	11	8.0	8.0	8.0	7.3	7.3	7.6	49	331	91	21	27
29	11	8.0	8.0	8.0	---	7.2	7.5	52	322	86	22	20
30	9.1	8.0	8.0	8.0	---	7.4	7.1	56	306	106	23	19
31	8.7	---	8.0	8.0	---	7.0	---	52	---	118	24	---
TOTAL	314.7	249.7	248.0	248.0	221.4	231.7	210.9	542.0	5269	6479	1100	580
MEAN	10.2	8.32	8.00	8.00	7.91	7.47	7.03	17.5	176	209	35.5	19.3
MAX	12	9.0	8.0	8.0	8.1	7.9	9.0	56	331	303	97	36
MIN	8.3	8.0	8.0	8.0	7.3	7.0	6.3	6.9	58	86	21	11
AC-FT	624	495	492	492	439	460	418	1080	10450	12850	2180	1150
CAL YR 1982	TOTAL	6473.2	MEAN	17.7	MAX	215	MIN	5.0	AC-FT	12840		
WTR YR 1983	TOTAL	15694.4	MEAN	43.0	MAX	331	MIN	6.3	AC-FT	31130		

NOTE.--NO GAGE-HEIGHT RECORD NOV. 24 TO FEB. 20.

FRASER RIVER BASIN

59

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. Altitude of gage is 8,685 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversion above station for irrigation of hay meadows along Fraser River. Transmountain diversion above station to Moffat water tunnel (not furnished by Colorado Division of Water Resources). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 451 ft³/s at 2100 June 27, gage height, 3.96 ft; minimum daily, 1.8 ft³/s Mar. 25 to Apr. 3, Apr. 6-9, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	4.1	3.0	2.8	2.4	2.1	1.8	2.5	66	272	40	7.2
2	2.7	4.1	3.0	2.8	2.4	2.1	1.8	2.6	67	266	22	6.9
3	2.8	4.0	3.0	2.8	2.4	2.2	1.8	2.6	71	243	18	6.9
4	2.8	4.0	3.0	2.9	2.4	2.1	1.9	2.6	81	222	17	7.6
5	2.8	4.0	3.0	2.8	2.4	2.2	2.0	3.2	86	217	23	7.4
6	2.8	4.0	3.0	2.7	2.4	2.3	1.8	3.2	83	223	24	6.9
7	2.9	4.0	3.0	2.7	2.4	2.4	1.8	3.1	86	223	23	6.9
8	3.1	4.0	3.0	2.7	2.4	2.4	1.8	3.9	93	248	23	6.9
9	3.2	4.0	3.0	2.7	2.4	2.3	1.8	5.5	106	254	20	6.8
10	3.3	4.0	3.0	2.7	2.3	2.3	2.0	9.0	128	253	12	6.7
11	3.2	3.7	3.0	2.7	2.2	2.3	2.0	12	155	234	9.9	6.6
12	3.1	3.8	3.0	2.7	2.2	2.3	2.0	8.8	169	214	12	6.4
13	3.0	4.0	3.0	2.7	2.2	2.3	1.9	6.6	155	153	13	6.3
14	3.1	4.3	3.0	2.7	2.2	2.3	2.0	5.7	132	53	11	6.5
15	3.3	3.9	3.0	2.7	2.2	2.2	1.9	5.0	124	19	14	6.8
16	3.4	3.7	3.0	2.6	2.2	2.3	1.8	4.7	123	15	8.9	6.3
17	3.3	4.1	3.0	2.5	2.2	2.2	1.9	21	140	11	9.7	4.6
18	3.3	3.9	3.0	2.5	2.2	2.1	2.2	7.6	193	31	9.1	4.4
19	3.3	3.7	3.0	2.5	2.2	2.1	2.3	4.1	245	68	8.6	4.5
20	3.3	3.4	3.0	2.4	2.2	2.2	2.3	4.0	292	86	8.6	4.7
21	3.3	3.1	3.0	2.4	2.2	2.0	2.5	3.9	320	68	8.0	4.3
22	3.3	3.1	3.0	2.4	2.2	2.0	2.4	5.1	325	70	9.8	4.4
23	3.3	2.9	3.0	2.4	2.2	2.0	2.7	8.3	320	79	20	4.6
24	3.7	2.7	3.0	2.4	2.2	2.0	3.4	13	302	86	8.0	4.2
25	3.3	2.7	2.8	2.4	2.2	1.8	3.7	25	342	76	7.8	4.0
26	4.1	2.7	2.8	2.4	2.2	1.8	3.7	32	342	76	7.2	3.9
27	4.1	3.0	2.8	2.3	2.2	1.8	2.8	49	318	67	7.3	3.8
28	4.0	3.0	2.8	2.2	2.1	1.8	2.6	57	312	57	7.1	3.7
29	4.0	3.0	2.8	2.4	---	1.8	2.6	62	298	51	6.9	3.6
30	4.0	3.0	2.8	2.4	---	1.8	2.7	64	288	47	7.5	3.5
31	3.9	---	2.8	2.4	---	1.8	---	60	---	44	7.7	---
TOTAL	102.4	107.9	91.6	79.7	63.4	65.3	67.9	497.0	5762	4026	424.1	167.3
MEAN	3.30	3.60	2.95	2.57	2.26	2.11	2.26	16.0	192	130	13.7	5.58
MAX	4.1	4.3	3.0	2.9	2.4	2.4	3.7	64	342	272	40	7.6
MIN	2.7	2.7	2.8	2.2	2.1	1.8	1.8	2.5	66	11	6.9	3.5
AC-FT	203	214	182	158	126	130	135	986	11430	7990	841	332

CAL YR 1982 TOTAL 3099.8 MEAN 8.49 MAX 127 MIN 1.5 AC-FT 6150
WTR YR 1983 TOTAL 11454.6 MEAN 31.4 MAX 342 MIN 1.8 AC-FT 22720

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO JAN. 3.

COLORADO RIVER MAIN STEM

09034250 COLORADO RIVER AT WINDY GAP NEAR GRANBY, COLORADO

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, 2.4 mi downstream from mouth of Fraser River and 3.8 mi northwest of Granby.

DRAINAGE AREA.--789 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 7,790 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,480 ft³/s July 11, 1983, gage height, 7.00 ft; minimum daily, 42 ft³/s Oct. 11, 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,480 ft³/s at 0900 July 11, gage height, 7.00 ft; minimum daily, 60 ft³/s Apr. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	118	88	70	80	80	75	245	1430	2480	857	185
2	71	107	88	70	80	80	72	249	1540	2540	745	136
3	71	102	88	70	80	80	68	287	1590	2530	654	136
4	66	99	88	70	80	80	65	319	1630	2370	654	152
5	71	112	88	70	80	80	60	357	1710	2190	706	158
6	71	110	89	74	80	80	60	376	1640	2120	752	139
7	71	112	89	74	80	80	61	347	1560	2180	686	127
8	80	110	89	75	80	80	62	407	1370	2510	585	121
9	84	105	90	76	80	80	62	504	1300	2610	487	121
10	89	105	90	76	80	80	66	641	1400	3170	357	118
11	92	110	90	76	80	78	70	745	1690	4300	310	115
12	112	102	90	76	80	74	75	693	1920	4360	305	112
13	124	100	90	76	80	74	73	561	2100	3980	324	112
14	115	92	90	76	80	74	73	443	1800	3050	310	118
15	115	90	90	76	80	74	71	443	1440	2550	347	127
16	102	90	90	76	80	74	75	407	1320	2100	376	107
17	97	90	84	76	80	74	75	386	1260	1800	362	89
18	94	90	84	76	80	74	89	371	1530	1550	328	94
19	112	90	84	76	80	74	115	366	2140	1270	357	118
20	107	90	84	76	80	74	130	371	2410	1500	310	121
21	110	90	84	76	80	74	158	401	2530	1520	283	97
22	107	90	84	76	80	74	155	454	2550	1560	262	89
23	110	90	84	76	80	75	178	544	2480	1790	305	89
24	110	90	84	76	80	75	221	693	2510	1730	283	92
25	115	90	80	78	80	75	305	794	2750	1410	241	94
26	118	90	70	80	80	75	362	908	2840	1330	221	89
27	133	92	70	80	80	71	319	1120	2890	984	221	110
28	127	92	70	80	80	71	257	1560	3340	915	221	118
29	112	90	70	80	---	71	245	1760	2830	850	213	107
30	130	88	70	80	---	71	270	1730	2550	857	221	99
31	124	---	70	80	---	75	---	1610	---	878	221	---
TOTAL	3102	2926	2599	2347	2240	2351	3967	20092	60050	64984	12504	3490
MEAN	100	97.5	83.8	75.7	80.0	75.8	132	648	2002	2096	403	116
MAX	133	118	90	80	80	80	362	1760	3340	4360	857	185
MIN	62	88	70	70	80	71	60	245	1260	850	213	89
AC-FT	6150	5800	5160	4660	4440	4660	7870	39850	119100	128900	24800	6920

CAL YR 1982 TOTAL 65317 MEAN 179 MAX 942 MIN 59 AC-FT 129600
WTR YR 1983 TOTAL 180652 MEAN 495 MAX 4360 MIN 60 AC-FT 358300

NOTE.--NO GAGE-HEIGHT RECORD DEC. 12 TO MAR. 22.

COLORADO RIVER MAIN STEM

61

09034500 COLORADO RIVER AT HOT SULPHUR SPRINGS, CO

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

DRAINAGE AREA.--825 mi².

WATER-DISCHARGE RECORDS

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

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

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

REMARKS.--Records good except those for winter period, which are poor. Flow affected by transmountain diversions, storage reservoirs, and diversions above station for irrigation of about 13,000 acres.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,620 ft³/s at 1300 July 11, gage height, 4.46 ft; minimum daily, 65 ft³/s Apr. 4-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	101	84	75	85	80	70	248	1470	2420	887	185
2	72	92	84	75	85	80	70	248	1560	2490	758	135
3	73	87	84	75	85	80	70	291	1610	2470	662	129
4	71	98	84	75	85	80	65	235	1640	2340	656	142
5	72	88	84	75	85	80	65	279	1720	2160	719	153
6	74	90	84	75	85	80	65	305	1650	2110	767	140
7	74	87	84	75	85	80	65	263	1570	2110	701	128
8	79	89	86	75	85	80	65	318	1430	2460	603	120
9	84	89	84	75	85	80	65	411	1310	2540	504	124
10	85	85	85	75	85	80	65	574	1400	3020	348	122
11	87	95	85	75	80	75	65	676	1690	4210	286	116
12	103	88	78	75	80	75	70	645	2010	4350	283	120
13	115	89	84	75	80	75	70	513	2100	4000	313	121
14	109	82	86	75	80	75	70	394	1830	3000	292	128
15	110	80	84	75	80	75	72	385	1450	2380	340	139
16	100	80	80	76	80	75	74	343	1320	2050	369	109
17	94	80	80	78	80	75	78	320	1230	1690	366	93
18	92	80	84	80	80	75	90	301	1480	1460	322	93
19	96	80	83	80	80	75	118	300	2070	1300	360	117
20	91	80	84	80	80	75	136	297	2380	1560	308	125
21	93	80	86	80	80	75	161	328	2450	1530	277	104
22	92	80	84	80	80	75	155	377	2480	1620	258	97
23	94	80	83	80	80	75	181	463	2420	1860	297	100
24	94	80	84	80	80	75	228	621	2400	1800	278	102
25	97	80	75	80	80	75	318	765	2620	1490	236	107
26	100	80	75	85	80	73	389	914	2720	1390	211	104
27	111	80	75	85	80	70	340	1160	2740	1040	208	120
28	108	80	75	85	80	70	267	1590	3210	953	208	116
29	92	81	75	85	---	70	242	1790	2770	894	200	110
30	108	82	75	85	---	70	277	1790	2520	902	204	101
31	104	---	75	85	---	70	---	1660	---	914	210	---
TOTAL	2841	2543	2533	2429	2290	2348	4066	18804	59250	64513	12431	3600
MEAN	91.6	84.8	81.7	78.4	81.8	75.7	136	607	1975	2081	401	120
MAX	115	101	86	85	85	80	389	1790	3210	4350	887	185
MIN	67	80	75	75	80	70	65	235	1230	894	200	93
AC-FT	5640	5040	5020	4820	4540	4660	8060	37300	117500	128000	24660	7140

CAL YR 1982 TOTAL 68126 MEAN 187 MAX 1020 MIN 60 AC-FT 135100
WTR YR 1983 TOTAL 177648 MEAN 487 MAX 4350 MIN 65 AC-FT 352400

NOTE.--NO GAGE-HEIGHT RECORD DEC. 27 TO FEB. 12.

COLORADO RIVER MAIN STEM

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

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1947 to current year.

WATER TEMPERATURES: April 1949 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 400 micromhos Feb. 5, 1974; minimum daily, 48 micromhos June 2, 1947.

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

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 200 micromhos May 5; minimum daily, 60 micromhos July 14, 15.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN DIS- SOLVED (MG/L AS N)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
FEB 17...	1540	76	130	140	7.6	.0	10.8	1.0	54	17	2.9	7.1
JUN 09...	1515	1390	75	85	7.5	10.0	9.0	--	32	9.5	1.9	3.6
JUL 12...	1200	4310	62	68	7.6	14.0	7.8	--	25	7.5	1.5	2.5
AUG 25...	0900	236	105	106	7.9	13.5	7.8	--	45	14	2.5	4.5

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
FEB 17...	.4	1.3	61	7.0	1.9	.20	12	86	.12	18	.300	.300
JUN 09...	.3	1.0	35	8.2	1.1	.20	12	59	.08	220	<.100	<.100
JUL 12...	.2	1.0	30	6.0	.30	.20	6.7	44	.06	509	<.100	<.100
AUG 25...	.3	.80	51	6.0	1.0	.20	10	70	.09	44	<.100	<.100

DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)
FEB 17...	.70	.70	1.0	.070	.070	1	<1	<1	<1	<1	<1	2
JUN 09...	.40	.30	--	.040	.020	<1	<1	<1	<1	<1	<1	2
JUL 12...	.70	.40	--	.070	.030	<1	<1	<1	1	2	<1	3
AUG 25...	.60	.50	--	<.010	.040	1	<1	1	<1	5	<1	49

DATE	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
FEB 17...	2	71	<1	<1	25	<.1	<.1	<1	<1	40	11
JUN 09...	1	64	2	1	15	.1	<.1	<1	<1	10	3
JUL 12...	<1	45	<1	1	20	<.1	<.1	<1	<1	20	7
AUG 25...	2	170	4	<1	16	.4	<.1	<1	<1	80	12

COLORADO RIVER MAIN STEM

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

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	115	120	130	130	125	130	165	180	85	67	120	120
2	120	115	130	130	125	130	135	175	85	68	100	140
3	120	115	130	130	125	135	140	170	85	65	100	130
4	120	115	135	130	130	135	170	170	80	64	95	120
5	120	115	130	120	130	125	160	200	80	67	95	120
6	120	110	130	130	130	145	150	170	80	66	90	130
7	120	120	135	125	130	130	120	145	75	66	90	130
8	120	125	135	125	130	140	130	140	100	74	95	130
9	120	110	135	125	120	130	140	135	95	65	110	120
10	125	120	130	130	120	140	130	120	85	70	100	140
11	120	120	125	130	140	135	160	110	75	80	110	120
12	120	125	130	130	130	135	140	100	75	62	120	130
13	125	120	135	130	130	150	150	120	75	70	120	115
14	115	140	125	120	125	150	150	120	80	60	120	110
15	125	150	135	130	130	150	150	120	85	60	120	120
16	120	140	137	110	130	145	150	120	80	70	110	110
17	120	135	130	130	130	145	150	140	90	100	110	105
18	115	140	125	130	130	135	150	130	75	90	120	105
19	115	120	155	140	125	135	140	130	70	120	125	110
20	115	130	150	130	125	125	145	140	70	100	120	105
21	125	130	135	125	150	155	155	145	65	120	120	120
22	120	135	130	130	125	140	160	125	65	85	120	125
23	115	140	130	140	130	140	170	100	65	100	120	120
24	120	150	130	140	130	130	170	125	65	80	100	130
25	120	140	115	125	135	135	140	95	65	110	120	125
26	115	130	135	125	130	150	155	80	62	100	125	120
27	120	130	130	125	130	150	150	90	65	110	130	120
28	115	140	138	125	130	130	165	90	72	120	130	110
29	120	130	139	125	---	135	165	90	68	100	115	100
30	120	130	130	125	---	140	160	85	68	70	120	120
31	115	---	130	125	---	130	---	85	---	95	120	---
MEAN	119	128	133	128	129	138	151	127	76	83	113	120
WTR YR 1983	MEAN	120		MAX	200	MIN	60					

WILLIAMS FORK BASIN

09034900 BOBTAIL CREEK NEAR JONES PASS, CO

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

DRAINAGE AREA.--5.49 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 10,430 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 9.99 ft³/s; 7,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 199 ft³/s June 25, 1983, gage height, 4.80 ft; maximum recorded gage height, 6.53 ft, May 23, 1980 (backwater from ice); minimum daily discharge, 0.44 ft³/s Feb. 11, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 199 ft³/s at 2030 June 25, gage height 4.80 ft; only peak above base of 90 ft³/s; maximum gage height, 6.48 ft, at 1000 May 29 (backwater from ice); minimum daily discharge, 0.68 ft³/s, Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	3.0	2.0	1.5	1.2	.80	.84	1.3	16	103	32	17
2	8.1	3.0	2.0	1.5	1.2	.80	.78	1.3	18	109	30	16
3	8.1	3.0	2.0	1.5	1.2	.80	.74	1.3	16	106	29	16
4	7.4	3.0	2.0	1.5	1.1	.80	.68	1.3	14	99	48	20
5	6.8	2.7	2.0	1.2	1.0	.80	.80	1.3	13	99	51	18
6	5.9	2.5	2.0	1.2	1.0	.80	.80	1.3	14	106	39	15
7	6.1	2.5	2.0	1.2	1.0	.80	.80	1.4	15	120	34	14
8	4.4	2.5	2.0	1.2	1.0	.80	.80	1.5	19	122	30	14
9	5.5	2.5	2.0	1.2	1.0	.80	.80	1.6	21	119	30	13
10	5.3	2.5	2.0	1.2	1.0	.80	.80	1.9	24	122	27	13
11	4.8	2.5	2.0	1.2	1.0	.90	.80	2.1	33	101	25	12
12	4.2	2.5	2.0	1.2	1.0	.90	.80	2.0	37	89	26	11
13	3.6	2.5	2.0	1.2	1.0	.90	.80	1.8	30	76	25	10
14	4.6	2.5	2.0	1.2	1.0	.90	.80	1.6	26	71	22	9.0
15	3.5	2.5	2.0	1.2	1.0	.90	.80	1.3	28	64	22	8.0
16	3.0	2.5	2.0	1.2	1.0	.90	.86	1.1	30	56	21	7.5
17	3.0	2.5	2.0	1.2	1.0	.90	1.0	1.0	36	52	22	7.0
18	3.0	2.5	1.8	1.2	1.0	.90	1.1	1.0	53	52	20	6.6
19	3.0	2.5	1.6	1.2	1.0	.90	1.2	1.0	92	51	20	6.6
20	3.0	2.0	1.5	1.2	.80	.90	1.3	1.1	117	50	19	7.2
21	3.0	2.0	1.5	1.2	.80	.90	1.3	1.3	120	59	19	6.6
22	3.0	2.0	1.5	1.2	.80	.90	1.3	1.7	108	62	20	6.2
23	3.0	2.0	1.5	1.2	.80	.90	1.3	2.1	117	45	21	5.6
24	3.0	2.0	1.5	1.2	.80	.90	1.3	3.0	130	32	20	5.2
25	3.0	2.0	1.5	1.2	.80	.90	1.3	4.5	146	36	22	4.9
26	3.0	2.0	1.5	1.2	.80	.90	1.3	7.0	136	35	20	4.7
27	3.0	2.0	1.5	1.2	.80	.90	1.3	9.0	130	32	19	4.6
28	3.0	2.0	1.5	1.2	.80	.90	1.3	12	116	30	19	4.6
29	3.0	2.0	1.5	1.2	---	.90	1.3	16	119	28	19	4.8
30	3.0	2.0	1.5	1.2	---	.90	1.3	21	109	30	21	4.2
31	3.0	---	1.5	1.2	---	.90	---	15	---	33	19	---
TOTAL	134.7	71.7	55.4	38.4	26.90	26.90	30.30	120.8	1883	2189	791	292.3
MEAN	4.35	2.39	1.79	1.24	.96	.87	1.01	3.90	62.8	70.6	25.5	9.74
MAX	8.4	3.0	2.0	1.5	1.2	.90	1.3	21	146	122	51	20
MIN	3.0	2.0	1.5	1.2	.80	.80	.68	1.0	13	28	19	4.2
AC-FT	267	142	110	76	53	53	60	240	3730	4340	1570	580
CAL YR 1982	TOTAL	3907.80	MEAN	10.7	MAX	105	MIN	.80	AC-FT	7750		
WTR YR 1983	TOTAL	5660.40	MEAN	15.5	MAX	146	MIN	.68	AC-FT	11230		

NOTE.--NO GAGE-HEIGHT RECORD OCT. 15 TO MAY 23.

WILLIAMS FORK BASIN

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09035500 WILLIAMS FORK BELOW STEELMAN CREEK, CO

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

DRAINAGE AREA.--16.3 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,800 ft, 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.--Records fair except those for winter period, which are poor. Tranmountain diversions above station through August P. Gumlick Tunnel (station 09036000) since May 10, 1940. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 25.5 ft³/s; 18,470 acre-ft/yr, including diversions to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 441 ft³/s June 21, 1938, gage height, 2.48 ft, site and datum then in use, from rating curve extended above 260 ft³/s; maximum gage height, 5.80 ft, June 25, 1983; minimum daily discharge, 0.20 ft³/s Mar. 6, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 403 ft³/s at 1900 June 25, gage height, 5.80 ft; minimum daily, 0.78 ft³/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.3	2.3	1.8	1.8	2.1	1.8	2.3	54	241	83	11
2	1.1	2.3	2.3	1.8	1.8	2.1	1.8	2.3	39	247	77	2.6
3	1.1	2.3	2.3	1.8	1.8	2.1	1.8	2.2	33	241	78	2.0
4	1.1	2.3	2.3	1.8	1.8	2.1	1.8	2.2	31	229	101	2.8
5	1.0	2.3	2.3	1.8	1.8	2.1	1.8	2.3	29	234	111	2.5
6	1.2	2.3	2.3	1.8	1.8	2.1	1.8	2.6	25	241	95	5.6
7	2.8	2.3	2.3	1.8	1.8	2.1	1.8	2.6	26	274	85	1.8
8	1.6	2.3	2.3	1.8	2.1	2.1	1.8	2.6	32	291	77	1.6
9	1.3	2.3	2.3	1.8	2.1	2.1	1.8	3.6	46	291	70	1.3
10	2.3	2.3	2.3	1.8	2.1	2.1	1.8	4.5	57	310	35	1.3
11	11	2.3	2.3	1.8	2.1	2.1	1.8	6.0	77	277	15	1.2
12	11	2.3	2.3	1.8	2.1	2.1	1.8	8.0	88	247	33	1.2
13	11	2.3	2.3	1.8	2.1	2.1	1.8	9.0	73	229	7.1	1.1
14	11	2.3	2.3	1.8	2.1	2.1	1.8	6.8	57	212	6.2	1.3
15	8.0	2.3	2.3	1.8	2.1	2.1	1.8	5.4	64	198	35	1.3
16	3.5	2.3	2.3	1.8	2.1	2.1	1.8	4.7	72	179	55	1.1
17	2.5	2.3	2.3	1.8	2.1	1.8	1.8	4.3	86	163	56	10
18	2.5	2.3	2.1	1.8	2.1	1.8	1.8	4.1	125	157	53	21
19	2.5	2.3	2.1	1.8	2.1	1.8	1.8	4.1	175	151	51	23
20	2.5	2.3	2.1	1.8	2.1	1.8	1.8	4.1	196	145	48	13
21	2.5	2.3	2.1	1.8	2.1	1.8	1.8	3.9	214	159	25	1.2
22	2.5	2.3	2.1	1.8	2.1	1.8	1.8	3.9	219	179	30	1.0
23	2.5	2.3	2.1	1.8	2.1	1.8	2.0	6.0	219	149	48	1.1
24	2.5	2.3	2.1	1.8	2.1	1.8	2.2	9.0	252	124	45	1.1
25	2.5	2.3	2.1	1.8	2.1	1.8	2.5	15	316	114	29	4.0
26	2.5	2.3	2.1	1.8	2.1	1.8	3.3	24	282	106	4.1	18
27	2.5	2.3	2.1	1.8	2.1	1.8	2.9	21	268	99	4.1	17
28	2.3	2.3	2.1	1.8	2.1	1.8	2.6	25	268	92	3.9	16
29	2.3	2.3	1.8	1.8	---	1.8	2.3	35	239	79	12	7.6
30	2.3	2.3	1.8	1.8	---	1.8	2.2	57	244	81	4.5	.78
31	2.3	---	1.8	1.8	---	1.8	---	55	---	86	3.6	---
TOTAL	106.9	69.0	67.6	55.8	56.7	60.6	59.6	338.5	3906	5825	1380.5	174.48
MEAN	3.45	2.30	2.18	1.80	2.03	1.95	1.99	10.9	130	188	44.5	5.82
MAX	11	2.3	2.3	1.8	2.1	2.1	3.3	57	316	310	111	23
MIN	1.0	2.3	1.8	1.8	1.8	1.8	1.8	2.2	25	79	3.6	.78
AC-FT	212	137	134	111	112	120	118	671	7750	11550	2740	346
CAL YR 1982	TOTAL	6540.40	MEAN	17.9	MAX	244	MIN	.60	AC-FT	12970		
WTR YR 1983	TOTAL	12100.68	MEAN	33.2	MAX	316	MIN	.78	AC-FT	24000		

NOTE.--NO GAGE-HEIGHT RECORD OCT. 15 TO APR. 30.

WILLIAMS FORK BASIN

09035700 WILLIAMS FORK ABOVE DARLING CREEK, NEAR LEAL, CO

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

DRAINAGE AREA.--34.7 mi².

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

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

REMARKS.--Records fair except those for winter period, which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 36.2 ft³/s; 26,230 acre-ft/yr.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 518 ft³/s at 2300 June 25, gage height, 5.39 ft; minimum daily, 5.8 ft³/s Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	10	8.0	7.0	6.5	6.5	6.2	7.5	72	467	128	32
2	11	9.8	8.0	7.0	6.5	6.5	6.0	6.5	79	440	117	25
3	11	10	8.0	7.0	6.5	6.5	6.0	6.0	78	443	122	25
4	11	9.3	8.0	7.0	6.5	6.5	5.8	5.9	93	430	147	25
5	10	9.3	8.0	6.5	6.5	6.5	6.0	10	96	423	176	24
6	11	9.3	8.0	6.5	6.5	6.5	6.0	9.7	83	430	139	25
7	12	9.3	8.0	6.5	6.5	6.5	6.0	9.8	87	445	121	22
8	12	9.9	8.0	6.5	6.5	6.5	6.0	10	104	444	109	21
9	11	10	8.0	6.5	6.5	6.5	6.0	15	137	453	102	21
10	12	10	8.0	6.5	6.5	6.5	6.0	24	173	457	97	20
11	16	10	8.0	6.5	6.5	6.5	6.0	27	226	406	91	20
12	19	9.8	8.0	6.5	6.5	6.5	6.0	27	251	413	82	20
13	18	9.4	8.0	6.5	6.5	6.5	6.0	22	231	382	69	19
14	18	9.4	8.0	6.5	6.5	6.5	6.0	19	192	361	66	19
15	18	9.4	8.0	6.5	6.5	6.5	6.0	17	206	338	65	19
16	13	9.4	8.0	6.5	6.5	6.5	6.0	15	229	308	64	18
17	11	8.0	8.0	6.5	6.5	6.5	6.0	14	255	284	53	19
18	12	8.0	8.0	6.5	6.5	6.5	6.3	14	306	269	66	24
19	13	8.0	8.0	6.5	6.5	6.5	6.5	13	387	253	62	25
20	12	8.0	8.0	6.5	6.5	6.5	6.8	13	417	244	57	26
21	10	8.0	7.0	6.5	6.5	6.5	6.8	13	443	262	57	17
22	9.5	8.0	7.0	6.5	6.5	6.5	6.8	14	444	295	56	15
23	9.8	8.0	7.0	6.5	6.5	6.5	7.0	20	449	252	40	16
24	9.6	8.0	7.0	6.5	6.5	6.5	7.6	33	463	213	33	17
25	9.9	8.0	7.0	6.5	6.5	6.5	8.5	43	489	193	35	16
26	10	8.0	7.0	6.5	6.5	6.5	10	49	476	183	31	22
27	11	8.0	7.0	6.5	6.5	6.5	11	46	468	167	31	22
28	11	8.0	7.0	6.5	6.5	6.5	10	62	463	150	30	21
29	12	8.0	7.0	6.5	---	6.5	9.4	79	470	133	34	20
30	11	8.0	7.0	6.5	---	6.5	8.5	94	470	131	32	15
31	11	---	7.0	6.5	---	6.5	---	71	---	163	30	---
TOTAL	376.8	266.3	237.0	203.5	182.0	201.5	207.2	809.4	8337	9862	2342	630
MEAN	12.2	8.88	7.65	6.56	6.50	6.50	6.91	26.1	278	318	75.5	21.0
MAX	19	10	8.0	7.0	6.5	6.5	11	94	489	467	176	32
MIN	9.5	8.0	7.0	6.5	6.5	6.5	5.8	5.9	72	131	30	15
AC-FT	747	528	470	404	361	400	411	1610	16540	19560	4350	1250

CAL YR 1982 TOTAL 14897.0 MEAN 40.8 MAX 421 MIN 4.2 AC-FT 29550
WTR YR 1983 TOTAL 23654.7 MEAN 64.8 MAX 489 MIN 5.8 AC-FT 46920

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO MAR. 29.

WILLIAMS FORK BASIN

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09035800 DARLING CREEK NEAR LEAL, CO

LOCATION.--Lat 39°48'17", long 106°01'11", in NE¼SW¼ sec.9, T.3 S., R.77W., Grand County, Hydrologic Unit 14010001, on left bank 0.6 mi upstream from mouth and 1.4 mi southeast of Leal.

DRAINAGE AREA.--8.18 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,090 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 9.42 ft³/s; 6,820 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 234 ft³/s June 27, 1983, gage height, 4.28 ft, from rating curve extended above 100 ft³/s; minimum daily, 1.0 ft³/s Jan. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 234 ft³/s at 1800 June 27, gage height, 4.28 ft; minimum daily, 1.5 ft³/s Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	3.4	3.0	2.5	2.1	2.1	1.8	1.7	14	140	30	9.8
2	3.9	3.3	3.0	2.5	2.0	2.1	1.8	1.7	15	145	29	9.4
3	3.9	3.3	3.0	2.5	2.0	2.1	1.8	1.7	15	150	30	9.1
4	3.8	3.2	3.0	2.5	2.0	2.1	1.5	1.7	20	145	31	11
5	3.7	3.2	3.0	2.3	2.0	2.1	1.6	1.9	20	140	30	9.3
6	3.9	3.3	3.0	2.3	2.0	2.1	1.6	1.9	16	150	28	8.4
7	3.9	3.3	3.0	2.3	2.0	2.1	1.6	1.8	18	160	27	8.0
8	3.7	3.3	3.0	2.3	2.0	2.1	1.6	2.1	23	164	26	7.9
9	3.7	3.2	3.0	2.3	2.0	2.1	1.6	2.7	28	167	25	7.5
10	3.9	3.2	3.0	2.3	2.0	2.1	1.6	3.3	33	156	23	7.3
11	3.8	3.2	3.0	2.3	2.0	2.1	1.6	3.3	41	127	23	6.6
12	3.3	3.1	3.0	2.3	2.0	2.1	1.6	3.2	45	126	24	6.4
13	3.2	3.1	2.5	2.3	2.0	2.1	1.6	3.0	39	121	22	6.1
14	3.8	3.1	2.5	2.3	2.0	2.1	1.6	2.7	34	99	21	7.4
15	4.1	3.1	2.5	2.1	2.0	2.1	1.6	2.6	35	79	21	7.1
16	4.1	3.1	2.5	2.1	2.0	2.1	1.6	2.4	38	76	19	6.2
17	3.9	3.1	2.5	2.1	2.0	2.1	1.6	2.1	46	70	18	5.8
18	3.8	3.0	2.5	2.1	2.0	2.1	1.6	2.2	70	58	19	5.6
19	3.6	3.0	2.5	2.1	2.0	2.1	1.6	2.1	94	53	19	6.7
20	3.6	3.0	2.5	2.1	2.1	2.1	1.6	2.0	110	57	16	6.7
21	3.6	3.0	2.5	2.1	2.1	2.1	1.6	2.0	125	58	15	6.0
22	3.5	3.0	2.5	2.1	2.1	2.1	2.2	2.2	140	52	15	5.5
23	3.5	3.0	2.5	2.1	2.1	2.1	2.4	2.6	155	48	14	5.5
24	3.6	3.0	2.5	2.1	2.1	2.1	2.0	4.2	165	43	14	5.5
25	3.6	3.0	2.5	2.1	2.1	2.1	1.9	5.2	175	43	13	5.4
26	3.6	3.0	2.5	2.1	2.1	2.1	1.9	6.9	147	41	13	5.1
27	3.4	3.0	2.5	2.1	2.1	2.1	1.7	11	158	40	13	4.9
28	3.5	3.0	2.5	2.1	2.1	2.1	1.7	13	150	36	12	4.8
29	3.8	3.0	2.5	2.1	---	2.1	1.7	15	145	34	12	4.7
30	3.7	3.0	2.5	2.1	---	1.8	1.7	15	140	32	12	4.7
31	3.6	---	2.5	2.1	---	1.8	---	13	---	31	11	---
TOTAL	115.1	93.5	83.5	68.7	57.0	64.5	51.3	136.2	2254	2841	625	204.4
MEAN	3.71	3.12	2.69	2.22	2.04	2.08	1.71	4.39	75.1	91.6	20.2	6.81
MAX	4.1	3.4	3.0	2.5	2.1	2.1	2.4	15	175	167	31	11
MIN	3.2	3.0	2.5	2.1	2.0	1.8	1.5	1.7	14	31	11	4.7
AC-FT	228	185	166	136	113	128	102	270	4470	5640	1240	405

CAL YR 1982 TOTAL 3589.8 MEAN 9.84 MAX 81 MIN 1.3 AC-FT 7120
WTR YR 1983 TOTAL 6594.2 MEAN 18.1 MAX 175 MIN 1.5 AC-FT 13080

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO APR. 19.

WILLIAMS FORK BASIN

09035900 SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°47'44", long 106°01'49", 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.--27.2 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,950 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years, 31.5 ft³/s; 22,820 acre-ft/yr.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 444 ft³/s at 2000 June 21, gage height, 3.41 ft; only peak above base of 200 ft³/s; minimum daily, 7.5 ft³/s Apr. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	16	12	11	10	9.5	8.5	8.7	82	355	83	32
2	18	16	12	11	10	9.5	8.5	9.0	83	345	79	30
3	17	14	12	11	10	9.5	8.5	9.0	82	325	85	29
4	17	14	12	11	9.5	9.5	8.0	10	92	320	102	35
5	17	14	12	11	9.5	9.5	8.0	11	83	302	118	32
6	18	14	12	11	9.5	9.5	8.5	11	78	292	101	28
7	19	14	12	11	9.5	9.5	8.5	11	86	296	94	26
8	19	14	12	11	9.5	9.5	8.5	12	103	310	87	26
9	18	13	12	10	9.5	9.5	8.5	14	113	325	80	25
10	23	13	12	10	9.5	9.5	8.5	18	137	330	73	24
11	23	13	11	10	9.5	9.5	8.5	20	153	317	68	23
12	24	13	11	10	9.5	9.5	8.5	18	155	281	76	22
13	17	12	11	10	9.5	9.5	8.5	16	152	261	72	21
14	18	13	11	10	9.5	9.5	8.5	14	125	233	65	22
15	18	13	11	10	9.5	9.0	8.5	14	126	212	61	23
16	19	13	11	10	9.5	9.0	8.5	13	129	194	56	20
17	18	13	11	10	9.5	9.0	8.5	19	142	175	55	20
18	18	13	11	10	9.5	9.0	8.5	15	219	158	55	20
19	17	12	11	10	9.5	9.0	8.0	11	285	150	52	21
20	18	12	11	10	9.5	9.0	7.5	11	345	158	49	22
21	17	12	11	10	9.5	9.0	7.8	12	315	172	44	20
22	16	12	11	10	9.5	9.0	7.7	14	315	170	46	19
23	16	12	11	10	9.5	9.0	7.7	17	355	143	47	19
24	16	12	11	10	9.5	9.0	8.6	27	345	124	42	20
25	16	12	11	10	9.5	9.0	11	36	330	119	43	19
26	16	12	11	10	9.5	8.5	11	49	286	115	42	18
27	17	12	11	10	9.5	8.5	10	62	325	108	38	18
28	16	12	11	10	9.5	8.5	11	71	340	98	37	17
29	16	12	11	10	---	8.5	9.2	77	345	90	36	17
30	17	12	11	10	---	8.5	8.8	79	340	93	38	17
31	16	---	11	10	---	8.5	---	73	---	90	37	---
TOTAL	553	389	351	318	267.5	283.0	260.3	781.7	6066	6661	1961	685
MEAN	17.8	13.0	11.3	10.3	9.55	9.13	8.68	25.2	202	215	63.3	22.8
MAX	24	16	12	11	10	9.5	11	79	355	355	118	35
MIN	16	12	11	10	9.5	8.5	7.5	8.7	78	90	36	17
AC-FT	1100	772	696	631	531	561	516	1550	12030	13210	3890	1360
CAL YR 1982	TOTAL	14410.7	MEAN	39.5	MAX	244	MIN	6.3	AC-FT	28580		
WTR YR 1983	TOTAL	18576.5	MEAN	50.9	MAX	355	MIN	7.5	AC-FT	36850		

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 19.

WILLIAMS FORK BASIN

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09036000 WILLIAMS FORK NEAR LEAL, CO

LOCATION.--Lat 39°49'53", long 106°03'15", 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.--89.3 mi².

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

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

GAGE.--Water-stage recorder. Altitude of gage is 8,790 ft, from topographic map. Prior to Aug. 16, 1953, at site 15 ft downstream at present datum.

REMARKS.--Records good, except those for winter period, which are fair. Transmountain diversion above station through August P. Gumlick Tunnel (see table below for figures of diversion). Diversions for irrigation of about 200 acres of hay meadows above station and about 40 acres below. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

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

AVERAGE DISCHARGE.--50 years, 103 ft³/s; 74,620 acre-ft/yr, including diversions to August P. Gumlick Tunnel.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,310 ft³/s at 2300 July 8, gage height, 4.46 ft; maximum gage height, 4.47 ft, July 10; minimum daily discharge, 17 ft³/s Apr. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	46	29	24	21	20	19	27	276	1070	319	85
2	41	40	28	24	21	20	19	26	286	1050	316	78
3	41	33	28	24	21	20	19	25	270	1150	319	74
4	40	41	29	22	20	21	17	28	299	1120	337	82
5	39	34	30	22	19	20	18	31	304	1080	423	79
6	43	33	31	23	19	19	18	32	263	1100	340	73
7	47	34	31	23	19	20	18	30	262	1150	307	69
8	52	35	31	24	19	20	18	37	300	1190	284	66
9	47	33	31	23	20	21	18	50	348	1200	264	65
10	49	32	31	22	19	20	18	72	405	1190	228	64
11	49	32	30	22	19	22	19	84	525	1070	175	61
12	48	32	27	22	19	22	19	78	588	972	198	59
13	52	31	29	22	19	22	18	68	567	902	179	58
14	51	32	29	22	19	22	18	59	491	842	155	60
15	57	35	28	21	19	21	18	53	500	757	175	66
16	54	34	29	21	20	21	18	48	532	676	184	59
17	45	34	29	21	20	21	18	37	578	607	175	56
18	46	35	26	21	20	21	19	46	704	560	184	64
19	48	32	29	21	19	21	20	38	891	507	179	65
20	45	26	26	21	20	21	20	36	972	488	164	78
21	44	26	27	21	19	20	21	37	1040	560	142	60
22	42	25	24	21	20	20	21	44	1060	658	126	58
23	43	28	24	20	19	21	21	58	1090	598	146	56
24	39	28	25	21	19	21	22	94	1110	503	133	60
25	36	29	25	21	20	21	26	129	1210	465	135	55
26	37	29	25	21	20	20	32	160	1220	451	100	60
27	44	29	24	21	20	20	32	212	1220	417	94	60
28	39	29	25	21	20	21	27	260	1240	383	93	58
29	39	30	25	21	---	21	27	285	1120	340	94	56
30	48	30	24	21	---	19	27	303	1070	337	91	50
31	46	---	24	20	---	20	---	266	---	334	91	---
TOTAL	1394	967	853	674	549	639	625	2753	20741	23727	6150	1934
MEAN	45.0	32.2	27.5	21.7	19.6	20.6	20.8	88.8	691	765	198	64.5
MAX	57	46	31	24	21	22	32	303	1240	1200	423	85
MIN	36	25	24	20	19	19	17	25	262	334	91	50
AC-FT	2760	1920	1690	1340	1090	1270	1240	5460	41140	47060	12200	3840
a	348	244	122	103	95	119	108	0	0	0	916	682
CAL YR 1982	TOTAL	38745	MEAN 106	MAX 782	MIN 16	AC-FT 76850						
WTR YR 1983	TOTAL	61006	MEAN 167	MAX 1240	MIN 17	AC-FT 121000						

a-DIVERSIONS, IN ACRE-FEET, THROUGH AUGUST P. GUMGLICK TUNNEL, FURNISHED BY COLORADO DIVISION OF WATER RESOURCES.

WILLIAMS FORK BASIN

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 right bank 150 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.

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

GAGE.--Water-stage recorder. Datum of gage is 7,808.95 ft, (Denver Board of Water Commissioners Datum). See WSP 1733 for history of changes prior to Aug. 9, 1938.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 1,300 acres above station and about 2,500 acres below. About 150 acres above station irrigated by diversions into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--70 years, 136 ft³/s; 98,530 acre-ft/yr, including diversion to August P. Gumlick Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 2,620 ft³/s June 14, 1918, gage height, 6.05 ft, site and datum then in use, from rating curve extended above 1,400 ft³/s; minimum daily, 4.8 ft³/s May 6, 8-10, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,220 ft³/s at 0400 June 22, gage height, 5.82 ft; minimum daily, 32 ft³/s Apr. 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	85	40	35	35	34	35	65	677	1310	360	131
2	63	82	40	35	35	34	35	64	670	1250	348	118
3	64	73	40	35	35	34	36	66	568	1290	348	107
4	64	79	40	35	34	34	34	75	592	1190	313	127
5	63	80	40	35	34	34	35	86	598	1140	505	118
6	64	79	40	35	34	34	35	89	490	1210	405	106
7	66	79	40	35	34	34	35	79	465	1310	344	103
8	71	79	40	35	34	34	37	96	490	1400	257	98
9	67	78	40	35	34	34	33	129	568	1440	241	95
10	71	77	40	35	34	34	34	170	646	1490	215	92
11	73	82	38	35	34	34	34	190	836	1390	170	89
12	77	77	38	35	34	34	32	182	972	1190	172	86
13	80	78	38	35	34	34	32	152	916	972	180	83
14	75	72	38	35	34	34	32	145	664	844	149	85
15	83	35	38	35	34	36	34	141	592	733	154	96
16	83	35	38	35	34	38	35	133	592	634	161	85
17	75	36	38	35	34	35	34	120	592	545	152	80
18	74	50	38	35	34	35	38	122	796	490	154	85
19	75	52	38	35	34	34	43	118	1170	480	170	87
20	71	48	38	35	34	37	44	120	1580	525	149	101
21	73	51	38	35	34	35	46	123	1920	628	188	83
22	71	47	38	35	34	35	46	141	1940	748	180	79
23	72	46	38	35	34	35	49	168	1860	664	210	78
24	71	43	37	35	34	35	56	218	1750	505	192	82
25	73	43	35	35	34	35	69	302	1870	455	205	79
26	74	43	35	35	34	35	78	372	1870	540	154	80
27	80	43	35	35	34	34	77	505	1810	510	139	79
28	78	43	35	35	34	35	68	691	1920	470	139	78
29	71	43	35	35	---	35	66	764	1580	388	135	79
30	83	43	35	35	---	35	68	836	1320	380	137	74
31	83	---	35	35	---	35	---	677	---	372	131	---
TOTAL	2254	1801	1176	1085	955	1075	1330	7139	32314	26493	6757	2763
MEAN	72.7	60.0	37.9	35.0	34.1	34.7	44.3	230	1077	855	218	92.1
MAX	83	85	40	35	35	38	78	836	1940	1490	505	131
MIN	63	35	35	35	34	34	32	64	465	372	131	74
AC-FT	4470	3570	2330	2150	1890	2130	2640	14160	64090	52550	13400	5480
CAL YR 1982	TOTAL	45295	MEAN 124	MAX 1100	MIN 27	AC-FT 89840						
WTR YR 1983	TOTAL	85142	MEAN 233	MAX 1940	MIN 32	AC-FT 168900						

WILLIAMS FORK BASIN

71

09038000 WILLIAMS FORK RESERVOIR NEAR PARSHALL, CO

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

DRAINAGE AREA.--230 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

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

REMARKS.--Reservoir is formed by concrete-arch dam completed in October 1938; 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 furnished by Denver Board of Water Commissioners.

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

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 97,020 acre-ft, Aug. 4, elevation, 7,811.12 ft; minimum, 57,260 acre-ft, Nov. 19, elevation, 7,781.38 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	7,796.29	75,280	-
Oct. 31.	7,787.00	63,610	-11,670
Nov. 30.	7,782.18	58,140	-5,470
Dec. 31.	7,784.36	60,570	+2,430
CAL YR 1982			+23,300
Jan. 31.	7,785.96	62,400	+1,830
Feb. 28.	7,787.29	63,960	+1,560
Mar. 31.	7,789.07	66,090	+2,130
Apr. 30.	7,791.77	69,430	+3,340
May 31.	7,791.52	69,120	-310
June 30.	7,808.52	92,870	+23,750
July 31.	7,811.03	96,870	+4,000
Aug. 31.	7,809.28	94,060	-2,810
Sept. 30.	7,803.68	85,560	-8,500
WTR YR 1983			+10,280

WILLIAMS FORK BASIN

09038500 WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO

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

DRAINAGE AREA.--230 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

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

REMARKS.--Records good. Flow regulated by Williams Fork Reservoir (station 09038000). Transmountain diversion above station through August P. Gumlick Tunnel (station 09036000). Diversions above station for irrigation of about 3,200 acres above station and about 100 acres below. About 450 acres above station irrigated by diversion into the drainage area. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--31 years, 125 ft³/s; 90,560 acre-ft/yr, adjusted for storage in Williams Fork Reservoir.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,960 ft³/s at 1815 June 28, gage height, 5.91 ft; minimum daily, 5.6 ft³/s Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	237	96	12	14	18	20	23	12	235	745	358	226
2	247	14	11	14	18	16	15	165	235	745	432	226
3	247	166	11	15	18	15	15	235	235	749	376	226
4	245	249	11	15	18	11	15	233	237	1120	355	226
5	244	248	11	14	18	6.0	15	228	238	1120	470	226
6	242	248	11	14	18	5.7	15	232	235	956	480	228
7	245	247	12	14	18	5.6	15	233	234	1220	382	228
8	246	246	14	14	18	5.8	14	233	236	1340	250	228
9	246	247	14	14	18	5.8	14	233	237	1350	226	228
10	244	249	14	14	18	9.1	14	233	236	1340	228	228
11	243	250	14	14	18	16	14	233	236	1260	226	228
12	242	252	14	14	17	16	14	233	233	1110	228	230
13	241	252	14	14	17	16	14	233	230	1030	228	228
14	243	250	14	15	17	16	14	233	503	848	228	226
15	244	250	14	15	17	16	14	234	720	741	228	228
16	243	250	14	15	17	16	14	235	744	741	228	228
17	242	253	14	15	18	16	14	235	741	737	226	228
18	241	258	14	14	18	16	14	235	744	411	226	228
19	244	98	14	14	18	16	30	235	749	221	226	228
20	244	15	14	14	18	16	13	235	861	412	228	228
21	246	13	14	14	18	16	13	236	952	545	228	228
22	246	11	14	14	18	16	13	238	924	678	228	228
23	246	13	15	14	18	16	13	239	912	773	226	228
24	246	11	14	14	18	16	13	238	1160	528	165	230
25	246	12	14	14	18	16	14	237	1500	769	217	233
26	246	12	14	14	18	16	13	237	1580	477	228	233
27	245	12	14	16	18	16	13	238	1620	537	228	233
28	246	12	14	17	19	16	13	238	1860	553	228	233
29	246	12	14	17	---	16	13	237	1720	400	226	161
30	245	12	14	17	---	16	12	238	1090	370	226	230
31	246	---	15	18	---	16	---	237	---	407	226	---
TOTAL	7574	4258	417	455	500	436.0	440	6991	21437	24233	8255	6787
MEAN	244	142	13.5	14.7	17.9	14.1	14.7	226	715	782	266	226
MAX	247	258	15	18	19	20	30	239	1860	1350	480	233
MIN	237	11	11	14	17	5.6	12	12	230	221	165	161
AC-FT	15020	8450	827	902	992	865	873	13870	42520	48070	16370	13460
CAL YR 1982	TOTAL	37493.0	MEAN 103	MAX 258	MIN 11	AC-FT 74370						
WTR YR 1983	TOTAL	81783.0	MEAN 224	MAX 1860	MIN 5.6	AC-FT 162200						

TROUBLESOME CREEK BASIN

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09039000 TROUBLESOME CREEK NEAR PEARMONT, CO

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

DRAINAGE AREA.--44.6 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,049 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. One diversion above station for irrigation of about 250 acres below. Flow partly regulated during irrigation season by one reservoir, capacity, 1,070 acre-ft, above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years, 29.9 ft³/s; 21,660 acre-ft/yr.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 630 ft³/s at 1900 June 25, gage height, 2.81 ft; maximum gage height, 2.90 ft, at 0100 June 19 (debris on control); minimum daily discharge, 13 ft³/s Dec. 29-31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	17	15	14	15	15	15	25	145	329	47	25
2	18	16	15	14	15	15	15	25	160	283	45	25
3	17	16	15	14	15	15	15	25	144	269	43	25
4	17	16	15	14	15	15	15	25	136	230	42	26
5	17	18	15	15	15	15	15	26	115	207	39	25
6	17	17	15	15	15	15	15	25	130	200	38	25
7	17	17	15	15	15	15	15	26	140	178	36	25
8	17	16	15	15	15	15	15	28	160	191	35	25
9	17	17	15	15	15	15	15	35	181	182	38	25
10	17	17	15	15	15	15	15	44	192	166	36	25
11	18	17	15	15	15	15	15	47	223	139	33	24
12	18	16	15	15	15	15	15	40	269	121	38	23
13	17	16	15	15	15	15	15	34	283	106	36	22
14	17	16	15	15	15	15	15	31	233	90	31	22
15	18	16	15	15	15	15	15	29	184	77	30	22
16	17	20	15	15	15	15	15	29	181	70	29	21
17	17	17	15	15	15	15	15	27	202	61	28	20
18	17	17	14	15	15	15	15	28	254	53	28	19
19	17	17	14	15	15	15	16	27	331	50	29	20
20	17	17	14	15	15	15	17	27	311	53	30	20
21	16	17	14	15	15	15	17	29	339	65	27	19
22	16	17	14	15	15	15	17	34	384	57	25	19
23	16	17	14	15	15	15	19	46	416	61	25	19
24	16	17	14	15	15	15	23	61	379	48	25	20
25	17	17	14	15	15	15	30	84	562	51	25	18
26	17	17	14	15	15	15	29	145	513	59	25	18
27	19	17	14	15	15	15	27	133	446	64	25	17
28	16	17	14	15	15	15	25	146	439	65	25	17
29	16	17	13	15	---	15	25	146	392	53	25	17
30	17	17	13	15	---	15	25	134	349	50	25	17
31	17	---	13	15	---	15	---	135	---	54	25	---
TOTAL	530	506	448	461	420	465	540	1696	8193	3682	988	645
MEAN	17.1	16.9	14.5	14.9	15.0	15.0	18.0	54.7	273	119	31.9	21.5
MAX	20	20	15	15	15	15	30	146	562	329	47	26
MIN	16	16	13	14	15	15	15	25	115	48	25	17
AC-FT	1050	1000	889	914	833	922	1070	3360	16250	7300	1960	1280

CAL YR 1982 TOTAL 11557 MEAN 31.7 MAX 172 MIN 10 AC-FT 22920
WTR YR 1983 TOTAL 18574 MEAN 50.9 MAX 562 MIN 13 AC-FT 36840

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO APR. 13.

TROUBLESOME CREEK BASIN

09040000 EAST FORK TROUBLESOME CREEK NEAR TROUBLESOME, CO

LOCATION.--Lat 40°09'27", long 106°16'58", in NW¼ sec.7, T.2 N., R.79 W., Grand County, Hydrologic Unit 14010001, on right bank 400 ft upstream from mouth and 6.5 mi north of Troublesome.

DRAINAGE AREA.--76.0 mi².

PERIOD OF RECORD.--April 1937 to September 1943, October 1953 to September 1983 (discontinued). Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,670 ft, from topographic map. See WSP 1733 for history of changes prior to Oct. 1, 1953. Oct. 1, 1953, to July 21, 1966, at site 100 ft downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--36 years, 28.8 ft³/s; 28,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 795 ft³/s May 25, 1978, gage height, 5.66 ft; maximum gage height, 5.69 ft, May 27, 1983 (shifting control); minimum daily discharge, 0.20 ft³/s Oct. 3, 1941, Sept. 2, 3, 26, 27, 1942.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 170 ft³/s, and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 10	2200	330	4.87	May 27	2400	* 743	5.69

Minimum daily discharge, 4.2 ft³/s July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	7.5	5.5	6.3	6.3	5.5	34	467	74	28	18
2	12	11	7.2	5.6	6.1	6.6	5.6	34	498	66	27	16
3	9.7	9.3	7.1	6.3	6.0	7.2	5.5	38	502	70	30	17
4	8.3	7.4	7.0	6.0	5.6	7.1	5.5	48	530	62	42	24
5	7.7	7.8	6.9	6.0	6.0	7.4	5.5	67	573	52	38	22
6	7.3	7.9	6.8	6.0	5.9	7.1	5.5	65	479	36	38	17
7	7.3	8.1	6.8	6.0	6.2	6.9	5.5	64	407	26	34	14
8	7.3	8.2	7.0	6.0	6.1	6.8	5.5	91	364	28	32	14
9	8.4	8.4	6.3	6.0	6.2	6.1	5.5	147	399	25	33	14
10	8.4	8.6	7.0	6.0	6.2	6.3	5.2	215	368	19	33	12
11	9.9	9.0	7.1	6.0	6.2	6.4	5.7	274	396	14	29	11
12	7.9	9.0	7.8	6.0	5.7	7.7	5.8	222	512	9.6	31	10
13	9.0	9.0	6.5	6.0	6.0	8.8	5.7	167	380	7.2	35	9.6
14	8.4	9.0	6.6	6.0	6.0	9.2	5.8	135	232	6.0	29	9.8
15	9.6	9.0	6.2	6.1	6.0	8.9	5.8	118	177	5.2	31	11
16	11	9.0	6.6	6.0	5.9	9.8	5.8	111	187	4.4	35	8.9
17	11	9.0	6.4	6.1	6.0	7.9	5.6	95	222	4.2	28	8.2
18	10	9.0	6.3	6.3	6.1	8.0	7.0	87	219	5.9	28	7.6
19	9.8	9.0	6.5	6.3	6.1	7.5	12	85	252	5.4	35	7.3
20	8.7	9.0	6.1	6.5	5.7	6.1	15	76	243	5.7	40	8.1
21	8.3	9.0	6.2	6.4	5.8	8.3	21	87	209	6.6	31	7.5
22	8.1	9.0	6.3	6.3	6.1	7.3	18	110	185	7.3	27	7.7
23	8.0	9.0	6.3	6.3	6.2	6.6	22	155	166	22	25	7.6
24	8.0	9.0	6.4	6.2	6.8	6.6	36	272	138	37	24	8.2
25	8.3	9.0	6.0	6.3	7.0	6.2	61	433	122	31	25	9.1
26	10	9.0	5.7	6.3	7.1	6.7	60	461	112	32	24	7.7
27	14	8.0	6.1	6.2	6.7	5.9	55	616	115	34	23	7.0
28	13	7.4	6.1	6.2	6.8	6.2	45	684	99	39	24	6.5
29	10	7.5	5.6	6.2	---	5.3	40	631	87	31	22	6.5
30	9.9	7.5	5.3	6.0	---	5.7	43	588	81	29	21	6.4
31	12	---	5.3	5.8	---	6.3	---	481	---	30	20	---
TOTAL	293.3	265.1	201.0	188.9	172.8	219.2	530.0	6691	8721	824.5	922	333.7
MEAN	9.46	8.84	6.48	6.09	6.17	7.07	17.7	216	291	26.6	29.7	11.1
MAX	14	14	7.8	6.5	7.1	9.8	61	684	573	74	42	24
MIN	7.3	7.4	5.3	5.5	5.6	5.3	5.2	34	81	4.2	20	6.4
AC-FT	582	526	399	375	343	435	1050	13270	17300	1640	1830	662
CAL YR 1982	TOTAL	9993.9	MEAN 27.4	MAX 246	MIN 3.1	AC-FT 19820						
WTR YR 1983	TOTAL	19362.5	MEAN 53.0	MAX 684	MIN 4.2	AC-FT 38410						

MUDDY CREEK BASIN

75

09041500 MUDDY CREEK AT KREMMLING, CO

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

DRAINAGE AREA.--290 mi².

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. Altitude of gage is 7,340 ft, from topographic map. Supplementary recorder on diversion ditch about 2,000 ft downstream from point of diversion.

REMARKS.--Records good, except those for winter period, which are poor. Records include flow of diversion ditch. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum combined discharge, 1,290 ft³/s May 31, 1983, gage height, 10.83 ft; minimum daily, 1.0 ft³/s Sept. 24, 25, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum combined discharge, 1,290 ft³/s at 0200 May 31, gage height, 10.83 ft; minimum daily, 14 ft³/s, Dec. 29 to Jan. 4, Feb. 11-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	25	17	14	15	18	25	112	1020	277	117	26
2	22	25	17	14	15	18	26	91	1040	257	116	24
3	22	20	17	14	15	18	26	85	992	241	115	22
4	21	19	17	14	15	18	28	95	922	297	95	25
5	21	19	17	15	15	18	29	127	927	307	104	29
6	21	18	16	15	15	18	30	151	888	288	103	27
7	21	19	16	15	15	18	26	120	858	280	83	23
8	21	20	16	15	15	22	27	133	861	333	70	23
9	21	22	16	15	15	22	29	191	880	348	64	23
10	21	22	16	15	15	22	35	293	875	348	57	22
11	21	20	16	15	14	22	48	362	871	416	51	22
12	21	18	16	15	14	26	43	309	944	489	55	22
13	21	16	16	15	14	26	36	250	1010	469	66	22
14	21	16	16	15	14	26	31	229	777	353	58	24
15	20	16	16	15	14	26	27	218	620	216	49	24
16	20	17	16	15	14	22	30	214	592	174	51	22
17	20	16	16	15	14	22	41	229	582	127	62	24
18	20	16	16	15	14	22	58	212	590	106	70	22
19	20	17	16	15	14	20	71	260	615	108	69	22
20	20	16	15	15	16	22	74	309	662	127	64	22
21	20	17	15	15	16	22	77	321	634	204	60	24
22	20	17	15	15	16	24	69	342	576	251	56	23
23	20	17	15	15	16	23	84	400	518	292	53	23
24	20	17	15	15	16	22	81	550	484	279	50	23
25	20	17	15	15	16	22	131	661	509	193	47	23
26	20	17	15	15	16	21	150	809	545	168	44	23
27	22	17	15	15	16	20	133	979	507	160	40	23
28	26	18	15	15	16	20	120	1170	517	171	37	23
29	22	18	14	15	---	21	99	1210	467	124	34	23
30	20	17	14	15	---	23	111	1210	369	102	30	24
31	22	---	14	15	---	24	---	1190	---	118	27	---
TOTAL	648	549	486	461	420	668	1795	12832	21652	7623	1997	702
MEAN	20.9	18.3	15.7	14.9	15.0	21.5	59.8	414	722	246	64.4	23.4
MAX	26	25	17	15	16	26	150	1210	1040	489	117	29
MIN	20	16	14	14	14	18	25	85	369	102	27	22
AC-FT	1290	1090	964	914	833	1320	3560	25450	42950	15120	3960	1390

WTR YR 1983 TOTAL 49833 MEAN 137 MAX 1210 MIN 14 AC-FT 98840

NOTE.--NO GAGE-HEIGHT RECORD DEC. 8 TO MAR. 21.

BLUE RIVER BASIN

09041900 MONTE CRISTO DIVERSION NEAR HOOSIER PASS, CO

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

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

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft, from topographic map.

REMARKS.--Records good. This is a transmountain diversion from Monte Cristo Creek in Blue River basin through Hoosier Pass tunnel to South Platte River basin from which it is again diverted to South Catamount Creek in the Arkansas River basin. Water is for municipal use by city of Colorado Springs. Diversion point is in SW¼NE¼ sec.2, T.8 S., R.78 W. The entire flow is regulated by diversion gates.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 73 ft³/s Aug. 12-14, 1980; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	.00	.00	.00	.00	.00	.00	.00	12	.00	24	.62
2	23	.00	.00	.00	.00	.00	.00	.00	11	.00	7.1	.00
3	36	.00	.00	.00	.00	.00	.00	.00	10	.00	5.0	.00
4	35	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00
5	29	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	4.3
6	20	.00	.00	.00	.00	.00	.00	.00	12	.00	.00	6.5
7	23	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	5.9
8	23	.00	.00	.00	.00	.00	.00	.00	17	.00	.00	5.9
9	21	.00	.00	.00	.00	.00	.00	.00	21	.00	4.8	.00
10	23	.00	.00	.00	.00	.00	.00	.00	24	.00	11	.00
11	32	.00	.00	.00	.00	.00	.00	.00	31	.00	12	3.0
12	39	.00	.00	.00	.00	.00	.00	.00	32	.00	15	3.7
13	30	.00	.00	.00	.00	.00	.00	.00	26	.00	14	3.8
14	27	.00	.00	.00	.00	.00	.00	.00	21	.00	14	4.3
15	23	.00	.00	.00	.00	.00	.00	.00	19	.00	20	5.5
16	21	.00	.00	.00	.00	.00	.00	.00	17	.00	13	3.7
17	19	.00	.00	.00	.00	.00	.00	.00	11	14	12	2.3
18	8.5	.00	.00	.00	.00	.00	.00	.00	13	35	11	2.1
19	.00	.00	.00	.00	.00	.00	.00	.00	14	23	9.1	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	9.1	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	12	.00	7.5	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	6.9	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	7.5	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	11	.00
25	.00	.00	.00	.00	.00	.00	.00	2.2	5.0	.00	9.1	.00
26	.00	.00	.00	.00	.00	.00	.00	4.2	.00	.00	2.3	.00
27	.00	.00	.00	.00	.00	.00	.00	9.0	.00	.00	1.5	.00
28	.00	.00	.00	.00	.00	.00	.00	8.8	.00	.00	1.0	.00
29	.00	.00	.00	.00	---	.00	.00	14	.00	11	1.1	20
30	.00	.00	.00	.00	---	.00	.00	13	.00	21	3.7	60
31	.00	---	.00	.00	---	.00	---	9.6	---	25	2.1	---
TOTAL	452.50	.00	.00	.00	.00	.00	.00	60.80	391.00	129.00	234.80	131.62
MEAN	14.6	.000	.000	.000	.000	.000	.000	1.96	13.0	4.16	7.57	4.39
MAX	39	.00	.00	.00	.00	.00	.00	14	32	35	24	60
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	898	.00	.00	.00	.00	.00	.00	121	776	256	466	261
CAL YR 1982	TOTAL	1795.80	MEAN 4.92	MAX 43	MIN .00	AC-FT 3560						
WTR YR 1983	TOTAL	1399.72	MEAN 3.83	MAX 60	MIN .00	AC-FT 2780						

BLUE RIVER BASIN

77

09044300 BEMROSE-HOOSIER DIVERSION NEAR HOOSIER PASS, CO

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

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

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft, from topographic map.

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

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

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	6.0	12	7.2	13
2	.00	.00	.00	.00	.00	.00	.00	.00	6.0	13	6.5	12
3	.00	.00	.00	.00	.00	.00	.00	.00	4.8	14	8.0	10
4	.00	.00	.00	.00	.00	.00	.00	.00	6.4	14	9.5	10
5	.00	.00	.00	.00	.00	.00	.00	.00	6.4	14	8.4	9.3
6	.00	.00	.00	.00	.00	.00	.00	.00	5.6	13	8.9	8.4
7	.00	.00	.00	.00	.00	.00	.00	.00	6.4	14	8.0	8.0
8	.00	.00	.00	.00	.00	.00	.00	.00	7.4	18	7.4	7.6
9	.00	.00	.00	.00	.00	.00	.00	.00	9.3	17	7.0	7.0
10	.00	.00	.00	.00	.00	.00	.00	.00	13	16	6.5	6.7
11	.00	.00	.00	.00	.00	.00	.00	.00	17	15	6.3	6.3
12	.00	.00	.00	.00	.00	.00	.00	.00	18	14	6.1	5.9
13	.00	.00	.00	.00	.00	.00	.00	.00	13	12	5.9	5.6
14	.00	.00	.00	.00	.00	.00	.00	.00	10	12	5.7	5.4
15	.00	.00	.00	.00	.00	.00	.00	.00	12	11	5.6	5.2
16	.00	.00	.00	.00	.00	.00	.00	.00	15	10	5.4	4.8
17	.00	.00	.00	.00	.00	.00	.00	.00	19	9.5	5.4	4.5
18	.00	.00	.00	.00	.00	.00	.00	.00	34	9.5	5.0	3.5
19	.00	.00	.00	.00	.00	.00	.00	.00	36	9.5	5.2	1.0
20	.00	.00	.00	.00	.00	.00	.00	.00	36	9.3	5.0	.87
21	.00	.00	.00	.00	.00	.00	.00	.00	33	9.7	4.8	.78
22	.00	.00	.00	.00	.00	.00	.00	.00	28	10	5.0	.69
23	.00	.00	.00	.00	.00	.00	.00	.00	26	9.3	5.4	.60
24	.00	.00	.00	.00	.00	.00	.00	.00	27	8.6	7.2	.60
25	.00	.00	.00	.00	.00	.00	.00	.08	26	8.0	8.2	.54
26	.00	.00	.00	.00	.00	.00	.00	2.2	24	7.8	11	.54
27	.00	.00	.00	.00	.00	.00	.00	4.8	26	7.6	10	.48
28	.00	.00	.00	.00	.00	.00	.00	5.0	16	7.4	9.7	.48
29	.00	.00	.00	.00	---	.00	.00	6.4	7.4	6.5	9.5	.48
30	.00	.00	.00	.00	---	.00	.00	6.6	9.1	6.5	11	.48
31	.00	---	.00	.00	---	.00	---	5.0	---	6.7	14	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	30.08	503.8	344.9	228.8	140.74
MEAN	.000	.000	.000	.000	.000	.000	.000	.97	16.8	11.1	7.38	4.69
MAX	.00	.00	.00	.00	.00	.00	.00	6.6	36	18	14	13
MIN	.00	.00	.00	.00	.00	.00	.00	.00	4.8	6.5	4.8	.48
AC-FT	.00	.00	.00	.00	.00	.00	.00	60	999	684	454	279
CAL YR 1982 TOTAL	954.86			MEAN 2.62	MAX 21	MIN .00	AC-FT 1890					
WTR YR 1983 TOTAL	1248.32			MEAN 3.42	MAX 36	MIN .00	AC-FT 2480					

BLUE RIVER BASIN

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.78W., 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. Prior to October 1961, Published as McCullough diversion near Hoosier Pass.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 10,986 ft, from topographic map.

REMARKS.--Records 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 ft³/s June 20, 1968; June 19, 1983; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	8.6	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	8.5	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	6.6	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	8.8	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	9.0	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	9.0	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	14	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	19	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	26	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	40	.00	.00	1.2
12	.00	.00	.00	.00	.00	.00	.00	.00	43	.00	.00	2.7
13	.00	.00	.00	.00	.00	.00	.00	.00	27	.00	.00	2.7
14	.00	.00	.00	.00	.00	.00	.00	.00	15	.00	.00	2.7
15	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	.00	2.7
16	.00	.00	.00	.00	.00	.00	.00	.00	35	.00	.00	2.7
17	.00	.00	.00	.00	.00	.00	.00	.00	45	.00	.00	2.7
18	.00	.00	.00	.00	.00	.00	.00	.00	76	.00	.00	2.7
19	.00	.00	.00	.00	.00	.00	.00	.00	123	.00	.00	.80
20	.00	.00	.00	.00	.00	.00	.00	.00	109	.00	5.9	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	50	.00	5.4	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	4.0	.00	6.5	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	3.0	.00	16	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	14	.00
25	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	10	.00
26	.00	.00	.00	.00	.00	.00	.00	3.2	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	7.6	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	7.2	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	9.0	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	9.2	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	7.2	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	44.60	714.50	.00	57.80	20.90
MEAN	.000	.000	.000	.000	.000	.000	.000	1.44	23.8	.000	1.86	.70
MAX	.00	.00	.00	.00	.00	.00	.00	9.2	123	.00	16	2.7
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	88	1420	.00	115	41
CAL YR 1982	TOTAL	2967.92	MEAN 8.13	MAX 99	MIN .00	AC-FT 5890						
WTR YR 1983	TOTAL	837.80	MEAN 2.30	MAX 123	MIN .00	AC-FT 1660						

BLUE RIVER BASIN

79

09046600 BLUE RIVER NEAR DILLON, CO

LOCATION.--Lat 39°32'55", long 106°02'19", in NW¼NE¼ sec.7, T.6 S., R.77W., Summit County, Hydrologic Unit 14010002, on right bank 0.2 mi downstream from Swan River and 5.5 mi south of Dillon.

DRAINAGE AREA.--119 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,120 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Transmountain diversions above station by Boreas Pass ditch and Hoosier Pass tunnel (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 101 ft³/s; 73,170 acre-ft/yr, including diversion to Hoosier Pass tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,250 ft³/s June 17, 1965, gage height, 5.38 ft, from rating curve extended above 610 ft³/s; minimum daily, 17 ft³/s Mar. 21, 1961, Feb. 24-26, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,210 ft³/s at 0700 June 26, gage height, 5.04 ft; minimum daily, 27 ft³/s April 14-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	61	47	33	36	33	31	37	379	793	239	250
2	84	61	46	32	36	33	30	35	401	755	252	229
3	86	59	46	32	36	33	30	35	392	732	242	220
4	80	57	45	32	36	33	30	36	366	679	279	212
5	77	55	44	32	36	33	30	38	372	623	311	212
6	77	55	44	32	36	33	30	40	359	609	304	190
7	74	54	44	33	36	33	29	41	351	605	300	170
8	74	53	43	33	36	33	28	45	345	642	262	159
9	73	53	43	33	36	33	28	55	351	642	235	152
10	71	53	42	33	37	33	28	67	372	642	215	150
11	70	54	42	33	37	33	28	79	421	666	195	148
12	69	53	40	33	37	33	28	87	501	565	188	145
13	68	53	40	33	37	33	28	88	534	497	179	137
14	80	53	40	34	37	33	27	84	473	476	173	128
15	79	52	39	34	38	33	27	80	421	442	184	126
16	76	51	39	34	38	33	27	77	418	414	180	126
17	74	51	39	35	38	33	27	74	412	393	169	123
18	72	51	39	35	38	33	28	68	474	356	165	118
19	71	51	38	34	38	33	29	68	603	341	163	115
20	70	50	37	34	38	33	29	68	755	351	174	112
21	73	50	37	35	38	33	30	72	833	365	185	115
22	76	49	37	35	33	33	30	83	998	414	166	116
23	74	49	36	35	33	33	30	97	1130	401	165	114
24	72	48	36	36	33	32	32	124	1150	366	197	112
25	70	47	36	36	33	32	36	164	1150	336	222	110
26	68	48	36	36	33	31	38	205	1160	326	231	106
27	68	47	36	35	33	31	41	265	1130	309	280	103
28	65	47	36	36	33	31	40	340	1120	298	264	102
29	65	48	35	36	---	31	38	367	1010	278	240	100
30	62	47	35	36	---	31	37	404	859	243	249	99
31	61	---	34	36	---	31	---	397	---	233	272	---
TOTAL	2258	1560	1231	1056	1007	1009	924	3720	19240	14792	6880	4299
MEAN	72.8	52.0	39.7	34.1	36.0	32.5	30.8	120	641	477	222	143
MAX	86	61	47	36	38	33	41	404	1160	793	311	250
MIN	61	47	34	32	33	31	27	35	345	233	163	99
AC-FT	4480	3090	2440	2090	2000	2000	1830	7380	38160	29340	13650	8530
CAL YR 1982	TOTAL	38290	MEAN 105	MAX 384	MIN 26	AC-FT 75950						
WTR YR 1983	TOTAL	57976	MEAN 159	MAX 1160	MIN 27	AC-FT 115000						

NOTE.--NO GAGE-HEIGHT RECORD FEB. 15 TO MAR. 22.

BLUE RIVER BASIN

09047500 SNAKE RIVER NEAR MONTEZUMA, CO

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

DRAINAGE AREA.--57.7 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,320 ft, from topographic map. Prior to Oct. 14, 1943, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Small diversions above station for irrigation and domestic use. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--36 years, 60.2 ft³/s; 43,610 acre-ft/yr.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 760 ft³/s at 2200 June 21, gage height, 3.84 ft, only peak above base of 500 ft³/s; minimum daily, 12 ft³/s Apr. 30, May 2-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	30	25	19	15	13	13	13	119	413	126	94
2	47	29	25	17	15	13	13	12	127	398	113	87
3	46	29	25	16	15	13	13	12	130	393	109	81
4	45	28	25	15	15	13	13	14	153	358	110	86
5	44	27	25	15	15	13	13	15	153	345	111	78
6	45	27	25	15	15	13	14	15	132	339	107	70
7	44	26	25	15	15	13	14	14	136	336	100	69
8	43	25	25	15	15	13	14	18	156	358	102	66
9	42	25	25	15	15	13	14	22	179	342	94	64
10	46	25	25	15	15	13	14	28	222	340	86	62
11	47	25	25	15	15	13	14	32	298	322	82	59
12	48	25	25	15	15	13	14	29	337	278	85	56
13	37	25	25	15	15	13	14	26	286	254	87	55
14	30	25	25	15	15	13	14	25	239	239	88	52
15	41	25	24	15	15	13	14	21	258	217	89	54
16	44	25	23	15	15	13	14	20	284	202	80	49
17	44	25	21	15	15	13	14	21	314	190	79	47
18	43	25	20	15	15	13	14	19	444	180	77	45
19	41	25	20	15	15	13	14	18	567	171	73	44
20	39	25	20	15	14	13	14	17	622	173	81	45
21	41	25	20	15	13	13	14	18	622	177	70	42
22	40	25	20	15	13	13	14	22	567	186	73	42
23	38	25	20	15	13	13	14	27	523	170	92	40
24	37	25	20	15	13	13	14	39	543	153	90	41
25	38	25	20	15	13	13	14	50	563	140	87	40
26	38	25	20	15	13	13	14	58	515	140	121	39
27	38	25	20	15	13	13	14	77	499	142	100	37
28	34	25	20	15	13	13	14	94	481	148	91	35
29	33	25	20	15	---	13	14	109	439	133	87	35
30	32	25	20	15	---	13	12	121	422	142	99	35
31	31	---	20	15	---	13	---	114	---	133	111	---
TOTAL	1264	771	698	472	403	403	413	1120	10330	7512	2900	1649
MEAN	40.8	25.7	22.5	15.2	14.4	13.0	13.8	36.1	344	242	93.5	55.0
MAX	48	30	25	19	15	13	14	121	622	413	126	94
MIN	30	25	20	15	13	13	12	12	119	133	70	35
AC-FT	2510	1530	1380	936	799	799	819	2220	20490	14900	5750	3270

CAL YR 1982 TOTAL 27328 MEAN 74.9 MAX 454 MIN 12 AC-FT 54210
WTR YR 1983 TOTAL 27935 MEAN 76.5 MAX 622 MIN 12 AC-FT 55410

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 6.

BLUE RIVER BASIN

81

09047700 KEYSTONE GULCH NEAR DILLON, CO

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

DRAINAGE AREA.--9.10 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,350 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No known diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 5.70 ft³/s; 4,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 118 ft³/s June 27, 1983, gage height, 3.01 ft, from rating curve extended above 55 ft³/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 118 ft³/s at 1900 June 27, gage height, 3.01 ft, from rating curve extended above 55 ft³/s, only peak above base of 35 ft³/s; minimum daily, 1.8 ft³/s Apr. 7-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.5	2.7	2.5	2.5	2.5	2.5	2.1	31	53	10	7.1
2	2.9	2.3	2.7	2.5	2.5	2.5	2.5	2.1	32	50	9.7	6.6
3	2.9	2.5	2.7	2.5	2.5	2.5	2.5	2.2	29	47	10	6.4
4	2.9	2.5	2.5	2.5	2.5	2.5	2.5	2.3	32	44	10	7.1
5	2.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5	33	42	10	6.5
6	2.8	2.5	2.5	2.5	2.5	2.5	2.1	2.6	31	39	9.8	6.0
7	2.8	2.5	2.5	2.5	2.5	2.5	1.8	2.6	31	36	9.0	6.0
8	2.8	2.5	2.5	2.5	2.5	2.5	1.8	3.0	30	34	8.5	6.0
9	2.9	2.8	2.5	2.5	2.5	2.5	1.8	3.8	32	31	8.0	5.8
10	2.9	3.0	2.5	2.5	2.5	2.5	1.9	4.8	38	30	7.5	5.7
11	2.9	3.0	2.5	2.5	2.5	2.5	2.0	5.3	47	28	8.3	5.5
12	3.9	3.0	2.5	2.5	2.5	2.5	2.0	4.8	51	26	9.9	5.3
13	2.7	3.0	2.5	2.5	2.5	2.5	2.0	4.8	46	24	9.2	5.3
14	2.7	3.0	2.5	2.5	2.5	2.5	2.0	4.6	43	23	8.8	5.2
15	2.8	3.0	2.5	2.5	2.5	2.5	2.0	4.5	45	22	8.1	5.4
16	2.8	3.0	2.5	2.5	2.5	2.5	2.0	4.3	46	20	7.5	5.0
17	2.8	3.0	2.5	2.5	2.5	2.5	2.0	4.0	50	19	7.5	4.9
18	2.7	3.0	2.5	2.5	2.5	2.5	2.0	3.8	62	18	7.1	4.8
19	2.6	3.0	2.5	2.5	2.5	2.5	2.0	3.7	70	17	7.9	4.8
20	3.2	3.0	2.5	2.5	2.5	2.5	2.0	3.5	70	16	8.0	5.0
21	2.7	3.0	2.5	2.5	2.5	2.5	2.0	4.0	80	17	7.1	5.0
22	2.8	3.0	2.5	2.5	2.5	2.5	2.0	4.5	76	17	7.1	4.9
23	2.7	3.0	2.5	2.5	2.5	2.5	2.0	5.6	77	15	7.5	4.8
24	2.6	3.0	2.5	2.5	2.5	2.5	2.0	8.0	74	14	9.1	4.8
25	2.6	2.7	2.5	2.5	2.5	2.5	2.0	11	69	13	9.5	5.0
26	2.6	2.7	2.5	2.5	2.5	2.5	2.0	16	63	13	11	4.9
27	2.6	2.7	2.5	2.5	2.5	2.5	2.0	22	71	13	8.0	4.8
28	2.6	2.7	2.5	2.5	2.5	2.5	2.0	26	61	13	7.4	4.8
29	2.3	2.7	2.5	2.5	---	2.5	2.0	28	56	12	7.4	4.8
30	2.0	2.7	2.5	2.5	---	2.5	2.2	31	55	11	9.0	4.9
31	2.2	---	2.5	2.5	---	2.5	---	30	---	11	8.5	---
TOTAL	85.4	83.8	78.1	77.5	70.0	77.5	62.1	257.4	1531	768	266.4	163.1
MEAN	2.75	2.79	2.52	2.50	2.50	2.50	2.07	8.30	51.0	24.8	8.59	5.44
MAX	3.9	3.0	2.7	2.5	2.5	2.5	2.5	31	80	53	11	7.1
MIN	2.0	2.3	2.5	2.5	2.5	2.5	1.8	2.1	29	11	7.1	4.8
AC-FT	169	166	155	154	139	154	123	511	3040	1520	528	324

CAL YR 1982 TOTAL 2539.6 MEAN 6.96 MAX 38 MIN 1.8 AC-FT 5040
WTR YR 1983 TOTAL 3520.3 MEAN 9.64 MAX 80 MIN 1.8 AC-FT 6980

NOTE.--NO GAGE-HEIGHT RECORD NOV. 3 TO APR. 6.

BLUE RIVER BASIN

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

LOCATION.--Lat 39°34'35", long 106°06'30", 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. Altitude of gage is 9,100 ft, from topographic map. Prior to Apr. 21, 1981 at site 720 ft downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by a few small diversions above station for irrigation and municipal use and transbasin diversion from Robinson Reservoir, capacity, 2,520 acre-ft, in Eagle River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--26 years, 95.4 ft³/s; 69,120 acre-ft/yr.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 11	2330	987	3.40	June 26	0230	* 1530	4.16

Minimum daily discharge, 18 ft³/s Dec. 25 to Jan. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	31	25	18	30	45	41	60	451	883	208	96
2	44	30	25	18	31	45	41	58	481	845	167	85
3	41	33	25	18	31	45	41	58	455	820	165	80
4	36	32	25	18	31	45	41	64	516	722	228	90
5	37	33	25	18	32	45	41	73	490	648	254	79
6	38	30	25	18	34	45	41	76	393	598	332	72
7	38	31	25	18	34	45	41	74	433	598	241	69
8	39	30	25	18	34	45	43	84	486	587	208	68
9	35	27	25	18	34	45	45	99	495	598	188	66
10	36	30	25	18	34	45	45	125	582	609	167	64
11	37	30	25	18	34	45	45	140	742	548	151	63
12	37	30	25	18	34	45	45	131	833	464	149	63
13	39	30	25	18	34	45	45	125	642	402	144	73
14	38	30	25	18	34	47	45	114	481	367	144	72
15	38	30	25	18	34	47	45	112	565	340	153	78
16	39	30	20	18	34	48	45	106	614	380	134	72
17	37	30	20	18	34	49	45	104	755	385	125	69
18	38	30	20	18	34	50	45	99	979	355	121	68
19	37	30	20	20	34	50	45	98	1160	344	110	68
20	34	25	20	25	34	50	48	96	1170	336	108	72
21	32	25	20	25	34	50	47	101	1200	415	102	68
22	32	25	20	25	34	50	47	112	1250	380	106	65
23	32	25	20	25	34	50	47	134	1200	340	101	64
24	32	25	19	25	34	50	51	175	1170	308	110	65
25	32	25	18	25	34	50	60	213	1280	286	110	65
26	32	25	18	25	34	45	65	254	1200	275	121	59
27	32	25	18	25	37	41	65	332	1160	286	115	57
28	31	25	18	25	40	41	63	380	1080	258	108	58
29	32	25	18	25	---	41	60	429	1000	222	96	58
30	33	25	18	25	---	41	60	437	899	219	117	58
31	31	---	18	25	---	41	---	393	---	228	115	---
TOTAL	1116	852	680	644	946	1426	1438	4856	24162	14047	4698	2084
MEAN	36.0	28.4	21.9	20.8	33.8	46.0	47.9	157	805	453	152	69.5
MAX	47	33	25	25	40	50	65	437	1280	883	332	96
MIN	31	25	18	18	30	41	41	58	393	219	96	57
AC-FT	2210	1690	1350	1280	1880	2830	2850	9630	47930	27860	9320	4130

CAL YR 1982	TOTAL	41431	MEAN	114	MAX	636	MIN	11	AC-FT	82180
WTR YR 1983	TOTAL	56949	MEAN	156	MAX	1280	MIN	18	AC-FT	113000

NOTE.--NO GAGE-HEIGHT RECORD NOV. 17 TO APR. 20.

BLUE RIVER BASIN

83

09050700 BLUE RIVER BELOW DILLON, CO

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

DRAINAGE AREA.--335 mi².

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,760 ft, from topographic map.

REMARKS.--Records good. Flow regulated since Sept. 3, 1963, by Dillon Reservoir, 0.3 mi upstream (station 09050600). Natural flow of stream affected by transmountain diversions, transbasin diversions, and diversions above station for irrigation of about 400 acres of hay meadows. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years (water years 1964-83), 190 ft³/s; 137,700 acre-ft/yr, since completion of Dillon Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,990 ft³/s, June 22, 1983, gage height, 3.95 ft; no flow Sept. 4 to Nov. 19, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,990 ft³/s at 1800 June 22, gage height, 3.95 ft; minimum daily, 18 ft³/s Jan. 12-16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	165	129	84	92	101	119	123	362	972	1910	680	832
2	157	126	84	92	101	119	123	362	972	1900	642	832
3	157	106	84	92	103	116	123	247	972	1880	618	832
4	154	92	98	92	103	109	123	116	972	1830	618	832
5	150	76	106	92	103	112	123	116	972	1760	673	832
6	150	70	92	92	103	116	119	116	972	1690	712	832
7	147	70	109	92	103	116	119	116	972	1640	699	832
8	143	58	112	92	106	112	119	116	972	1640	660	618
9	143	56	103	92	106	112	119	116	1080	1630	612	367
10	143	56	98	44	103	112	119	172	1170	1620	558	279
11	143	56	98	19	106	112	143	283	1320	1630	518	271
12	129	56	98	18	116	116	165	354	1460	1530	540	116
13	136	56	98	18	116	116	165	354	1490	1430	570	92
14	136	56	92	18	116	116	165	354	1550	1340	582	136
15	140	56	92	18	116	140	126	358	1620	1260	600	190
16	143	56	89	18	119	150	98	358	1610	1180	612	190
17	143	56	89	63	119	150	98	358	1510	1110	564	186
18	143	56	89	161	106	133	98	358	1450	1050	540	186
19	140	58	89	161	103	116	112	354	1530	1000	512	186
20	136	58	89	161	103	116	133	318	1600	965	485	186
21	133	58	81	157	106	116	179	283	1650	1000	465	186
22	133	76	67	157	106	119	231	283	1860	1060	455	172
23	133	97	67	106	106	119	247	283	1860	1060	425	154
24	133	106	67	87	106	140	247	283	1790	993	420	147
25	133	106	70	81	106	147	267	358	1780	923	420	147
26	133	106	70	89	116	147	326	455	1780	874	502	157
27	136	106	70	92	123	147	362	391	1260	832	732	168
28	133	103	70	92	123	147	362	988	1110	797	832	168
29	126	95	84	98	---	147	362	1270	1700	764	832	161
30	123	84	92	101	---	136	362	1110	1870	744	832	150
31	123	---	92	101	---	123	---	972	---	712	832	---
TOTAL	4337	2340	2723	2688	3044	3896	5458	11964	41826	39754	18742	10437
MEAN	140	78.0	87.8	86.7	109	126	182	386	1394	1282	605	348
MAX	165	129	112	161	123	150	362	1270	1870	1910	832	832
MIN	123	56	67	18	101	109	98	116	972	712	420	92
AC-FT	8500	4640	5400	5330	6040	7730	10830	23730	82960	78850	37170	20700
CAL YR 1982	TOTAL	42357	MEAN 116	MAX 445	MIN 12	AC-FT 84020						
WTR YR 1983	TOTAL	147209	MEAN 403	MAX 1910	MIN 18	AC-FT 292000						

BLUE RIVER BASIN

09052000 ROCK CREEK NEAR DILLON, CO

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

DRAINAGE AREA.--15.8 mi².

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

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

REMARKS.--Records good except those for winter period, which are poor. A few small diversions for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--31 years, (water years 1943-56, 1967-83), 22.9 ft³/s; 16,590 acre-ft/yr.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 11	2300	178	4.08	June 19	2200	* 238	4.27

Minimum daily discharge, 3.1 ft³/s Apr. 8-10, 15-21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.2	6.0	4.7	4.0	4.0	3.9	4.6	68	117	66	22
2	12	7.5	6.0	4.5	4.0	4.0	3.8	4.8	69	116	60	20
3	12	7.4	6.0	4.5	4.0	4.0	3.7	5.0	64	120	56	20
4	11	7.2	6.0	4.5	4.0	4.0	3.6	5.8	71	113	73	24
5	11	7.0	6.0	4.5	4.0	4.0	3.5	8.2	67	103	83	27
6	11	7.0	6.0	4.5	4.0	4.0	3.4	11	53	102	90	22
7	11	7.0	5.8	4.5	4.0	4.0	3.2	11	62	114	68	19
8	11	7.0	5.5	4.4	4.0	4.0	3.1	14	80	118	57	18
9	9.9	6.5	5.5	4.3	4.0	4.0	3.1	19	91	118	50	18
10	9.6	7.5	5.5	4.2	4.0	4.0	3.1	27	103	126	46	17
11	9.6	6.7	5.5	4.1	4.0	4.0	3.3	36	133	108	42	17
12	12	7.0	5.5	4.0	4.0	4.0	3.3	38	151	96	46	16
13	9.4	7.0	5.5	4.0	4.0	4.0	3.3	37	94	88	45	15
14	9.6	7.0	5.5	4.0	4.0	4.0	3.3	33	69	83	39	15
15	9.5	7.0	5.5	4.0	4.0	4.0	3.1	29	75	76	43	15
16	9.6	7.0	5.5	4.0	4.0	4.0	3.1	21	94	75	38	14
17	9.0	7.0	5.4	4.0	4.0	4.0	3.1	9.7	112	75	37	13
18	8.6	7.0	5.2	4.0	4.0	4.0	3.1	7.5	164	73	35	13
19	8.4	7.0	5.0	4.0	4.0	4.0	3.1	7.1	194	76	35	14
20	8.7	7.0	5.0	4.0	4.0	4.0	3.1	7.3	179	85	36	17
21	8.0	7.0	5.0	4.0	4.0	4.0	3.1	8.2	175	104	32	14
22	8.0	7.0	5.0	4.0	4.0	4.0	3.3	11	166	99	30	13
23	7.5	7.0	5.0	4.0	4.0	4.0	3.3	15	157	99	29	13
24	7.3	7.0	5.0	4.0	4.0	4.0	3.4	22	167	80	27	13
25	7.6	7.0	5.0	4.0	4.0	4.0	3.5	28	169	72	32	12
26	7.7	7.0	5.0	4.0	4.0	4.0	3.7	34	174	79	27	12
27	8.7	6.8	5.0	4.0	4.0	4.0	3.9	44	152	72	26	11
28	8.3	6.4	5.0	4.0	4.0	4.0	4.0	59	142	78	25	11
29	8.0	6.0	5.0	4.0	---	4.0	4.2	72	124	61	24	10
30	8.0	6.0	5.0	4.0	---	4.0	4.5	74	118	59	25	10
31	8.4	---	5.0	4.0	---	4.0	---	61	---	59	24	---
TOTAL	293.4	209.2	166.9	128.7	112.0	124.0	103.1	764.2	3537	2844	1346	475
MEAN	9.46	6.97	5.38	4.15	4.00	4.00	3.44	24.7	118	91.7	43.4	15.8
MAX	13	8.2	6.0	4.7	4.0	4.0	4.5	74	194	126	90	27
MIN	7.3	6.0	5.0	4.0	4.0	4.0	3.1	4.6	53	59	24	10
AC-FT	582	415	331	255	222	246	204	1520	7020	5640	2670	942
CAL YR 1982	TOTAL	9598.9	MEAN	26.3	MAX	144	MIN	4.3	AC-FT	19040		
WTR YR 1983	TOTAL	10103.5	MEAN	27.7	MAX	194	MIN	3.1	AC-FT	20040		

NOTE.--NO GAGE HEIGHT RECORD NOV. 15 TO APR. 7.

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.78W., Summit County, Hydrologic Unit 14010002, on left bank 1.2 mi downstream from Boulder Lake, 3.2 mi upstream from mouth, and 9.4 mi northwest of Dillon.

DRAINAGE AREA.--8.56 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,460 ft, from topographic map.

REMARKS.--Records fair except those for winter period and period of no gage-height record, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 16.6 ft³/s; 12,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft³/s July 4, 1975, gage height, 3.27 ft; minimum daily, 0.80 ft³/s Jan. 6, 1977.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 25		about * 250	unknown	Aug. 6	0030	165	2.85
July 21	2330	122	2.63				

Minimum daily discharge, 2.2 ft³/s Apr. 13-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	6.0	3.5	2.5	2.5	2.5	2.5	3.3	39	114	69	12
2	9.0	5.8	3.5	2.5	2.5	2.5	2.5	3.5	37	117	56	11
3	8.5	5.3	3.5	2.5	2.5	2.5	2.5	3.7	36	119	55	12
4	7.6	4.8	3.5	2.5	2.5	2.5	2.5	4.0	43	106	64	13
5	7.3	4.5	3.5	2.5	2.5	2.5	2.5	4.3	45	90	99	15
6	7.6	4.2	3.5	2.5	2.5	2.5	2.5	4.7	34	84	115	14
7	7.1	3.8	3.5	2.5	2.5	2.5	2.5	5.0	37	109	80	14
8	7.1	3.5	3.5	2.5	2.5	2.5	2.5	5.4	54	119	54	13
9	6.8	3.5	3.5	2.5	2.5	2.5	2.5	5.6	67	122	43	13
10	6.6	3.5	3.5	2.5	2.5	2.5	2.5	6.5	72	126	36	12
11	6.4	3.5	3.5	2.5	2.5	2.5	2.5	7.5	88	96	31	12
12	6.0	3.5	3.5	2.5	2.5	2.5	2.4	12	99	80	33	11
13	5.8	3.5	3.5	2.5	2.5	2.5	2.2	10	69	68	29	11
14	5.6	3.5	3.5	2.5	2.5	2.5	2.2	9.0	47	63	30	10
15	5.5	3.5	3.5	2.5	2.5	2.5	2.2	8.0	52	56	36	10
16	5.3	3.5	3.5	2.5	2.5	2.5	2.2	6.8	68	61	29	9.5
17	5.2	3.5	3.4	2.5	2.5	2.5	2.2	6.0	84	60	26	9.2
18	5.0	3.5	3.3	2.5	2.5	2.5	2.2	5.4	117	56	23	9.0
19	4.8	3.5	3.1	2.5	2.5	2.5	2.2	5.8	160	63	24	8.6
20	4.6	3.5	3.0	2.5	2.5	2.5	2.2	5.5	150	73	23	8.2
21	4.5	3.5	3.0	2.5	2.5	2.5	2.2	5.4	140	96	19	7.3
22	4.3	3.5	3.0	2.5	2.5	2.5	2.2	6.0	135	90	17	7.1
23	4.2	3.5	3.0	2.5	2.5	2.5	2.2	7.0	145	77	17	6.3
24	4.1	3.5	3.0	2.5	2.5	2.5	2.2	9.0	150	58	15	6.5
25	4.3	3.5	3.0	2.5	2.5	2.5	2.3	12	210	52	22	6.1
26	4.5	3.5	2.9	2.5	2.5	2.5	2.4	28	140	55	18	5.9
27	4.8	3.5	2.7	2.5	2.5	2.5	2.6	28	160	53	15	5.7
28	5.0	3.5	2.6	2.5	2.5	2.5	2.7	43	135	58	14	5.7
29	5.2	3.5	2.5	2.5	---	2.5	2.9	46	112	42	13	5.7
30	5.4	3.5	2.5	2.5	---	2.5	3.1	45	112	46	13	5.4
31	5.8	---	2.5	2.5	---	2.5	---	38	---	53	12	---
TOTAL	183.6	114.9	99.5	77.5	70.0	77.5	72.3	389.4	2837	2462	1130	289.2
MEAN	5.92	3.83	3.21	2.50	2.50	2.50	2.41	12.6	94.6	79.4	36.5	9.64
MAX	9.7	6.0	3.5	2.5	2.5	2.5	3.1	46	210	126	115	15
MIN	4.1	3.5	2.5	2.5	2.5	2.5	2.2	3.3	34	42	12	5.4
AC-FT	364	228	197	154	139	154	143	772	5630	4880	2240	574

CAL YR 1982 TOTAL 7651.3 MEAN 21.0 MAX 126 MIN 1.5 AC-FT 15180
WTR YR 1983 TOTAL 7802.9 MEAN 21.4 MAX 210 MIN 2.2 AC-FT 15480

NOTE.--NO GAGE-HEIGHT RECORD OCT. 9 TO MAY 25, June 19-28.

BLUE RIVER BASIN

09052800 SLATE CREEK AT UPPER STATION, NEAR DILLON, CO

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

DRAINAGE AREA.--14.2 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,040 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 25.7 ft³/s; 18,620 acre-ft/yr.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 11	2400	185	4.77	Aug. 1	0300	241	5.09
June 25	0500	388	5.76	Aug. 5	2300	* 485	6.14
July 21	2400	323	5.50				

Minimum daily discharge, 2.7 ft³/s Apr. 4-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	8.3	5.0	3.5	2.8	2.8	2.8	6.0	72	161	163	21
2	18	7.9	5.0	3.5	2.9	2.8	2.8	5.8	72	161	100	20
3	16	7.8	4.8	3.5	3.0	2.8	2.8	4.5	65	165	107	20
4	14	7.6	4.8	3.5	3.0	2.8	2.7	5.6	73	148	131	23
5	13	7.5	4.6	3.3	3.0	2.9	2.7	6.1	77	137	216	24
6	14	7.2	4.6	3.3	3.0	3.0	2.7	6.1	63	148	223	19
7	14	7.0	4.5	3.3	3.0	3.0	2.7	5.8	62	182	125	17
8	14	6.6	4.5	3.3	3.0	3.0	2.7	7.5	77	204	76	15
9	13	6.4	4.4	3.3	3.0	3.0	2.7	11	104	218	60	15
10	12	6.2	4.5	3.3	2.8	3.1	2.7	16	122	220	53	15
11	11	6.2	4.5	3.1	2.8	3.1	2.7	19	151	176	47	15
12	11	6.0	4.3	3.1	2.8	3.1	2.7	19	163	143	49	13
13	10	5.8	4.3	3.2	2.8	3.1	2.7	16	122	126	50	12
14	10	5.8	4.4	3.1	2.9	3.1	2.7	14	76	122	46	11
15	10	5.6	4.3	3.1	3.0	3.0	2.9	12	72	109	57	11
16	10	5.5	4.3	3.1	3.0	2.9	2.9	10	96	109	57	10
17	9.6	5.5	4.3	3.1	3.0	2.8	2.9	9.6	124	112	48	9.0
18	9.1	5.5	4.1	3.2	2.8	2.8	3.2	8.2	176	110	43	9.0
19	9.1	5.5	4.0	3.2	2.8	2.8	3.7	7.4	223	113	43	9.9
20	8.6	5.5	4.0	3.2	2.8	2.8	3.7	7.5	220	144	42	14
21	8.3	5.5	3.8	3.2	2.8	2.8	5.1	8.8	210	198	36	11
22	8.0	5.5	3.8	3.1	2.8	2.8	5.5	11	206	207	32	9.3
23	7.9	5.5	3.8	3.1	2.8	2.8	4.9	17	212	161	30	8.6
24	7.6	5.5	3.9	3.1	2.8	2.8	6.5	27	206	107	28	9.0
25	7.5	5.5	3.9	3.1	2.8	2.8	6.0	38	292	86	40	8.9
26	7.6	5.3	3.8	3.1	2.9	2.8	5.8	48	211	90	33	8.2
27	8.7	5.2	3.8	3.0	2.8	2.8	5.6	59	193	77	29	7.5
28	8.4	5.1	3.8	3.0	2.8	2.8	5.6	70	196	83	29	7.3
29	8.5	5.1	3.7	3.0	---	2.8	5.6	70	163	66	25	7.1
30	8.1	5.0	3.6	3.0	---	2.8	4.6	78	165	79	25	7.0
31	8.2	---	3.6	3.0	---	2.8	---	68	---	91	23	---
TOTAL	334.2	182.6	130.7	98.9	80.7	89.5	112.6	691.9	4264	4253	2066	386.8
MEAN	10.8	6.09	4.22	3.19	2.88	2.89	3.75	22.3	142	137	66.6	12.9
MAX	19	8.3	5.0	3.5	3.0	3.1	6.5	78	292	220	223	24
MIN	7.5	5.0	3.6	3.0	2.8	2.8	2.7	4.5	62	66	23	7.0
AC-FT	663	362	259	196	160	178	223	1370	8460	8440	4100	767
CAL YR 1982	TOTAL	11776.6	MEAN 32.3	MAX 185	MIN 3.0	AC-FT 23360						
WTR YR 1983	TOTAL	12690.9	MEAN 34.8	MAX 292	MIN 2.7	AC-FT 25170						

09054000 BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO

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

DRAINAGE AREA.--15.0 mi².

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

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

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

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--24 years, 32.0 ft³/s; 23,180 acre-ft/yr.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 12	0400	238	3.86	July 21	2300	420	4.42
June 25	0400	* 555	4.74	Aug. 5	0200	252	3.90

Minimum daily discharge, 2.4 ft³/s, Apr. 20-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	11	4.4	3.0	2.5	2.5	2.5	4.6	69	201	144	32
2	20	8.7	4.4	2.7	2.5	2.5	2.5	4.8	79	198	119	30
3	18	7.1	4.4	2.7	2.5	2.5	2.5	4.8	71	209	125	31
4	15	6.6	4.4	2.7	2.5	2.5	2.5	5.6	94	180	142	37
5	14	6.1	4.3	2.7	2.5	2.5	2.5	5.9	88	172	198	38
6	14	5.6	4.2	2.7	2.5	2.5	2.5	7.1	64	188	160	31
7	14	4.7	4.2	2.7	2.5	2.5	2.5	6.7	66	226	118	26
8	14	4.6	4.1	2.7	2.5	2.5	2.6	6.7	95	259	92	23
9	12	4.8	4.0	2.7	2.5	2.5	3.6	7.8	118	270	80	22
10	11	4.8	4.0	2.5	2.5	2.5	3.0	12	138	273	73	22
11	10	4.9	4.0	2.5	2.5	2.5	2.8	17	182	225	66	23
12	10	4.8	4.0	2.5	2.5	2.5	2.6	18	206	183	79	20
13	10	4.8	3.9	2.5	2.5	2.5	2.6	16	139	164	80	18
14	9.4	4.8	3.8	2.5	2.5	2.5	2.5	13	80	154	64	17
15	9.3	4.8	3.8	2.5	2.5	2.5	2.5	12	84	143	74	17
16	8.8	4.8	3.8	2.5	2.5	2.5	2.5	11	121	147	66	15
17	8.5	4.8	3.8	2.5	2.5	2.5	2.5	11	164	152	67	14
18	8.2	4.6	3.6	2.5	2.5	2.5	2.5	8.2	222	150	59	13
19	8.1	5.0	3.6	2.5	2.5	2.5	2.5	8.6	271	160	59	14
20	7.4	5.3	3.6	2.5	2.5	2.5	2.4	8.2	264	205	62	17
21	7.0	5.2	3.4	2.5	2.5	2.5	2.4	7.8	256	280	50	15
22	6.7	5.2	3.4	2.5	2.5	2.5	2.4	9.6	246	271	45	13
23	6.5	5.7	3.2	2.5	2.5	2.5	2.4	13	251	194	41	11
24	6.4	5.2	3.0	2.5	2.5	2.5	2.4	25	252	147	38	13
25	6.9	4.8	3.0	2.5	2.5	2.5	2.5	44	404	125	50	12
26	7.1	4.7	3.0	2.5	2.5	2.5	2.6	56	259	149	43	11
27	8.2	4.6	3.0	2.5	2.5	2.5	3.2	75	283	128	39	10
28	8.1	4.4	3.0	2.5	2.5	2.5	4.2	105	257	137	44	8.9
29	7.6	4.4	3.0	2.5	---	2.5	4.6	100	201	96	39	8.9
30	7.8	4.4	3.0	2.5	---	2.5	4.6	106	199	110	36	9.1
31	7.6	---	3.0	2.5	---	2.5	---	79	---	123	34	---
TOTAL	323.6	161.2	114.3	79.6	70.0	77.5	83.4	809.4	5223	5619	2386	571.9
MEAN	10.4	5.37	3.69	2.57	2.50	2.50	2.78	26.1	174	181	77.0	19.1
MAX	22	11	4.4	3.0	2.5	2.5	4.6	106	404	280	198	38
MIN	6.4	4.4	3.0	2.5	2.5	2.5	2.4	4.6	64	96	34	8.9
AC-FT	642	320	227	158	139	154	165	1610	10360	11150	4730	1130

CAL YR 1982 TOTAL 13174.6 MEAN 36.1 MAX 213 MIN 2.8 AC-FT 26130
WTR YR 1983 TOTAL 15518.9 MEAN 42.5 MAX 404 MIN 2.4 AC-FT 30780

NOTE.--NO GAGE-HEIGHT RECORD DEC. 24 TO APR. 7.

BLUE RIVER BASIN

09055300 CATARACT CREEK NEAR KREMMLING, CO

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

DRAINAGE AREA.--12.0 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,605 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 20.1 ft³/s; 14,560 acre-ft/yr.

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

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 12	2100	166	4.24	July 22	0400	192	4.36
June 25	0400	* 353	5.20				

Minimum daily discharge, 1.2 ft³/s Jan. 27 to Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	5.2	2.8	1.9	1.2	1.2	1.9	3.9	56	179	47	8.1
2	12	5.2	2.7	1.8	1.2	1.2	1.9	4.1	105	170	46	6.9
3	11	5.1	2.7	1.8	1.2	1.2	1.9	4.3	82	187	46	5.7
4	9.8	4.7	2.7	1.8	1.2	1.2	1.9	4.5	71	187	56	6.2
5	8.5	4.6	2.6	1.7	1.2	1.4	1.9	4.8	69	153	80	6.6
6	7.9	4.5	2.6	1.6	1.2	1.4	1.9	5.0	57	156	58	7.1
7	7.6	4.2	2.5	1.5	1.2	1.5	1.9	5.3	56	175	49	6.7
8	7.7	4.0	2.3	1.5	1.2	1.5	1.9	5.6	62	222	43	5.6
9	8.0	4.0	2.3	1.5	1.2	1.5	1.9	6.8	83	214	37	5.5
10	7.5	4.0	2.3	1.4	1.2	1.5	1.8	9.6	105	219	33	5.7
11	6.8	4.1	2.2	1.4	1.2	1.5	1.7	11	134	189	30	5.7
12	6.5	4.2	2.2	1.4	1.2	1.6	1.7	13	158	142	34	5.5
13	6.3	4.2	2.1	1.4	1.2	1.6	1.7	12	121	123	36	5.1
14	6.0	4.1	2.2	1.4	1.2	1.6	1.4	12	72	110	31	4.8
15	5.9	4.0	2.2	1.4	1.2	1.7	1.3	11	69	96	31	4.3
16	5.8	3.9	2.2	1.4	1.2	1.7	1.3	10	96	98	29	4.1
17	5.6	3.7	2.1	1.4	1.2	1.7	1.3	9.6	102	98	25	3.7
18	5.5	3.6	2.1	1.3	1.2	1.7	1.3	8.6	175	95	22	3.5
19	5.4	3.6	2.0	1.3	1.2	1.8	1.4	7.6	226	91	22	3.6
20	5.3	3.7	1.9	1.3	1.2	1.8	1.5	6.6	229	120	23	3.4
21	5.1	3.7	1.9	1.3	1.2	1.8	1.7	6.0	226	146	20	3.1
22	4.9	3.6	1.8	1.3	1.2	1.8	1.8	8.6	219	157	18	3.0
23	4.7	3.6	1.8	1.3	1.2	1.8	1.9	13	217	116	16	3.0
24	4.5	3.4	1.9	1.3	1.2	1.9	2.4	21	209	90	14	3.1
25	4.1	3.3	2.0	1.3	1.2	1.9	2.9	32	298	63	13	3.5
26	4.1	3.2	2.0	1.3	1.2	1.9	3.0	40	214	64	12	3.5
27	4.2	3.1	2.0	1.2	1.2	1.9	3.1	54	237	67	11	3.0
28	4.4	3.0	2.0	1.2	1.2	1.8	3.2	56	220	99	11	2.6
29	4.6	2.9	1.9	1.2	---	1.9	3.4	58	183	58	10	3.2
30	4.9	2.8	1.9	1.2	---	1.8	3.6	59	179	47	9.0	2.6
31	5.1	---	1.9	1.2	---	1.9	---	49	---	47	8.5	---
TOTAL	200.7	117.2	67.8	44.0	33.6	50.7	60.5	551.9	4330	3978	920.5	138.4
MEAN	6.47	3.91	2.19	1.42	1.20	1.64	2.02	17.8	144	128	29.7	4.61
MAX	12	5.2	2.8	1.9	1.2	1.9	3.6	59	298	222	80	8.1
MIN	4.1	2.8	1.8	1.2	1.2	1.2	1.3	3.9	56	47	8.5	2.6
AC-FT	398	232	134	87	67	101	120	1090	8590	7890	1830	275

CAL YR 1982 TOTAL 8890.3 MEAN 24.4 MAX 176 MIN 1.3 AC-FT 17630
WTR YR 1983 TOTAL 10493.3 MEAN 28.7 MAX 298 MIN 1.2 AC-FT 20810

NOTE.--NO GAGE-HEIGHT RECORD JAN. 26 TO MAR. 2.

BLUE RIVER BASIN

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RESERVOIRS IN BLUE RIVER BASIN

09050600 DILLON RESERVOIR.--Lat 39°37'14", long 106°03'53", in NE¼ sec.13,T.5 S., R.78 W., Summit County, Hydrologic Unit 14010002, in gatehouse at dam, 0.8 mi upstream from Straight Creek, about 1.3 mi southwest of Dillon, and 3.5 mi northeast of Frisco. DRAINAGE AREA, 335 mi². PERIOD OF RECORD, September 1963 to current year. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Denver Board of Water Commissioners); gage readings have been reduced to elevations NGVD. 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 furnished 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, 262,200 acre-ft, June 30, elevation, 9,019.46 ft; minimum, 240,600 acre-ft, Sept. 11, elevation, 9,012.75 ft.

09057000 GREEN MOUNTAIN RESERVOIR.--Lat 39°52'42", long 106°19'45", in NE¼ sec.15, T.2 S., R.80 W., Summit County, Hydrologic Unit 14010002, in hoist house at right end of dam, 0.6 mi upstream from Elliott Creek, and 13 mi southeast of Kremmling. DRAINAGE AREA, 598 mi², includes 15.3 mi² of Elliott Creek above diversion for Elliott Creek feeder canal. PERIOD OF RECORD, November 1942 to current year. REVISED RECORDS, WSP 2124: Drainage area. GAGE, Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD. 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, 7,760 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 furnished 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, 145,900 acre-ft, July 11, elevation, 7,949.51 ft; minimum, 43,890 acre-ft, May 25, elevation, 7,881.27 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	09050600	DILLON RESERVOIR		09057000	GREEN MOUNTAIN RESERVOIR	
Sept. 30.....	9,017.46	255,500	-	7,947.46	141,600	-
Oct. 31.....	9,017.40	255,300	-200	7,943.63	133,700	-7,900
Nov. 30.....	9,015.53	249,300	-6,000	7,937.02	120,900	-12,800
Dec. 31.....	9,015.63	249,600	+300	7,928.99	106,400	-14,500
CAL YR 1982..			+89,700			+28,850
Jan. 31.....	9,015.61	249,600	0	7,919.84	91,360	-15,040
Feb. 28.....	9,015.60	249,500	-100	7,911.33	78,850	-12,510
Mar. 31.....	9,015.38	248,800	-700	7,901.21	65,510	-13,340
Apr. 30.....	9,013.94	244,300	-4 500	7,890.74	53,410	-12,100
May 31.....	9,013.69	243,500	-800	7,888.35	50,890	-2,520
June 30.....	9,019.46	262,200	+18,700	7,944.64	135,800	+84,910
July 31.....	9,018.20	258,000	-4,200	7,948.19	143,100	+7,300
Aug. 31.....	9,015.45	249,100	-8,900	7,948.24	143,200	+100
Sept. 30.....	9,012.91	241,100	-8,000	7,945.90	138,300	-4,900
WTR YR 1983..			-14,400			-3,300

BLUE RIVER BASIN

09057500 BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO

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

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

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

REVISED RECORDS.--WSP 2124: Drainage area.

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

REMARKS.--Records good. Flow regulated by Green Mountain Reservoir since November 1942 (station 09057000). Diversions for irrigation of about 5,000 acres above station. Transmountain diversions above station (see elsewhere in this report). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,010 ft³/s at 2100 July 11, gage height, 9.52 ft; minimum daily, 333 ft³/s Oct. 31, Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	370	338	355	360	354	350	442	549	1100	2570	1480	1150
2	358	335	353	351	353	345	447	549	1100	2600	1480	1150
3	355	338	346	351	353	351	450	548	1110	2630	1350	1140
4	361	342	345	353	350	348	448	542	1100	2750	1290	1140
5	355	343	347	351	348	351	442	540	1100	2820	1430	1140
6	355	341	345	350	347	350	442	543	1090	2800	1640	1130
7	355	339	344	350	343	350	442	545	1080	2810	1740	1130
8	355	337	350	349	347	351	442	544	1080	2810	1560	1120
9	358	336	349	348	348	352	445	544	1030	2880	1380	1040
10	355	338	345	347	346	348	445	608	982	2950	1330	922
11	352	338	347	348	347	348	442	748	991	2980	1140	920
12	352	341	348	346	346	349	445	748	989	2980	1030	768
13	355	343	349	351	343	349	445	802	986	2850	1040	510
14	353	345	351	355	352	349	445	849	991	2500	1040	513
15	350	348	345	355	344	343	451	849	986	2340	1030	438
16	351	344	348	356	343	347	451	839	1040	2140	1030	364
17	349	342	346	356	348	356	451	829	1090	2010	1040	360
18	347	342	353	355	353	352	451	827	1080	1880	1040	366
19	354	336	354	349	354	348	451	826	1080	1720	1090	364
20	353	333	356	346	346	347	451	823	1090	1700	1140	364
21	353	334	354	350	346	350	451	820	1210	2050	1140	363
22	349	344	348	350	345	347	451	819	1290	2420	1140	364
23	349	349	345	350	342	345	451	817	1440	2480	1140	362
24	353	349	351	350	353	353	451	816	1620	2460	1050	362
25	347	346	349	349	349	385	451	818	1760	2110	936	359
26	345	345	356	350	347	448	500	896	1820	1680	944	356
27	347	345	357	351	346	448	552	1000	1920	1640	948	360
28	341	344	354	348	345	454	549	1050	2040	1630	948	354
29	336	342	350	345	---	448	550	1100	2200	1630	1010	357
30	335	347	348	345	---	450	551	1110	2450	1420	1150	357
31	333	---	347	354	---	449	---	1090	---	1480	1150	---
TOTAL	10881	10244	10835	10869	9738	11461	13885	23988	38845	71720	36856	19623
MEAN	351	341	350	351	348	370	463	774	1295	2314	1189	654
MAX	370	349	357	360	354	454	552	1110	2450	2980	1740	1150
MIN	333	333	344	345	342	343	442	540	982	1420	936	354
AC-FT	21580	20320	21490	21560	19320	22730	27540	47580	77050	142300	73100	38920
CAL YR 1982	TOTAL	114576	MEAN 314	MAX 904	MIN 50	AC-FT 227300						
WTR YR 1983	TOTAL	268945	MEAN 737	MAX 2980	MIN 333	AC-FT 533500						

COLORADO RIVER MAIN STEM

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09058000 COLORADO RIVER NEAR KREMMLING, CO

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

DRAINAGE AREA.--2,382 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,320 ft, from topographic map. See WSP 1313 for history of changes prior to Oct. 1, 1961.

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

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,100 ft³/s at 1600 July 12, gage height, 14.91 ft; minimum daily, 510 ft³/s Jan. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	794	817	560	560	540	554	630	1190	4910	7070	3000	1650
2	791	633	560	560	549	561	640	1170	4810	6850	2960	1610
3	796	603	560	551	540	562	640	1340	4880	6770	2810	1570
4	790	783	560	543	540	569	640	1380	4800	6910	2540	1580
5	772	800	560	556	544	567	653	1470	4840	7090	2650	1610
6	778	800	560	551	545	560	652	1570	4920	6570	3060	1580
7	777	802	560	544	557	556	654	1520	4780	6510	3120	1540
8	778	806	565	544	547	555	659	1540	4600	6960	2790	1530
9	797	815	567	539	528	556	663	1720	4470	7280	2390	1490
10	806	815	569	574	535	549	665	2050	4450	7610	2150	1340
11	807	816	579	556	537	559	702	2420	4600	8650	1940	1310
12	810	809	558	549	533	579	683	2490	5000	9890	1770	1280
13	833	783	552	550	536	580	664	2300	5450	9710	1790	976
14	842	781	548	540	527	580	666	2170	5220	8400	1770	961
15	843	779	568	540	526	580	669	2100	4760	6330	1770	959
16	835	785	553	540	536	580	679	2040	4430	5640	1830	834
17	830	783	562	530	531	580	703	2040	4470	4970	1840	803
18	820	800	561	520	534	580	753	1970	4500	4460	1850	786
19	820	799	563	510	535	580	873	1990	5010	3680	1870	785
20	825	608	563	529	532	587	906	2030	5600	3700	1940	791
21	818	587	547	542	535	582	974	2060	6010	4390	1870	795
22	815	569	556	527	531	581	942	2100	6060	4940	1820	787
23	813	561	551	538	537	580	960	2290	6030	5450	1770	785
24	814	547	555	530	543	586	1010	2560	6070	5480	1760	789
25	822	541	560	519	548	588	1170	2900	6850	4880	1540	801
26	819	563	560	527	547	590	1290	3290	7210	4050	1520	799
27	846	565	560	542	548	600	1310	3910	7660	3750	1510	796
28	854	557	560	543	549	600	1230	4560	8470	3660	1490	801
29	825	556	560	532	---	600	1150	4900	8910	3330	1500	780
30	814	585	560	534	---	620	1200	4870	8220	3050	1660	756
31	830	---	560	539	---	620	---	4750	---	3020	1670	---
TOTAL	25214	21048	17357	16759	15090	17921	25030	74690	167990	181050	63950	32874
MEAN	813	702	560	541	539	578	834	2409	5600	5840	2063	1096
MAX	854	817	579	574	557	620	1310	4900	8910	9890	3120	1650
MIN	772	541	547	510	526	549	630	1170	4430	3020	1490	756
AC-FT	50010	41750	34430	33240	29930	35550	49650	148100	333200	359100	126800	65210
CAL YR 1982	TOTAL	299776	MEAN	821	MAX	2030	MIN	369	AC-FT	594600		
WTR YR 1983	TOTAL	658973	MEAN	1805	MAX	9890	MIN	510	AC-FT	1307000		

COLORADO RIVER MAIN STEM

09058030 COLORADO RIVER NEAR RADIUM, COLORADO

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

DRAINAGE AREA.--2,412 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Altitude of gage is 6,910 ft, from topographic map.

REMARKS.--Records good, except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 40,000 acres above station, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,600 ft³/s July 12, 1983, gage height, 11.30 ft; minimum daily, 370 ft³/s Dec. 23-25, 1981.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 10,600 ft³/s at 1800 July 12, gage height, 11.30 ft; minimum daily, 520 ft³/s Feb. 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	804	826	600	580	540	540	620	1160	4980	7070	3160	1740
2	801	635	600	580	540	550	660	1110	4870	6900	3100	1700
3	801	602	600	580	540	560	660	1320	4940	6810	2970	1670
4	798	794	600	560	540	560	660	1370	4850	6900	2620	1670
5	780	808	600	560	540	560	660	1440	4930	7150	2730	1700
6	784	808	600	560	540	560	660	1530	5010	6680	3190	1670
7	784	808	600	560	540	560	660	1520	4850	6600	3270	1640
8	784	815	590	560	540	560	660	1520	4680	6950	2910	1620
9	801	826	580	560	540	560	660	1690	4520	7270	2450	1590
10	815	822	580	560	540	560	660	1970	4490	7630	2220	1420
11	815	826	580	560	540	560	670	2340	4640	8690	2020	1390
12	815	822	580	560	540	560	670	2470	5050	10300	1850	1360
13	840	787	570	560	540	580	660	2300	5480	10200	1860	1020
14	847	800	570	560	540	580	656	2180	5250	8740	1850	1000
15	843	800	570	560	520	580	656	2090	4790	6570	1850	1010
16	840	800	570	560	520	580	668	2020	4460	5830	1890	860
17	832	800	570	560	530	580	674	2030	4490	5220	1910	836
18	822	800	570	550	530	580	720	1940	4530	4710	1920	818
19	822	800	570	540	540	580	832	1960	5030	3860	1940	818
20	829	750	570	540	540	580	882	2000	5520	3800	2010	826
21	822	620	570	540	540	580	939	2040	5930	4520	1940	836
22	826	580	560	540	540	580	930	2060	5990	5070	1890	829
23	822	580	560	540	540	580	921	2240	5960	5540	1850	826
24	826	580	560	540	540	580	966	2510	6010	5630	1860	832
25	832	580	580	540	540	590	1120	2940	6720	5090	1630	847
26	829	580	580	540	540	600	1250	3350	7140	4230	1600	847
27	854	580	580	540	540	600	1290	3970	7570	3900	1590	843
28	860	580	580	540	540	600	1210	4650	8290	3790	1580	847
29	836	580	580	540	---	600	1110	5250	8960	3500	1580	840
30	822	600	580	540	---	600	1150	5330	8000	3210	1740	790
31	836	---	580	540	---	600	---	5350	---	3130	1750	---
TOTAL	25422	21589	17980	17150	15060	17840	24534	75650	167930	185490	66730	34695
MEAN	820	720	580	553	538	575	818	2440	5598	5984	2153	1157
MAX	860	826	600	580	540	600	1290	5350	8960	10300	3270	1740
MIN	780	580	560	540	520	540	620	1110	4460	3130	1580	790
AC-FT	50420	42820	35660	34020	29870	35390	48660	150100	333100	367900	132400	68820

CAL YR 1982 TOTAL 311191 MEAN 853 MAX 2120 MIN 400 AC-FT 617200
WTR YR 1983 TOTAL 670070 MEAN 1836 MAX 10300 MIN 520 AC-FT 1329000

NOTE.--NO GAGE-HEIGHT RECORD NOV. 14 TO APR. 13.

COLORADO RIVER MAIN STEM

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09058030 COLORADO RIVER NEAR RADIUM, CO--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
OCT 04...	1045	825	184	185	8.2	9.0	2.5	9.6	K28	K8
NOV 02...	1500	590	220	208	7.7	5.0	3.6	9.8	--	K4
APR 13...	1320	704	240	245	8.6	3.0	4.4	12.3	--	<1
MAY 24...	1400	2830	210	224	8.2	10.0	130	9.1	--	K46
JUN 09...	1200	4480	170	182	7.9	10.0	26	9.0	--	220
JUL 01...	1345	6980	172	173	7.9	12.0	22	8.6	--	130
AUG 02...	1545	3030	186	189	8.1	15.0	40	8.1	--	84
29...	1545	1560	188	186	8.2	15.5	4.9	8.0	--	K24

DATE	CALCIUM TOTAL RECOV- ERABLE (MG/L AS CA)	MAGNE- SIUM, TOTAL RECOV- ERABLE (MG/L AS MG)	SODIUM, TOTAL RECOV- ERABLE (MG/L AS NA)	POTAS- SIUM, TOTAL RECOV- ERABLE (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
OCT 04...	23	4.7	6.8	1.3	65	<.5	26	2.5	105	.14
NOV 02...	25	5.2	8.2	1.6	74	.7	30	2.2	124	.17
APR 13...	24	6.1	9.3	1.9	73	<.5	45	3.6	149	.20
MAY 24...	39	8.1	7.6	3.0	70	2.8	32	2.1	132	.18
JUN 09...	22	4.7	6.5	1.8	56	<.5	29	1.8	111	.15
JUL 01...	20	3.8	6.1	1.8	34	<.5	27	13	112	.15
AUG 02...	26	4.2	6.7	2.0	63	<.5	30	4.5	117	.16
29...	22	4.1	6.5	1.8	56	<.5	29	2.6	97	.13

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CYANIDE TOTAL (MG/L AS CN)	ALGAL GROWTH POTEN- TIAL, BOTTLE TEST (MG/L)
OCT 04...	234	7	<.020	<.100	.80	--	.020	<.010	<.01	--
NOV 02...	198	20	<.020	<.100	.70	--	.010	<.010	<.01	2.0
APR 13...	283	24	<.020	.100	.60	.70	.050	.020	<.01	--
MAY 24...	1010	278	.040	.100	1.5	1.6	.250	.030	<.01	55
JUN 09...	1340	50	<.020	<.100	.70	--	.130	.040	<.01	154
JUL 01...	2110	55	<.020	<.100	.70	--	.090	.040	<.01	--
AUG 02...	957	21	<.020	.100	.90	1.0	.080	.010	<.01	--
29...	409	14	<.020	<.100	.50	--	.040	.020	<.01	12

COLORADO RIVER MAIN STEM

09058030 COLORADO RIVER NEAR RADIIUM, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	ARSENIC TOTAL (UG/L AS AS)	BCRON, TOTAL RECOV- ERABLE (UG/L AS B)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE)	IRON, DIS- SOLVED (UG/L AS FE)
OCT							
04...	1	40	<1	2	1	310	40
NOV							
02...	1	50	<1	<1	4	350	40
APR							
13...	1	40	<1	<1	4	530	30
MAY							
24...	2	60	2	11	14	7600	70
JUN							
09...	1	50	<1	6	3	1900	60
JUL							
01...	1	50	<1	7	4	1700	110
AUG							
02...	1	40	<1	4	8	1900	80
29...	1	40	<1	3	6	610	80

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI)	SELE- NIUM, TOTAL (UG/L AS SE)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG)
OCT							
04...	6	30	10	<.1	<1	<1	<1
NOV							
02...	1	50	30	<.1	5	<1	<1
APR							
13...	5	50	20	.1	6	1	<1
MAY							
24...	8	200	20	<.1	20	2	<1
JUN							
09...	2	90	20	.1	5	1	<1
JUL							
01...	3	110	30	.1	7	1	<1
AUG							
02...	3	70	20	.1	12	1	<1
29...	1	40	10	<.1	9	<1	<1

PINEY RIVER BASIN

95

09058500 PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO

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

DRAINAGE AREA.--13.0 mi².

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

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

REMARKS.--Records fair except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--27 years, 24.4 ft³/s; 17,680 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 439 ft³/s June 19, 1983, gage height, 4.86 ft; maximum gage height observed, 6.44 ft, Apr. 13, 1977; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 439 ft³/s at 0130 June 19, gage height, 4.86 ft; only peak above base of 150 ft³/s, maximum gage height, 5.18 ft, June 25, 1983 (backwater from debris); minimum daily discharge, 2.1 ft³/s Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.1	5.0	2.4	2.3	2.6	2.6	9.0	109	190	78	13
2	14	8.2	4.9	2.5	2.3	2.7	2.5	8.4	106	192	74	12
3	12	8.2	4.7	2.6	2.3	2.8	2.4	9.4	100	195	84	11
4	11	7.8	4.5	2.7	2.2	2.7	2.6	8.9	119	208	69	12
5	11	7.4	4.5	2.7	2.3	2.6	2.5	9.4	119	185	84	12
6	11	6.8	4.6	2.7	2.3	2.8	2.4	10	105	190	102	10
7	12	6.6	4.5	2.6	2.4	2.6	2.5	10	118	202	89	9.4
8	12	6.6	4.3	2.6	2.3	2.6	2.5	12	139	236	64	8.3
9	12	6.6	4.4	2.5	2.4	2.5	2.5	14	165	257	56	8.1
10	11	6.4	4.4	2.4	2.4	2.6	2.6	19	180	245	48	7.7
11	11	6.0	4.3	2.3	2.4	2.7	2.5	28	210	202	43	7.2
12	10	6.0	4.0	2.3	2.4	2.8	2.6	34	261	172	44	6.7
13	10	5.8	3.7	2.3	2.4	3.0	2.6	27	170	154	40	6.0
14	9.9	5.4	3.9	2.3	2.4	3.0	2.4	23	137	128	34	5.8
15	11	4.8	3.8	2.4	2.4	3.3	2.4	21	151	94	36	5.9
16	11	4.8	3.7	2.4	2.4	3.3	2.4	20	181	95	32	5.7
17	11	5.2	3.9	2.3	2.4	3.0	2.5	19	219	97	29	5.4
18	10	5.2	3.9	2.3	2.4	2.9	2.6	18	289	97	27	5.1
19	10	5.2	3.7	2.3	2.4	3.0	2.8	17	314	95	26	5.1
20	9.4	5.2	3.8	2.2	2.4	3.0	2.9	16	292	102	29	5.8
21	8.8	5.2	3.9	2.2	2.4	2.8	3.3	18	286	110	24	5.8
22	8.0	5.0	4.0	2.3	2.3	2.6	3.4	21	276	115	21	5.5
23	8.0	4.8	4.0	2.3	2.4	2.7	3.7	26	260	98	20	5.2
24	7.9	4.6	3.7	2.2	2.5	2.7	4.0	36	227	91	18	5.3
25	8.0	4.9	3.5	2.3	2.5	2.7	4.5	53	270	82	22	5.2
26	8.1	5.1	3.0	2.2	2.5	2.6	5.4	69	282	86	20	5.1
27	9.1	4.7	2.9	2.2	2.7	2.6	5.9	92	275	79	17	4.7
28	8.2	4.7	2.8	2.2	2.6	2.5	6.2	114	254	77	17	4.6
29	7.6	5.0	2.6	2.2	---	2.5	6.8	119	199	66	16	4.6
30	6.9	5.2	2.4	2.2	---	2.5	8.0	130	193	86	15	4.6
31	8.9	---	2.1	2.3	---	2.5	---	123	---	78	14	---
TOTAL	311.8	175.5	119.4	73.4	67.1	85.2	102.0	1134.1	6006	4304	1292	212.8
MEAN	10.1	5.85	3.85	2.37	2.40	2.75	3.40	36.6	200	139	41.7	7.09
MAX	14	8.2	5.0	2.7	2.7	3.3	8.0	130	314	257	102	13
MIN	6.9	4.6	2.1	2.2	2.2	2.5	2.4	8.4	100	66	14	4.6
AC-FT	618	348	237	146	133	169	202	2250	11910	8540	2560	422

CAL YR 1982 TOTAL 10726.1 MEAN 29.4 MAX 198 MIN 2.1 AC-FT 21280
WTR YR 1983 TOTAL 13883.3 MEAN 38.0 MAX 314 MIN 2.1 AC-FT 27540

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 19.

PINEY RIVER BASIN

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 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,245 ft, from topographic map.

REMARKS.--Records fair except those for winter period and those for period of no gage height record, which are poor. Diversion by Willy N. ditch 75 ft above station for irrigation of hay meadows below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--12 years, 2.35 ft³/s; 1,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48 ft³/s May 6, 1979, gage height, 2.75 ft; maximum gage height recorded, 2.97 ft, June 27, 1983 (shifting control); no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34 ft³/s at 1800 June 27, gage height, 2.94 ft, minimum daily, 0.06 ft³/s Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.2	.96	.95	.80	1.0	.95	1.1	3.8	8.1	1.0	.74
2	1.5	1.1	.96	.95	.80	1.0	.95	1.1	3.8	6.4	1.0	.79
3	1.5	1.1	.96	.95	.80	1.0	.95	1.0	4.1	5.5	1.2	.79
4	1.6	1.1	.96	.95	.70	1.0	.90	1.1	5.5	4.8	1.1	.96
5	1.6	1.1	.96	.95	.75	1.1	.95	1.4	4.8	3.6	1.2	.85
6	1.8	1.1	.96	.95	.75	1.0	.85	1.5	3.8	3.2	1.2	.79
7	1.7	1.1	.96	.95	.80	1.0	.85	1.4	4.8	3.2	1.0	.79
8	1.6	1.1	.96	.95	.80	1.0	.85	1.6	5.8	3.2	.96	.79
9	1.6	1.1	.96	.95	.85	1.0	.75	1.7	7.8	3.0	.90	.79
10	1.5	1.1	.96	.90	.80	1.0	.75	1.9	8.1	2.6	.85	.79
11	1.4	1.1	.96	.95	.80	1.1	.80	2.0	10	2.4	.85	.85
12	1.4	1.1	1.0	.90	.75	1.2	.85	1.8	12	2.1	.85	.64
13	1.5	1.1	1.1	.90	.75	1.2	.85	1.7	8.1	2.0	.79	.67
14	1.5	1.1	1.0	.90	.75	1.4	.80	1.4	6.0	1.9	.79	.71
15	1.5	1.1	1.1	.90	.75	1.3	.80	1.4	6.0	1.8	.79	.67
16	1.4	1.1	1.0	.90	.75	1.2	.80	1.4	7.0	1.7	.74	1.0
17	1.4	1.1	1.0	.90	.75	1.2	.80	1.4	8.8	1.6	.74	.14
18	1.4	1.1	1.0	.90	.80	1.2	.90	1.3	14	1.5	.74	.12
19	1.4	1.1	1.1	.90	.85	1.1	1.0	1.3	19	1.5	.74	.11
20	1.4	1.0	1.0	.90	.80	1.0	1.0	1.4	20	1.5	.74	.10
21	1.3	1.0	1.1	.90	.80	1.1	1.1	1.7	20	1.4	.74	.10
22	1.3	1.0	1.1	.90	.85	1.0	.96	1.7	19	1.4	.71	.09
23	1.3	1.1	1.1	.90	.85	1.0	.96	1.8	19	1.4	.71	.09
24	1.3	1.1	1.1	.90	.90	1.0	1.4	2.2	18	1.3	.71	.09
25	1.3	1.0	1.1	.90	.95	1.0	1.6	2.6	20	1.2	.71	.08
26	1.3	.96	1.1	.90	.95	1.0	1.4	2.7	18	1.3	.71	.07
27	1.4	.96	1.0	.90	.95	1.0	1.2	2.8	25	1.4	.67	.07
28	1.4	.96	1.0	.90	1.0	1.0	1.1	3.2	19	1.2	.67	.06
29	1.1	.96	.95	.90	---	1.0	1.1	3.4	13	1.1	.74	.06
30	1.2	.96	.95	.90	---	1.0	1.1	4.1	11	1.2	.74	.06
31	1.1	---	.95	.85	---	1.0	---	3.6	---	1.1	.74	---
TOTAL	44.5	32.00	31.31	28.35	22.85	33.1	29.27	58.7	345.2	75.6	26.03	13.86
MEAN	1.44	1.07	1.01	.91	.82	1.07	.98	1.89	11.5	2.44	.84	.46
MAX	1.8	1.2	1.1	.95	1.0	1.4	1.6	4.1	25	8.1	1.2	1.0
MIN	1.1	.96	.95	.85	.70	1.0	.75	1.0	3.8	1.1	.67	.06
AC-FT	88	63	62	56	45	66	58	116	685	150	52	27

CAL YR 1982 TOTAL 639.27 MEAN 1.75 MAX 9.5 MIN .09 AC-FT 1270
WTR YR 1983 TOTAL 740.77 MEAN 2.03 MAX 25 MIN .06 AC-FT 1470

NOTE.--NO GAGE-HEIGHT RECORD DEC. 14 TO APR. 20.

PINEY RIVER BASIN

97

09058700 FREEMAN CREEK NEAR MINTURN, CO

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

DRAINAGE AREA.--2.94 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,335 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 1.27 ft³/s; 920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft³/s June 11, 1983, gage height, 2.22 ft; maximum gage height, 3.51 ft, May 18, 1973 (backwater from ice); no flow for some days some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43 ft³/s at 1900 June 11, gage height, 2.22 ft; only peak above base of 25 ft³/s; minimum daily, 0.14 ft³/s Apr. 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41	.40	.29	.23	.22	.22	.18	.29	19	11	1.3	.36
2	.41	.38	.28	.24	.21	.21	.20	.28	18	8.6	1.2	.33
3	.30	.34	.28	.26	.20	.21	.18	.28	17	7.5	1.7	.33
4	.30	.35	.29	.29	.18	.22	.16	.29	19	5.9	4.2	.48
5	.30	.34	.28	.28	.22	.21	.18	.32	17	4.7	2.9	.41
6	.35	.34	.28	.27	.21	.20	.18	.34	14	4.2	2.9	.30
7	.38	.34	.27	.26	.20	.20	.18	.34	19	4.3	2.1	.28
8	.38	.35	.27	.25	.21	.21	.20	.34	22	4.0	1.7	.27
9	.34	.34	.29	.25	.21	.21	.20	.39	24	3.7	1.5	.25
10	.35	.34	.28	.25	.21	.22	.20	.47	26	3.3	1.4	.26
11	.32	.33	.27	.24	.21	.23	.20	.56	32	3.1	1.4	.23
12	.32	.31	.25	.24	.21	.23	.18	.56	33	3.0	1.7	.20
13	.30	.30	.28	.25	.21	.24	.18	.52	25	2.6	1.5	.20
14	.32	.28	.25	.25	.21	.24	.18	.49	23	2.1	1.1	.20
15	.35	.29	.28	.24	.21	.22	.20	.47	25	2.0	1.1	.22
16	.34	.29	.28	.24	.21	.21	.18	.47	26	1.8	1.0	.19
17	.29	.31	.28	.24	.21	.22	.14	.46	28	1.6	.97	.17
18	.28	.31	.24	.23	.21	.22	.14	.44	29	1.5	.90	.17
19	.28	.30	.25	.23	.21	.21	.16	.45	29	1.6	.87	.23
20	.27	.30	.28	.24	.20	.20	.18	.46	27	2.0	.88	.26
21	.35	.30	.27	.23	.21	.20	.20	.47	26	2.9	.74	.19
22	.35	.29	.27	.23	.21	.20	.21	.52	25	2.3	.71	.19
23	.34	.27	.28	.24	.21	.20	.21	.60	25	2.1	.63	.21
24	.27	.29	.26	.23	.21	.18	.22	.90	23	1.6	.61	.25
25	.26	.31	.21	.23	.22	.18	.27	1.7	24	1.4	.68	.22
26	.28	.29	.22	.23	.21	.18	.30	2.3	22	2.0	.55	.20
27	.39	.28	.24	.23	.21	.18	.30	4.0	27	3.7	.51	.19
28	.45	.31	.21	.22	.22	.18	.29	8.5	21	2.2	.48	.19
29	.38	.30	.20	.23	---	.18	.28	11	17	1.5	.49	.20
30	.35	.30	.21	.23	---	.20	.29	14	13	1.5	.49	.21
31	.36	---	.22	.22	---	.20	---	17	---	1.5	.40	---
TOTAL	10.37	9.48	8.06	7.50	5.86	6.41	6.17	69.21	695	101.2	38.61	7.39
MEAN	.33	.32	.26	.24	.21	.21	.21	2.23	23.2	3.26	1.25	.25
MAX	.45	.40	.29	.29	.22	.24	.30	17	33	11	4.2	.48
MIN	.26	.27	.20	.22	.18	.18	.14	.28	13	1.4	.40	.17
AC-FT	21	19	16	15	12	13	12	137	1380	201	77	15

CAL YR 1982 TOTAL 550.11 MEAN 1.51 MAX 14 MIN .08 AC-FT 1090
WTR YR 1983 TOTAL 965.26 MEAN 2.64 MAX 33 MIN .14 AC-FT 1910

NOTE.--NO GAGE-HEIGHT RECORD DEC. 5 TO MAY 24.

PINEY RIVER BASIN

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 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,455 ft, from topographic map.

REMARKS.--Records fair except those for winter period, those for period of no gage-height record, and those for period of indefinite stage-discharge relationship, Apr. 24 to June 29, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 4.44 ft³/s; 3,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74 ft³/s July 4, 1975, gage height, 2.13 ft; maximum gage height, 2.22 ft, May 12, 1970 (backwater from ice); minimum daily discharge, 0.32 ft³/s Jan. 7, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 0.94 ft³/s. Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	1.4	1.3	1.2	1.1	1.1	1.1	1.4	22	46	9.4	2.4
2	1.9	1.4	1.3	1.2	1.1	1.1	1.2	1.5	23	44	9.4	2.4
3	1.6	1.4	1.3	1.1	1.0	1.1	1.2	1.6	21	47	9.4	2.4
4	1.4	1.5	1.3	1.1	.94	1.2	1.1	1.9	23	41	11	2.7
5	1.4	1.4	1.3	1.1	1.0	1.2	1.1	2.3	22	40	11	2.7
6	1.8	1.4	1.3	1.1	1.0	1.1	1.1	2.5	21	41	9.4	2.4
7	2.0	1.4	1.3	1.1	1.1	1.1	1.1	2.7	24	46	8.0	2.1
8	1.9	1.5	1.3	1.1	1.1	1.1	1.0	2.8	26	49	6.4	2.0
9	1.8	1.5	1.4	1.1	1.1	1.1	1.0	3.2	29	49	6.4	2.0
10	1.7	1.4	1.4	1.1	1.0	1.1	1.1	3.7	33	44	6.1	2.0
11	1.6	1.4	1.3	1.1	1.0	1.2	1.1	4.0	37	37	5.7	1.9
12	1.4	1.4	1.3	1.1	1.0	1.2	1.2	4.0	33	32	6.8	1.8
13	1.3	1.3	1.2	1.0	1.0	1.2	1.1	3.9	30	30	6.1	1.8
14	1.3	1.3	1.2	1.1	1.0	1.2	1.1	3.8	28	27	6.1	1.9
15	1.4	1.4	1.3	1.1	1.0	1.2	1.1	3.6	30	25	5.7	1.9
16	1.4	1.3	1.2	1.1	1.0	1.2	1.1	3.5	34	24	5.1	1.6
17	1.1	1.3	1.2	1.1	1.0	1.2	1.1	3.4	39	22	4.3	1.4
18	1.4	1.4	1.2	1.1	1.1	1.2	1.2	3.2	56	21	4.3	1.4
19	1.6	1.4	1.3	1.1	1.1	1.1	1.2	3.1	76	21	4.1	1.6
20	1.6	1.4	1.2	1.1	1.0	1.2	1.1	3.1	81	22	3.9	1.9
21	1.6	1.3	1.3	1.1	1.0	1.2	1.1	3.3	80	26	3.5	1.6
22	1.6	1.3	1.3	1.1	1.0	1.2	1.0	3.5	78	24	3.3	1.4
23	1.3	1.3	1.3	1.1	1.0	1.2	1.0	4.0	74	22	3.0	1.6
24	1.3	1.4	1.3	1.1	1.1	1.2	1.1	5.8	76	17	3.0	1.6
25	1.6	1.3	1.3	1.1	1.1	1.2	1.2	8.0	76	15	3.2	1.6
26	1.6	1.3	1.3	1.1	1.1	1.2	1.2	11	70	16	2.8	1.4
27	1.5	1.3	1.2	1.1	1.1	1.2	1.3	15	74	16	2.7	1.4
28	1.4	1.3	1.2	1.1	1.1	1.2	1.3	17	60	15	2.5	1.4
29	1.4	1.4	1.2	1.1	---	1.1	1.3	18	47	12	2.5	1.4
30	1.5	1.3	1.0	1.2	---	1.1	1.4	21	47	12	2.5	1.4
31	1.4	---	1.1	1.1	---	1.1	---	22	---	11	2.5	---
TOTAL	47.9	41.1	39.1	34.3	29.14	36.0	34.2	187.8	1370	894	170.1	55.1
MEAN	1.55	1.37	1.26	1.11	1.04	1.16	1.14	6.06	45.7	28.8	5.49	1.84
MAX	2.1	1.5	1.4	1.2	1.1	1.2	1.4	22	81	49	11	2.7
MIN	1.1	1.3	1.0	1.0	.94	1.1	1.0	1.4	21	11	2.5	1.4
AC-FT	95	82	78	68	58	71	68	373	2720	1770	337	109

CAL YR 1982 TOTAL 1802.94 MEAN 4.94 MAX 33 MIN .56 AC-FT 3580
WTR YR 1983 TOTAL 2938.74 MEAN 8.05 MAX 81 MIN .94 AC-FT 5830

NOTE.--NO GAGE-HEIGHT RECORD OCT. 28 TO APR. 19.

PINEY RIVER BASIN

99

09059500 PINEY RIVER NEAR STATE BRIDGE, CO

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

DRAINAGE AREA.--86.2 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

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

REMARKS.--Records good except for winter period and those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 400 acres of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--39 years, 75.1 ft³/s; 54,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,220 ft³/s June 27, 1983, gage height, 5.82 ft, (from peak stage indicator); minimum daily, 1.9 ft³/s Sept. 1, 18, 19, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft³/s at 2130 June 27, gage height, 5.82 ft, only peak above base of 520 ft³/s; minimum daily, 11 ft³/s Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	25	22	13	14	14	16	46	583	711	155	41
2	31	24	21	13	14	15	16	45	578	671	142	39
3	28	22	21	15	13	15	17	45	538	683	177	37
4	25	21	20	16	13	14	16	49	548	649	166	41
5	24	22	22	19	14	14	15	58	513	582	186	41
6	27	21	21	19	14	15	16	70	461	557	220	39
7	27	21	21	18	13	14	17	63	477	579	177	36
8	26	21	20	17	13	14	17	82	487	624	131	35
9	26	22	20	16	13	14	17	114	497	597	113	34
10	26	21	22	15	13	14	17	171	504	562	102	32
11	27	20	21	15	13	15	18	206	538	465	93	31
12	25	20	20	15	13	16	18	179	555	393	103	29
13	25	19	20	15	13	16	18	155	465	350	98	27
14	25	19	22	15	13	16	18	135	418	316	86	27
15	25	20	20	15	13	17	18	127	406	292	88	29
16	23	21	22	15	13	16	18	121	424	287	80	28
17	22	22	22	15	13	15	18	113	459	281	70	27
18	22	22	22	14	13	15	19	107	543	266	67	25
19	22	22	19	14	13	16	20	108	680	249	65	26
20	20	22	18	14	13	16	22	111	690	274	68	30
21	19	22	22	14	13	16	24	131	896	313	58	27
22	17	21	22	14	13	15	25	158	883	310	55	25
23	18	19	21	14	14	15	25	209	855	259	51	24
24	18	18	20	14	14	16	27	313	781	222	51	24
25	18	20	18	14	14	16	33	417	935	182	56	24
26	18	23	15	14	14	16	49	553	859	190	54	23
27	25	21	12	14	14	16	47	647	998	202	49	23
28	23	20	12	14	14	15	46	700	981	197	47	23
29	21	22	12	14	---	15	48	730	782	157	46	22
30	24	22	12	14	---	16	49	700	738	167	45	22
31	25	---	11	14	---	16	---	657	---	164	44	---
TOTAL	734	635	593	462	374	473	724	7320	19072	11751	2943	891
MEAN	23.7	21.2	19.1	14.9	13.4	15.3	24.1	236	636	379	94.9	29.7
MAX	32	25	22	19	14	17	49	730	998	711	220	41
MIN	17	18	11	13	13	14	15	45	406	157	44	22
AC-FT	1460	1260	1180	916	742	938	1440	14520	37830	23310	5840	1770
CAL YR 1982	TOTAL	32694.5	MEAN	89.6	MAX	538	MIN	9.0	AC-FT	64850		
WTR YR 1983	TOTAL	45972.0	MEAN	126	MAX	998	MIN	11	AC-FT	91190		

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO MAY 5.

BIG ALKALI CREEK BASIN

09060950 BIG ALKALI CREEK BELOW CASTLE CREEK, NEAR BURNS, CO

LOCATION.--Lat 39°51'52", long 106°49'01", in NE¼SE¼ sec. 20, T.2 S., R.84 W., Eagle County, Hydrologic Unit 14010001, on left bank 1,200 ft below Castle Creek, 1.0 mi above mouth and 3.0 mi east of Burns, CO.

DRAINAGE AREA.--34.1 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 7,040 ft, from topographic map.

REMARKS.--Records fair except those for period of no gage-height record and ice effect, which are poor. Water stored in Hurt Reservoir, approximate capacity, 100 acre-feet, for use in Catamount Creek Drainage. Diversion out of basin for irrigation of land along the Colorado River.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86 ft³/s May 29, 1983, gage height, 2.50 ft; minimum daily, 0.13 ft³/s Oct. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 86 ft³/s at 2200 May 29, gage height, 2.50 ft; minimum daily, 0.75 ft³/s Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	2.3	1.4	1.0	1.1	1.4	1.7	4.4	65	26	4.2	2.0
2	2.5	2.0	1.4	1.1	1.0	1.5	1.4	4.2	72	24	5.9	1.7
3	2.2	1.6	1.1	1.2	.90	1.6	1.4	4.0	70	22	4.5	1.4
4	2.2	1.5	1.3	1.3	.95	1.6	1.3	4.2	74	21	7.5	1.9
5	2.1	1.5	1.3	1.5	.95	1.4	1.2	4.6	73	18	8.1	1.5
6	2.3	1.5	1.3	1.4	.90	1.2	1.2	4.8	63	16	9.0	1.4
7	2.1	1.5	1.3	1.3	.95	1.4	1.2	4.5	61	15	5.4	1.5
8	2.1	1.6	1.3	1.3	1.0	1.5	1.1	6.9	60	14	4.1	1.5
9	2.0	1.7	1.3	1.3	1.1	1.6	1.2	10	66	15	3.8	1.6
10	1.9	1.7	1.3	1.2	1.1	1.8	1.3	13	67	13	3.7	1.7
11	1.7	1.7	1.4	1.3	1.1	2.0	1.3	15	66	12	3.3	1.5
12	1.9	1.2	1.3	1.2	1.0	1.9	1.2	11	76	11	3.9	1.6
13	1.6	1.4	1.3	1.2	1.1	1.7	1.3	8.8	69	9.9	3.8	1.5
14	1.8	1.3	1.2	1.3	1.1	2.1	1.2	8.9	59	8.1	3.4	1.3
15	1.9	1.3	1.1	1.2	1.0	2.0	1.1	9.1	56	8.7	3.8	1.1
16	1.8	1.1	1.2	1.2	1.1	1.7	1.2	12	54	9.8	3.7	.82
17	1.8	1.3	1.3	1.3	1.1	1.6	1.3	13	55	9.1	3.2	.76
18	1.7	1.3	1.2	1.3	1.1	1.6	1.8	14	58	8.4	11	.81
19	1.7	1.3	1.1	1.1	1.2	1.5	2.2	19	59	9.9	15	.75
20	1.5	1.2	1.0	1.1	1.0	1.5	2.2	20	56	9.6	5.8	.79
21	1.7	1.1	1.2	1.1	1.0	1.3	2.6	20	55	12	4.0	.83
22	1.7	1.0	1.4	1.1	1.1	1.4	2.6	26	48	10	3.5	.97
23	1.7	1.2	1.4	1.0	1.2	1.3	2.4	30	43	11	3.2	.92
24	1.9	.95	1.4	1.0	1.3	1.2	4.4	38	40	10	3.0	1.0
25	2.0	.90	1.2	1.1	1.4	1.1	5.2	46	46	8.6	2.9	1.1
26	1.8	1.0	1.0	1.0	1.3	1.1	4.9	50	44	8.1	2.5	1.1
27	2.3	1.1	1.0	1.1	1.2	1.1	4.7	57	44	9.6	2.1	1.0
28	2.1	1.3	.98	1.1	1.3	1.2	4.3	63	37	9.4	2.3	1.3
29	1.9	1.3	.97	1.1	---	1.3	4.7	70	32	7.5	2.2	1.4
30	2.2	1.4	.95	1.0	---	1.4	4.9	70	29	6.5	2.2	1.4
31	2.3	---	.96	1.0	---	1.7	---	65	---	5.6	2.3	---
TOTAL	61.5	41.25	37.56	36.4	30.55	46.7	68.5	726.4	1697	378.8	143.3	38.15
MEAN	1.98	1.38	1.21	1.17	1.09	1.51	2.28	23.4	56.6	12.2	4.62	1.27
MAX	3.1	2.3	1.4	1.5	1.4	2.1	5.2	70	76	26	15	2.0
MIN	1.5	.90	.95	1.0	.90	1.1	1.1	4.0	29	5.6	2.1	.75
AC-FT	122	82	75	72	61	93	136	1440	3370	751	284	76

CAL YR 1982 TOTAL 2218.80 MEAN 6.08 MAX 43 MIN .64 AC-FT 4400
WTR YR 1983 TOTAL 3306.11 MEAN 9.06 MAX 76 MIN .75 AC-FT 6560

NOTE.--NO GAGE-HEIGHT RECORD DEC. 30 TO MAY 6.

EAGLE RIVER BASIN

101

09063000 EAGLE RIVER AT REDCLIFF, CO

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

DRAINAGE AREA.--70.0 mi².

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

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

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

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station by Columbine, Ewing, and Wurtz ditches. Transbasin diversion above station from Robinson Reservoir, capacity, 2,520 acre-ft to Tenmile Creek for mining development. Small diversions for irrigation of 400 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--54 years (water years 1911-25, 1945-83), 48.0 ft³/s; 34,780 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,010 ft³/s June 5, 1912, gage height, 4.0 ft, site and datum then in use, from rating curve extended above 500 ft³/s; maximum gage height recorded, 5.22 ft, June 20, 1983; minimum daily discharge, 1.0 ft³/s Oct. 15, 1917.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 585 ft³/s at 2200 June 20, gage height, 5.22 ft, only peak above base of 280 ft³/s; minimum daily, 9.0 ft³/s Dec. 30 and 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	19	15	9.8	11	10	12	16	262	311	56	34
2	19	18	14	11	11	11	12	16	288	289	52	33
3	18	16	14	11	11	11	12	16	248	271	53	32
4	17	16	13	11	9.8	11	12	18	257	250	56	34
5	16	16	14	13	11	11	11	23	266	228	69	32
6	17	15	14	12	12	11	11	25	231	210	108	30
7	18	16	13	12	11	10	11	22	231	196	75	30
8	18	16	13	12	11	10	11	27	231	185	67	29
9	18	16	13	12	11	10	11	36	235	173	63	28
10	19	16	14	12	10	10	11	52	257	160	58	27
11	20	15	14	13	10	11	11	62	305	148	52	26
12	18	15	13	12	10	12	11	60	368	131	54	26
13	20	14	12	12	10	12	11	61	325	120	55	25
14	18	13	14	12	10	12	11	53	248	110	52	23
15	20	12	15	12	10	12	10	47	242	105	53	25
16	21	13	16	12	10	11	11	43	257	96	52	25
17	20	13	15	12	10	10	11	40	305	86	49	24
18	20	13	16	12	10	11	12	37	392	81	48	23
19	19	13	13	12	10	12	12	35	392	77	53	22
20	18	13	13	12	10	12	12	34	510	77	53	23
21	19	13	16	12	10	11	12	36	518	96	48	22
22	18	13	15	12	11	11	12	46	492	87	46	22
23	19	12	15	12	11	12	13	65	471	77	45	22
24	18	11	15	12	11	12	18	107	460	72	46	21
25	18	13	13	12	11	12	24	150	442	66	41	19
26	19	15	9.6	11	11	12	26	182	452	65	46	19
27	20	15	9.6	11	11	12	24	230	435	64	43	19
28	18	14	9.4	10	11	12	20	245	405	65	41	17
29	18	17	9.4	11	---	12	18	248	367	59	37	17
30	20	15	9.0	10	---	11	18	264	331	59	41	18
31	19	---	9.0	10	---	12	---	250	---	57	39	---
TOTAL	583	436	408.0	359.8	295.8	349	411	2546	10223	4071	1651	747
MEAN	18.8	14.5	13.2	11.6	10.6	11.3	13.7	82.1	341	131	53.3	24.9
MAX	23	19	16	13	12	12	26	264	518	311	108	34
MIN	16	11	9.0	9.8	9.8	10	10	16	231	57	37	17
AC-FT	1160	865	809	714	587	692	815	5050	20280	8070	3270	1480
CAL YR 1982	TOTAL	15070.0	MEAN	41.3	MAX	235	MIN	7.5	AC-FT	29890		
WTR YR 1983	TOTAL	22080.6	MEAN	60.5	MAX	518	MIN	9.0	AC-FT	43800		

EAGLE RIVER BASIN

09063200 WEARYMAN CREEK NEAR REDCLIFF, CO

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

DRAINAGE AREA.--8.78 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 9,158 ft, from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 8.39 ft³/s; 6,080 acre-ft/yr.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 155 ft³/s at 1500 June 20, gage height 3.61 ft; only peak above base of 70 ft³/s; minimum daily 1.0 ft³/s, Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.4	3.3	2.3	1.5	1.5	1.3	1.3	1.9	25	100	18	7.9
2	4.1	3.1	2.2	1.6	1.4	1.3	1.3	1.9	26	96	18	7.6
3	4.0	2.9	2.2	1.6	1.3	1.4	1.3	1.8	27	92	18	7.4
4	4.0	3.0	2.3	1.7	1.1	1.3	1.3	2.2	28	84	18	7.7
5	3.9	2.9	2.3	1.8	1.3	1.4	1.3	2.5	28	74	19	7.1
6	4.0	2.9	2.2	1.8	1.3	1.4	1.3	2.6	28	67	18	7.0
7	3.9	2.8	2.2	1.7	1.4	1.4	1.3	2.6	29	65	18	6.9
8	4.0	2.9	2.2	1.7	1.4	1.4	1.4	3.0	30	65	17	6.7
9	4.3	2.9	2.3	1.7	1.3	1.4	1.4	3.6	31	63	18	6.5
10	6.0	2.8	2.4	1.7	1.4	1.4	1.4	4.5	34	60	18	6.4
11	4.0	2.7	2.3	1.7	1.4	1.5	1.4	5.0	37	55	16	6.3
12	3.3	2.6	2.2	1.7	1.4	1.5	1.4	4.7	40	55	17	6.0
13	1.7	2.5	2.2	1.7	1.4	1.5	1.3	4.8	41	49	17	5.8
14	1.0	2.3	2.4	1.7	1.4	1.5	1.3	4.5	40	45	16	6.5
15	1.5	2.1	2.4	1.8	1.4	1.4	1.3	4.2	41	43	16	6.2
16	3.5	2.2	2.5	1.7	1.3	1.4	1.3	4.2	47	41	15	6.2
17	3.6	2.3	2.4	1.7	1.4	1.4	1.4	4.3	61	43	14	5.9
18	3.3	2.4	2.3	1.7	1.4	1.4	1.4	4.2	77	34	14	6.0
19	3.1	2.4	2.1	1.7	1.4	1.4	1.4	4.0	106	29	15	6.0
20	3.0	2.4	1.9	1.6	1.4	1.4	1.5	4.0	140	29	14	6.1
21	2.9	2.4	2.0	1.6	1.4	1.4	1.4	4.4	130	29	13	5.8
22	2.8	2.3	2.1	1.6	1.4	1.4	1.4	4.9	122	28	12	6.0
23	2.9	2.2	2.0	1.6	1.4	1.4	1.4	6.0	108	25	11	5.9
24	2.9	2.1	2.0	1.7	1.4	1.5	1.7	8.1	113	23	11	5.6
25	2.9	2.2	1.9	1.7	1.5	1.4	2.2	9.7	112	21	10	5.2
26	2.9	2.3	1.7	1.6	1.4	1.4	2.2	12	123	20	11	5.6
27	2.7	2.2	1.6	1.6	1.3	1.4	2.0	16	123	21	10	5.7
28	2.4	2.2	1.5	1.6	1.3	1.4	1.9	19	120	21	9.6	5.8
29	2.6	2.3	1.5	1.5	---	1.4	1.9	21	110	20	8.9	6.0
30	2.9	2.3	1.4	1.5	---	1.4	1.9	24	105	20	8.7	6.1
31	3.4	---	1.4	1.5	---	1.4	---	24	---	19	8.3	---
TOTAL	101.9	75.9	64.4	51.3	38.4	43.6	45.0	219.6	2082	1436	447.5	189.9
MEAN	3.29	2.53	2.08	1.65	1.37	1.41	1.50	7.08	69.4	46.3	14.4	6.33
MAX	6.0	3.3	2.5	1.8	1.5	1.5	2.2	24	140	100	19	7.9
MIN	1.0	2.1	1.4	1.5	1.1	1.3	1.3	1.8	25	19	8.3	5.2
AC-FT	202	151	128	102	76	86	89	436	4130	2850	888	377

CAL YR 1982 TOTAL 4158.78 MEAN 11.4 MAX 106 MIN .88 AC-FT 8250
WTR YR 1983 TOTAL 4795.50 MEAN 13.1 MAX 140 MIN 1.0 AC-FT 9510

NOTE.--NO GAGE-HEIGHT RECORD OCT. 31 TO APR. 22, JULY 16 TO AUG. 28.

09063400 TURKEY CREEK NEAR REDCLIFF, 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 Redcliff, and 2.0 mi upstream from mouth.

DRAINAGE AREA.--23.9 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,918 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years, 21.6 ft³/s; 15,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 515 ft³/s June 17, 1965, gage height, 3.03 ft, from rating curve extended above 230 ft³/s; maximum recorded gage height, 3.22 ft, June 24, 1983 (backwater from debris); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 420 ft³/s at 0200 June 21, gage height, 2.87 ft, only peak above base of 160 ft³/s; maximum recorded gage height, 3.22 ft, June 24, 1983 (backwater from debris); minimum daily, 2.7 ft³/s Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.7	5.8	5.0	4.3	3.3	3.2	3.1	4.9	84	211	40	20
2	8.1	5.5	4.9	4.4	3.2	3.3	3.0	4.7	88	195	37	20
3	8.1	5.3	4.8	4.5	3.0	3.2	3.1	4.9	88	153	40	19
4	7.9	6.0	4.8	4.8	2.7	3.2	3.0	5.8	89	128	40	20
5	7.6	6.1	4.9	5.1	3.1	3.3	3.1	6.8	95	129	45	19
6	7.7	6.0	4.8	5.0	3.0	3.2	3.0	8.1	95	134	45	18
7	7.6	6.0	4.8	4.7	3.0	3.1	2.9	7.2	91	139	41	17
8	7.6	5.3	4.7	4.5	3.1	3.1	2.9	8.5	92	138	41	17
9	7.2	5.2	4.8	4.3	3.2	3.2	3.0	12	96	128	42	17
10	7.9	5.3	5.0	4.2	3.2	3.3	3.0	16	112	130	40	16
11	7.8	5.6	4.9	4.2	3.2	3.4	3.0	19	150	126	38	15
12	8.8	5.5	4.7	3.9	3.2	3.4	3.0	19	169	132	41	15
13	6.9	5.3	4.5	3.9	3.2	3.5	2.9	17	175	108	39	15
14	6.9	5.2	4.9	4.0	3.2	3.6	2.9	16	174	100	39	14
15	7.1	5.0	4.6	3.9	3.1	3.6	2.9	14	159	110	37	13
16	7.0	5.2	5.0	3.8	3.2	3.3	3.0	13	191	92	34	11
17	6.8	5.2	4.9	3.8	3.2	3.2	3.1	12	193	67	33	11
18	6.7	5.3	5.0	3.8	3.1	3.3	3.1	11	215	62	33	11
19	6.5	5.3	4.5	3.7	3.1	3.3	3.3	10	261	62	34	11
20	6.4	5.2	4.6	3.6	3.1	3.2	3.4	10	336	62	31	11
21	6.3	5.2	5.1	3.6	3.0	3.2	3.4	9.5	352	62	28	9.9
22	6.2	5.1	5.0	3.6	3.2	3.2	3.6	9.5	264	63	26	9.5
23	6.2	5.0	4.9	3.5	3.2	3.2	3.8	9.5	275	60	25	9.5
24	6.2	4.6	5.0	3.6	3.3	3.2	5.2	16	272	47	25	9.5
25	6.3	4.8	4.7	3.7	3.4	3.2	6.8	26	272	42	25	9.3
26	6.0	5.1	4.2	3.6	3.4	3.1	6.8	42	275	44	24	9.0
27	6.1	4.9	4.3	3.4	3.4	3.1	6.1	71	287	45	23	8.5
28	5.9	4.8	4.6	3.4	3.3	3.1	5.8	90	306	45	22	8.5
29	5.7	5.1	4.2	3.4	---	3.1	5.2	90	262	45	21	8.5
30	6.4	5.0	4.1	3.3	---	3.1	4.9	95	233	44	22	8.5
31	5.9	---	4.2	3.3	---	3.2	---	92	---	41	21	---
TOTAL	216.5	158.9	146.4	122.8	88.6	100.6	112.3	770.4	5751	2944	1032	400.7
MEAN	6.98	5.30	4.72	3.96	3.16	3.25	3.74	24.9	192	95.0	33.3	13.4
MAX	8.8	6.1	5.1	5.1	3.4	3.6	6.8	95	352	211	45	20
MIN	5.7	4.6	4.1	3.3	2.7	3.1	2.9	4.7	84	41	21	8.5
AC-FT	429	315	290	244	176	200	223	1530	11410	5840	2050	795

CAL YR 1982 TOTAL 8833.0 MEAN 24.2 MAX 168 MIN 2.2 AC-FT 17520
WTR YR 1983 TOTAL 11844.2 MEAN 32.4 MAX 352 MIN 2.7 AC-FT 23490

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO APR. 22.

EAGLE RIVER BASIN

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.--6.42 mi².

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,980 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Transmountain diversion above station to Arkansas River basin through Homestake tunnel. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--11 years, 6.83 ft³/s; 4,950 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 300 ft³/s July 4, 1975, gage height, 3.19 ft, from rating curve extended above 35 ft³/s; maximum gage height, 3.83 ft, July 30, 1983; minimum daily discharge, 0.24 ft³/s, Feb. 12, 13, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 164 ft³/s at 2000 July 30, gage height, 3.83 ft; minimum daily, 0.38 ft³/s Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	3.2	2.1	1.0	.50	.54	.58	.54	20	34	57	11
2	7.0	3.1	2.1	.94	.47	.56	.52	.49	16	32	44	9.3
3	6.1	3.0	1.9	.90	.43	.52	.56	.49	15	4	41	8.4
4	5.4	3.4	1.5	1.0	.43	.45	.52	.50	16	30	42	10
5	5.0	3.2	1.7	1.1	.43	.50	.47	.54	13	27	50	8.0
6	5.1	3.0	2.0	1.2	.43	.64	.47	.66	9.1	30	58	6.4
7	4.8	3.2	2.1	1.3	.45	.64	.43	.63	10	39	42	5.6
8	4.5	3.5	1.9	1.1	.48	.58	.43	1.0	14	45	37	5.4
9	4.4	3.7	1.6	.90	.50	.62	.50	1.5	19	43	33	5.0
10	4.0	3.5	2.0	.65	.45	.54	.54	1.7	24	40	27	4.6
11	3.6	3.0	1.8	.74	.40	.54	.60	2.1	38	23	24	4.1
12	3.3	2.7	1.6	.68	.38	.60	.70	2.2	40	15	25	3.7
13	3.1	2.5	1.4	.62	.40	.70	.64	2.1	20	14	24	3.2
14	3.2	2.2	1.2	.60	.42	.60	.54	1.2	12	13	24	3.3
15	3.7	2.0	1.1	.60	.48	.68	.54	.82	15	9.8	41	3.9
16	3.7	2.1	1.3	.56	.46	.64	.54	.66	21	9.4	39	3.1
17	3.6	2.2	1.1	.68	.49	.56	.56	.63	32	8.3	30	2.6
18	4.1	2.4	1.0	.68	.45	.62	.58	.58	60	7.6	27	2.4
19	3.7	2.6	.90	.66	.49	.68	.62	.54	70	11	25	2.9
20	3.9	2.4	.95	.60	.56	.68	.68	.49	66	38	24	3.1
21	3.3	2.5	1.0	.54	.52	.60	.66	.47	62	64	20	2.4
22	3.1	2.2	1.1	.58	.46	.52	.78	.67	58	65	18	2.2
23	3.3	1.9	1.2	.54	.49	.56	.90	1.3	56	62	15	2.0
24	3.5	1.6	1.1	.45	.47	.62	1.0	3.0	60	49	14	2.0
25	3.9	2.0	1.0	.52	.44	.64	1.4	6.2	66	43	16	2.0
26	3.7	1.9	.95	.50	.46	.68	1.5	10	55	41	16	1.9
27	3.5	1.8	.94	.48	.49	.62	1.3	15	45	48	13	1.9
28	3.0	1.7	.90	.55	.50	.54	1.1	16	43	54	12	1.8
29	2.8	1.9	.85	.55	---	.58	.94	18	31	39	11	1.7
30	3.5	2.2	.76	.47	---	.56	.72	19	28	63	16	1.9
31	3.6	---	.84	.43	---	.52	---	15	---	74	13	---
TOTAL	127.4	76.6	41.89	22.12	12.93	18.33	21.32	124.01	1034.1	1113.1	878	125.8
MEAN	4.11	2.55	1.35	.71	.46	.59	.71	4.00	34.5	35.9	28.3	4.19
MAX	8.0	3.7	2.1	1.3	.56	.70	1.5	19	70	74	58	11
MIN	2.8	1.6	.76	.43	.38	.45	.43	.47	9.1	7.6	11	1.7
AC-FT	253	152	83	44	26	36	42	246	2050	2210	1740	250
CAL YR 1982	TOTAL	2548.69	MEAN 6.98	MAX 55	MIN .40	AC-FT 5060						
WTR YR 1983	TOTAL	3595.60	MEAN 9.85	MAX 74	MIN .38	AC-FT 7130						

NOTE.--NO GAGE-HEIGHT RECORD OCT. 21 TO APR. 21.

EAGLE RIVER BASIN

105

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, 0.5 mi downstream from French Creek, and 8 mi southwest of Red Cliff.

DRAINAGE AREA.--36.1 mi².

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

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

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

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. Flow regulated by Homestake Lake, capacity, 44,360 acre-ft, since June 7, 1966. Transmountain diversion above station to Arkansas River basin through Homestake tunnel since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years (water years 1948-54), 63.4 ft³/s; 45,930 acre-ft/yr, prior to diversion through Homestake tunnel; 11 years (water years 1973-83), 23.8 ft³/s; 17,240 acre-ft/yr, subsequent to diversion through Homestake tunnel.

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

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 611 ft³/s at 2100 July 30, gage height, 5.69 ft, from rating curve extended above 150 ft³/s; minimum daily, 3.8 ft³/s Apr. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	15	13	6.6	5.2	5.2	4.0	8.3	119	59	282	44
2	27	15	13	7.6	5.2	5.2	4.0	7.5	90	57	268	38
3	24	15	12	8.4	5.2	5.2	4.2	7.0	75	82	272	32
4	21	14	12	9.2	5.2	5.2	4.1	7.5	80	66	263	45
5	20	14	13	10	5.2	5.2	3.9	9.2	69	51	278	33
6	21	13	13	9.0	5.2	5.2	4.1	10	49	56	278	27
7	20	12	12	7.6	5.2	5.2	4.2	10	60	83	204	24
8	19	12	12	7.0	5.2	5.2	4.2	14	67	96	167	24
9	19	12	12	6.8	5.2	5.0	4.2	22	77	88	149	22
10	20	12	12	6.8	5.2	5.0	4.3	34	100	88	116	21
11	21	13	12	6.6	5.2	5.0	4.3	36	141	53	95	19
12	25	13	12	6.4	5.2	5.2	4.3	30	147	38	97	19
13	18	13	11	6.4	5.2	5.2	4.0	25	79	35	91	18
14	20	13	13	6.2	5.2	5.4	3.9	17	40	32	93	19
15	19	12	12	6.2	5.2	5.4	3.8	15	45	29	139	21
16	20	13	13	6.0	5.2	5.2	3.9	13	53	27	113	18
17	19	13	13	6.0	5.2	4.8	4.1	13	85	24	87	17
18	18	13	11	6.0	5.2	4.6	4.3	12	171	25	79	16
19	17	13	10	5.8	5.2	4.5	4.8	12	372	30	73	18
20	17	13	10	5.8	5.2	4.5	5.2	12	297	128	71	19
21	16	13	11	5.8	5.2	4.5	5.2	13	201	283	58	17
22	15	13	11	5.8	5.2	4.4	5.2	17	190	319	51	16
23	15	12	11	5.8	5.2	4.4	5.5	28	182	298	46	15
24	14	11	10	5.6	5.2	4.4	7.8	50	189	260	42	15
25	15	11	9.0	5.6	5.2	4.4	10	64	154	230	49	15
26	15	13	7.0	5.4	5.2	4.3	13	80	95	190	52	14
27	17	13	6.6	5.4	5.2	4.3	9.4	104	94	196	49	14
28	16	12	6.6	5.4	5.2	4.3	9.2	123	88	199	44	14
29	14	13	6.6	5.4	---	4.2	8.3	115	67	134	41	14
30	15	13	6.0	5.2	---	4.2	7.7	107	62	202	60	14
31	15	---	6.2	5.2	---	4.1	---	80	---	255	50	---
TOTAL	582	387	332.0	201.0	145.6	148.9	165.1	1095.5	3538	3713	3757	642
MEAN	18.8	12.9	10.7	6.48	5.20	4.80	5.50	35.3	118	120	121	21.4
MAX	30	15	13	10	5.2	5.4	13	123	372	319	282	45
MIN	14	11	6.0	5.2	5.2	4.1	3.8	7.0	40	24	41	14
AC-FT	1150	768	659	399	289	295	327	2170	7020	7360	7450	1270

CAL YR 1982 TOTAL 9099.9 MEAN 24.9 MAX 124 MIN 2.8 AC-FT 18050
WTR YR 1983 TOTAL 14707.1 MEAN 40.3 MAX 372 MIN 3.8 AC-FT 29170

NOTE.--NO GAGE-HEIGHT RECORD NOV. 16 TO MAR. 10.

EAGLE RIVER BASIN

09064500 HOMESTAKE CREEK NEAR REDCLIFF, 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 Redcliff, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--58.3 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,783 ft, National Geodetic Vertical Datum of 1929 (river-profile survey). See WSP 1713 or 1733 for history of changes prior to May 8, 1961.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Flow regulated by Homestake Lake (capacity, 44,360 acre-ft) since June 7, 1966. Transmountain diversions above station through Homestake tunnel (see elsewhere in this report) since June 6, 1967. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-18, 1945-66), 86.6 ft³/s; 62,740 acre-ft/yr, prior to diversion through Homestake tunnel; 17 years (water years 1967-83), 38.2 ft³/s; 27,680 acre-ft/yr, subsequent to diversion through Homestake tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,300 ft³/s June 24, 1918, gage height, 6.2 ft, site and datum then in use; minimum observed, 0.60 ft³/s Jan. 25, 1915 (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 563 ft³/s at 0200 June 20, gage height, 3.35 ft; minimum daily, 8.5 ft³/s Apr. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	21	16	10	11	11	9.4	14	245	148	272	58
2	31	20	16	11	11	11	9.2	13	215	128	270	53
3	29	19	16	12	11	11	9.4	12	180	143	264	46
4	28	19	16	13	11	11	9.0	13	176	136	275	55
5	27	18	16	14	11	11	8.6	15	172	104	271	48
6	27	18	16	13	11	11	9.0	16	139	98	341	42
7	26	17	16	12	11	11	9.0	16	157	110	236	38
8	27	17	16	12	11	11	9.0	22	163	122	186	36
9	25	17	16	12	11	11	9.2	36	176	119	163	35
10	28	17	16	12	11	11	9.2	66	198	105	135	33
11	26	17	16	11	11	11	9.2	70	245	84	107	31
12	29	17	15	11	11	11	9.2	63	279	62	107	29
13	26	16	14	11	11	12	9.0	54	206	59	107	28
14	25	16	17	11	11	12	8.6	42	144	57	94	28
15	25	15	15	11	11	11	8.5	39	149	52	147	31
16	26	16	15	11	11	10	8.8	36	167	48	157	26
17	25	16	16	11	11	10	9.0	36	191	45	105	24
18	25	16	15	11	11	10	10	34	301	44	100	23
19	23	16	14	11	11	9.8	11	34	415	46	85	24
20	21	16	15	11	11	9.6	11	34	414	103	89	27
21	21	16	16	11	11	9.6	11	38	355	260	74	23
22	22	15	16	11	11	9.6	11	46	325	346	67	22
23	20	14	15	11	11	9.8	12	64	311	322	66	21
24	19	13	15	10	11	9.8	14	105	327	266	59	21
25	19	14	14	11	11	9.6	16	140	339	227	61	21
26	20	14	10	11	11	9.6	19	165	311	189	70	20
27	23	15	10	11	11	9.6	15	205	248	186	61	18
28	21	15	10	11	11	9.7	15	245	214	228	60	18
29	19	16	10	11	---	9.6	14	225	186	140	53	18
30	20	16	9.6	11	---	9.6	13	205	154	160	74	18
31	21	---	9.6	11	---	9.6	---	165	---	285	70	---
TOTAL	759	492	447.2	351	308	322.5	325.3	2268	7102	4422	4226	915
MEAN	24.5	16.4	14.4	11.3	11.0	10.4	10.8	73.2	237	143	136	30.5
MAX	35	21	17	14	11	12	19	245	415	346	341	58
MIN	19	13	9.6	10	11	9.6	8.5	12	139	44	53	18
AC-FT	1510	976	887	696	611	640	645	4500	14090	8770	8380	1810

CAL YR 1982 TOTAL 16197.7 MEAN 44.4 MAX 221 MIN 5.5 AC-FT 32130
WTR YR 1983 TOTAL 21938.0 MEAN 60.1 MAX 415 MIN 8.5 AC-FT 43510

NOTE.--NO GAGE-HEIGHT RECORD NOV. 12 TO JUNE 2.

EAGLE RIVER BASIN

107

09065100 CROSS CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°34'05", long 106°24'43", in SW¼SW¼ sec.36, T.5 S., R.81 W., Eagle County, Hydrologic Unit 14010003, on right bank 0.4 mi upstream from mouth and 1.5 mi southeast of Minturn.

DRAINAGE AREA.--33.5 mi².

PERIOD OF RECORD.--May 1956 to September 1963, October 1967 to current year.

REVISED RECORDS.--WDR-CO-81-2: 1980 (M).

GAGE.--Water-stage recorder. Altitude of gage is 7,992 ft, from topographic map. Prior to July 18, 1956, nonrecording gage at site 0.3 mi downstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Bolts ditch exports water from above station to tailings ponds and recreation lake along Eagle River. Diversion 0.2 mi above station for water supply of school and for municipal supply of Minturn. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years, 51.6 ft³/s; 37,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 754 ft³/s June 30, 1957, gage height, 5.45 ft; maximum gage height, 6.14 ft, Aug. 6, 1983, shifting control; minimum daily discharge, 0.1 ft³/s Dec. 27-31, 1962, Jan. 6-8, 11-15, 1963.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 20	0300	635	5.87	Aug. 6	0230	* 715	6.14

Minimum daily discharge, 2.9 ft³/s Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	14	7.6	4.2	3.3	3.2	4.2	12	208	382	188	43
2	26	13	7.2	4.4	3.3	3.1	3.9	11	203	364	149	39
3	23	13	6.6	4.6	3.2	3.3	4.9	12	185	388	157	37
4	21	15	6.6	5.4	2.9	3.0	4.4	15	198	353	255	42
5	19	17	7.0	6.2	3.5	3.0	4.0	19	198	350	322	40
6	19	16	6.4	5.6	3.5	3.7	4.2	21	168	357	432	33
7	20	16	6.4	5.0	3.1	3.1	4.2	19	171	384	198	29
8	19	13	6.2	4.6	3.3	3.5	4.2	27	190	436	145	27
9	18	11	6.4	4.2	3.3	4.0	4.3	45	210	448	137	27
10	18	11	6.6	3.9	3.3	4.6	4.2	59	228	436	111	25
11	18	11	6.6	4.0	3.3	4.2	4.5	67	276	368	93	23
12	18	10	6.0	3.9	3.3	4.3	4.7	54	294	301	91	22
13	17	9.5	5.6	3.8	3.3	4.6	4.4	45	240	273	100	20
14	15	9.2	6.8	3.9	3.3	4.5	4.3	35	180	262	81	20
15	17	8.2	5.8	3.9	3.2	4.7	4.3	31	193	231	149	24
16	18	8.6	6.6	3.9	3.3	4.4	4.7	27	228	218	144	20
17	16	8.6	6.6	3.8	3.3	4.3	5.0	26	246	214	105	18
18	16	9.0	6.6	3.7	3.3	4.6	6.0	21	428	198	106	16
19	15	9.5	5.2	3.5	3.4	4.5	6.6	19	520	210	91	17
20	13	8.6	5.4	3.5	3.4	4.2	7.4	18	522	269	98	20
21	13	8.6	6.4	3.5	3.2	4.0	7.4	19	516	301	77	17
22	12	8.4	6.2	3.5	3.5	4.0	7.7	27	500	297	65	16
23	13	8.2	6.0	3.5	3.5	4.2	8.2	42	488	322	58	15
24	13	6.6	6.2	3.6	3.5	4.3	13	68	500	213	52	15
25	13	7.2	5.8	3.4	3.7	4.6	20	86	555	164	63	14
26	13	8.0	4.0	3.4	3.5	4.2	25	107	530	160	60	13
27	15	7.4	4.0	3.4	3.4	4.5	24	156	516	179	52	13
28	13	6.8	4.0	3.4	3.4	4.1	18	190	444	266	48	12
29	16	7.8	3.9	3.3	---	4.6	16	198	411	157	43	12
30	15	7.6	3.7	3.4	---	4.0	13	239	380	145	56	12
31	15	---	3.9	3.3	---	4.2	---	209	---	290	50	---
TOTAL	525	307.8	182.3	123.7	93.5	125.5	246.7	1924	9926	8936	3776	681
MEAN	16.9	10.3	5.88	3.99	3.34	4.05	8.22	62.1	331	288	122	22.7
MAX	28	17	7.6	6.2	3.7	4.7	25	239	555	448	432	43
MIN	12	6.6	3.7	3.3	2.9	3.0	3.9	11	168	145	43	12
AC-FT	1040	611	362	245	185	249	489	3820	19690	17720	7490	1350

CAL YR 1982	TOTAL	21562.4	MEAN	59.1	MAX	518	MIN	3.6	AC-FT	42770
WTR YR 1983	TOTAL	26847.5	MEAN	73.6	MAX	555	MIN	2.9	AC-FT	53250

EAGLE RIVER BASIN

09065500 GORE CREEK AT UPPER STATION, NEAR MINTURN, CO

LOCATION.--Lat 39°37'33", long 106°16'39", in NE¼NW¼ sec.18, T.5 S., R.79 W., Eagle County, Hydrologic Unit 14010003, on right bank 10 ft downstream from bridge pier on Interstate 70, 0.2 mi upstream from Black Gore Creek, 4.4 mi east of Vail, and 8.4 mi northeast of Minturn.

DRAINAGE AREA.--14.3 mi².

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft, 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.--Records fair except those for winter period, which are poor. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years, 29.7 ft³/s; 21,520 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 662 ft³/s June 24, 1983, gage height, 2.60 ft, from rating curve extended above 140 ft³/s; maximum gage height, 6.65 ft, June 18, 1951, datum then in use; minimum daily discharge, 1.2 ft³/s Mar. 5, 1977.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 12	0100	282	2.14	June 24	2400	about * 662	2.60
June 18	2030	490	2.60	Aug. 5	2200	204	1.50

Minimum daily discharge, 3.0 ft³/s April 4-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	10	4.5	4.5	4.5	4.5	3.5	8.4	105	266	116	37
2	16	10	4.5	4.5	4.5	4.5	3.5	8.4	92	270	101	36
3	14	10	4.5	4.5	4.5	4.5	3.5	8.4	86	278	101	33
4	14	10	4.5	4.5	4.5	4.5	3.0	9.5	101	248	120	37
5	14	9.0	4.5	4.5	4.5	4.5	3.0	12	94	214	163	36
6	14	8.0	4.5	4.5	4.5	4.5	3.0	14	75	278	177	30
7	16	8.0	4.5	4.5	4.5	4.5	3.0	12	83	302	149	28
8	14	8.0	4.5	4.5	4.5	4.0	3.0	15	101	270	120	28
9	12	8.0	4.5	4.5	4.5	4.0	3.0	20	120	298	103	24
10	14	8.0	4.5	4.5	4.5	4.0	3.0	29	125	274	92	22
11	14	8.0	4.5	4.5	4.5	4.0	3.0	32	183	248	86	21
12	12	7.0	4.5	4.5	4.5	4.0	3.0	29	177	224	90	19
13	12	6.0	4.5	4.5	4.5	4.0	3.0	26	114	204	85	17
14	13	5.6	4.5	4.5	4.5	4.0	3.0	20	88	192	79	17
15	14	5.0	4.5	4.5	4.5	4.0	3.5	16	110	171	79	18
16	14	5.0	4.5	4.5	4.5	3.5	4.0	14	158	158	75	16
17	16	5.0	4.5	4.5	4.5	3.5	4.5	12	186	147	70	14
18	14	5.0	4.5	4.5	4.5	3.5	5.0	11	234	142	67	14
19	14	5.0	4.5	4.5	4.5	3.5	5.4	11	204	142	70	14
20	12	5.0	4.5	4.5	4.5	3.5	5.4	9.5	174	158	67	16
21	12	4.5	4.5	4.5	4.5	3.5	5.5	9.1	214	218	61	14
22	11	4.5	4.5	4.5	4.5	3.5	5.5	11	302	221	57	14
23	12	4.5	4.5	4.5	4.5	3.5	5.8	17	306	198	58	12
24	11	4.5	4.5	4.5	4.5	3.5	9.1	31	420	155	57	13
25	12	4.5	4.5	4.5	4.5	3.5	15	51	455	134	59	12
26	12	4.5	4.5	4.5	4.5	3.5	16	78	385	132	51	10
27	12	4.5	4.5	4.5	4.5	3.5	13	103	306	122	54	9.5
28	10	4.5	4.5	4.5	4.5	3.5	11	122	286	137	50	9.1
29	10	4.5	4.5	4.5	---	3.5	10	130	318	120	46	8.8
30	10	4.5	4.5	4.5	---	3.5	9.1	130	290	116	49	8.8
31	10	---	4.5	4.5	---	3.5	---	118	---	116	43	---
TOTAL	402	190.6	139.5	139.5	126.0	119.5	171.3	1117.3	5892	6153	2595	588.2
MEAN	13.0	6.35	4.50	4.50	4.50	3.85	5.71	36.0	196	198	83.7	19.6
MAX	17	10	4.5	4.5	4.5	4.5	16	130	455	302	177	37
MIN	10	4.5	4.5	4.5	4.5	3.5	3.0	8.4	75	116	43	8.8
AC-FT	797	378	277	277	250	237	340	2220	11690	12200	5150	1170

CAL YR 1982 TOTAL 12644.6 MEAN 34.6 MAX 302 MIN 3.0 AC-FT 25080
WTR YR 1983 TOTAL 17633.9 MEAN 48.3 MAX 455 MIN 3.0 AC-FT 34980

NOTE.--NO GAGE-HEIGHT RECORD FROM OCT. 29 TO APR. 20.

EAGLE RIVER BASIN

109

09066000 BLACK GORE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°35'47", long 106°15'52", Eagle County, Hydrologic Unit 14010003, on right bank 200 ft from U.S. Highway 6, 0.3 mi upstream from Timber Creek, 2.5 mi upstream from mouth, and 9 mi east of Minturn.

DRAINAGE AREA.--11.8 mi².

PERIOD OF RECORD.--October 1947 to September 1956, October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,150 ft, from topographic map. Prior to October 1963, at site 15 ft upstream, at present datum.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Natural regulation by two small recreation lakes above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--29 years, 16.9 ft³/s; 12,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 365 ft³/s June 7, 1952, gage height, 5.42 ft; maximum gage height, 6.00 ft, Mar. 30, 1968 (backwater from ice); minimum daily discharge, 0.90 ft³/s Feb. 22, 1968, Jan. 30, 1970, Feb. 4 to Mar. 6, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 327 ft³/s at 0015 June 26, gage height, 4.43 ft, only peak above base of 150 ft³/s; minimum daily, 2.0 ft³/s Mar. 18-24, Apr. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	4.3	3.0	3.5	3.5	2.5	2.5	5.8	120	118	24	11
2	4.4	4.3	3.0	3.5	3.5	2.5	2.5	5.8	118	108	22	10
3	4.4	4.9	3.0	3.5	3.5	2.5	2.5	5.8	110	102	24	10
4	4.3	4.7	3.0	3.5	3.5	2.5	2.0	6.7	120	90	31	12
5	4.3	4.7	3.0	3.5	3.5	2.5	2.0	8.7	110	80	33	10
6	4.7	4.4	3.0	3.5	3.5	2.5	2.1	8.7	100	76	36	9.4
7	4.4	4.3	3.0	3.5	3.5	2.5	2.2	8.7	108	70	30	9.4
8	4.4	3.7	3.0	3.5	3.5	2.5	2.3	10	116	67	26	9.2
9	4.3	3.7	3.0	3.5	3.5	2.5	2.4	14	122	64	25	8.9
10	4.4	3.6	3.0	3.5	3.5	2.5	2.5	24	132	63	22	8.9
11	4.4	3.5	3.0	3.5	3.5	2.5	2.7	28	148	56	22	8.7
12	4.6	3.3	3.0	3.5	3.5	2.5	2.8	25	144	48	24	8.4
13	4.4	3.3	3.0	3.5	3.5	2.5	3.0	24	120	44	24	8.1
14	4.6	3.3	3.0	3.5	3.5	2.5	3.0	22	100	40	20	8.4
15	4.3	3.3	3.0	3.5	3.5	2.5	3.0	21	114	37	20	8.4
16	4.3	3.3	3.1	3.5	3.5	2.3	3.0	20	114	33	19	7.9
17	4.3	3.3	3.2	3.5	3.5	2.1	3.2	20	124	30	18	7.6
18	4.2	3.3	3.3	3.5	3.5	2.0	3.6	20	186	28	19	7.6
19	4.0	3.3	3.4	3.5	3.0	2.0	4.0	20	215	26	19	7.9
20	4.0	3.3	3.5	3.5	2.5	2.0	4.2	19	235	32	17	7.9
21	4.0	3.3	3.5	3.5	2.5	2.0	4.5	20	235	41	16	7.4
22	3.9	3.2	3.5	3.5	2.5	2.0	4.8	22	218	35	15	7.4
23	3.9	3.1	3.5	3.5	2.5	2.0	5.2	30	206	33	14	7.4
24	3.8	3.0	3.5	3.5	2.5	2.0	5.6	44	198	30	16	7.6
25	3.9	3.0	3.5	3.5	2.5	2.4	6.0	60	208	25	15	7.6
26	3.9	3.0	3.5	3.5	2.5	2.5	6.8	76	203	25	14	7.4
27	4.2	3.0	3.5	3.5	2.5	2.5	6.9	93	172	27	15	7.4
28	4.2	3.0	3.5	3.5	2.5	2.5	8.7	97	162	27	13	7.4
29	4.8	3.0	3.5	3.5	---	2.5	6.0	112	142	27	13	7.4
30	4.6	3.0	3.5	3.5	---	2.5	5.8	116	128	27	13	7.4
31	4.4	---	3.5	3.5	---	2.5	---	110	---	25	12	---
TOTAL	133.0	106.4	100.0	108.5	88.5	73.3	115.8	1097.2	4528	1534	631	254.1
MEAN	4.29	3.55	3.23	3.50	3.16	2.36	3.86	35.4	151	49.5	20.4	8.47
MAX	4.8	4.9	3.5	3.5	3.5	2.5	8.7	116	235	118	36	12
MIN	3.8	3.0	3.0	3.5	2.5	2.0	2.0	5.8	100	25	12	7.4
AC-FT	264	211	198	215	176	145	230	2180	8980	3040	1250	504

CAL YR 1982 TOTAL 7569.3 MEAN 20.7 MAX 142 MIN 2.4 AC-FT 15010
WTR YR 1983 TOTAL 8769.8 MEAN 24.0 MAX 235 MIN 2.0 AC-FT 17390

NOTE.--NO GAGE-HEIGHT RECORD NOV. 10 TO APR. 26.

EAGLE RIVER BASIN

09066100 BIGHORN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'24", long 106°17'34", in N sec.12, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.3 mi upstream from U.S. Highway 6, 0.4 mi upstream from mouth, 4.5 mi east of Vail, and 8.5 mi northeast of Minturn.

DRAINAGE AREA.--4.37 mi².

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,625 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years, 9.44 ft³/s; 6,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s June 10, 1973, gage height, 3.82 ft, from rating curve extended above 82 ft³/s; maximum gage height, 4.04 ft, June 26, 1983 (backwater from debris); minimum daily discharge determined, 0.10 ft³/s Feb. 8, 1967, Jan. 30, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 50 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 11	2003	76	3.44	July 21	2200	105	3.58
June 26	0200	* 210	4.04	Aug. 7	unknown	about 70	unknown
July 8	2215	163	3.75				

Minimum daily discharge, 1.0 ft³/s April 6-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	3.5	2.0	2.0	1.8	1.6	1.6	3.0	33	100	33	6.4
2	3.1	3.5	2.0	2.0	1.6	1.6	1.6	3.0	33	96	30	6.4
3	3.1	3.7	2.0	2.0	1.6	1.6	1.6	3.0	33	103	28	6.1
4	2.9	3.8	2.0	2.0	1.6	1.6	1.6	3.8	37	88	35	8.4
5	2.8	3.8	2.0	2.0	1.6	1.6	1.6	4.7	34	75	45	6.9
6	3.1	3.7	2.0	2.0	1.6	1.6	1.0	4.7	29	76	62	5.9
7	3.2	4.0	2.0	2.0	1.6	1.6	1.0	4.5	28	93	70	5.2
8	2.9	4.0	2.0	2.0	1.6	1.6	1.0	5.0	32	105	50	5.2
9	2.8	4.0	2.0	2.0	1.6	1.6	1.0	7.0	36	108	34	4.8
10	3.1	3.7	2.0	2.0	1.6	1.6	1.0	9.0	41	105	27	5.2
11	3.4	3.5	2.0	2.0	1.6	1.6	1.0	11	54	73	25	4.5
12	3.1	3.0	2.0	2.0	1.6	1.6	1.0	11	61	62	24	4.0
13	2.9	2.5	2.0	2.0	1.6	1.6	1.0	9.3	40	51	20	3.8
14	3.2	2.5	2.0	2.0	1.6	1.6	1.0	7.2	33	45	16	3.7
15	3.5	2.5	2.0	2.0	1.6	1.6	1.0	5.9	38	40	18	3.7
16	3.7	2.5	2.0	2.0	1.6	1.6	1.2	5.0	46	40	20	3.5
17	3.8	2.5	2.0	2.0	1.6	1.6	1.4	4.5	52	37	15	3.5
18	3.8	2.5	2.0	2.0	1.6	1.6	1.4	4.0	84	36	13	3.4
19	3.7	2.5	2.0	2.0	1.6	1.6	1.4	3.7	140	35	12	3.5
20	3.5	2.5	2.0	2.0	1.6	1.6	1.4	3.4	128	45	11	3.8
21	3.4	2.0	2.0	2.0	1.6	1.6	2.0	3.7	140	66	10	3.2
22	3.5	2.0	2.0	2.0	1.6	1.6	2.7	4.5	122	73	10	3.1
23	3.5	2.0	2.0	2.0	1.6	1.6	3.5	6.1	103	62	9.4	2.9
24	3.4	2.0	2.0	2.0	1.6	1.6	3.7	11	103	44	9.8	2.9
25	3.4	2.0	2.0	2.0	1.6	1.6	3.7	19	167	42	12	2.8
26	3.5	2.0	2.0	2.0	1.6	1.6	3.7	24	170	41	8.7	2.6
27	3.5	2.0	2.0	2.0	1.6	1.6	3.5	31	125	40	9.3	2.8
28	3.5	2.0	2.0	2.0	1.6	1.6	3.3	37	122	36	8.7	2.6
29	3.5	2.0	2.0	2.0	---	1.6	3.2	36	105	30	8.4	2.6
30	3.4	2.0	2.0	2.0	---	1.6	3.1	39	98	25	7.8	2.6
31	3.5	---	2.0	2.0	---	1.6	---	36	---	24	6.9	---
TOTAL	103.4	84.2	62.0	62.0	45.0	49.6	57.2	360.0	2267	1896	689.0	126.0
MEAN	3.34	2.81	2.00	2.00	1.61	1.60	1.91	11.6	75.6	61.2	22.2	4.20
MAX	3.8	4.0	2.0	2.0	1.8	1.6	3.7	39	170	108	70	8.4
MIN	2.8	2.0	2.0	2.0	1.6	1.6	1.0	3.0	28	24	6.9	2.6
AC-FT	205	167	123	123	89	98	113	714	4500	3760	1370	250

CAL YR 1982 TOTAL 4021.19 MEAN 11.0 MAX 73 MIN .60 AC-FT 7980
WTR YR 1983 TOTAL 5801.40 MEAN 15.9 MAX 170 MIN 1.0 AC-FT 11510

NOTE.--NO GAGE-HEIGHT RECORD NOV. 10 TO MAY 11, JULY 25 TO AUG. 25.

09066150 PITKIN CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°38'37", long 106°18'07", in SW¼SW¼ sec.1, T.5 S., R.80W., Eagle County, Hydrologic Unit 14010003, on left bank 100 ft downstream from Pitkin ditch headgate, 1,000 ft upstream from U.S. Highway 6, 1,200 ft upstream from mouth, 4.0 mi east of Vail, and 8 mi northeast of Minturn.

DRAINAGE AREA.--5.39 mi².

PERIOD OF RECORD.--Annual maximum and occasional low-flow measurements water years 1964-66. October 1966 to current year.

REVISED RECORDS.--WRD Colo. 1971: 1967-70.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,525 ft, from topographic map. Oct. 1, 1964, to Sept. 30, 1966, crest-stage gage at datum 0.98 ft, lower.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions above station by Pitkin ditch for irrigation downstream. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 11.5 ft³/s; 8,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 221 ft³/s June 15, 1978, gage height, 2.55 ft; maximum gage height, 3.60 ft, June 21, 1983 (backwater from debris); minimum daily discharge, 0.24 ft³/s Oct. 29 to Nov. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 21	0045		* 3.60	July 22	0230	105	2.70
June 26	----	* 140	----	Aug. 6	2000	122	2.70

Minimum daily discharge, 1.2 ft³/s Apr. 16-18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.0	2.5	1.6	1.6	2.0	1.9	3.0	38	100	59	9.3
2	4.6	4.6	2.5	1.6	1.6	2.0	1.9	3.0	40	100	63	8.6
3	4.6	5.9	2.5	1.6	1.6	2.0	1.9	2.8	38	95	56	8.6
4	4.6	6.4	2.5	1.6	1.6	2.0	1.9	2.8	36	85	59	12
5	4.2	5.4	2.5	1.6	1.6	2.0	1.9	2.8	41	80	80	12
6	4.2	4.6	2.5	1.6	1.6	2.0	1.9	2.8	40	82	77	9.3
7	4.6	4.6	2.5	1.6	1.6	2.0	1.9	3.0	40	92	63	7.4
8	4.6	4.6	2.5	1.6	1.6	2.0	1.8	3.6	44	105	48	8.0
9	4.2	4.6	2.5	1.6	1.6	2.0	1.8	4.2	41	115	36	7.4
10	4.2	4.2	2.5	1.6	1.6	2.0	1.8	6.4	41	95	31	8.0
11	3.9	3.5	2.5	1.6	1.6	2.0	1.6	7.4	52	75	30	6.9
12	4.2	3.0	2.5	1.6	1.6	2.0	1.6	8.0	59	64	26	6.4
13	4.2	3.0	2.5	1.6	1.6	2.0	1.4	8.0	56	52	21	5.9
14	4.2	3.0	2.5	1.6	1.6	2.0	1.4	8.0	48	46	24	6.4
15	5.4	3.0	2.5	1.6	1.6	2.0	1.4	7.4	50	44	24	6.9
16	5.9	3.0	2.5	1.6	1.6	2.0	1.2	6.9	54	40	23	6.4
17	5.4	3.0	2.5	1.6	1.6	2.0	1.2	6.4	50	38	21	5.9
18	5.0	3.0	2.5	1.6	1.6	2.0	1.2	6.4	63	36	18	5.9
19	5.0	3.0	2.5	1.6	1.6	2.0	1.4	5.9	77	38	19	6.4
20	4.2	2.5	2.5	1.6	1.6	2.0	1.4	5.4	95	60	19	8.0
21	4.6	2.5	2.5	1.6	1.6	2.0	1.4	4.6	115	86	16	6.9
22	4.2	2.5	2.5	1.6	1.6	2.0	1.4	4.6	105	88	14	6.4
23	4.2	2.5	2.5	1.6	1.6	1.9	1.6	5.0	111	85	13	5.4
24	4.2	2.5	2.5	1.6	1.6	1.9	1.6	7.4	98	63	14	6.4
25	4.2	2.5	2.0	1.6	1.6	1.9	2.3	12	110	54	23	5.9
26	4.2	2.5	2.0	1.6	1.6	1.9	2.6	18	140	48	17	5.9
27	4.6	2.5	1.6	1.6	1.6	1.9	2.8	30	110	46	16	5.9
28	5.0	2.5	1.6	1.6	1.6	2.0	2.8	36	100	46	16	5.4
29	5.4	2.5	1.6	1.6	---	2.0	2.8	36	100	41	13	5.4
30	5.0	2.5	1.6	1.6	---	1.9	2.8	36	100	44	13	5.9
31	5.0	---	1.6	1.6	---	1.9	---	40	---	48	11	---
TOTAL	142.4	104.9	72.0	49.6	44.8	61.3	54.6	333.8	2092	2091	963	215.2
MEAN	4.59	3.50	2.32	1.60	1.60	1.98	1.82	10.8	69.7	67.5	31.1	7.17
MAX	5.9	6.4	2.5	1.6	1.6	2.0	2.8	40	140	115	80	12
MIN	3.9	2.5	1.6	1.6	1.6	1.9	1.2	2.8	36	36	11	5.4
AC-FT	282	208	143	98	89	122	108	662	4150	4150	1910	427

CAL YR 1982 TOTAL 5498.4 MEAN 15.1 MAX 80 MIN 1.3 AC-FT 10910
WTR YR 1983 TOTAL 6224.6 MEAN 17.1 MAX 140 MIN 1.2 AC-FT 12350

NOTE.--NO GAGE-HEIGHT RECORD NOV. 10 TO MAR. 23, JUNE 25 TO JULY 21.

EAGLE RIVER BASIN

09066200 BOOTH CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°39'02", long 106°19'16", at west line of sec.2, T.5 S., R.80 W., Eagle County, Hydrologic Unit 14010003, on left bank 0.2 mi upstream from U.S. Highway 6, 0.4 mi upstream from mouth, 3.0 mi northeast of Vail, and 7.0 mi northeast of Minturn.

DRAINAGE AREA.--6.03 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,413 ft, from topographic map.

REMARKS.--Records poor. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 12.3 ft³/s; 8,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 355 ft³/s June 15, 1978, gage height, 4.07 ft; maximum gage height, 4.62 ft, June 18, 1983 (backwater from debris); minimum daily discharge, 0.20 ft³/s Feb. 8, 1967, Jan. 29, 1970, Feb. 10, 11, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 11	2300	132	3.69	June 25	unknown	about * 230	unknown
June 18	2300		a * 4.62	July 21	1900	155	3.26

a-backwater from debris

Minimum daily discharge, 1.1 ft³/s Apr. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.2	3.0	1.4	1.8	1.6	1.2	1.2	2.2	42	105	21	5.1
2	4.2	2.2	1.4	1.8	1.2	1.2	1.2	2.1	41	105	34	4.5
3	4.2	2.3	1.4	1.8	1.2	1.2	1.2	2.1	42	105	20	4.5
4	4.2	2.4	1.4	1.8	1.2	1.2	1.2	2.2	56	105	19	5.3
5	4.2	2.5	1.4	1.8	1.2	1.2	1.2	3.0	51	100	24	4.6
6	4.0	2.5	1.4	1.8	1.2	1.2	1.2	3.2	36	105	24	4.0
7	4.0	2.5	1.4	1.8	1.2	1.2	1.2	3.0	36	120	19	3.6
8	3.9	2.5	1.4	1.8	1.2	1.2	1.2	4.0	46	115	18	3.6
9	3.6	2.5	1.4	1.8	1.2	1.2	1.2	6.2	58	125	19	3.6
10	3.8	2.5	1.4	1.8	1.2	1.2	1.2	10	72	120	17	3.4
11	2.8	2.0	1.4	1.8	1.2	1.2	1.2	15	105	110	17	3.0
12	2.5	2.0	1.4	1.8	1.2	1.2	1.2	13	97	90	17	2.9
13	3.5	2.0	1.4	1.8	1.2	1.2	1.2	12	67	80	16	3.3
14	3.6	2.0	1.4	1.8	1.2	1.2	1.2	9.8	47	74	15	2.9
15	3.9	2.0	1.4	1.8	1.2	1.2	1.2	8.7	58	68	14	2.8
16	4.2	2.0	1.4	1.8	1.2	1.2	1.2	7.5	82	64	14	2.5
17	3.9	2.0	1.8	1.8	1.2	1.2	1.2	6.7	112	60	12	2.5
18	3.8	2.0	1.8	1.8	1.2	1.2	1.2	6.0	150	58	12	3.0
19	3.6	2.0	1.8	1.8	1.2	1.2	1.2	5.1	170	58	13	2.7
20	3.5	2.0	1.8	1.8	1.2	1.2	1.2	4.8	150	60	11	2.2
21	3.4	2.0	1.8	1.8	1.2	1.2	1.2	5.4	145	76	11	2.5
22	3.2	1.4	1.8	1.8	1.2	1.2	1.1	6.2	140	57	10	2.4
23	3.2	1.4	1.8	1.8	1.2	1.2	1.1	8.5	140	38	8.7	2.4
24	3.2	1.4	1.8	1.8	1.2	1.2	1.5	17	150	27	8.5	2.3
25	3.2	1.4	1.8	1.8	1.2	1.2	2.6	31	195	24	7.5	2.3
26	3.2	1.4	1.8	1.8	1.2	1.2	4.3	32	160	21	7.7	2.3
27	3.2	1.4	1.8	1.8	1.2	1.2	3.3	45	130	21	7.7	2.3
28	2.7	1.4	1.8	1.8	1.2	1.2	2.7	46	120	21	7.3	2.3
29	2.1	1.4	1.8	1.8	---	1.2	2.5	46	110	25	7.1	2.2
30	3.2	1.4	1.8	1.8	---	1.2	2.4	56	105	21	6.7	2.2
31	3.2	---	1.8	1.8	---	1.2	---	50	---	24	6.0	---
TOTAL	109.4	59.5	49.4	55.8	34.0	37.2	46.7	469.7	2913	2182	444.2	93.2
MEAN	3.53	1.98	1.59	1.80	1.21	1.20	1.56	15.2	97.1	70.4	14.3	3.11
MAX	4.2	3.0	1.8	1.8	1.6	1.2	4.3	56	195	125	34	5.3
MIN	2.1	1.4	1.4	1.8	1.2	1.2	1.1	2.1	36	21	6.0	2.2
AC-FT	217	118	98	111	67	74	93	932	5780	4330	881	185

CAL YR 1982 TOTAL 6874.3 MEAN 18.8 MAX 158 MIN 1.0 AC-FT 13640
WTR YR 1983 TOTAL 6494.1 MEAN 17.8 MAX 195 MIN 1.1 AC-FT 12880

NOTE.--NO GAGE-HEIGHT RECORD NOV. 5 TO APR. 20, JUNE 18 TO JULY 20.

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.--5.97 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,200 ft, from topographic map. Prior to Oct. 1, 1977 at site 700 ft upstream, at different datum.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. No diversion or regulation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 5.85 ft³/s; 4,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 116 ft³/s June 20, 1974, gage height, 2.65 ft, datum then in use; maximum gage height, 3.28 ft, June 25, 1983; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 25	2300	* 113	3.28	July 9	2030	66	2.83

Minimum daily discharge, 0.32 ft³/s Mar. 27 to Apr. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1962 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	3.5	2.0	.75	.62	.56	.32	.82	19	27	20	5.5
2	1.9	2.8	2.0	.75	.60	.56	.32	.77	20	27	20	5.3
3	1.6	2.8	2.0	.75	.60	.56	.32	.82	21	35	20	5.1
4	1.6	3.7	1.8	.75	.58	.56	.32	1.1	23	33	20	6.2
5	1.5	3.5	1.5	.75	.56	.56	.32	1.6	24	29	24	5.8
6	1.6	3.5	1.5	.75	.56	.56	.32	1.3	22	28	24	4.7
7	1.7	3.5	1.5	.75	.56	.56	.32	1.6	22	32	24	4.2
8	1.7	3.3	1.5	.75	.56	.56	.32	1.8	24	35	22	4.2
9	1.6	3.5	1.2	.75	.56	.56	.32	2.1	27	40	20	3.8
10	1.7	3.5	1.0	.75	.56	.56	.32	2.5	31	37	18	4.2
11	1.5	3.5	1.0	.75	.56	.56	.32	3.4	35	35	19	3.7
12	1.5	3.5	1.0	.75	.56	.56	.32	3.5	37	37	17	3.7
13	2.0	3.5	1.0	.75	.56	.55	.32	3.6	35	37	16	3.3
14	2.0	3.5	1.0	.75	.56	.54	.32	3.5	32	34	15	3.3
15	2.2	3.5	1.0	.75	.56	.54	.32	3.3	32	33	15	3.5
16	2.8	3.5	.95	.75	.56	.52	.32	3.2	34	31	14	3.2
17	2.5	3.0	.90	.75	.56	.52	.32	3.1	40	29	13	3.2
18	2.4	3.0	.88	.75	.56	.50	.32	3.5	50	27	11	3.2
19	2.4	3.0	.85	.75	.56	.50	.32	4.5	63	26	11	3.5
20	2.0	3.0	.82	.75	.56	.50	.38	5.5	76	27	11	3.7
21	2.4	3.0	.80	.75	.56	.49	.32	6.5	85	32	9.4	3.0
22	2.4	3.0	.80	.75	.56	.49	.32	7.5	93	32	8.4	3.0
23	2.6	3.0	.80	.75	.56	.48	.49	9.0	92	32	7.8	3.0
24	2.5	3.0	.80	.75	.56	.43	1.2	11	65	28	7.8	3.2
25	2.8	2.5	.80	.75	.56	.38	1.6	13	82	26	8.9	2.9
26	2.9	2.5	.75	.72	.56	.38	1.5	14	58	26	7.1	2.9
27	3.0	2.5	.75	.70	.56	.32	1.1	15	45	24	6.6	2.9
28	2.8	2.5	.75	.68	.56	.32	1.0	15	37	24	6.4	2.8
29	3.2	2.5	.75	.66	---	.32	.88	16	30	22	6.4	2.8
30	3.3	2.0	.75	.66	---	.32	.88	17	29	21	6.4	2.8
31	3.3	---	.75	.64	---	.32	---	18	---	21	6.0	---
TOTAL	69.4	93.1	33.90	22.81	15.84	15.14	15.75	193.51	1283	927	435.2	112.6
MEAN	2.24	3.10	1.09	.74	.57	.49	.53	6.24	42.8	29.9	14.0	3.75
MAX	3.3	3.7	2.0	.75	.62	.56	1.6	.18	93	40	24	6.2
MIN	1.5	2.0	.75	.64	.56	.32	.32	.77	19	21	6.0	2.8
AC-FT	138	185	67	45	31	30	31	384	2540	1840	863	223

CAL YR 1982 TOTAL 3017.65 MEAN 8.27 MAX 60 MIN .20 AC-FT 5990
WTR YR 1983 TOTAL 3217.25 MEAN 8.81 MAX 93 MIN .32 AC-FT 6380

NOTE.--NO GAGE-HEIGHT RECORD NOV. 10 TO MAR. 23.

EAGLE RIVER BASIN

09066400 RED SANDSTONE CREEK NEAR MINTURN, CO

LOCATION.--Lat 39°40'58", long 106°24'03", Eagle County, Hydrologic Unit 14010003, on left bank 150 ft upstream from road culvert, 1,400 ft upstream from Indian Creek, and 6.8 mi north of Minturn.

DRAINAGE AREA.--7.27 mi².

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,212 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No regulation or diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--20 years, 9.12 ft³/s; 6,610 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 215 ft³/s June 19, 1983, gage height, 4.66 ft; minimum daily, 0.20 ft³/s Jan. 30, 1970.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 19	1900	* 215	4.66	Aug. 5	2000	97	3.93

Minimum daily discharge, 1.0 ft³/s Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.0	1.7	1.2	1.3	1.3	1.3	1.8	42	97	20	5.2
2	2.5	2.0	1.6	1.3	1.2	1.4	1.2	1.8	43	92	20	5.0
3	1.8	2.1	1.6	1.3	1.2	1.3	1.3	1.7	42	97	19	4.8
4	1.6	2.1	1.6	1.4	1.2	1.3	1.2	2.4	44	84	19	5.6
5	1.5	2.1	1.7	1.5	1.3	1.4	1.1	3.7	42	74	30	5.1
6	2.1	2.1	1.7	1.5	1.3	1.3	1.2	3.6	39	67	35	4.5
7	2.3	2.2	1.6	1.4	1.2	1.3	1.2	3.2	45	68	30	4.2
8	2.2	2.0	1.6	1.3	1.3	1.3	1.2	4.2	52	71	25	4.1
9	1.8	2.0	1.6	1.3	1.3	1.4	1.2	5.9	60	70	23	4.0
10	1.8	1.9	1.7	1.3	1.2	1.4	1.2	8.5	67	61	21	4.1
11	1.5	1.9	1.7	1.4	1.3	1.4	1.2	9.3	76	52	20	3.7
12	1.5	1.9	1.7	1.3	1.3	1.5	1.2	8.3	71	46	20	3.5
13	1.5	1.9	1.6	1.3	1.3	1.5	1.2	7.6	57	39	17	3.3
14	1.5	1.9	1.7	1.3	1.3	1.5	1.1	6.2	51	34	15	3.3
15	1.9	1.7	1.7	1.4	1.3	1.5	1.1	5.7	57	32	14	3.5
16	2.2	1.8	1.8	1.4	1.3	1.4	1.2	5.1	61	30	13	3.3
17	2.2	1.7	1.8	1.4	1.3	1.4	1.2	4.7	73	28	12	3.1
18	2.3	1.6	1.8	1.3	1.3	1.4	1.3	4.4	114	25	11	3.2
19	2.1	1.6	1.5	1.3	1.3	1.5	1.4	4.3	153	25	11	3.9
20	2.4	1.6	1.6	1.3	1.3	1.4	1.6	4.2	164	29	11	4.3
21	2.5	1.7	1.7	1.3	1.2	1.3	1.4	4.8	161	32	9.4	3.5
22	2.1	1.7	1.7	1.3	1.3	1.3	1.3	6.2	161	28	8.7	3.4
23	1.8	1.7	1.6	1.3	1.3	1.4	1.2	8.8	155	25	8.0	3.5
24	2.0	1.6	1.6	1.4	1.3	1.4	1.4	15	149	22	7.7	3.7
25	2.3	1.7	1.5	1.3	1.3	1.3	3.8	21	158	20	8.0	3.5
26	2.5	1.8	1.4	1.3	1.4	1.3	3.8	28	132	20	7.1	3.2
27	2.3	1.7	1.2	1.3	1.4	1.3	3.2	35	148	19	6.7	3.2
28	2.7	1.6	1.2	1.3	1.3	1.3	2.5	37	129	17	6.4	3.2
29	2.8	1.7	1.2	1.3	---	1.3	2.1	39	111	16	6.1	3.2
30	2.6	1.7	1.0	1.3	---	1.3	1.9	45	104	21	6.1	3.3
31	2.0	---	1.2	1.3	---	1.4	---	47	---	23	5.6	---
TOTAL	65.2	55.0	48.6	41.3	36.0	42.5	47.2	383.4	2761	1364	465.8	115.4
MEAN	2.10	1.83	1.57	1.33	1.29	1.37	1.57	12.4	92.0	44.0	15.0	3.85
MAX	2.9	2.2	1.8	1.5	1.4	1.5	3.8	47	164	97	35	5.6
MIN	1.5	1.6	1.0	1.2	1.2	1.3	1.1	1.7	39	16	5.6	3.1
AC-FT	129	109	96	82	71	84	94	760	5480	2710	924	229

CAL YR 1982 TOTAL 4038.70 MEAN 11.1 MAX 92 MIN .90 AC-FT 8010
WTR YR 1983 TOTAL 5425.40 MEAN 14.9 MAX 164 MIN 1.0 AC-FT 10760

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO APR. 20.

09067000 BEAVER CREEK AT AVON, CO

LOCATION.--Lat 39°37'47", long 106°31'20", in NE¼SW¼ sec.12, T.5 S., R.82 W., Eagle County, Hydrologic Unit 14010003, on left bank at Avon, 550 ft upstream from U.S. Highways 6 and 24, and 700 ft upstream from mouth.

DRAINAGE AREA.--15.7 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to December 1911, January 1912 to September 1914 (gage heights and discharge measurements only), May 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,453 ft, from topographic map. Prior to May 1, 1974, nonrecording gage near present site at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Diversions above station for irrigation above and below station. Slight natural regulation by several small lakes in headwaters.

AVERAGE DISCHARGE.--9 years (water years 1975-83), 12.7 ft³/s; 9,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 249 ft³/s June 27, 1983, gage height, 3.46 ft; minimum daily, 0.55 ft³/s Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 249 ft³/s at 2000 June 27, gage height, 3.46 ft, only peak above base of 80 ft³/s; minimum daily, 1.1 ft³/s Mar. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	6.2	4.0	1.9	1.5	2.5	2.2	6.2	55	195	29	9.6
2	7.2	5.1	3.9	2.0	1.8	2.6	2.6	6.1	58	177	28	9.5
3	6.0	4.2	3.8	2.1	1.6	2.9	2.3	6.0	58	168	34	9.2
4	5.4	5.2	3.6	2.2	1.8	2.9	3.2	6.6	61	152	37	12
5	5.1	4.8	3.7	2.3	2.0	3.0	2.8	6.9	63	133	43	11
6	5.1	5.2	3.5	2.3	1.8	3.3	2.8	5.9	63	131	53	8.9
7	5.4	4.9	3.4	2.0	1.7	3.0	2.8	4.9	63	140	36	8.1
8	5.7	4.7	3.2	2.2	1.6	2.6	2.8	6.9	65	145	31	8.4
9	5.1	4.8	3.2	2.7	1.6	3.0	3.0	10	67	133	30	8.7
10	5.4	4.8	3.5	3.7	2.0	3.7	3.0	14	72	124	27	8.2
11	5.7	4.7	3.1	2.0	2.0	4.4	3.3	15	81	107	26	7.8
12	5.4	4.6	2.9	1.9	1.6	4.9	3.3	13	92	83	26	6.9
13	5.4	4.5	2.7	2.2	1.8	5.6	3.3	12	89	67	28	6.3
14	4.9	4.2	2.9	2.1	1.9	5.5	3.2	11	80	57	24	6.0
15	4.9	4.0	2.3	1.9	1.9	4.2	3.5	10	79	50	25	8.0
16	5.4	4.5	2.4	2.0	2.0	3.4	4.1	10	84	44	25	6.9
17	5.5	4.9	2.4	1.9	2.4	3.4	3.7	9.6	92	39	21	5.6
18	5.4	5.2	2.3	2.2	2.3	4.0	4.6	9.2	107	35	22	5.9
19	5.8	5.4	2.1	3.7	2.1	3.6	5.5	9.4	129	38	20	5.8
20	5.4	5.2	2.3	3.8	2.7	2.7	5.9	9.2	142	43	20	7.6
21	5.5	5.2	2.6	3.0	2.4	5.5	5.5	9.6	128	46	19	6.5
22	5.2	5.0	2.6	1.5	2.5	2.8	5.2	11	118	42	19	6.0
23	5.3	4.3	2.6	1.7	2.6	2.1	6.0	13	125	47	16	5.8
24	5.3	3.8	2.6	2.1	2.8	2.5	7.8	18	130	38	15	6.2
25	5.4	4.2	2.6	3.6	2.8	2.4	9.1	25	212	33	16	6.3
26	5.2	4.5	2.3	3.2	2.5	1.9	8.1	33	220	33	14	5.7
27	6.6	4.2	2.2	2.8	2.6	1.1	6.8	41	242	33	13	6.0
28	5.5	3.8	2.1	1.3	2.3	1.5	6.6	46	222	39	12	5.2
29	5.6	4.2	2.0	1.4	---	1.8	7.8	51	212	30	11	5.2
30	6.2	4.1	1.8	1.9	---	2.3	6.4	56	207	28	12	5.3
31	6.1	---	1.8	1.8	---	2.2	---	55	---	35	11	---
TOTAL	174.5	140.4	86.4	71.4	58.6	97.3	137.2	540.5	3416	2465	743	218.6
MEAN	5.63	4.68	2.79	2.30	2.09	3.14	4.57	17.4	114	79.5	24.0	7.29
MAX	8.4	6.2	4.0	3.8	2.8	5.6	9.1	56	242	195	53	12
MIN	4.9	3.8	1.8	1.3	1.5	1.1	2.2	4.9	55	28	11	5.2
AC-FT	346	278	171	142	116	193	272	1070	6780	4890	1470	434
CAL YR 1982	TOTAL	5519.70	MEAN	15.1	MAX	98	MIN	.80	AC-FT	10950		
WTR YR 1983	TOTAL	8148.90	MEAN	22.3	MAX	242	MIN	1.1	AC-FT	16160		

EAGLE RIVER BASIN

09067000 BEAVER CREEK AT AVON, CO--Continued

WATER-QUALITY RECORDS

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

INSTRUMENTATION.--Turbidity recorder since September 1974.

REMARKS.--Daily maximum and minimum turbidity data available in district office. Effective with this report, the turbidity data at this station will continue to be published in the annual reports. Records published will be the daily maximum and minimum turbidity data.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

		STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
DATE	TIME									
OCT 26...	1300	5.6	161	203	8.2	5.0	10.8	91	26	6.4
NOV 19...	1105	5.5	275	259	7.6	1.0	10.6	120	34	8.3
DEC 17...	1200	2.4	300	291	8.1	.5	11.9	140	42	9.2
JAN 27...	1400	3.4	280	288	8.4	.5	12.0	130	38	9.6
FEB 24...	1430	2.3	300	326	8.7	1.0	10.5	160	47	10
MAR 22...	1530	2.7	311	348	8.3	2.0	10.1	170	49	11
APR 14...	1500	3.3	340	345	8.2	3.0	11.2	170	50	11
MAY 25...	1400	24	218	223	7.9	9.0	9.7	100	29	7.5
JUN 24...	1300	120	70	78	6.8	7.0	10.2	34	9.7	2.3
JUL 19...	1200	45	70	83	8.0	10.0	9.5	35	10	2.5
AUG 17...	1500	21	85	102	8.4	14.0	8.2	45	13	3.0
SEP 20...	1600	7.7	224	234	8.5	8.5	9.8	110	35	5.5
DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	ALKA- LINIT LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)
OCT 26...	2.1	.0	63	35	.80	118	.16	1.8	<.100	<.010
NOV 19...	2.7	.1	73	56	1.3	155	.21	2.3	.140	<.010
DEC 17...	2.7	.1	82	63	1.4	176	.24	1.1	.100	<.010
JAN 27...	2.9	.1	84	58	1.4	184	.25	1.7	.190	.010
FEB 24...	3.1	.1	92	69	2.8	193	.26	1.1	.140	.010
MAR 22...	2.9	.1	94	80	2.4	203	.28	1.5	.140	.070
APR 14...	2.9	.1	96	79	1.7	218	.30	1.9	.100	.010
MAY 25...	1.9	.0	77	31	1.0	125	.17	8.1	.220	<.010
JUN 24...	1.1	.0	31	7.0	.50	56	.08	18	<.100	<.010
JUL 19...	1.4	.1	31	12	.30	53	.07	6.4	<.100	<.010
AUG 17...	1.6	.1	34	15	.40	60	.08	3.4	<.100	.010
SEP 20...	2.1	.0	57	60	.70	146	.20	3.0	<.100	.020

09067000 BEAVER CREEK AT AVON, CO--Continued

TURBIDITY (NTU), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	15	1.0							---	---
2	---	---	4.0	1.0							---	---
3	---	---	4.0	1.0							---	---
4	---	---	6.0	1.0							---	---
5	---	---	9.0	3.0							---	---
6	---	---	8.0	2.0							---	---
7	---	---	4.0	1.0							---	---
8	---	---	2.0	1.0							---	---
9	---	---	4.0	1.0							---	---
10	---	---	2.0	1.0							---	---
11	---	---	4.0	1.0							---	---
12	---	---	---	---							---	---
13	---	---	---	---							---	---
14	---	---	---	---							---	---
15	---	---	---	---							---	---
16	---	---	---	---							---	---
17	---	---	---	---							---	---
18	---	---	---	---							---	---
19	---	---	---	---							---	---
20	---	---	---	---							---	---
21	---	---	---	---							---	---
22	---	---	---	---							50	30
23	---	---	---	---							55	25
24	---	---	---	---							50	20
25	---	---	---	---							100	20
26	4.0	1.0	---	---							45	20
27	55	2.0	---	---							40	15
28	9.0	1.0	---	---							40	15
29	7.0	2.0	---	---							60	15
30	3.0	1.0	---	---							40	15
31	3.0	1.0	---	---							40	10
MONTH	55	1.0	15	1.0							100	10

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	100	10	60	6.0			---	---	---	---	---	---
2	40	15	25	8.0			---	---	---	---	3.0	1.0
3	---	---	60	9.0			---	---	---	---	5.0	1.0
4	---	---	65	8.0			---	---	---	---	45	1.0
5	---	---	40	6.0			---	---	---	---	6.0	1.0
6	---	---	25	10			---	---	---	---	5.0	1.0
7	---	---	50	5.0			---	---	---	---	6.0	1.0
8	---	---	100	6.0			---	---	---	---	15	1.0
9	---	---	100	10			---	---	---	---	10	1.0
10	---	---	60	25			---	---	---	---	10	1.0
11	---	---	---	---			---	---	---	---	---	---
12	---	---	100	25			---	---	---	---	---	---
13	---	---	40	20			---	---	10	3.0	---	---
14	40	9.0	75	20			---	---	6.0	2.0	---	---
15	25	5.0	30	15			---	---	10	2.0	---	---
16	15	1.0	---	---			---	---	6.0	2.0	15	15
17	---	---	---	---			---	---	15	2.0	15	10
18	100	9.0	---	---			---	---	40	4.0	15	10
19	100	10	---	---			---	---	35	2.0	15	10
20	80	6.0	---	---			---	---	10	2.0	15	10
21	65	6.0	---	---			---	---	---	---	---	---
22	20	4.0	---	---			---	---	---	---	---	---
23	100	1.0	---	---			---	---	---	---	---	---
24	100	6.0	---	---			90	15	---	---	---	---
25	100	10	---	---			100	15	---	---	---	---
26	85	20	---	---			100	15	---	---	15	1.0
27	100	10	---	---			100	10	---	---	35	1.0
28	100	20	---	---			---	10	---	---	40	1.0
29	100	25	---	---			---	---	---	---	30	1.0
30	45	15	---	---			---	---	---	---	3.0	1.0
31	---	---	---	---			---	---	---	---	---	---
MONTH	100	1.0	100	5.0			100	10	40	2.0	45	1.0
YEAR	100	1.0										

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

EAGLE RIVER BASIN

09069000 EAGLE RIVER AT GYPSUM, CO

LOCATION.--Lat 39°39'00", long 106°57'06", Eagle County, Hydrologic Unit 14010003, at bridge at Gypsum, about 400 ft upstream from Gypsum Creek, about 520 ft upstream from bridge on U.S. Highways 6 and 24, and about 550 ft upstream from gaging station.

DRAINAGE AREA.--944 mi², at gaging station.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1947 to current year.

WATER TEMPERATURE: April 1949 to current year.

REMARKS.--Records of discharge are given for Eagle River below Gypsum (station 09070000), located 550 ft, downstream from Eagle River at Gypsum (station 09069000).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,850 micromhos Aug. 6, 1949; minimum daily, 130 micromhos June 9, 10, 1976.

WATER TEMPERATURES: Maximum, 24°C Aug. 24, 1949; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,100 micromhos Dec. 20; minimum daily, 180 micromhos, several days in June.

WATER TEMPERATURES: Maximum daily, 18.0°C several days in Aug. and Sept; minimum daily, freezing point on many days during November to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN DIS- SOLVED (MG/L AS N)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)
NOV 19...	1410	251	755	811	7.8	4.0	10.8	1.0	270	82	17
FEB 24...	1140	168	813	860	8.7	2.0	11.8	.80	310	92	20
AUG 17...	1000	833	658	660	8.2	15.0	8.9	.43	320	100	16

DATE	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L 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 DAY)
NOV 19...	53	1	2.3	130	160	81	.10	8.1	480	326
FEB 24...	54	1	2.5	137	200	74	.20	8.2	530	242
AUG 17...	14	.4	1.9	120	220	14	.10	8.5	450	1000

DATE	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	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)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
NOV 19...	.65	.300	.340	.80	.70	1.1	.060	.030	12	100
FEB 24...	.72	.500	.500	.40	.30	.90	.140	.100	4	110
AUG 17...	.61	.100	.130	.50	.30	.60	.010	.040	69	48

DATE	TIME	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)	COPPER, DIS- SOLVED (UG/L AS CU)
NOV 19...	1410	1	<1	<1	<1	<1	<1	2	2
FEB 24...	1140	1	1	<1	<1	<1	<1	3	3
AUG 17...	1000	<1	1	<1	<1	<1	<1	3	4

EAGLE RIVER BASIN

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09069000 EAGLE RIVER AT GYPSUM, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, TOTAL (UG/L AS SE)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 19...	2	3	.2	<.1	1	1	70	13
FEB 24...	1	<1	.1	<.1	1	1	100	41
AUG 17...	4	1	<.1	<.1	1	1	60	17

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	700	900	900	800	1000	900	650	260	200	270	500
2	700	725	850	900	850	900	900	650	260	200	280	500
3	700	750	900	950	900	900	950	650	250	220	280	500
4	700	700	950	900	900	900	850	650	240	220	270	560
5	700	800	950	900	1000	900	900	600	260	220	240	600
6	700	800	900	900	950	900	950	600	260	220	275	600
7	725	850	900	900	950	900	950	600	280	200	275	580
8	700	850	---	900	950	900	900	500	260	200	300	600
9	700	800	950	850	850	900	900	460	260	200	350	625
10	700	800	950	900	900	950	900	400	250	200	350	650
11	700	800	950	900	900	900	900	400	240	240	375	650
12	725	800	900	900	850	900	850	400	210	240	---	650
13	725	800	950	950	850	950	850	420	240	240	---	650
14	700	850	900	900	825	900	900	400	240	240	---	700
15	700	850	900	900	850	900	850	400	240	250	300	700
16	700	850	900	900	850	950	900	480	220	240	300	700
17	700	---	900	900	850	900	900	600	180	240	240	750
18	700	---	---	900	850	900	800	550	200	240	280	800
19	700	800	---	900	850	950	800	600	180	240	300	800
20	800	850	1100	900	900	950	800	600	180	240	440	750
21	800	---	950	900	850	950	800	600	200	---	460	800
22	800	900	---	950	850	950	800	500	180	280	440	800
23	750	900	900	900	850	950	800	460	180	260	500	800
24	800	900	900	900	900	950	750	400	180	---	460	800
25	800	950	---	900	850	950	600	300	---	280	500	825
26	800	950	---	900	900	900	500	300	180	---	500	800
27	900	950	---	900	900	900	600	260	180	290	500	750
28	750	900	750	850	950	900	600	260	200	270	500	750
29	750	900	900	900	---	850	600	280	200	280	500	800
30	750	900	900	850	---	850	600	240	200	280	500	800
31	775	---	900	850	---	950	---	240	---	280	500	---
MEAN	737	838	915	898	881	918	810	466	221	240	374	693
WTR YR 1983	MEAN	665	MAX	1100	MIN	180						

EAGLE RIVER BASIN

09069000 EAGLE RIVER AT GYPSUM, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.0	5.0	.0	.0	.0	7.0	6.0	12.0	8.0	11.0	14.0	18.0
2	11.0	5.0	.0	.0	.0	7.0	7.0	11.0	8.0	11.0	15.0	18.0
3	11.0	5.0	.0	.0	.0	7.0	6.0	12.0	9.0	12.0	16.0	18.0
4	9.0	5.0	.0	.0	.0	7.0	8.0	12.0	8.0	12.0	16.0	18.0
5	9.0	5.0	.0	.0	.0	7.0	8.0	10.0	8.0	12.0	16.0	17.0
6	10.0	5.0	1.0	.0	.0	6.0	7.0	11.0	9.0	12.0	16.0	17.0
7	10.0	5.0	1.0	.0	.0	7.0	7.0	12.0	8.0	12.0	16.0	18.0
8	7.0	5.0	---	.0	.0	7.0	7.0	14.0	8.0	14.0	17.0	17.0
9	5.0	4.0	.0	.0	1.0	7.0	7.0	14.0	8.0	13.0	17.0	17.0
10	5.0	4.0	.0	.0	.0	8.0	7.0	11.0	8.0	13.0	17.0	16.0
11	5.0	4.0	.0	.0	.0	7.0	7.0	12.0	8.0	13.0	18.0	17.0
12	6.0	4.0	.0	.0	.0	7.0	8.0	11.0	8.0	13.0	---	17.0
13	6.0	3.0	.0	.0	1.0	6.0	8.0	10.0	7.0	13.0	---	17.0
14	7.0	.0	.0	.0	1.0	7.0	9.0	8.0	8.0	13.0	---	16.0
15	7.0	.0	.0	.0	1.0	7.0	9.0	8.0	8.0	13.0	18.0	16.0
16	9.0	.0	.0	.0	1.0	6.0	10.0	6.0	10.0	14.0	18.0	14.0
17	10.0	---	.0	.0	1.0	6.0	12.0	10.0	11.0	13.0	16.0	13.0
18	10.0	---	---	.0	1.0	6.0	10.0	9.0	11.0	14.0	16.0	12.0
19	9.0	3.0	---	.0	.0	5.0	10.0	10.0	9.0	14.0	17.0	12.0
20	9.0	2.0	.0	.0	1.0	5.0	10.0	11.0	11.0	14.0	17.0	12.0
21	8.0	---	.0	.0	3.0	6.0	10.0	10.0	11.0	---	17.0	12.0
22	7.0	1.0	---	1.0	3.0	5.0	12.0	9.0	11.0	14.0	18.0	12.0
23	8.0	.0	.0	.0	3.0	6.0	12.0	11.0	11.0	14.0	17.0	12.0
24	7.0	.0	.0	.0	5.0	6.0	14.0	10.0	11.0	-	18.0	11.0
25	7.0	.0	---	.0	4.0	5.0	12.0	10.0	---	14.0	17.0	11.0
26	9.0	.0	---	.0	4.0	6.0	12.0	11.0	8.0	---	17.0	12.0
27	5.0	.0	---	.0	4.0	6.0	10.0	9.0	9.0	14.0	17.0	12.0
28	5.0	.0	.0	.0	6.0	6.0	10.0	10.0	11.0	14.0	18.0	12.0
29	5.0	.0	.0	.0	---	7.0	9.0	10.0	11.0	14.0	17.0	12.0
30	5.0	.0	.0	.0	---	7.0	9.0	8.0	11.0	15.0	17.0	12.0
31	5.0	---	.0	.0	---	5.0	---	8.0	---	15.0	17.0	---
MEAN	7.5	2.5	.0	.0	1.5	6.5	9.0	10.5	9.0	13.0	17.0	14.5
WTR YR 1983	MEAN	7.5		MAX	18.0	MIN	.0					

EAGLE RIVER BASIN

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09070000 EAGLE RIVER BELOW GYPSUM, CO

LOCATION.--Lat 39°38'58", long 106°57'11", in SW¼NW¼ sec.5, T.5 S., R.85W., Eagle County, Hydrologic Unit 14010003, on right bank 30 ft downstream from bridge on U.S. Highways 6 and 24 at Gypsum and 150 ft downstream from Gypsum Creek.

DRAINAGE AREA.--944 mi².

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft, from topographic map.

REMARKS.--Records good. Transmountain diversions above station (see elsewhere in this report). Transbasin diversions above station from Robinson Reservoir, capacity, 2,520 acre-ft, to Tenmile Creek for mining development. Many small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--37 years, 566 ft³/s; 410,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,660 ft³/s June 25, 1983, gage height, 9.13 ft; maximum gage height, 9.17 ft, June 29, 1957; minimum daily discharge, 110 ft³/s Feb. 21, 1955, Feb. 3, 1956, Dec. 26, 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,660 ft³/s at 1030 June 25, gage height, 9.13 ft, only peak above base of 3,500 ft³/s; minimum daily, 134 ft³/s Apr. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	375	333	241	158	167	175	153	277	2450	4400	1480	462
2	380	320	232	169	165	180	147	276	2570	4070	1350	416
3	375	290	224	177	161	175	155	261	2360	4090	1290	403
4	361	283	224	203	152	169	148	263	2400	3920	1680	425
5	350	290	237	236	175	178	137	303	2560	3560	1710	461
6	348	278	227	222	174	170	142	352	2270	3470	2200	402
7	349	278	224	210	158	165	142	323	2200	3530	1630	369
8	353	282	219	201	165	163	142	347	2370	3720	1290	354
9	352	291	220	194	165	165	144	434	2550	3720	1160	345
10	343	281	234	189	166	171	143	604	2730	3540	1030	336
11	334	282	225	190	165	180	147	770	3130	3200	870	328
12	333	272	214	183	166	193	145	706	3680	2760	859	313
13	334	247	194	181	165	195	137	651	3390	2440	898	298
14	335	243	233	183	166	205	134	577	2640	2240	788	291
15	330	220	199	185	164	203	135	534	2500	2030	932	307
16	335	235	234	183	165	172	137	515	2870	1900	977	297
17	343	235	231	182	165	168	142	500	3020	1790	835	280
18	338	247	234	180	165	174	148	472	3700	1660	954	274
19	326	250	189	176	165	173	172	481	4800	1630	842	275
20	316	243	194	174	164	167	176	472	5360	1770	808	297
21	312	244	237	177	162	156	186	477	5360	2120	721	304
22	313	241	228	174	166	158	187	547	5310	2170	653	291
23	309	237	222	173	169	161	181	650	5200	2110	613	287
24	308	197	225	179	168	159	202	902	5100	1850	560	289
25	312	218	199	170	171	157	264	1320	6060	1560	587	283
26	327	247	151	172	178	154	316	1610	6060	1500	573	278
27	377	226	150	170	172	151	306	1990	5850	1470	542	280
28	342	218	149	172	170	152	301	2420	5460	1650	518	271
29	311	247	149	167	---	152	299	2460	4980	1350	482	260
30	325	243	142	169	---	152	320	2710	4530	1210	498	262
31	345	---	144	168	---	156	---	2610	---	1660	515	---
TOTAL	10491	7718	6425	5667	4654	5249	5488	26814	113460	78090	29845	9738
MEAN	338	257	207	183	166	169	183	865	3782	2519	963	325
MAX	380	333	241	236	178	205	320	2710	6060	4400	2200	462
MIN	308	197	142	158	152	151	134	261	2200	1210	482	260
AC-FT	20810	15310	12740	11240	9230	10410	10890	53190	225000	154900	59200	19320
CAL YR 1982	TOTAL	234662	MEAN 643	MAX 3260	MIN 134	AC-FT 465500						
WTR YR 1983	TOTAL	303639	MEAN 832	MAX 6060	MIN 134	AC-FT 602300						

COLORADO RIVER MAIN STEM

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 U.S. Highways 6 and 24, 1.5 mi west of Dotsero, and 1.5 mi downstream from Eagle River.

DRAINAGE AREA.--4,394 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1940 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,130 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, diversions for irrigation of 68,000 acres above station, and return flow from irrigated areas.

COOPERATION.--Gage-height record collected in cooperation with the Colorado State Engineer.

AVERAGE DISCHARGE.--43 years, 2,088 ft³/s; 1,4513,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,100 ft³/s June 8, 1952, gage height, 11.56 ft; maximum gage height, 11.89 ft, June 27, 1983; minimum daily, 350 ft³/s Jan. 5, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 17,700 ft³/s at 1400 June 27, gage height, 11.89 ft; minimum daily, 670 ft³/s Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1530	1500	1100	740	930	933	1060	1950	10200	13800	5260	2500
2	1530	1430	1070	790	880	947	1030	1880	10000	12600	5030	2460
3	1500	1170	1050	790	830	953	1070	1880	9760	12500	4960	2380
4	1480	1180	1030	870	810	940	1030	2040	9700	12400	5050	2400
5	1450	1380	1060	950	930	972	925	2180	9960	12000	4930	2470
6	1430	1370	1050	1020	900	942	993	2360	9620	11700	5810	2400
7	1430	1370	1050	1080	880	917	976	2400	9310	11300	5450	2310
8	1440	1380	1020	1050	920	906	979	2330	9500	11800	4870	2250
9	1440	1440	981	960	920	903	1010	2610	9770	12100	4270	2230
10	1450	1430	1050	880	930	906	1000	3190	9910	12000	3840	2130
11	1450	1420	1030	900	960	920	1010	3900	10500	11900	3500	2000
12	1450	1390	998	920	880	963	1050	4090	11700	12000	3270	1950
13	1460	1340	898	880	880	1000	1010	3870	11900	11900	3260	1780
14	1480	1300	1050	870	920	1050	956	3630	10600	11400	3140	1720
15	1480	1250	1050	880	920	1120	960	3460	9930	10000	3190	1680
16	1490	1280	1050	920	944	1050	976	3380	9800	8710	3260	1610
17	1480	1310	1060	940	927	1000	990	3310	9990	7960	3150	1530
18	1470	1340	980	950	926	1020	1030	3150	10900	7270	3300	1510
19	1440	1390	980	960	946	995	1140	3190	12800	6610	3400	1490
20	1420	1350	1000	930	924	961	1280	3280	14200	6210	3400	1440
21	1430	1130	1060	880	901	917	1340	3380	15100	7090	3300	1400
22	1420	1100	1060	900	929	927	1450	3500	15300	7730	3130	1390
23	1410	1050	1020	920	933	940	1380	3740	14400	8080	2990	1370
24	1410	953	920	940	919	945	1480	4400	14300	8200	2880	1380
25	1420	1060	770	960	935	948	1740	5500	15800	7550	2700	1390
26	1440	1080	720	920	955	942	2060	6380	16800	6690	2500	1390
27	1550	1050	760	920	938	988	2140	7460	16500	6200	2440	1390
28	1540	1080	810	920	923	1020	2050	8930	16700	6200	2400	1380
29	1470	1090	720	920	---	1010	1920	9790	15800	5650	2360	1380
30	1460	1080	670	920	---	1020	1940	10700	14700	5140	2410	1340
31	1490	---	700	900	---	1050	---	10800	---	5280	2560	---
TOTAL	45340	37693	29767	28380	25590	30105	37975	132660	365450	289970	112010	54050
MEAN	1463	1256	960	915	914	971	1266	4279	12180	9354	3613	1802
MAX	1550	1500	1100	1080	960	1120	2140	10800	16800	13800	5810	2500
MIN	1410	953	670	740	810	903	925	1880	9310	5140	2360	1340
AC-FT	89930	74760	59040	56290	50760	59710	75320	263100	724900	575200	222200	107200
CAL YR 1982	TOTAL	722829	MEAN	1980	MAX	6570	MIN	560	AC-FT	1434000		
WTR YR 1983	TOTAL	1188990	MEAN	3258	MAX	16800	MIN	670	AC-FT	2358000		

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Partial record station May 1962 to February 1980, February 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: February 1980 to current year.

WATER TEMPERATURE: February 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since February 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

COOPERATION.--Additional chemical data supplied by U. S. Bureau of Reclamation (noted by an asterisk in the water year heading).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1410 micromhos Sept. 12, 1981, minimum recorded, 157 micromhos June 23, 1983.

WATER TEMPERATURE: Maximum, 24.0°C Aug. 4, 1981; minimum, 0.0°C several days during winter period each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1070 micromhos Aug. 18; minimum recorded, 157 micromhos June 23.

WATER TEMPERATURE: Maximum 21.0°C Aug. 17; minimum, 0.0°C several days during winter period.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983*

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT										
08...	1020	1490	420	450	8.0	170	52	10	21	.7
14...	1320	1450	420	450	7.5	170	51	10	19	.7
21...	1230	1420	405	440	6.5	170	51	10	20	.7
27...	0845	1530	410	440	7.5	170	50	10	22	.8
NOV										
05...	1145	1400	430	480	3.0	180	54	11	24	.8
09...	1340	1450	405	430	5.0	160	48	10	21	.7
18...	1430	1310	460	470	1.5	170	52	10	24	.8
24...	0940	922	460	510	1.0	180	55	11	28	.9
DEC										
03...	1045	1000	430	450	.5	160	47	10	23	.8
10...	1040	1040	490	460	1.0	160	47	10	26	.9
17...	1000	982	440	430	1.0	150	44	9.0	24	.9
22...	1130	1180	436	510	1.0	180	53	11	28	1
29...	1000	1790	480	560	.0	190	56	11	33	1
JAN										
06...	1010	950	520	590	.0	200	59	12	30	1
13...	1100	940	500	540	.0	180	55	11	27	.9
19...	1035	1200	520	570	.0	190	57	11	28	.9
27...	0900	1070	330	510	.0	180	52	11	24	.8
FEB										
03...	1140	920	460	510	.0	170	51	11	27	.9
10...	1550	950	380	440	1.0	150	45	9.8	33	1
17...	1100	905	390	430	1.0	150	45	8.8	22	.8
23...	1630	1040	400	420	3.0	150	45	8.8	31	1
MAR										
02...	1050	950	440	480	5.0	170	51	11	24	.8
10...	1405	929	570	500	6.5	180	51	12	29	1
17...	1115	986	490	520	5.5	180	51	12	28	1
23...	0825	922	475	480	3.0	160	46	11	25	.9
APR										
01...	0915	1060	465	490	4.0	170	49	11	25	.9
07...	1130	1010	460	490	3.0	170	49	11	23	.8
14...	0800	970	450	450	3.0	150	44	9.7	23	.8
22...	0800	1480	418	430	7.5	150	43	9.7	21	.8
28...	1125	2070	360	370	8.0	140	40	9.0	15	.6
MAY										
05...	1400	2340	380	380	12.0	140	41	10	17	.6
12...	1415	4750	300	310	8.0	130	38	7.8	10	.4
19...	1115	3220	430	410	7.5	160	45	11	17	.6
24...	1300	4460	320	340	11.5	130	39	8.8	11	.4
JUN										
03...	1300	10500	250	340	8.5	110	32	6.7	8.3	.4
09...	1115	10500	380	340	10.5	110	33	6.3	6.2	.3
17...	1400	10500	220	280	11.0	100	30	6.0	6.0	.3
22...	--	14500	178	260	10.0	97	31	4.7	3.9	.2
30...	1035	15100	185	260	10.5	93	29	5.0	5.1	.2
JUL										
08...	1320	11800	180	190	14.0	81	25	4.5	4.6	.2
15...	0910	10000	220	210	13.5	91	28	5.1	6.7	.3
20...	1200	6290	252	260	15.0	110	34	6.3	8.5	.4
28...	1500	6380	238	250	15.5	110	35	5.8	8.3	.4
AUG										
04...	1200	5040	250	250	15.0	110	34	6.3	8.1	.3
12...	0915	3500	350	320	16.0	130	40	8.4	13	.5
18...	0800	3300	298	330	18.0	130	42	6.6	12	.5
26...	0955	2590	--	370	16.0	150	44	8.8	14	.5
SEP										
01...	1505	2600	350	360	17.0	140	43	7.7	14	.5
08...	1150	2310	325	390	16.0	150	45	8.8	17	.6
15...	1100	1650	460	470	13.5	170	52	9.8	22	.8
20...	0800	1330	430	450	11.5	170	51	9.8	22	.8
28...	0940	1310	530	500	11.5	190	57	12	24	.8

COLORADO RIVER MAIN STEM

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983*

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE, FET-LAB (MG/L AS HCO3)	CAR- BONATE, FET-LAB (MG/L AS CO3)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT									
08...	3.0	--	--	110	82	26	260	.35	1050
14...	3.0	--	--	102	75	26	240	.33	940
21...	4.7	--	--	99	77	26	250	.34	958
27...	1.5	--	--	99	78	26	250	.34	1030
NOV									
05...	1.7	--	--	108	85	27	270	.37	1020
09...	1.1	--	--	97	72	24	240	.33	940
18...	1.9	--	--	102	77	30	260	.35	920
24...	1.8	--	--	107	88	35	280	.38	697
DEC									
03...	1.4	--	--	103	68	29	240	.33	648
10...	1.5	--	--	103	73	30	250	.34	702
17...	1.4	--	--	103	65	29	230	.31	610
22...	2.0	--	--	111	80	33	270	.37	860
29...	1.3	--	--	115	92	42	300	.41	1450
JAN									
06...	1.6	130	.000	--	100	40	310	.42	795
13...	1.6	130	.000	--	89	35	280	.38	711
19...	2.0	130	.000	--	95	36	290	.39	940
27...	1.6	120	.000	--	87	32	270	.37	780
FEB									
03...	2.0	120		--	80	34	260	.35	646
10...	2.0	100		--	69	41	260	.35	667
17...	2.0	110	.000	--	64	41	240	.33	586
23...	2.0	99		--	69	37	250	.34	702
MAR									
02...	2.0	120	.000	--	85	44	280	.38	718
10...	4.0	120	.000	--	87	23	270	.37	677
17...	2.0	130	.000	--	92	20	270	.37	719
23...	2.0	110		--	81	29	260	.35	647
APR									
01...	2.7	110		--	84	28	260	.35	744
07...	1.6	120	.000	--	88	27	260	.35	709
14...	2.4	100		--	78	25	240	.33	629
22...	2.4	120	.000	--	84	20	240	.33	959
28...	2.3	110	.000	--	59	17	200	.27	1120
MAY									
05...	2.0	120	.000	--	66	16	210	.29	1330
12...	1.6	110	.000	--	47	8.5	170	.23	2180
19...	2.0	120	.000	--	79	16	230	.31	2000
24...	2.0	120	.000	--	54	8.5	180	.24	2170
JUN									
03...	1.6	100	.000	--	34	6.4	140	.19	3970
09...	1.1	110	.000	--	31	4.6	130	.18	3690
17...	1.1	92	.000	--	30	5.0	120	.16	3400
22...	1.1	95	.000	--	24	3.2	110	.15	4310
30...	1.1	87	.000	--	28	3.9	110	.15	4480
JUL									
08...	.80	76	.000	--	28	4.3	100	.14	3190
15...	1.1	76	.000	--	37	6.4	120	.16	3240
20...	1.1	91	.000	--	48	9.1	150	.20	2550
28...	1.6	97	.000	--	37	7.8	140	.19	2410
AUG									
04...	1.1	89	.000	--	47	8.5	150	.20	2040
12...	1.6	97	.000	--	62	16	190	.26	1800
18...	2.0	110	.000	--	58	13	190	.26	1690
26...	2.0	110	.000	--	71	19	210	.29	1470
SEP									
01...	1.6	100	.000	--	68	18	200	.27	1400
08...	2.0	100	.000	--	74	21	220	.30	1370
15...	2.7	110		--	97	31	270	.37	1200
20...	2.3	120	.000	--	93	28	260	.35	934
28...	2.0	110		--	110	31	300	.41	1060

COLORADO RIVER MAIN STEM

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09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	444	446	434	471	468	440	461	380	---	---	---	373
2	438	458	433	515	470	446	454	367	---	---	---	350
3	438	459	451	557	478	458	460	383	271	---	---	355
4	437	474	488	582	466	459	457	356	250	---	---	373
5	440	470	590	552	470	462	473	352	261	---	---	383
6	441	458	496	530	450	468	505	373	278	---	---	373
7	437	451	440	500	435	468	473	369	283	---	---	381
8	432	439	443	482	442	500	446	348	298	---	---	391
9	455	417	472	479	441	489	453	357	305	---	333	388
10	580	419	455	473	422	514	452	340	307	---	339	405
11	437	425	468	446	411	543	455	308	301	---	358	420
12	448	432	485	446	407	531	453	299	---	182	344	425
13	450	428	494	500	405	516	450	318	---	187	354	432
14	445	440	500	516	402	507	452	306	---	202	320	458
15	473	438	505	517	400	498	535	305	---	220	332	460
16	327	440	490	617	401	513	492	---	---	226	367	453
17	496	447	457	592	400	511	462	---	---	230	379	459
18	480	455	481	583	410	474	447	---	---	237	368	476
19	481	448	508	559	421	445	439	---	---	243	571	485
20	462	448	541	571	426	443	434	404	---	257	414	460
21	433	456	564	616	422	449	430	388	---	252	327	447
22	---	459	540	638	399	461	432	377	---	239	407	455
23	---	484	535	613	400	497	438	353	168	272	411	463
24	---	509	533	591	411	535	437	334	180	308	391	477
25	---	528	566	561	422	552	441	290	196	290	368	488
26	---	511	547	527	427	680	405	246	---	271	342	504
27	415	475	601	496	428	784	399	---	---	250	330	518
28	422	498	618	493	436	732	376	---	---	242	343	524
29	428	487	567	492	---	639	367	---	---	301	339	509
30	437	441	627	492	---	595	381	---	---	326	371	506
31	445	---	671	484	---	537	---	---	---	283	375	---
MEAN	447	458	516	532	428	521	445	343	258	251	369	440
WTR YR 1983	MEAN	435	MAX	784	MIN	168						

09070500 COLORADO RIVER NEAR DOTSERO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.5	10.0	7.5	6.0	2.0	1.5	.0	.0	.5	.5	4.5	3.5
2	12.0	9.0	6.0	4.5	1.5	.0	.0	.0	.5	.5	5.5	4.0
3	11.5	9.0	4.5	2.5	1.5	.0	.0	.0	.5	.0	5.0	3.5
4	12.0	8.5	4.0	2.0	.5	.0	.0	.0	1.0	.5	4.5	3.0
5	11.0	9.0	3.5	1.5	1.0	.0	.0	.0	.5	.5	4.5	3.5
6	10.5	7.5	4.0	1.5	1.5	.0	.0	.0	.5	.5	5.0	3.0
7	10.0	7.0	4.0	2.0	1.5	1.0	.0	.0	.5	.5	4.5	3.0
8	9.5	7.5	5.0	3.0	1.0	.5	.0	.0	.5	.5	5.0	3.0
9	7.5	6.0	5.0	3.5	.5	.0	.0	.0	1.0	.5	5.5	3.0
10	6.5	5.0	6.0	4.0	3.0	.5	.0	.0	1.0	.5	6.5	3.5
11	7.0	4.0	5.0	3.0	3.0	2.0	.0	.0	1.0	1.0	6.0	4.0
12	6.5	4.5	3.5	2.0	3.0	1.5	.5	.0	1.5	1.0	7.5	5.0
13	8.5	5.5	3.0	1.5	1.5	.5	.5	.0	1.5	1.0	7.5	5.0
14	8.5	5.5	1.5	.0	1.0	.5	.5	.0	1.5	1.5	8.0	6.0
15	9.5	6.0	1.0	.0	1.5	1.0	.5	.0	2.0	1.5	6.0	4.0
16	9.5	7.0	1.0	.0	1.5	1.0	.5	.0	2.0	1.5	5.0	2.5
17	9.5	7.0	1.0	.0	1.5	.5	.5	.0	2.0	1.5	5.0	3.0
18	9.5	7.5	2.5	.0	1.0	.5	.5	.0	2.0	1.5	5.5	3.0
19	8.5	7.0	3.0	2.0	1.5	1.0	.5	.5	2.0	1.5	6.0	3.0
20	8.0	6.0	3.0	1.5	1.0	1.0	.5	.5	2.0	1.5	5.5	2.5
21	7.5	5.5	3.5	2.0	1.0	.5	.5	.5	2.5	2.0	5.0	2.0
22	7.0	5.0	3.5	2.5	1.5	.5	.5	.5	2.5	2.0	5.5	2.5
23	7.0	4.5	2.5	1.0	1.0	.5	.5	.5	2.5	2.0	6.5	2.5
24	8.0	6.0	1.0	1.0	.5	.5	.5	.5	2.5	2.0	5.5	3.5
25	9.0	7.5	1.0	1.0	.5	.0	.5	.5	3.0	2.0	4.5	3.0
26	8.5	7.5	1.5	1.0	.5	.0	.5	.5	3.0	2.5	5.0	3.0
27	8.0	6.0	1.5	1.0	.5	.0	.5	.5	3.0	2.5	5.5	2.0
28	6.0	4.5	1.0	.5	.0	.0	.5	.5	3.5	2.5	6.5	3.5
29	5.0	3.0	1.5	.5	.5	.0	.5	.5	---	---	7.5	4.0
30	6.0	3.5	1.5	1.0	1.0	.0	.5	.5	---	---	8.5	5.0
31	7.0	5.5	---	---	.0	.0	.5	.5	---	---	7.0	5.5
MONTH	12.5	3.0	7.5	.0	3.0	.0	.5	.0	3.5	.0	8.5	2.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	3.5	9.5	6.5	9.5	8.0	---	---	---	---	18.0	15.0
2	5.5	2.5	8.5	7.0	9.0	8.0	---	---	---	---	18.5	16.5
3	5.5	3.5	11.0	7.5	10.0	7.5	---	---	---	---	18.5	16.0
4	3.0	1.5	12.5	9.0	11.0	8.5	---	---	---	---	17.5	16.5
5	4.0	.0	12.0	9.5	10.5	8.5	---	---	---	---	17.0	14.5
6	5.0	.5	11.0	9.5	10.0	8.0	---	---	---	---	17.0	14.5
7	4.0	1.0	12.0	8.0	12.5	9.0	---	---	---	---	17.0	14.5
8	5.5	1.5	12.5	9.5	12.0	10.5	---	---	---	---	18.0	16.0
9	7.0	3.0	13.0	10.0	12.5	10.5	---	---	20.0	15.0	18.0	15.5
10	8.0	4.0	12.5	10.5	12.0	10.0	---	---	19.5	16.5	18.0	15.5
11	7.5	5.0	12.0	9.0	12.0	10.0	---	---	19.0	16.5	17.0	14.5
12	7.5	5.0	9.5	6.5	---	---	15.0	12.0	19.0	16.0	16.5	14.5
13	6.5	3.5	8.5	6.5	---	---	15.5	13.0	19.0	15.5	16.5	14.0
14	6.0	2.5	8.0	6.0	---	---	15.5	13.0	19.0	16.5	15.5	13.5
15	7.0	3.0	9.5	6.5	---	---	15.0	13.0	19.0	16.5	15.5	13.0
16	8.0	4.0	---	---	---	---	15.5	12.0	20.0	17.0	15.5	13.0
17	9.0	4.5	---	---	---	---	16.5	12.5	21.0	17.5	15.5	12.0
18	8.5	5.5	---	---	---	---	16.5	13.5	20.0	17.5	16.0	12.5
19	10.0	7.0	---	---	---	---	18.0	14.0	19.0	15.5	16.0	13.5
20	9.5	7.0	10.5	7.5	---	---	18.5	15.5	18.0	15.5	14.0	10.5
21	9.5	7.5	11.5	8.0	---	---	17.0	15.0	19.0	15.5	11.5	9.5
22	9.5	7.0	12.5	9.5	---	---	16.0	14.0	19.0	16.0	11.5	8.0
23	10.5	7.0	13.5	10.0	11.0	9.0	16.0	15.0	19.0	16.0	12.5	9.5
24	11.5	7.5	13.5	10.5	13.5	10.0	17.0	13.0	18.5	16.0	13.5	11.5
25	11.5	8.5	13.0	10.5	14.0	12.5	17.0	15.0	18.5	16.0	14.5	10.5
26	10.0	8.0	12.0	10.0	---	---	16.5	15.0	19.0	16.0	14.5	11.5
27	9.5	8.5	12.0	9.5	---	---	17.0	14.5	19.0	17.0	14.5	12.0
28	8.5	7.5	11.0	9.0	---	---	17.0	14.5	19.0	16.0	13.5	11.5
29	8.5	7.0	10.0	7.5	---	---	18.5	14.5	18.0	16.5	14.0	12.0
30	8.0	7.0	10.0	8.5	---	---	18.5	15.5	18.5	15.5	14.0	12.5
31	---	---	9.0	7.5	---	---	17.0	15.0	18.5	15.0	---	---
MONTH	11.5	.0	13.5	6.0	14.0	7.5	18.5	12.0	21.0	15.0	18.5	8.0
YEAR	21.0	.0										

COLORADO RIVER MAIN STEM

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09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO
(Irrigation Network Station)

LOCATION.--Lat 39°34'12", long 107°13'34", Garfield County, Hydrologic Unit 14010001, at Shoshone power plant, 6 mi upstream from Glenwood Springs, and 6.5 mi upstream from Roaring Fork River.

DRAINAGE AREA.--4,560 mi², approximately.

PERIOD OF RECORD.--October 1941 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1941 to current year.

WATER TEMPERATURES: May 1949 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Discharge obtained by subtracting the flow in Roaring Fork River at Glenwood Springs (station 09085000) from the flow in Colorado River below Glenwood Springs (station 09085100). Daily maximum and minimum specific-conductance data available in district office. Water-quality data for the 1982 water year will be published in this report.

COOPERATION.--Additional chemical data supplied by U.S. Bureau of Reclamation (noted by an asterisk in the water year heading).

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2460 micromhos July 12, 1981; minimum, 150 micromhos May 31, 1982.

WATER TEMPERATURES: Maximum, 25.5°C July 8, 1981; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,000 micromhos Aug. 19; minimum recorded, 166 micromhos July 23.

WATER TEMPERATURES: Maximum 24.5°C July 30; minimum, 0.0°C many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	NITRO- GEN DIS- SOLVED (MG/L AS N)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)
DEC 02...	1800	517	850	860	7.8	.0	11.7	.58	210	62
FEB 24...	1800	858	730	725	7.8	1.0	11.5	.82	190	55
JUN 09...	1400	5850	260	268	7.6	10.0	9.6	1.1	100	31
AUG 18...	1230	2240	430	437	7.3	18.0	6.9	--	140	43

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)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)
DEC 02...	14	94	3	3.0	120	140	.30	9.3	490	.67
FEB 24...	12	74	2	3.0	110	110	.20	9.2	420	.57
JUN 09...	6.5	13	.6	1.3	76	11	.20	9.0	150	.20
AUG 18...	8.5	33	1	1.9	86	39	.20	9.0	250	.34

DATE	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN,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)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
DEC 02...	690	<.100	<.100	.38	.28	.62	.010	.020	14	72
FEB 24...	974	.180	.200	.93	.62	1.1	.050	.030	<10	28
JUN 09...	2360	.500	.130	.90	1.0	1.4	.150	.030	64	18
AUG 18...	1500	.100	<.100	.90	.90	1.0	.160	.050	28	16

COLORADO RIVER MAIN STEM

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	ARSENIC TOTAL (UG/L AS AS)		ARSENIC DIS- SOLVED (UG/L AS AS)		CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD)		CADMIUM DIS- SOLVED (UG/L AS CD)		CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR)		CHRO- MIUM, DIS- SOLVED (UG/L AS CR)		COPPER, TOTAL RECOV- ERABLE (UG/L AS CU)		COPPER, DIS- SOLVED (UG/L AS CU)	
DEC 02...		1		1		<1		<1		3		3		3		<1
FEB 24...		2		<1		<1		<1		4		<1		5		10
JUN 09...		1		1		<1		<1		6		<1		7		<1
AUG 18...		1		1		1		<1		6		1		5		3
DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB)		LEAD, DIS- SOLVED (UG/L AS PB)		MERCURY TOTAL RECOV- ERABLE (UG/L AS HG)		MERCURY DIS- SOLVED (UG/L AS HG)		SELE- NIUM, TOTAL RECOV- ERABLE (UG/L AS SE)		SELE- NIUM, DIS- SOLVED (UG/L AS SE)		ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN)		ZINC, DIS- SOLVED (UG/L AS ZN)	
DEC 02...		4		<1		<.1		<.1		<1		<1		20		6
FEB 24...		5		<1		.1		<.1		<1		<1		40		<3
JUN 09...		4		<1		.2		<.1		1		1		140		16
AUG 18...		3		<1		.1		.1		1		1		30		4

COLORADO RIVER MAIN STEM

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09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983*

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT										
08...	1110	1540	520	580	8.0	170	50	10	47	2
14...	1405	1680	520	560	7.0	160	47	10	43	2
21...	1330	1640	500	560	5.5	150	46	9.0	43	2
27...	1030	1530	500	550	8.0	160	47	10	47	2
NOV										
05...	1235	2000	570	600	3.0	170	50	11	50	2
09...	1030	1430	510	580	4.5	150	46	9.0	48	2
18...	1345	1310	550	580	1.0	160	47	10	47	2
24...	1015	966	670	690	1.0	180	55	11	61	2
DEC										
03...	1120	1130	650	660	.5	180	52	11	57	2
10...	1120	1240	650	660	1.0	170	51	11	59	2
17...	1215	1170	650	660	.5	170	50	10	59	2
22...	1205	1180	560	650	1.5	170	50	10	57	2
29...	1040	1790	690	760	1.0	180	55	11	72	2
JAN										
06...	0920	950	560	670	1.5	160	49	9.8	56	2
13...	1200	980	690	710	.0	170	50	11	63	2
19...	1115	1200	620	680	.5	160	47	10	59	2
26...	1000	1070	650	680	.5	160	47	10	61	2
FEB										
03...	1240	960	620	680	.0	160	47	10	61	2
10...	1515	950	590	660	1.5	160	47	9.8	73	3
17...	1200	930	610	670	.5	160	49	9.8	66	2
23...	1540	1040	620	700	3.0	170	52	9.8	77	3
MAR										
02...	--	950	630	680	4.5	180	52	11	74	3
10...	1030	928	680	730	4.5	190	55	12	67	2
17...	1020	986	660	690	5.0	180	51	12	64	2
23...	0910	920	656	710	4.5	180	51	12	63	2
APR										
01...	0830	1060	620	650	4.5	160	47	11	57	2
07...	1055	1100	670	700	3.5	170	50	11	63	2
13...	1600	1180	658	660	5.5	160	47	9.8	58	2
22...	0900	1460	582	590	8.0	160	46	11	47	2
28...	1215	2530	455	470	8.5	150	42	10	33	1
MAY										
05...	1400	2470	440	490	11.0	160	44	11	34	1
12...	1345	4750	315	350	7.5	130	40	7.2	17	.7
19...	1020	3220	390	430	8.0	140	42	9.6	25	.9
24...	1545	4460	348	370	11.5	140	41	8.6	18	.7
JUN										
03...	1400	11300	230	340	9.0	100	31	6.2	9.9	.4
09...	1010	10500	290	330	9.5	100	31	6.1	9.2	.4
17...	--	10500	245	310	10.0	100	31	6.0	9.2	.4
22...	1205	14500	190	260	10.0	89	28	4.7	6.0	.3
28...	1455	16000	185	270	11.5	96	30	5.0	6.7	.3
JUL										
08...	1230	11800	260	210	15.5	84	26	4.6	7.8	.4
15...	0940	11500	220	210	14.5	79	24	4.6	10	.5
20...	1500	6290	292	310	17.0	110	35	6.1	15	.6
28...	1530	6380	280	280	15.5	110	34	6.3	15	.6
AUG										
04...	1230	5100	320	320	17.0	120	35	7.3	18	.8
12...	0830	3500	350	370	15.0	120	36	7.7	26	1
18...	--	3300	427	450	19.0	170	52	8.8	28	1
26...	0930	2590	405	430	16.0	130	40	7.7	30	1
SEP										
01...	1335	2500	400	420	19.0	130	39	7.7	30	1
08...	1120	2300	406	460	17.0	140	42	7.7	34	1
16...	1140	1700	560	580	15.5	170	51	9.8	48	2
19...	1600	1290	640	650	--	180	55	11	55	2
28...	1020	1480	640	640	12.0	190	56	11	54	2

COLORADO RIVER MAIN STEM

09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983*

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE, FET-LAB (MG/L AS HCO3)	CAR- BONATE, FET-LAB (MG/L AS CO3)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT									
08...	4.0	--	--	98	75	67	310	.42	1290
14...	3.1	--	--	102	70	65	300	.41	1360
21...	3.9	--	--	100	69	68	300	.41	1330
27...	2.4	--	--	99	70	66	300	.41	1240
NOV									
05...	2.6	--	--	105	79	70	330	.45	1780
09...	1.8	--	--	97	68	69	300	.41	1160
18...	1.5	--	--	101	71	68	310	.42	1100
24...	1.5	--	--	109	84	90	370	.50	965
DEC									
03...	1.7	--	--	106	76	86	350	.48	1070
10...	2.3	--	--	111	80	85	360	.49	1210
17...	1.8	--	--	107	74	86	340	.46	1070
22...	1.5	--	--	107	76	84	340	.46	1080
29...	2.0	--	--	118	88	100	400	.54	1930
JAN									
06...	2.0	130	.000	--	77	83	340	.46	872
13...	2.0	110	--	--	75	91	350	.48	926
19...	1.6	120	.000	--	71	87	340	.46	1100
26...	1.6	120	.000	--	76	90	340	.46	982
FEB									
03...	1.6	120	.000	--	71	88	340	.46	881
10...	2.0	120	.000	--	72	130	390	.53	1000
17...	7.0	120	.000	--	71	130	390	.53	979
23...	2.0	120	.000	--	84	130	420	.57	1180
MAR									
02...	3.0	130	.000	--	83	130	410	.56	1050
10...	2.0	140	.000	--	110	71	380	.52	952
17...	3.0	130	.000	--	100	64	360	.49	958
23...	2.4	120	--	--	95	84	370	.50	919
APR									
01...	2.4	110	--	--	85	77	340	.46	973
07...	2.0	110	--	--	92	84	360	.49	1070
13...	2.0	130	.000	--	80	79	340	.46	1080
22...	2.7	120	.000	--	90	58	310	.42	1220
28...	2.3	130	.000	--	64	39	250	.34	1710
MAY									
05...	2.3	120	.000	--	70	39	260	.35	1730
12...	2.0	120	.000	--	40	21	190	.26	2440
19...	2.0	110	.000	--	63	28	230	.31	2000
24...	2.0	120	.000	--	50	21	200	.27	2410
JUN									
03...	1.6	110	.000	--	28	8.9	140	.19	4270
09...	1.6	100	.000	--	29	8.9	140	.19	3970
17...	1.6	100	.000	--	28	8.9	130	.18	3690
22...	1.6	88	.000	--	23	5.3	110	.15	4310
28...	1.6	90	.000	--	26	6.0	120	.16	5180
JUL									
08...	1.6	71	.000	--	29	8.5	110	.15	3500
15...	1.6	70	.000	--	31	11	120	.16	3730
20...	1.6	93	.000	--	47	19	170	.23	2890
28...	1.6	96	.000	--	42	17	160	.22	2760
AUG									
04...	1.6	92	.000	--	53	21	180	.24	2480
12...	1.6	94	.000	--	54	35	210	.29	1980
18...	2.3	120	.000	--	79	35	260	.35	2320
26...	2.0	100	.000	--	61	41	230	.31	1610
SEP									
01...	2.0	100	.000	--	60	40	230	.31	1550
08...	2.3	100	.000	--	67	47	250	.34	1550
16...	2.3	120	.000	--	94	65	330	.45	1510
19...	2.3	120	.000	--	100	77	360	.49	1250
28...	2.3	120	--	--	100	77	360	.49	1440

COLORADO RIVER MAIN STEM

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09071100 COLORADO RIVER NEAR GLENWOOD SPRINGS, CO

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	545	524	606	797	645	---	616	500	219	---	315	417
2	547	535	624	765	632	---	621	508	236	---	313	428
3	547	605	655	765	650	---	629	542	242	---	326	440
4	555	650	667	747	689	---	633	495	240	---	317	445
5	560	593	643	699	674	---	657	464	236	---	322	444
6	572	550	656	621	652	---	662	447	233	---	272	440
7	571	554	660	564	671	---	662	429	235	---	275	452
8	562	553	659	548	663	---	663	433	237	---	285	464
9	559	546	681	540	642	---	663	428	237	---	309	465
10	550	542	674	569	639	641	659	388	233	---	---	469
11	550	546	673	547	644	654	665	344	233	---	---	493
12	552	556	670	511	650	676	656	318	220	---	---	498
13	552	550	706	513	660	687	663	323	233	---	---	500
14	548	560	698	618	648	684	673	345	247	---	---	526
15	547	570	721	700	639	653	688	344	247	---	---	571
16	551	568	681	700	625	603	679	319	248	---	---	573
17	551	567	679	678	635	672	668	341	243	---	362	604
18	553	563	660	658	638	697	660	372	228	---	390	628
19	558	536	705	648	635	680	637	404	215	261	551	638
20	566	498	727	649	645	674	602	422	215	264	408	644
21	567	545	708	666	653	670	597	424	202	277	388	633
22	---	564	666	659	647	673	577	410	---	276	403	628
23	---	561	648	652	662	683	576	384	---	234	409	632
24	---	590	646	651	652	684	580	347	---	215	414	---
25	---	603	693	643	652	675	571	311	---	253	415	---
26	---	597	756	648	647	667	503	292	---	253	429	---
27	---	593	800	649	640	647	468	274	---	283	435	---
28	---	616	775	650	---	631	454	264	---	304	441	---
29	---	620	764	640	---	632	470	259	---	333	442	638
30	---	606	840	634	---	627	491	205	---	354	445	633
31	---	---	871	643	---	624	---	205	---	325	422	---
MEAN	555	569	697	644	649	661	611	372	232	279	379	532
WTR YR 1983	MEAN	533	MAX	871	MIN	202						

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	11.5	10.5	8.5	6.0	1.5	1.5	1.5	1.5	.5	.0	---	---
2	11.5	9.5	8.0	6.0	1.5	1.0	1.5	1.5	.5	.0	---	---
3	11.5	9.5	6.5	4.0	1.5	.0	1.5	1.5	.0	.0	---	---
4	11.5	9.5	5.0	4.0	1.0	.0	2.0	2.0	.5	.0	---	---
5	11.5	9.5	4.5	.5	1.5	.5	2.0	2.0	.5	.0	---	---
6	9.5	8.0	4.5	3.0	2.0	1.0	2.0	1.5	.5	.5	---	---
7	9.5	8.0	4.5	2.5	2.0	1.5	2.0	1.5	1.0	.5	---	---
8	9.5	8.0	5.0	4.0	2.0	1.0	1.5	1.5	1.0	1.0	---	---
9	8.0	6.5	6.0	4.5	1.5	.5	1.5	1.5	1.5	1.0	---	---
10	7.0	5.5	8.0	6.0	2.5	1.0	1.0	1.0	2.0	1.5	7.0	5.0
11	6.5	4.5	7.5	6.0	3.0	2.5	1.0	1.0	2.5	1.0	6.5	5.5
12	6.5	5.0	6.0	4.0	2.5	1.0	.5	.5	2.0	1.5	8.0	6.5
13	8.0	6.0	5.0	3.0	1.0	.5	.5	.0	2.5	1.0	8.0	7.0
14	8.0	6.0	3.5	1.0	1.0	.5	.5	.5	2.0	1.0	8.0	7.5
15	9.0	6.5	2.0	.5	.5	.5	.5	.5	2.5	1.0	7.5	6.0
16	9.5	8.0	1.5	.0	.5	.5	1.0	.5	2.5	1.0	6.0	4.5
17	9.5	7.5	2.0	.0	1.0	.5	1.0	.5	2.5	.0	5.5	5.0
18	9.0	7.0	2.5	1.0	1.5	1.0	1.0	.5	3.0	1.0	5.5	5.0
19	9.0	7.0	3.5	2.5	.0	.0	.5	.5	2.5	1.5	6.0	4.5
20	8.0	6.0	3.0	2.0	1.5	1.0	.5	.5	4.0	2.0	6.0	4.5
21	7.0	5.5	3.0	2.0	1.5	1.0	1.0	.5	4.5	1.5	5.0	4.0
22	7.0	5.5	2.5	2.0	1.5	1.0	.5	.5	5.0	2.5	5.5	4.0
23	7.0	5.0	1.5	.5	2.0	1.5	.5	.5	4.5	2.5	6.5	4.5
24	8.5	6.5	.5	.0	1.5	1.5	.5	.5	3.5	1.0	6.0	5.0
25	9.0	8.0	.5	.0	1.5	1.0	.5	.5	3.5	1.5	5.5	4.0
26	9.5	8.5	.5	.0	1.0	1.0	.5	.0	3.5	2.5	5.0	4.0
27	8.5	7.0	.5	.0	1.0	1.0	.5	.0	3.0	2.0	5.5	3.5
28	6.5	5.5	.5	.0	1.0	1.0	.0	.0	---	---	6.0	5.0
29	5.5	4.0	1.5	.5	1.0	.0	.0	.0	---	---	7.0	5.5
30	5.5	4.5	1.5	1.0	1.0	.0	.5	.0	---	---	7.5	5.5
31	7.0	5.5	---	---	1.5	.5	.5	.0	---	---	7.5	6.0
MONTH	11.5	4.0	8.5	.0	3.0	.0	2.0	.0	5.0	.0	8.0	3.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	5.5	4.5	9.5	6.5	9.5	8.0	---	---	20.5	18.0	19.0	16.5
2	6.0	4.5	9.5	7.5	9.5	8.5	---	---	20.5	18.5	20.0	18.5
3	6.0	4.5	11.0	7.5	10.5	8.5	---	---	20.5	18.5	20.0	18.0
4	5.0	2.5	12.5	9.0	11.0	9.0	---	---	21.0	18.5	19.0	18.0
5	4.0	2.0	12.0	10.5	10.5	9.0	---	---	20.5	17.0	18.5	16.5
6	5.5	3.0	11.5	10.0	9.5	8.0	---	---	20.5	16.0	17.5	16.0
7	5.0	3.5	11.5	8.5	11.0	8.5	---	---	20.5	18.0	18.0	16.0
8	5.5	3.5	12.0	9.5	11.0	9.0	---	---	20.5	18.5	18.0	16.5
9	7.0	5.0	13.5	10.0	11.0	9.5	---	---	20.0	18.0	17.5	16.0
10	8.0	6.0	12.0	11.0	11.0	9.5	---	---	---	---	18.0	16.0
11	8.0	7.0	12.0	9.0	11.0	9.5	---	---	---	---	17.5	16.0
12	7.5	6.5	10.0	7.0	11.0	9.5	---	---	---	---	17.0	15.5
13	7.5	5.5	9.5	7.0	9.5	8.5	---	---	---	---	17.0	15.0
14	6.0	4.5	8.0	6.0	10.5	8.0	---	---	---	---	17.0	15.5
15	7.0	4.5	9.0	6.5	11.0	9.0	---	---	---	---	16.5	14.5
16	8.0	5.5	9.0	7.0	11.0	9.5	---	---	---	---	16.5	15.0
17	9.0	6.5	7.0	6.0	11.5	10.0	---	---	21.0	18.5	16.5	14.5
18	9.0	7.5	8.0	5.5	12.0	10.0	---	---	24.0	19.0	16.0	15.0
19	11.0	8.5	9.5	7.0	12.0	10.0	18.0	16.5	22.0	18.5	16.0	15.0
20	10.5	8.5	10.5	8.5	12.0	10.0	18.0	7.0	19.0	17.0	15.5	12.5
21	10.0	8.5	11.0	8.5	12.0	10.0	20.0	17.0	19.0	17.0	12.5	10.5
22	10.0	8.0	12.0	10.0	---	---	21.0	19.0	19.0	17.0	11.5	10.0
23	11.5	8.5	12.5	10.0	---	---	20.5	17.5	19.0	17.0	12.5	10.5
24	12.0	9.0	12.0	11.0	---	---	22.0	17.0	18.5	17.0	12.5	11.5
25	11.5	9.5	12.0	10.0	---	---	22.5	17.0	18.0	16.5	13.0	11.5
26	11.5	9.0	11.5	9.5	---	---	---	---	18.0	15.5	13.0	11.5
27	11.0	9.5	11.0	10.0	---	---	---	---	18.0	16.5	13.0	12.0
28	10.0	8.5	11.0	10.0	---	---	---	---	18.0	16.0	13.0	12.5
29	9.0	8.0	10.5	9.0	---	---	---	---	18.0	16.5	13.5	12.0
30	9.0	7.5	10.0	9.0	---	---	24.5	17.5	18.0	15.5	14.5	12.0
31	---	---	9.0	8.0	---	---	21.0	17.0	18.0	16.5	---	---
MONTH	12.0	2.0	13.5	5.5	12.0	8.0	24.5	7.0	24.0	15.5	20.0	10.0
YEAR	24.5	.0										

GRIZZLY CREEK BASIN

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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. Altitude of gage is 10,435 ft, from topographic map. Prior to Oct. 19, 1978, at site 600 ft upstream, at datum, 25.33 ft, higher.

REMARKS.--Records fair. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 13.6 ft³/s; 9,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 240 ft³/s June 25, 1983; maximum gage height observed, 8.63 ft, May 4, 1982 (backwater from ice); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 240 ft³/s June 25; minimum daily, 0.48 ft³/s Apr. 15-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	6.3	4.5	1.7	1.1	.82	.60	.62	74	180	4.2	2.4
2	7.8	6.2	4.3	1.7	1.1	.81	.58	.62	72	167	5.5	1.9
3	8.0	6.0	4.3	1.7	1.1	.81	.56	.62	70	169	6.9	1.9
4	8.2	5.8	4.3	1.7	1.0	.80	.56	.62	70	146	7.4	2.0
5	8.3	5.8	4.3	1.6	1.0	.80	.56	.62	74	117	6.7	2.5
6	8.4	5.6	4.2	1.6	1.0	.78	.56	.62	70	112	6.0	1.8
7	8.2	5.6	4.1	1.6	1.0	.78	.54	.62	76	110	5.3	1.7
8	8.2	5.6	4.0	1.6	1.0	.78	.54	.68	84	93	4.6	1.9
9	8.2	5.5	3.8	1.5	1.0	.77	.52	1.0	100	81	4.2	2.0
10	7.9	5.4	3.9	1.5	1.0	.76	.52	1.6	120	65	4.1	1.9
11	7.9	5.2	3.7	1.5	.98	.75	.50	2.1	170	49	3.9	1.8
12	7.7	5.2	3.5	1.4	.96	.73	.50	2.1	150	36	3.8	1.8
13	7.4	5.0	3.2	1.4	.94	.72	.50	2.3	140	26	3.7	1.6
14	7.4	4.8	3.2	1.4	.92	.70	.49	2.5	130	20	3.5	1.5
15	7.4	4.4	3.1	1.4	.92	.70	.48	2.6	120	17	3.5	1.5
16	7.4	4.7	3.2	1.3	.90	.68	.48	2.5	130	14	3.9	1.5
17	7.2	4.9	3.2	1.3	.90	.66	.48	2.5	140	13	3.3	1.6
18	6.9	5.0	3.0	1.3	.90	.64	.48	2.4	150	13	3.2	1.7
19	6.9	5.0	2.8	1.3	.90	.64	.48	2.4	160	12	3.0	1.7
20	6.4	4.9	3.0	1.3	.90	.62	.48	2.4	180	12	4.2	1.7
21	6.4	5.0	2.9	1.2	.88	.62	.48	2.4	220	13	3.5	1.7
22	6.0	4.8	3.0	1.2	.88	.62	.48	3.1	210	10	3.2	1.8
23	6.0	4.7	3.0	1.2	.88	.62	.49	4.5	210	9.8	3.0	1.8
24	6.2	4.1	2.7	1.2	.88	.62	.57	6.2	230	9.5	2.7	1.8
25	6.2	4.4	1.8	1.1	.88	.62	.67	7.5	240	7.9	2.6	1.6
26	6.4	4.5	1.7	1.1	.86	.62	.67	11	230	6.0	2.2	1.6
27	7.2	4.5	1.7	1.1	.84	.61	.67	15	190	5.3	2.4	1.6
28	6.9	4.3	1.6	1.1	.84	.60	.62	20	180	4.8	2.4	1.6
29	6.0	4.5	1.5	1.1	---	.60	.62	35	177	4.6	2.5	1.5
30	6.2	4.5	1.6	1.1	---	.60	.62	60	163	4.4	2.4	1.9
31	6.4	---	1.7	1.1	---	.60	---	80	---	3.9	2.2	---
TOTAL	223.2	152.2	96.8	42.3	26.46	21.48	16.30	276.12	4330	1531.2	120.0	53.3
MEAN	7.20	5.07	3.12	1.36	.95	.69	.54	8.91	144	49.4	3.87	1.78
MAX	8.4	6.3	4.5	1.7	1.1	.82	.67	80	240	180	7.4	2.5
MIN	6.0	4.1	1.5	1.1	.84	.60	.48	.62	70	3.9	2.2	1.5
AC-FT	443	302	192	84	52	43	32	548	8590	3040	238	106
CAL YR 1982	TOTAL	7596.03	MEAN	20.8	MAX	169	MIN	.62	AC-FT	15070		
WTR YR 1983	TOTAL	6889.36	MEAN	18.9	MAX	240	MIN	.48	AC-FT	13670		

NOTE--NO GAGE-HEIGHT RECORD DEC. 29 TO APR. 13, MAY 29 TO JUNE 28.

ROARING FORK RIVER BASIN

09072550 ROARING FORK RIVER ABOVE LOST MAN CREEK, NEAR ASPEN, CO

LOCATION.--Lat 39°07'13", long 106°37'27", Pitkin County, Hydrologic Unit 14010004, on right bank 300 ft, upstream from Lost Man campground, 600 ft, downstream from diversion dam, 1,000 ft, upstream from Lost Man Creek, and 12 mi southeast of Aspen.

DRAINAGE AREA.--9.10 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 10,520 ft, from topographic map.

REMARKS.--Records fair except those for period of no gage-height record, which are poor. Diversions from Lost Man Creek via canal into diversion dam, 600 ft, upstream, which also diverts some of the Roaring Fork River, via tunnel, to Grizzly Reservoir on Lincoln Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 158 ft³/s June 24, 1983, gage height, 3.13 ft; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 158 ft³/s at 2100 June 24, gage height, 3.13 ft; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	.06	.00	.00	.00	.00	.00	.00	.07	24	.05	.04
2	12	.06	.00	.00	.00	.00	.00	.00	.07	34	.05	.04
3	12	.06	.00	.00	.00	.00	.00	.00	.08	26	.05	.04
4	12	.06	.00	.00	.00	.00	.00	.00	.08	16	.05	.04
5	13	.06	.00	.00	.00	.00	.00	.00	.09	23	.05	.04
6	12	.06	.00	.00	.00	.00	.00	.00	.09	29	.13	.04
7	12	5.0	.00	.00	.00	.00	.00	.00	.10	43	.12	.03
8	12	4.5	.00	.00	.00	.00	.00	.00	.10	77	.09	.03
9	12	4.5	.00	.00	.00	.00	.00	.00	.11	69	.06	.03
10	12	4.5	.00	.00	.00	.00	.00	.00	.12	66	.06	.02
11	14	4.5	.00	.00	.00	.00	.00	.00	.13	24	.06	.02
12	14	4.4	.00	.00	.00	.00	.00	.00	.15	5.2	.06	.02
13	12	4.2	.00	.00	.00	.00	.00	.00	.15	.76	.06	1.9
14	12	1.0	.00	.00	.00	.00	.00	.00	.15	.20	.06	2.8
15	12	.00	.00	.00	.00	.00	.00	.00	.15	.11	.05	2.8
16	12	.00	.00	.00	.00	.00	.00	.00	.15	.10	.05	2.8
17	.20	.00	.00	.00	.00	.00	.00	.00	1.1	.09	.05	2.8
18	.08	.00	.00	.00	.00	.00	.00	.00	.29	.08	.05	2.8
19	.06	.00	.00	.00	.00	.00	.00	.00	81	.08	.05	2.8
20	.06	.00	.00	.00	.00	.00	.00	.00	84	5.6	.05	2.8
21	.06	.00	.00	.00	.00	.00	.00	.00	90	.26	.05	2.8
22	.06	.00	.00	.00	.00	.00	.00	.00	86	.14	.05	2.8
23	.06	.00	.00	.00	.00	.00	.00	.00	71	.13	.05	2.8
24	.06	.00	.00	.00	.00	.00	.00	.00	107	.11	.04	2.8
25	.06	.00	.00	.00	.00	.00	.00	.00	88	.10	.04	2.8
26	.06	.00	.00	.00	.00	.00	.00	.00	74	.10	.04	2.6
27	.06	.00	.00	.00	.00	.00	.00	.00	50	.09	.04	2.6
28	.06	.00	.00	.00	.00	.00	.00	.08	26	.08	.04	2.4
29	.06	.00	.00	.00	.00	.00	.00	.08	25	.07	.04	2.4
30	.06	.00	.00	.00	.00	.00	.00	.08	20	.06	.04	2.4
31	.06	---	.00	.00	---	.00	---	.08	---	.05	.04	---
TOTAL	198.06	32.96	.00	.00	.00	.00	.00	.32	833.89	444.41	1.72	48.29
MEAN	6.39	1.10	.000	.000	.000	.000	.000	.010	27.8	14.3	.055	1.61
MAX	14	5.0	.00	.00	.00	.00	.00	.08	107	77	.13	2.8
MIN	.06	.00	.00	.00	.00	.00	.00	.00	.07	.05	.04	.02
AC-FT	393	65	.00	.00	.00	.00	.00	.6	1650	881	3.4	96
CAL YR 1982	TOTAL	926.74	MEAN	2.54	MAX	28	MIN	.00	AC-FT	1840		
WTR YR 1983	TOTAL	1559.65	MEAN	4.27	MAX	107	MIN	.00	AC-FT	3090		

NOTE.--NO GAGE-HEIGHT RECORD OCT. 9 TO JUNE 6.

09073005 LINCOLN CREEK BELOW GRIZZLY RESERVOIR NEAR ASPEN, CO

LOCATION.--Lat 39°04'48", long 106°36'37", Pitkin County, Hydrologic Unit 14010004, on right bank 170 ft below centerline of Grizzly Reservoir Dam and 13.6 mi southeast of Aspen.

DRAINAGE AREA.--15.2 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 10,150 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record or winter period, which are poor. Partial days flow from Grizzly Reservoir spillway added to mean daily discharges for period June 21-25. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 305 ft³/s Sept 26, 1983; gage height, 3.28 ft; minimum daily, 0.20 ft³/s Oct. 18, 20, 21, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 305 ft³/s at 1100 Sept. 26, gage height, 3.28 ft; minimum daily, 0.25 ft³/s July 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.82	.82	.94	.82	1.1	.82	.94	.90	1.0	.71	17	12
2	.82	.82	.94	.94	1.1	.82	.82	.85	.95	.60	17	12
3	.82	.82	.82	.94	1.1	.82	.82	.80	.85	.60	16	12
4	.82	.71	.82	1.1	1.1	.82	.82	.80	.80	.36	15	12
5	.82	.60	.82	1.1	1.1	.82	.82	.80	.75	.25	14	12
6	.82	.48	.82	1.1	1.1	.71	.82	.85	.70	.25	16	12
7	.82	.60	.94	1.1	1.1	.71	.82	.90	.71	37	16	12
8	.82	.60	.94	1.1	.94	.71	.82	.90	.71	142	15	16
9	.82	.60	.94	1.1	.94	.71	.82	.95	.71	165	14	6.7
10	.82	.60	.82	1.1	.94	.71	.82	.95	.71	65	14	5.7
11	.94	.60	.82	1.1	.94	.71	.82	1.0	.60	54	14	6.4
12	.94	.60	.82	1.1	.82	.71	.71	.95	.60	48	14	6.4
13	.82	.65	.82	.94	.82	.71	.71	.90	.48	49	14	6.4
14	.82	.70	.82	.94	.82	.71	.60	.85	.36	79	14	6.4
15	.82	.70	.94	.94	.82	.82	.60	.80	.48	105	14	6.2
16	.82	.75	.94	.94	.82	.82	.48	.75	.48	105	13	6.2
17	.60	.75	.94	.94	.82	.82	.48	.70	.60	68	13	5.9
18	.36	.80	.94	.94	.82	.82	.48	.65	.71	41	13	5.6
19	.36	.82	.94	1.1	.82	.82	.48	.60	1.2	39	13	5.6
20	.36	.82	.94	1.1	.82	.82	.60	.60	3.1	38	13	5.6
21	.48	.82	.94	1.1	.82	.82	.71	.60	4.4	41	13	5.6
22	.48	.82	.82	1.1	.82	.82	.82	.65	31	23	13	5.6
23	.48	.82	.82	1.1	.82	.71	.82	.65	24	20	13	5.6
24	.48	.82	.82	1.1	.82	.71	.94	.70	19	19	12	5.4
25	.48	.82	.82	1.1	.82	.71	1.1	.75	14	18	12	4.9
26	.60	.82	.82	1.2	.82	.71	1.2	.80	2.2	17	12	4.3
27	.60	.94	.82	1.1	.82	.71	1.2	.90	1.8	17	12	3.1
28	.60	.94	.82	1.1	.82	.71	1.2	1.0	1.3	17	12	.50
29	.48	.94	.82	1.1	---	.82	.94	1.1	1.1	16	12	2.4
30	.60	.94	.82	1.1	---	.82	.90	1.1	.82	16	12	2.7
31	.71	---	.82	1.1	---	.82	---	1.1	---	16	12	---
TOTAL	21.03	22.52	26.86	32.64	25.40	23.77	24.11	25.85	116.12	1257.77	424	252.90
MEAN	.68	.75	.87	1.05	.91	.77	.80	.83	3.87	40.6	13.7	8.43
MAX	.94	.94	.94	1.2	1.1	.82	1.2	1.1	31	165	17	43
MIN	.36	.48	.82	.82	.82	.71	.48	.60	.36	.25	12	.50
AC-FT	42	45	53	65	50	47	48	51	230	2490	841	502

CAL YR 1982 TOTAL 1018.51 MEAN 2.79 MAX 13 MIN .36 AC-FT 2020
WTR YR 1983 TOTAL 2252.97 MEAN 6.17 MAX 165 MIN .25 AC-FT 4470

NOTE.--NO GAGE-HEIGHT RECORD APR. 30 TO JUNE 6.

ROARING FORK RIVER BASIN

09073300 ROARING FORK RIVER ABOVE DIFFICULT CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°08'28", long 106°46'25", Pitkin County, Hydrologic Unit 14010004, on left bank in the White River National Forest at Difficult Creek Campground, 0.45 mi above Difficult Creek tributary and 4.25 mi southeast of Aspen.

DRAINAGE AREA.--75.8 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,120 ft from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion 11 mi upstream through Twin Lakes Tunnel to Arkansas River basin since May 24, 1935 (60,450 acre-ft diverted, current year, furnished by Colorado Division of Water Resources). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft³/s July 8, 1983, gage height, 4.13 ft; minimum daily, 8.0 ft³/s Jan. 11, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,550 ft³/s at 2400 July 8, gage height, 4.13 ft; minimum daily, 9.7 ft³/s Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	28	18	12	12	14	12	21	158	355	139	53
2	55	28	18	12	13	14	13	20	170	389	126	50
3	48	24	17	13	13	13	14	19	161	347	126	50
4	46	26	16	12	14	13	14	19	155	305	131	50
5	44	26	16	12	14	13	14	23	170	113	121	49
6	42	24	16	13	13	11	14	28	161	341	136	47
7	40	24	16	13	13	9.7	14	28	164	437	128	45
8	42	26	16	13	14	12	14	34	199	866	112	47
9	38	26	15	13	14	15	13	50	213	902	101	41
10	42	26	15	13	13	15	13	64	248	594	93	40
11	44	28	15	14	13	15	13	71	280	366	89	40
12	38	24	15	14	12	15	13	60	330	232	91	39
13	38	26	15	13	12	15	12	61	268	210	93	41
14	36	28	15	13	14	15	12	55	199	206	85	41
15	40	28	17	13	13	15	12	53	179	252	82	41
16	42	26	15	13	14	15	13	52	196	213	77	40
17	40	23	15	14	13	15	13	50	232	192	74	40
18	40	23	14	14	13	15	13	49	408	155	72	40
19	36	21	14	12	14	15	13	48	616	152	69	40
20	30	19	13	13	14	15	13	48	731	158	69	40
21	26	19	13	13	14	15	13	49	797	240	68	40
22	27	19	13	13	14	15	13	57	671	199	65	40
23	28	19	13	11	14	15	13	61	582	185	62	40
24	26	19	13	12	13	14	14	64	920	170	61	40
25	26	19	13	13	14	14	22	75	992	158	60	40
26	26	19	13	13	14	14	24	97	830	152	61	102
27	26	18	13	12	14	14	22	119	523	144	59	42
28	26	19	12	12	14	14	22	136	424	136	57	35
29	28	19	12	12	---	14	21	167	385	131	55	33
30	32	18	12	12	---	14	21	220	345	128	54	35
31	28	---	12	12	---	14	---	182	---	123	54	---
TOTAL	1140	692	450	394	376	436.7	447	2080	11707	8751	2670	1321
MEAN	36.8	23.1	14.5	12.7	13.4	14.1	14.9	67.1	390	282	86.1	44.0
MAX	60	28	18	14	14	15	24	220	992	902	139	102
MIN	26	18	12	11	12	9.7	12	19	155	123	54	33
AC-FT	2260	1370	893	781	746	866	887	4130	23220	17360	5300	2620
CAL YR 1982	TOTAL	21339.5	MEAN	58.5	MAX	315	MIN	9.5	AC-FT	42330		
WTR YR 1983	TOTAL	30464.7	MEAN	83.5	MAX	992	MIN	9.7	AC-FT	60430		

ROARING FORK RIVER BASIN

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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 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 8,014.01 ft, National Geodetic Vertical Datum of 1929. Prior to Apr. 25, 1968, at site 85 ft upstream at datum 1.16 ft, higher.

REMARKS.--Records good except those for winter period, which are fair. Transmountain diversion 14 mi upstream through Twin Lakes tunnel to Arkansas River basin since May 24, 1935 (60,450 acre-ft diverted, current year, furnished by Colorado Division of Water Resources). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--19 years, 142 ft³/s; 102,900 acre-ft/yr, including diversion by Twin Lakes tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,370 ft³/s June 25, 1983, gage height, 4.45 ft; minimum daily, 12 ft³/s Nov. 28, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,370 ft³/s at 0700 June 25, gage height, 4.45 ft; minimum daily, 23 ft³/s Mar. 7, Apr. 2, 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	46	38	34	29	27	24	41	220	599	222	74
2	91	45	38	33	28	27	23	39	230	592	180	68
3	81	39	38	33	28	26	25	39	220	607	177	67
4	76	42	36	33	27	27	23	43	220	530	222	70
5	72	43	37	33	28	27	23	50	240	532	184	66
6	70	42	37	33	29	25	24	54	235	540	214	63
7	67	41	37	33	29	23	24	48	270	568	206	60
8	71	43	36	33	29	26	24	55	333	810	182	58
9	63	43	39	33	30	26	25	74	348	961	162	61
10	70	44	37	32	30	27	25	94	384	750	153	53
11	72	44	37	34	29	28	25	106	412	580	139	51
12	61	40	35	34	29	28	25	84	448	476	144	50
13	65	42	34	33	29	28	25	84	410	406	167	53
14	62	47	37	32	29	27	24	74	320	406	135	56
15	67	51	36	32	28	27	24	73	250	409	126	57
16	71	51	36	30	28	26	24	67	260	381	124	57
17	66	46	36	31	28	26	26	62	350	345	112	54
18	68	45	34	30	28	26	28	58	600	306	112	53
19	64	43	34	30	28	26	31	58	880	303	108	53
20	47	42	36	31	29	26	31	58	1000	279	112	55
21	46	40	36	30	28	25	33	57	1080	309	107	54
22	44	40	36	30	29	26	33	69	1040	267	97	54
23	47	40	35	29	28	25	33	85	713	259	94	53
24	46	40	34	29	27	25	37	88	880	242	87	51
25	45	40	32	30	28	25	46	113	1140	222	87	51
26	45	40	33	29	28	25	52	140	1130	217	92	97
27	49	41	34	29	28	24	50	170	790	211	82	66
28	44	46	33	29	28	25	45	210	688	206	79	49
29	43	39	35	29	---	25	44	250	668	174	76	46
30	49	38	33	29	---	24	44	300	602	195	87	51
31	47	---	34	30	---	25	---	265	---	184	79	---
TOTAL	1913	1283	1103	970	796	803	920	3008	16361	12866	4148	1751
MEAN	61.7	42.8	35.6	31.3	28.4	25.9	30.7	97.0	545	415	134	58.4
MAX	104	51	39	34	30	28	52	300	1140	961	222	97
MIN	43	38	32	29	27	23	23	39	220	174	76	46
AC-FT	3790	2540	2190	1920	1580	1590	1820	5970	32450	25520	8230	3470
CAL YR 1982	TOTAL	35000	MEAN	95.9	MAX	516	MIN	22	AC-FT	69420		
WTR YR 1983	TOTAL	45922	MEAN	126	MAX	1140	MIN	23	AC-FT	91090		

ROARING FORK RIVER BASIN

09073720 HUNTER CREEK FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°12'28", long 106°40'41", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 95 ft downstream from diversion point on Hunter Creek, and 8.3 mi east of Aspen, and 0.9 mi above confluence with Midway Creek.

PERIOD OF RECORD.--April 1980 to September 1983 (discontinued).

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,177.00 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 103 ft³/s June 28, 1982 and June 18, 1983; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	21	81	45	1.2
2	.00	.00	.00	.00	.00	.00	.00	.00	22	79	31	.42
3	.00	.00	.00	.00	.00	.00	.00	.00	21	69	39	.24
4	.00	.00	.00	.00	.00	.00	.00	.00	33	74	44	1.8
5	.00	.00	.00	.00	.00	.00	.00	.00	27	70	39	.07
6	.00	.00	.00	.00	.00	.00	.00	.00	17	66	46	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	26	34	34	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	34	1.2	29	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	48	.00	24	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	53	.00	18	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	71	.00	19	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	65	.00	25	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	43	.00	20	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	29	.00	13	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	44	.00	11	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	54	.00	8.5	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	74	.00	6.5	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	103	29	11	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	73	50	13	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	39	44	8.7	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	19	51	5.6	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	49	44	3.8	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	56	37	2.8	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	3.1	29	1.9	.00
25	.00	.00	.00	.00	.00	.00	.00	.29	.00	34	6.8	.00
26	.00	.00	.00	.00	.00	.00	.00	3.4	.00	35	5.8	.00
27	.00	.00	.00	.00	.00	.00	.00	14	.00	38	6.2	.00
28	.00	.00	.00	.00	.00	.00	.00	16	.00	35	4.6	.00
29	.00	.00	.00	.00	---	.00	.00	21	56	28	4.9	.00
30	.00	.00	.00	.00	---	.00	.00	30	85	28	5.6	.00
31	.00	---	.00	.00	---	.00	---	18	---	39	2.6	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	102.69	1165.10	995.20	535.3	3.73
MEAN	.000	.000	.000	.000	.000	.000	.000	3.31	38.8	32.1	17.3	.12
MAX	.00	.00	.00	.00	.00	.00	.00	30	103	81	46	1.8
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.9	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	204	2310	1970	1060	7.4

WTR YR 1983 TOTAL 2802.02 MEAN 7.68 MAX 103 MIN .00 AC-FT 5560

ROARING FORK RIVER BASIN

139

09073790 MIDWAY CREEK FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°11'25", long 106°41'04", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 80 ft downstream from diversion point on Midway Creek, and 8.3 mi east of Aspen, and 0.8 mi upstream from mouth.

PERIOD OF RECORD.--May 1980 to September 1983 (discontinued).

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,186.20 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 98 ft³/s June 18, 1982; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	36	63	5.5	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	32	59	.01	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	29	53	17	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	40	59	6.1	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	33	60	5.9	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	29	60	4.5	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	38	29	.17	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	40	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	49	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	55	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	64	.00	2.2	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	58	.00	3.4	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	38	.00	.46	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	34	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	44	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	48	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	63	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	62	13	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	88	21	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	42	22	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	31	25	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	37	17	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	35	12	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	8.4	28	6.0	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	14	.00	5.2	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	17	.00	5.2	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	21	.00	6.8	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	22	43	2.0	.00	.00
29	.00	.00	.00	.00	---	.00	.00	33	62	2.2	.00	.00
30	.00	.00	.00	.00	---	.00	.00	36	70	2.8	.00	.00
31	.00	---	.00	.00	---	.00	---	28	---	6.7	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	179.40	1228.00	529.90	45.24	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	5.79	40.9	17.1	1.46	.000
MAX	.00	.00	.00	.00	.00	.00	.00	36	88	63	17	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	356	2440	1050	90	.00
WTR YR 1983	TOTAL	1982.54	MEAN 5.43	MAX 88	MIN .00	AC-FT 3930						

ROARING FORK RIVER BASIN

09073890 NO NAME FEEDER CONDUIT NEAR ASPEN, CO

LOCATION.--Lat 39°10'58", long 106°43'10", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete diversion structure, 80 ft downstream from diversion point on No Name Creek, and 5.5 mi southeast of Aspen, and 0.9 mi upstream from mouth.

PERIOD OF RECORD.--May 1980 to September 1983 (discontinued).

GAGE.--Water-stage recorder and rectangular weir. Datum of gage is 10,165.50 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 66 ft³/s June 18, 1982; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.19	54	10	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.14	53	5.3	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.24	44	7.8	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.20	56	7.8	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.13	55	6.7	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	15	56	8.3	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	28	26	5.8	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	32	.12	4.4	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	37	.09	2.3	.00
10	.00	.00	.00	.00	.00	.00	.00	.22	43	.07	1.4	.00
11	.00	.00	.00	.00	.00	.00	.00	.20	47	.09	3.2	.00
12	.00	.00	.00	.00	.00	.00	.00	.07	46	.08	4.5	.00
13	.00	.00	.00	.00	.00	.00	.00	.08	32	.04	3.2	.00
14	.00	.00	.00	.00	.00	.00	.00	.20	27	.00	1.1	.00
15	.00	.00	.00	.00	.00	.00	.00	.23	36	.00	.91	.00
16	.00	.00	.00	.00	.00	.00	.00	.21	40	.05	.51	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	44	.11	.34	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	42	9.2	.43	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	62	12	.42	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	11	12	.96	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	9.5	16	.39	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	53	11	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	48	10	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	3.6	52	7.5	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	8.0	.00	6.3	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	9.8	.00	5.9	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	12	.02	8.2	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	15	45	6.3	.00	.00
29	.00	.00	.00	.00	---	.00	.00	19	65	9.7	.00	.00
30	.00	.00	.00	.00	---	.00	.00	28	61	8.9	.00	.00
31	.00	---	.00	.00	---	.00	---	23	---	9.2	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	119.61	876.42	476.85	75.76	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	3.86	29.2	15.4	2.44	.000
MAX	.00	.00	.00	.00	.00	.00	.00	28	65	56	10	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	237	1740	946	150	.00

WTR YR 1983 TOTAL 1548.64 MEAN 4.24 MAX 65 MIN .00 AC-FT 3070

ROARING FORK RIVER BASIN

141

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 mi².

PERIOD OF RECORD.--June 1950 to September 1956, September 1969 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,610 ft, from topographic map. Prior to Sept. 1, 1969, at site 220 ft, downstream, at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Transmountain diversion above station to Charles H. Boustead tunnel by feeder conduit. Several small diversions above station for irrigation of hay meadows above and below station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE (Corrected).--16 years (water years 1951-1956, 1970-1979), 50.7 ft³/s; 36,730 acre-ft/yr, prior to diversion through Charles H. Boustead Tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,010 ft³/s June 13, 1953, gage height, 7.02 ft, site and datum then in use, from rating curve extended above 580 ft³/s; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 720 ft³/s at 2130 June 24, gage height, 2.35 ft; maximum gage height, 3.25 ft at 2400 Nov. 15 (backwater from ice); minimum daily discharge, 4.2 ft³/s Feb. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	17	11	5.9	5.3	5.3	6.5	9.2	220	231	130	36
2	28	17	10	5.9	5.6	5.0	6.5	8.5	206	231	93	35
3	24	14	9.9	5.9	5.6	4.7	6.8	8.5	203	224	87	34
4	22	15	9.6	5.9	5.9	5.6	6.5	8.5	228	182	113	32
5	22	16	9.6	6.2	5.9	5.3	6.5	10	210	178	103	31
6	20	15	9.2	6.2	5.6	5.0	6.5	12	172	182	182	29
7	18	15	9.2	6.2	5.6	4.6	6.5	12	178	252	120	28
8	18	16	8.8	6.2	5.3	5.0	6.5	18	178	424	96	26
9	18	16	8.8	6.5	5.3	5.0	6.2	34	186	388	80	25
10	18	16	8.8	6.5	5.3	5.5	5.9	49	203	352	67	22
11	18	16	8.5	6.5	5.6	5.3	6.5	67	214	266	63	22
12	20	15	8.5	6.2	5.6	5.5	6.2	61	217	238	72	20
13	19	15	8.5	6.2	5.6	5.5	6.2	59	192	220	77	19
14	19	17	8.5	6.2	5.0	5.5	6.5	49	160	210	72	19
15	20	19	7.8	6.2	5.0	5.0	6.5	39	120	189	67	22
16	20	19	7.4	6.2	4.2	5.0	6.2	35	130	182	63	22
17	20	17	7.4	6.2	5.0	5.0	6.2	35	150	175	59	20
18	20	16	7.4	6.5	5.3	5.0	6.8	30	230	147	56	20
19	20	16	7.1	6.5	5.3	5.0	7.4	29	350	103	59	20
20	21	17	7.1	6.2	5.5	5.0	7.8	28	440	96	63	24
21	23	16	7.1	6.2	5.0	4.8	7.8	26	500	133	61	22
22	22	13	7.1	5.9	5.5	5.0	7.8	32	470	109	54	22
23	22	13	7.1	6.2	5.0	5.0	7.8	50	420	100	49	21
24	21	12	6.8	5.9	5.0	5.0	8.5	74	490	96	46	20
25	19	12	6.2	5.9	5.3	5.0	12	96	600	93	44	20
26	18	11	6.2	5.6	5.6	5.0	12	113	525	93	42	19
27	18	11	6.2	5.6	5.6	4.8	12	130	525	100	41	19
28	16	11	6.2	5.6	5.6	5.0	11	137	445	109	39	19
29	16	11	6.2	5.6	---	5.0	11	161	292	90	39	18
30	18	11	6.2	5.3	---	5.6	9.9	203	248	84	39	19
31	17	---	6.2	5.3	---	6.5	---	186	---	87	38	---
TOTAL	630	445	244.6	187.4	150.1	159.5	230.5	1809.7	8702	5564	2214	705
MEAN	20.3	14.8	7.89	6.05	5.36	5.15	7.68	58.4	290	179	71.4	23.5
MAX	35	19	11	6.5	5.9	6.5	12	203	600	424	182	36
MIN	16	11	6.2	5.3	4.2	4.6	5.9	8.5	120	84	38	18
AC-FT	1250	883	485	372	298	316	457	3590	17260	11040	4390	1400
CAL YR 1982	TOTAL	12255.9	MEAN	33.6	MAX	214	MIN	4.6	AC-FT	24310		
WTR YR 1983	TOTAL	21041.8	MEAN	57.6	MAX	600	MIN	4.2	AC-FT	41740		

ROARING FORK RIVER BASIN

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. Altitude of gage is 9,100 ft, from topographic map.

REMARKS.--Records good. No diversion above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 39.9 ft³/s; 28,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 468 ft³/s June 25, 1983, gage height, 3.78 ft; maximum gage height, 3.88 ft, June 23, 1970; minimum daily discharge, 6.0 ft³/s Jan. 7, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 468 ft³/s at 0300 June 25, gage height, 3.78 ft, only peak above base of 200 ft³/s; minimum daily, 9.5 ft³/s Mar. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	22	16	12	10	9.8	10	13	102	252	154	55
2	37	22	16	12	10	9.8	10	13	103	239	98	53
3	35	20	16	12	11	9.8	10	13	103	228	127	55
4	34	20	16	12	10	9.9	9.9	14	119	203	163	51
5	33	20	15	12	10	9.6	10	15	122	220	145	41
6	33	21	15	12	9.9	9.5	11	15	106	224	155	39
7	32	20	15	12	10	9.7	10	14	109	258	126	38
8	32	20	15	12	10	9.8	10	16	127	286	98	37
9	30	20	15	11	9.8	9.8	10	19	147	274	87	37
10	29	19	15	11	9.8	9.8	11	21	166	263	81	35
11	29	19	14	11	9.8	9.9	11	22	189	214	76	35
12	27	19	14	11	9.9	10	10	20	207	191	82	33
13	29	19	14	11	9.8	9.8	10	19	148	174	89	32
14	28	18	14	11	9.8	10	10	19	120	167	75	33
15	28	18	14	11	9.8	10	11	20	126	149	72	32
16	29	18	15	11	9.8	10	11	19	158	146	72	30
17	28	19	14	11	9.7	10	11	19	198	149	67	29
18	27	18	14	11	9.7	10	11	19	249	152	68	29
19	27	18	14	11	9.8	10	11	20	298	157	67	28
20	26	18	14	11	9.8	10	11	20	307	153	65	29
21	26	18	14	11	9.7	10	11	21	316	160	62	28
22	25	18	13	11	9.8	10	11	23	304	152	63	27
23	24	17	13	11	9.8	10	11	27	308	142	62	26
24	24	17	13	11	9.7	10	12	33	352	106	62	26
25	24	18	12	11	9.8	10	13	48	402	107	59	26
26	24	17	13	11	9.8	10	13	69	378	115	59	26
27	25	17	13	10	9.7	9.9	12	90	286	98	57	25
28	23	17	12	10	9.8	10	12	107	270	94	56	24
29	22	17	12	10	---	10	13	111	278	90	54	24
30	23	17	12	10	---	10	13	115	272	97	59	27
31	22	---	12	10	---	10	---	102	---	101	60	---
TOTAL	874	561	434	344	276.5	307.1	329.9	1096	6370	5361	2620	1010
MEAN	28.2	18.7	14.0	11.1	9.88	9.91	11.0	35.4	212	173	84.5	33.7
MAX	39	22	16	12	11	10	13	115	402	286	163	55
MIN	22	17	12	10	9.7	9.5	9.9	13	102	90	54	24
AC-FT	1730	1110	861	682	548	609	654	2170	12630	10630	5200	2000
CAL YR 1982	TOTAL	17497.0	MEAN	47.9	MAX	252	MIN	6.0	AC-FT	34710		
WTR YR 1983	TOTAL	19583.5	MEAN	53.7	MAX	402	MIN	9.5	AC-FT	38840		

ROARING FORK RIVER BASIN

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09075700 MAROON CREEK ABOVE ASPEN, CO

LOCATION.--Lat 39°07'25", long 106°54'17", Pitkin County, Hydrologic Unit 14010004, on left bank 0.3 mi upstream from Silver Queen Forest Service campground, 1.2 mi downstream from confluence of East and West Maroon Creeks, and 7.2 mi southwest of Aspen.

DRAINAGE AREA.--35.4 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 8,720 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No diversion above station. Natural regulation by Maroon Lake. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 62.7 ft³/s; 45,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 836 ft³/s June 22, 1980, gage height, 3.39 ft, from rating curve extended above 350 ft³/s; maximum gage height, 4.53 ft, Feb. 3, 1972 (backwater from ice); minimum daily discharge, 9.0 ft³/s Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 826 ft³/s, sometime during period June 24-28, gage height, 3.39 ft, (from peak stage indicator), only peak above base of 250 ft³/s; minimum daily, 16 ft³/s Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	44	30	19	21	19	19	21	124	372	210	94
2	71	43	29	20	21	19	19	20	138	365	210	89
3	69	41	29	21	22	19	19	20	143	358	207	87
4	69	40	29	23	19	19	19	21	162	337	220	88
5	67	39	28	22	18	18	19	21	166	344	240	83
6	67	39	28	22	20	18	20	21	157	358	230	81
7	67	38	28	22	21	18	20	21	162	365	232	79
8	65	38	28	22	21	18	19	21	178	379	232	77
9	65	38	28	23	20	19	19	22	194	400	216	74
10	64	37	27	22	21	19	19	23	192	432	205	72
11	62	37	27	20	22	19	19	23	195	424	194	70
12	60	35	27	21	21	19	19	22	207	379	191	66
13	62	34	27	22	20	18	19	23	201	344	183	65
14	60	35	26	22	20	19	19	23	206	298	175	64
15	58	34	26	22	20	19	19	23	206	284	166	63
16	57	33	26	22	19	19	19	23	212	291	156	62
17	57	32	26	22	19	19	20	23	226	291	149	61
18	57	31	26	22	19	19	20	23	230	284	147	60
19	56	32	26	22	19	19	20	23	272	284	142	60
20	55	31	25	22	19	19	20	23	291	284	135	59
21	53	31	25	22	19	19	20	23	321	272	130	58
22	51	31	24	22	19	19	20	25	432	272	127	57
23	51	31	25	22	19	19	20	28	480	272	122	57
24	50	30	25	22	19	18	21	30	530	243	118	56
25	49	30	24	22	19	18	21	35	570	243	115	56
26	48	29	25	22	19	18	21	44	540	243	109	55
27	48	29	23	22	19	18	20	62	470	216	107	54
28	47	29	20	22	19	18	20	79	450	205	105	52
29	46	30	18	22	---	18	21	91	448	201	104	52
30	44	29	16	22	---	17	21	106	424	206	99	52
31	44	---	18	21	---	18	---	111	---	201	97	---
TOTAL	1792	1030	789	674	554	575	591	1074	8527	9447	5073	2003
MEAN	57.8	34.3	25.5	21.7	19.8	18.5	19.7	34.6	284	305	164	66.8
MAX	73	44	30	23	22	19	21	111	570	432	240	94
MIN	44	29	16	19	18	17	19	20	124	201	97	52
AC-FT	3550	2040	1560	1340	1100	1140	1170	2130	16910	18740	10060	3970

CAL YR 1982 TOTAL 27307 MEAN 74.8 MAX 351 MIN 10 AC-FT 54160
WTR YR 1983 TOTAL 32129 MEAN 88.0 MAX 570 MIN 16 AC-FT 63730

NOTE.--NO GAGE-HEIGHT RECORD JUNE 24-28.

ROARING FORK RIVER BASIN

09076520 OWL CREEK NEAR ASPEN, CO

LOCATION.--Lat 39°13'25", long 106°52'45", in NE¼SE¼ sec.33, T.9 S., R.85 W., Pitkin County, Hydrologic Unit 14010004, on left bank 1.2 mi upstream from mouth and 3.8 mi northwest of Aspen.

DRAINAGE AREA.--6.60 mi².

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder with V-notch concrete control. Altitude of gage is 7,870 ft, from topographic map.

REMARKS.--Records fair except those for winter period and those for periods of no gage-height, which are poor. Several small diversions above station for irrigation of hay meadows. Water imported above station, at times, from West Willow Creek through Willow and Owl ditches. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--9 years, 2.48 ft³/s; 1,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54 ft³/s May 30, 1983, gage height, 2.30 ft; no flow Feb. 9 to Mar. 6, Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 54 ft³/s at 2030 May 30, gage height, 2.30 ft; minimum daily, 0.17 ft³/s Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.51	.34	.22	.19	.36	.45	5.7	46	8.6	1.6	1.3
2	.82	.50	.30	.22	.18	.36	.45	4.9	42	8.0	1.5	.92
3	.68	.49	.32	.22	.18	.38	.45	5.1	37	7.6	1.5	.70
4	.68	.48	.32	.22	.17	.39	.45	5.9	35	7.2	1.7	.86
5	.61	.45	.32	.22	.19	.40	.47	6.2	34	7.0	1.8	.66
6	.75	.45	.32	.21	.20	.39	.50	7.5	37	6.8	1.8	.54
7	.68	.43	.32	.22	.21	.38	.51	7.2	40	6.2	1.9	.50
8	.82	.45	.30	.22	.21	.38	.49	7.9	35	5.2	1.4	.43
9	.82	.49	.30	.22	.21	.39	.45	10	27	4.4	1.3	.37
10	.75	.54	.30	.22	.22	.40	.61	15	35	4.4	1.2	.39
11	.75	.53	.29	.23	.22	.41	.82	16	31	3.3	1.1	.46
12	.68	.54	.28	.23	.23	.43	.82	15	29	2.5	1.1	.35
13	.68	.48	.26	.22	.24	.43	.82	15	36	1.9	1.3	.30
14	.68	.45	.25	.22	.24	.41	.82	13	44	2.1	1.3	.30
15	.61	.48	.24	.22	.24	.41	.88	14	26	2.3	1.2	.37
16	.61	.50	.23	.23	.25	.40	1.2	13	20	2.5	1.3	.27
17	.61	.48	.24	.23	.24	.41	1.9	12	16	2.1	1.1	.28
18	.55	.45	.23	.22	.24	.42	2.8	12	17	1.9	1.1	.28
19	.48	.45	.23	.22	.23	.41	3.4	12	19	1.8	1.2	.33
20	.45	.45	.22	.22	.24	.40	3.7	13	20	1.9	1.5	.26
21	.40	.45	.22	.22	.31	.42	3.1	13	20	2.0	1.2	.26
22	.40	.43	.22	.20	.29	.43	3.0	15	18	2.1	1.0	.27
23	.40	.40	.22	.20	.32	.45	4.9	18	17	2.6	1.2	.28
24	.40	.40	.22	.21	.37	.43	6.2	23	15	3.2	1.0	.32
25	.40	.40	.23	.21	.37	.42	7.5	32	13	3.1	1.2	.27
26	.43	.40	.22	.20	.35	.41	7.2	38	12	3.1	1.0	.28
27	.50	.34	.22	.20	.36	.42	5.9	43	12	2.7	1.2	.28
28	.48	.36	.22	.20	.32	.42	5.5	47	10	2.7	.96	.27
29	.45	.36	.22	.19	---	.43	6.6	51	10	2.6	.86	.26
30	.50	.36	.22	.19	---	.43	6.2	53	9.2	2.4	.90	.28
31	.52	---	.22	.19	---	.45	---	44	---	1.9	1.1	---
TOTAL	18.59	13.50	8.04	6.64	7.02	12.67	78.09	587.4	762.2	116.1	39.52	12.64
MEAN	.60	.45	.26	.21	.25	.41	2.60	18.9	25.4	3.75	1.27	.42
MAX	1.0	.54	.34	.23	.37	.45	7.5	53	46	8.6	1.9	1.3
MIN	.40	.34	.22	.19	.17	.36	.45	4.9	9.2	1.8	.86	.26
AC-FT	37	27	16	13	14	25	155	1170	1510	230	78	25
CAL YR 1982	TOTAL	1344.59	MEAN	3.68	MAX	34	MIN	.22	AC-FT	2670		
WTR YR 1983	TOTAL	1662.41	MEAN	4.55	MAX	53	MIN	.17	AC-FT	3300		

NOTE.--NO GAGE-HEIGHT RECORD NOV. 27 TO JAN. 4, JUNE 2 TO SEPT. 30.

ROARING FORK RIVER BASIN

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09077150 FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'42", long 106°31'47", Pitkin County, Hydrologic Unit 14010004, on right bank 210 ft downstream from diversion point on Fryingpan River and 9.1 mi southeast of Norrie.

PERIOD OF RECORD.--October 1971 to September 1983, (station transferred to U. S. Bureau of Reclamation).

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,955.91 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for period of no gage-height record May 24 to June 2, which are fair. This is a transmountain diversion from Marten Creek and Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 297 ft³/s June 24, 1983; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	60	196	128	18
2	.00	.00	.00	.00	.00	.00	.00	.00	65	197	101	16
3	.00	.00	.00	.00	.00	.00	.00	.00	76	193	95	15
4	.00	.00	.00	.00	.00	.00	.00	.00	94	181	89	18
5	.00	.00	.00	.00	.00	.00	.00	.00	85	182	141	14
6	.00	.00	.00	.00	.00	.00	.00	.00	62	181	118	11
7	.00	.00	.00	.00	.00	.00	.00	.00	58	208	97	5.1
8	.00	.00	.00	.00	.00	.00	.00	.00	83	222	84	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	101	215	72	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	124	208	66	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	149	180	67	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	161	158	68	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	118	142	57	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	93	136	52	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	106	125	57	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	118	118	52	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	147	109	47	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	198	104	43	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	242	122	50	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	254	150	54	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	254	140	44	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	242	124	39	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	262	115	36	.00
24	.00	.00	.00	.00	.00	.00	.00	2.8	297	96	33	.00
25	.00	.00	.00	.00	.00	.00	.00	16	276	88	35	.00
26	.00	.00	.00	.00	.00	.00	.00	24	237	85	39	.00
27	.00	.00	.00	.00	.00	.00	.00	40	208	84	34	.00
28	.00	.00	.00	.00	.00	.00	.00	50	202	74	31	.00
29	.00	.00	.00	.00	---	.00	.00	60	201	69	29	.00
30	.00	.00	.00	.00	---	.00	.00	85	196	78	27	.00
31	.00	---	.00	.00	---	.00	---	70	---	105	21	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	347.80	4769	4385	1906	97.10
MEAN	.000	.000	.000	.000	.000	.000	.000	11.2	159	141	61.5	3.24
MAX	.00	.00	.00	.00	.00	.00	.00	85	297	222	141	18
MIN	.00	.00	.00	.00	.00	.00	.00	.00	58	69	21	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	690	9460	8700	3780	193
CAL YR 1982	TOTAL	8373.10	MEAN	22.9	MAX	197	MIN	.00	AC-FT	16610		
WTR YR 1983	TOTAL	11504.90	MEAN	31.5	MAX	297	MIN	.00	AC-FT	22820		

ROARING FORK RIVER BASIN

09077250 LILY PAD CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'32", long 106°32'15", Pitkin County, Hydrologic Unit 14010004, on left bank at concrete diversion structure, 200 ft downstream from diversion point on Lily Pad Creek, and 7.7 mi southwest of Norrie.

PERIOD OF RECORD.--October 1973 to September 1983, (station transferred to U. S. Bureau of Reclamation).

GAGE.--Water-stage recorder and sharp-crested weir. Datum of gage is 10,200.50 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for period of no gage-height record, which are poor. This a transmountain diversion from Lily Pad Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 26 ft³/s June 11, 1980, June 20 - 21, 24, 1983; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	6.1	20	13	.90
2	.00	.00	.00	.00	.00	.00	.00	.00	6.5	20	10	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	6.2	19	9.5	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	7.0	18	8.9	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	6.4	18	15	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	6.1	18	12	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	5.9	21	9.7	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	5.7	22	8.4	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	6.1	22	7.2	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	7.2	21	6.6	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	9.8	18	6.7	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	12	16	6.8	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	8.9	14	5.7	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	6.1	13	5.2	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	5.9	12	5.7	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	7.2	12	5.2	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	10	11	4.7	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	16	10	4.3	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	23	12	5.0	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	26	15	5.4	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	26	14	4.4	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	24	12	3.9	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	25	11	3.6	.00
24	.00	.00	.00	.00	.00	.00	.00	.27	26	9.6	3.3	.00
25	.00	.00	.00	.00	.00	.00	.00	1.6	25	8.8	3.5	.00
26	.00	.00	.00	.00	.00	.00	.00	2.4	20	8.5	3.9	.00
27	.00	.00	.00	.00	.00	.00	.00	4.0	15	8.4	3.4	.00
28	.00	.00	.00	.00	.00	.00	.00	4.9	19	7.4	3.1	.00
29	.00	.00	.00	.00	---	.00	.00	5.9	18	6.9	2.7	.00
30	.00	.00	.00	.00	---	.00	.00	8.4	20	7.8	2.7	.00
31	.00	---	.00	.00	---	.00	---	6.8	---	10	2.1	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	34.27	406.1	436.4	191.6	.90
MEAN	.000	.000	.000	.000	.000	.000	.000	1.11	13.5	14.1	6.18	.030
MAX	.00	.00	.00	.00	.00	.00	.00	8.4	26	22	15	.90
MIN	.00	.00	.00	.00	.00	.00	.00	.00	5.7	6.9	2.1	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	68	805	866	380	1.8

CAL YR 1982 TOTAL 716.28 MEAN 1.96 MAX 17 MIN .00 AC-FT 1420
WTR YR 1983 TOTAL 1069.27 MEAN 2.93 MAX 26 MIN .00 AC-FT 2120

NOTE.--NO GAGE-HEIGHT RECORD JUNE 30 TO SEPT. 1.

ROARING FORK RIVER BASIN

147

09077300 GRANITE CREEK FEEDER CONDUIT NEAR NORRIE, CO

LOCATION.--Lat 39°16'09", long 106°33'08", Pitkin County, Hydrologic Unit 14010004, on right bank at concrete adit structure, 1.0 mi through siphon from diversion point on Granite Creek, and 6.7 mi southeast of Norrie, and 0.3 mi above confluence with Fryingpan River.

PERIOD OF RECORD.--May 1981 to September 1983 (discontinued).

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,989.70 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 39 ft³/s June 23, 24, 1983; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
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	29	15	3.7
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	29	12	3.4
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	28	11	3.2
4	.00	.00	.00	.00	.00	.00	.00	.00	8.0	26	11	4.0
5	.00	.00	.00	.00	.00	.00	.00	.00	14	26	15	3.1
6	.00	.00	.00	.00	.00	.00	.00	.00	12	26	17	3.0
7	.00	.00	.00	.00	.00	.00	.00	.00	12	27	13	2.8
8	.00	.00	.00	.00	.00	.00	.00	.00	13	28	12	2.7
9	.00	.00	.00	.00	.00	.00	.00	.00	15	11	9.9	.93
10	.00	.00	.00	.00	.00	.00	.00	.00	19	.00	8.8	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	8.2	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	28	13	9.9	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	22	19	9.7	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	16	17	7.7	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	20	16	7.8	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	23	14	7.7	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	30	13	10	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	37	13	10	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	38	13	9.4	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	33	17	8.2	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	34	17	7.0	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	34	16	6.1	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	39	14	5.5	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	39	11	5.3	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	38	11	5.7	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	34	13	5.7	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	32	14	5.1	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	31	12	4.8	.00
29	.00	.00	.00	.00	---	.00	.00	.00	30	10	4.7	.00
30	.00	.00	.00	.00	---	.00	.00	.00	30	11	5.3	.00
31	.00	---	.00	.00	---	.00	---	.00	---	13	4.4	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	705.00	507.00	272.9	26.83
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	23.5	16.4	8.80	.89
MAX	.00	.00	.00	.00	.00	.00	.00	.00	39	29	17	4.0
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	4.4	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	1400	1010	541	53
WTR YR 1983	TOTAL	1511.73	MEAN	4.14	MAX	39	MIN	.00	AC-FT	3000		

ROARING FORK RIVER BASIN

09077605 IVANHOE CREEK FEEDER CANAL NEAR NAST, CO

LOCATION.--Lat 39°17'14", long 106°33'31", unsurveyed, Pitkin County, Hydrologic Unit 14010004, on left bank about 300 ft downstream from diversion point on Ivanhoe Creek, 2.3 mi east of Nast, and 5.8 mi southeast of Norrie.

PERIOD OF RECORD.--April 1976 to September 1983 (station transferred to U. S. Bureau of Reclamation).

GAGE.--Water-stage recorder. Datum of gage, 10,004.00 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 99 ft³/s June 27, 1979; no flow most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	49	46	24	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	60	44	15	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	53	43	12	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	60	34	10	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	61	30	21	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	42	28	37	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	42	30	26	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	45	34	17	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	48	12	13	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	62	.00	9.5	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	79	.00	7.3	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	79	7.0	7.0	.00
13	.00	.00	.00	.00	.00	.00	.00	4.1	45	13	6.2	.00
14	.00	.00	.00	.00	.00	.00	.00	8.2	32	11	5.1	.00
15	.00	.00	.00	.00	.00	.00	.00	6.7	42	9.8	4.9	.00
16	.00	.00	.00	.00	.00	.00	.00	2.8	49	7.9	4.1	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	64	6.7	3.7	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	62	6.2	3.4	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	62	6.7	4.1	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	85	12	3.4	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	78	13	2.2	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	79	12	1.1	.00
23	.00	.00	.00	.00	.00	.00	.00	5.8	92	12	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	14	88	9.5	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	19	80	7.3	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	25	82	9.8	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	33	67	19	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	46	71	22	.00	.00
29	.00	.00	.00	.00	---	.00	.00	51	71	14	.00	.00
30	.00	.00	.00	.00	---	.00	.00	56	53	19	.00	.00
31	.00	---	.00	.00	---	.00	---	50	---	26	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	321.60	1882	544.90	237.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	10.4	62.7	17.6	7.65	.000
MAX	.00	.00	.00	.00	.00	.00	.00	56	92	46	37	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	32	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	638	3730	1080	470	.00
CAL YR 1982	TOTAL	1992.30	MEAN 5.46	MAX 64	MIN .00	AC-FT 3950						
WTR YR 1983	TOTAL	2985.50	MEAN 8.18	MAX 92	MIN .00	AC-FT 5920						

ROARING FORK RIVER BASIN

149

09077750 SOUTH FORK FRYINGPAN RIVER FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°14'20", long 106°35'22", Pitkin County, Hydrologic Unit 14010004, on right bank 110 ft downstream from diversion point on South Fork Fryingpan River and 7.2 mi southeast of Norrie.

PERIOD OF RECORD.--October 1971 to September 1983, (station transferred to U. S. Bureau of Reclamation).

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 9,997.80 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except those for period of no gage-height record, May 24 to June 10 and those for period of indefinite stage-discharge relationship, June 14-30, which are fair. This is a transmountain diversion from South Fork Fryingpan River in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 188 ft³/s June 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	38	128	86	13
2	.00	.00	.00	.00	.00	.00	.00	.00	40	133	56	11
3	.00	.00	.00	.00	.00	.00	.00	.00	46	124	55	10
4	.00	.00	.00	.00	.00	.00	.00	.00	55	115	59	13
5	.00	.00	.00	.00	.00	.00	.00	.00	50	113	63	9.6
6	.00	.00	.00	.00	.00	.00	.00	.00	36	119	78	8.0
7	.00	.00	.00	.00	.00	.00	.00	.00	34	134	54	6.7
8	.00	.00	.00	.00	.00	.00	.00	.00	50	139	45	6.3
9	.00	.00	.00	.00	.00	.00	.00	.00	60	130	39	5.7
10	.00	.00	.00	.00	.00	.00	.00	.00	75	124	33	5.2
11	.00	.00	.00	.00	.00	.00	.00	.00	91	114	33	4.0
12	.00	.00	.00	.00	.00	.00	.00	.00	95	102	39	1.3
13	.00	.00	.00	.00	.00	.00	.00	.00	68	93	36	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	55	88	29	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	65	80	24	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	70	76	20	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	90	69	22	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	120	68	23	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	140	71	28	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	150	87	27	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	150	90	21	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	150	72	18	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	160	68	16	.00
24	.00	.00	.00	.00	.00	.00	.00	1.6	180	55	15	.00
25	.00	.00	.00	.00	.00	.00	.00	9.5	170	52	18	.00
26	.00	.00	.00	.00	.00	.00	.00	14	150	56	23	.00
27	.00	.00	.00	.00	.00	.00	.00	24	140	54	24	.00
28	.00	.00	.00	.00	.00	.00	.00	30	130	48	18	.00
29	.00	.00	.00	.00	---	.00	.00	34	130	43	17	.00
30	.00	.00	.00	.00	---	.00	.00	50	130	43	20	.00
31	.00	---	.00	.00	---	.00	---	40	---	65	15	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	203.10	2918	2753	1054	93.80
MEAN	.0000	.0000	.0000	.0000	.0000	.0000	.0000	6.55	97.3	88.8	34.0	3.13
MAX	.00	.00	.00	.00	.00	.00	.00	50	180	139	86	13
MIN	.00	.00	.00	.00	.00	.00	.00	.00	34	43	15	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	403	5790	5460	2090	186
CAL YR 1982	TOTAL	5497.34	MEAN 15.1	MAX 140	MIN .00	AC-FT 10900						
WTR YR 1983	TOTAL	7021.90	MEAN 19.2	MAX 180	MIN .00	AC-FT 13930						

ROARING FORK RIVER BASIN

09077940 CHAPMAN GULCH FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'48", long 106°37'47", Pitkin County, Hydrologic Unit 14010004, on right bank 180 ft downstream from diversion point on point on Chapman Gulch and 4.5 mi southeast of Norrie.

PERIOD OF RECORD.-- October 1971 to September 1983, (station transferred to U. S. Bureau of Reclamation).

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,032.60 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from Chapman Gulch and Sawyer Creek Feeder Canal in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 322 ft³/s June 28, 1982; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	94	294	135	11
2	.00	.00	.00	.00	.00	.00	.00	.00	100	286	85	10
3	.00	.00	.00	.00	.00	.00	.00	.00	86	281	92	9.0
4	.00	.00	.00	.00	.00	.00	.00	.00	109	285	120	13
5	.00	.00	.00	.00	.00	.00	.00	.00	113	280	100	9.0
6	.00	.00	.00	.00	.00	.00	.00	.00	86	281	120	3.0
7	.00	.00	.00	.00	.00	.00	.00	.00	120	238	86	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	149	134	74	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	170	127	62	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	212	110	51	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	242	90	51	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	258	80	67	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	183	72	65	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	133	67	44	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	168	61	39	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	199	59	34	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	246	54	29	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	303	42	34	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	312	75	40	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	256	140	37	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	173	170	30	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	239	139	25	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	260	121	22	.00
24	.00	.00	.00	.00	.00	.00	.00	6.5	246	93	20	.00
25	.00	.00	.00	.00	.00	.00	.00	25	154	90	21	.00
26	.00	.00	.00	.00	.00	.00	.00	37	132	97	24	.00
27	.00	.00	.00	.00	.00	.00	.00	62	127	113	21	.00
28	.00	.00	.00	.00	.00	.00	.00	75	165	112	20	.00
29	.00	.00	.00	.00	---	.00	.00	91	268	78	17	.00
30	.00	.00	.00	.00	---	.00	.00	129	295	85	22	.00
31	.00	---	.00	.00	---	.00	---	105	---	96	15	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	530.50	5598	4250	1602	55.00
MEAN	.000	.000	.000	.000	.000	.000	.000	17.1	187	137	51.7	1.83
MAX	.00	.00	.00	.00	.00	.00	.00	129	312	294	135	13
MIN	.00	.00	.00	.00	.00	.00	.00	.00	86	42	15	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	1050	11100	8430	3180	109
CAL YR 1982	TOTAL	13688.10	MEAN	37.5	MAX	322	MIN	.00	AC-FT	27150		
WTR YR 1983	TOTAL	12035.50	MEAN	33.0	MAX	312	MIN	.00	AC-FT	23870		

ROARING FORK RIVER BASIN

151

09077960 SAWYER CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°15'44", long 106°37'39", Pitkin County, Hydrologic Unit 14010004, on left bank 3,100 ft downstream from diversion point on Sawyer Creek and 4.9 mi south of Norrie.

PERIOD OF RECORD.--October 1971 to September 1983, (station transferred to U. S. Bureau of Reclamation).

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 10,047.00 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. This is a transmountain diversion from Sawyer Creek in Roaring Fork River basin through Charles H. Boustead tunnel to Arkansas River basin. Water is diverted to Chapman Gulch and is rediverted by Chapman Gulch feeder canal. Water is for municipal and irrigation use in the Southeastern Colorado Water Conservancy District. The entire flow is regulated by diversion gates.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s June 24, 25, 1978; no flow for most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	7.2	31	9.3	2.4
2	.00	.00	.00	.00	.00	.00	.00	.00	7.6	31	8.2	2.3
3	.00	.00	.00	.00	.00	.00	.00	.00	7.2	30	8.6	2.1
4	.00	.00	.00	.00	.00	.00	.00	.00	8.5	28	10	2.4
5	.00	.00	.00	.00	.00	.00	.00	.00	9.0	28	9.9	2.1
6	.00	.00	.00	.00	.00	.00	.00	.00	8.2	28	11	1.9
7	.00	.00	.00	.00	.00	.00	.00	.00	8.2	30	9.7	1.7
8	.00	.00	.00	.00	.00	.00	.00	.00	9.4	28	8.2	.72
9	.00	.00	.00	.00	.00	.00	.00	.00	10	31	7.2	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	12	29	6.4	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	16	23	6.2	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	20	20	6.3	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	15	18	6.3	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	13	16	5.6	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	14	14	5.1	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	16	13	4.7	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	21	12	4.2	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	28	12	4.9	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	29	12	6.7	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	26	13	5.8	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	29	14	5.2	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	29	12	4.8	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	29	11	4.2	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	29	9.4	3.9	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	33	8.4	3.9	.00
26	.00	.00	.00	.00	.00	.00	.00	1.0	36	10	3.3	.00
27	.00	.00	.00	.00	.00	.00	.00	2.6	36	11	3.1	.00
28	.00	.00	.00	.00	.00	.00	.00	3.3	34	9.7	2.8	.00
29	.00	.00	.00	.00	---	.00	.00	4.2	31	8.2	2.8	.00
30	.00	.00	.00	.00	---	.00	.00	5.2	31	7.6	2.9	.00
31	.00	---	.00	.00	---	.00	---	5.3	---	8.2	2.6	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	21.60	602.3	556.5	183.8	15.62
MEAN	.000	.000	.000	.000	.000	.000	.000	.70	20.1	18.0	5.93	.52
MAX	.00	.00	.00	.00	.00	.00	.00	5.3	36	31	11	2.4
MIN	.00	.00	.00	.00	.00	.00	.00	.00	7.2	7.6	2.6	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	43	1190	1100	365	31
CAL YR 1982	TOTAL	1133.80	MEAN 3.11	MAX 34	MIN .00	AC-FT 2250						
WTR YR 1983	TOTAL	1379.82	MEAN 3.78	MAX 36	MIN .00	AC-FT 2740						

ROARING FORK RIVER BASIN

09078000 FRYINGPAN RIVER AT NORRIE, CO

LOCATION.--Lat 39°19'51", long 106°39'27", in NE¼NE¼ sec.28, T.8 S., R.83 W., Pitkin County, Hydrologic Unit 14010004, on right bank 200 ft west of county road at Norrie, 1.2 mi upstream from North Fork, and 2.1 mi downstream from Chapman Gulch.

DRAINAGE AREA.--90.6 mi².

PERIOD OF RECORD.--October 1910 to March 1917, October 1947 to September 1983 (discontinued). Prior to October 1960, published as Fryingpan Creek at Norrie.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,410 ft, from topographic map. February 1911 to March 1917, nonrecording gages at site 200 ft upstream at different datums.

REMARKS.--Records good except those for winter period, which are fair. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--30 years (water years 1911-16, 1948-71), 123 ft³/s; 89,110 acre-ft/yr, prior to diversion through Charles H. Boustead tunnel; 12 years (water years 1972-83), 59.2 ft³/s, 42,890 acre-ft/yr, subsequent to diversion through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,780 ft³/s June 30, 1957, gage height, 5.37 ft; maximum gage height, 5.55 ft, June 28, 1957; minimum daily discharge, 8.0 ft³/s, Dec. 26, 1962, but may have been less during periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 725 ft³/s at 2200 June 24, gage height, 4.08 ft; minimum daily, 17 ft³/s Mar. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	53	40	28	21	19	20	62	322	285	121	57
2	72	50	40	27	21	19	21	62	322	257	98	57
3	65	45	37	27	20	20	20	62	273	245	92	55
4	62	48	35	27	22	19	22	67	247	197	102	62
5	59	55	37	28	22	19	22	83	238	192	98	55
6	60	55	37	28	21	17	22	88	211	193	131	55
7	63	54	37	27	21	18	22	68	247	182	109	58
8	59	52	37	26	22	19	21	90	216	169	91	69
9	57	50	36	26	21	20	20	126	211	196	77	68
10	59	48	37	25	22	22	21	155	219	278	68	68
11	59	49	36	25	21	21	20	141	237	223	65	64
12	57	48	37	26	21	21	20	114	265	156	69	62
13	59	48	37	26	21	20	21	102	235	106	71	68
14	55	47	37	26	20	20	21	74	200	96	63	65
15	59	46	37	25	20	20	22	64	193	92	68	78
16	65	46	37	25	20	20	21	58	198	87	69	65
17	61	46	37	25	20	21	22	56	219	81	64	59
18	59	48	36	26	20	20	23	51	365	116	81	58
19	56	47	36	25	20	20	23	50	489	178	93	59
20	52	46	40	25	20	20	22	48	462	115	73	70
21	51	44	40	24	19	22	23	48	413	129	66	60
22	50	43	38	24	20	21	23	68	393	108	60	57
23	51	43	38	24	20	20	26	106	440	107	56	56
24	51	43	37	24	20	20	37	143	515	99	57	54
25	54	40	33	24	20	19	60	172	478	77	55	55
26	55	40	32	23	30	19	69	195	354	92	57	52
27	61	40	34	23	20	19	64	235	290	107	59	50
28	51	39	34	23	19	19	58	263	305	115	56	48
29	48	39	31	22	---	19	58	279	306	89	55	47
30	58	40	29	22	---	19	66	320	271	91	71	51
31	55	---	28	21	---	20	---	299	---	103	63	---
TOTAL	1812	1392	1117	777	584	612	910	3749	9134	4561	2358	1782
MEAN	58.5	46.4	36.0	25.1	20.9	19.7	30.3	121	304	147	76.1	59.4
MAX	89	55	40	28	30	22	69	320	515	285	131	78
MIN	48	39	28	21	19	17	20	48	193	77	55	47
AC-FT	3590	2760	2220	1540	1160	1210	1800	7440	18120	9050	4680	3530
CAL YR 1982	TOTAL	24823	MEAN 68.0	MAX 300	MIN 12	AC-FT	49240					
WTR YR 1983	TOTAL	28788	MEAN 78.9	MAX 515	MIN 17	AC-FT	57100					

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LOCATION.--Lat 39°21'40", long 106°32'16", Eagle County, Hydrologic Unit 14010004, on right bank at concrete adit structure, and 6.7 mi northeast of Norrie, and 0.2 mi above confluence with Mormon Creek.

GAGE.--Water-stage recorder and standard suppressed rectangular weir. Datum of gage is 10,211.90 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 33 ft³/s June 18, 24-26, 30, July 1, 1982; no flow many days.

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	7.3	20	19	7.1
2	.00	.00	.00	.00	.00	.00	.00	.00	7.3	20	17	7.1
3	.00	.00	.00	.00	.00	.00	.00	.00	7.1	15	15	7.1
4	.00	.00	.00	.00	.00	.00	.00	.00	7.5	18	12	7.1
5	.00	.00	.00	.00	.00	.00	.00	.00	7.5	21	11	7.1
6	.00	.00	.00	.00	.00	.00	.00	.00	6.1	21	21	7.1
7	.00	.00	.00	.00	.00	.00	.00	.00	5.1	20	19	7.1
8	.00	.00	.00	.00	.00	.00	.00	.00	5.6	17	18	7.1
9	.00	.00	.00	.00	.00	.00	.00	.00	7.3	11	16	7.1
10	.00	.00	.00	.00	.00	.00	.00	.00	11	8.9	15	7.1
11	.00	.00	.00	.00	.00	.00	.00	.00	16	8.7	13	3.3
12	.00	.00	.00	.00	.00	.00	.00	.00	17	8.2	13	2.5
13	.00	.00	.00	.00	.00	.00	.00	.00	14	16	13	3.3
14	.00	.00	.00	.00	.00	.00	.00	.00	11	23	12	3.3
15	.00	.00	.00	.00	.00	.00	.00	.00	12	23	15	3.3
16	.00	.00	.00	.00	.00	.00	.00	.00	14	23	15	3.3
17	.00	.00	.00	.00	.00	.00	.00	.00	17	24	14	3.3
18	.00	.00	.00	.00	.00	.00	.00	.00	16	22	12	3.3
19	.00	.00	.00	.00	.00	.00	.00	.00	13	20	11	3.3
20	.00	.00	.00	.00	.00	.00	.00	.00	14	22	11	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	13	22	11	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	16	22	12	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	16	23	10	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	15	19	7.0	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	14	17	6.3	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	17	16	7.1	.00
27	.00	.00	.00	.00	.00	.00	.00	5.1	19	16	7.1	.00
28	.00	.00	.00	.00	.00	.00	.00	5.8	18	18	7.1	.00
29	.00	.00	.00	.00	.00	.00	.00	7.3	21	14	7.1	.00
30	.00	.00	.00	.00	.00	.00	.00	7.5	22	15	7.1	.00
31	.00	---	.00	.00	---	.00	---	7.5	---	22	7.1	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	33.20	386.8	565.8	380.9	99.90
MEAN	.000	.000	.000	.000	.000	.000	.000	1.07	12.9	18.3	12.3	3.33
MAX	.00	.00	.00	.00	.00	.00	.00	7.5	22	24	21	7.1
MIN	.00	.00	.00	.00	.00	.00	.00	.00	5.1	8.2	6.3	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	66	767	1120	756	198
WTR YR 1983	TOTAL	1466.60	MEAN 4.02	MAX 24	MIN .00	AC-FT 2910						

ROARING FORK RIVER BASIN

09078050 MORMON CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°21'20", long 106°32'00", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.5 mi upstream from unnamed tributary, 1.0 mi upstream from Carter Creek, and 6.8 mi northeast of Norrie.

PERIOD OF RECORD.--June 1979 to September 1983 (discontinued).

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,090 ft, from topographic map.

REMARKS.--This is a transmountain diversion from Mormon Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 78 ft³/s June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	24	46	23	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	23	45	17	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	21	48	14	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	26	47	12	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	22	45	13	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	16	45	13	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	17	46	27	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	20	49	19	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	25	20	15	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	33	.30	12	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	42	.00	9.7	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	40	.00	8.6	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	28	18	7.5	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	22	26	7.6	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	31	23	9.1	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	38	22	8.0	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	51	20	7.5	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	58	17	7.0	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	53	18	6.3	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	51	29	5.9	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	40	34	5.0	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	29	34	1.9	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	48	32	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	52	24	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	53	20	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	51	17	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	11	51	25	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	29	52	22	.00	.00
29	.00	.00	.00	.00	---	.00	.00	28	51	17	.00	.00
30	.00	.00	.00	.00	---	.00	.00	28	48	26	.00	.00
31	.00	---	.00	.00	---	.00	---	23	---	28	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	119.00	1116	843.30	249.10	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	3.84	37.2	27.2	8.04	.000
MAX	.00	.00	.00	.00	.00	.00	.00	29	58	49	27	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	16	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	236	2210	1670	494	.00

WTR YR 1983 TOTAL 2327.40 MEAN 6.38 MAX 58 MIN .00 AC-FT 4620

ROARING FORK RIVER BASIN

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09078060 CARTER CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°22'00", long 106°32'38", Eagle County, Hydrologic Unit 14010004, on left bank at concrete structure, and 6.7 mi northeast of Norrie, and 0.6 mi above confluence with North Fork Fryingpan River.

PERIOD OF RECORD.--April 1981 to September 1983 (discontinued).

GAGE.--Water-stage recorder and standard suppressed rectangular weir. Datum of gage is 10,124.75 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records furnished by U.S. Bureau of Reclamation. Flow regulated by diversion gates to Arkansas River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 66 ft³/s June 25, 1983; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	20	43	22	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	16	48	17	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	17	52	16	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	17	46	20	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	15	45	30	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	13	45	24	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	13	55	17	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	16	58	14	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	22	.00	13	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	30	.00	9.2	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	41	.00	8.2	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	36	.00	8.3	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	23	38	7.4	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	22	34	11	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	28	32	15	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	31	37	12	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	41	32	8.6	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	63	31	6.9	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	60	30	7.0	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	62	39	6.4	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	59	34	4.4	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	55	40	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	56	31	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	65	23	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	4.9	66	21	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	15	55	23	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	22	60	31	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	20	48	22	.00	.00
29	.00	.00	.00	.00	---	.00	.00	21	42	16	.00	.00
30	.00	.00	.00	.00	---	.00	.00	24	47	32	.00	.00
31	.00	---	.00	.00	---	.00	---	17	---	27	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	123.90	1139	965.00	277.40	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	4.00	38.0	31.1	8.95	.000
MAX	.00	.00	.00	.00	.00	.00	.00	24	66	58	30	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	246	2260	1910	550	.00
WTR YR 1983	TOTAL	2505.30	MEAN 6.86	MAX 66	MIN .00	AC-FT 4970						

ROARING FORK RIVER BASIN

09078140 CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°20'12", long 106°32'31", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.8 mi upstream from Middle Cunningham Creek, 6.2 mi east of Norrie.

PERIOD OF RECORD.--June 1979 to September 1983 (discontinued).

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,100, ft from topographic map.

REMARKS.--This is a transmountain diversion from Cunningham Creek in the Roaring Fork basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 70 ft³/s June 10, 1980; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	14	20	13	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	15	21	7.7	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	14	22	5.6	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	17	20	4.7	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	14	19	6.1	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	9.7	20	4.4	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	11	21	1.6	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	13	24	.09	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	15	9.9	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	18	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	19	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	19	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	15	11	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	11	18	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	16	16	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	20	15	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	22	13	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	24	12	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	24	12	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	20	17	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	19	15	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	18	17	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	25	16	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	29	12	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	30	9.4	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	24	8.0	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	25	11	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	24	12	.00	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	21	7.2	.00	.00
30	.00	.00	.00	.00	.00	.00	.00	.00	21	13	.00	.00
31	.00	.00	.00	.00	.00	.00	.00	.00	.00	17	.00	.00
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	566.7	428.50	43.19	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	18.9	13.8	1.39	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	30	24	13	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	9.7	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	1120	850	86	.00

WTR YR 1983 TOTAL 1038.39 MEAN 2.84 MAX 30 MIN .00 AC-FT 2060

ROARING FORK RIVER BASIN

157

09078150 MIDDLE CUNNINGHAM CREEK FEEDER CANAL NEAR NORRIE, CO

LOCATION.--Lat 39°19'43", long 106°33'06", Pitkin County, Hydrologic Unit 14010004, on left bank, 0.4 mi upstream from Cunningham Creek, 5.7 mi east of Norrie.

PERIOD OF RECORD.--June 1979 to September 1983 (discontinued).

GAGE.--Water-stage recorder and rectangular weir. Altitude of gage is 10,050 ft, from topographic map.

REMARKS.--This is a transmountain diversion from Middle Cunningham Creek in the Roaring Fork River basin through Charles H. Boustead tunnel to the Arkansas River basin. Water is for municipal and irrigation use in the Southeastern Colorado Conservancy District. The entire flow is regulated by diversion gates.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 44 ft³/s June 9, 1981; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	5.4	34	17	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	8.9	34	11	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	8.2	35	8.7	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	11	36	8.2	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	9.6	34	14	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	7.5	36	18	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	9.0	36	13	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	9.9	37	9.7	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	14	18	8.0	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	18	.00	6.6	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	24	.00	5.6	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	23	17	5.4	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	19	23	4.8	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	15	21	4.1	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	17	18	3.0	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	20	16	1.2	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	26	14	.96	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	34	13	2.0	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	22	12	3.2	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	27	18	2.5	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	37	16	2.1	.00
22	.00	.00	.00	.00	.00	.00	.00*	.00	35	15	1.7	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	40	15	1.3	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	39	12	.37	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	39	9.3	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	37	8.8	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	37	15	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	37	12	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	35	9.8	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	35	16	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	21	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	699.5	601.90	152.43	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	23.3	19.4	4.92	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	40	37	18	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	5.4	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	1390	1190	302	.00

WTR YR 1983 TOTAL 1453.83 MEAN 3.98 MAX 40 MIN .00 AC-FT 2880

ROARING FORK RIVER BASIN

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. Altitude of gage is 8,210 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972. Several observations of water temperature were obtained and are published elsewhere in this report.

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

AVERAGE DISCHARGE.--8 years, 87.6 ft³/s; 63,470 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,220 ft³/s June 20, 1983, gage height, 4.16 ft; minimum daily, 10 ft³/s Nov. 28, 1976, Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,220 ft³/s at 0100 June 20, gage height, 4.16 ft; minimum daily, 21 ft³/s Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	63	40	23	23	24	26	58	557	501	150	75
2	90	57	38	23	24	25	27	60	550	448	117	74
3	82	41	36	23	23	25	27	63	461	455	113	70
4	78	54	35	24	24	26	25	75	448	400	117	75
5	74	51	36	25	25	26	24	101	423	350	150	69
6	74	54	36	26	24	25	26	110	377	350	313	64
7	75	53	36	26	21	25	26	91	430	350	200	67
8	74	57	35	26	22	27	26	125	400	339	150	74
9	69	56	35	26	22	26	26	179	400	436	120	74
10	69	51	35	25	22	28	26	244	423	683	106	72
11	70	51	36	25	22	30	26	244	480	550	99	70
12	65	45	31	25	23	31	25	200	508	417	104	67
13	75	45	34	26	23	30	25	186	436	280	104	69
14	67	41	35	26	23	31	24	144	360	176	95	67
15	74	42	33	25	22	29	24	130	366	163	110	80
16	82	43	34	26	22	26	25	122	388	150	101	69
17	77	44	33	25	23	28	26	110	411	142	90	63
18	74	47	32	23	23	28	29	104	620	160	108	60
19	67	45	30	23	24	28	34	104	879	237	117	61
20	61	42	32	22	24	27	32	104	854	189	101	72
21	61	42	31	22	23	26	36	106	781	204	91	63
22	58	41	30	22	24	27	36	150	765	176	82	60
23	60	41	30	23	23	27	38	212	789	186	82	58
24	58	38	31	23	23	27	56	289	862	153	78	57
25	61	45	29	24	23	27	88	360	870	130	84	58
26	63	42	28	24	24	26	93	388	720	139	84	56
27	70	43	27	24	24	26	82	461	613	163	80	54
28	56	44	25	24	24	27	67	508	627	172	78	50
29	52	45	24	23	---	27	64	522	571	130	74	49
30	70	42	23	23	---	27	63	578	487	125	97	53
31	67	---	23	23	---	27	---	536	---	144	84	---
TOTAL	2177	1405	993	748	647	839	1152	6664	16856	8498	3479	1950
MEAN	70.2	46.8	32.0	24.1	23.1	27.1	38.4	215	562	274	112	65.0
MAX	104	63	40	26	25	31	93	578	879	683	313	80
MIN	52	38	23	22	21	24	24	58	360	125	74	49
AC-FT	4320	2790	1970	1480	1280	1660	2280	13220	33430	16860	6900	3870
CAL YR 1982	TOTAL	36884	MEAN 101	MAX 522	MIN 16	AC-FT 73160						
WTR YR 1983	TOTAL	45408	MEAN 124	MAX 879	MIN 21	AC-FT 90070						

ROARING FORK RIVER BASIN

159

09080190 RUEDI RESERVOIR NEAR BASALT, CO

LOCATION.--Lat 39°21'50", long 106°49'05", in NW¼ sec.18, T.8 S., R.84 W., Pitkin County, Hydrologic Unit 14010004, in gatehouse of Ruedi Dam just upstream from Rocky Fork Creek and 13 mi east of Basalt.

DRAINAGE AREA.--223 mi².

PERIOD OF RECORD.--May 1968 to current year.

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

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 furnished 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, 102,000 acre-ft, July 21, elevation, 7,765.25 ft; minimum, 68,000 acre-ft, May 22, elevation, 7,726.89 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	7,764.09	100,000	-
Oct. 31.	7,760.76	97,200	-2,800
Nov. 30.	7,755.92	92,600	-4,600
Dec. 31.	7,749.66	86,900	-5,700
CAL YR 1982			+4,200
Jan. 31.	7,742.66	80,800	-6,100
Feb. 28.	7,736.03	75,200	-5,600
Mar. 31.	7,731.76	71,800	-3,400
Apr. 30.	7,727.19	68,200	-3,600
May 31.	7,735.47	74,800	+6,600
June 30.	7,764.53	101,000	+26,200
July 31.	7,764.10	100,000	-1,000
Aug. 31.	7,764.05	100,000	0
Sept. 30.	7,762.15	98,600	-1,400
WTR YR 1983			-1,400

ROARING FORK RIVER BASIN

09080400 FRYINGPAN RIVER NEAR RUEDI, CO

LOCATION.--Lat 39°21'56", long 106°49'30", in SE¼SE¼ sec.12, T.8 S., R.85 W., Eagle County, Hydrologic Unit 14010004, on right bank 0.4 mi downstream from Rocky Fork Creek and Ruedi Dam, 1.5 mi west of former site of Ruedi, and 12.5 mi east of Basalt.

DRAINAGE AREA.--238 mi².

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

GAGE.--Water-stage recorder and concrete control. Datum of gage is 7,473.25 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 7, 1970, at site 2.0 mi downstream at different datum.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Diversions for irrigation of hay meadows above station. Transmountain diversions above station to Arkansas River basin through Busk-Ivanhoe tunnel since June 1925 and Charles H. Boustead tunnel since May 16, 1972 (see elsewhere in this report). Flow regulated by Ruedi Reservoir (station 09080190) since May 18, 1968. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years (water years 1968-83), 177 ft³/s; 128,200 acre-ft/yr, subsequent to completion of Ruedi Reservoir.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,690 ft³/s June 18, 1965, gage height, 5.16 ft, site and datum then in use; minimum daily, 16 ft³/s Feb. 2, 1968 (result of storage in Ruedi Reservoir); minimum daily prior to construction of Ruedi Reservoir, 28 ft³/s Mar. 4, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,390 ft³/s June 24, gage height, 3.89 ft; minimum daily, 60 ft³/s, Sept. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	148	158	165	155	150	100	130	306	1160	364	177
2	170	150	158	162	155	140	100	130	306	1090	364	145
3	170	150	158	162	152	130	100	130	306	1080	310	145
4	170	150	158	162	152	110	100	130	306	1040	258	145
5	130	150	158	162	152	110	120	130	306	1010	258	145
6	192	150	158	162	152	110	130	130	306	897	258	145
7	152	150	158	162	152	110	130	130	322	706	258	145
8	152	145	158	162	152	110	130	130	334	689	298	145
9	149	148	158	162	152	110	130	160	390	808	310	145
10	149	148	160	160	152	110	130	183	425	848	310	148
11	149	148	160	160	152	110	130	212	430	848	306	148
12	149	148	160	160	150	110	130	230	440	848	246	148
13	147	148	160	160	150	110	130	254	445	718	216	148
14	147	150	160	160	150	110	130	270	450	520	216	148
15	147	152	160	160	152	110	130	270	445	346	216	148
16	145	152	160	160	152	110	130	270	445	286	216	148
17	142	152	160	160	152	110	130	270	445	286	212	148
18	142	152	160	158	152	110	130	270	450	286	212	148
19	145	152	160	158	152	110	130	270	480	286	212	94
20	145	155	162	158	152	110	130	270	635	286	212	60
21	148	155	162	158	152	110	130	270	974	330	209	80
22	148	155	162	158	152	110	130	270	1170	450	209	150
23	148	155	162	158	152	110	130	270	1240	450	206	150
24	148	155	162	158	150	110	130	270	1380	450	206	150
25	145	155	162	158	150	110	130	278	1390	450	206	150
26	145	155	162	155	150	110	130	290	1390	450	206	160
27	148	155	162	155	150	110	130	302	1380	405	202	160
28	148	155	162	155	150	110	130	302	1380	364	202	160
29	148	155	162	155	---	110	130	302	1380	364	202	160
30	148	158	165	155	---	110	130	306	1340	364	202	160
31	148	---	165	155	---	110	---	306	---	364	202	---
TOTAL	4684	4551	4972	4935	4246	3500	3770	7135	20996	18479	7504	4303
MEAN	151	152	160	159	152	113	126	230	700	596	242	143
MAX	192	158	165	165	155	150	130	306	1390	1160	364	177
MIN	130	145	158	155	150	110	100	130	306	286	202	60
AC-FT	9290	9030	9860	9790	8420	6940	7480	14150	41650	36650	14880	8530

CAL YR 1982 TOTAL 64297 MEAN 176 MAX 542 MIN 59 AC-FT 127500
WTR YR 1983 TOTAL 89075 MEAN 244 MAX 1390 MIN 60 AC-FT 176700

NOTE.--NO GAGE-HEIGHT RECORD FEB. 24 TO MAY 9.

ROARING FORK RIVER BASIN

161

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. Altitude of gage is 6,905 ft, from river-profile map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. A few small diversions for irrigation above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 290 ft³/s; 210,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,180 ft³/s June 25, 1983, gage height, 6.12 ft; minimum daily, 22 ft³/s Dec. 5, 1955, Feb. 15, 1964, Jan 2, Feb. 17, 18, 1978.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 30	2300	2,160	4.60	June 25	0430	* 4,180	6.12

Minimum daily discharge, 44 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	355	134	108	56	47	61	64	190	1580	1960	701	180
2	309	127	107	62	46	62	62	180	1510	1890	579	176
3	293	111	99	68	44	62	65	180	1310	1950	552	175
4	277	124	97	70	52	62	62	180	1400	1830	697	185
5	254	122	105	69	58	63	59	205	1400	1760	759	175
6	224	120	103	70	48	61	60	290	1220	1850	675	161
7	214	121	101	70	50	62	60	280	1240	2090	608	155
8	212	122	101	67	51	61	60	370	1360	2350	568	154
9	197	135	103	65	53	61	61	500	1410	2170	590	150
10	192	129	103	65	55	65	61	560	1500	2330	474	147
11	188	129	103	66	55	71	64	602	1650	1920	428	142
12	171	122	90	63	55	75	62	473	1790	1580	411	137
13	173	125	94	62	59	77	59	430	1290	1430	483	130
14	166	109	99	64	58	88	59	374	996	1360	385	129
15	163	109	90	64	56	87	59	358	996	1220	358	135
16	161	108	109	63	57	77	60	337	1170	1130	338	126
17	148	105	103	68	55	74	63	320	1420	1150	312	121
18	141	103	99	66	55	74	68	302	1900	1130	315	120
19	131	112	79	66	56	74	73	306	2440	1160	296	123
20	124	111	94	66	55	70	79	315	2500	1140	299	138
21	118	114	106	60	55	66	85	338	2490	1130	264	123
22	117	112	101	58	59	68	86	426	2500	984	247	119
23	114	106	103	58	60	67	86	558	2640	970	235	115
24	113	97	101	55	63	67	98	758	2780	801	226	114
25	114	107	83	58	65	66	120	987	3500	743	216	113
26	128	102	63	53	62	67	140	1210	2790	833	208	111
27	172	96	60	52	60	64	185	1450	2330	679	200	109
28	138	101	56	52	60	67	180	1700	2090	631	199	106
29	128	111	53	50	---	68	180	1790	1990	595	193	105
30	135	107	54	48	---	68	185	1950	2040	692	201	111
31	137	---	55	48	---	67	---	1800	---	635	187	---
TOTAL	5507	3431	2822	1902	1549	2122	2605	19719	55232	42093	12204	4085
MEAN	178	114	91.0	61.4	55.3	68.5	86.8	636	1841	1358	394	136
MAX	355	135	109	70	65	88	185	1950	3500	2350	759	185
MIN	113	96	53	48	44	61	59	180	996	595	187	105
AC-FT	10920	6810	5600	3770	3070	4210	5170	39110	109600	83490	24210	8100

CAL YR 1982 TOTAL 131412 MEAN 360 MAX 1830 MIN 40 AC-FT 260700
WTR YR 1983 TOTAL 153271 MEAN 420 MAX 3500 MIN 44 AC-FT 304000

NOTE.--NO GAGE-HEIGHT RECORD MAR. 31 TO MAY 10.

ROARING FORK RIVER BASIN

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°32'37", long 107°19'44", in SW¼SE¼ sec.9, T.6 S., R.89 W., Garfield County, Hydrologic Unit 14010004, on left bank at Glenwood Springs, 2,100 ft, upstream from mouth.

DRAINAGE AREA.--1,451 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1905 to September 1909, September 1910 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1960, published as Roaring Fork at Glenwood Springs.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,720.73 ft, National Geodetic Vertical Datum of 1929. Prior to Nov. 20, 1915, nonrecording gage on highway bridge 800 ft downstream at different datum. Nov. 20, 1915, to Oct. 26, 1917, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions above 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.

AVERAGE DISCHARGE.--65 years (water years 1906-9, 1911-71), 1,368 ft³/s; 991,100 acre-ft/yr prior to diversion through Charles H. Boustead tunnel; 12 years (water years 1972-83), 1,166 ft³/s, 844,800 acre-ft/yr, subsequent to diversions through Charles H. Boustead tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,000 ft³/s July 1, 1957, gage height, 8.65 ft; maximum gage height, 8.7 ft, June 14, 1921, from floodmarks; minimum discharge, 145 ft³/s Jan. 21, 1935, gage height, 0.65 ft; minimum daily, 179 ft³/s Jan. 21, 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,100 ft³/s at 0800 June 25, 8.06 ft; minimum daily, 376 ft³/s Apr. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1290	868	697	580	481	481	436	841	4600	7170	2870	1020
2	1160	859	688	643	472	490	418	787	4640	6250	2580	950
3	1110	805	661	643	436	490	436	742	4200	6970	2400	922
4	1060	796	625	670	463	454	409	769	4240	6460	2530	964
5	1010	805	679	688	517	472	376	814	4500	6280	2890	968
6	1010	805	652	571	454	445	427	886	4000	6300	2880	932
7	980	796	652	553	454	427	436	841	3910	6540	2610	930
8	970	787	643	544	490	436	427	868	4100	7490	2250	933
9	970	841	625	526	472	427	436	1050	4280	7540	2280	936
10	950	814	634	499	463	436	436	1390	4600	7750	2030	892
11	950	832	625	517	454	454	445	1680	4960	6940	1880	882
12	922	805	598	508	436	490	445	1440	5660	5990	1830	860
13	940	769	598	508	472	490	436	1330	4900	5410	2010	820
14	904	742	625	526	472	517	427	1290	3950	4910	1750	810
15	922	742	562	508	463	544	427	1230	3710	4420	1720	780
16	931	751	616	508	463	481	436	1250	4060	4010	1620	760
17	931	760	616	517	454	472	454	1250	4500	3980	1530	721
18	913	760	598	517	454	481	481	1180	5550	3780	1500	696
19	886	769	553	508	472	481	562	1230	7130	3840	1480	700
20	868	742	553	490	463	463	562	1250	7900	3710	1550	672
21	850	751	607	490	454	418	616	1240	8650	3680	1420	672
22	841	733	589	490	472	445	616	1430	8930	3710	1340	700
23	841	733	580	481	463	436	589	1700	8840	3610	1290	717
24	832	670	580	472	463	445	679	2160	9530	3320	1210	715
25	823	706	535	490	472	445	814	2810	11200	3030	1190	707
26	823	706	553	472	481	436	850	3300	10300	3230	1160	691
27	1010	697	589	472	472	418	823	3890	9020	2940	1100	733
28	895	679	625	481	481	418	787	4500	8290	2690	1090	686
29	850	706	553	472	---	427	796	4720	7680	2420	1090	690
30	868	697	544	472	---	418	877	5260	7420	2730	1120	700
31	868	---	553	463	---	436	---	5040	---	2560	1070	---
TOTAL	29178	22926	18808	16279	13063	14173	16359	58168	185250	150260	55270	24159
MEAN	941	764	607	525	467	457	545	1876	6175	4847	1783	805
MAX	1290	868	697	688	517	544	877	5260	11200	7750	2890	1020
MIN	823	670	535	463	436	418	376	742	3710	2420	1070	672
AC-FT	57870	45470	37310	32290	25910	28110	32450	115400	367400	298000	109600	47920
CAL YR 1982	TOTAL	481697	MEAN	1320	MAX	5500	MIN	446	AC-FT	955400		
WTR YR 1983	TOTAL	603893	MEAN	1655	MAX	11200	MIN	376	AC-FT	1198000		

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1958 to August 1961, May 1962 to September 1967, January 1970 to May 1972, January 1980 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1962 to September 1967, January 1980 to current year.

WATER TEMPERATURE: May 1962 to May 1967, January 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

COOPERATION.--Chemical-quality data are furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1160 micromhos July 12, 1981; minimum, 132 micromhos July 9, 1983.

WATER TEMPERATURES: Maximum, 23.0°C Aug. 3, 1981; minimum, freezing point on many days during winter months each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 703 micromhos Sept. 27; minimum, 132 micromhos July 9.

WATER TEMPERATURES: Maximum recorded, 19.5°C Aug. 17; minimum, 0.5°C several days during November to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT										
08...	1215	950	510	540	8.0	220	69	12	20	.6
14...	1605	907	480	560	8.5	220	70	12	20	.6
21...	1420	815	500	570	7.5	230	72	12	19	.6
27...	1100	1030	480	530	7.5	220	69	11	20	.6
NOV										
05...	1320	800	540	570	4.5	230	73	12	23	.7
09...	1620	835	500	550	5.5	230	72	12	22	.7
18...	1545	707	520	570	4.0	230	73	12	22	.7
24...	1050	644	560	590	.0	250	77	13	23	.7
DEC										
03...	1200	644	550	570	2.5	230	74	12	22	.7
10...	1150	635	560	570	4.0	230	72	12	23	.7
16...	1430	609	565	570	3.0	230	72	12	23	.7
22...	1240	590	500	580	3.0	230	72	12	24	.7
29...	1115	520	480	650	.0	250	78	13	30	.9
JAN										
06...	0830	626	--	600	.5	230	72	12	21	.6
13...	1230	494	580	620	.5	240	75	13	22	.6
19...	1250	500	560	610	1.5	230	74	12	22	.7
26...	1400	467	570	620	2.5	230	73	12	22	.7
FEB										
03...	1310	440	560	630	.5	240	75	13	24	.7
10...	1700	490	520	600	4.0	240	75	13	24	.7
17...	1220	480	550	600	4.0	250	77	13	24	.7
23...	1400	436	550	600	6.0	240	75	13	22	.6
MAR										
02...	1200	500	520	600	6.0	240	76	13	23	.7
10...	0945	450	560	620	5.0	250	77	14	24	.7
17...	1225	486	580	610	5.0	250	76	14	23	.7
23...	1000	415	581	630	5.0	240	76	13	22	.6
APR										
01...	1025	415	570	610	4.5	240	74	13	22	.6
07...	1220	400	590	610	5.0	240	74	13	22	.6
13...	1400	409	570	590	8.5	220	70	12	22	.7
22...	0945	574	538	550	7.5	220	67	12	18	.6
28...	1245	806	455	470	7.0	200	60	11	15	.5
MAY										
05...	1540	824	460	490	12.5	200	63	11	15	.5
12...	1315	1230	290	370	6.0	160	49	8.3	10	.4
19...	1230	1040	430	450	8.0	180	57	10	13	.4
26...	1300	3100	275	290	8.5	130	40	6.3	6.2	.3
JUN										
01...	1030	4630	310	340	7.0	120	37	5.6	5.1	.2
10...	0800	4100	250	310	6.5	110	34	5.4	5.1	.2
17...	1015	4850	240	300	7.5	110	35	5.5	5.5	.2
23...	0825	8590	210	270	8.5	110	35	4.3	3.2	.1
JUL										
01...	1015	7690	240	270	8.0	100	33	4.6	3.7	.2
07...	1130	6330	240	200	10.0	93	30	4.5	3.9	.2
15...	1025	3900	240	240	10.5	110	34	5.4	5.3	.2
20...	1600	3830	302	270	15.5	120	38	6.1	6.9	.3
29...	1000	1860	362	340	12.5	150	48	7.7	9.4	.3
AUG										
04...	1315	2850	340	340	15.0	150	48	7.9	9.7	.4
12...	0745	1940	--	400	15.0	170	53	9.1	13	.5
18...	1400	1780	--	440	17.5	190	61	9.8	15	.5
26...	0855	850	495	500	14.0	220	69	11	18	.6
SEP										
02...	1200	1210	480	550	15.5	230	72	12	21	.6
08...	1230	600	497	510	15.0	200	58	13	21	.7
16...	1210	780	580	610	13.0	250	79	13	23	.7
19...	1500	970	598	620	15.5	250	79	14	24	.7
25...	1050	740	600	600	11.0	240	75	14	24	.7

ROARING FORK RIVER BASIN

09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE, FET-LAB (MG/L AS HCO3)	CAR- BONATE, FET-LAB (MG/L AS CO3)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT									
08...	2.0	--	--	120	110	24	310	.42	795
14...	3.4	--	--	127	110	26	320	.44	784
21...	2.0	--	--	129	120	27	330	.45	726
27...	1.5	--	--	113	110	22	300	.41	834
NOV									
05...	1.9	--	--	129	120	27	340	.46	734
09...	1.5	--	--	124	110	24	320	.44	721
18...	1.0	--	--	129	110	26	320	.44	611
24...	1.4	--	--	136	120	27	340	.46	591
DEC									
03...	1.3	--	--	129	120	27	330	.45	574
10...	1.4	--	--	127	120	26	330	.45	566
16...	1.1	--	--	128	120	26	330	.45	543
22...	.80	--	--	128	120	26	330	.45	526
29...	1.7	--	--	141	140	33	370	.50	519
JAN									
06...	1.1	150	.000	--	120	25	330	.45	558
13...	1.1	150	.000	--	130	28	340	.46	453
19...	1.1	150	.000	--	130	25	330	.45	445
26...	1.1	150	.000	--	130	27	330	.45	416
FEB									
03...	1.1	150	.000	--	130	29	350	.48	416
10...	2.0	140	.000	--	130	41	360	.49	476
17...	5.5	150	.000	--	130	40	370	.50	480
23...	2.0	130	--	--	130	40	350	.48	412
MAR									
02...	3.0	150	.000	--	120	37	350	.48	472
10...	2.0	160	.000	--	130	17	340	.46	413
17...	2.0	170	.000	--	130	17	340	.46	446
23...	1.1	140	10	--	140	26	350	.48	392
APR									
01...	2.0	130	12	--	130	24	340	.46	381
07...	1.1	150	.000	--	130	24	340	.46	367
13...	1.6	130	10	--	130	24	330	.45	364
22...	1.6	160	.000	--	120	18	310	.42	480
28...	1.1	140	.000	--	90	16	260	.35	566
MAY									
05...	1.1	150	.000	--	94	17	270	.37	601
12...	1.1	130	.000	--	64	8.9	200	.27	664
19...	1.1	140	.000	--	83	14	250	.34	702
26...	1.1	110	.000	--	41	4.6	150	.20	1260
JUN									
01...	1.1	110	.000	--	35	4.3	140	.19	1750
10...	.80	89	--	--	35	3.9	130	.18	1440
17...	.80	90	--	--	38	4.6	140	.19	1830
23...	.80	100	.000	--	27	2.5	120	.16	2780
JUL									
01...	.80	92	.000	--	32	3.2	120	.16	2490
07...	.80	80	.000	--	32	3.5	110	.15	1880
15...	.80	89	.000	--	40	5.3	130	.18	1370
20...	.80	97	.000	--	48	7.8	150	.20	1550
29...	1.1	120	.000	--	62	11	200	.27	1020
AUG									
04...	1.1	120	.000	--	61	10	200	.27	1540
12...	1.1	130	.000	--	73	14	230	.31	1200
18...	1.1	140	.000	--	83	18	260	.35	1250
26...	1.1	160	.000	--	120	23	320	.44	734
SEP									
02...	1.1	170	.000	--	100	27	320	.44	1050
08...	1.6	120	---	--	110	27	290	.39	470
16...	1.6	180	.000	--	130	30	360	.49	758
19...	1.6	180	.000	--	130	31	370	.50	969
28...	1.6	140	---	--	130	33	360	.49	700

ROARING FORK RIVER BASIN

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09085000 ROARING FORK RIVER AT GLENWOOD SPRINGS, CO---Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	472	532	550	587	569	577	580	463	224	245	332	521
2	476	537	550	594	569	581	590	478	218	257	340	548
3	490	550	558	608	585	582	591	483	251	248	351	565
4	499	559	564	618	597	588	595	478	253	248	345	564
5	512	558	553	585	567	586	612	467	208	246	321	558
6	519	554	556	562	579	590	598	447	277	237	322	562
7	520	548	555	565	587	594	600	449	278	214	332	567
8	525	544	555	564	579	586	602	448	260	166	---	575
9	527	535	559	564	580	583	594	409	257	172	---	577
10	532	534	557	582	584	583	591	361	243	163	---	583
11	529	533	564	581	582	581	586	334	232	192	---	585
12	535	537	570	583	586	570	582	353	222	224	---	591
13	538	543	575	587	577	563	589	367	229	238	---	594
14	540	542	559	587	576	561	586	378	256	238	---	598
15	543	551	578	578	574	543	586	391	270	249	---	593
16	538	546	568	580	573	564	578	398	262	263	---	595
17	534	541	564	569	571	580	573	409	253	266	457	601
18	533	533	566	562	576	583	562	426	223	276	445	609
19	534	532	585	570	576	574	538	430	181	277	402	609
20	537	533	585	584	573	584	533	422	197	281	417	615
21	540	533	563	584	575	590	543	415	238	288	475	604
22	541	540	565	579	572	585	527	392	220	293	528	577
23	540	540	558	581	573	590	521	363	223	303	538	544
24	541	563	547	581	578	594	500	348	198	311	519	528
25	540	560	556	575	580	591	460	356	195	327	495	518
26	539	551	572	577	577	591	436	276	192	320	494	505
27	510	557	562	581	577	598	440	251	190	332	498	562
28	521	557	537	575	581	597	448	233	187	341	501	621
29	538	549	558	574	---	591	452	235	199	352	510	605
30	539	550	573	573	---	596	449	227	233	329	506	595
31	532	---	583	574	---	596	---	233	---	341	510	---
MEAN	526	545	563	579	578	583	548	378	229	266	438	576
WTR YR 1983	MEAN	485		MAX	621	MIN	163					

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	8.0	3.5	8.5	5.0	10.0	6.5	12.0	8.0	15.0	12.5	19.0	13.5
2	7.0	4.0	10.5	6.5	9.5	7.0	12.5	8.0	15.5	12.5	18.0	15.0
3	7.5	4.0	12.0	7.0	11.0	6.5	11.5	9.0	17.0	14.0	18.5	14.5
4	4.5	2.5	13.0	8.0	11.5	6.5	12.5	7.5	17.0	13.5	18.0	14.5
5	6.5	1.0	12.5	8.5	10.0	6.5	13.0	8.0	17.0	13.0	17.5	13.0
6	7.5	2.0	10.5	7.0	10.5	6.0	13.5	8.5	17.0	13.0	17.5	12.5
7	7.0	2.0	12.0	5.5	12.0	7.0	14.0	9.5	17.5	13.5	18.0	13.0
8	8.0	2.5	13.0	7.5	10.5	7.0	13.0	9.5	---	---	17.0	14.5
9	9.5	4.5	12.5	7.5	10.0	7.0	14.0	10.0	---	---	17.0	12.5
10	10.0	5.0	12.0	7.0	11.5	6.5	13.5	10.0	---	---	17.5	14.0
11	8.0	6.0	10.5	6.0	11.5	7.0	13.5	9.0	---	---	17.0	12.0
12	8.0	5.0	8.5	3.5	10.0	7.5	14.0	9.0	---	---	16.5	11.5
13	8.5	5.0	7.5	5.0	9.0	6.0	14.0	9.5	---	---	17.0	12.0
14	8.5	3.5	7.5	4.5	11.5	5.5	14.5	10.5	---	---	15.5	12.5
15	9.0	3.5	8.5	5.0	12.5	7.0	14.0	10.0	---	---	16.0	11.5
16	10.0	4.5	7.5	3.5	11.5	7.5	15.0	10.0	---	---	16.0	11.5
17	11.0	5.0	5.0	2.5	12.5	7.5	15.0	10.5	19.5	15.0	16.5	11.5
18	11.0	6.0	9.0	4.0	13.0	7.0	15.5	11.0	18.5	16.0	17.0	12.5
19	11.5	8.5	11.0	6.5	12.0	7.0	16.0	11.5	17.5	14.0	16.0	13.0
20	10.5	7.0	11.0	6.5	12.0	7.0	16.5	12.5	17.0	14.0	13.0	9.5
21	9.5	8.0	11.5	6.5	12.0	7.0	16.0	12.5	18.0	13.0	12.5	7.5
22	10.5	7.0	12.5	8.0	12.0	7.0	14.5	11.0	18.0	13.5	13.5	8.0
23	13.0	7.5	13.0	7.5	11.0	7.5	14.5	11.5	18.0	13.5	13.0	9.5
24	13.0	8.0	13.0	7.5	11.0	7.5	15.5	10.5	17.0	14.0	14.0	11.0
25	12.5	8.5	11.5	7.0	10.5	7.5	15.0	12.0	17.0	13.5	15.0	10.5
26	11.0	7.5	12.0	7.0	10.0	7.5	13.5	11.5	18.5	14.0	15.0	11.0
27	9.5	7.5	12.5	7.0	9.5	7.5	14.0	11.0	19.0	14.0	16.0	11.0
28	8.0	6.5	11.0	6.5	11.0	7.0	16.0	11.0	18.0	14.5	13.5	11.0
29	9.5	7.5	11.5	6.0	10.5	7.5	17.0	12.0	17.0	14.5	14.0	11.5
30	8.0	6.5	10.5	7.0	12.0	7.5	16.5	12.0	18.0	14.0	13.0	11.5
31	---	---	9.0	6.0	---	---	15.5	12.0	18.5	14.0	---	---
MONTH	13.0	1.0	13.0	2.5	13.0	5.5	17.0	7.5	19.5	12.5	19.0	7.5

YEAR	19.5	.5										
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COLORADO RIVER MAIN STEM

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09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO

LOCATION.--Lat 39°33'18", long 107°20'13", in NW¼NW¼ sec.9, T.6 S., R.89W., Garfield County, Hydrologic Unit 14010005, on left bank 0.6 mi downstream from Roaring Fork River and 1.0 mi northwest of Post Office in Glenwood Springs.

DRAINAGE AREA.--6,013 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 5,700.75 ft, Colorado State Highway Department datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of 110,000 acres.

AVERAGE DISCHARGE.--17 years, 3,357 ft³/s; 2,432,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,900 ft³/s June 25, 1983, gage height, 11.74 ft; minimum daily, 870 ft³/s Feb. 11, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27,900 ft³/s at 2300 June 25, gage height, 11.74 ft; minimum daily, 1,130 ft³/s Dec. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3010	2530	1890	1290	1540	1560	1610	3110	15100	20800	7840	3630
2	2910	2330	1820	1360	1530	1560	1560	2990	15000	19100	7430	3510
3	2830	2130	1750	1330	1400	1580	1620	2920	14200	18900	7190	3390
4	2780	1970	1760	1410	1370	1520	1560	3110	14300	18200	7340	3410
5	2670	2190	1820	1630	1520	1560	1440	3300	14700	17400	7530	3510
6	2640	2180	1780	1770	1520	1520	1500	3570	13900	17000	8150	3410
7	2640	2220	1770	1810	1450	1460	1520	3600	13500	16800	7840	3310
8	2620	2160	1750	1760	1520	1460	1510	3570	13800	18100	7140	3270
9	2640	2250	1680	1690	1570	1450	1580	4050	14200	18600	6610	3240
10	2600	2260	1760	1510	1540	1500	1550	4950	14700	18700	5970	3160
11	2600	2270	1750	1560	1630	1440	1570	6020	15700	17800	5420	3140
12	2580	2210	1670	1580	1450	1530	1630	5990	17800	16900	5110	2880
13	2580	2140	1590	1500	1430	1610	1580	5650	17300	16400	5250	2840
14	2580	2040	1740	1500	1530	1680	1510	5310	14800	15300	4890	2500
15	2600	1950	1470	1500	1520	1800	1510	5030	13700	13500	4880	2500
16	2600	2080	1780	1480	1520	1660	1540	4980	13900	12000	4870	2350
17	2590	2020	1730	1570	1500	1660	1560	4920	14500	11300	4730	2270
18	2550	2150	1710	1610	1510	1600	1660	4680	16600	10500	4720	2200
19	2510	2160	1520	1610	1560	1600	1850	4760	20400	10100	4820	2150
20	2450	2160	1470	1640	1530	1550	2050	4890	22800	9530	4860	2100
21	2420	1940	1710	1480	1490	1440	2120	4980	23900	10100	4650	2150
22	2400	1870	1740	1570	1540	1480	2220	5350	24100	10800	4400	2180
23	2360	1820	1760	1560	1540	1490	2200	5930	23700	11000	4230	2200
24	2350	1600	1740	1560	1540	1490	2350	7010	24100	11000	4080	2190
25	2350	1690	1400	1610	1550	1490	2780	8550	26900	10200	3980	2180
26	2360	1810	1260	1560	1590	1480	3190	9710	26700	9710	3790	2240
27	2660	1740	1280	1550	1560	1500	3250	11400	25200	9210	3650	2230
28	2550	1680	1420	1560	1550	1560	3150	13600	24700	9070	3590	2190
29	2410	1860	1250	1560	---	1560	3020	14700	23200	8200	3560	2160
30	2410	1850	1130	1560	---	1560	3140	16200	22100	7800	3580	2200
31	2440	---	1180	1510	---	1600	---	16200	---	7750	3600	---
TOTAL	79690	61260	50080	48190	42500	47950	59330	201030	555500	421770	165700	80690
MEAN	2571	2042	1615	1555	1518	1547	1978	6485	18520	13610	5345	2690
MAX	3010	2530	1890	1810	1630	1800	3250	16200	26900	20800	8150	3630
MIN	2350	1600	1130	1290	1370	1440	1440	2920	13500	7750	3560	2100
AC-FT	158100	121500	99330	95580	84300	95110	117700	398700	1102000	836600	328700	160000
CAL YR 1982	TOTAL	1254442	MEAN	3437	MAX	11900	MIN	992	AC-FT	2488000		
WTR YR 1983	TOTAL	1813690	MEAN	4969	MAX	26900	MIN	1130	AC-FT	3597000		

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1980 to current year.

WATER TEMPERATURE: January 1980 to current year.

INSTRUMENTATION.--Water-quality monitor since January 1980.

REMARKS.--Water-quality monitor located 2.1 mi below gaging station, and records considered equivalent. Daily maximum and minimum specific-conductance data available in district office. Water-quality data for the 1982 water year will be published in this report.

COOPERATION.--Chemical-quality data are furnished by U.S. Bureau of Reclamation.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1670 micromhos Dec. 24, 1981; minimum, 182 micromhos June 19, 1983.

WATER TEMPERATURES: Maximum, 22.5°C Aug. 4, 1981; minimum, 0.0°C many days during winter period each year.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,660 micromhos Feb. 12; minimum, 182 micromhos June 19.

WATER TEMPERATURES: Maximum, 19°C Sept. 4; minimum, 0.0°C many days during November to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT										
01...	0945	1570	1100	1010	12.5	220	68	13	130	4
07...	1430	2000	1000	924	11.5	220	68	13	110	3
16...	1445	1920	1000	921	11.5	230	72	13	110	3
22...	1030	1100	1050	936	7.0	230	72	13	110	3
29...	1300	1710	980	952	8.0	230	71	13	110	3
NOV										
05...	0955	1600	1050	1030	5.0	230	72	13	110	3
12...	1500	1390	1040	1090	6.0	240	73	14	130	4
19...	1000	1370	1100	1130	3.5	240	73	14	140	4
27...	1600	1200	--	1110	--	240	75	14	150	4
DEC										
03...	1330	1270	1200	1130	2.0	250	78	14	150	4
10...	1440	1640	--	1360	2.0	260	81	14	180	5
17...	1330	1400	1140	1250	1.5	250	76	14	140	4
24...	1430	860	1500	1630	.0	270	83	15	200	6
30...	1230	1530	1200	1290	1.0	250	79	14	150	4
JAN										
07...	1600	1110	1250	1330	.0	260	81	14	170	5
14...	1500	1320	1050	1020	1.0	240	75	13	140	4
21...	0900	830	1120	1020	1.0	230	71	13	140	4
29...	1700	1300	1120	1170	2.0	230	72	11	140	4
FEB										
04...	1400	1230	1140	1190	.0	230	74	11	140	4
12...	--	1160	1170	1230	1.0	230	74	11	150	4
19...	0900	--	1050	1160	.0	220	70	12	140	4
21...	1030	--	1150	1130	3.5	220	69	12	130	4
MAR										
04...	1530	--	1150	1160	5.0	230	71	13	140	4
11...	1400	--	1100	1180	7.0	240	74	14	140	4
18...	1520	1600	1050	1130	7.5	250	74	15	130	4
25...	--	1650	1200	1080	7.0	180	49	14	130	4
APR										
01...	--	1440	1150	1180	7.0	250	75	15	130	4
09...	1540	1500	1050	1100	8.0	230	70	14	130	4
14...	1105	2200	800	840	9.0	200	60	12	85	3
21...	1040	2360	760	790	4.5	190	57	11	87	3
29...	1245	3580	610	660	9.0	180	52	11	64	2
MAY										
07...	1345	5000	440	480	7.0	140	44	7.7	36	1
13...	1700	7830	460	490	7.5	150	44	8.8	37	1
21...	1050	4900	520	470	9.5	120	32	8.8	45	2
28...	1440	8330	360	370	11.0	120	37	7.7	31	1
JUN										
04...	1300	8530	340	380	10.5	120	36	7.0	36	1
10...	1700	9840	340	340	10.5	110	32	7.0	22	1
18...	1145	12000	290	320	10.5	110	34	7.0	21	.9
23...	1430	10500	320	340	11.5	110	34	7.0	23	1
JUL										
02...	0945	11500	340	320	10.0	110	33	6.0	20	.9
08...	0955	8100	430	430	12.0	130	40	8.0	31	1
16...	1410	6030	490	510	14.0	150	45	9.0	41	2
21...	1500	4660	500	570	17.0	160	49	9.0	5.0	.2
30...	1015	5700	540	540	15.0	150	47	9.0	44	2
AUG										
05...	1440	3780	570	690	17.0	180	54	10	65	2
12...	1330	3400	740	740	16.5	190	57	11	69	2
18...	1445	3720	690	690	18.0	180	54	10	64	2
26...	1530	3210	725	630	16.0	120	30	10	68	3
SEP										
03...	1215	2380	850	890	16.0	210	65	12	91	3
09...	1645	2430	850	870	16.5	210	64	12	88	3
16...	1345	3200	750	790	13.0	200	62	12	75	2
24...	--	2890	730	820	14.0	200	62	11	81	3
30...	1300	2720	740	800	10.5	200	61	11	75	2

COLORADO RIVER MAIN STEM

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WATER QUALITY DATA, WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE, FET-LAB (MG/L AS HCO3)	CAR- BONATE, FET-LAB (MG/L AS CO3)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT									
01...	5.0	150	.000	--	110	190	588	.80	2490
07...	4.0	160	.000	--	100	170	548	.75	2960
16...	4.0	160	.000	--	110	160	552	.75	2860
22...	3.0	140	11	--	110	170	564	.77	1680
29...	4.0	150	.000	--	120	170	562	.76	2590
NOV									
05...	4.0	160	.000	--	130	170	576	.78	2490
12...	4.0	150	.000	--	120	190	603	.82	2260
19...	4.0	140	12	--	120	200	630	.86	2330
27...	4.0	140		--	120	220	658	.89	2130
DEC									
03...	4.0	160	.000	--	130	220	672	.91	2300
10...	5.0	160	.000	--	110	270	741	1.0	3280
17...	4.0	150	.000	--	140	220	671	.91	2540
24...	5.0	120	23	--	140	300	823	1.1	1910
30...	4.0	120	17	--	100	220	645	.88	2660
JAN									
07...	4.0	110	24	--	180	240	766	1.0	2300
14...	4.0	100	24	--	140	200	642	.87	2290
21...	4.0	79	36	--	140	220	656	.89	1470
29...	3.0	100	22	--	96	220	619	.84	2170
FEB									
04...	3.0	150	.000	--	110	220	639	.87	2120
12...	3.0	100	23	--	110	230	654	.89	2050
19...	4.0	85	29	--	130	210	636	.87	--
21...	4.0	140	.000	--	120	200	611	.83	--
MAR									
04...	4.0	89	30	--	150	210	659	.90	--
11...	6.0	150	.000	--	130	220	650	.88	--
18...	4.0	150	.000	--	140	190	620	.84	2680
25...	4.0	71		--	130	200	570	.78	2540
APR									
01...	4.0	130	11	--	140	200	640	.87	2490
09...	5.0	130		--	100	200	600	.82	2430
14...	3.0	99	17	--	100	130	450	.61	2670
21...	4.0	130	.000	--	93	120	440	.60	2800
29...	3.0	120		--	79	88	360	.49	3480
MAY									
07...	6.0	120	.000	--	73	55	280	.38	3780
13...	6.0	110	.000	--	73	55	280	.38	5920
21...	5.0	73		--	81	61	270	.37	3570
28...	3.0	110	.000	--	62	39	230	.31	5170
JUN									
04...	2.0	100	.000	--	57	30	220	.30	5070
10...	2.0	96	.000	--	37	26	170	.23	4520
18...	3.0	99	.000	--	38	23	170	.23	5510
23...	4.0	100	.000	--	39	27	180	.24	5100
JUL									
02...	2.0	85		--	31	22	160	.22	4970
08...	2.0	99		--	44	37	210	.29	4590
16...	1.0	120	.000	--	61	55	270	.37	4400
21...	.80	150	.000	--	110	220	300	.41	3770
30...	1.8	--	--	95	68	60	290	.39	4460
AUG									
05...	2.3	--	--	120	86	89	380	.52	3880
12...	4.2	--	--	120	91	98	400	.54	3670
18...	2.9	--	--	110	78	88	360	.49	3620
26...	5.2	--	--	47	87	100	330	.45	2860
SEP									
03...	3.3	--	--	130	97	130	480	.65	3080
09...	3.5	--	--	120	96	120	460	.63	3020
16...	3.0	--	--	120	100	100	430	.58	3720
24...	3.0	--	--	120	94	120	440	.60	3430
30...	4.0	--	--	120	93	110	430	.58	3160

COLORADO RIVER MAIN STEM

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT										
08...	1350	2490	700	830	9.0	200	62	11	86	3
15...	1300	2580	710	830	8.0	200	61	11	83	3
21...	1500	2450	770	850	8.0	200	61	11	83	3
27...	1210	3100	710	800	8.0	190	58	11	78	3
NOV										
05...	1420	2740	1000	1050	4.5	220	68	13	110	3
10...	--	2260	825	900	5.5	200	61	11	97	3
18...	1515	2740	840	890	2.5	200	61	11	94	3
24...	1150	1610	1050	1110	.0	220	68	13	120	4
DEC										
03...	1340	1770	1060	1010	2.5	210	65	12	110	3
10...	1300	1880	1000	1000	3.0	210	63	12	110	3
16...	1130	1780	1050	1040	1.0	210	64	12	110	4
22...	1340	1710	950	1050	3.0	210	63	12	120	4
29...	1400	1310	950	1260	.0	230	70	13	150	4
JAN										
06...	1210	1630	910	1020	.5	210	63	12	110	3
13...	1350	1470	1070	1080	.5	210	64	12	120	4
19...	--	1800	1000	1070	2.0	200	61	12	120	4
26...	0930	1540	1050	1070	1.0	210	63	12	120	4
FEB										
03...	--	1400	1010	1100	.5	210	63	12	120	4
10...	1450	1540	970	1070	2.0	210	63	12	130	4
17...	1400	1450	1000	1080	3.5	210	63	12	130	4
23...	1030	1480	1070	1140	3.5	210	66	12	140	4
MAR										
02...	0920	1720	990	1060	5.5	210	65	12	130	4
17...	1345	1660	1070	1050	5.5	210	63	13	120	4
21...	1230	1360	1100	1130	5.5	210	64	13	130	4
APR										
01...	1150	1980	1010	1060	6.5	200	61	12	120	4
07...	1020	1500	960	1050	4.0	210	62	13	120	4
13...	1030	1590	1030	1040	7.0	200	59	12	120	4
22...	1045	2180	912	890	9.0	190	56	12	120	4
28...	1015	3340	655	700	8.0	170	49	11	63	2
MAY										
05...	1500	3290	670	710	11.5	170	50	11	63	2
12...	1530	5900	430	470	8.0	140	44	7.8	36	1
19...	0900	4700	530	590	8.0	160	46	9.8	45	2
26...	1100	9990	346	380	10.0	130	41	7.4	21	.8
JUN										
01...	1420	16000	420	380	8.0	110	32	6.3	17	.7
10...	0900	15100	290	380	8.0	110	34	6.2	15	.6
17...	0930	15600	290	360	9.5	110	33	6.2	16	.7
22...	1030	25000	228	300	10.0	100	32	4.9	10	.5
28...	1425	23000	245	300	11.5	100	32	5.1	10	.5
JUL										
08...	1415	20000	220	210	12.5	90	29	4.3	64	3
15...	1050	15400	260	250	12.0	99	31	5.2	10	.5
18...	1200	10400	328	310	13.0	110	36	5.8	17	.7
29...	0900	9100	408	420	13.0	140	45	7.5	28	1
AUG										
04...	1340	7740	400	390	15.5	150	46	7.9	21	.8
12...	1015	5900	480	500	14.0	170	52	9.5	37	1
18...	1500	4850	--	650	19.0	200	63	9.8	47	2
26...	1040	3860	625	720	16.0	200	63	11	64	2
SEP										
01...	--	3750	630	660	16.5	170	53	9.8	67	2
08...	1050	3420	598	730	16.5	180	55	9.8	75	3
16...	1320	2400	880	930	15.5	210	64	12	100	3
19...	1130	2180	--	1010	15.5	220	67	13	110	3
28...	1145	2200	850	1000	13.0	220	67	13	110	3

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE, FET-LAB (MG/L AS HCO3)	CAR- BONATE, FET-LAB (MG/L AS CO3)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT									
08...	3.0	--	--	120	96	120	450	.61	3030
15...	5.3	--	--	118	93	130	450	.61	3130
21...	6.1	--	--	116	96	130	450	.61	2980
27...	2.8	--	--	112	92	120	430	.58	3600
NOV									
05...	4.1	--	--	128	110	180	560	.76	4140
10...	2.9	--	--	116	95	140	480	.65	2930
18...	2.6	--	--	117	94	140	470	.64	3480
24...	2.9	--	--	129	110	180	580	.79	2520
DEC									
03...	2.8	--	--	120	110	170	540	.73	2580
10...	3.0	--	--	120	110	170	540	.73	2740
16...	2.8	--	--	128	110	170	550	.75	2640
22...	2.5	--	--	128	110	180	560	.76	2590
29...	3.3	--	--	137	120	190	630	.86	2230
JAN									
06...	2.7	150	.000	--	99	160	510	.69	2240
13...	2.7	150	.000	--	93	160	520	.71	2060
19...	2.7	140	.000	--	100	160	520	.71	2530
26...	3.1	140	.000	--	100	150	520	.71	2160
FEB									
03...	2.7	140	.000	--	110	150	530	.72	2000
10...	7.0	140	.000	--	100	190	570	.78	2370
17...	4.0	140	.000	--	94	180	550	.75	2150
23...	4.0	140	.000	--	110	190	590	.80	2360
MAR									
02...	4.0	140	.000	--	110	170	560	.76	2600
17...	4.0	150	.000	--	150	140	570	.78	2550
21...	3.9	130	--	--	120	170	570	.78	2090
APR									
01...	3.5	130	--	--	110	170	540	.73	2890
07...	3.5	130	--	--	110	170	550	.75	2230
13...	3.9	140	.000	--	110	170	550	.75	2360
22...	3.1	140	.000	--	120	160	530	.72	3120
28...	3.5	140	.000	--	75	87	350	.48	3160
MAY									
05...	3.9	130	.000	--	83	89	360	.49	3200
12...	2.0	130	.000	--	50	45	250	.34	3980
19...	3.1	130	.000	--	71	62	300	.41	3810
26...	2.0	120	.000	--	42	28	200	.27	5390
JUN									
01...	1.6	97	.000	--	32	22	160	.22	6900
10...	1.6	110	.000	--	33	22	160	.22	6510
17...	1.1	100	.000	--	32	22	160	.22	6740
22...	1.1	100	.000	--	25	15	140	.19	9450
28...	1.6	97	.000	--	28	15	140	.19	8690
JUL									
08...	.80	85	.000	--	29	7.8	120	.16	6480
15...	1.1	84	.000	--	38	13	140	.19	5820
18...	1.1	95	.000	--	46	24	180	.24	5050
29...	1.6	110	.000	--	62	39	240	.33	5900
AUG									
04...	1.6	110	.000	--	62	28	220	.30	4600
12...	1.6	120	.000	--	74	52	290	.39	4620
18...	2.7	120	.000	--	110	73	370	.50	4850
26...	2.3	150	.000	--	94	91	400	.54	4170
SEP									
01...	2.3	120	.000	--	76	92	360	.49	3650
08...	2.7	130	.000	--	87	110	400	.54	3690
16...	3.5	130	--	--	110	160	520	.71	3370
19...	3.5	160	.000	--	120	180	570	.78	3360
28...	3.5	150	.000	--	120	180	570	.78	3390

COLORADO RIVER MAIN STEM

09085100 COLORADO RIVER BELOW GLENWOOD SPRINGS, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1040	983	1150	1170	1120	1160	1120	658	359	334	604	---
2	1070	1000	1200	1190	1130	1160	1110	724	344	334	624	---
3	1070	1020	1180	1220	1200	1140	1090	506	356	338	641	862
4	1070	1070	1150	1280	1190	1120	1070	482	352	337	659	867
5	1040	1010	1210	1300	1270	1100	1070	460	345	354	700	842
6	1020	1050	1270	1380	1420	1140	1080	427	312	377	706	824
7	945	1050	1330	1330	1420	1150	1060	462	288	398	719	824
8	830	1050	1360	1470	1300	1140	1070	483	256	432	717	841
9	827	1050	1420	1480	1240	1130	1070	490	226	433	718	843
10	854	1060	1440	1400	1170	1190	1060	476	309	446	719	849
11	887	1070	1440	1330	1140	1130	1060	469	239	451	725	834
12	895	1060	1360	1240	1170	1090	964	472	234	459	732	762
13	932	1070	1310	1150	1200	1040	857	455	310	458	741	716
14	975	1080	1280	1110	1220	1030	825	494	324	472	705	722
15	979	1080	1230	1100	---	1060	672	532	321	481	676	746
16	994	1080	1210	1100	---	1060	719	559	340	485	686	765
17	992	1090	1160	1100	---	1060	760	563	320	511	690	768
18	914	1100	1290	1090	---	1080	797	558	295	530	685	760
19	936	1110	1310	1100	---	1090	810	544	304	576	---	791
20	976	1130	1220	1100	---	1120	796	526	321	577	---	795
21	1020	1120	1150	1110	---	1140	775	514	324	551	---	788
22	1050	1120	1180	1110	---	1170	736	490	323	558	---	803
23	1010	1090	1280	1140	---	1160	665	449	322	559	---	814
24	1020	1090	1490	1150	---	1160	652	424	329	565	---	807
25	1040	1140	1560	1140	1140	1180	633	418	325	573	---	811
26	1060	1100	1440	1120	1150	1170	605	426	326	592	---	809
27	1030	1130	1290	1170	1160	1150	642	402	332	685	---	792
28	986	1120	1280	1140	1170	1130	666	382	328	630	---	773
29	990	1130	1270	1140	---	1110	641	404	324	557	---	776
30	958	1120	1180	1150	---	1100	635	385	329	537	---	760
31	964	---	1140	1140	---	1140	---	385	---	580	---	---
MEAN	980	1080	1280	1200	1210	1120	857	484	314	489	692	798
WTR YR 1982	MEAN	872	MAX	1560	MIN	226						

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	716	832	1020	1130	1050	1020	1010	668	297			---
2	708	852	996	1090	1080	1030	1020	686	289			663
3	722	892	1020	1090	1050	1040	1010	711	295			688
4	739	949	1030	1080	1100	1060	1020	696	290			696
5	754	992	980	1010	1040	1060	1070	670	293			693
6	783	1010	991	949	1030	1080	1100	635	307			701
7	810	955	992	926	1050	1120	1030	613	310			721
8	819	927	988	939	1030	1130	1060	625	287			736
9	815	878	1010	966	1000	1150	1040	587	292			736
10	817	852	1000	1030	991	1150	1040	507	284			746
11	819	827	1010	1050	977	1160	1030	432	254			777
12	825	851	1030	1070	1090	1120	1010	433	236			791
13	825	867	1070	1050	1060	1080	1020	448	262			806
14	821	888	1050	1100	1030	1050	1050	469	296			---
15	816	918	1100	1100	1030	999	1070	491	295			---
16	814	904	1030	1100	1020	1030	1050	510	300			---
17	810	903	1010	1070	1020	1020	1040	529	294			925
18	816	867	994	1040	1010	1080	1010	556	274			961
19	823	850	1070	1020	1010	1060	954	553	249			986
20	847	824	1060	1020	1020	1070	905	551	248			1000
21	826	864	1000	1070	1040	1120	890	554	215			990
22	839	891	982	1050	1050	1120	853	536	---			981
23	842	884	940	1050	1080	1100	855	504	---			972
24	844	1000	954	1060	1010	1100	834	448	---			976
25	847	1060	1050	1040	1030	1090	774	389	---			972
26	840	1020	1140	1060	1010	1090	650	355	---			968
27	800	1040	1130	1070	1020	1080	605	336	---			963
28	823	1040	1080	1060	1020	1060	622	313	---			974
29	837	1020	1130	1050	---	1050	662	316	---			979
30	850	1020	1170	1040	---	1040	661	295	---			974
31	850	---	1220	1060	---	1030	---	287	---			---
MEAN	810	923	1040	1050	1030	1080	932	507	279			861
WTR YR 1983	MEAN	868	MAX	1220	MIN	215						

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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1981 TO SEPTEMBER 1982

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	10.5	7.0	7.0	1.0	2.0	1.5	.0	2.0	.5	5.0	4.5
2	13.0	10.0	7.0	5.5	1.5	1.5	.5	.0	2.0	.0	5.5	5.0
3	12.5	9.0	6.5	4.0	2.5	1.0	.5	.0	.5	.0	6.0	5.0
4	12.0	9.5	7.0	3.0	2.0	.0	.0	.0	.0	.0	5.5	4.5
5	12.5	9.5	6.5	3.0	2.5	1.0	.5	.0	.5	.0	4.5	5.0
6	13.0	8.0	6.5	3.0	2.0	1.0	1.0	.0	.0	.0	4.5	4.5
7	12.5	8.0	7.0	3.5	2.0	2.0	.0	.5	.0	.0	4.0	4.5
8	12.0	7.5	7.5	4.5	2.0	1.5	.0	1.0	.5	.5	4.5	4.5
9	12.0	6.5	7.0	5.5	3.0	1.0	.0	.0	.5	1.0	7.0	5.0
10	12.0	5.5	6.0	5.0	2.5	2.0	.5	.0	1.0	1.0	5.5	5.0
11	11.5	5.0	6.0	4.5	3.0	2.5	.0	.0	1.0	.5	6.0	6.0
12	11.5	5.0	5.5	3.5	4.0	1.5	.5	.0	1.0	.0	7.5	6.5
13	12.0	6.0	5.5	2.5	3.0	.5	.5	.0	1.0	.5	7.5	7.0
14	12.0	6.5	6.0	1.5	2.0	.5	1.0	.0	1.5	1.5	8.0	7.0
15	11.5	7.0	7.0	.5	2.5	.0	9.0	.0	---	1.5	7.5	5.5
16	10.0	8.0	7.0	.5	3.0	1.0	1.0	.0	---	2.0	7.5	4.5
17	10.0	7.5	6.5	.5	2.0	.0	1.5	.5	---	1.5	8.0	4.5
18	10.5	8.0	5.5	2.0	.5	.5	1.5	.5	---	1.5	8.0	4.5
19	10.0	7.5	5.0	2.5	2.0	.0	2.0	.5	---	2.5	6.5	4.5
20	10.0	6.5	3.5	2.5	3.0	.0	2.0	.0	---	2.0	5.5	4.0
21	9.5	6.0	4.5	2.5	3.0	.0	1.5	.5	---	2.0	6.0	3.5
22	9.0	6.0	5.0	2.0	2.0	1.0	1.0	.5	---	2.5	6.5	4.0
23	8.5	6.0	5.5	1.0	1.0	1.0	.5	.0	---	2.5	7.0	4.5
24	7.0	7.0	5.5	.0	.0	.5	1.5	.5	4.0	2.5	8.0	5.0
25	7.5	8.5	5.0	.5	.5	.0	1.5	1.0	4.5	3.0	9.0	4.0
26	7.5	9.0	3.5	.5	.5	.0	2.0	.5	4.5	3.5	8.0	3.5
27	8.0	6.5	2.0	.0	1.0	.0	2.5	.5	5.0	3.5	9.5	4.0
28	7.0	5.5	2.5	.0	.5	.0	1.5	1.0	6.0	4.0	10.5	5.0
29	7.5	4.5	2.5	1.5	.5	.0	2.5	.5	---	---	8.5	5.5
30	7.0	5.0	2.0	2.0	1.0	.0	2.0	1.0	---	---	5.5	6.0
31	6.5	6.0	---	---	1.0	.0	2.0	.0	---	---	7.5	5.5
MONTH	15.5	4.5	7.5	.0	4.0	.0	9.0	.0	6.0	.0	10.5	3.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6.5	5.0	11.5	6.0	11.0	8.0	13.0		18.0		---	---
2	7.0	5.0	11.5	7.5	11.5	8.5	13.5		18.0		---	17.0
3	8.5	4.5	11.0	7.5	11.5	8.0	13.5		17.5		17.5	17.0
4	9.0	2.5	10.0	9.0	11.5	8.5	13.5		18.0		17.0	17.0
5	8.0	1.5	9.5	9.5	11.5	9.0	13.5		18.5		16.5	15.5
6	7.0	3.0	7.5	8.5	10.5	8.0	13.5		19.0		16.5	15.

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	12.0	10.5	8.0	7.0	2.5	2.0	.0	.0	2.0	.5	6.0	4.5
2	11.5	10.0	7.0	5.5	2.0	1.5	.0	.0	1.5	.0	7.0	5.0
3	11.0	9.0	5.5	4.0	2.0	1.0	.0	.0	1.0	.0	6.0	5.0
4	11.5	9.5	4.5	3.0	2.5	.0	.5	.0	1.0	.0	5.5	4.5
5	10.5	9.5	4.5	3.0	2.0	1.0	.5	.0	2.0	.0	6.0	5.0
6	10.0	8.0	4.0	3.0	2.0	1.0	1.0	.0	2.0	.0	6.0	4.5
7	10.0	8.0	5.0	3.5	3.0	2.0	1.0	.5	.5	.0	5.5	4.5
8	9.5	7.5	5.5	4.5	2.5	1.5	1.5	1.0	1.5	.5	7.0	4.5
9	7.5	6.5	6.0	5.5	2.0	1.0	1.0	.0	2.5	1.0	7.5	5.0
10	6.5	5.5	6.5	5.0	3.0	2.0	.5	.0	2.5	1.0	7.5	5.0
11	7.0	5.0	6.0	4.5	3.5	2.5	1.0	.0	2.0	.5	8.0	6.0
12	6.5	5.0	4.5	3.5	2.5	1.5	1.0	.0	2.5	.0	9.0	6.5
13	8.0	6.0	3.5	2.5	1.5	.5	1.0	.0	3.5	.5	9.0	7.0
14	8.5	6.5	2.5	1.5	1.5	.5	1.0	.0	3.0	1.5	9.0	7.0
15	9.0	7.0	2.0	.5	.5	.0	1.0	.0	3.5	1.5	7.0	5.5
16	10.0	8.0	1.5	.5	1.5	1.0	1.0	.0	3.5	2.0	6.5	4.5
17	9.5	7.5	3.0	.5	1.5	.0	1.5	.5	3.0	1.5	5.5	4.5
18	9.5	8.0	2.5	2.0	1.5	.5	1.5	.5	3.5	1.5	6.0	4.5
19	8.5	7.5	3.0	2.5	.5	.0	1.5	.5	3.5	2.5	7.0	4.5
20	8.0	6.5	3.0	2.5	1.0	.0	1.5	.0	4.5	2.0	7.0	4.0
21	7.5	6.0	3.5	2.5	2.0	.0	2.0	.5	4.0	2.0	6.5	3.5
22	7.0	6.0	3.0	2.0	1.5	1.0	2.0	.5	4.5	2.5	7.0	4.0
23	7.5	6.0	2.0	1.0	2.0	1.0	1.0	.0	4.5	2.5	6.5	4.5
24	9.0	7.0	1.0	.0	1.0	.5	1.5	.5	4.5	2.5	6.5	5.0
25	10.0	8.5	1.5	.5	.5	.0	2.5	1.0	4.5	3.0	5.5	4.0
26	9.5	9.0	1.5	.5	.0	.0	2.0	.5	4.5	3.5	6.0	3.5
27	9.0	6.5	1.5	.0	.0	.0	2.0	.5	5.0	3.5	6.5	4.0
28	6.5	5.5	1.5	.0	.0	.0	1.5	1.0	5.0	4.0	6.5	5.0
29	5.5	4.5	2.5	1.5	.0	.0	2.0	.5	---	---	8.5	5.5
30	6.0	5.0	2.5	2.0	.0	.0	2.5	1.0	---	---	8.0	6.0
31	7.5	6.0	---	---	.0	.0	1.5	.0	---	---	7.0	5.5
MONTH	12.0	4.5	8.0	.0	3.5	.0	2.5	.0	5.0	.0	9.0	3.5
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	7.0	5.0	8.0	6.0	9.5	8.0					---	---
2	6.5	5.0	9.5	7.5	9.5	8.5					18.5	17.0
3	7.0	4.5	10.5	7.5	10.5	8.0					18.5	17.0
4	5.0	2.5	11.5	9.0	11.0	8.5					19.0	17.0
5	5.5	1.5	11.5	9.5	10.5	9.0					17.5	15.5
6	6.0	3.0	11.0	8.5	10.0	8.0					17.5	15.0
7	6.0	3.5	11.0	7.5	11.0	8.5					17.5	15.0
8	7.0	3.5	11.5	9.5	11.0	9.0					17.5	16.5
9	8.0	5.0	12.0	9.5	10.5	9.0					17.0	15.5
10	9.0	6.5	12.0	9.5	11.0	9.0					17.0	16.0
11	8.5	7.5	11.5	8.5	11.0	9.5					17.5	15.0
12	9.0	7.0	8.5	7.0	11.0	9.0					17.0	15.0
13	9.0	6.5	8.0	7.0	9.5	8.0					17.0	14.5
14	9.0	5.5	7.5	6.0	11.0	7.5					---	---
15	9.0	5.5	9.0	6.5	11.5	9.0					---	---
16	10.0	6.0	8.5	6.0	11.5	10.0					---	---
17	10.5	7.0	6.0	5.0	12.0	9.5					16.5	14.0
18	10.0	7.5	8.0	5.5	12.5	9.5					16.5	14.5
19	11.5	9.0	10.0	7.0	12.0	10.0					16.0	14.5
20	10.5	9.0	10.0	8.0	12.0	10.0					14.5	12.0
21	9.5	9.0	11.0	8.5	11.5	8.0					13.0	10.0
22	9.5	8.5	12.0	9.5	---	---					13.0	10.0
23	11.5	8.5	12.0	9.5	---	---					13.5	11.0
24	11.0	9.0	12.0	10.0	---	---					14.0	12.0
25	11.0	9.5	12.0	10.0	---	---					15.0	12.0
26	10.5	9.0	11.5	9.0	---	---					15.0	13.0
27	10.0	9.0	11.5	9.0	---	---					15.0	13.5
28	9.0	8.0	10.5	9.0	---	---					14.0	12.5
29	9.0	7.5	10.5	8.5	---	---					14.5	13.0
30	8.5	7.5	10.0	9.0	---	---					14.0	13.0
31	---	---	9.5	8.0	---	---					---	---
MONTH	11.5	1.5	12.0	5.0	12.5	7.5					19.0	10.0
YEAR	19.0	.0										

CANYON CREEK BASIN

175

09085200 CANYON CREEK ABOVE NEW CASTLE, CO

LOCATION.--(revised)Lat 39°36'19", long 107°24'21", in NW¼NW¼ sec.24, T.5 S., R.90 W., Garfield County, Hydrologic Unit 14010005, on right bank 200 ft upstream from diversion headgate, 0.4 mi upstream from East Canyon Creek, and 5.0 mi northeast of New Castle.

DRAINAGE AREA.--23.8 mi².

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

REVISED RECORDS.--WRD Colo. 1973: 1972(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,060 ft, from topographic map.

REMARKS.--Records good except those for periods of no gage-height record and those for period of indefinite stage-discharge relationship, May 19-24, which are fair. A few small diversions for irrigation of hay meadows above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 51.4 ft³/s; 37,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 966 ft³/s June 19, 1983, gage height, 5.78 ft, (from floodmarks); minimum daily, 2.6 ft³/s Jan. 2, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 350 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 11	2000	570	5.09	June 19	unknown	* 966	5.78

Minimum daily discharge, 10 ft³/s Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	22	22	17	12	12	14	21	229	540	52	27
2	33	20	23	18	12	14	14	21	217	510	51	27
3	38	21	22	18	12	14	14	21	201	505	51	25
4	37	25	21	16	11	13	13	24	218	485	51	26
5	37	25	20	16	10	14	13	20	246	435	57	25
6	35	24	20	15	11	14	13	22	262	447	56	25
7	33	24	20	15	11	13	14	21	268	415	52	24
8	33	23	19	14	12	13	14	27	287	405	51	24
9	31	23	19	14	14	13	14	39	304	316	47	23
10	29	22	19	15	13	13	14	57	304	288	44	22
11	28	23	19	14	13	14	14	77	425	250	43	22
12	26	21	18	14	13	14	14	64	375	203	42	22
13	24	21	19	13	13	14	14	57	212	164	44	22
14	25	20	19	13	13	16	14	50	173	145	43	22
15	23	20	17	13	13	16	14	47	179	132	42	22
16	23	20	18	13	12	15	13	48	222	118	38	21
17	23	21	17	13	12	16	13	44	257	108	38	21
18	23	21	17	14	12	15	14	39	440	99	38	21
19	23	21	17	14	13	15	14	32	860	84	37	20
20	22	21	17	13	12	15	14	30	720	73	39	19
21	22	21	17	13	12	14	15	33	672	68	36	20
22	22	21	17	14	13	14	14	37	605	66	35	19
23	21	19	17	13	13	15	15	44	570	79	34	19
24	21	20	16	13	13	15	16	100	475	70	32	18
25	21	21	16	13	13	14	19	161	530	64	31	18
26	21	20	16	13	13	15	21	209	585	63	30	18
27	24	20	16	13	13	14	21	226	744	63	30	18
28	22	20	15	13	13	14	21	218	732	60	29	17
29	21	20	16	13	---	14	20	260	732	57	29	17
30	22	20	17	12	---	14	21	282	678	56	29	18
31	22	---	16	13	---	14	---	283	---	54	28	---
TOTAL	815	640	562	435	347	440	458	2614	12722	6422	1259	642
MEAN	26.3	21.3	18.1	14.0	12.4	14.2	15.3	84.3	424	207	40.6	21.4
MAX	38	25	23	18	14	16	21	283	860	540	57	27
MIN	21	19	15	12	10	12	13	20	173	54	28	17
AC-FT	1620	1270	1110	863	688	873	908	5180	25230	12740	2500	1270

CAL YR 1982 TOTAL 19786.1 MEAN 54.2 MAX 324 MIN 8.5 AC-FT 39250
WTR YR 1983 TOTAL 27356.0 MEAN 74.9 MAX 860 MIN 10 AC-FT 54260

NOTE.--NO GAGE-HEIGHT RECORD JAN. 6 TO FEB. 10, JUNE 18-20.

CANYON CREEK BASIN

09085300 EAST CANYON CREEK NEAR NEW CASTLE, CO

LOCATION.--Lat 39°36'33", long 107°26'03", in SE¼SE¼ sec.13, T.5 S., R.90 W., Garfield County, Hydrologic Unit 14010005, on left bank at upstream side of Forest Service stock trail bridge, 0.6 mi upstream from Possum Creek, 0.9 mi upstream from mouth, and 6.0 mi northeast of New Castle.

DRAINAGE AREA.--15.1 mi².

PERIOD OF RECORD.--March 1969 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft, from topographic map.

REMARKS.--Records fair. Small diversions above station for irrigation of hay meadows. Diversion by Buster No. 1 ditch about 100 ft above gage began May 16, 1974; capacity of ditch, about 1.5 ft³/s. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--14 years, 23.8 ft³/s; 17,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 956 ft³/s June 11, 1978, gage height, 3.42 ft, from rating curve extended above 210 ft³/s; minimum daily, 1.9 ft³/s Sept. 22, 23, 1981, Oct. 1, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 573 ft³/s at 1900 June 19, gage height, 3.22 ft; minimum daily, 4.4 ft³/s Feb.4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	9.7	9.1	7.2	5.3	6.4	6.3	14	197	223	33	12
2	17	7.9	8.7	7.6	5.2	6.4	6.2	12	176	165	32	13
3	16	8.1	8.8	7.3	5.2	6.3	6.4	12	173	162	32	13
4	16	10	8.5	6.8	4.4	6.4	5.9	12	199	148	35	14
5	15	9.4	8.6	6.8	4.6	6.7	6.2	14	211	134	59	14
6	14	9.0	8.3	6.8	4.8	6.5	5.6	13	200	130	39	13
7	13	9.0	8.2	6.6	5.0	6.3	5.5	12	198	134	38	13
8	13	9.5	8.1	6.6	5.2	6.3	5.4	14	203	132	34	15
9	11	10	8.0	6.5	5.6	6.2	4.9	20	238	124	29	14
10	11	10	8.7	6.2	5.2	6.5	5.1	27	255	115	27	13
11	10	9.5	8.0	6.4	5.2	7.2	5.3	33	330	92	26	13
12	10	10	7.9	6.1	4.9	7.6	5.9	26	241	90	26	11
13	10	9.7	7.8	5.9	5.0	7.6	5.8	24	183	82	30	9.1
14	9.9	8.5	7.3	5.9	5.0	9.2	5.2	22	158	82	24	8.8
15	9.9	9.5	8.1	5.8	4.9	8.9	5.1	21	148	82	22	9.0
16	9.4	8.6	7.5	5.8	5.0	7.9	5.0	20	161	78	20	8.4
17	8.9	9.0	7.5	5.9	4.9	7.7	5.3	19	222	69	20	9.1
18	8.9	9.1	7.6	6.0	5.3	7.5	5.9	16	248	78	23	9.1
19	7.2	9.2	7.8	5.9	5.6	7.2	6.9	17	349	82	21	9.2
20	6.6	9.4	7.2	5.9	5.3	6.8	6.8	16	342	67	25	8.5
21	6.4	9.7	7.7	5.8	5.3	7.4	7.5	18	265	54	20	7.6
22	6.2	8.5	7.8	5.9	5.5	7.0	7.3	21	221	53	20	8.3
23	6.0	8.5	8.0	5.8	5.5	7.0	6.9	28	173	78	20	8.6
24	5.9	9.7	7.9	5.6	5.7	7.2	9.0	43	220	53	20	7.7
25	7.0	8.3	7.9	5.8	6.0	6.9	13	69	240	49	20	7.6
26	7.6	8.3	7.7	5.7	6.0	7.2	13	98	260	49	18	7.5
27	11	8.2	7.7	5.6	6.0	6.8	14	125	280	45	17	7.5
28	8.6	8.2	7.0	5.8	6.3	6.9	13	148	285	41	16	7.2
29	7.2	8.9	7.2	5.5	---	6.9	12	176	275	36	15	7.2
30	9.4	9.0	7.2	5.7	---	6.9	14	206	265	36	15	7.2
31	9.4	---	6.8	5.4	---	6.6	---	219	---	35	14	---
TOTAL	320.5	272.4	244.6	190.6	147.9	218.4	224.4	1515	6916	2798	790	305.6
MEAN	10.3	9.08	7.89	6.15	5.28	7.05	7.48	48.9	231	90.3	25.5	10.2
MAX	19	10	9.1	7.6	6.3	9.2	14	219	349	223	59	15
MIN	5.9	7.9	6.8	5.4	4.4	6.2	4.9	12	148	35	14	7.2
AC-FT	636	540	485	378	293	433	445	3010	13720	5550	1570	606
CAL YR 1982	TOTAL	8863.4	MEAN	24.3	MAX	162	MIN	2.4	AC-FT	17580		
WTR YR 1983	TOTAL	13943.4	MEAN	38.2	MAX	349	MIN	4.4	AC-FT	27660		

DIVIDE CREEK BASIN

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09089500 WEST DIVIDE CREEK NEAR RAVEN, CO

LOCATION.--Lat 39°19'52", long 107°34'46", in W $\frac{1}{2}$., 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.

REVISED RECORDS.--WSP 2124: Drainage area.

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

REMARKS.--Records good except those for winter period and those for period of indefinite stage-discharge relationship May 28 to June 20, which are fair. Natural flow of stream affected by water imported from Thompson Creek (Roaring Fork basin), Muddy Creek (Muddy Creek basin), and Buzzard Creek (Plateau Creek basin). Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--28 years, 33.1 ft³/s; 23,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 847 ft³/s May 28, 1983, gage height, 6.00 ft, from floodmark; from rating curve extended above 622 ft³/s; no flow at times in most years.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 10	2100	473	5.07	May 28	unknown	* 847	a6.00

a - From Floodmark.

Minimum daily discharge, 3.3 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	9.9	5.4	3.9	3.7	5.1	11	69	560	142	34	12
2	12	7.3	5.0	3.9	3.5	5.5	8.6	62	530	129	38	11
3	8.6	6.1	5.2	3.9	3.3	5.6	8.9	66	510	126	32	11
4	6.9	6.3	5.2	3.9	3.7	5.7	11	88	540	115	27	10
5	6.2	6.3	5.2	4.3	3.7	5.8	10	121	580	100	32	9.6
6	6.0	6.2	5.2	4.5	3.7	6.1	13	134	480	95	32	8.9
7	5.2	6.0	5.2	4.5	3.7	6.1	15	105	440	92	30	8.3
8	5.9	5.7	5.2	4.3	3.7	5.7	13	170	520	92	28	8.2
9	6.1	6.1	5.3	4.1	3.9	6.4	7.5	285	480	81	25	7.9
10	5.9	6.6	5.2	3.9	3.9	11	7.8	334	460	79	25	7.6
11	6.4	6.5	5.1	3.9	3.8	11	9.0	317	540	66	23	7.4
12	5.6	6.6	4.9	3.7	3.8	11	7.9	212	620	51	33	6.9
13	5.5	6.3	4.9	3.5	3.9	12	7.3	183	440	44	48	6.5
14	4.9	5.2	5.0	4.1	3.9	13	7.5	149	380	66	28	6.3
15	5.4	5.6	4.8	4.7	3.9	11	8.1	134	340	68	23	6.5
16	5.0	5.7	5.1	5.1	4.0	14	8.7	136	350	67	20	6.5
17	4.5	5.6	5.1	4.7	3.9	12	11	113	370	59	20	6.2
18	4.5	5.6	5.1	4.9	3.9	9.3	17	96	380	53	20	5.7
19	4.2	5.8	4.7	4.5	3.8	10	25	107	380	50	23	5.7
20	4.0	6.0	5.1	4.5	3.9	9.2	29	117	350	51	41	5.8
21	3.8	6.0	5.1	4.1	4.6	10	31	140	317	64	23	6.2
22	3.6	5.8	5.1	4.1	4.4	11	27	266	302	74	19	6.0
23	3.7	5.7	5.1	4.1	4.7	7.9	33	338	284	81	17	6.0
24	3.8	5.8	4.7	3.9	5.2	8.0	60	469	266	71	16	6.3
25	3.7	6.0	4.3	3.9	5.2	8.3	89	533	266	62	17	6.3
26	4.2	6.0	4.1	3.7	5.0	8.4	90	569	230	62	19	5.9
27	12	5.4	4.1	3.7	5.1	7.4	81	636	224	60	16	5.7
28	8.4	5.6	3.9	3.9	4.7	7.1	68	760	196	56	16	5.6
29	9.0	5.6	3.8	3.7	---	7.3	77	720	181	42	15	5.6
30	8.3	5.6	3.9	3.5	---	7.9	79	680	156	36	15	5.8
31	9.9	---	3.9	3.7	---	10	---	620	---	33	13	---
TOTAL	200.2	182.9	149.9	127.1	114.5	268.8	871.3	8729	11672	2267	768	217.4
MEAN	6.46	6.10	4.84	4.10	4.09	8.67	29.0	282	389	73.1	24.8	7.25
MAX	17	9.9	5.4	5.1	5.2	14	90	760	620	142	48	12
MIN	3.6	5.2	3.8	3.5	3.3	5.1	7.3	62	156	33	13	5.6
AC-FT	397	363	297	252	227	533	1730	17310	23150	4500	1520	431
CAL YR 1982	TOTAL	19121.0	MEAN	52.4	MAX	386	MIN	1.5	AC-FT	37930		
WTR YR 1983	TOTAL	25568.1	MEAN	70.0	MAX	760	MIN	3.3	AC-FT	50710		

PARACHUTE CREEK BASIN

09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°37'13", long 108°00'44", in NE¼NE¼ sec.14, T.5 S., R.95 W., in Garfield County, Hydrologic Unit 14010006, on right bank 50 ft downstream from mouth of Bear Gulch, 750 ft upstream from mouth, and 8.5 mi southwest of Rio Blanco.

DRAINAGE AREA.--12.6 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to May 17, 1983, destroyed by flood (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,420 ft, from topographic map.

REMARKS.--Records poor. No diversions or regulation above station.

AVERAGE DISCHARGE.--6 years (water years 1976-82), 4.12 ft³/s; 2,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 225 ft³/s May 17, 1979, gage height, 3.30 ft; minimum daily, 0.01 ft³/s Aug. 7, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in May 1983, exceeded all previous floods at this location.

EXTREMES FOR CURRENT PERIOD.--October 1 to May 17; Maximum discharge, not determined; minimum daily, 0.20 ft³/s Feb. 1, 2, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	.75	.90	.80	.20	.66	1.6	17				
2	1.4	.80	1.0	.80	.20	.76	2.0	13				
3	1.3	1.0	1.0	.80	.25	.78	2.7	12				
4	1.2	.95	1.0	.80	.30	.80	1.7	18				
5	1.1	1.0	1.1	.80	.20	.80	1.7	29				
6	1.2	.90	1.1	.75	.30	.58	1.8	33				
7	1.2	.70	1.1	.70	.25	.28	1.8	28				
8	1.3	.70	1.1	.55	.25	.36	1.8	38				
9	1.3	.65	1.1	.30	.35	.50	1.8	50				
10	1.2	.75	1.1	.30	.35	.60	1.9	64				
11	1.2	.70	.99	.40	.30	.80	1.7	72				
12	1.2	.90	.80	.50	.30	1.0	1.5	76				
13	1.2	1.0	1.1	.70	.30	1.4	1.3	77				
14	1.2	.65	1.1	.60	.35	1.3	1.4	75				
15	.73	.75	1.1	.60	.45	1.2	1.5	75				
16	.45	.80	1.1	.60	.60	1.2	1.6	74				
17	.48	.90	1.0	.35	.44	1.2	2.8	---				
18	.50	.90	1.0	.40	.28	1.1	4.5	---				
19	.60	.85	1.0	.45	.21	1.1	5.4	---				
20	.70	.95	1.0	.40	.25	1.1	5.2	---				
21	.70	.95	1.0	.30	.26	1.1	5.7	---				
22	.70	.95	1.0	.40	.30	1.1	5.7	---				
23	.70	.60	.90	.40	.40	1.1	8.3	---				
24	.60	.30	.90	.45	.38	1.1	16	---				
25	.50	1.0	.90	.45	.30	1.0	23	---				
26	.65	.90	.90	.45	.35	1.1	24	---				
27	.65	.80	.90	.45	.50	.96	23	---				
28	.80	.90	.90	.45	.48	1.0	22	---				
29	1.0	.80	.90	.35	---	.91	20	---				
30	1.0	.85	.80	.45	---	1.7	21	---				
31	.80	---	.80	.25	---	2.4	---	---				
TOTAL	29.76	24.65	30.59	16.00	9.10	30.99	214.4	---				
MEAN	.96	.82	.99	.52	.33	1.00	7.15	---				
MAX	2.2	1.0	1.1	.80	.60	2.4	24	---				
MIN	.45	.30	.80	.25	.20	.28	1.3	---				
AC-FT	59	49	61	32	18	61	425	---				

CAL YR 1982 TOTAL 1488.70 MEAN 4.08 MAX 58 MIN .26 AC-FT 2950

NOTE.--NO GAGE-HEIGHT RECORD OCT. 18 TO MAR. 23.

PARACHUTE CREEK BASIN

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09092830 NORTHWATER CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to May 1983 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 08...	1330	1.5	482	493	8.6	4.0	8.4	210	52	20	31	1
NOV 29...	1120	.81	513	508	8.4	.5	9.8	220	52	21	31	.9
JAN 06...	1315	.69	524	533	8.5	.5	12.0	220	53	21	32	1
FEB 16...	1200	.59	533	536	8.5	.0	10.8	230	54	22	33	1
MAR 23...	1020	1.1	509	525	8.5	2.0	10.8	220	52	21	32	1
APR 11...	1120	1.6	520	515	8.5	3.5	--	220	52	21	30	.9
MAY 05...	0900	22	458	469	8.4	5.0	--	200	50	18	27	.9

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 08...	.60	257	28	1.7	.30	14	300	.41	1.1	<.100	.020	4
NOV 29...	.60	264	33	1.7	.20	13	310	.42	.68	<.100	.010	4
JAN 06...	.60	266	30	1.7	.20	14	310	.42	.58	.300	.060	6
FEB 16...	.60	267	32	1.6	.20	14	320	.43	.51	.260	.050	4
MAR 23...	.50	258	33	1.7	.20	14	310	.42	1.0	.240	.040	4
APR 11...	.60	247	33	1.7	.20	14	300	.41	1.3	.250	.060	4
MAY 05...	.60	224	32	1.9	.10	16	280	.38	17	1.40	.040	3

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 08...	79	40	<1	3	8	<1	17	4	<.1	<1	860	11
NOV 29...	80	40	<1	4	4	<1	15	3	<.1	1	850	4
JAN 06...	81	40	<1	4	<3	<1	13	4	<.1	1	880	6
FEB 16...	80	40	<1	1	5	<1	13	6	<.1	1	890	<3
MAR 23...	77	40	<1	3	<3	<1	15	4	<.1	1	880	8
APR 11...	75	40	<1	2	3	3	14	2	<.1	1	850	9
MAY 05...	78	20	<1	5	8	<1	120	3	<.1	2	740	<3

PARACHUTE CREEK BASIN

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO

LOCATION.--Lat 39°37'15", long 108°01'46" in NW¼NW¼ sec.14, T.5 S., R.95W., Garfield County, Hydrologic Unit 14010006, on right bank 0.5 mi upstream from mouth of Corral Gulch, 1.1 mi downstream from mouth of Northwater Creek, and 9 mi southwest of Rio Blanco.

DRAINAGE AREA.--22.1 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,400 ft, from topographic map.

REMARKS.--Records poor. Numerous beaver dams are located upstream. No regulation or diversion above station.

AVERAGE DISCHARGE.--7 years, 9.65 ft³/s; 6,990 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 645 ft³/s May 27, 1983, gage height, 5.65 ft, from rating curve extended above 180 ft³/s; minimum daily, 0.09 ft³/s Dec. 24, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 645 ft³/s at 1600 May 27, gage height, 5.65 ft, from rating curve extended above 180 ft³/s; minimum daily, 0.19 ft³/s Feb. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	.75	1.1	.80	.19	.77	2.9	23	190	14	4.8	1.3
2	2.1	.80	1.1	.80	.21	.78	2.5	20	179	13	4.6	1.2
3	1.8	1.0	.99	.80	.25	.79	2.6	19	154	12	4.4	1.2
4	1.6	.94	.99	.80	.28	.80	2.9	35	127	11	4.2	1.6
5	2.5	1.0	1.1	.80	.22	.81	2.6	52	115	10	4.1	1.4
6	1.1	.93	1.1	.77	.30	.57	2.3	61	106	9.5	4.0	1.3
7	1.0	.73	1.1	.71	.24	.29	2.6	54	93	9.0	4.0	1.3
8	1.1	.68	1.1	.55	.26	.43	2.9	76	88	8.5	3.8	1.4
9	1.4	.67	1.1	.29	.34	.65	3.0	105	85	8.0	3.6	1.4
10	1.5	.77	1.1	.29	.33	.77	3.3	150	80	7.5	3.4	1.4
11	1.3	.72	.99	.38	.27	1.1	3.4	210	72	7.0	3.4	1.4
12	1.1	.91	.82	.53	.29	1.9	3.1	250	68	6.5	4.0	1.5
13	.76	.99	1.1	.68	.27	2.9	3.0	334	58	6.0	5.2	1.5
14	.75	.66	1.1	.62	.36	2.4	3.0	330	52	5.5	2.3	1.5
15	.54	.76	1.1	.62	.46	2.3	3.1	328	47	5.0	1.7	1.5
16	.49	.81	1.1	.61	.51	2.2	3.6	326	46	5.0	1.5	1.6
17	.59	.88	1.0	.35	.42	2.1	3.9	326	42	5.0	1.5	1.6
18	.48	.88	1.0	.40	.32	2.0	4.5	318	39	5.0	1.7	1.6
19	.63	.87	1.0	.44	.21	2.0	5.2	344	36	5.0	1.6	1.7
20	.73	.95	1.0	.38	.26	1.9	5.4	344	33	5.0	2.0	1.7
21	.73	.94	1.0	.29	.26	1.8	6.1	382	30	5.0	1.6	1.7
22	.73	.94	1.0	.43	.32	1.7	6.7	435	27	5.2	1.5	1.6
23	.73	.58	.90	.37	.49	1.7	7.2	386	25	5.3	1.7	1.8
24	.62	.32	.90	.47	.45	1.7	10	474	23	5.4	1.7	2.1
25	.51	1.0	.90	.46	.30	1.8	23	558	21	5.4	1.7	2.0
26	.66	.92	.90	.46	.37	1.8	24	570	19	5.4	1.7	2.0
27	.66	.83	.90	.45	.53	1.8	24	573	17	5.4	1.6	2.0
28	.81	.91	.90	.45	.49	1.9	23	441	17	5.4	1.5	2.0
29	.98	1.2	.90	.34	---	2.1	22	370	16	5.4	1.7	1.7
30	.97	1.1	.80	.44	---	2.5	24	256	15	5.2	1.6	1.7
31	.80	---	.80	.25	---	2.9	---	232	---	5.0	1.5	---
TOTAL	32.07	25.44	30.89	16.03	9.20	49.16	235.8	8382	1920	215.6	83.6	47.7
MEAN	1.03	.85	1.00	.52	.33	1.59	7.86	270	64.0	6.95	2.70	1.59
MAX	2.5	1.2	1.1	.80	.53	2.9	24	573	190	14	5.2	2.1
MIN	.48	.32	.80	.25	.19	.29	2.3	19	15	5.0	1.5	1.2
AC-FT	64	50	61	32	18	98	468	16630	3810	428	166	95
CAL YR 1982	TOTAL	2144.60	MEAN	5.88	MAX	67	MIN	.11	AC-FT	4250		
WTR YR 1983	TOTAL	11047.49	MEAN	30.3	MAX	573	MIN	.19	AC-FT	21910		

NOTE.--NO GAGE-HEIGHT RECORD OCT. 8 TO NOV. 29.

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1983 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to September 1982 (discontinued).

WATER TEMPERATURE: October 1976 to September 1982 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: October 1976 to September (discontinued).

INSTRUMENTATION.--Water-quality monitor, October 1976 to September 1982. Pumping sediment sampler October 1977 to September 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 615 micromhos Dec. 18, 1976; minimum, 262 micromhos Mar. 23, 1977.

WATER TEMPERATURES: Maximum, 24.5°C July 18, Aug. 9, 14, 1977; minimum, freezing point most days during winter months.

SEDIMENT CONCENTRATIONS: Maximum daily, 5,360 mg/L May 16, 1979; minimum daily, 0.0 mg/L several days during winter months in the 1981 water year.

SEDIMENT LOADS: Maximum daily, 1,980 tons May 16, 1979; minimum daily, less than 0.005 ton several days during 1979 water year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 08...	1300	1.4	497	510	8.4	4.0	10.6	220	54	20	34	1
NOV 29...	1110	1.3	522	517	8.2	.5	9.8	220	52	21	34	1
JAN 06...	1110	.83	530	540	8.4	.5	11.6	220	53	22	34	1
FEB 16...	1200	.66	524	551	8.4	.0	10.8	220	52	22	35	1
MAR 23...	1120	2.3	519	537	8.5	3.0	10.8	220	51	22	36	1
APR 11...	1045	3.2	510	522	8.6	4.0	11.0	210	51	21	33	1
MAY 05...	1020	49	478	488	8.5	4.0	--	200	50	19	31	1
JUN 02...	1020	180	381	393	8.4	--	9.3	170	46	14	24	.8
JUL 29...	1200	5.4	457	459	8.5	19.0	6.7	200	50	19	33	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 CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 08...	.80	258	29	1.8	.30	14	310	.42	1.1	<.100	.020	4
NOV 29...	.60	262	38	1.8	.20	13	320	.43	1.1	<.100	<.010	4
JAN 06...	.70	263	34	2.0	.20	13	320	.43	.71	.300	.050	4
FEB 16...	.70	265	38	2.0	.20	13	320	.44	.58	.190	.050	4
MAR 23...	.70	255	41	1.9	.20	13	320	.43	2.0	.280	.020	4
APR 11...	.60	227	42	1.9	.20	13	300	.41	2.6	.200	.040	4
MAY 05...	.70	224	42	2.5	.10	16	300	.40	39	1.10	.040	4
JUN 02...	.60	187	19	1.8	.10	18	240	.32	115	1.10	.060	4
JUL 29...	.80	236	36	2.3	.20	17	300	.41	4.4	.190	.040	5

PARACHUTE CREEK BASIN

09092850 EAST MIDDLE FORK PARACHUTE CREEK NEAR RIO BLANCO, CO--Continued

DATE	WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983											
	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 08...	84	50	<1	2	9	<1	19	5	<.1	<1	810	52
NOV 29...	81	40	<1	3	<3	<1	16	3	<.1	1	790	11
JAN 06...	86	40	<1	4	<3	<1	11	2	<.1	1	810	4
FEB 16...	80	40	<1	1	7	<1	13	3	<.1	1	800	4
MAR 23...	78	40	<1	4	<3	<1	15	2	<.1	1	810	3
APR 11...	73	40	<1	3	<3	4	15	2	<.1	1	790	4
MAY 05...	77	30	<1	3	6	<1	40	4	<.1	2	680	<3
JUN 02...	200	20	<1	2	50	<1	10	20	<.1	1	520	10
JUL 29...	83	40	<1	6	<3	<1	13	1	<.1	1	770	5

PARACHUTE CREEK BASIN

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09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO

LOCATION.--Lat 39°33'18", long 107°58'56", in SW¼NE¼ sec.3, T.6 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 700 ft downstream from first Anvil Creek and 4.2 mi northwest of Anvil Points.

DRAINAGE AREA.--14.5 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1976 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,860 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. No diversions or regulation.

AVERAGE DISCHARGE.--7 years, 8.09 ft³/s; 5,860 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 364 ft³/s May 30, 1983, gage height, 4.21 ft; minimum daily, 0.07 ft³/s Aug. 9-11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 364 ft³/s at 0600 May 30, gage height, 4.21 ft, only peak above base of 10 ft³/s; minimum daily, 0.46 ft³/s Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	1.8	.92	.64	.54	.80	2.6	13	260	15	4.6	2.5
2	1.9	1.3	.86	.66	.46	.82	2.5	13	240	15	4.7	2.3
3	1.4	1.0	.91	.66	.50	.86	2.3	14	209	14	7.3	2.3
4	1.2	1.1	.91	.66	.52	.88	2.1	17	195	13	5.8	3.1
5	1.1	.98	.91	.68	.54	.90	1.9	20	170	12	5.4	2.4
6	1.1	.94	.91	.70	.54	.92	4.6	22	110	10	4.9	2.3
7	1.0	1.0	.91	.74	.56	.90	2.6	22	98	10	4.6	2.2
8	1.1	1.0	.91	.74	.56	.92	1.6	26	84	9.6	4.6	2.3
9	1.1	1.1	.91	.72	.58	1.1	1.6	40	78	9.2	4.1	2.1
10	1.1	1.1	.91	.66	.58	1.6	2.0	53	70	8.6	4.4	2.1
11	1.1	.93	.91	.64	.58	2.8	2.6	76	62	7.8	4.0	1.9
12	1.1	.93	.90	.60	.60	3.0	2.7	70	58	7.3	5.9	1.9
13	1.2	.90	.86	.60	.60	3.1	2.5	62	48	7.1	5.9	1.9
14	1.1	.90	.86	.62	.60	3.3	2.4	59	40	6.7	4.2	1.9
15	1.1	.88	.84	.64	.60	2.9	2.4	62	37	6.4	3.7	1.9
16	1.0	.88	.84	.64	.62	3.2	2.6	66	35	6.4	3.5	1.9
17	1.0	.91	.84	.66	.64	2.9	3.9	66	35	5.8	3.5	1.7
18	1.0	.96	.82	.66	.64	2.7	6.0	65	33	5.7	4.5	1.7
19	.96	.98	.82	.64	.64	2.3	8.1	66	31	5.8	3.8	1.7
20	.93	1.0	.80	.64	.68	2.1	9.2	73	29	7.0	5.3	1.7
21	.91	1.0	.80	.64	.72	3.2	10	86	27	7.2	3.6	1.6
22	.93	1.0	.78	.66	.70	1.8	9.6	105	25	6.3	3.3	1.5
23	.90	1.0	.76	.62	.76	1.6	12	123	24	7.1	3.1	1.5
24	.91	1.0	.76	.64	.82	1.5	18	159	22	6.0	2.9	1.5
25	.91	1.0	.74	.66	.82	1.3	22	192	21	6.4	2.9	1.5
26	1.3	1.0	.72	.62	.80	1.6	19	210	19	7.0	2.9	1.5
27	2.2	1.0	.68	.60	.78	1.5	16	220	17	6.2	2.7	1.5
28	1.2	1.0	.66	.62	.80	1.4	15	256	16	5.7	2.7	1.5
29	1.1	1.0	.64	.60	---	1.4	14	281	16	5.1	2.5	1.5
30	1.2	1.0	.64	.60	---	1.9	15	300	15	4.9	2.7	2.5
31	1.9	---	.64	.56	---	2.9	---	280	---	4.7	2.6	---
TOTAL	38.55	30.59	25.37	20.02	17.78	58.10	216.8	3117	2124	249.0	126.6	57.9
MEAN	1.24	1.02	.82	.65	.64	1.87	7.23	101	70.8	8.03	4.08	1.93
MAX	3.6	1.8	.92	.74	.82	3.3	22	300	260	15	7.3	3.1
MIN	.90	.88	.64	.56	.46	.80	1.6	13	15	4.7	2.5	1.5
AC-FT	76	61	50	40	35	115	430	6180	4210	494	251	115

CAL YR 1982 TOTAL 2050.31 MEAN 5.62 MAX 76 MIN .34 AC-FT 4070
WTR YR 1983 TOTAL 6081.71 MEAN 16.7 MAX 300 MIN .46 AC-FT 12060

NOTE.--NO GAGE-HEIGHT RECORD MAY 30 TO JULY 5.

PARACHUTE CREEK BASIN

09092960 EAST FORK PARACHUTE CREEK NEAR ANVIL POINTS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- October 1976 to September 1983 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 14...	1400	.96	462	510	8.6	3.5	10.0	240	59	22	21	.6
NOV 29...	1000	.97	556	515	8.4	1.5	--	240	57	23	21	.6
FEB 16...	1300	.59	487	527	8.5	2.0	--	250	59	24	22	.6
MAY 05...	1100	18	460	460	8.2	7.0	--	230	56	21	15	.4
JUN 02...	1100	231	390	392	8.3	6.0	--	190	48	16	14	.5
JUL 05...	1400	12	458	469	8.7	14.5	8.3	220	56	20	19	.6
AUG 09...	1300	4.1	460	468	8.7	18.0	7.6	230	55	22	20	.6
SEP 07...	1300	2.1	445	465	8.6	13.0	8.8	220	52	21	20	.6

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 14...	.60	268	25	1.4	.20	14	300	.41	.79	<.100	<.010	3
NOV 29...	.60	269	26	1.5	.20	13	300	.41	.80	.370	.020	3
FEB 16...	.60	266	23	3.3	.20	14	310	.42	.49	.500	.040	4
MAY 05...	.60	237	19	1.1	.20	15	270	.37	13	.710	.020	3
JUN 02...	.60	198	12	1.3	.10	18	230	.31	143	1.10	.030	4
JUL 05...	.50	252	18	1.3	.20	17	280	.39	9.2	1.60	.040	4
AUG 09...	.60	259	19	1.3	.20	17	290	.40	3.2	.390	.040	4
SEP 07...	.60	249	20	1.3	.20	15	280	.38	1.6	.150	.030	5

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 14...	74	40	<1	4	<3	<1	12	<1	<.1	1	640	<3
NOV 29...	68	40	2	3	<3	2	17	2	<.1	1	640	12
FEB 16...	74	40	<1	4	<3	<1	13	2	<.1	1	650	11
MAY 05...	74	30	<1	3	36	<1	18	2	<.1	1	580	6
JUN 02...	100	20	1	3	18	2	12	3	--	1	440	15
JUL 05...	75	30	<1	1	<3	1	12	2	.1	1	580	6
AUG 09...	82	40	<1	2	<3	<1	13	1	.2	1	630	4
SEP 07...	72	40	<1	2	<3	2	12	2	<.1	<1	590	10

PARACHUTE CREEK BASIN

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09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO

LOCATION.--Lat 39°34'03", long 108°01'14", in SE¼NW¼ sec.35, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.3 mi below East Fork Falls and 6.4 mi northwest of Rulison.

DRAINAGE AREA.--20.4 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,880 ft, from topographic map. Since Apr. 25, 1980, supplementary water-stage recorder 1,000 ft downstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor.

AVERAGE DISCHARGE.--6 years (water years 1978-83), 9.68 ft³/s; 7,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 462 ft³/s May 30, 1983, gage height, 4.14 ft, from highwater mark at supplemental site and datum; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 462 ft³/s May 30, gage height, 4.14 ft, only peak above base of 100 ft³/s; minimum daily, 0.16 ft³/s on Feb. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	2.5	.92	.34	.21	.49	2.6	32	270	14	3.3	1.3
2	2.0	2.0	.77	.33	.16	.50	2.8	30	220	14	3.2	1.3
3	1.5	.50	.76	.34	.19	.71	2.7	32	190	12	4.8	1.2
4	1.2	.34	.72	.35	.25	.70	2.4	38	160	11	6.0	1.8
5	1.0	.45	.63	.33	.25	.53	1.8	46	140	10	3.8	1.7
6	.95	.52	.66	.33	.22	.51	1.9	52	120	9.9	3.6	1.3
7	.79	.60	.70	.31	.23	.59	1.9	52	106	9.0	3.5	1.2
8	.97	.70	.54	.29	.23	.56	2.0	64	93	8.5	3.2	1.3
9	1.5	.80	.69	.26	.24	.56	2.1	100	83	7.9	3.1	.97
10	1.5	1.0	.85	.24	.25	.60	2.2	122	73	7.3	3.4	.87
11	1.5	1.4	.65	.23	.23	1.2	2.6	131	64	6.2	3.2	.91
12	1.3	.72	.62	.22	.23	1.6	2.7	115	62	5.9	3.4	.78
13	1.4	.60	.73	.19	.27	1.9	2.4	94	52	5.6	8.0	.71
14	1.2	.54	.67	.21	.26	2.4	2.9	96	43	5.3	4.3	.70
15	1.0	.50	.67	.22	.27	3.0	3.2	93	38	5.1	3.4	.70
16	.98	.56	.62	.23	.28	4.1	3.7	96	36	5.2	3.0	.70
17	.91	.64	.57	.27	.28	3.6	5.4	99	36	5.0	2.8	.70
18	.88	.78	.50	.27	.29	2.9	7.7	84	34	4.7	3.9	.70
19	.79	.90	.45	.26	.29	2.5	10	90	32	4.6	2.9	.70
20	1.3	.80	.46	.23	.29	2.2	12	98	30	5.1	5.3	.70
21	1.5	.74	.49	.23	.31	3.5	13	108	28	7.7	2.8	.70
22	1.4	.70	.47	.22	.34	3.4	13	125	25	6.3	2.4	.70
23	1.0	.56	.47	.19	.36	2.4	16	139	24	6.3	2.3	.70
24	1.0	.50	.45	.18	.44	2.1	25	194	22	5.7	2.2	.68
25	1.1	.80	.44	.20	.68	2.2	32	240	23	5.5	2.2	.68
26	1.3	1.1	.42	.20	.73	2.6	32	280	21	6.8	1.9	.68
27	3.1	.87	.41	.20	.61	2.2	30	200	20	5.3	1.7	.66
28	1.8	.83	.40	.22	.53	1.7	28	310	19	5.1	1.7	.66
29	1.6	.82	.39	.17	---	1.5	29	320	17	4.4	1.7	.66
30	1.7	.86	.38	.20	---	2.3	33	330	15	3.8	1.7	1.0
31	2.8	---	.37	.20	---	3.2	---	300	---	3.6	1.5	---
TOTAL	44.97	24.63	17.87	7.66	8.92	58.25	326.0	4110	2096	216.8	100.2	27.36
MEAN	1.45	.82	.58	.25	.32	1.88	10.9	133	69.9	6.99	3.23	.91
MAX	4.0	2.5	.92	.35	.73	4.1	33	330	270	14	8.0	1.8
MIN	.79	.34	.37	.17	.16	.49	1.8	30	15	3.6	1.5	.66
AC-FT	89	49	35	15	18	116	647	8150	4160	430	199	54
CAL YR 1982	TOTAL	2273.86	MEAN	6.23	MAX	89	MIN	.00	AC-FT	4510		
WTR YR 1983	TOTAL	7038.66	MEAN	19.3	MAX	330	MIN	.16	AC-FT	13960		

PARACHUTE CREEK BASIN

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1976 to September 1983 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1976 to September 1983 (discontinued).

WATER TEMPERATURE: October 1976 to September 1983 (discontinued).

SUSPENDED-SEDIMENT DISCHARGE: December 1976 to September 1983 (discontinued).

INSTRUMENTATION.--Water-quality monitor since October 1976. Pumping sediment sampler since December 1976.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 627 micromhos March 26, 1982; minimum, 97 micromhos Dec. 18, 1981.

WATER TEMPERATURES: Maximum, 21.5°C Aug. 4, 1983; minimum, 0.0°C several days during year.

SEDIMENT CONCENTRATIONS: Maximum daily, 1,680 mg/L May 17, 1978; minimum daily, 1 mg/L July 29, 1981, Sept. 13, 1983.

SEDIMENT LOADS: Maximum daily, 485 tons May 17, 1978; minimum daily, 0.00 ton on many days during 1982 and 1983 water years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 586 micromhos Nov. 3; minimum recorded, 212 micromhos Aug. 12.

WATER TEMPERATURES: Maximum, 21.5°C Aug. 4; minimum, 0.0°C many days during October to April.

SEDIMENT CONCENTRATIONS: Maximum recorded, 103 mg/l Aug. 13; minimum daily, 1 mg/L Sept. 13.

SEDIMENT LOADS: Maximum recorded, 2.22 tons Aug. 13; minimum daily, 0.00 ton on many days during July and Aug.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

				SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	
DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	
OCT 07...	1100	.78	488	491	--	1.5	9.6	230	53	23	23	.7	
NOV 04...	1200	.19	556	557	8.5	.5	10.2	260	59	26	25	.7	
DEC 14...	1300	.77	541	523	8.0	.0	10.4	250	59	25	24	.7	
JAN 13...	1200	.18	555	521	8.5	.5	--	250	58	25	25	.7	
MAR 02...	1200	.49	490	504	8.5	1.0	--	230	54	23	23	.7	
APR 26...	1430	31	540	470	8.4	4.5	11.0	220	53	21	20	.6	
MAY 28...	1230	446	388	389	8.6	9.0	10.4	170	44	15	21	.7	
JUN 20...	1100	31	432	482	8.5	9.5	9.8	210	51	20	24	.7	
JUL 12...	1430	6.9	443	456	8.8	16.5	8.4	210	50	20	21	.7	
AUG 05...	1300	4.3	455	455	8.8	15.5	8.5	210	50	21	22	.7	
SEP 09...	1200	1.1	410	432	8.7	11.0	9.6	200	46	21	23	.7	
		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, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 07...	.70	253		25	1.5	.20	15	290	.40	.62	<.100	<.010	4
NOV 04...	.70	278		29	1.8	.20	15	320	.44	.17	<.100	.010	4
DEC 14...	.60	275		28	1.8	.30	14	320	.43	.66	.270	<.010	4
JAN 13...	.70	276		27	1.7	.20	15	320	.43	.16	.430	.020	4
MAR 02...	.60	255		26	1.5	.20	14	300	.40	.39	.480	.030	4
APR 26...	.80	236		27	1.8	.20	15	280	.38	23	1.10	.060	3
MAY 28...	1.1	184		20	2.0	<.10	19	230	.32	281	1.20	.050	4
JUN 20...	.70	232		32	1.9	.20	18	290	.39	24	1.00	<.010	6
JUL 12...	.60	237		22	1.6	.20	16	270	.37	5.1	.380	.040	5
AUG 05...	.80	245		22	1.6	.20	16	280	.38	3.3	.400	.030	5
SEP 09...	.80	224		23	1.6	.20	14	260	.36	.80	<.100	.030	4

PARACHUTE CREEK BASIN

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09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM, DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM, DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY, DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 07...	76	50	<1	2	<3	6	17	1	<.1	<1	670	7
NOV 04...	81	50	<1	2	<3	<1	10	<1	<.1	1	750	12
DEC 14...	80	50	<1	1	<3	2	13	<1	<.1	1	730	4
JAN 13...	78	50	<1	1	<3	<1	15	1	<.1	1	700	4
MAR 02...	76	70	<1	3	6	<1	12	5	<.1	1	650	4
APR 26...	75	30	<1	6	43	<1	11	5	<.1	2	640	91
MAY 28...	100	30	<1	3	60	2	9	3	<.1	1	550	13
JUN 20...	100	40	<1	2	<3	<1	9	2	<.1	2	690	4
JUL 12...	73	30	<1	3	<3	7	9	<1	<.1	1	620	<3
AUG 05...	77	40	<1	2	8	<1	22	4	.7	1	630	8
SEP 09...	72	50	<1	1	4	1	15	2	<.1	1	590	7

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDEED (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY)
OCT 07...	1000	.78	4	.00	JUL 12...	1430	6.9	12	.72
APR 26...	1400	31	117	9.7	AUG 04...	1300	4.6	26	.32
MAY 28...	1230	446	7180	8650	SEP 09...	1200	1.1	3	.00
JUN 07...	1400	103	174	48					

PARACHUTE CREEK BASIN

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	469	512	505	516	497	488	531	471		---	428	415
2	482	527	512	518	497	488	543	478		---	427	415
3	484	548	519	514	505	500	537	480		---	433	421
4	485	544	521	507	512	498	544	478		---	426	418
5	491	538	520	500	499	494	549	476		---	446	423
6	488	539	522	498	504	499	551	473		---	451	424
7	489	530	515	497	497	506	548	478		---	453	423
8	481	505	517	504	496	505	541	469		---	455	421
9	490	486	517	510	493	508	531	446		---	451	424
10	504	492	498	516	491	504	535	432		---	448	432
11	514	498	507	518	495	491	536	423		---	445	436
12	499	516	523	514	502	482	537	436		---	430	438
13	487	507	529	512	497	489	545	451		432	372	438
14	499	523	516	508	493	493	554	453		429	411	435
15	490	526	521	499	496	510	559	457		427	424	436
16	494	533	506	503	496	516	532	451		425	426	438
17	499	536	510	498	496	513	549	456		425	425	438
18	502	518	521	493	499	514	538	466		422	422	437
19	515	491	523	494	494	522	549	463		419	416	438
20	515	518	519	494	495	531	554	463		419	409	450
21	517	512	513	497	500	537	547	458		409	416	452
22	506	511	497	490	499	529	559	431		425	418	453
23	510	538	490	497	498	522	544	420		432	414	447
24	508	542	502	494	499	525	522	409		436	409	438
25	504	516	513	492	496	535	---	362		434	408	441
26	497	530	522	493	496	528	---	340		429	410	440
27	483	533	515	492	496	534	466	243		428	412	440
28	513	531	514	486	494	535	464	---		429	413	447
29	539	515	527	493	---	529	467	---		425	412	446
30	503	509	526	491	---	515	460	---		422	409	438
31	490	---	523	492	---	517	---	---		427	412	---
MEAN	498	521	515	501	498	512	532	439		426	424	435
WTR YR 1983		MEAN	484	MAX	559	MIN	243					

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DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	6.5	3.0	2.5	.0	.5	.0	.0	.0	.5	.5	.5	.5
2	5.5	1.5	.0	.0	.5	.0	.0	.0	.5	.0	.5	.0
3	6.5	2.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	.0
4	6.5	2.5	.0	.0	.5	.0	.0	.0	.0	.0	.5	.5
5	5.0	2.5	.0	.0	.5	.0	.0	.0	.0	.0	.5	.0
6	3.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.5	.5
7	5.0	.0	.0	.0	.5	.0	.5	.0	.5	.0	.5	.0
8	3.5	.0	.0	.0	.5	.0	.5	.0	.5	.0	.5	.5
9	.0	.0	.5	.0	.5	.0	.5	.0	.5	.5	.5	.5
10	.0	.0	1.0	.5	.5	.5	.0	.0	.5	.0	1.0	.0
11	.0	.0	.5	.0	.5	.0	.0	.0	.0	.0	.5	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13	1.0	.0	.0	.0	.5	.0	.0	.0	.5	.0	1.0	.0
14	2.0	.0	.0	.0	.5	.0	.0	.0	.5	.5	1.5	.5
15	3.0	1.0	.0	.0	.5	.0	.0	.0	.5	.0	1.0	.0
16	4.0	1.0	.0	.0	.5	.0	.0	.0	.5	.0	.5	.5
17	4.0	.5	.0	.0	.5	.0	.5	.0	.5	.0	1.0	.5
18	3.0	1.0	.0	.0	.5	.0	.5	.0	.5	.0	1.5	.5
19	2.0	.0	.0	.0	.0	.0	.5	.5	.5	.0	.5	.5
20	.0	.0	.0	.0	.5	.0	.5	.0	.5	.0	.5	.5
21	.0	.0	.0	.0	.5	.0	.5	.0	.5	.0	.5	.5
22	1.0	.0	.0	.0	.5	.5	.5	.5	.5	.0	.5	.5
23	2.5	.0	.0	.0	.5	.5	.5	.0	.5	.0	.5	.5
24	4.5	1.0	.0	.0	.5	.0	.5	.5	.5	.0	.5	.5
25	6.0	4.0	.0	.0	.5	.0	.5	.5	.5	.0	.5	.5
26	6.0	3.5	.0	.0	.0	.0	.5	.0	.5	.0	.5	.5
27	5.0	.5	.0	.0	.0	.0	.5	.5	.5	.0	.5	.5
28	.0	.0	.0	.0	.0	.0	.5	.5	.5	.5	1.0	.5
29	.0	.0	.0	.0	.0	.0	.5	.0	---	---	1.5	.5
30	1.5	.0	.5	.0	.0	.0	.5	.5	---	---	2.0	.5
31	3.5	1.5	---	---	.0	.0	.5	.0	---	---	2.0	1.0
MONTH	6.5	.0	2.5	.0	.5	.0	.5	.0	.5	.0	2.0	.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2.0	.5	5.5	2.0			---	---	21.0	15.0	17.5	11.0
2	1.5	.5	6.5	1.0			---	---	20.5	15.5	18.5	13.0
3	1.5	.5	7.5	1.0			---	---	21.0	16.5	17.5	12.5
4	.5	.5	8.0	.5			---	---	21.5	14.0	16.5	12.5
5	.5	.5	7.0	3.0			---	---	17.0	13.0	15.0	9.0
6	.5	.5	5.0	2.5			---	---	17.0	11.0	15.5	8.5
7	.5	.5	8.5	1.0			---	---	17.5	10.5	15.5	8.5
8	.5	.5	9.0	2.0			---	---	19.5	12.0	16.5	13.0
9	1.0	.5	8.0	3.0			---	---	18.5	12.5	13.5	10.0
10	2.0	1.0	8.0	2.0			---	---	19.0	12.5	11.5	7.5
11	2.0	1.5	4.0	2.5			---	---	18.0	12.5	10.5	4.5
12	2.5	1.0	6.5	1.5								

PARACHUTE CREEK BASIN

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
OCTOBER			NOVEMBER			DECEMBER			
1	4.0	39	.42	2.5			.92		
2	2.0	10	.14	2.0			.77		
3	1.5	14	.06	.50			.76		
4	1.2	22	.07	.34			.72		
5	1.0	18	.05	.45			.63		
6	.95	19	.05	.52			.66		
7	.79	---	---	.60			.70		
8	.97	---	---	.70			.54		
9	1.5	---	---	.80			.69		
10	1.5	---	---	1.0			.85		
11	1.5	---	---	1.4			.65		
12	1.3	---	---	.72			.62		
13	1.4	---	---	.60			.73		
14	1.2	---	---	.54			.67		
15	1.0	---	---	.50			.67		
16	.98	---	---	.56			.62		
17	.91	---	---	.64			.57		
18	.88	---	---	.78			.50		
19	.79	---	---	.90			.45		
20	1.3	---	---	.80			.46		
21	1.5	---	---	.74			.49		
22	1.4	---	---	.70			.47		
23	1.0	---	---	.56			.47		
24	1.0	---	---	.50			.45		
25	1.1	---	---	.80			.44		
26	1.3	---	---	1.1			.42		
27	3.1	---	---	.87			.41		
28	1.8	---	---	.83			.40		
29	1.6	---	---	.82			.39		
30	1.7	---	---	.86			.38		
31	2.8	---	---	---			.37		
TOTAL	44.97	---	0.79	24.63			17.87		
JANUARY			FEBRUARY			MARCH			
1	.34			.21			.49		
2	.33			.16			.50		
3	.34			.19			.71		
4	.35			.25			.70		
5	.33			.25			.53		
6	.33			.22			.51		
7	.31			.23			.59		
8	.29			.23			.56		
9	.26			.24			.56		
10	.24			.25			.60		
11	.23			.23			1.2		
12	.22			.23			1.6		
13	.19			.27			1.9		
14	.21			.26			2.4		
15	.22			.27			3.0		
16	.23			.28			4.1		
17	.27			.28			3.6		
18	.27			.29			2.9		
19	.26			.29			2.5		
20	.23			.29			2.2		
21	.23			.31			3.5		
22	.22			.34			3.4		
23	.19			.36			2.4		
24	.18			.44			2.1		
25	.20			.68			2.2		
26	.20			.73			2.6		
27	.20			.61			2.2		
28	.22			.53			1.7		
29	.17			---			1.5		
30	.20			---			2.3		
31	.20			---			3.2		
TOTAL	7.66			8.92			58.25		

09092970 EAST FORK PARACHUTE CREEK NEAR RULISON, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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	2.6		32			270			
2	2.8		30			220			
3	2.7		32			190			
4	2.4		38			160			
5	1.8		46			140			
6	1.9		52			120			
7	1.9		52			106			
8	2.0		64			93			
9	2.1		100			83			
10	2.2		122			73			
11	2.6		131			64			
12	2.7		115			62			
13	2.4		94			52			
14	2.9		96			43			
15	3.2		93			38			
16	3.7		96			36			
17	5.4		99			36			
18	7.7		84			34			
19	10		90			32			
20	12		98			30			
21	13		108			28			
22	13		125			25			
23	16		139			24			
24	25		194			22			
25	32		240			23			
26	32		280			21			
27	30		200			20			
28	28		310			19			
29	29		320			17			
30	33		330			15			
31	---		300			---			
TOTAL	326.0		4110			2096			
JULY			AUGUST			SEPTEMBER			
1	14		3.3	---	---	1.3	9	.03	
2	14		3.2	---	---	1.3	8	.03	
3	12		4.8	---	---	1.2	7	.02	
4	11		6.0	22	.36	1.8	2	.01	
5	10		3.8	5	.05	1.7	1	.00	
6	9.9		3.6	22	.22	1.3	1	.00	
7	9.0		3.5	12	.11	1.2	7	.02	
8	8.5		3.2	17	.15	1.3	7	.02	
9	7.9		3.1	16	.13	.97	4	.01	
10	7.3		3.4	13	.12	.87	2	.00	
11	6.2		3.2	14	.12	.91	2	.00	
12	5.9		3.4	24	.22	.78	2	.00	
13	5.6		8.0	103	2.2	.71	1	.00	
14	5.3		4.3	35	.41	.70	---	---	
15	5.1		3.4	27	.25	.70	---	---	
16	5.2		3.0	32	.26	.70	---	---	
17	5.0		2.8	19	.14	.70	---	---	
18	4.7		3.9	37	.39	.70	---	---	
19	4.6		2.9	36	.28	.70	---	---	
20	5.1		5.3	54	.77	.70	---	---	
21	7.7		2.8	27	.20	.70	---	---	
22	6.3		2.4	21	.14	.70	---	---	
23	6.3		2.3	18	.11	.70	---	---	
24	5.7		2.2	12	.07	.68	---	---	
25	5.5		2.2	8	.05	.68	---	---	
26	6.8		1.9	8	.04	.68	---	---	
27	5.3		1.7	6	.03	.66	---	---	
28	5.1		1.7	9	.04	.66	---	---	
29	4.4		1.7	5	.02	.66	---	---	
30	3.8		1.7	9	.04	1.0	---	---	
31	3.6		1.5	6	.02	---	---	---	
TOTAL	216.8		100.2	---	6.94	27.36	---	0.14	
YEAR	7038.66		7.87						

PARACHUTE CREEK BASIN

09092980 BEN GOOD CREEK NEAR RULISON, CO

LOCATION.--Lat 39°35'25", long 108°02'26", in NE¼NW¼ sec.27, T.5 S., R.95 W., Garfield County, Hydrologic Unit 14010006, on left bank 0.2 mi upstream from East Fork Parachute Creek and 8.3 mi northwest of Rulison.

DRAINAGE AREA.--4.04 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1976 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,520 ft, from topographic map.

REMARKS.--Records fair, except for periods of no gage-height record, which are poor. No regulation or diversions above station.

AVERAGE DISCHARGE.--6 years, 0.81 ft³/s; 588 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.08	.03	.01	.00	.00	.05	3.8	26	1.9	1.1	.52
2	.09	.07	.03	.01	.00	.00	.06	3.9	23	1.7	1.2	.46
3	.07	.06	.03	.01	.00	.00	.06	4.1	19	1.7	1.1	.52
4	.07	.06	.03	.01	.00	.00	.07	4.6	14	1.6	1.3	.60
5	.07	.06	.03	.01	.00	.00	.07	5.4	11	1.5	1.2	.54
6	.07	.06	.03	.01	.00	.00	.08	6.9	8.0	1.4	1.1	.52
7	.07	.06	.02	.01	.00	.00	.09	8.4	7.0	1.4	1.1	.52
8	.07	.07	.02	.01	.00	.00	.10	9.4	6.4	1.4	.96	.58
9	.08	.07	.02	.01	.00	.00	.10	11	6.0	1.4	.91	.54
10	.08	.07	.02	.01	.00	.01	.11	13	5.6	1.4	.88	.44
11	.08	.06	.02	.01	.00	.02	.12	8.0	5.0	1.5	.88	.37
12	.07	.06	.02	.00	.00	.02	.13	7.0	4.5	1.5	1.0	.35
13	.06	.06	.02	.00	.00	.02	.16	5.9	4.2	1.5	.92	.34
14	.06	.06	.02	.00	.00	.02	.20	6.2	4.0	1.5	.86	.34
15	.06	.06	.02	.00	.00	.02	.25	6.1	3.8	1.5	.80	.34
16	.05	.06	.02	.00	.00	.02	.30	7.6	3.5	1.3	.76	.30
17	.05	.06	.02	.00	.00	.02	.40	7.9	3.3	1.3	.72	.30
18	.06	.05	.02	.00	.00	.02	.50	8.0	3.1	1.3	.70	.30
19	.09	.06	.02	.00	.00	.02	.60	8.5	3.0	1.2	.72	.30
20	.09	.06	.02	.00	.00	.02	.70	8.9	2.9	1.2	.82	.30
21	.09	.06	.01	.00	.00	.03	.90	9.7	2.8	1.6	.74	.30
22	.09	.06	.01	.00	.00	.03	1.1	12	2.6	1.7	.66	.30
23	.09	.05	.01	.00	.00	.03	1.5	13	2.6	1.4	.64	.30
24	.10	.05	.01	.00	.00	.04	2.0	24	2.5	1.3	.62	.27
25	.10	.05	.01	.00	.00	.04	2.3	35	2.5	1.3	.60	.27
26	.10	.04	.01	.00	.00	.04	2.3	36	2.5	1.3	.56	.27
27	.08	.04	.01	.00	.00	.04	2.5	37	2.3	1.3	.54	.27
28	.07	.04	.01	.00	.00	.04	2.6	38	2.4	1.2	.56	.27
29	.07	.04	.01	.00	---	.04	3.1	39	2.2	1.2	.56	.27
30	.07	.03	.01	.00	---	.04	3.4	40	2.0	1.2	.56	.31
31	.08	---	.01	.00	---	.05	---	30	---	1.2	.56	---
TOTAL	2.38	1.71	.57	.11	.00	.63	25.85	458.3	187.7	43.9	25.63	11.31
MEAN	.077	.057	.018	.004	.000	.020	.86	14.8	6.26	1.42	.83	.38
MAX	.10	.08	.03	.01	.00	.05	3.4	40	26	1.9	1.3	.60
MIN	.05	.03	.01	.00	.00	.00	.05	3.8	2.0	1.2	.54	.27
AC-FT	4.7	3.4	1.1	.2	.00	1.2	51	909	372	87	51	22

CAL YR 1982 TOTAL 62.08 MEAN .17 MAX 2.1 MIN .00 AC-FT 123
WTR YR 1983 TOTAL 758.09 MEAN 2.08 MAX 40 MIN .00 AC-FT 1500

NOTE.--NO GAGE-HEIGHT RECORD NOV. 21 TO APR. 26, MAY 26 TO JUNE 20, AUG. 12 TO SEPT. 12.

PARACHUTE CREEK BASIN

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09092980 BEN GOOD CREEK NEAR RULISON, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- October 1976 to September 1983 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO
OCT 12...	1200	.06	517	604	8.7	2.0	10.2	240	50	27	50	1
NOV 04...	1400	.06	590	599	8.6	.5	10.1	230	49	26	48	1
DEC 14...	1500	.02	620	588	8.7	.0	10.0	240	50	27	51	1
APR 26...	1445	3.5	540	533	8.5	4.5	11.2	210	50	20	39	1
MAY 28...	1300	37	424	428	8.4	9.5	9.4	170	43	15	31	1
JUN 20...	1300	2.9	648	614	8.6	10.0	9.6	250	55	28	45	1
JUL 11...	1400	1.5	620	634	8.7	12.0	9.4	250	50	31	47	1
AUG 05...	1400	1.1	595	578	8.7	16.0	8.6	240	46	29	46	1
SEP 12...	1315	.35	440	578	8.6	13.0	9.3	230	44	29	48	1

DATE	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CAO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ARSENIC DIS- SOLVED (UG/L AS AS)
OCT 12...	1.0	281	57	3.1	.60	19	380	.51	.06	<.100	<.010	2
NOV 04...	1.1	277	55	2.9	.50	17	370	.50	.06	<.100	<.010	2
DEC 14...	.70	274	59	2.9	.50	18	370	.51	.02	.130	<.010	2
APR 26...	1.6	241	52	2.9	.20	17	330	.45	3.1	1.20	.080	3
MAY 28...	1.1	187	32	3.4	<.10	21	260	.36	26	1.30	1.30	3
JUN 20...	1.1	252	65	3.6	.40	19	370	.50	2.9	.900	<.010	2
JUL 11...	1.1	276	71	3.3	.50	18	390	.53	1.6	.870	.030	2
AUG 05...	1.0	270	66	3.4	.50	19	370	.51	1.1	.570	.010	2
SEP 12...	.80	260	68	3.3	.50	18	370	.50	.35	.310	.020	<1

DATE	BARIUM, DIS- SOLVED (UG/L AS BA)	BORON, DIS- SOLVED (UG/L AS B)	CADMIUM DIS- SOLVED (UG/L AS CD)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 12...	83	100	<1	3	<3	<1	29	<1	<.1	1	1300	19
NOV 04...	78	90	<1	4	<3	<1	19	1	<.1	1	1300	<3
DEC 14...	82	90	<1	1	<3	<1	22	<1	<.1	1	1400	3
APR 26...	97	30	<1	4	39	<1	16	3	<.1	2	1100	8
MAY 28...	160	30	<1	2	90	3	11	4	<.1	1	830	7
JUN 20...	96	60	<1	2	4	<1	18	2	<.1	2	1300	15
JUL 11...	88	80	<1	2	7	10	20	<1	<.1	2	1300	13
AUG 05...	83	90	<1	1	<3	<1	27	<1	<.1	1	1300	13
SEP 12...	80	90	<1	1	6	<1	26	2	.1	1	1200	6

PARACHUTE CREEK BASIN

09093000 PARACHUTE CREEK NEAR PARACHUTE, CO

LOCATION (revised).--Lat 39°34'22", long 108°06'38", in SE¼NE¼ sec.36, T.5 S., R.96 W., Garfield County, Hydrologic Unit 14010006, on right bank 0.65 mi upstream from Gardner Gulch, 0.25 mi downstream from confluence of West and East Forks, and 8.5 mi north of Parachute.

DRAINAGE AREA.--141 mi².

PERIOD OF RECORD.--Streamflow records, October 1948 to September 1954, October 1964 to September 1970, April 1975 to current year. Prior to October 1979, published as near Grand Valley. Water-quality data available, November 1974 to October 1981.

GAGE.--Water-stage recorder. Altitude of gage is 5,730 ft, from topographic map. Prior to Apr. 1, 1975, at sites 0.4 mi downstream at different datums.

REMARKS.--Records fair except those for winter period and those for period of no gage-height record, which are poor. Diversions for irrigation of about 75 acres above station. One diversion from East Fork bypasses station for irrigation of about 100 acres below station.

AVERAGE DISCHARGE.--20 years (water years 1949-54, 1965-70, 1976-83), 24 ft³/s; 17,390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,310 ft³/s Aug. 19, 1977, gage height, 6.11 ft, from highwater mark, from rating curve extended above 150 ft³/s, on basis of slope-area measurements at gage heights 4.25 ft, and 6.11 ft; no flow Dec. 2, 1948, many days 1964-67 and 1976-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge recorded, 802 ft³/s at 1300 May 11, gage height, 4.79 ft, only known peak above base of 150 ft³/s, a higher peak which destroyed the gage occurred in late May, discharge and gage height unknown; minimum daily, 4.0 ft³/s, Oct. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.3	8.1	6.3	4.8	4.4	6.1	9.5	122	900	96	46	26
2	5.0	7.2	6.2	4.8	4.4	6.4	9.4	117	820	92	50	26
3	4.0	5.3	5.9	4.9	4.4	6.4	9.4	119	760	88	48	25
4	6.4	5.4	6.0	4.9	4.5	6.4	8.3	124	660	86	42	25
5	6.6	5.2	6.3	5.1	4.6	6.7	7.4	142	600	82	45	24
6	6.8	5.3	6.6	4.9	4.6	6.4	6.6	213	540	80	44	23
7	7.0	5.8	6.6	4.9	4.7	6.1	10	175	500	78	43	23
8	7.0	6.3	6.7	4.9	4.7	6.4	13	200	450	74	42	23
9	7.0	6.9	6.7	4.7	4.7	6.4	12	352	390	72	39	22
10	7.3	7.2	7.2	4.6	4.7	6.4	12	580	350	70	36	22
11	7.6	7.3	7.0	4.6	4.7	6.7	11	704	310	62	36	22
12	7.5	5.1	6.3	4.6	4.7	7.3	11	630	280	56	43	22
13	8.2	5.1	7.0	4.6	4.9	8.4	11	436	250	52	54	21
14	8.1	4.5	6.9	4.6	4.7	9.4	12	383	220	58	45	21
15	8.1	4.1	6.7	4.6	4.8	9.1	14	355	200	64	37	20
16	7.9	4.4	7.0	4.6	4.9	8.8	16	352	200	66	32	19
17	7.6	4.4	6.9	4.6	4.9	9.2	17	327	210	60	31	19
18	7.5	4.6	6.8	4.4	5.0	9.5	20	313	210	54	32	19
19	7.1	5.6	6.7	4.4	5.1	8.7	24	331	190	52	37	18
20	7.0	5.5	6.9	4.4	5.0	8.5	27	358	180	54	42	18
21	7.0	5.6	7.0	4.4	5.2	8.6	36	437	150	62	38	18
22	7.3	6.0	7.0	4.4	5.5	9.6	38	592	140	68	34	17
23	7.5	5.2	7.0	4.4	5.5	10	24	800	130	70	30	17
24	7.3	5.1	6.2	4.4	5.8	10	26	1000	130	68	29	17
25	7.0	5.5	6.2	4.4	6.1	10	89	1100	120	59	29	17
26	7.1	5.7	5.8	4.4	5.5	11	138	1200	120	56	35	17
27	9.1	5.7	5.6	4.4	5.8	10	144	1250	110	52	33	16
28	7.4	5.7	5.4	4.4	6.4	11	126	1270	110	48	31	16
29	6.7	6.0	4.9	4.4	---	10	117	1300	110	46	29	16
30	7.7	6.2	4.7	4.4	---	11	124	1200	100	43	28	16
31	8.9	---	4.7	4.4	---	10	---	1000	---	42	27	---
TOTAL	224.0	170.0	197.2	142.3	140.2	260.5	1122.6	17482	9440	2010	1167	605
MEAN	7.23	5.67	6.36	4.59	5.01	8.40	37.4	564	315	64.8	37.6	20.2
MAX	9.1	8.1	7.2	5.1	6.4	11	144	1300	900	96	54	26
MIN	4.0	4.1	4.7	4.4	4.4	6.1	6.6	117	100	42	27	16
AC-FT	444	337	391	282	278	517	2230	34680	18720	3990	2310	1200
CAL YR 1982	TOTAL	6902.5	MEAN	18.9	MAX	128	MIN	1.1	AC-FT	13690		
WTR YR 1983	TOTAL	32960.8	MEAN	90.3	MAX	1300	MIN	4.0	AC-FT	65380		

NOTE.--NO GAGE-HEIGHT RECORD MAY 26 TO SEPT. 30.

COLORADO RIVER MAIN STEM

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09093700 COLORADO RIVER NEAR DE BEQUE, CO

LOCATION.--Lat 39°21'45", long 108°09'07", in NE1SW1/4 sec.7, T.8 S., R.96 W., Mesa County, Hydrologic Unit 14010006, on left bank 3.0 mi downstream from Alkali Creek and 3.8 mi northeast of De Beque.

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. Altitude of gage is 4,940 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation of about 158,000 acres. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--17 years, 3,655 ft³/s; 2,648,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,300 ft³/s June 26, 1983, gage height, 13.89 ft; minimum daily, 914 ft³/s Dec. 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 32,300 ft³/s at 0200 June 26, gage height, 13.89 ft; minimum daily, 1,200 ft³/s Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3040	2520	1920	1300	1620	1710	1780	3680	20800	25800	8750	3840
2	3060	2600	1950	1380	1660	1730	1770	3550	20200	24100	8520	3700
3	2940	2410	1910	1480	1610	1740	1760	3330	19000	23400	8230	3570
4	2850	2200	1820	1450	1510	1710	1770	3400	18500	22800	8310	3550
5	2790	2020	1810	1520	1590	1700	1680	3620	19100	21600	8470	3610
6	2690	2250	1880	1710	1660	1710	1630	3980	18700	21000	8750	3570
7	2700	2280	1870	1890	1620	1640	1680	4210	17800	20300	9070	3500
8	2660	2300	1830	1910	1610	1610	1680	4100	17900	21000	8290	3420
9	2690	2230	1810	1900	1670	1600	1690	4620	18600	21800	7640	3370
10	2650	2300	1780	1810	1680	1620	1720	5860	19200	21700	6990	3320
11	2630	2350	1810	1650	1620	1620	1720	7170	20000	21300	6380	3170
12	2630	2330	1810	1700	1590	1670	1780	7640	22200	19700	6070	3070
13	2600	2300	1750	1670	1630	1730	1770	7170	23200	19200	6070	2970
14	2600	2200	1700	1610	1630	1810	1700	6740	20300	18000	5780	2820
15	2590	2100	1800	1630	1630	1980	1640	6360	17800	16300	5450	2720
16	2580	2000	1580	1600	1630	1880	1670	6500	17600	14200	5470	2510
17	2610	2150	1820	1610	1630	1810	1700	6600	18400	13100	5380	2530
18	2580	2110	1800	1680	1620	1830	1730	6020	20200	12000	5330	2400
19	2540	2220	1800	1690	1670	1800	1880	5900	23400	11400	5380	2370
20	2510	2220	1600	1680	1670	1760	2060	6070	26400	10600	5520	2290
21	2480	2220	1560	1700	1630	1680	2220	6170	28100	10900	5400	2300
22	2460	2010	1790	1570	1630	1610	2300	6700	28500	11900	4990	2340
23	2440	1920	1810	1640	1670	1660	2330	7450	28000	12400	4730	2370
24	2420	1890	1820	1630	1670	1710	2390	8570	28300	12700	4490	2390
25	2400	1680	1810	1650	1680	1710	2790	10400	29800	11900	4400	2370
26	2430	1760	1500	1700	1720	1700	3260	12500	32000	11200	4180	2390
27	2500	1880	1380	1660	1700	1680	3470	14500	30400	10200	4000	2430
28	2800	1860	1360	1670	1690	1690	3550	17200	30200	9750	3880	2390
29	2700	1770	1500	1680	---	1720	3350	19600	28300	9380	3830	2360
30	2500	1920	1380	1670	---	1720	3620	21600	27000	8810	3750	2430
31	2450	---	1200	1660	---	1740	---	22400	---	8470	3880	---
TOTAL	81520	64050	53160	51100	45940	53280	64090	253610	689900	496910	187380	86070
MEAN	2630	2135	1715	1648	1641	1719	2136	8181	23000	16030	6045	2869
MAX	3060	2600	1950	1910	1720	1980	3620	22400	32000	25800	9070	3840
MIN	2400	1680	1200	1300	1510	1600	1630	3330	17600	8470	3750	2290
AC-FT	161700	127000	105400	101400	91120	105700	127100	503000	1368000	985600	371700	170700
CAL YR 1982 TOTAL	1374690		MEAN 3766		MAX 13300	MIN 1200	AC-FT 2727000					
WTR YR 1983 TOTAL	2127010		MEAN 5827		MAX 32000	MIN 1200	AC-FT 4219000					

NOTE.--NO GAGE-HEIGHT RECORD OCT. 25 TO JAN. 11.

COLORADO RIVER MAIN STEM

09095500 COLORADO RIVER NEAR CAMEO, CO

LOCATION.--Lat 39°14'20", long 108°16'00", in SW¼SW¼ sec.30, T.9 S., R.97 W., Mesa County, Hydrologic Unit 14010006, on left bank 100 ft north of U.S. Highways 6 and 24, 0.5 mi upstream from Jackson Canyon, 5.9 mi upstream from Grand Valley project diversion dam, and 7 mi northeast of Cameo.

DRAINAGE AREA.--8,050 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1933 to current year.

REVISED RECORDS.--WRD Colo. 1973: 1970.

GAGE.--Water-stage recorder. Datum of gage is 4,813.73 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 10, 1934, nonrecording gage on river and water-stage recorder on Highline Canal, about 10 mi downstream at different datum. Oct. 10, 1934, to Feb. 27, 1958, water-stage recorder at site 3.0 mi downstream at datum 22.55 ft, lower.

REMARKS.--Records good, except those for winter period and those for period of indefinite stage-discharge relationship June 19 to July 8, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversion for irrigation of about 160,000 acres.

AVERAGE DISCHARGE.--50 years, 3,826 ft³/s; 2,772,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,000 ft³/s, June 16, 1935, gage height, 10.91 ft, site and datum then in use; June 26, 1983, gage height, 13.17 ft, (from floodmarks), present site and datum; minimum daily discharge, 700 ft³/s Dec. 29, 1939.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 36,000 ft³/s June 26, gage height, 13.17 ft, from floodmarks; minimum daily, 1,300 ft³/s Dec. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3240	2870	2260	1370	1570	1910	1860	4050	22300	26000	9540	4160
2	3270	2780	2290	1480	1620	1900	1860	3840	21200	23700	9330	3960
3	3200	2580	2170	1530	1580	1860	1820	3640	20200	23300	9180	3500
4	3070	2350	2030	1530	1470	1830	1830	3610	19300	22600	9180	3430
5	2980	2290	2010	1600	1550	1820	1740	3840	19800	21500	9790	3520
6	2890	2540	2040	1780	1640	1820	1650	4210	19500	21500	9850	3500
7	2830	2500	2030	1920	1620	1740	1710	4560	18600	20900	10400	3200
8	2800	2560	2010	2000	1610	1680	1710	4400	18500	21500	8960	3180
9	2800	2560	1960	2000	1740	1680	1710	4880	19100	21600	7690	3110
10	2830	2650	1960	1900	1780	1690	1760	6250	19700	21600	7120	3020
11	2780	2910	2010	1720	1720	1730	1740	7880	20200	21300	6490	3000
12	2780	2910	1980	1780	1740	1740	1820	8440	21900	19700	6130	3000
13	2740	2720	1880	1740	1650	1810	1780	7720	23500	19200	6230	2820
14	2740	2650	1820	1690	1700	1940	1710	7140	20600	18500	5990	2640
15	2740	2570	2000	1700	1680	1900	1650	6610	18000	17400	5700	2460
16	2740	2440	1730	1690	1680	1990	1660	6850	17500	14900	5650	2420
17	2740	2470	2010	1680	1710	1880	1700	6950	18200	13600	5580	2370
18	2740	2520	2010	1720	1700	1910	1740	6110	19800	12400	5580	2290
19	2700	2580	1980	1750	1770	1860	1860	5960	24000	11600	5820	2240
20	2640	2660	1880	1770	1780	1800	2080	6010	28500	10700	5800	2180
21	2620	2550	1830	1790	1740	1740	2260	6040	29000	11000	5770	2170
22	2600	2360	1930	1660	1710	1640	2350	6590	29200	12200	5530	2220
23	2580	2280	1960	1710	1760	1710	2390	7520	28800	12900	5440	2260
24	2540	2180	1980	1660	1760	1740	2440	9080	30000	13300	5170	2270
25	2540	1960	1930	1650	1810	1770	2890	11900	32800	12400	4960	2270
26	2540	2060	1660	1660	1820	1740	3480	14500	33500	11400	4530	2270
27	3060	2170	1540	1590	1830	1710	3750	16600	31800	10400	4420	2310
28	3000	2170	1580	1610	1860	1760	3860	19300	31000	9700	4350	2290
29	2740	2180	1580	1640	---	1800	3660	21300	29000	9420	4160	2270
30	2640	2220	1480	1640	---	1800	3960	22800	27800	9360	4070	2330
31	2740	---	1300	1620	---	1820	---	23700	---	9080	4280	---
TOTAL	86850	74240	58830	52580	47600	55720	66430	272280	713300	504660	202690	82660
MEAN	2802	2475	1898	1696	1700	1797	2214	8783	23780	16280	6538	2755
MAX	3270	2910	2290	2000	1860	1990	3960	23700	33500	26000	10400	4160
MIN	2540	1960	1300	1370	1470	1640	1650	3610	17500	9080	4070	2170
AC-FT	172300	147300	116700	104300	94410	110500	131800	540100	1415000	1001000	402000	164000
CAL YR 1982	TOTAL	1383040	MEAN	3789	MAX	13400	MIN	1200	AC-FT	2743000		
WTR YR 1983	TOTAL	2217840	MEAN	6076	MAX	33500	MIN	1300	AC-FT	4399000		

COLORADO RIVER MAIN STEM

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09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1933 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1935 to current year.

WATER TEMPERATURES: April 1949 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1982.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

COOPERATION.--Chemical-quality data furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,970 micromhos Jan. 19, 1940; minimum daily, 235 micromhos May 26, 1936.

WATER TEMPERATURES: Maximum, 24°C Aug. 16, 1962; minimum, freezing point on many days during winter months.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,580 micromhos Dec. 28; minimum, 251 micromhos June 30.

WATER TEMPERATURES: Maximum, 22.5°C Aug. 16; minimum, freezing point many days during winter.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)
OCT										
04...	1300	3000	850	830	8.9	11.0	200	58	14	78
NOV										
04...	1530	2200	870	930	--	7.0	220	64	15	94
10...	1205	2390	850	920	--	7.0	220	64	15	94
17...	1200	2460	951	960	8.5	2.0	220	63	15	100
DEC										
20...	1430	2170	1050	1070	8.2	.0	230	65	17	120
30...	1030	1550	1180	1300	--	.0	280	78	20	140
JAN										
07...	1445	1780	--	1160	--	.0	260	78	17	120
24...	--	1590	1100	1130	8.5	.0	230	65	16	120
FEB										
18...	--	1630	1020	1130	8.2	3.0	240	66	18	130
MAR										
05...	1600	1470	1100	1240	--	1.5	230	66	17	140
09...	1400	1630	1110	1160	8.5	9.0	260	70	20	140
APR										
15...	1500	1680	1060	1090	8.7	9.5	230	61	18	130
28...	1100	3800	700	730	7.9	11.5	190	51	14	63
MAY										
13...	1400	7740	510	530	--	8.0	160	42	14	35
27...	1430	16400	435	460	8.2	11.0	150	40	13	35
JUN										
10...	1200	19600	348	390	8.5	11.0	130	36	9.4	18
21...	1300	27600	284	330	8.1	12.0	100	30	7.3	14
JUL										
21...	1500	10900	398	400	8.2	18.5	130	38	8.8	30
AUG										
19...	1400	5810	590	640	8.3	20.0	180	52	12	56
SEP										
14...	1330	2740	840	860	8.6	17.0	210	61	14	88

COLORADO RIVER MAIN STEM

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE, FET-LAB (MG/L AS HCO3)	CAR- BONATE, FET-LAB (MG/L AS CO3)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)
OCT										
04...	2	2.2	--	--	134	110	100	450	.61	3650
NOV										
04...	3	2.6	--	--	139	120	120	510	.69	3030
10...	3	2.5	--	--	134	120	130	500	.68	3230
17...	3	2.5	--	--	131	120	140	520	.71	3450
DEC										
20...	3	2.5	--	--	164	130	160	590	.80	3460
30...	4	3.3	--	--	170	160	190	700	.95	2930
JAN										
07...	3	3.9	190	.000	--	130	160	600	.82	2880
24...	4	2.7	170	.000	--	130	160	580	.79	2490
FEB										
18...	4	4.0	170	.000	--	140	170	610	.83	2680
MAR										
05...	4	3.1	170	.000	--	130	170	610	.83	2420
09...	4	8.0	170	.000	--	190	140	660	.90	2900
APR										
15...	4	3.9	140	14	--	140	160	590	.80	2680
28...	2	5.9	170	.000	--	130	29	380	.52	3900
MAY										
13...	1	2.3	170	.000	--	65	35	280	.38	5850
27...	1	2.0	170	.000	--	51	36	260	.35	11500
JUN										
10...	.7	1.6	130	.000	--	40	20	190	.26	10100
21...	.6	1.6	120	.000	--	32	16	160	.22	11900
JUL										
21...	1	1.6	110	.000	--	57	37	230	.31	6770
AUG										
19...	2	2.0	140	.000	--	89	71	350	.48	5490
SEP										
14...	3	2.7	160	.000	--	110	120	470	.64	3480

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT						MAR					
04...	1200	3000	50	405	60	23...	1430	1700	82	376	--
11...	1230	2600	81	569	--	APR					
13...	1300	2740	19	141	--	01...	1415	1910	164	846	--
18...	1130	2760	15	112	--	06...	1100	1640	62	275	--
28...	1330	2910	356	2800	76	15...	1500	1680	40	181	--
NOV						22...	1400	2370	348	2230	--
04...	1430	2310	29	181	--	28...	1400	3810	839	8630	76
17...	1300	2440	16	105	--	MAY					
24...	1100	2110	26	148	--	06...	1235	4260	1190	13700	80
DEC						13...	1400	7740	2240	46800	80
03...	1100	2040	22	121	--	20...	0930	5990	1840	29800	86
10...	1505	1990	13	70	--	27...	1400	16700	5670	256000	79
17...	1502	2010	24	130	--	JUN					
20...	1330	1700	32	147	--	03...	1200	20200	1700	92700	73
JAN						10...	1300	19700	835	44400	65
24...	1200	1600	68	294	--	13...	1230	23900	753	48600	--
FEB						21...	1400	27600	743	55400	--
03...	1600	1570	71	301	--	JUL					
11...	1245	1700	138	633	--	01...	1100	25000	442	29800	--
18...	1400	1670	78	352	--	08...	1400	20400	337	18600	--
25...	1700	1800	226	1100	--	15...	1100	16400	304	13500	--
MAR						21...	1500	10900	268	7890	--
02...	1430	1880	462	2350	--	29...	1400	8990	227	5510	--
09...	1400	1630	109	480	--						
18...	0830	2030	217	1190	--	SEP					
AUG						14...	1330	2740	24	178	--
04...	1540	8760	290	6860	--	22...	1100	2200	14	83	--
12...	1230	6010	1020	16600	81	28...	1330	2290	29	179	--
19...	1400	5810	675	10600	--						
26...	1630	4440	101	1210	--						
SEP											
02...	1445	3660	33	326	--						
09...	1115	3110	32	269	--						

COLORADO RIVER MAIN STEM

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09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	911	1010	---	---	1060	1040	762	358	264	481	711
2	---	894	1020	---	---	1020	1030	821	359	269	469	709
3	---	908	970	---	---	---	1030	887	359	278	486	679
4	817	927	1010	---	---	---	1050	806	355	281	504	692
5	827	980	1030	---	---	---	1050	730	339	292	503	694
6	842	971	1020	---	---	---	1080	713	341	---	497	686
7	858	918	1020	---	---	875	1140	591	351	---	454	694
8	854	906	1020	---	---	---	1050	632	353	---	457	729
9	---	899	1020	---	---	---	1050	571	353	---	482	766
10	856	903	1020	---	1070	1070	1040	516	348	300	505	811
11	864	909	1040	---	1070	1070	1030	507	339	293	---	859
12	861	882	---	---	---	1040	1060	503	329	---	---	960
13	866	906	1020	---	---	1000	1060	487	327	---	---	1090
14	861	919	1050	---	---	969	1040	472	322	305	---	930
15	861	932	1070	---	1090	969	1060	502	320	321	---	901
16	856	968	1070	---	1090	980	1080	531	321	349	---	911
17	852	959	1100	---	1100	1030	1080	564	315	363	---	957
18	858	979	1000	---	1100	1010	1060	596	303	371	---	957
19	889	954	1050	---	1090	1050	1050	629	291	382	---	997
20	908	962	1090	---	1090	1050	990	639	286	398	635	1010
21	964	959	1160	925	1080	1050	949	620	279	406	647	1030
22	834	995	1170	993	1090	1090	916	596	268	414	660	1030
23	969	1040	1190	1100	1100	1120	914	569	269	375	674	1030
24	995	1050	1150	1100	1120	1110	902	539	265	378	686	1030
25	1010	1070	1190	1090	1160	1100	872	510	263	388	698	1030
26	1020	1100	1260	1080	1070	1090	828	475	278	417	709	1030
27	926	1060	1420	1080	1060	1070	749	428	262	420	710	1030
28	850	1040	1520	1070	1060	1060	709	368	256	452	712	1030
29	861	1030	1530	1060	---	1050	717	342	254	449	713	1030
30	886	1040	---	1040	---	1040	713	350	263	460	713	1030
31	897	---	---	---	---	1040	---	348	---	484	712	---
MEAN	887	966	1120	1050	1090	1040	978	568	311	364	596	901
WTR YR 1983	MEAN	801		MAX	1530	MIN	254					

COLORADO RIVER MAIN STEM

09095500 COLORADO RIVER NEAR CAMEO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	9.0	7.5	3.0	2.0	.0	.0	2.0	1.0	8.0	6.0
2	---	---	9.0	7.5	3.0	2.0	---	---	2.5	.0	8.5	6.5
3	---	---	7.5	6.0	2.5	1.0	---	---	2.0	.0	8.0	6.0
4	13.0	12.0	7.0	5.0	2.5	1.0	---	---	1.0	.0	8.0	6.0
5	12.0	10.0	6.5	4.5	2.5	.5	---	---	2.0	.5	7.5	7.0
6	12.0	9.5	6.0	4.0	3.0	1.0	---	---	2.5	.5	9.0	6.0
7	11.5	9.0	6.5	4.5	2.5	1.5	---	---	1.5	.0	8.0	6.0
8	10.0	8.0	6.5	5.0	2.5	1.5	.0	.0	2.0	.0	10.0	4.5
9	8.5	7.0	7.0	5.5	2.5	1.5	.0	.0	3.0	1.0	10.0	4.5
10	7.5	6.5	7.0	6.0	4.0	2.0	.0	.0	4.0	1.5	10.5	7.0
11	8.0	5.5	6.0	5.0	4.0	2.5	.0	.0	4.0	1.0	11.0	7.5
12	8.0	6.5	5.5	3.5	3.0	1.5	.0	.0	3.5	1.0	12.0	8.5
13	9.5	7.0	5.0	4.0	2.0	.5	.0	.0	3.5	.0	11.0	8.5
14	10.0	7.0	4.0	2.5	1.5	.0	.0	.0	3.0	2.0	10.0	8.5
15	11.0	8.0	3.0	1.5	1.0	.0	.0	.0	4.5	1.5	8.0	6.5
16	11.0	8.5	2.5	.5	1.0	.0	.0	.0	5.0	2.5	8.5	5.0
17	10.5	8.5	3.0	1.0	1.0	.0	.0	.0	4.5	2.0	7.0	6.0
18	11.0	8.5	3.5	2.5	1.0	.0	.0	.0	4.5	2.0	6.5	5.0
19	10.0	8.0	4.0	2.5	.5	.0	.0	.0	4.0	3.0	7.5	4.0
20	9.5	7.5	4.0	2.5	.5	.0	.0	.0	5.5	2.5	7.5	4.5
21	9.0	6.5	4.5	3.5	.5	.0	1.5	.5	5.5	3.0	7.0	4.0
22	8.5	6.5	4.0	3.0	1.5	.0	2.0	1.0	6.0	.0	7.0	5.0
23	9.0	6.5	3.0	1.5	2.0	1.0	1.5	.5	7.0	3.5	8.0	5.0
24	9.5	6.5	2.0	.5	1.5	.0	1.5	.5	7.0	3.5	7.0	5.5
25	11.0	7.0	2.5	1.0	.0	.0	2.5	1.0	5.5	4.5	6.5	4.5
26	9.5	9.0	2.5	.5	.0	.0	3.0	1.5	5.5	4.0	7.5	4.0
27	11.0	7.0	2.5	.5	.0	.0	2.0	1.5	6.0	4.5	8.0	4.5
28	8.0	6.5	2.0	.0	.0	.0	2.5	1.0	7.5	5.5	8.0	6.5
29	7.0	5.5	2.0	1.0	.0	.0	2.5	1.5	---	---	9.0	5.5
30	6.5	5.5	2.5	1.5	.0	.0	3.5	1.0	---	---	10.5	7.0
31	8.0	6.5	---	---	.0	.0	3.0	1.5	---	---	9.0	7.0
MONTH	13.0	5.5	9.0	.0	4.0	.0	3.5	.0	7.5	.0	12.0	4.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	6.0	9.5	8.5	11.5	9.5	14.0	12.5	20.0	17.5	21.5	19.0
2	8.5	6.0	11.0	8.5	11.5	10.5	14.5	12.5	20.0	17.5	21.0	19.5
3	7.5	5.5	12.0	9.5	12.5	10.0	14.5	13.0	19.5	18.0	22.0	19.0
4	7.0	5.5	13.5	10.5	12.5	11.0	14.5	12.5	19.5	18.0	22.0	19.5
5	8.0	4.5	13.0	11.5	13.0	11.0	14.5	12.5	20.0	17.5	21.0	19.0
6	7.0	4.0	11.5	10.0	12.0	10.5	15.5	13.0	20.5	18.0	21.0	18.0
7	7.5	4.0	12.0	8.5	12.5	10.0	16.5	14.0	20.5	17.5	20.0	18.0
8	7.5	5.0	13.0	10.5	12.5	11.0	16.0	14.5	21.0	18.5	21.0	19.0
9	10.5	6.0	13.0	11.0	12.5	11.0	16.5	15.0	21.5	19.0	21.0	19.5
10	11.0	7.5	12.5	10.0	13.0	11.0	17.0	15.0	21.0	19.0	20.5	19.0
11	10.0	8.0	12.0	9.5	13.0	11.5	16.5	14.5	21.0	19.0	20.5	18.0
12	10.5	8.0	10.0	7.5	12.5	11.0	16.5	14.5	20.0	19.0	20.0	17.5
13	10.0	7.5	9.5	7.5	10.5	9.5	17.5	15.0	20.5	18.5	20.0	17.0
14	10.0	6.5	9.5	7.5	11.5	9.0	18.0	15.5	21.0	19.0	19.0	17.0
15	10.0	7.0	10.0	7.5	13.0	10.5	17.5	16.0	21.5	19.5	19.0	16.0
16	11.5	6.5	10.0	7.0	13.5	11.5	18.0	15.0	22.5	20.0	19.5	16.0
17	12.5	7.5	7.0	6.0	13.5	12.0	18.0	15.5	22.0	20.0	19.0	16.0
18	12.0	8.5	8.5	6.0	14.0	12.0	19.0	16.0	22.0	20.5	19.5	16.5
19	13.0	9.5	10.0	8.0	14.0	12.0	19.5	17.0	21.0	20.0	19.0	16.5
20	2.5	10.0	12.0	9.0	13.5	12.0	20.5	17.0	20.5	19.0	17.0	13.5
21	13.0	10.5	12.5	9.5	14.0	12.0	20.5	17.5	20.5	18.5	16.0	12.5
22	13.0	10.0	13.5	11.0	14.0	12.0	19.5	17.5	21.0	18.5	15.0	12.0
23	13.5	9.5	14.0	11.0	14.0	12.5	18.0	17.0	21.0	19.0	14.5	12.5
24	15.0	11.0	13.5	11.0	13.5	12.5	18.5	16.0	20.5	19.0	16.0	13.0
25	13.5	11.0	13.5	11.0	14.0	12.5	19.5	17.0	20.0	18.5	17.5	13.5
26	12.5	10.5	13.0	11.0	13.5	12.0	19.5	17.5	21.5	19.0	17.5	14.5
27	12.0	11.0	13.0	10.5	12.5	12.0	19.0	17.0	22.0	19.0	18.5	15.5
28	11.5	11.0	12.5	11.0	12.5	11.0	19.5	16.0	21.5	19.5	17.5	15.0
29	11.5	10.0	12.0	10.5	13.5	11.5	19.5	17.0	20.5	19.5	17.0	15.0
30	11.0	9.5	12.5	11.0	14.0	12.0	20.5	17.5	21.5	18.5	16.5	14.5
31	---	---	12.0	10.5	---	---	20.0	18.0	21.5	19.0	---	---
MONTH	15.0	4.0	14.0	6.0	14.0	9.0	20.5	12.5	22.5	17.5	22.0	12.0
YEAR	22.5	.0										

COLORADO RIVER BASIN

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09095526 GOVERNMENT HIGHLINE CANAL AT 16 ROAD, NEAR LOMA, CO

LOCATION.--Lat 39°15'27" long 108°45'30" (revised), in NE¼SE¼ sec.12, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 792 ft downstream from county bridge on 16 Road, 0.4 mi north of Q Road, and 5.1 mi northeast of Loma.

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

GAGE.--Water-stage recorder and Marsh-McBirney velocity meter. Altitude of gage is 4,740 ft, from topographic map. Oct. 1975 to Mar. 30, 1976, nonrecording gage 792 ft upstream, at different datum, Mar. 31, 1976 to Apr. 1, 1981, gage at site 200 ft upstream, at different datum.

REMARKS.--Records poor. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec.13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Reed Wash and Salt Creek basins. Surplus flows are wasted into Reed Wash and Highline Lake. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 387 ft³/s June. 16, 1983; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	356	58	.00	.00	.00	.00	.00	294	240	308	304	260
2	358	25	.00	.00	.00	.00	.00	305	265	308	300	265
3	363	1.0	.00	.00	.00	.00	.00	310	300	310	300	275
4	366	.80	.00	.00	.00	.00	.00	321	295	308	298	282
5	368	.00	.00	.00	.00	.00	.00	337	295	304	288	290
6	352	.00	.00	.00	.00	.00	.00	310	300	302	292	298
7	347	.00	.00	.00	.00	.00	.00	295	308	308	296	302
8	329	.00	.00	.00	.00	.00	50	295	310	310	300	312
9	312	.00	.00	.00	.00	.00	100	300	315	315	290	320
10	310	.00	.00	.00	.00	.00	230	321	320	321	290	330
11	304	.00	.00	.00	.00	.00	250	320	320	340	295	340
12	291	.00	.00	.00	.00	.00	220	318	320	348	300	340
13	292	.00	.00	.00	.00	.00	213	310	340	342	308	295
14	275	.00	.00	.00	.00	.00	210	298	361	338	309	322
15	277	.00	.00	.00	.00	.00	211	300	365	320	310	328
16	273	.00	.00	.00	.00	.00	207	305	387	310	310	315
17	268	.00	.00	.00	.00	.00	200	310	360	312	305	307
18	267	.00	.00	.00	.00	.00	203	320	340	310	300	301
19	266	.00	.00	.00	.00	.00	228	353	320	310	298	304
20	265	.00	.00	.00	.00	.00	215	322	320	315	288	299
21	259	.00	.00	.00	.00	.00	217	316	328	315	282	304
22	251	.00	.00	.00	.00	.00	240	318	315	315	292	321
23	268	.00	.00	.00	.00	.00	265	299	290	320	302	324
24	278	.00	.00	.00	.00	.00	244	284	280	330	312	334
25	272	.00	.00	.00	.00	.00	213	266	290	340	310	314
26	273	.00	.00	.00	.00	.00	237	247	295	340	310	317
27	210	.00	.00	.00	.00	.00	254	238	308	340	312	304
28	91	.00	.00	.00	.00	.00	251	222	310	340	320	289
29	105	.00	.00	.00	---	.00	240	222	310	333	319	289
30	116	.00	.00	.00	---	.00	251	220	310	315	318	321
31	92	---	.00	.00	---	.00	---	230	---	308	260	---
TOTAL	8454	84.80	.00	.00	.00	.00	4949.00	9106	9417	9935	9318	9202
MEAN	273	2.83	.000	.000	.000	.000	165	294	314	320	301	307
MAX	368	58	.00	.00	.00	.00	265	353	387	348	320	340
MIN	91	.00	.00	.00	.00	.00	.00	220	240	302	260	260
AC-FT	16770	168	.00	.00	.00	.00	9820	18060	18680	19710	18480	18250
CAL YR 1982	TOTAL	61506.80	MEAN 169	MAX 378	MIN .00	AC-FT 122000						
WTR YR 1983	TOTAL	60465.80	MEAN 166	MAX 387	MIN .00	AC-FT 119900						

NOTE.--NO GAGE-HEIGHT RECORD MAY 29 TO SEPT. 13.

COLORADO RIVER BASIN

090955285 GOVERNMENT HIGHLINE CANAL ABOVE CAMP NO. 7 SPILLWAY, NEAR MACK, CO

LOCATION.--Lat 39°16'21", long 108°49'56", NE¼SE¼ sec. 5, T.2 N., R.3W., Mesa County, Hydrologic Unit 14010005, on left bank, 72 ft, upstream from Camp 7 spillway, 84 ft, downstream from Lateral 48 outlet, and 4.5 mi northeast of Mack.

PERIOD OF RECORD.--October 1982 to September 1983.

GAGE.--Water-stage recorder and Marsh-McBirney velocity meter. Altitude of gage is 4,720 ft, from topographic map.

REMARKS.--Records fair. Government Highline Canal diverts water from the Colorado River in SE¼NW¼ sec. 13, T.10 S., R.98 W. Water flowing past this gage is used for irrigation in Salt Creek basin. Surplus flows are wasted into Highline Lake. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 360 ft³/s OCT. 4, 1983; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	310	56	.00	.00	.00	.00	.00	147	145	222	196	188
2	320	24	.00	.00	.00	.00	.00	162	156	197	158	193
3	340	1.0	.00	.00	.00	.00	.00	180	170	188	172	213
4	360	.60	.00	.00	.00	.00	.00	190	184	176	186	217
5	350	.00	.00	.00	.00	.00	.00	190	195	150	200	215
6	300	.00	.00	.00	.00	.00	.00	200	199	151	218	209
7	260	.00	.00	.00	.00	.00	.00	218	250	168	227	205
8	260	.00	.00	.00	.00	.00	.45	246	296	182	228	226
9	260	.00	.00	.00	.00	.00	100	282	276	193	197	237
10	270	.00	.00	.00	.00	.00	230	258	271	218	182	260
11	290	.00	.00	.00	.00	.00	240	221	272	204	198	281
12	280	.00	.00	.00	.00	.00	210	244	289	191	236	277
13	270	.00	.00	.00	.00	.00	200	275	315	191	267	277
14	260	.00	.00	.00	.00	.00	190	202	330	188	281	256
15	270	.00	.00	.00	.00	.00	195	189	334	174	270	269
16	260	.00	.00	.00	.00	.00	190	233	317	157	231	262
17	250	.00	.00	.00	.00	.00	187	295	268	152	214	253
18	240	.00	.00	.00	.00	.00	185	321	226	145	197	241
19	230	.00	.00	.00	.00	.00	175	334	202	153	202	221
20	210	.00	.00	.00	.00	.00	160	314	171	168	221	172
21	200	.00	.00	.00	.00	.00	150	318	142	185	226	169
22	220	.00	.00	.00	.00	.00	155	310	130	196	204	185
23	240	.00	.00	.00	.00	.00	158	303	129	259	172	202
24	260	.00	.00	.00	.00	.00	151	288	149	273	162	216
25	270	.00	.00	.00	.00	.00	136	253	181	283	160	224
26	260	.00	.00	.00	.00	.00	152	204	189	286	184	226
27	220	.00	.00	.00	.00	.00	164	193	196	283	202	210
28	88	.00	.00	.00	.00	.00	154	161	233	291	220	208
29	96	.00	.00	.00	---	.00	139	175	241	295	220	206
30	96	.00	.00	.00	---	.00	150	154	235	266	198	223
31	75	---	.00	.00	---	.00	---	123	---	233	196	---
TOTAL	7615	81.60	.00	.00	.00	.00	3816.00	7183	6691	6418	6425	6741
MEAN	246	2.72	.000	.000	.000	.000	127	232	223	207	207	225
MAX	360	56	.00	.00	.00	.00	240	334	334	295	281	281
MIN	75	.00	.00	.00	.00	.00	.00	123	129	145	158	169
AC-FT	15100	162	.00	.00	.00	.00	7570	14250	13270	12730	12740	13370
WTR YR 1983	TOTAL	44970.60	MEAN	123	MAX	360	MIN	.00	AC-FT	89200		

PLATEAU CREEK BASIN

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09105000 PLATEAU CREEK NEAR CAMEO, COLO.

LOCATION.--Lat 39°11'01", long 108°16'06", in NW¼SW¼ sec.18, T.10 S., R.97 W., Mesa County, Hydrologic Unit 14010005, on left bank 300 ft from State Highway 65, 1.1 mi upstream from mouth, and 4.0 mi northeast of Cameo.

DRAINAGE AREA.--592 mi².

PERIOD OF RECORD.--October 1935 to September 1983 (discontinued). Prior to May 1936, monthly discharge only, published in WSP 1313.

REVISED RECORDS.--WSP 979: 1942. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,836 ft, from topographic map. Prior to Aug. 27, 1936, nonrecording gage.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation of about 25,000 acres, return flow from irrigated areas, and for power development. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--48 years, 187 ft³/s; 135,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (revised), 5,010 ft³/s June 22, 1983, gage height, 8.51 ft; maximum gage height, 8.59 ft, May 28, 1983; minimum daily discharge, 8.2 ft³/s Aug. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,010 ft³/s at 0200 June 22, gage height, 8.51 ft; maximum gage height, 8.59 ft, May 28; minimum daily, 89 ft³/s Feb. 12.

REVISIONS.--The maximum discharges for the water years 1973 and 1975 have been revised to: 4,550 ft³/s, June 15, 1973, gage height, 7.99 ft, and 3,600 ft³/s July 13, 1975, gage height, 7.50 ft. These figures supersede those published in the reports for 1973 and 1975.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	427	216	132	100	116	147	123	440	3430	2000	390	240
2	288	176	127	100	114	161	115	374	3930	1700	380	230
3	245	145	122	110	107	141	125	373	2770	1500	370	230
4	301	144	118	110	115	133	123	437	2550	1300	370	230
5	293	146	127	110	118	181	113	501	2770	1200	380	230
6	223	150	124	112	115	136	119	530	2260	1100	400	230
7	215	148	137	120	115	121	127	434	2190	1000	450	230
8	216	147	135	112	117	126	129	521	2430	1100	420	220
9	206	196	133	110	123	126	134	779	2450	1100	390	220
10	197	188	139	108	120	136	130	1090	2510	1100	370	210
11	191	241	138	100	109	147	140	1240	2560	980	350	200
12	189	184	123	100	89	153	142	736	3700	800	330	190
13	182	171	129	100	93	154	127	662	2750	650	320	190
14	181	163	137	100	94	262	104	527	1710	531	310	180
15	176	156	122	100	92	247	102	510	1420	502	310	170
16	174	162	135	108	94	171	105	697	1620	466	310	166
17	172	161	127	118	92	166	114	702	1960	410	310	166
18	166	160	115	120	90	157	142	599	2270	355	320	168
19	152	178	102	117	100	153	203	718	3660	361	340	170
20	134	159	111	117	95	142	245	729	3800	349	350	167
21	133	157	115	114	93	121	261	702	3960	366	320	172
22	129	149	114	96	100	126	253	1060	4060	419	300	174
23	129	143	117	94	104	125	262	1160	3900	561	300	174
24	128	123	116	101	108	126	405	1540	3900	475	290	194
25	128	139	99	119	120	131	594	2100	4100	616	280	201
26	128	127	97	118	112	122	518	2720	4000	491	270	202
27	263	119	95	117	105	116	425	3070	3700	464	270	198
28	191	118	94	120	121	118	396	2700	3500	440	250	194
29	159	129	93	119	---	118	391	2630	2900	420	230	195
30	163	128	90	118	---	112	519	3100	2500	420	230	212
31	193	---	94	116	---	122	---	3460	---	400	250	---
TOTAL	6072	4723	3657	3404	2971	4497	6686	36841	89260	23576	10160	5953
MEAN	196	157	118	110	106	145	223	1188	2975	761	328	198
MAX	427	241	139	120	123	262	594	3460	4100	2000	450	240
MIN	128	118	90	94	89	112	102	373	1420	349	230	166
AC-FT	12040	9370	7250	6750	5890	8920	13260	73070	177000	46760	20150	11810

CAL YR 1982 TOTAL 80698 MEAN 221 MAX 1010 MIN 55 AC-FT 160100
WTR YR 1983 TOTAL 197800 MEAN 542 MAX 4100 MIN 89 AC-FT 392300

NOTE.--NO GAGE-HEIGHT RECORD JULY 28 TO SEPT. 14.

COLORADO RIVER BASIN

09106104 KIEFER EXTENSION GRAND VALLEY CANAL NEAR FRUITA, CO

LOCATION.--Lat 39°13'31", long 108°46'28", in SW¼SW¼ sec.24, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 300 ft upstream from small timber bridge, 1,050 ft upstream from Golden Hill Canal headgate, 1,100 ft north of O Road, and 5.0 mi north of Fruita.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,595 ft, from topographic map.

REMARKS.--Records good. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in Reed Wash basin. Entire flow is regulated by diversion gates. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 153 ft³/s, Sept. 22, 1980, Aug. 28, 1982; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	125	127	.00	.00	.00	.00	.00	125	147	131	128	124
2	125	134	.00	.00	.00	.00	.00	126	143	131	130	127
3	126	133	.00	.00	.00	.00	.00	121	144	132	133	130
4	126	130	.00	.00	.00	.00	.00	121	146	131	137	134
5	125	130	.00	.00	.00	.00	.00	124	148	123	135	135
6	125	126	.00	.00	.00	.00	.00	125	144	120	135	138
7	123	124	.00	.00	.00	.00	70	125	145	120	131	139
8	125	113	.00	.00	.00	.00	135	125	148	125	132	139
9	126	18	.00	.00	.00	.00	124	125	150	121	132	137
10	126	.00	.00	.00	.00	.00	122	128	150	121	137	138
11	125	.00	.00	.00	.00	.00	117	135	147	120	135	139
12	122	.00	.00	.00	.00	.00	119	135	146	123	136	140
13	120	.00	20	.00	.00	.00	118	133	145	121	137	141
14	120	.00	105	.00	.00	.00	116	132	147	126	133	135
15	118	.00	100	.00	.00	.00	116	137	144	128	135	135
16	119	.00	100	.00	.00	.00	114	143	147	126	134	134
17	119	.00	99	.00	.00	.00	111	147	147	123	129	132
18	117	.00	99	.00	.00	.00	116	140	142	123	127	130
19	117	.00	99	.00	.00	.00	127	137	139	123	133	129
20	117	.00	99	.00	.00	.00	127	134	132	121	134	131
21	115	.00	45	.00	.00	.00	121	134	129	123	135	134
22	116	.00	.00	.00	.00	.00	122	136	129	122	137	133
23	125	.00	.00	.00	.00	.00	124	136	133	112	135	130
24	125	.00	.00	.00	.00	.00	117	135	138	124	134	128
25	126	.00	.00	.00	.00	.00	117	139	131	132	129	127
26	125	.00	.00	.00	.00	.00	114	135	124	133	131	128
27	129	.00	.00	.00	.00	.00	115	131	134	135	130	125
28	130	.00	.00	.00	.00	.00	122	135	135	133	124	124
29	105	.00	.00	.00	---	.00	124	135	136	137	129	126
30	111	.00	.00	.00	---	.00	125	139	134	132	128	129
31	128	---	.00	.00	---	.00	---	144	---	124	124	---
TOTAL	3781	1035.00	766.00	.00	.00	.00	2833.00	4117	4224	3896	4099	3971
MEAN	122	34.5	24.7	.000	.000	.000	94.4	133	141	126	132	132
MAX	130	134	105	.00	.00	.00	135	147	150	137	137	141
MIN	105	.00	.00	.00	.00	.00	.00	121	124	112	124	124
AC-FT	7500	2050	1520	.00	.00	.00	5620	8170	8380	7730	8130	7880
CAL YR 1982	TOTAL	29647.00	MEAN 81.2	MAX 153	MIN .00	AC-FT 58800						
WTR YR 1983	TOTAL	28722.00	MEAN 78.7	MAX 150	MIN .00	AC-FT 56970						

COLORADO RIVER BASIN

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09106108 KIEFER EXTENSION GRAND VALLEY CANAL NEAR LOMA, CO

LOCATION.--Lat 39°13'40", long 108°49'06", in NW¼SE¼ sec.21, T.2 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on left bank 600 ft south of 'O' Road, 1,800 ft west of 13 Road, and 2.5 mi north of Loma.

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

GAGE.--Water-stage recorder. Altitude of gage is 4,585 ft, from topographic map.

REMARKS.--Records good. Grand Valley Canal diverts water from Colorado River in SE¼NE¼ sec.3, T.1 S., R.2 E. Water flowing past this gage is used for irrigation in lower Reed Wash basin. Surplus flows are wasted into Reed Wash. Entire flow regulated by diversion gages. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 88 ft³/s, June 7, 8, July 25 1982; no flow part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59	66	.00	.00	.00	.00	.00	72	79	75	74	78
2	59	69	.00	.00	.00	.00	.00	71	81	75	75	76
3	60	66	.00	.00	.00	.00	.00	69	82	75	75	76
4	61	63	.00	.00	.00	.00	.00	69	83	75	75	78
5	62	63	.00	.00	.00	.00	.00	72	82	71	72	78
6	62	62	.00	.00	.00	.00	.00	73	81	69	69	76
7	62	62	.00	.00	.00	.00	30	74	80	67	68	72
8	60	54	.00	.00	.00	.00	60	73	79	73	70	73
9	62	7.0	.00	.00	.00	.00	55	73	80	73	71	72
10	64	.00	.00	.00	.00	.00	55	74	80	74	78	73
11	64	.00	.00	.00	.00	.00	52	81	79	73	78	74
12	64	.00	.00	.00	.00	.00	53	81	79	73	80	74
13	62	.00	10	.00	.00	.00	51	79	78	72	78	74
14	65	.00	60	.00	.00	.00	53	79	77	74	78	70
15	62	.00	56	.00	.00	.00	55	83	79	74	78	72
16	63	.00	56	.00	.00	.00	54	87	81	71	77	71
17	63	.00	55	.00	.00	.00	52	80	82	71	74	70
18	63	.00	55	.00	.00	.00	56	75	79	72	70	68
19	62	.00	55	.00	.00	.00	62	73	77	72	70	68
20	64	.00	55	.00	.00	.00	65	72	77	72	71	69
21	66	.00	20	.00	.00	.00	70	73	77	75	75	70
22	67	.00	.00	.00	.00	.00	67	75	77	74	74	70
23	70	.00	.00	.00	.00	.00	67	73	77	69	70	68
24	70	.00	.00	.00	.00	.00	64	72	77	71	70	67
25	69	.00	.00	.00	.00	.00	63	76	77	75	72	66
26	67	.00	.00	.00	.00	.00	62	77	67	75	73	68
27	67	.00	.00	.00	.00	.00	64	75	70	76	76	66
28	68	.00	.00	.00	.00	.00	72	75	73	74	76	66
29	64	.00	.00	.00	---	.00	72	75	75	75	79	66
30	62	.00	.00	.00	---	.00	75	79	75	77	82	68
31	64	---	.00	.00	---	.00	---	79	---	74	79	---
TOTAL	1977	512.00	422.00	.00	.00	.00	1429.00	2339	2340	2266	2307	2137
MEAN	63.8	17.1	13.6	.000	.000	.000	47.6	75.5	78.0	73.1	74.4	71.2
MAX	70	69	60	.00	.00	.00	75	87	83	77	82	78
MIN	59	.00	.00	.00	.00	.00	.00	69	67	67	68	66
AC-FT	3920	1020	837	.00	.00	.00	2830	4640	4640	4490	4580	4240
CAL YR 1982	TOTAL	16394.00	MEAN	44.9	MAX	88	MIN	.00	AC-FT	32520		
WTR YR 1983	TOTAL	15729.00	MEAN	43.1	MAX	87	MIN	.00	AC-FT	31200		

GUNNISON RIVER BASIN

09108500 TAYLOR PARK RESERVOIR AT TAYLOR PARK, CO

LOCATION.--Lat 38°49'07", long 106°36'24", Gunnison County, Hydrologic Unit 14020001, at dam on Taylor River just downstream from Taylor Park, 16 mi northeast of Almont.

DRAINAGE AREA.--254 mi².

PERIOD OF RECORD.--October 1937 to current year. Prior to October 1938, published in WSP 1313.

REVISED RECORDS.-- WSP 1089: 1940(M), 1942(M), 1945-46. WSP 1924: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,187 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations NGVD.

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 furnished 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, 108,000 acre-ft, July 22-24, elevation, 9,330.90 ft; minimum 38,000 acre-ft, May 7, 8, elevation, 9,285.50 ft.

MONTHEND ELEVATION IN FEET NGVD AND CONTENTS, AT 1800, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

Date	Elevation	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30.	9,318.80	84,800	-
Oct. 31.	9,312.30	73,600	-11,200
Nov. 30.	9,312.10	73,300	-300
Dec. 31.	9,311.10	71,700	-1,600
CAL YR 1982			+25,300
Jan. 31.	9,309.70	69,400	-2,300
Feb. 28.	9,308.30	67,200	-2,200
Mar. 31.	9,300.40	55,700	-11,500
Apr. 30.	9,287.40	40,000	-15,700
May 31.	9,291.70	44,700	+4,700
June 30.	9,321.40	89,500	+44,800
July 31.	9,330.70	108,000	+18,500
Aug. 31.	9,325.50	97,500	-10,500
Sept. 30.	9,316.40	80,500	-17,000
WTR YR 1983			-4,300

09109000 TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO

LOCATION.--Lat 38°49'06", long 106°36'31", Gunnison County, Hydrologic Unit 14020001, on left bank 1,000 ft downstream from Taylor Park Reservoir Dam, 3.4 mi upstream from Lottis Creek, and 17 mi northeast of Almont.

DRAINAGE AREA.--254 mi².

PERIOD OF RECORD.--June 1929 to September 1934 (monthly discharges only, published in WSP 1313), October 1938 to current year.

REVISED RECORDS.--WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 9,169.67 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation). Prior to Nov. 11, 1952, at site 1,600 ft downstream, at datum 1.00 ft, lower. Oct. 15, 1946, to May 4, 1952, supplementary nonrecording gage just downstream from reservoir outlet at different sites and datums used during winter months.

REMARKS.--Records good, except those for winter period, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500) since 1937. One small diversion for irrigation from Willow Creek above reservoir. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--5 years (water years 1930-34), 156 ft³/s; 113,000 acre-ft/yr; 45 years (water years 1939-83), 192 ft³/s; 139,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,270 ft³/s July 1, 1957, gage height, 7.56 ft; no flow May 1 to July 3, 1940, May 7-22, 1942, May 5-21, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 484 ft³/s at 1700 Aug. 16, gage height, 4.65 ft; minimum daily, 36 ft³/s July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	291	73	102	102	104	107	330	303	202	36	429	463
2	283	108	102	102	104	107	330	303	208	48	402	446
3	327	107	102	102	104	107	330	301	208	52	421	434
4	414	109	102	102	106	107	330	299	208	58	433	430
5	428	110	102	102	106	107	330	289	208	60	444	429
6	449	111	102	102	106	107	320	220	205	58	458	451
7	460	113	102	102	106	107	320	195	208	57	449	446
8	457	115	102	102	106	107	320	197	205	47	429	441
9	458	106	100	102	106	128	320	197	200	49	426	444
10	460	106	100	102	106	172	320	199	198	57	421	453
11	460	106	100	102	106	218	320	199	182	57	418	455
12	460	106	100	102	106	260	330	199	182	48	442	451
13	452	106	100	102	106	298	330	197	200	49	449	440
14	452	106	100	102	106	310	320	198	208	100	461	431
15	445	104	100	104	106	310	320	197	206	230	469	418
16	447	104	100	104	106	310	320	197	192	302	471	412
17	451	104	100	104	106	310	320	193	188	342	481	416
18	456	104	100	104	106	310	320	194	185	358	477	422
19	459	104	100	104	106	310	340	200	192	373	471	427
20	460	104	100	104	106	310	352	200	198	372	454	427
21	415	104	100	104	106	310	353	200	198	374	452	443
22	314	104	100	104	106	310	350	200	202	404	456	433
23	198	104	100	104	106	310	350	200	205	425	459	408
24	86	104	102	104	106	310	350	198	163	430	456	400
25	50	104	102	104	106	310	345	198	42	387	448	403
26	53	104	102	104	107	310	316	200	43	390	449	407
27	48	102	102	104	107	310	304	198	44	420	452	407
28	52	102	102	104	107	310	300	200	46	408	455	389
29	52	102	102	104	---	310	300	198	49	385	458	378
30	54	102	102	104	---	320	302	200	51	406	463	373
31	55	---	102	104	---	330	---	202	---	411	464	---
TOTAL	9946	3138	3132	3196	2965	7542	9792	6671	5026	7193	13917	12777
MEAN	321	105	101	103	106	243	326	215	168	232	449	426
MAX	460	115	102	104	107	330	353	303	208	430	481	463
MIN	48	73	100	102	104	107	300	193	42	36	402	373
AC-FT	19730	6220	6210	6340	5880	14960	19420	13230	9970	14270	27600	25340

CAL YR 1982 TOTAL 68831 MEAN 189 MAX 460 MIN 48 AC-FT 136500
WTR YR 1983 TOTAL 85295 MEAN 234 MAX 481 MIN 36 AC-FT 169200

NOTE.--NO GAGE-HEIGHT RECORD NOV. 9 TO APR. 19.

GUNNISON RIVER BASIN

09110000 TAYLOR RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'41", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 15 ft downstream from bridge on State Highway 306, and 800 ft upstream from confluence with East River.

DRAINAGE AREA.--477 mi².

PERIOD OF RECORD.--July 1910 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1911. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,010.76 ft, National Geodetic Vertical Datum of 1929. Prior to Apr. 16, 1922, nonrecording gage at same site and datum.

REMARKS.--Records good except those for winter period, which are poor. Flow partly regulated since September 1937 by Taylor Park Reservoir (station 09108500), 24 mi above station. Diversions for irrigation of about 360 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--73 years, 333 ft³/s; 241,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 3,760 ft³/s June 9, 1920, gage height, 5.00 ft, from rating curve extended above 2,300 ft³/s; maximum gage height, 5.32 ft, July 1, 1957; minimum discharge observed before storage began in Taylor Park Reservoir, 50 ft³/s for several days in August 1913, gage height, 1.2 ft; minimum daily, 24 ft³/s Mar. 12, 1938.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,080 ft³/s at 0330 June 20, gage height, 3.37 ft; minimum daily, 115 ft³/s Oct. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	368	121	150	150	150	160	363	340	671	477	629	538
2	336	160	150	150	140	160	368	341	674	468	594	515
3	354	155	150	150	130	160	371	342	639	458	635	489
4	479	160	150	155	150	160	366	354	644	437	672	493
5	494	161	150	155	140	150	366	366	658	416	653	487
6	514	161	150	155	140	140	357	320	638	400	678	483
7	527	161	150	155	145	140	358	276	631	390	689	488
8	532	170	150	155	150	140	343	301	691	353	635	489
9	526	175	150	155	155	170	348	340	718	337	608	482
10	526	175	150	155	160	240	353	375	723	323	591	484
11	532	170	150	155	160	265	375	389	722	317	590	499
12	527	160	150	155	160	275	376	338	783	285	641	478
13	517	160	150	155	160	290	374	331	734	273	655	480
14	500	160	150	155	160	310	368	318	678	299	628	524
15	519	155	150	155	160	330	367	310	682	404	638	500
16	518	155	150	155	160	340	368	311	713	510	624	463
17	512	155	150	155	160	340	369	297	719	568	619	458
18	511	155	150	155	160	340	373	293	812	600	606	474
19	509	160	150	155	160	330	378	305	926	628	598	471
20	507	160	150	155	150	320	380	299	953	620	595	465
21	473	160	150	155	150	330	378	302	935	627	586	461
22	377	150	150	155	160	340	375	347	916	669	579	473
23	269	150	150	155	160	350	380	395	874	687	571	453
24	177	150	150	155	160	350	396	428	862	697	563	458
25	123	152	155	155	160	340	406	469	711	617	565	464
26	123	150	140	155	160	340	385	489	672	607	564	464
27	126	150	150	155	160	360	355	514	662	684	582	470
28	118	152	150	160	160	360	346	552	583	646	578	473
29	115	152	150	160	---	360	344	593	541	598	565	464
30	124	152	150	160	---	355	345	692	513	581	564	483
31	123	---	150	160	---	365	---	686	---	582	553	---
TOTAL	11956	4707	4645	4810	4320	8610	11031	12013	21678	15558	18848	14423
MEAN	386	157	150	155	154	278	368	388	723	502	608	481
MAX	532	175	155	160	160	365	406	692	953	697	689	538
MIN	115	121	140	150	130	140	343	276	513	273	553	453
AC-FT	23710	9340	9210	9540	8570	17080	21880	23830	43000	30860	37380	28610
CAL YR 1982	TOTAL	113276	MEAN	310	MAX	719	MIN	115	AC-FT	224700		
WTR YR 1983	TOTAL	132599	MEAN	363	MAX	953	MIN	115	AC-FT	263000		

NOTE.--NO GAGE-HEIGHT RECORD NOV. 8 TO MAR.30.

GUNNISON RIVER BASIN

209

09112500 EAST RIVER AT ALMONT, CO

LOCATION.--Lat 38°39'52", long 106°50'51", in NW¼SE¼ sec.22, T.51 N., R.1 E., Gunnison County, Hydrologic Unit 14020001, on left bank at Almont, 200 ft upstream from bridge on State Highway 135, and 400 ft upstream from confluence with Taylor River.

DRAINAGE AREA.--289 mi².

PERIOD OF RECORD.--April to October 1905, July 1910 to September 1922, October 1934 to current year. Monthly discharges only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1911. WSP 1733: 1952. WSP 1924: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,006.29 ft, National Geodetic Vertical Datum of 1929. Apr. 16 to Sept. 30, 1905, and July 27, 1910, to Apr. 30, 1922, nonrecording gages at bridge 200 ft downstream, at different datums. Oct. 1, 1934, to Sept. 22, 1954, water-stage recorder at present site at datum 2.00 ft, higher.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are fair. Diversions for irrigation of about 7,400 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--61 years (water years 1911-22, 1935-83), 336 ft³/s; 243,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 6,500 ft³/s June 15, 1921, gage height, 6.6 ft, site and datum then in use, from rating curve extended above 3,000 ft³/s; minimum daily, 19 ft³/s, Aug. 13, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,650 ft³/s at 1000 June 25, gage height, 6.61 ft, only peak above base of 1,600 ft³/s; minimum daily, 56 ft³/s, Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	252	138	100	74	64	68	71	169	1770	1570	582	204
2	242	125	94	72	60	67	70	160	1670	1460	538	195
3	231	108	81	72	56	63	76	163	1530	1460	545	190
4	226	118	86	72	53	64	68	175	1540	1350	571	190
5	211	120	88	74	60	66	65	202	1580	1330	665	186
6	196	118	88	74	60	66	68	226	1440	1310	616	174
7	184	117	88	74	60	63	68	202	1420	1360	622	167
8	179	124	86	78	62	66	70	236	1510	1520	536	163
9	171	121	86	76	62	63	74	317	1550	1470	477	162
10	165	116	84	74	62	67	72	452	1690	1480	440	158
11	172	121	81	74	62	70	72	553	1790	1340	410	151
12	157	108	80	76	62	78	72	480	1870	1140	412	144
13	160	105	80	74	62	76	71	436	1630	1060	426	135
14	149	105	82	76	64	80	68	371	1320	1000	379	134
15	152	98	78	74	62	78	70	336	1290	951	361	141
16	148	103	88	74	63	69	71	302	1400	859	342	137
17	147	108	84	76	64	71	74	286	1510	853	316	133
18	141	112	82	76	64	73	78	271	1740	829	315	130
19	137	113	82	76	65	72	93	277	2070	848	300	127
20	132	106	82	75	64	70	89	277	2300	833	295	129
21	128	113	85	72	63	65	93	319	2300	830	278	123
22	127	105	87	72	65	71	93	435	2200	805	264	121
23	122	107	85	70	64	74	105	566	2120	804	261	120
24	119	90	82	70	64	72	129	730	2150	688	239	120
25	120	99	76	72	67	70	157	928	2490	634	235	118
26	129	96	75	72	70	71	181	1090	2360	720	229	112
27	145	98	78	70	69	65	196	1370	2130	620	231	110
28	131	94	78	66	69	72	193	1660	1880	595	216	107
29	121	100	78	64	---	71	190	1770	1740	539	206	106
30	144	99	76	62	---	70	181	1980	1650	533	212	111
31	139	---	76	60	---	76	---	1970	---	515	203	---
TOTAL	4977	3285	2576	2241	1767	2167	2978	18709	53640	31306	11722	4298
MEAN	161	110	83.1	72.3	63.1	69.9	99.3	604	1788	1010	378	143
MAX	252	138	100	78	70	80	196	1980	2490	1570	665	204
MIN	119	90	75	60	56	63	65	160	1290	515	203	106
AC-FT	9870	6520	5110	4450	3500	4300	5910	37110	106400	62100	23250	8530
CAL YR 1982	TOTAL	128042	MEAN	351	MAX	1780	MIN	45	AC-FT	254000		
WTR YR 1983	TOTAL	139666	MEAN	383	MAX	2490	MIN	56	AC-FT	277000		

GUNNISON RIVER BASIN

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. Altitude of gage is 7,655 ft, 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.--Records good except those for winter period and those for periods of no gage-height record, which are poor. Flow regulated by Taylor Park Reservoir (station 09108500), 37 mi above station. Diversions for irrigation of about 22,000 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--57 years (water years 1911-28, 1945-83), 754 ft³/s; 546,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 11,400 ft³/s June 13, 1918, gage height, 4.05 ft, site and datum then in use, from rating curve extended above 5,000 ft³/s; minimum daily, 80 ft³/s Dec. 27, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,080 ft³/s at 0645 June 20, gage height, 4.13 ft; minimum daily, 210 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	699	322	260	270	290	290	420	627	3020	2520	1350	807
2	672	315	260	270	270	270	380	609	2940	2330	1270	780
3	654	301	220	270	210	240	460	609	2690	2290	1340	744
4	753	315	230	270	250	260	400	645	2610	2100	1390	744
5	771	322	230	270	250	270	360	690	2690	2010	1430	735
6	762	322	230	270	230	280	380	654	2570	1940	1390	726
7	771	329	230	290	240	250	400	558	2480	2010	1410	726
8	789	336	230	300	250	270	420	645	2590	2220	1290	708
9	780	322	230	300	260	238	460	780	2760	2110	1210	690
10	771	301	240	290	260	294	450	930	2940	2130	1160	681
11	771	322	240	310	270	343	450	1100	3060	2060	1100	681
12	762	308	260	300	240	382	440	950	3240	1670	1150	672
13	753	301	280	300	250	456	430	900	2980	1570	1230	663
14	717	315	290	320	260	481	390	816	2460	1480	1150	645
15	735	301	280	310	250	480	430	726	2350	1510	1120	645
16	735	280	329	310	230	400	450	654	2500	1470	1070	636
17	726	300	274	320	240	440	470	600	2670	1470	1050	618
18	726	300	268	330	240	460	520	549	3100	1470	1040	609
19	708	300	270	310	240	420	580	558	3700	1550	992	600
20	699	290	260	310	250	380	520	549	3820	1520	981	592
21	690	280	280	310	230	360	524	592	3760	1580	950	575
22	618	270	280	310	250	440	541	771	3640	1620	920	575
23	515	290	290	300	240	460	575	940	3580	1670	930	549
24	406	260	280	290	240	430	645	1190	3600	1540	870	549
25	308	250	270	310	280	400	726	1500	3840	1430	870	541
26	308	260	260	290	280	400	726	1760	3780	1540	861	541
27	336	250	300	300	300	340	690	2170	3520	1500	870	532
28	322	240	290	300	300	400	645	2670	3140	1410	852	524
29	274	260	280	290	---	380	663	2920	2900	1300	816	524
30	329	260	280	270	---	380	654	3340	2690	1240	843	532
31	329	---	270	270	---	480	---	3400	---	1240	816	---
TOTAL	19189	8822	8191	9160	7100	11374	15199	35402	91620	53500	33721	19144
MEAN	619	294	264	295	254	367	507	1142	3054	1726	1088	638
MAX	789	336	329	330	300	481	726	3400	3840	2520	1430	807
MIN	274	240	220	270	210	238	360	549	2350	1240	816	524
AC-FT	38060	17500	16250	18170	14080	22560	30150	70220	181700	106100	66890	37970

CAL YR 1982 TOTAL 273973 MEAN 751 MAX 2880 MIN 180 AC-FT 543400
WTR YR 1983 TOTAL 312422 MEAN 856 MAX 3840 MIN 210 AC-FT 619700

NOTE.--NO GAGE-HEIGHT RECORD, NOV. 16 TO DEC. 15, DEC. 19 TO MAR 8, MAR. 15 TO APR. 20.

GUNNISON RIVER BASIN

211

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. Altitude of gage is 8,470 ft, from topographic map.

REMARKS.--Records good except those for for winter period, which are poor. Diversions for irrigation of hay meadows above station. Transmountain diversion by Tarbell ditch exports water above station to Saguache Creek, since 1913. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 388 ft³/s May 31, 1983, gage height, 3.65 ft; maximum gage height, 4.12 ft, May 10, 1983, (backwater from ice); minimum daily discharge, 8.4 ft³/s Feb. 7, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 388 ft³/s at 2300 May 31, gage height, 3.65 ft, maximum gage height, 4.12 ft, May 10 (backwater from ice); minimum daily discharge, 12 ft³/s, Feb. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	65	35	21	13	21	30	57	320	189	64	72
2	96	60	32	21	12	22	30	47	270	182	70	68
3	90	50	27	22	12	24	29	48	258	173	69	70
4	86	51	30	22	13	23	28	53	205	162	78	72
5	81	53	31	22	13	22	28	65	185	141	76	66
6	76	53	32	22	13	21	25	79	180	118	89	60
7	72	54	32	22	14	21	25	66	176	109	92	59
8	72	57	32	21	15	24	26	82	180	105	78	58
9	71	58	32	20	15	27	27	128	189	103	68	58
10	67	59	32	19	16	30	28	150	185	98	63	57
11	75	61	29	20	16	30	31	140	164	107	60	56
12	72	55	29	19	15	29	30	140	185	94	67	53
13	81	54	30	20	16	29	29	134	220	87	75	51
14	74	55	28	20	17	32	28	119	203	82	88	49
15	75	51	28	18	16	31	27	101	158	79	95	49
16	77	54	28	18	17	29	27	91	154	77	72	47
17	76	54	28	19	18	28	28	75	149	76	65	44
18	73	54	27	18	18	28	32	55	156	68	62	45
19	71	52	26	17	19	27	42	52	178	71	62	46
20	68	50	25	16	16	26	51	53	223	56	61	48
21	64	46	27	16	16	25	49	52	250	54	64	46
22	64	45	27	16	17	27	47	52	259	66	64	44
23	65	45	27	14	18	28	54	55	258	70	70	42
24	63	44	26	14	19	28	81	61	256	68	76	45
25	63	40	25	14	20	30	140	94	270	56	93	46
26	63	39	23	15	20	28	130	120	260	61	80	46
27	63	37	25	15	20	28	97	146	253	63	75	46
28	61	33	23	14	20	26	68	183	258	65	76	42
29	55	34	22	14	---	26	71	203	214	59	77	42
30	67	35	21	15	---	28	77	253	194	58	88	43
31	67	---	21	14	---	34	---	342	---	62	80	---
TOTAL	2250	1498	860	558	454	832	1415	3296	6410	2854	2297	1570
MEAN	72.6	49.9	27.7	18.0	16.2	26.8	47.2	106	214	92.1	74.1	52.3
MAX	102	65	35	22	20	34	140	342	320	189	95	72
MIN	55	33	21	14	12	21	25	47	149	54	60	42
AC-FT	4460	2970	1710	1110	901	1650	2810	6540	12710	5660	4560	3110
CAL YR 1982	TOTAL	15307.8	MEAN	41.9	MAX	136	MIN	8.4	AC-FT	30360		
WTR YR 1983	TOTAL	24294.0	MEAN	66.6	MAX	342	MIN	12	AC-FT	48190		

GUNNISON RIVER BASIN

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.

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.

GAGE.--Water-stage recorder. Datum of gage is 7,628.58 ft, National Geodetic Vertical Datum of 1929. Nov. 25 to Dec. 24, 1910, nonrecording gage 300 ft upstream at different datum. Apr. 20, 1938, to Oct. 2, 1940, water-stage recorder at present site at datum 1.00 ft, higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 24,000 acres above station. Water diverted above station by Larkspur ditch to Arkansas River basin since 1935 and by Tarbell ditch to Rio Grande basin since 1914. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--46 years (water years 1938-83), 167 ft³/s; 121,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,900 ft³/s June 8, 1957, gage height, 4.10 ft; maximum gage height, 4.40 ft, June 1, 1983; minimum daily discharge, 2.6 ft³/s Sept. 30, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 ft³/s at 2100 June 1, gage height, 4.40 ft; minimum daily, 40 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	226	168	120	64	50	86	119	248	1470	922	429	209
2	247	159	110	64	45	92	107	204	1430	817	389	197
3	230	138	100	64	40	100	120	185	1250	730	478	193
4	217	120	110	62	46	100	106	195	1170	680	397	192
5	210	137	110	60	48	94	96	202	1050	605	401	184
6	200	149	110	60	48	88	100	214	998	544	389	169
7	192	148	110	62	52	98	107	207	974	508	409	160
8	190	161	110	62	54	105	100	189	971	511	369	158
9	194	168	110	60	54	110	102	236	998	510	328	151
10	189	159	110	56	54	130	107	282	1100	496	303	144
11	187	162	110	58	56	140	115	346	1100	519	286	143
12	196	133	110	56	54	130	113	351	1040	453	309	138
13	188	123	120	58	58	130	112	317	1110	397	305	132
14	186	126	120	58	60	150	106	306	1140	385	307	126
15	182	121	110	56	60	140	101	303	1040	373	331	122
16	183	121	110	56	64	130	105	285	953	365	295	115
17	184	128	110	56	66	120	109	272	926	353	257	113
18	177	130	100	54	68	120	121	239	952	342	250	109
19	172	125	96	52	64	110	159	212	1060	345	243	105
20	166	120	88	50	60	110	180	201	1220	391	243	110
21	163	120	92	50	64	96	204	169	1340	357	239	112
22	160	120	94	50	68	110	195	161	1360	385	235	110
23	157	120	90	46	72	100	198	181	1340	433	231	110
24	158	110	82	46	78	96	239	202	1350	405	231	112
25	158	110	74	46	80	96	324	267	1390	381	245	114
26	163	110	70	45	74	98	376	383	1400	393	251	110
27	169	110	74	48	74	96	337	489	1400	474	236	104
28	167	110	72	49	80	110	281	597	1300	445	239	105
29	143	110	70	48	---	104	257	744	1240	393	233	110
30	156	120	66	47	---	110	256	933	1070	373	235	115
31	173	---	66	50	---	123	---	1240	---	345	230	---
TOTAL	5683	3936	3024	1693	1691	3422	4952	10360	35142	14630	9323	4072
MEAN	183	131	97.5	54.6	60.4	110	165	334	1171	472	301	136
MAX	247	168	120	64	80	150	376	1240	1470	922	478	209
MIN	143	110	66	45	40	86	96	161	926	342	230	104
AC-FT	11270	7810	6000	3360	3350	6790	9820	20550	69700	29020	18490	8080

CAL YR 1982 TOTAL 64136 MEAN 176 MAX 671 MIN 36 AC-FT 127200
WTR YR 1983 TOTAL 97928 MEAN 268 MAX 1470 MIN 40 AC-FT 194200

NOTE.--NO GAGE-HEIGHT RECORD NOV. 23 TO MAR. 29.

09123400 LAKE FORK BELOW MILL GULCH, NEAR LAKE CITY, CO

LOCATION.--Lat 37°54'23", long 107°23'03", Hinsdale County, Hydrologic Unit 14020002, on left bank 2,000 ft downstream from Mill Gulch, 1,000 ft upstream from Bent Creek and 8.5 mi southwest of Lake City.

DRAINAGE AREA.--57.5 mi².

PERIOD OF RECORD.--October 1981 to Current Year.

GAGE.--Water-stage recorder. Altitude of gage is 9,400 ft, from topographic map.

REMARKS.--Records good except those for period of no gage-height record and those for winter period, which are poor. No regulation or diversions above station. Several observations of water temperature and specific conductance were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 853 ft³/s June 20, 1983, gage height, 6.22 ft; maximum gage height, 8.47 ft, Apr. 8, 1982 (backwater from ice); minimum daily discharge, 6.5 ft³/s Mar. 22, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 853 ft³/s at 0200 June 20, gage height, 6.22 ft, minimum daily, 6.6 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	27	15	8.8	7.2	7.2	7.6	12	296	240	213	49
2	76	22	15	8.8	6.9	7.2	7.4	13	253	264	189	56
3	75	17	13	9.0	6.6	7.2	7.6	13	193	328	198	52
4	70	18	14	9.0	7.0	7.2	8.5	14	223	375	182	55
5	68	19	14	9.0	7.1	7.2	8.0	16	245	370	185	48
6	63	19	14	9.2	6.8	7.2	7.8	18	257	346	223	44
7	60	20	14	9.4	7.0	7.1	7.8	19	267	370	237	42
8	58	21	14	9.4	7.2	6.9	7.4	24	311	370	242	48
9	53	21	14	9.2	7.2	7.2	7.2	35	258	375	202	41
10	49	21	14	8.8	7.4	6.9	7.2	49	233	355	168	39
11	51	20	14	9.2	7.3	7.3	7.2	58	372	318	146	38
12	46	18	13	9.2	7.0	7.6	7.2	47	409	300	133	35
13	47	18	13	8.8	7.3	7.6	7.2	47	261	274	122	33
14	45	18	14	9.2	7.2	7.6	7.2	40	201	252	144	31
15	44	17	14	8.8	7.2	7.6	7.2	36	240	236	127	31
16	44	16	13	8.6	7.2	7.6	7.6	35	343	228	110	29
17	41	16	12	8.8	7.2	7.4	8.1	31	490	206	97	28
18	40	16	12	9.0	7.2	7.6	7.9	29	567	206	90	27
19	37	16	11	8.2	6.9	7.4	8.5	30	528	199	84	27
20	36	17	11	8.2	6.8	7.0	8.3	29	444	170	75	30
21	34	17	11	8.2	6.8	7.0	8.3	28	524	212	69	27
22	33	17	11	8.0	6.8	7.6	8.5	37	418	268	63	25
23	32	17	11	7.8	6.8	8.0	9.1	58	475	249	60	26
24	31	18	11	7.2	7.0	7.8	9.7	90	528	212	62	25
25	31	17	10	7.6	6.7	7.6	11	130	509	210	61	24
26	31	17	9.4	7.6	6.7	7.6	11	186	491	201	59	26
27	31	16	9.8	7.2	7.2	7.4	11	251	450	175	57	24
28	27	16	9.4	7.2	7.1	7.4	12	380	332	156	56	24
29	22	15	9.4	7.1	---	7.6	13	308	467	167	57	23
30	28	15	9.0	7.2	---	7.4	13	281	375	174	56	30
31	28	---	8.8	7.2	---	7.6	---	266	---	178	51	---
TOTAL	1414	542	377.8	260.9	196.8	229.0	259.5	2610	10960	7984	3818	1037
MEAN	45.6	18.1	12.2	8.42	7.03	7.39	8.65	84.2	365	258	123	34.6
MAX	83	27	15	9.4	7.4	8.0	13	380	567	375	242	56
MIN	22	15	8.8	7.1	6.6	6.9	7.2	12	193	156	51	23
AC-FT	2800	1080	749	517	390	454	515	5180	21740	15840	7570	2060
CAL YR 1982	TOTAL	34255.1	MEAN 93.8	MAX 528	MIN 6.5	AC-FT 67940						
WTR YR 1983	TOTAL	29689.0	MEAN 81.3	MAX 567	MIN 6.6	AC-FT 58890						

GUNNISON RIVER BASIN

09124500 LAKE FORK AT GATEVIEW, CO

LOCATION.--Lat 38°17'56", long 107°13'46", in SE¼NE¼ sec.29, T.47 N., R.3 W., Gunnison County, Hydrologic Unit 14020002, on left bank at old village of Gateview, 25 ft downstream from private bridge, 0.2 mi upstream from Indian Creek, and 6.3 mi upstream from waterline of Blue Mesa Reservoir, at elevation 7,519 ft.

DRAINAGE AREA.--334 mi².

PERIOD OF RECORD.--October 1937 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,827.66 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1938, at datum 2.00 ft, higher, and Oct. 1, 1938, to Sept. 30, 1945, at datum 1.00 ft, higher.

REMARKS.--Records good except those for period of no gage-height record and winter period, which are poor. Diversions for irrigation of about 1,600 acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--46 years, 234 ft³/s, 169,500 acre-ft/yr. The figure published in the 1982 report was in error; the correct figure is 45 years, 233 ft³/s, 168,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,720 ft³/s July 10, 1983, gage height, 4.18 ft; minimum daily, 22 ft³/s Jan. 21, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,720 ft³/s at 1600 July 10, gage height, 4.18 ft, only peak above base of 1,400 ft³/s; minimum daily, 41 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	239	106	74	50	47	49	68	94	952	1320	645	223
2	220	102	70	50	45	50	64	96	1030	1270	600	224
3	217	84	61	50	41	50	61	98	870	1310	649	218
4	208	92	61	50	44	47	58	100	871	1360	660	211
5	199	95	62	50	44	44	56	110	920	1310	666	199
6	188	91	62	51	43	44	55	130	990	1300	655	183
7	185	85	62	52	45	47	54	150	1000	1380	754	174
8	175	90	62	52	46	49	53	200	1060	1380	738	174
9	165	90	62	51	46	49	53	280	1010	1310	676	173
10	160	92	62	51	47	54	51	380	885	1400	615	162
11	165	95	63	52	48	58	53	450	1040	1120	570	157
12	154	84	60	50	46	56	51	350	1270	1060	547	146
13	157	84	60	52	49	57	51	330	1010	957	497	139
14	149	82	60	52	50	62	50	290	793	913	497	133
15	143	80	59	50	46	62	49	250	730	828	500	131
16	145	88	60	51	47	58	50	190	861	765	445	127
17	142	84	60	52	48	56	53	150	1030	759	406	123
18	139	84	58	52	50	56	59	140	1360	737	374	120
19	132	86	56	52	54	56	70	138	1710	784	349	117
20	125	86	56	48	47	52	77	135	1740	779	321	120
21	122	84	58	48	45	51	77	133	1630	822	298	114
22	121	85	60	48	45	54	77	146	1560	837	277	108
23	118	90	60	46	46	52	75	188	1550	792	256	112
24	116	84	60	47	48	50	78	292	1690	712	251	112
25	114	85	56	48	46	52	78	435	1710	682	250	108
26	114	80	54	47	45	52	80	592	1550	675	274	108
27	115	77	55	47	45	51	88	735	1550	657	242	103
28	108	72	54	48	47	54	98	910	1300	591	244	99
29	99	74	52	48	---	58	100	1030	1310	547	250	97
30	115	74	52	46	---	65	96	1050	1320	579	268	100
31	110	---	51	46	---	69	---	1020	---	537	241	---
TOTAL	4659	2585	1842	1537	1300	1664	1983	10592	36302	29473	14015	4315
MEAN	150	86.2	59.4	49.6	46.4	53.7	66.1	342	1210	951	452	144
MAX	239	106	74	52	54	69	100	1050	1740	1400	754	224
MIN	99	72	51	46	41	44	49	94	730	537	241	97
AC-FT	9240	5130	3650	3050	2580	3300	3930	21010	72000	58460	27800	8560

CAL YR 1982 TOTAL 101116 MEAN 277 MAX 1290 MIN 37 AC-FT 200600
WTR YR 1983 TOTAL 110267 MEAN 302 MAX 1740 MIN 41 AC-FT 218700

NOTE.--NO GAGE-HEIGHT RECORD JAN. 3 TO MAR. 29.

GUNNISON RIVER BASIN

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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.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 8,631.48 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 12, 1972, at site 0.2 mi downstream at different datum.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Diversion above station through Owl Creek ditch into Uncompahgre River basin. Flow regulated by Silver Jack Dam, total capacity, 13,520 acre-ft, 2.1 mi upstream since Dec. 23, 1970. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--16 years (water years 1955-70), 88.6 ft³/s; 64,190 acre-ft/yr, prior to completion of Silver Jack Dam; 13 years (water years 1971-83), 91.9 ft³/s; 66,580 acre-ft/yr, subsequent to completion of Silver Jack Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,790 ft³/s June 28, 1957, gage height, 8.32 ft, site and datum then in use; no flow Dec. 24, 1970, to Jan. 9, 1971 (result of storage in Silver Jack Dam); minimum daily prior to construction of Silver Jack Dam, 8.0 ft³/s Dec. 27, 28, 1962, Jan. 13, 1963; minimum daily, 4.4 ft³/s Apr. 20, 21, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft³/s at 0630 June 24, gage height, 5.60 ft, from maximum stage indicator, minimum daily, 10 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	80	12	12	12	12	15	19	455	762	344	115
2	98	53	12	12	12	12	15	18	709	748	344	109
3	98	33	12	12	10	13	15	18	548	790	344	107
4	123	13	12	12	11	12	14	20	478	833	344	109
5	151	13	12	11	12	13	14	22	508	808	348	102
6	150	13	12	12	12	12	14	21	508	813	348	96
7	148	13	12	12	12	12	14	22	496	894	348	96
8	149	13	12	12	12	12	14	26	520	947	348	96
9	148	13	12	11	12	12	14	33	527	907	348	98
10	148	13	12	11	12	12	15	40	496	882	348	98
11	148	13	11	11	12	13	15	38	625	723	353	98
12	151	13	11	11	11	13	15	33	772	670	359	99
13	150	13	11	11	11	12	15	29	597	599	358	105
14	148	13	11	12	12	13	15	25	450	569	354	111
15	148	12	11	11	13	13	15	22	410	519	291	111
16	148	12	11	11	12	13	15	98	410	487	160	111
17	148	13	11	12	13	13	16	209	460	485	138	113
18	146	13	11	12	13	13	19	209	743	471	150	113
19	145	13	11	11	12	13	19	202	977	537	155	96
20	144	13	11	11	12	14	19	202	957	554	155	22
21	145	12	11	11	11	13	19	209	882	582	155	22
22	145	12	11	11	11	14	19	216	839	499	152	22
23	145	12	11	12	11	14	19	220	864	458	146	26
24	143	12	11	11	12	14	21	226	1060	414	142	24
25	134	12	11	12	12	14	23	230	1050	404	134	25
26	123	12	11	11	12	14	24	234	949	425	124	25
27	128	12	12	12	12	14	21	220	892	418	123	25
28	115	12	12	12	12	14	20	183	806	407	122	26
29	105	12	12	12	---	14	21	177	751	407	122	26
30	105	12	11	12	---	14	21	195	721	393	122	27
31	107	---	11	12	---	15	---	195	---	344	122	---
TOTAL	4185	505	354	358	331	406	515	3611	20460	18749	7401	2253
MEAN	135	16.8	11.4	11.5	11.8	13.1	17.2	116	682	605	239	75.1
MAX	151	80	12	12	13	15	24	234	1060	947	359	115
MIN	96	12	11	11	10	12	14	18	410	344	122	22
AC-FT	8300	1000	702	710	657	805	1020	7160	40580	37190	14680	4470

CAL YR 1982 TOTAL 38530 MEAN 106 MAX 612 MIN 11 AC-FT 76420
WTR YR 1983 TOTAL 59128 MEAN 162 MAX 1060 MIN 10 AC-FT 117300

NOTE.--NO GAGE-HEIGHT RECORD NOV. 15 TO DEC. 16, DEC. 24 TO JAN. 27.

GUNNISON RIVER BASIN

09128000 GUNNISON RIVER BELOW GUNNISON TUNNEL, CO

LOCATION.--Lat 38°31'45", long 107°38'54", in NE¼NW¼ sec.10, T.49 N., R.7 W., Montrose County, Hydrologic Unit 14020002, on left bank 0.4 mi downstream from east portal of Gunnison tunnel, 4.7 mi downstream from Crystal Creek, and 12 mi northeast of Montrose.

DRAINAGE AREA.--3,965 mi².

PERIOD OF RECORD.--October 1903 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at east portal of Gunnison tunnel" 1905-6 and as "at River portal" 1907-11.

REVISED RECORDS.--WSP 1313: 1906(M). WSP 1733: 1918-19, 1948. WSP 2124: Drainage area. WDR CO-77-2: 1926, 1941.

GAGE.--Water-stage recorder. Datum of gage is 6,526.06 ft, National Geodetic Vertical Datum of 1929. Apr. 9, 1905, to Aug. 20, 1915, nonrecording gage at site 300 ft upstream from diversion dam at east portal of Gunnison tunnel, at different datum. Aug. 21, 1915, to Jan. 19, 1943, nonrecording gage at site 500 ft downstream from diversion dam at east portal of Gunnison tunnel, at different datum. Jan. 20, 1943, to Sept. 30, 1956, water-stage recorder at present site at datum 1.0 ft, higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, transbasin diversion through Gunnison tunnel for irrigation of about 75,000 acres in Uncompahgre Valley (see table below for figures of diversion), Taylor Park Reservoir (station 09108500), Blue Mesa Reservoir (station 09124600), Morrow Point Reservoir (station 09125400), Crystal Reservoir (station 09127600), diversions for irrigation of about 63,000 acres, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

COOPERATION.--Diversions, in acre-feet, through Gunnison tunnel; furnished by Uncompahgre Valley Water Users Association.

AVERAGE DISCHARGE.--80 years, 1,363 ft³/s; 987,500 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 19,000 ft³/s June 15, 1921, gage height, about 15.8 ft, present datum, from rating curve extended above 14,000 ft³/s; no flow Sept. 25, 26 1936, Oct. 8, 1949, Sept. 5, 6, 15, 16, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,000 ft³/s at 0100 June 26, gage height, 11.60 ft; minimum daily 348 ft³/s Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	1160	1860	1750	1750	1750	948	835	3180	7880	2680	1480
2	1170	860	1770	1760	1750	1750	952	837	3000	7200	2310	1410
3	1180	348	1740	1740	1740	1760	952	768	2670	7400	2260	1360
4	1180	1030	1770	1730	1740	1760	952	722	2320	7170	2210	1360
5	1160	1630	1750	1740	1750	1760	910	730	1980	6680	2360	1360
6	1120	1650	1730	1730	1750	1760	879	796	1990	4350	2150	1360
7	1150	1630	1710	1750	1740	1770	874	906	1990	3920	2280	1370
8	1200	1680	1740	1740	1720	1750	817	903	2340	4600	2360	1370
9	1170	1680	1720	1760	1420	1480	772	985	2670	4360	2900	1180
10	1270	1680	1720	1740	1180	1270	764	1000	2670	4210	2750	1060
11	1250	1770	1760	1750	1500	1260	691	1080	2660	4960	2400	1060
12	1080	1810	1760	1740	1710	1260	641	1060	2660	4990	1930	1060
13	1110	1770	1750	1740	1760	1290	634	1000	2660	5300	2140	1130
14	1080	1760	1740	1750	1720	1290	722	922	2660	5440	2100	1170
15	1070	1750	1740	1750	1720	1290	870	896	2670	3880	1990	1170
16	1070	1750	1790	1750	1740	1290	836	897	2660	3300	1850	1070
17	1240	1740	1790	1760	1740	1270	829	879	2660	3780	1780	913
18	1660	1760	1760	1740	1730	1130	835	871	2650	3860	1570	901
19	1680	1780	1750	1720	1740	1130	887	878	2650	3420	1850	907
20	1680	1760	1730	1700	1750	1130	929	881	2990	2560	1790	939
21	1690	1770	1730	1710	1750	1120	903	884	3290	2940	1780	1470
22	1730	1810	1720	1700	1750	1050	846	890	3430	2980	1780	975
23	1700	1780	1730	1750	1750	1030	846	924	5350	2840	1730	835
24	1660	1740	1740	1760	1760	1020	850	1000	5840	2950	1770	997
25	1350	1820	1760	1750	1750	978	909	1030	8220	2560	1820	1020
26	1180	1760	1740	1730	1760	946	932	1340	10600	2680	1620	1090
27	1150	1780	1730	1740	1770	946	935	2110	10000	2870	1460	1120
28	1120	1750	1720	1740	1760	946	886	2120	9440	2900	1460	1100
29	1120	1750	1710	1760	---	946	857	2110	8890	3100	1460	1200
30	1130	1840	1730	1790	---	946	835	2180	8460	2320	1920	1240
31	1120	---	1750	1760	---	946	---	3160	---	2700	1530	---
TOTAL	39650	48798	54140	54030	47700	40024	25493	35594	125250	130100	61990	34677
MEAN	1279	1627	1746	1743	1704	1291	850	1148	4175	4197	2000	1156
MAX	1730	1840	1860	1790	1770	1770	952	3160	10600	7880	2900	1480
MIN	1070	348	1710	1700	1180	946	634	722	1980	2320	1460	835
AC-FT	78650	96790	107400	107200	94610	79390	50570	70600	248400	258100	123000	68780
a	19400	0	0	0	0	7200	34600	47300	37500	37700	52000	53200

CAL YR 1982 TOTAL 379586 MEAN 1040 MAX 1860 MIN 187 AC-FT 752900
WTR YR 1983 TOTAL 697446 MEAN 1911 MAX 10600 MIN 348 AC-FT 1383000

a DIVERSIONS, IN ACRE-FEET, THROUGH GUNNISON TUNNEL, FURNISHED BY UNCOMPAHGRE VALLEY WATER USERS ASSOCIATION.

GUNNISON RIVER BASIN

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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, revised.

PERIOD OF RECORD.--October 1935 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1941.

GAGE.--Water-stage recorder. Altitude of gage is 7,091 ft, from topographic map. Prior to Nov. 16, 1938, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of a few small hay meadows above station. Saddle Mountain ditch diverts water above station for irrigation of about 800 acres below. One small ditch diverts water from Virginia Creek to Iron Creek drainage. Head and Ferrier ditch imports water from Curecanti Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--48 years, 41.2 ft³/s; 29,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft³/s May 28, 1979, gage height, 6.90 ft; minimum daily discharge determined, 1.8 ft³/s July 30, 31, Aug. 1, 1963, Sept. 5, 6, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 260 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 10	1730	509	6.35	May 30	2330	* 800	9.26

Minimum daily discharge, 5.4 ft³/s Sept. 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	17	10	9.5	7.6	11	15	59	656	254	36	9.3
2	22	15	10	9.1	7.6	10	15	48	672	250	34	9.1
3	21	13	10	9.1	7.6	11	14	46	579	230	33	9.1
4	20	14	10	9.3	7.6	11	14	56	544	214	30	8.5
5	20	13	10	9.3	7.6	11	14	76	537	203	30	8.3
6	19	13	10	9.1	7.8	11	16	68	523	179	28	7.8
7	18	13	10	8.8	7.8	10	16	63	530	172	28	7.8
8	19	13	9.6	8.3	7.8	10	16	103	530	163	26	7.8
9	18	15	9.5	7.8	7.8	11	16	226	530	145	24	7.6
10	17	14	9.3	7.5	7.8	12	16	382	523	130	23	7.1
11	17	14	9.3	7.5	7.8	16	17	358	516	121	24	6.7
12	16	14	9.5	7.5	8.0	19	18	230	537	108	19	6.2
13	16	14	10	8.0	8.0	22	18	189	454	105	18	6.0
14	16	13	9.5	8.0	8.3	25	17	133	340	92	17	5.8
15	15	12	10	8.0	8.3	21	18	108	290	82	17	6.0
16	14	12	10	7.5	8.3	18	20	108	315	72	15	5.8
17	14	12	10	7.5	8.5	17	25	121	382	63	14	5.4
18	14	13	10	7.0	8.5	17	38	80	481	54	14	5.4
19	13	13	10	6.5	8.8	16	66	86	544	54	16	5.4
20	13	13	10	7.0	9.1	15	54	86	537	54	17	6.0
21	13	12	10	7.0	9.3	16	61	84	481	61	15	5.6
22	12	11	10	7.0	10	15	52	163	467	52	14	5.6
23	12	10	9.9	7.0	11	16	57	203	460	48	13	5.6
24	11	10	9.9	7.0	11	16	98	242	448	42	13	5.8
25	12	10	10	7.0	12	15	142	286	412	42	13	5.6
26	14	10	10	7.0	12	15	127	330	388	57	12	5.6
27	20	10	10	7.0	13	15	100	412	364	51	11	6.9
28	16	10	9.5	7.0	12	15	78	502	325	47	11	7.4
29	15	10	9.0	7.5	---	14	84	551	315	41	11	7.6
30	16	10	8.5	7.5	---	14	86	656	278	40	10	8.3
31	17	---	9.0	7.5	---	15	---	648	---	38	9.9	---
TOTAL	502	373	302.5	240.8	250.9	460	1328	6703	13958	3264	595.9	205.1
MEAN	16.2	12.4	9.76	7.77	8.96	14.8	44.3	216	465	105	19.2	6.84
MAX	22	17	10	9.5	13	25	142	656	672	254	36	9.3
MIN	11	10	8.5	6.5	7.6	10	14	46	278	38	9.9	5.4
AC-FT	996	740	600	478	498	912	2630	13300	27690	6470	1180	407

CAL YR 1982	TOTAL	13243.0	MEAN	36.3	MAX	320	MIN	6.0	AC-FT	26270
WTR YR 1983	TOTAL	28183.2	MEAN	77.2	MAX	672	MIN	5.4	AC-FT	55900

GUNNISON RIVER BASIN

09129600 SMITH FORK NEAR LAZEAR, CO

LOCATION.--Lat 38°42'27", long 107°42'35", in SE¼ sec.31, T.15 S., R.9 2 W., Delta County, Hydrologic Unit 14020002, on left bank 25 ft downstream from bridge, 1.8 mi upstream from Diamond Joe Gulch, and 6.4 mi southeast of Lazear.

DRAINAGE AREA.--166 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 5,830 ft, from topographic map.

REMARKS.--Records fair, except those for winter period, and those for periods of no gage-height record which are poor. Natural flow of stream affected by reservoirs, diversions into basin, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 25.4 ft³/s; 18,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD --Maximum discharge, 814 ft³/s June 2, 1983, gage height, 7.12 ft; minimum daily, 0.10 ft³/s Aug. 12-14, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 814 ft³/s at 0600 June 2, gage height, 4.62 ft; minimum daily, 1.4 ft³/s Oct. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.7	3.2	3.6	4.2	3.1	6.0	9.0	174	590	257	38	6.1
2	4.6	3.6	3.6	4.0	3.0	6.0	8.5	139	619	218	36	5.7
3	4.3	3.8	3.6	4.1	3.2	6.5	8.5	124	494	185	32	5.7
4	3.1	3.8	3.6	3.8	3.2	6.5	8.5	148	560	194	28	5.4
5	2.9	3.8	3.6	3.6	3.4	6.0	9.0	177	554	179	28	4.7
6	2.9	3.8	3.6	3.6	3.4	5.5	8.5	195	452	167	26	4.9
7	2.8	3.8	3.6	4.0	3.4	5.5	8.5	173	388	161	24	5.1
8	2.8	3.8	3.8	4.0	3.4	6.0	8.5	208	399	176	20	5.4
9	2.9	3.6	3.6	4.0	3.4	6.0	8.5	339	394	150	18	5.4
10	2.9	3.8	3.6	4.0	3.6	5.5	9.0	472	382	114	15	5.1
11	3.2	3.8	3.6	4.0	3.6	5.5	9.5	452	377	112	13	4.7
12	3.9	3.8	3.6	4.0	3.6	5.5	10	322	416	100	12	4.7
13	4.0	3.8	3.6	4.0	3.6	6.0	10	292	422	82	10	3.6
14	4.1	3.8	3.9	4.0	3.6	6.5	10	213	347	80	9.0	2.9
15	3.7	3.8	4.2	3.6	3.6	8.5	11	161	270	80	7.5	3.3
16	5.1	3.8	4.2	2.9	3.8	12	11	121	264	70	7.0	3.3
17	5.0	3.8	4.2	1.9	3.8	13	11	103	295	60	6.5	2.8
18	5.1	3.8	4.2	1.9	3.8	12	11	63	337	50	6.0	2.8
19	3.5	3.6	4.2	2.4	4.0	11	13	61	416	50	5.5	2.8
20	1.5	3.6	4.2	3.3	4.0	10	30	62	428	50	5.0	2.8
21	1.6	3.6	4.0	3.3	4.0	9.5	70	64	410	55	4.4	2.9
22	1.6	3.6	4.0	3.3	4.2	9.0	81	118	382	50	3.6	2.9
23	1.5	3.6	4.0	3.2	4.4	8.5	84	124	306	50	3.3	2.9
24	1.5	3.8	4.0	3.3	4.4	8.5	148	191	275	46	3.3	2.9
25	1.4	3.8	4.0	3.3	4.6	8.5	244	248	300	42	3.3	2.8
26	1.4	3.8	4.0	3.2	4.8	8.5	231	306	350	40	3.6	2.8
27	1.6	3.8	4.1	3.1	5.0	9.0	207	292	372	40	3.3	2.8
28	2.2	3.8	3.8	3.1	5.5	9.0	167	263	324	40	2.8	2.8
29	3.1	3.6	3.9	2.9	---	9.0	173	282	310	40	2.8	2.8
30	3.1	3.6	4.1	3.1	---	9.0	185	286	286	40	4.0	2.8
31	3.0	---	4.2	3.1	---	9.0	---	428	---	38	5.4	---
TOTAL	95.0	111.6	120.2	106.2	107.4	247.0	1803.0	6601	11719	3016	386.3	115.6
MEAN	3.06	3.72	3.88	3.43	3.84	7.97	60.1	213	391	97.3	12.5	3.85
MAX	5.1	3.8	4.2	4.2	5.5	13	244	472	619	257	38	6.1
MIN	1.4	3.2	3.6	1.9	3.0	5.5	8.5	61	264	38	2.8	2.8
AC-FT	188	221	238	211	213	490	3580	13090	23240	5980	766	229

CAL YR 1982 TOTAL 2711.6 MEAN 7.43 MAX 88 MIN 1.1 AC-FT 5380
WTR YR 1983 TOTAL 24428.3 MEAN 66.9 MAX 619 MIN 1.4 AC-FT 48450

NOTE.--NO GAGE-HEIGHT RECORD FEB. 1 TO APR. 21, JULY 14 TO AUG. 22.

GUNNISON RIVER BASIN

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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. Altitude of gage is 6,280 ft, from topographic map. Prior to July 22, 1971, at site 100 ft upstream at datum 0.31 ft, lower. October 1, 1982, at present site 0.8 mi upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by small diversions for irrigation in nearby drainage areas, irrigation of about 3,000 acres above station, storage in Overland Reservoir, capacity, 6,280 acre-ft, and storage in Paonia Reservoir, capacity, 18,300 acre-ft, since February 1962. See table below for contents of Paonia Reservoir.

COOPERATION.--Monthend contents, in acre-feet, in Paonia Reservoir; furnished by U.S. Bureau of Reclamation.

AVERAGE DISCHARGE.--50 years, 442 ft³/s; 320,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,860 ft³/s June 4, 1957, gage height, 5.83 ft, present datum; minimum daily, 17 ft³/s Nov. 10, 1950.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,580 ft³/s at 0400 May 31, gage height, 6.64 ft; minimum daily, 36 ft³/s Dec. 12, Feb. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	248	531	55	46	42	62	137	1530	4860	2520	587	231
2	222	254	48	48	44	62	137	1510	5070	2380	558	227
3	202	58	52	50	42	62	141	1590	4360	2380	497	223
4	185	65	55	50	42	60	131	1690	4280	2290	502	229
5	174	52	55	50	42	62	128	1780	4390	2120	584	213
6	163	50	60	55	44	60	125	1760	3860	2090	499	207
7	152	50	60	55	40	68	92	1540	3780	2160	489	231
8	157	50	60	50	40	158	52	1660	3810	2250	404	255
9	152	55	60	48	42	358	60	1460	3770	2060	359	245
10	147	55	65	44	42	379	62	1600	3840	2090	330	266
11	147	55	48	44	42	398	81	1600	3880	1830	319	266
12	138	60	36	46	40	419	81	2010	4210	1560	302	281
13	127	60	55	44	40	423	82	2290	3340	1420	357	294
14	109	60	55	44	38	455	74	2090	2720	1250	310	285
15	105	62	50	44	36	499	74	1990	2590	1130	282	292
16	105	60	50	44	38	508	83	1910	2800	1010	261	279
17	101	60	55	44	38	507	107	1830	3050	965	246	281
18	371	60	55	46	38	508	173	1790	3590	902	274	279
19	583	60	50	44	40	506	265	1770	4120	920	303	278
20	575	60	50	44	40	493	373	1790	4070	868	310	277
21	566	60	55	42	44	350	476	1880	3880	886	285	251
22	555	58	60	42	48	523	468	2190	3700	909	273	238
23	549	55	60	42	52	512	507	2570	3720	888	262	237
24	546	42	55	42	65	504	701	3040	3630	798	262	240
25	527	60	50	42	65	493	876	3510	4050	715	260	235
26	531	65	48	42	62	424	902	3790	3650	797	253	247
27	582	65	46	42	62	352	936	4080	3430	690	247	258
28	536	65	55	42	62	219	1020	4440	3110	646	242	255
29	524	65	55	42	---	107	1230	4510	2810	567	240	254
30	536	58	50	40	---	176	1540	4970	2710	589	247	255
31	547	---	46	40	---	214	---	5310	---	557	234	---
TOTAL	10162	2410	1654	1398	1270	9921	11114	75480	111080	42237	10578	7609
MEAN	328	80.3	53.4	45.1	45.4	320	370	2435	3703	1362	341	254
MAX	583	531	65	55	65	523	1540	5310	5070	2520	587	294
MIN	101	42	36	40	36	60	52	1460	2590	557	234	207
AC-FT	20160	4780	3280	2770	2520	19680	22040	149700	220300	83780	20980	15090
a	4950	7640	10340	11920	13580	1280	8710	18620	18520	18310	16160	8180

CAL YR 1982 TOTAL 206105 MEAN 565 MAX 2950 MIN 36 AC-FT 408800
WTR YR 1983 TOTAL 284913 MEAN 781 MAX 5310 MIN 36 AC-FT 565100

a MONTHEND CONTENTS, IN ACRE-FEET, IN PAONIA RESERVOIR, FURNISHED BY U. S. BUREAU OF RECLAMATION.

GUNNISON RIVER BASIN

09135900 LEROUX CREEK AT HOTCHKISS, CO

LOCATION.--Lat 38°47'53", long 107°43'53", in NW¼NE¼ sec.36, T.14 S., R.9 3 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.

PERIOD OF RECORD.--June 1976 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,315 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Natural flow of stream is affected by diversions above station for irrigation and by return flow from irrigated area above station. Mostly return flow after June. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 29.1 ft³/s; 21,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 788 ft³/s June 11, 1980, gage height, 8.29 ft; minimum daily, 0.55 ft³/s July 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 698 ft³/s at 1900 June 25, gage height, 7.53 ft; minimum daily, 4.4 ft³/s July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	28	26	19	14	15	16	67	350	131	7.0	6.7
2	67	26	28	19	13	15	16	57	445	98	7.5	6.9
3	56	33	25	19	12	12	15	58	331	74	7.5	7.5
4	50	37	29	19	14	12	14	65	375	45	7.0	7.2
5	45	37	35	18	14	12	15	72	349	26	7.0	7.5
6	43	37	32	16	13	12	14	56	284	20	7.5	7.5
7	57	37	31	17	13	12	13	44	269	18	7.0	6.9
8	57	36	25	19	13	12	12	86	296	15	7.0	7.5
9	55	36	25	19	14	11	11	166	272	13	6.5	7.5
10	61	34	24	19	14	13	9.2	212	246	11	6.5	7.9
11	79	35	24	18	14	15	9.5	228	262	9.5	8.0	7.9
12	77	34	22	18	13	13	9.3	102	310	8.0	9.4	6.4
13	93	34	26	19	13	16	8.9	73	153	7.0	10	6.1
14	94	28	28	18	13	18	8.2	42	84	6.5	11	6.1
15	89	32	28	18	13	20	6.9	33	127	6.0	10	6.4
16	68	33	33	16	13	16	6.3	16	193	5.5	9.8	6.7
17	61	38	27	17	13	16	5.5	20	268	5.0	9.2	6.9
18	57	37	25	16	12	15	7.8	8.5	365	4.6	9.3	6.9
19	55	35	24	16	12	16	17	9.5	395	4.4	8.9	6.9
20	52	28	24	16	12	15	28	11	389	4.6	9.4	6.4
21	46	32	26	16	12	14	40	15	374	5.5	9.2	6.4
22	43	31	24	15	12	15	58	24	344	6.0	8.8	6.4
23	40	27	24	15	13	14	47	34	311	7.5	8.6	6.4
24	31	25	24	15	13	13	82	46	287	9.0	8.6	6.4
25	28	29	21	15	14	13	110	60	419	7.5	17	6.9
26	24	27	21	15	14	13	107	70	367	9.0	24	7.2
27	41	28	18	15	14	13	74	80	293	10	11	7.9
28	31	29	18	15	14	13	40	110	222	9.5	7.9	7.5
29	28	29	19	15	---	13	64	150	179	8.0	8.2	8.6
30	29	27	20	15	---	12	88	210	147	7.5	7.2	8.2
31	28	---	19	14	---	15	---	280	---	7.0	6.4	---
TOTAL	1664	959	775	521	368	434	952.6	2505.0	8706	598.6	282.4	211.7
MEAN	53.7	32.0	25.0	16.8	13.1	14.0	31.8	80.8	290	19.3	9.11	7.06
MAX	94	38	35	19	14	20	110	280	445	131	24	8.6
MIN	24	25	18	14	12	11	5.5	8.5	84	4.4	6.4	6.1
AC-FT	3300	1900	1540	1030	730	861	1890	4970	17270	1190	560	420

CAL YR 1982 TOTAL 13470.4 MEAN 36.9 MAX 236 MIN 4.4 AC-FT 26720
WTR YR 1983 TOTAL 17977.3 MEAN 49.3 MAX 445 MIN 4.4 AC-FT 35660

NOTE.--NO GAGE-HEIGHT RECORD JULY 6 TO AUG. 11.

GUNNISON RIVER BASIN

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09136200 GUNNISON RIVER NEAR LAZEAR, CO

LOCATION.--Lat 38°46'59", long 107°50'14", in NE¼NE¼ sec.1, T.15 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 300 ft downstream from North Fork Gunnison River and 3.0 mi west of Lazear.

DRAINAGE AREA.--5,241 mi².

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

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,090 ft, from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power development, and diversions for irrigation of about 150,000 acres, part of which is in the Uncompahgre River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--6 years, 1,860 ft³/s; 1,348,000 acre-ft/yr, since completion of Crystal Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft³/s June 26, 1983, gage height, 8.27 ft, outside highwater mark; minimum daily, 115 ft³/s Oct. 6, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19,700 ft³/s at 0430 June 26, gage height, 8.27 ft; minimum daily, 763 ft³/s Nov. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1570	1900	2140	1990	1910	1960	1270	2360	10400	11200	3320	1850
2	1560	1850	2100	1980	1910	1960	1240	2250	10200	9920	2870	1810
3	1550	763	2050	1990	1900	1960	1220	2260	7840	10300	2820	1620
4	1550	1040	2100	1990	1920	1980	1220	2360	7280	10000	2680	1640
5	1480	1900	2120	1990	1950	1980	1180	2560	7640	9640	2800	1620
6	1430	1930	2080	2000	1940	1990	1150	2590	6880	7240	2820	1640
7	1430	1960	2140	2020	1950	1990	1140	2490	6880	6640	2660	1650
8	1490	1970	2080	1980	1920	1990	1090	2630	7440	7240	2920	1660
9	1470	2080	2080	2010	1790	2060	1040	3100	8320	7360	3260	1510
10	1460	2010	2140	1960	1520	1810	1020	3870	8120	6800	2990	1230
11	1610	2050	2170	1950	1640	1830	1020	4230	8080	7480	2990	1230
12	1420	2070	2160	1930	1900	1860	972	3770	9080	7400	2400	1200
13	1430	1960	2150	1940	1940	1880	964	4230	8240	7080	2400	1280
14	1410	1960	2090	1910	1930	1910	979	4000	6800	7320	2680	1370
15	1380	1950	2030	1930	1920	2110	1170	3710	6200	5730	2310	1390
16	1380	1980	2060	1910	1940	2090	1120	3540	6600	4390	2200	1380
17	1370	1980	2080	1920	1940	1950	1140	3420	6920	4750	1960	1020
18	1790	2050	2070	1900	1940	1810	1230	3150	7720	5020	1620	988
19	2040	2060	2010	1900	1970	1790	1410	3140	8640	4870	2220	985
20	2020	2040	1990	1880	1980	1750	1550	3130	9080	3520	2290	1040
21	2040	2050	2030	1870	1980	1620	1690	3080	9040	3850	2220	1590
22	2070	2010	2030	1880	1990	1690	1670	3400	8600	3930	2200	1330
23	2030	2010	2050	1920	1990	1690	1670	3970	10300	3900	2090	940
24	1990	1950	2040	1930	1970	1660	1980	4680	10800	3650	2110	1130
25	1880	1990	2000	1930	1960	1610	2290	5800	13500	3520	2210	1160
26	1780	2000	1960	1910	1980	1530	2530	6200	16600	3370	2070	1210
27	2040	2030	1970	1920	1960	1420	2570	8750	15000	3650	1800	1330
28	2160	2040	1990	1930	1960	1420	2520	9290	13700	3550	1760	1300
29	1890	2030	1960	1920	---	1260	2230	8510	12600	3760	1730	1400
30	1920	2110	1960	1940	---	1240	2420	8690	12000	3140	2320	1510
31	1920	---	1960	1920	---	1320	---	11200	---	3190	1980	---
TOTAL	52560	57723	63790	60150	53600	55120	44695	136360	280500	183410	74700	41013
MEAN	1695	1924	2058	1940	1914	1778	1490	4399	9350	5916	2410	1367
MAX	2160	2110	2170	2020	1990	2110	2570	11200	16600	11200	3320	1850
MIN	1370	763	1960	1870	1520	1240	964	2250	6200	3140	1620	940
AC-FT	104300	114500	126500	119300	106300	109300	88650	270500	556400	363800	148200	81350
CAL YR 1982	TOTAL	642659	MEAN	1761	MAX	4270	MIN	372	AC-FT	1275000		
WTR YR 1983	TOTAL	1103621	MEAN	3024	MAX	16600	MIN	763	AC-FT	2189000		

GUNNISON RIVER BASIN

09137050 CURRANT CREEK NEAR READ, CO

LOCATION.--Lat 38°47'05", long 107°56'18", in SW¼ sec.31, T.14 S., R.94 W., Delta County, Hydrologic Unit 14020005, on right bank 0.2 mi downstream from Dry Creek, 0.4 mi upstream from mouth, 0.7 mi northeast of Austin, and 2.4 mi northeast of Read.

DRAINAGE AREA.--56.9 mi².

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

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,035 ft, from topographic map.

REMARKS.--Records good. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 10.0 ft³/s; 7,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 524 ft³/s May 29, 1983, gage height, 4.86 ft, outside highwater mark; maximum gage height, 5.12 ft, May 22, 1980, no flow Aug. 2, 4, 5, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 524 ft³/s at 0500 May 29, gage height, 4.86 ft, outside highwater mark; minimum daily, 0.30 ft³/s Aug. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	19	21	15	16	20	20	50	119	40	.62	.87
2	24	17	19	15	15	18	17	41	104	30	.58	.78
3	18	15	18	15	14	17	19	46	66	20	.69	1.1
4	16	16	17	15	15	18	16	57	92	12	.55	1.3
5	16	18	17	15	15	18	15	80	101	10	.51	1.7
6	15	19	16	13	15	17	14	74	57	9.0	.42	2.0
7	15	19	17	13	15	16	14	53	35	8.0	.41	2.1
8	15	19	18	15	16	16	14	98	30	7.0	.35	2.0
9	15	23	18	15	17	15	15	157	32	6.0	.33	2.0
10	15	22	20	15	17	16	14	193	57	5.0	.30	1.8
11	15	26	20	15	17	18	19	80	76	4.0	.38	1.5
12	15	21	17	15	16	21	18	40	109	3.8	.37	1.2
13	13	20	17	15	17	22	18	14	80	2.8	.36	1.5
14	12	18	18	15	17	31	15	15	52	1.9	.37	1.6
15	12	17	16	15	17	37	15	11	55	2.1	.37	2.5
16	11	17	16	15	17	22	15	7.3	69	2.4	.40	3.2
17	10	17	17	15	16	22	15	10	83	2.0	.35	3.7
18	10	18	17	16	16	20	24	7.3	89	1.5	.46	4.1
19	9.5	18	15	16	16	21	32	5.8	96	.80	.64	3.8
20	9.6	18	15	16	15	22	40	12	78	.76	.63	4.0
21	9.6	19	17	15	15	18	47	21	54	.76	.71	4.1
22	10	19	19	15	16	19	42	54	73	.76	1.1	4.6
23	10	18	19	15	16	21	39	82	67	.75	.57	4.8
24	9.8	16	18	15	17	19	70	108	66	.73	.52	4.3
25	12	19	14	16	17	19	125	141	62	.73	.93	4.3
26	16	16	14	16	17	17	105	166	82	.76	1.3	4.7
27	38	16	15	16	16	15	75	164	89	.76	1.3	5.2
28	22	16	15	17	19	17	44	206	60	.72	.95	4.7
29	18	19	15	16	---	16	44	244	55	.74	.60	4.3
30	18	20	15	16	---	15	73	228	50	.68	.90	4.7
31	20	---	15	16	---	21	---	157	---	.65	.82	---
TOTAL	477.5	555	525	472	452	604	1033	2622.4	2138	177.10	18.79	88.45
MEAN	15.4	18.5	16.9	15.2	16.1	19.5	34.4	84.6	71.3	5.71	.61	2.95
MAX	38	26	21	17	19	37	125	244	119	40	1.3	5.2
MIN	9.5	15	14	13	14	15	14	5.8	30	.65	.30	.78
AC-FT	947	1100	1040	936	897	1200	2050	5200	4240	351	37	175
CAL YR 1982	TOTAL	3480.87	MEAN	9.54	MAX	118	MIN	.03	AC-FT	6900		
WTR YR 1983	TOTAL	9163.24	MEAN	25.1	MAX	244	MIN	.30	AC-FT	18180		

GUNNISON RIVER BASIN

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09143000 SURFACE CREEK NEAR CEDAREGE, CO

LOCATION.--Lat 38°59'05", long 107°51'13", in NW¼NW¼ sec.25, T.12 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank 5 ft downstream from private bridge, 1.4 mi downstream from Caesar Creek, and 7.0 mi northeast of Cedaredge.

DRAINAGE AREA.--27.4 mi², revised.

PERIOD OF RECORD.--July 1939 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder. Altitude of gage is 8,261 ft, from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Flow regulated by many small reservoirs. Some water imported from Leon Lake in Plateau Creek drainage. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--44 years, 42.0 ft³/s; 30,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 630 ft³/s June 8, 1980, gage height, 3.32 ft, from rating curve extended above 310 ft³/s; maximum gage height, 5.10 ft, Apr. 13, 1958 (ice jam); minimum daily discharge, 0.80 ft³/s Jan. 15, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 602 ft³/s at 2230 June 22, gage height, 3.17 ft; minimum daily, 6.0 ft³/s Jan. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	24	8.5	7.5	6.8	7.3	22	35	304	362	82	64
2	52	23	9.1	8.0	6.5	7.3	20	31	280	336	116	58
3	47	20	8.8	8.0	6.5	7.3	20	30	284	326	125	53
4	41	18	9.1	8.0	6.5	7.0	19	37	304	294	121	52
5	36	17	8.8	8.5	7.0	7.0	17	48	284	276	119	50
6	34	16	8.5	8.5	7.0	7.0	13	48	266	256	121	49
7	33	14	8.5	8.5	7.0	7.0	13	49	284	248	116	46
8	37	11	8.5	8.0	7.0	7.0	13	68	273	245	110	88
9	33	12	8.5	7.5	7.0	7.0	13	94	287	242	112	92
10	30	11	8.5	7.3	7.0	8.2	13	119	280	234	99	84
11	29	12	8.5	7.3	7.0	8.8	13	104	308	217	88	80
12	26	11	8.5	7.3	7.0	8.5	13	78	318	198	92	80
13	23	11	8.5	7.3	7.0	8.8	13	78	273	186	108	74
14	21	11	8.5	7.3	6.8	9.1	14	74	245	180	92	74
15	18	11	8.5	7.0	7.0	8.8	14	78	259	171	88	83
16	17	10	8.5	7.0	6.8	8.5	14	71	280	162	89	83
17	16	10	8.5	7.0	7.0	7.9	16	59	304	145	89	96
18	16	10	8.8	7.0	7.0	7.9	18	53	336	138	88	96
19	23	10	8.5	7.0	7.0	8.0	19	56	346	130	88	94
20	23	10	8.5	7.0	7.0	8.0	20	66	374	138	86	98
21	22	10	8.8	6.8	7.0	8.0	20	89	402	165	82	94
22	23	9.7	8.5	6.8	7.0	7.5	20	121	457	150	80	62
23	22	9.5	8.5	6.8	7.3	7.3	25	142	466	174	61	56
24	21	9.0	8.5	6.8	7.0	7.6	40	186	439	156	59	42
25	25	8.8	8.0	7.0	7.3	8.2	56	214	466	145	65	39
26	35	8.8	8.0	6.8	7.3	7.9	58	220	480	140	66	37
27	42	8.5	8.5	6.5	7.3	7.5	53	245	462	125	89	39
28	38	8.5	8.5	6.8	7.3	7.3	42	270	426	106	92	35
29	38	8.8	8.5	6.8	---	7.3	42	270	410	94	92	31
30	25	8.8	8.0	6.5	---	8.0	40	298	386	88	91	35
31	26	---	7.0	6.0	---	15	---	287	---	84	88	---
TOTAL	937	362.4	262.9	224.6	195.4	248.0	713	3618	10283	5911	2894	1964
MEAN	30.2	12.1	8.48	7.25	6.98	8.00	23.8	117	343	191	93.4	65.5
MAX	65	24	9.1	8.5	7.3	15	58	298	480	362	125	98
MIN	16	8.5	7.0	6.0	6.5	7.0	13	30	245	84	59	31
AC-FT	1860	719	521	445	388	492	1410	7180	20400	11720	5740	3900
CAL YR 1982	TOTAL	20589.7	MEAN 56.4	MAX 214	MIN 5.5	AC-FT 40840						
WTR YR 1983	TOTAL	27613.3	MEAN 75.7	MAX 480	MIN 6.0	AC-FT 54770						

GUNNISON RIVER BASIN

09143500 SURFACE CREEK AT CEDAREGE, CO

LOCATION.--Lat 38°54'06", long 107°55'14", in SW¼SE¼ sec.20, T.13 S., R.94 W., Delta County, Hydrologic Unit 14020005, on left bank at Cedaredge, 700 ft east of State Highway 65, and 8.5 mi upstream from mouth.

DRAINAGE AREA.--39.0 mi², revised.

PERIOD OF RECORD.--October 1916 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,220 ft, from topographic map. Prior to June 8, 1917, nonrecording gage at present site at datum 0.50 ft, higher.

REMARKS.--Records good except those for winter period, and those for period of no gage-height record, which are poor. Natural flow of stream affected by diversions to and from nearby streams, many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--67 years, 27.6 ft³/s; 20,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.-- Maximum discharge, 1,190 ft³/s May 13, 1941, gage height, 2.50 ft, from rating curve extended above 640 ft³/s; no flow Sept. 25, 1939, and practically no flow at times in some winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 724 ft³/s at 1900 May 30, gage height, 3.37 ft; minimum daily, 4.8 ft³/s Jan. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	23	7.2	7.5	5.5	6.9	26	43	375	269	45	23
2	35	23	8.1	7.5	5.5	7.6	23	37	339	251	45	20
3	30	18	9.4	7.5	5.5	7.6	22	38	303	236	43	20
4	26	16	11	8.0	5.5	7.6	21	48	355	200	43	20
5	22	14	10	8.0	5.5	8.5	21	62	335	180	41	18
6	18	13	9.8	7.5	5.5	8.9	15	63	311	155	52	19
7	16	13	8.9	7.0	5.5	8.5	15	64	311	148	51	17
8	18	9.4	8.5	6.5	5.5	8.9	15	109	295	148	45	40
9	17	9.8	8.5	7.0	5.5	9.4	14	162	291	158	51	48
10	14	10	8.5	7.0	5.5	11	15	221	283	158	50	46
11	14	10	7.6	6.5	5.8	14	16	180	315	133	43	44
12	12	9.4	8.0	6.5	5.8	13	15	109	335	113	43	43
13	9.8	8.5	8.0	6.5	5.8	14	14	105	227	88	57	35
14	8.5	9.0	8.0	6.5	5.8	17	15	95	197	78	43	32
15	8.5	9.0	8.5	6.0	5.8	15	15	83	203	75	41	35
16	13	7.5	8.0	6.0	5.8	12	16	68	215	66	36	35
17	12	6.1	8.1	5.5	5.8	12	18	49	236	58	32	28
18	14	8.9	8.1	5.5	5.8	12	24	45	257	59	36	22
19	18	7.6	8.0	5.5	5.8	12	27	47	283	59	36	22
20	16	6.9	9.0	5.5	5.8	10	30	58	307	69	39	24
21	16	7.6	8.9	5.5	6.1	11	32	85	355	88	36	25
22	16	7.6	8.1	5.5	5.8	11	30	148	391	78	35	28
23	16	6.6	7.6	5.5	6.4	10	36	191	395	103	26	29
24	16	7.5	7.6	5.5	6.6	10	61	251	383	86	22	22
25	18	8.1	8.1	5.5	6.9	10	90	335	395	76	26	22
26	26	7.5	8.1	5.5	6.6	9.8	90	347	375	80	26	18
27	36	7.5	8.5	5.5	6.4	8.9	75	363	371	62	26	20
28	30	8.0	7.5	5.5	6.9	9.8	51	395	343	53	22	18
29	28	7.6	6.5	5.5	---	9.4	53	422	319	51	21	19
30	22	7.6	7.0	4.8	---	10	55	510	295	48	24	23
31	25	---	7.5	5.0	---	20	---	395	---	47	23	---
TOTAL	618.8	307.7	256.6	192.8	164.7	335.8	950	5128	9395	3473	1159	815
MEAN	20.0	10.3	8.28	6.22	5.88	10.8	31.7	165	313	112	37.4	27.2
MAX	48	23	11	8.0	6.9	20	90	510	395	269	57	48
MIN	8.5	6.1	6.5	4.8	5.5	6.9	14	37	197	47	21	17
AC-FT	1230	610	509	382	327	666	1880	10170	18630	6890	2300	1620

CAL YR 1982 TOTAL 12356.6 MEAN 33.9 MAX 215 MIN 2.7 AC-FT 24510
WTR YR 1983 TOTAL 22796.4 MEAN 62.5 MAX 510 MIN 4.8 AC-FT 45220

NOTE.--NO GAGE-HEIGHT RECORD DEC. 28 TO FEB. 1.

09144200 TONGUE CREEK AT CORY, CO

LOCATION.--Lat 38°47'16", long 107°59'41", in SE¼SE¼ sec.34, T.14 S., R.95 W., Delta County, Hydrologic Unit 14020005, on left bank at downstream side of bridge, 500 ft upstream from North Delta canal headgate, 0.5 mi west of Cory, and 1.0 mi upstream from mouth.

DRAINAGE AREA.--197 mi².

PERIOD OF RECORD.--October 1957 to September 1968, May 1976 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,030 ft, from topographic map.

REMARKS.--Records good, except those for period of no gage-height record, which are poor. Natural flow of stream affected by many small storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Diversions to and from nearby streams. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--18 years (water years 1958-68, 1977-83), 35.4 ft³/s; 25,650 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 855 ft³/s May 23, 1980, gage height, 5.86 ft, maximum gage height, 6.08 ft, May 31, 1983; minimum daily, 0.35 ft³/s July 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 850 ft³/s at 2400 May 24, gage height, 6.01 ft, maximum gage height, 6.08 ft, at 0300 May 31; minimum daily discharge, 32 ft³/s Jan. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	148	89	74	44	44	61	100	180	654	564	143	61
2	115	77	75	42	46	62	92	158	656	527	152	60
3	104	69	70	42	44	60	94	165	627	494	156	56
4	95	66	66	42	46	59	88	167	659	449	145	54
5	85	62	66	42	47	61	85	191	648	409	143	51
6	81	61	64	46	47	67	82	207	641	359	152	47
7	74	61	62	46	47	63	74	155	641	321	143	40
8	73	59	61	46	50	59	72	238	645	286	132	42
9	69	74	61	40	55	58	87	360	653	265	130	42
10	68	71	63	38	52	66	83	530	643	238	118	46
11	68	93	62	38	50	84	93	490	656	206	118	47
12	68	69	59	38	48	88	80	238	658	173	120	45
13	69	69	58	36	50	98	76	213	618	138	183	42
14	66	64	60	34	50	138	73	186	566	127	153	45
15	66	66	57	34	49	123	72	184	542	128	147	50
16	66	65	61	34	49	87	72	184	564	105	141	50
17	64	67	59	34	48	79	82	161	597	92	132	49
18	64	68	58	34	48	80	115	132	633	90	107	49
19	58	68	52	34	50	86	147	158	704	89	61	52
20	59	65	55	34	48	84	153	173	728	90	69	51
21	58	66	57	34	49	74	166	201	748	116	57	51
22	57	64	57	32	49	77	134	337	760	110	51	59
23	55	63	60	32	50	81	154	442	740	168	51	64
24	53	60	60	36	52	111	249	600	770	180	55	65
25	56	65	49	38	56	84	343	648	728	147	61	65
26	65	62	48	36	55	87	323	688	666	189	70	63
27	181	62	53	36	53	80	265	634	689	211	63	65
28	89	62	49	38	58	80	179	655	672	189	58	62
29	81	64	55	40	---	78	191	663	649	166	60	63
30	76	66	46	42	---	77	229	720	602	150	63	71
31	88	---	46	42	---	101	---	692	---	145	64	---
TOTAL	2419	2017	1823	1184	1390	2493	4053	10750	19757	6921	3298	1607
MEAN	78.0	67.2	58.8	38.2	49.6	80.4	135	347	659	223	106	53.6
MAX	181	93	75	46	58	138	343	720	770	564	183	71
MIN	53	59	46	32	44	58	72	132	542	89	51	40
AC-FT	4800	4000	3620	2350	2760	4940	8040	21320	39190	13730	6540	3190

CAL YR 1982 TOTAL 17890 MEAN 49.0 MAX 181 MIN 13 AC-FT 35480
WTR YR 1983 TOTAL 57712 MEAN 158 MAX 770 MIN 32 AC-FT 114500

NOTE.--NO GAGE-HEIGHT RECORD DEC. 30 TO FEB. 2.

GUNNISON RIVER BASIN

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.

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. Datum of gage is 4,919.97 ft, National Weather Service Datum (levels by National Weather Service). Prior to May 1976 nonrecording gage at present site and datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, and many diversions for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 1,912 ft³/s; 1,385,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,800 ft³/s June 26, 1983, gage height, 12.74 ft, (outside highwater mark); minimum daily, 208 ft³/s Aug. 11, 1977.

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).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,800 ft³/s at 0730 June 26, gage-height, 12.74 ft, (outside highwater mark); minimum daily, 1,130 ft³/s Apr. 12-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1980	2380	2640	2330	2380	2450	1680	3290	11600	11500	3570	1930
2	1940	2350	2570	2340	2360	2470	1600	3080	11900	9930	3190	1970
3	1850	1160	2460	2380	2310	2450	1610	3030	9590	10300	3060	1820
4	1810	1210	2460	2360	2310	2460	1570	3110	8960	9990	2980	1850
5	1770	2190	2510	2400	2380	2470	1530	3400	8790	9690	2940	1850
6	1700	2340	2470	2400	2360	2450	1460	3510	7830	7570	3100	1840
7	1690	2350	2500	2420	2360	2450	1410	3290	7600	6810	2850	1840
8	1770	2340	2450	2410	2350	2420	1370	3570	7890	7170	3090	1830
9	1740	2530	2470	2430	2260	2570	1310	4230	8330	7390	3290	1800
10	1730	2510	2490	2360	1810	2240	1230	4660	8370	6820	3100	1550
11	1940	2580	2500	2390	1860	2290	1240	5220	8400	7290	3210	1570
12	1670	2600	2490	2380	2270	2350	1130	4060	9120	7310	2600	1550
13	1710	2540	2480	2380	2360	2420	1130	4510	8390	6970	2520	1590
14	1700	2510	2480	2360	2360	2530	1130	4130	7080	7170	2860	1620
15	1650	2470	2410	2380	2320	2600	1350	3940	6630	6170	2430	1660
16	1710	2470	2440	2400	2370	2500	1330	3770	6860	4750	2430	1650
17	1670	2490	2500	2450	2370	2440	1320	3940	7130	4980	2230	1410
18	2170	2510	2470	2450	2360	2310	1460	3790	7810	5220	2030	1360
19	2680	2530	2410	2430	2390	2280	1750	3680	8670	5200	2230	1360
20	2700	2540	2390	2370	2370	2260	1880	3810	8890	3960	2450	1390
21	2720	2530	2450	2370	2380	2160	2030	3890	9040	4130	2340	1650
22	2750	2550	2450	2360	2400	2100	1950	4550	8840	4230	2300	1840
23	2720	2560	2460	2380	2400	2140	1880	5240	10200	4390	2210	1420
24	2690	2440	2470	2420	2400	2160	2310	6160	10900	3960	2180	1550
25	2580	2500	2390	2430	2420	2070	3080	7250	13100	4060	2280	1600
26	2240	2510	2350	2400	2430	2010	3190	7770	18000	3710	2250	1610
27	2760	2470	2330	2390	2440	1850	2980	9160	16300	4110	1950	1710
28	2370	2500	2350	2430	2440	1860	2710	9980	13900	4010	1960	1660
29	2280	2490	2300	2400	---	1630	2840	9970	13300	3990	1920	1710
30	2310	2580	2300	2420	---	1600	3430	10700	12400	3650	2310	1810
31	2350	---	2310	2400	---	1740	---	12700	---	3430	2050	---
TOTAL	65350	71730	75750	74220	65220	69730	54890	163390	295820	189860	79910	50000
MEAN	2108	2391	2444	2394	2329	2249	1830	5271	9861	6125	2578	1667
MAX	2760	2600	2640	2450	2440	2600	3430	12700	18000	11500	3570	1970
MIN	1650	1160	2300	2330	1810	1600	1130	3030	6630	3430	1920	1360
AC-FT	129600	142300	150300	147200	129400	138300	108900	324100	586800	376600	158500	99170
CAL YR 1982	TOTAL	748992	MEAN	2052	MAX	5240	MIN	455	AC-FT	1486000		
WTR YR 1983	TOTAL	1255870	MEAN	3441	MAX	18000	MIN	1130	AC-FT	2491000		

GUNNISON RIVER BASIN

227

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 upstream from bridge, 0.2 mi downstream from Dry Creek, 0.5 mi upstream from Dallas Creek, and 2.3 mi north of Ridgway.

DRAINAGE AREA.--149 mi².

PERIOD OF RECORD.--October 1958 to current year.

REVISED RECORDS.--WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,877.58 ft, National Geodetic Vertical Datum of 1929 (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good. Diversions for irrigation above station. Water is imported above station in some years by Red Mountain ditch from Mineral Creek in San Juan River basin. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 160 ft³/s; 115,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,100 ft³/s June 24, 1983, gage height, 5.73 ft; from rating curve extended above 1,800 ft³/s; minimum daily, 26 ft³/s Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 31	0100	1,080	4.39	July 22	2000	1,450	4.79
June 11	2300	1,020	4.30	July 26	1800	1,790	5.14
June 24	2300	* 2,100	5.73				

Minimum daily discharge, 36 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	195	89	63	46	43	55	74	128	854	1010	458	143
2	172	84	63	46	41	58	63	118	806	1010	434	143
3	163	77	56	46	36	64	61	110	575	1100	458	139
4	154	77	58	46	40	65	58	122	595	1170	450	134
5	145	77	58	46	40	59	52	147	635	1060	430	130
6	139	77	58	46	39	51	52	150	595	1120	390	124
7	130	77	58	47	40	59	52	132	600	1210	374	120
8	132	77	58	47	41	60	51	181	680	1220	378	120
9	130	84	58	47	42	63	54	261	600	1180	350	116
10	130	81	58	46	42	70	60	306	525	1220	318	116
11	130	81	58	47	43	77	60	294	680	1010	303	116
12	120	75	55	46	41	75	58	210	860	872	309	114
13	122	77	56	46	43	70	59	210	580	764	306	107
14	118	74	55	47	43	81	58	176	482	740	288	105
15	116	74	54	46	42	78	56	158	470	670	264	105
16	118	71	55	46	43	68	58	154	540	645	249	101
17	108	74	55	47	44	64	64	143	685	695	234	99
18	107	74	54	47	44	64	84	143	1030	700	228	101
19	99	74	52	44	48	60	94	139	1360	866	220	96
20	99	72	51	44	42	59	94	132	1380	878	210	101
21	96	70	54	44	42	52	98	130	1290	971	190	98
22	92	68	55	44	46	55	98	198	1290	878	181	101
23	92	70	55	43	48	54	92	258	1420	776	172	110
24	91	64	52	42	50	52	134	336	1740	625	169	116
25	89	63	50	44	52	51	176	426	1510	595	176	112
26	89	64	47	43	50	52	158	474	1210	910	165	110
27	96	63	51	44	50	51	147	580	1330	580	156	107
28	94	61	49	44	51	54	139	690	1060	450	147	101
29	91	63	48	43	---	58	150	728	957	438	154	98
30	96	63	48	42	---	61	158	812	1010	474	156	114
31	96	---	46	42	---	74	---	914	---	462	150	---
TOTAL	3649	2195	1688	1398	1226	1914	2612	8960	27349	26299	8467	3397
MEAN	118	73.2	54.5	45.1	43.8	61.7	87.1	289	912	848	273	113
MAX	195	89	63	47	52	81	176	914	1740	1220	458	143
MIN	89	61	46	42	36	51	51	110	470	438	147	96
AC-FT	7240	4350	3350	2770	2430	3800	5180	17770	54250	52160	16790	6740

CAL YR 1982 TOTAL 73255 MEAN 201 MAX 999 MIN 36 AC-FT 145300
WTR YR 1983 TOTAL 89154 MEAN 244 MAX 1740 MIN 36 AC-FT 176800

GUNNISON RIVER BASIN

09147000 DALLAS CREEK NEAR RIDGWAY, CO

LOCATION.--Lat 38°10'40", long 107°45'28", on line between sec.4 and 5, T.4 5 N., R.8 W., Ouray County, Hydrologic Unit 14020006, on right bank 25 ft downstream from county bridge, 1.5 mi upstream from mouth, and 15 mi northwest of Ridgway.

DRAINAGE AREA.--96.2 mi².

PERIOD OF RECORD.--March 1922 to October 1927, October 1955 to September 1971, October 1979 to current year.

REVISED RECORDS.--WSP 1924: 1960: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,980 ft, from topographic map. Mar. 1, 1922 to Oct. 31, 1927, nonrecording gage at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 4,500 acres above and 700 acres below station. One small ditch imports water from Leopard Creek (Dolores River basin) to drainage above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--25 years, 38.0 ft³/s; 27,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 1,120 ft³/s Aug. 15, 1923, gage height, 4.40 ft, datum then in use, from rating curve extended above 160 ft³/s; maximum gage height, 6.13 ft, July 21, 1983; minimum daily discharge, 0.21 ft³/s June 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 998 ft³/s at 1900 July 21, gage height, 6.13 ft; minimum daily, 14 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	66	31	23	16	17	22	29	86	158	173	248	70
2	62	31	22	16	17	21	21	76	141	159	204	68
3	59	28	17	16	14	20	23	72	119	171	205	68
4	55	31	18	16	15	20	20	104	97	181	202	67
5	51	30	19	16	15	21	19	145	80	172	197	65
6	50	29	19	17	15	18	18	131	64	165	188	62
7	49	26	19	17	15	19	20	117	53	181	185	60
8	49	27	18	17	16	19	18	212	56	227	167	59
9	47	28	18	17	16	19	19	281	54	222	164	57
10	44	28	19	16	16	22	19	263	44	279	153	56
11	45	27	18	16	16	25	19	155	42	283	144	56
12	43	26	17	17	15	25	19	102	57	216	193	53
13	44	27	17	16	16	22	18	92	70	166	171	51
14	43	26	17	17	17	23	18	78	59	157	181	47
15	41	26	17	16	17	23	17	79	46	161	155	47
16	39	24	18	16	18	19	18	72	39	140	132	47
17	40	25	18	16	17	19	19	70	35	127	124	45
18	40	26	18	17	17	21	26	98	44	128	129	44
19	38	26	17	16	17	18	36	103	102	202	144	37
20	38	26	17	15	17	18	40	79	126	230	120	35
21	37	25	18	15	19	17	43	82	120	448	108	31
22	36	26	18	16	20	20	44	98	111	388	99	26
23	35	25	18	16	21	19	41	96	119	398	93	27
24	35	25	18	16	21	18	72	104	216	349	94	27
25	34	24	17	16	20	19	110	103	275	283	95	27
26	34	23	16	16	19	18	110	100	330	333	86	26
27	36	23	16	16	19	18	112	103	336	281	81	24
28	35	22	17	17	21	20	131	107	254	221	77	25
29	31	23	16	16	---	24	160	110	205	202	84	26
30	33	23	16	16	---	32	135	147	194	222	78	29
31	32	---	16	16	---	35	---	173	---	267	74	---
TOTAL	1321	787	552	502	483	654	1394	3638	3646	7132	4375	1362
MEAN	42.6	26.2	17.8	16.2	17.3	21.1	46.5	117	122	230	141	45.4
MAX	66	31	23	17	21	35	160	281	336	448	248	70
MIN	31	22	16	15	14	17	17	70	35	127	74	24
AC-FT	2620	1560	1090	996	958	1300	2760	7220	7230	14150	8680	2700

CAL YR 1982 TOTAL 18172.5 MEAN 49.8 MAX 296 MIN 7.2 AC-FT 36050
WTR YR 1983 TOTAL 25846.0 MEAN 70.8 MAX 448 MIN 14 AC-FT 51270

GUNNISON RIVER BASIN

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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 15 ft downstream from county highway bridge, 0.2 mi north of Colona, and 1.0 mi upstream from Beaton Creek.

DRAINAGE AREA.--443 mi².

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.

REVISED RECORDS.--WSP 1313: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,318.80 ft, National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Sept. 30, 1949.

REMARKS.--Records poor. Natural flow of stream affected by water diverted from West Fork Cimarron Creek, Mineral Creek (San Juan River basin), and Leopard Creek (Dolores River basin), diversions for irrigation of about 19,000 acres (part of which is below station), and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--73 years (water years 1904-5, 1913-83), 265 ft³/s; 189,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,080 ft³/s, June 13, 14, 1921; minimum daily, 12 ft³/s Sept. 19, 1956, May 7, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,460 ft³/s at 0230 June 24, gage height, 4.74 ft; maximum gage height, 5.43 ft, at 2200 July 21; minimum daily discharge 64 ft³/s, Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	383	155	100	74	76	100	141	196	1460	1960	1120	250
2	288	140	98	76	70	110	111	187	1590	1840	990	242
3	255	130	90	74	64	120	111	196	1150	2000	950	238
4	232	122	92	72	66	120	102	230	1180	2220	940	232
5	208	127	92	74	70	110	87	313	1310	1980	819	225
6	199	127	90	74	70	100	92	308	1300	1800	778	212
7	193	129	90	76	70	110	98	259	1360	2000	802	202
8	225	190	90	76	74	110	98	470	1410	2120	802	200
9	220	367	90	74	76	120	107	723	1340	2010	762	188
10	215	255	90	72	74	130	120	900	1280	2190	716	182
11	215	167	92	76	78	150	144	900	1430	1820	647	178
12	200	151	92	72	74	150	127	589	1870	1620	640	172
13	205	154	92	74	72	140	127	559	1330	1320	602	166
14	195	146	90	76	78	160	115	460	970	1300	535	166
15	195	138	88	74	76	150	105	412	828	1230	530	162
16	195	144	88	74	74	130	102	376	950	1190	465	152
17	180	138	88	78	78	120	124	322	1210	1290	430	138
18	180	130	84	80	78	120	181	295	1800	1240	435	128
19	165	120	82	76	82	120	275	358	2220	1430	465	118
20	165	110	84	74	74	110	248	344	2390	1540	470	120
21	160	110	86	74	74	100	227	331	2100	2010	440	114
22	155	110	88	74	78	110	205	508	2180	1680	430	112
23	155	110	86	74	86	100	199	602	2460	1660	416	126
24	155	110	82	76	94	100	331	770	2720	1460	408	132
25	150	105	78	80	96	98	394	1020	2700	1340	416	126
26	145	100	78	78	96	100	376	1180	2320	1770	367	122
27	165	100	82	78	94	100	293	1300	2980	1420	340	120
28	155	98	78	80	96	100	267	1630	2070	1080	313	116
29	150	100	76	78	---	110	291	1660	2010	920	291	114
30	160	100	78	76	---	120	295	1870	2080	1000	275	128
31	160	---	76	76	---	167	---	1640	---	1050	256	---
TOTAL	6023	4183	2690	2340	2188	3685	5493	20908	51998	49490	17850	4881
MEAN	194	139	86.8	75.5	78.1	119	183	674	1733	1596	576	163
MAX	383	367	100	80	96	167	394	1870	2980	2220	1120	250
MIN	145	98	76	72	64	98	87	187	828	920	256	112
AC-FT	11950	8300	5340	4640	4340	7310	10900	41470	103100	98160	35410	9680
CAL YR 1982	TOTAL	119568	MEAN	328	MAX	1550	MIN	55	AC-FT	237200		
WTR YR 1983	TOTAL	171729	MEAN	470	MAX	2980	MIN	64	AC-FT	340600		

GUNNISON RIVER BASIN

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.--1,129 mi².

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.

REVISED RECORDS.--WSP 1243: 1904. WSP 2124: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,926.49 ft, National Geodetic Vertical Datum of 1929. Feb. 18, 1960, to Mar. 26, 1963, water-stage recorder at site 750 ft upstream at datum 3.43 ft, higher. Mar. 27, 1963, to May 12, 1965, water-stage recorder at site 1,050 ft upstream at datum 6.08 ft, higher. See WSP 1733 or 1924 for history of changes prior to Feb. 18, 1960.

REMARKS.--Records good. Natural flow of stream affected by water diverted from Gunnison River (see record of diversion through Gunnison tunnel published with station 09128000) and other adjacent basins, diversions for irrigation of about 90,000 acres above station, and return flow from irrigated areas. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--47 years (water years 1908, 1921, 1939-83), 282 ft³/s; 204,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge recorded, 3,730 ft³/s May 5, 1941, gage height, 5.90 ft, site and datum then in use, from rating curve extended above 1,900 ft³/s; no flow at times in 1908; minimum daily determined since beginning of diversion through Gunnison tunnel, 7 ft³/s July 10-15, 17, 21, 24-28, 1910.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,970 ft³/s at 1400 June 25, gage height, 7.64 ft; minimum daily 101 ft³/s Feb. 13, 14, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	754	187	196	132	116	111	316	455	1950	957	1030	339
2	690	163	196	139	115	116	286	330	1820	791	980	379
3	677	155	187	144	109	121	270	234	1340	853	869	370
4	656	151	166	137	107	124	236	270	1140	1070	790	353
5	641	150	166	141	117	133	213	421	1190	1120	782	370
6	614	144	178	151	109	135	237	543	1090	928	755	361
7	573	142	186	146	105	115	238	366	948	1140	647	333
8	594	139	180	137	110	113	261	467	997	1460	611	328
9	633	158	177	128	110	117	217	988	1100	1500	584	336
10	624	153	187	119	110	116	239	1140	1000	1630	573	333
11	548	153	183	129	112	124	236	1240	1080	1580	555	353
12	690	159	173	124	103	154	256	661	1680	1210	545	358
13	758	176	158	120	101	156	252	552	1620	958	616	370
14	665	180	166	120	101	151	231	412	1460	817	625	347
15	604	168	152	120	103	170	176	427	1290	733	610	341
16	611	170	154	120	103	171	173	427	1240	598	537	349
17	606	170	167	120	103	135	169	577	1260	629	402	360
18	411	170	168	120	102	114	194	534	1460	645	507	354
19	238	173	148	120	107	239	269	593	1910	734	664	355
20	224	178	146	110	109	249	261	667	1920	861	647	345
21	187	172	162	110	105	226	213	585	1880	1230	597	380
22	163	161	177	110	101	222	220	825	1970	1710	506	426
23	160	163	166	110	106	234	203	1000	1870	1550	452	436
24	160	165	157	110	110	190	284	1200	2360	1530	431	414
25	159	177	134	110	113	206	654	1400	2550	1200	453	420
26	151	193	135	110	122	237	596	1600	2510	1370	454	446
27	168	190	132	110	121	255	425	1700	2230	1730	399	479
28	189	188	151	110	118	237	298	1900	1920	1680	366	406
29	196	190	160	110	---	240	450	2110	1240	1500	371	430
30	194	196	147	110	---	231	616	2030	1060	1390	407	433
31	192	---	125	114	---	261	---	2530	---	1170	296	---
TOTAL	13730	5034	5080	3791	3048	5403	8689	28184	47085	36274	18061	11304
MEAN	443	168	164	122	109	174	290	909	1570	1170	583	377
MAX	758	196	196	151	122	261	654	2530	2550	1730	1030	479
MIN	151	139	125	110	101	111	169	234	948	598	296	328
AC-FT	27230	9980	10080	7520	6050	10720	17230	55900	93390	71950	35820	22420
CAL YR 1982	TOTAL	131157	MEAN 359	MAX 1190	MIN 106	AC-FT 260100						
WTR YR 1983	TOTAL	185683	MEAN 509	MAX 2550	MIN 101	AC-FT 368300						

GUNNISON RIVER BASIN

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09150500 ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO

LOCATION.--Lat 38°44'06", long 108°09'40", in SE¼NE¼ sec.19, T.15 S., R.96 W., Delta County, Hydrologic Unit 14020005, on left bank 90 ft upstream from railroad bridge, 0.3 mi upstream from mouth, and 5.0 mi west of Delta.

DRAINAGE AREA.--242 mi².

PERIOD OF RECORD.--October 1938 to September 1954, May 1976 to current year. Prior to April 1939, monthly discharge only, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 4,864.34 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1948, at site 0.2 mi upstream at datum 4.86 ft, higher.

REMARKS.--Records good except those for winter period, which are fair. Part of discharge is return flow from lands irrigated under lower end of Ironstone Canal from Uncompahgre River. Diversions for irrigation of a few hundred acres above station. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--23 years (water years 1939-54, 1977-83), 124 ft³/s; 89,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft³/s Aug. 5, 1945, gage height, 7.76 ft, site and datum then in use, from rating curve extended above 1,300 ft³/s; minimum observed, 9.6 ft³/s Apr. 7, 1977, (discharge measurement).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 810 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
May 11	0600	1,090	5.02	July 26	2000	* 2,130	7.81
May 31	1100	1,770	7.05	Aug. 12	2400	982	5.20
June 26	1200	1,670	6.73				

Minimum daily discharge, 16 ft³/s Jan. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	128	99	58	19	32	33	146	418	1290	247	133	52
2	132	95	53	19	30	34	130	370	1310	171	102	53
3	130	94	50	19	23	34	129	326	884	148	93	55
4	125	88	50	19	31	34	127	316	813	120	98	66
5	115	88	50	19	31	34	124	369	838	105	97	76
6	110	97	46	20	28	34	123	417	722	74	82	76
7	103	98	50	22	27	33	113	415	678	76	96	100
8	101	101	50	22	30	33	108	498	666	99	75	111
9	103	116	47	20	33	34	77	706	696	130	85	124
10	107	117	52	19	30	34	94	895	705	114	66	151
11	110	123	47	18	30	36	94	1010	679	81	57	161
12	83	102	42	18	27	42	112	787	787	69	155	160
13	59	88	38	18	30	48	119	656	681	66	251	141
14	63	74	45	17	32	55	128	573	568	53	139	132
15	80	69	38	17	32	59	114	543	534	61	132	136
16	89	66	33	17	32	70	120	586	558	51	118	145
17	87	83	34	17	30	59	128	548	569	48	87	130
18	82	82	38	17	31	65	130	464	554	46	69	136
19	67	80	31	17	33	80	141	401	583	48	61	138
20	68	84	38	17	32	75	137	366	561	73	80	147
21	60	78	42	18	32	68	160	356	498	104	88	150
22	57	80	44	18	31	88	168	496	442	122	74	161
23	48	76	39	17	32	107	173	716	393	175	62	142
24	43	69	33	16	32	148	211	900	408	189	111	144
25	44	66	25	19	33	133	341	1070	602	163	116	151
26	46	53	26	20	33	128	393	1040	1390	401	91	152
27	121	50	26	18	33	121	406	1080	1310	256	80	135
28	108	53	27	20	33	125	383	1260	952	191	80	127
29	94	58	21	22	---	136	391	1110	544	151	83	139
30	90	55	21	24	---	128	466	1200	352	97	72	160
31	98	---	21	28	---	131	---	1580	---	125	43	---
TOTAL	2751	2482	1215	591	863	2239	5486	21472	21567	3854	2976	3751
MEAN	88.7	82.7	39.2	19.1	30.8	72.2	183	693	719	124	96.0	125
MAX	132	123	58	28	33	148	466	1580	1390	401	251	161
MIN	43	50	21	16	23	33	77	316	352	46	43	52
AC-FT	5460	4920	2410	1170	1710	4440	10880	42590	42780	7640	5900	7440

CAL YR 1982	TOTAL	50262	MEAN 138	MAX 1380	MIN 21	AC-FT 99690
WTR YR 1983	TOTAL	69247	MEAN 190	MAX 1580	MIN 16	AC-FT 137400

GUNNISON RIVER BASIN

09151500 ESCALANTE CREEK NEAR DELTA, CO

LOCATION.--Lat 38°45'24", long 108°15'34", in E: sec.8, T.15 S., R.97 W., Sixth Principal Meridian, Delta County, Hydrologic Unit 14020005, on left bank just upstream from county bridge, 0.2 mi upstream from mouth, and 10.5 mi west of Delta.

DRAINAGE AREA.--209 mi².

PERIOD OF RECORD.--April 1922 to September 1923, May 1976 to September 1983 (discontinued).

REVISED RECORDS.--WSP 1313: 1923 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 4,810 ft, from topographic map. Prior to September 1923, nonrecording gage at different datum operated by State Engineer of Colorado.

REMARKS.--Records good, except those for winter period, which are poor. Diversions above station for irrigation. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--7 years, 58.4 ft³/s; 42,310 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,050 ft³/s July 24, 1977, gage height, 8.54 ft, from floodmarks, from rating curve extended above 320 ft³/s, on basis of slope-area measurement of peak flow; no flow June 23-25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s at 0200 May 31, gage height, 6.95 ft; minimum daily, 1.6 ft³/s Sept. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	22	26	13	14	20	39	337	783	3	38	12
2	22	21	26	13	14	21	34	302	717	61	31	10
3	17	18	24	13	14	20	39	275	522	51	41	9.2
4	14	15	23	13	14	21	36	291	475	46	89	9.8
5	12	17	22	14	14	21	33	389	445	43	55	8.2
6	12	17	21	15	14	20	31	410	366	39	48	7.4
7	12	17	18	14	15	20	32	421	327	36	79	7.1
8	12	18	17	14	14	20	32	552	312	34	37	6.7
9	12	27	18	13	15	20	38	728	279	35	35	7.1
10	11	25	17	13	15	20	34	799	250	32	32	7.1
11	10	38	15	12	15	21	36	862	211	27	40	6.5
12	10	35	14	12	14	25	37	547	228	23	74	5.8
13	10	36	14	11	15	27	38	522	205	20	63	4.4
14	9.8	29	17	11	15	29	34	438	203	18	31	3.3
15	9.8	17	17	11	15	35	32	429	215	16	34	2.9
16	10	20	18	11	16	34	37	431	237	14	28	2.6
17	9.6	24	18	11	15	35	38	350	231	13	22	2.4
18	9.2	25	17	11	15	35	43	290	221	11	20	2.2
19	8.2	26	18	11	17	35	61	268	209	10	20	1.6
20	7.9	19	17	12	15	35	74	251	184	10	23	1.7
21	7.5	22	18	12	15	29	89	311	161	10	21	2.3
22	7.2	20	18	11	16	33	111	455	138	11	20	2.4
23	6.9	20	19	12	17	29	129	542	122	41	18	2.3
24	7.5	18	17	13	17	28	203	614	146	38	16	5.0
25	8.1	25	17	12	19	30	278	715	186	48	19	6.0
26	10	24	17	13	19	30	311	778	455	87	18	6.3
27	57	24	17	14	18	28	336	775	417	73	17	7.1
28	22	26	15	14	18	30	301	767	308	46	16	9.0
29	22	28	14	15	---	29	342	722	166	35	13	6.6
30	22	26	14	15	---	29	399	851	96	29	14	9.1
31	23	---	14	15	---	34	---	958	---	29	13	---
TOTAL	442.7	699	557	394	434	843	3277	16380	8815	1059	1025	174.1
MEAN	14.3	23.3	18.0	12.7	15.5	27.2	109	528	294	34.2	33.1	5.80
MAX	57	38	26	15	19	35	399	958	783	87	89	12
MIN	6.9	15	14	11	14	20	31	251	96	10	13	1.6
AC-FT	878	1390	1100	781	861	1670	6500	32490	17480	2100	2030	345
CAL YR 1982	TOTAL	22168.20	MEAN	60.7	MAX	813	MIN	.69	AC-FT	43970		
WTR YR 1983	TOTAL	34099.80	MEAN	93.4	MAX	958	MIN	1.6	AC-FT	67640		

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. Datum of gage is 4,628.12 ft, National Geodetic Vertical Datum of 1929. See WSP 1733 or 1924 for history of changes prior to October 1959.

REMARKS.--Records good. Records show flow that enters Colorado River from Gunnison River basin except for about 60 ft³/s diverted below gage during irrigation season. Natural flow of river affected by diversions for irrigation of about 233,000 acres above station, storage reservoirs, and return flow from irrigated lands.

AVERAGE DISCHARGE.--75 years (water years 1897-99, 1902-06, 1917-83), 2,544 ft³/s; 1,843,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 35,700 ft³/s May 23, 1920, gage height, 14.95 ft, site and datum then in use, from rating curve extended above 22,000 ft³/s; minimum daily, 106 ft³/s July 20, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21,200 ft³/s at 2000 June 26, gage height, 13.06 ft; minimum daily, 1,160 ft³/s Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3110	2630	2720	2330	2270	2350	2150	5300	17600	14900	4760	2320
2	2970	2570	2720	2340	2230	2360	2040	4600	17000	13300	4550	2470
3	2820	2010	2550	2350	2190	2350	1980	4250	15000	13100	4160	2320
4	2730	1160	2480	2300	2180	2360	1960	4250	13400	12800	3950	2280
5	2640	1920	2510	2290	2240	2400	1890	4900	12800	12400	3960	2340
6	2510	2440	2500	2300	2250	2390	1780	5300	12100	10600	3960	2300
7	2410	2470	2530	2330	2250	2360	1790	5080	11200	8780	3710	2280
8	2450	2460	2480	2310	2220	2330	1740	5280	11100	9240	3720	2280
9	2550	2630	2490	2310	2240	2410	1650	7050	11700	9690	3800	2300
10	2480	2760	2490	2230	1860	2260	1620	7980	11900	8920	3920	2150
11	2660	2820	2490	2250	1680	2140	1600	8950	11700	9180	3950	2090
12	2440	2840	2490	2240	2020	2240	1620	7150	12700	8980	3420	2100
13	2500	2760	2450	2230	2190	2320	1530	6850	13000	8290	3710	2100
14	2460	2670	2450	2200	2260	2440	1580	6400	10600	8360	3620	2120
15	2320	2600	2460	2210	2200	2660	1570	5990	9470	7750	3390	2150
16	2350	2570	2410	2220	2230	2590	1650	5760	9440	5890	3180	2150
17	2330	2600	2510	2300	2240	2450	1660	6210	9870	5630	2850	2080
18	2500	2620	2520	2320	2230	2360	1750	5870	10800	5950	2770	1930
19	2800	2650	2420	2320	2240	2420	2090	5590	12200	6270	2770	1940
20	2930	2690	2360	2250	2250	2480	2420	5770	13000	5370	3240	1940
21	2930	2640	2440	2230	2240	2380	2620	5770	13100	5420	3170	2040
22	2900	2640	2490	2230	2240	2230	2650	6750	12800	6100	3040	2630
23	2920	2660	2500	2220	2260	2390	2570	8290	13000	6330	2870	2190
24	2880	2570	2450	2270	2270	2400	3030	9490	14400	5910	2740	2040
25	2810	2540	2320	2270	2300	2370	4670	11000	15900	5950	2940	2200
26	2390	2640	2290	2270	2320	2270	5210	12000	19600	5660	2940	2210
27	3140	2530	2270	2240	2340	2210	4750	13000	20200	6540	2590	2310
28	2840	2570	2340	2280	2310	2120	4190	14400	18900	5970	2470	2260
29	2580	2550	2340	2300	---	2060	4230	14900	17200	5560	2430	2230
30	2530	2620	2310	2290	---	1920	5360	15400	15700	5230	2710	2410
31	2550	---	2250	2290	---	1970	---	17200	---	4680	2610	---
TOTAL	82430	75830	76030	70520	61750	71990	75350	246730	407380	248750	103900	66160
MEAN	2659	2528	2453	2275	2205	2322	2512	7959	13580	8024	3352	2205
MAX	3140	2840	2720	2350	2340	2660	5360	17200	20200	14900	4760	2630
MIN	2320	1160	2250	2200	1680	1920	1530	4250	9440	4680	2430	1930
AC-FT	163500	150400	150800	139900	122500	142800	149500	489400	808000	493400	206100	131200
CAL YR 1982	TOTAL	967138	MEAN	2650	MAX	7960	MIN	876	AC-FT	1918000		
WTR YR 1983	TOTAL	1586820	MEAN	4347	MAX	20200	MIN	1160	AC-FT	3147000		

GUNNISON RIVER BASIN

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued
(Irrigation network station)
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1931 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: November 1935 to September 1974, September 1975 to current year.
WATER TEMPERATURES: April 1949 to September 1974, September 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since September 1975.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,000 micromhos on several days during July and September 1974; minimum, 194 micromhos June 6, 1979.

WATER TEMPERATURES: Maximum, 30.0°C Aug. 13, 1958; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,100 micromhos Sept. 25; minimum, 257 micromhos May 26.
WATER TEMPERATURES: Maximum, 22.5°C August 17; minimum recorded, 1.0°C Jan. 16.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)
OCT											
26...	1400	2260	730	697	8.0	11.5	6.3	9.5	76	100	260
DEC											
21...	1430	2400	655	634	7.3	3.5	3.5	10.5	K4	93	270
FEB											
22...	1400	2250	575	607	8.4	6.5	6.8	10.7	<1	32	230
APR											
20...	1300	2220	712	702	7.7	12.0	390	8.4	--	160	270
JUN											
01...	1400	17400	352	334	8.3	10.5	400	8.4	K1000	1500	130
AUG											
11...	1400	4280	655	568	8.4	19.0	65	7.2	480	890	250

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)
OCT											
26...	65	24	42	1	2.6	125	230	6.0	.30	12	452
DEC											
21...	67	24	39	1	2.6	127	210	11	.30	12	460
FEB											
22...	55	22	35	1	2.4	118	180	5.4	.30	11	404
APR											
20...	67	26	43	1	3.2	142	220	7.4	.30	12	468
JUN											
01...	37	10	16	.6	2.1	76	86	2.5	.20	12	215
AUG											
11...	62	22	34	1	2.8	112	200	5.1	.30	14	425

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	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)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT										
26...	460	.61	2760	.500	1.4	.030	<.010	<.010	13	9
DEC										
21...	440	.63	2980	.580	.50	.070	.040	<.010	--	--
FEB										
22...	380	.55	2450	.410	.60	.050	.010	<.010	4	13
APR										
20...	460	.64	2810	.560	1.4	.020	.030	.040	--	--
JUN										
01...	210	.29	10100	.260	1.3	.280	.020	.020	130	18
AUG										
11...	410	.58	4910	.620	.80	.040	.070	.040	19	4

K BASED ON NON-IDEAL COLONY COUNT.

GUNNISON RIVER BASIN

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09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	LEAD, DIS- SOLVED (UG/L AS PB)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
OCT 26...	1400	1	54	1	<1	<1	3	1	<.1	7	<1	3
FEB 22...	1400	2	50	<1	<1	1	6	2	<.1	4	<1	3
JUN 31...	1400	1	200	<1	<1	<1	8	3	<.1	2	<1	14
AUG 11...	1400	1	48	<1	<1	<1	2	4	.2	<1	<1	4

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 26...	1300	2260	42	256	48	MAY 20...	1300	5530	591	8820	--
DEC 21...	1430	2400	18	117	--	JUN 01...	1400	17400	1550	72800	83
FEB 22...	1400	2250	30	182	--	JUL 25...	1330	5890	534	8490	--
FEB 22...	1444	2250	30	182	--	AUG 11...	1400	4280	291	3360	--
MAR 14...	1430	2350	152	964	--	SEP 16...	1400	2140	67	387	--
APR 20...	1300	2220	634	3800	--						

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	752	631	620	629	769	491	356	386	673	844
2		---	747	626	609	658	763	507	358	389	682	847
3		---	742	638	586	655	777	511	363	385	624	857
4		---	734	633	563	652	781	503	365	382	608	855
5		---	724	640	569	647	772	482	368	384	621	892
6		---	732	648	570	638	766	451	371	386	632	917
7		---	743	662	554	634	792	439	378	392	643	920
8		---	745	662	556	627	776	436	383	403	652	931
9		---	736	678	562	608	785	402	386	409	658	949
10		---	734	673	592	571	810	379	389	411	662	945
11		---	744	660	631	600	813	377	396	419	631	919
12		---	730	667	677	586	822	411	400	412	697	985
13		---	719	658	674	593	865	448	403	425	760	990
14		---	724	623	645	670	864	468	408	425	777	992
15		---	744	625	614	732	878	485	416	427	775	991
16		780	716	648	597	687	820	505	426	431	815	998
17		776	717	640	585	636	797	542	433	439	834	996
18		781	713	598	582	606	788	572	438	451	862	1020
19		776	709	617	587	642	758	586	438	458	875	1040
20		768	696	678	596	697	738	591	438	461	866	1040
21		756	720	698	604	682	695	568	438	482	845	1030
22		751	736	674	614	661	667	516	439	519	837	1020
23		744	748	647	620	625	672	431	436	526	840	984
24		737	748	611	614	637	670	347	431	534	833	1020
25		753	721	630	612	652	609	299	427	583	810	1090
26		746	669	648	610	663	559	279	442	614	799	1050
27		743	674	666	611	676	503	287	426	626	813	1030
28		746	684	680	619	699	500	296	401	639	833	1010
29		749	681	697	---	721	500	301	396	648	845	999
30		769	658	682	---	745	503	326	392	659	857	988
31		---	652	645	---	761	---	348	---	670	852	---
MEAN		758	719	651	603	655	727	438	405	477	758	972
WTR YR 1983	MEAN	646		MAX	1090	MIN	279					

GUNNISON RIVER BASIN

09152500 GUNNISON RIVER NEAR GRAND JUNCTION, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	10.5	9.0	5.0	5.0	2.0	2.0	4.0	2.0	7.5	6.0
2	---	---	9.0	7.5	5.0	4.0	2.5	2.0	3.0	1.5	8.0	6.0
3	---	---	8.0	6.5	4.5	3.5	2.5	2.0	3.0	1.5	6.5	5.5
4	---	---	7.0	5.5	4.5	3.5	3.0	2.0	2.5	1.5	6.0	5.0
5	---	---	6.5	5.0	4.0	3.0	3.5	2.5	3.0	2.0	6.0	5.5
6	---	---	7.0	5.0	4.0	3.0	3.5	2.0	3.5	2.0	7.5	5.5
7	---	---	8.0	6.5	4.5	3.5	2.5	1.5	3.5	2.5	7.5	6.0
8	---	---	8.5	7.5	4.5	3.5	3.0	1.5	4.0	2.5	8.0	6.0
9	---	---	9.0	8.0	4.5	3.5	3.0	1.5	4.5	3.5	8.5	6.5
10	---	---	9.0	8.5	8.0	4.5	4.0	1.5	5.0	3.5	8.0	6.0
11	---	---	8.0	7.0	7.5	5.0	4.0	2.5	5.0	3.0	8.5	6.5
12	---	---	7.0	6.0	5.0	3.5	---	---	4.5	3.0	9.0	7.0
13	---	---	7.0	5.5	4.0	3.0	---	---	5.0	3.0	9.0	7.5
14	---	---	6.0	5.0	4.0	2.5	---	---	4.5	3.5	8.5	7.5
15	---	---	5.5	4.0	3.5	3.0	---	---	5.0	3.5	7.5	5.5
16	---	---	5.5	4.0	3.5	2.5	2.5	1.0	5.5	4.0	7.0	5.0
17	---	---	6.0	4.5	4.0	2.5	3.0	1.5	5.0	3.5	6.5	6.0
18	---	---	7.0	5.5	4.0	3.0	3.5	3.0	5.0	3.5	6.0	5.0
19	---	---	7.5	6.5	3.0	2.0	3.5	2.5	4.5	4.0	6.0	4.5
20	---	---	7.0	6.0	4.0	1.5	3.5	2.5	5.0	3.0	6.0	4.5
21	---	---	8.0	5.5	3.5	2.0	3.0	2.5	5.5	3.5	6.0	4.5
22	---	---	7.5	5.0	4.0	3.0	4.0	2.5	6.0	4.0	6.5	4.5
23	---	---	7.0	4.0	4.5	4.0	3.0	2.5	8.0	4.5	7.0	5.5
24	---	---	5.0	4.0	4.0	2.0	2.5	2.0	7.0	5.0	6.5	5.0
25	---	---	5.0	4.0	3.5	1.5	3.0	2.5	6.5	5.0	5.5	4.0
26	---	---	5.0	4.0	4.0	2.5	4.0	3.0	5.5	4.5	6.5	5.0
27	---	---	5.0	4.0	3.5	2.0	3.5	3.0	5.5	4.0	7.5	5.5
28	8.5	7.0	4.5	3.5	3.0	2.0	4.0	3.0	7.0	5.5	7.5	6.0
29	7.5	6.5	5.0	4.0	2.0	2.5	4.0	2.5	---	---	9.0	6.5
30	8.5	7.0	5.0	4.5	2.0	2.0	4.0	2.5	---	---	10.5	7.0
31	9.5	8.5	---	---	2.0	2.0	3.5	2.5	---	---	9.5	8.0
MONTH	9.5	6.5	10.5	3.5	8.0	1.5	4.0	1.0	8.0	1.5	10.5	4.0
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	8.5	6.5	8.5	7.0	12.0	10.0	14.0	13.0	19.0	17.5	20.5	18.0
2	9.0	6.5	9.5	8.0	12.0	10.0	14.5	13.0	19.5	18.0	20.0	18.5
3	9.0	6.5	11.5	9.0	11.5	10.0	14.5	13.5	20.0	18.5	21.0	18.5
4	6.5	5.5	13.0	10.5	12.0	11.5	14.5	13.5	20.0	19.0	21.0	18.5
5	7.5	4.5	12.5	11.0	12.0	11.5	15.0	13.5	21.0	18.5	20.5	18.0

09152600 ORCHARD MESA DRAIN AT GRAND JUNCTION, CO

LOCATION.--Lat 39°02'49", long 108°34'17", in NE¼NE¼ sec.27, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 14020005, on right bank 350 ft upstream from mouth and 1.6 mi south of city hall in Grand Junction.

DRAINAGE AREA.--3.70 mi².

PERIOD OF RECORD.--April 1973 to current year. Water-quality data available, April 1973 to September 1977. Discontinued Sept. 30.

GAGE.--Water-stage recorder. Altitude of gage is 4,565 ft, from topographic map.

REMARKS.--Records good except those for winter period, and periods of indefinite stage discharge relation, which are poor. Orchard Mesa Canal imports water from the Colorado River into basin above station for irrigation. Flow is mostly waste water from canal and return flow from land irrigated under the canal. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years (water years 1974-83), 7.72 ft³/s; 5,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42 ft³/s Aug. 8, 1977, gage height, 4.94 ft; maximum gage height, 4.95 ft, May 6, 1973; minimum daily discharge, 0.36 ft³/s Apr. 3, 5, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 0.14 ft³/s Mar. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	2.8	1.5	.27	.25	.24	.15	17	18	22	12	13
2	18	2.5	1.3	.27	.25	.26	.16	16	18	25	11	14
3	16	2.4	1.1	.27	.27	.28	.51	14	16	20	11	14
4	14	2.0	1.2	.27	.27	.30	.22	15	17	17	11	15
5	13	1.9	1.2	.27	.25	.28	.17	15	17	16	12	15
6	15	1.5	1.2	.27	.25	.23	.17	16	12	7.9	13	13
7	14	1.7	1.2	.27	.25	.18	2.0	15	10	5.5	11	12
8	15	1.6	1.1	.30	.25	.17	2.8	14	10	5.9	7.6	14
9	16	1.5	1.1	.34	.25	.16	5.7	11	12	9.9	5.7	17
10	15	1.4	1.2	.25	.25	.17	6.8	11	15	12	7.5	17
11	15	1.9	1.1	.25	.24	.18	8.3	11	17	10	14	17
12	14	1.2	1.1	.25	.24	.16	9.1	8.1	25	7.8	14	15
13	14	1.5	1.4	.25	.27	.16	10	12	30	7.6	13	13
14	14	1.4	1.3	.24	.22	.93	12	14	18	7.2	12	13
15	7.8	1.4	1.1	.24	.20	.73	12	15	16	6.1	13	14
16	5.0	1.5	1.1	.25	.21	.20	12	16	12	6.4	14	13
17	5.7	1.5	1.2	.26	.20	.23	12	17	12	5.0	13	13
18	6.1	1.5	1.1	.26	.22	.29	11	15	15	6.7	15	12
19	5.4	1.9	1.6	.25	.40	.25	10	18	20	5.4	16	12
20	5.6	1.6	1.9	.25	.22	.19	15	18	26	9.0	17	13
21	4.1	1.5	1.0	.26	.21	.18	15	15	29	8.4	18	15
22	2.1	1.5	.82	.26	.22	.17	14	16	27	11	15	17
23	2.2	1.4	.80	.24	.20	.19	11	15	28	15	12	17
24	2.3	1.4	.80	.26	.22	.24	9.8	13	30	13	11	15
25	2.2	1.5	.60	.27	.30	.25	12	16	24	14	12	15
26	2.3	1.4	.40	.27	.33	.19	9.3	17	20	15	12	16
27	3.9	1.5	.30	.27	.25	.17	12	15	18	19	13	16
28	2.0	1.4	.28	.26	.25	.16	17	15	18	19	10	18
29	2.8	1.4	.28	.26	---	.15	16	16	18	16	11	18
30	2.8	1.4	.28	.26	---	.14	16	18	20	14	12	19
31	3.0	---	.28	.26	---	.18	---	18	---	13	12	---
TOTAL	277.3	49.1	30.84	8.15	6.94	7.61	262.18	462.1	568	369.8	380.8	445
MEAN	8.95	1.64	.99	.26	.25	.25	8.74	14.9	18.9	11.9	12.3	14.8
MAX	19	2.8	1.9	.34	.40	.93	17	18	30	25	18	19
MIN	2.0	1.2	.28	.24	.20	.14	.15	8.1	10	5.0	5.7	12
AC-FT	550	97	61	16	14	15	520	917	1130	733	755	883
CAL YR 1982	TOTAL	2632.96	MEAN 7.21	MAX 20	MIN	.28	AC-FT 5220					
WTR YR 1983	TOTAL	2867.82	MEAN 7.86	MAX 30	MIN	.14	AC-FT 5690					

LEACH CREEK BASIN

09152650 LEACH CREEK AT DURHAM, CO

LOCATION.--Lat 39°05'27", long 108°36'25", in NW¼NW¼ sec.9, T.1 S., R.1 W., Ute Meridian, Mesa County, Hydrologic Unit 1401005, on left bank 40 ft downstream from culvert on U.S. Highways 6 and 50, 0.5 mi northwest of Durham, and 2.9 mi northwest of city hall in Grand Junction.

DRAINAGE AREA.--24.8 mi².

PERIOD OF RECORD.--April 1973 to September 1983 (discontinued). Water-quality data available, April 1973 to September 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,540 ft, from topographic map.

REMARKS.--Records good. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years (water years 1974-83), 31.4 ft³/s; 22,750 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 632 ft³/s July 18, 1974, gage height, 6.76 ft; minimum daily, 4.0 ft³/s Mar. 21, 23, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 458 ft³/s at 1800 July 23, gage height, 5.84 ft; minimum daily, 4.0 ft³/s Mar. 21, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	49	10	6.1	6.2	6.2	7.5	29	36	63	56	48
2	89	45	9.7	6.0	6.0	7.0	7.2	27	37	60	49	46
3	89	43	9.3	6.1	6.2	6.0	10	26	33	61	54	50
4	86	43	9.5	6.0	6.5	6.2	7.1	26	31	63	60	53
5	87	42	9.3	6.0	6.2	6.7	6.5	25	31	61	58	55
6	88	43	9.4	6.1	6.0	5.2	41	33	28	56	57	53
7	88	46	9.4	6.2	6.0	6.7	39	36	27	46	58	51
8	90	56	9.0	6.1	6.1	8.7	23	36	27	57	53	55
9	87	33	9.0	8.1	6.1	8.2	12	33	32	64	52	54
10	87	15	9.0	6.1	6.0	8.7	11	35	39	73	55	53
11	86	16	8.8	5.8	5.8	8.4	15	38	37	65	62	54
12	86	13	8.5	6.1	5.8	8.7	30	43	50	68	72	56
13	89	12	26	5.8	5.9	8.4	30	34	53	67	66	56
14	88	11	167	5.7	6.0	64	26	31	51	57	62	58
15	81	11	107	5.7	6.0	20	26	34	50	54	60	56
16	77	11	81	5.8	6.1	5.4	26	60	46	55	55	55
17	77	11	82	5.9	7.1	5.2	26	57	42	56	57	54
18	76	11	81	6.2	13	9.0	28	39	42	54	61	57
19	74	13	79	5.9	15	5.6	25	37	42	58	65	57
20	73	11	68	5.9	6.9	4.2	32	36	38	57	63	55
21	69	11	21	5.8	6.6	4.0	35	34	37	56	60	56
22	69	10	11	6.4	6.4	4.2	30	30	38	64	55	55
23	67	11	8.8	5.8	6.2	4.0	28	27	47	159	53	54
24	66	10	7.3	5.7	6.2	6.7	29	30	58	71	55	50
25	65	10	6.6	6.9	7.0	5.8	27	35	67	65	56	48
26	66	10	6.6	6.4	6.2	6.2	24	32	81	69	56	49
27	84	10	6.6	6.4	7.0	5.8	24	31	80	66	57	52
28	96	10	6.5	6.5	6.4	6.0	22	30	76	64	49	48
29	99	10	6.3	6.2	---	6.0	20	31	69	60	45	49
30	30	10	6.2	6.2	---	8.0	30	35	65	57	48	57
31	52	---	6.1	6.3	---	10	---	35	---	58	49	---
TOTAL	2452	637	894.9	190.2	190.9	275.2	697.3	1065	1390	1984	1758	1594
MEAN	79.1	21.2	28.9	6.14	6.82	8.88	23.2	34.4	46.3	64.0	56.7	53.1
MAX	99	56	167	8.1	15	64	41	60	81	159	72	58
MIN	30	10	6.1	5.7	5.8	4.0	6.5	25	27	46	45	46
AC-FT	4860	1260	1780	377	379	546	1380	2110	2760	3940	3490	3160
CAL YR 1982	TOTAL	14208.1	MEAN	38.9	MAX	167	MIN	4.7	AC-FT	28180		
WTR YR 1983	TOTAL	13128.5	MEAN	36.0	MAX	167	MIN	4.0	AC-FT	26040		

09152900 ADOBE CREEK NEAR FRUITA, CO

LOCATION.--Lat 39°08'13", long 108°41'48", in SW¼SW¼ sec.22, T.1 N., R.2 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 30 ft downstream from bridge on U.S. Highways 6 and 50, 0.8 mi upstream from mouth, and 2.4 mi southeast of Fruita.

DRAINAGE AREA.--15.4 mi².

PERIOD OF RECORD.--Streamflow records, April 1973 to September 1983 (discontinued). Water-quality data available, April 1973 to September 1980.

REVISED RECORDS.--WDR CO-77-2: 1973-76(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,520 ft, from topographic map.

REMARKS.--Records good except those for periods Mar. 15-17 and May 26 to June 16, which are poor. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--10 years, 21.9 ft³/s; 15,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 243 ft³/s Aug. 10, 1983, gage height, 6.75 ft, from rating curve extended above 95 ft³/s; minimum daily, 1.3 ft³/s Apr. 2, 3, 1976, Mar. 18, 19, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 243 ft³/s at 2230 Sept. 10, gage height, 6.75 ft, from peak stage indicator; minimum daily, 1.5 ft³/s Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	33	4.2	3.1	2.2	1.9	1.5	41	32	27	42	40
2	35	23	4.1	3.1	2.1	2.1	1.6	49	31	28	47	45
3	33	20	3.9	3.0	2.1	2.1	2.0	50	30	28	50	44
4	32	20	4.0	2.9	2.2	2.0	1.8	44	30	27	49	48
5	30	19	3.9	2.8	2.1	1.9	1.6	43	29	28	56	46
6	31	19	4.0	2.8	2.0	1.8	1.6	49	29	27	50	44
7	31	20	4.0	2.8	2.1	1.9	1.7	45	28	37	43	41
8	40	19	3.8	2.7	2.1	1.8	1.6	45	29	43	40	41
9	38	9.4	3.9	2.7	2.0	1.8	1.6	40	29	39	36	42
10	39	6.5	3.8	2.5	1.9	1.8	1.6	30	31	37	45	45
11	43	5.8	3.6	2.4	1.8	1.8	7.1	28	30	40	46	46
12	42	5.6	3.5	2.5	1.8	1.9	15	30	33	34	44	40
13	40	5.2	3.7	2.5	1.9	2.2	14	36	31	32	39	38
14	44	5.4	3.4	2.5	1.9	1.8	15	37	30	33	46	38
15	48	5.3	3.4	2.5	1.8	1.7	16	38	29	36	50	42
16	47	5.3	3.3	2.5	1.9	1.8	17	44	30	37	52	43
17	45	5.2	3.5	2.6	1.8	1.9	16	42	28	36	43	45
18	44	5.3	3.4	2.5	1.9	2.0	16	38	27	39	52	44
19	44	4.7	3.3	2.4	2.0	1.8	16	38	26	41	50	41
20	42	4.5	3.3	2.4	1.8	1.7	17	36	27	39	39	43
21	42	4.4	3.3	2.3	1.8	1.7	20	34	33	43	37	44
22	44	4.5	3.3	2.4	1.9	1.8	26	32	36	60	40	44
23	39	4.4	3.6	2.3	1.9	1.7	31	31	43	76	42	41
24	38	4.4	3.3	2.3	2.1	1.8	29	31	43	46	41	45
25	39	4.3	3.2	2.4	2.1	1.8	30	25	45	41	38	43
26	38	4.3	3.2	2.3	2.0	1.6	32	25	46	38	40	39
27	50	4.3	3.2	2.3	2.0	1.6	37	26	37	45	43	38
28	35	4.3	3.2	2.3	1.9	1.7	37	27	39	47	44	38
29	35	4.4	3.1	2.2	---	1.6	41	28	36	46	43	39
30	33	4.5	3.1	2.2	---	1.6	41	29	33	45	45	48
31	36	---	3.1	2.2	---	1.7	---	32	---	45	42	---
TOTAL	1215	285.0	109.6	78.4	55.1	56.3	489.7	1123	980	1220	1374	1275
MEAN	39.2	9.50	3.54	2.53	1.97	1.82	16.3	36.2	32.7	39.4	44.3	42.5
MAX	50	33	4.2	3.1	2.2	2.2	41	50	46	76	56	48
MIN	30	4.3	3.1	2.2	1.8	1.6	1.5	25	26	27	36	38
AC-FT	2410	565	217	156	109	112	971	2230	1940	2420	2730	2530
CAL YR 1982	TOTAL	8861.0	MEAN 24.3	MAX 73	MIN 1.6	AC-FT 17580						
WTR YR 1983	TOTAL	8261.1	MEAN 22.6	MAX 76	MIN 1.5	AC-FT 16390						

REED WASH BASIN

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. Altitude of gage is 4,505 ft, from topographic map.

REMARKS.--Records fair except those for periods of indefinite stage-discharge relationship Jan. 20 to Feb. 3, May 31 to June 17, and those for period of no gage-height record, which are poor. Flow is mostly return flow and waste water from irrigated lands under Government Highline and Grand Valley Canals. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

AVERAGE DISCHARGE.--8 years, 49.8 ft³/s; 36,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 390 ft³/s July 23, 1983, gage height, unknown, maximum recorded gage height, 6.09 ft, July 24, 1979; minimum daily discharge, 2.0 ft³/s Jan. 31, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 390 ft³/s July 23, gage height, unknown; minimum daily, 2.4 ft³/s Mar. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	71	5.3	6.8	3.6	2.8	2.8	67	96	52	76	57
2	78	64	4.8	6.8	3.4	2.6	2.8	73	85	51	87	60
3	80	63	4.5	6.2	3.5	2.6	3.3	62	76	54	84	61
4	80	62	4.4	6.0	3.5	2.6	3.1	60	71	57	90	69
5	81	62	4.4	6.0	3.4	2.6	3.0	58	67	55	88	71
6	81	60	4.3	6.0	3.3	2.6	2.8	63	66	58	90	74
7	81	58	4.3	5.7	3.3	2.6	53	55	66	55	85	91
8	82	56	4.2	5.7	3.3	2.6	102	54	67	56	84	93
9	84	21	4.1	5.7	3.3	2.4	80	54	67	53	82	77
10	83	10	4.1	5.7	3.3	2.6	80	48	68	53	82	76
11	84	9.9	4.1	5.4	3.3	2.7	73	59	69	51	82	74
12	80	9.0	4.1	5.4	3.3	3.0	71	72	69	55	80	74
13	77	8.9	4.1	5.4	3.5	3.0	69	74	69	56	80	71
14	78	8.1	14	5.2	3.6	3.5	63	77	70	61	78	75
15	74	8.0	53	5.2	3.2	3.2	60	81	72	63	78	70
16	74	7.7	57	5.2	3.0	3.2	59	107	72	70	75	68
17	76	7.7	57	5.2	3.0	3.0	58	86	74	68	76	70
18	75	7.4	58	4.8	3.1	3.0	54	74	68	72	78	72
19	72	7.9	56	4.6	3.5	3.0	63	71	72	68	82	73
20	70	6.9	55	4.6	3.4	3.0	63	66	66	60	84	72
21	67	6.6	31	4.4	3.4	3.0	58	62	58	60	88	79
22	66	6.5	9.2	4.2	3.2	3.0	61	58	61	68	90	82
23	72	6.2	8.6	4.2	3.2	3.0	70	57	73	110	94	77
24	72	6.0	8.1	4.0	3.0	3.0	63	55	83	70	90	72
25	73	5.9	7.7	4.2	3.0	3.0	56	56	75	65	82	73
26	76	5.5	7.7	4.0	3.2	3.0	51	62	70	62	72	68
27	88	5.4	7.4	4.0	3.2	2.6	52	60	61	70	70	65
28	83	5.4	7.4	4.0	3.0	2.6	51	68	51	69	61	65
29	65	5.4	7.2	3.8	---	2.6	58	69	49	69	62	77
30	58	5.4	7.1	3.8	---	3.0	66	76	51	68	64	92
31	75	---	6.8	3.8	---	3.0	---	86	---	64	59	---
TOTAL	2363	666.8	514.9	156.0	92.0	88.4	1551.8	2070	2062	1943	2473	2198
MEAN	76.2	22.2	16.6	5.03	3.29	2.85	51.7	66.8	68.7	62.7	79.8	73.3
MAX	88	71	58	6.8	3.6	3.5	102	107	96	110	94	93
MIN	58	5.4	4.1	3.8	3.0	2.4	2.8	48	49	51	59	57
AC-FT	4690	1320	1020	309	182	175	3080	4110	4090	3850	4910	4360
CAL YR 1982	TOTAL	18294.6	MEAN	50.1	MAX	110	MIN	2.2	AC-FT	36290		
WTR YR 1983	TOTAL	16178.9	MEAN	44.3	MAX	110	MIN	2.4	AC-FT	32090		

NOTE.--NO GAGE-HEIGHT RECORD JULY 15 TO AUG. 25.

REED WASH BASIN

241

09153300 REED WASH NEAR LOMA, CO

LOCATION.--Lat 39°11'01", long 108°47'12", in NE¼SW¼ sec.2, T.1 N., R.3 W., Ute Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 40 ft upstream from bridge on U.S. Highways 6 and 50, 1.6 mi upstream from mouth, and 1.7 mi southeast of Loma.

DRAINAGE AREA.--29.3 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,470 ft, from topographic map.

REMARKS.--Records good except those for periods of indefinite stage-discharge relationship, June 26 to July 15, Sept. 8-30, and those for period of no gage-height record, which are poor. Flow is mostly return flow and waste water from lands irrigated under the Government Highline and Grand Valley Canals.

AVERAGE DISCHARGE.--10 years, 97.0 ft³/s; 70,280 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 435 ft³/s July 23, 1983, gage height, 7.24 ft; minimum daily, 4.6 ft³/s Mar. 29, April 1, 2, 5-6, 1983.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 435 ft³/s at 1900 July 23, gage height, 7.24 ft; minimum daily, 4.6 ft³/s Mar. 29, Apr. 1, 2, 5-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180	142	15	9.6	7.3	5.8	4.6	129	152	112	145	120
2	175	123	14	9.6	7.2	5.8	4.6	135	147	108	152	129
3	176	116	14	9.3	7.3	5.7	5.2	121	140	112	168	135
4	175	113	14	8.5	7.3	5.8	4.7	126	139	120	180	140
5	177	113	14	8.4	7.3	5.6	4.6	121	135	116	172	150
6	177	108	14	8.5	7.0	5.5	4.6	128	138	120	170	167
7	177	105	14	8.5	7.0	5.3	31	123	133	115	170	180
8	175	102	13	8.5	7.2	5.3	131	124	137	120	170	190
9	173	42	13	8.4	7.0	5.3	115	122	138	120	169	160
10	177	22	13	8.2	6.8	5.3	114	115	148	112	164	152
11	176	21	13	8.2	6.6	5.2	108	124	143	107	161	148
12	172	19	13	8.0	6.6	5.2	110	143	153	107	160	142
13	169	19	13	8.2	6.8	5.1	110	137	145	118	160	142
14	170	18	17	8.0	6.5	5.4	105	140	138	131	160	140
15	160	18	88	8.0	6.4	5.1	102	143	137	140	155	140
16	163	18	96	8.0	6.5	4.9	102	181	143	147	157	140
17	169	18	98	8.2	6.3	5.1	102	170	138	144	158	142
18	160	18	102	8.2	6.3	5.2	101	145	135	149	161	144
19	155	20	100	8.0	6.4	5.0	106	141	135	144	167	148
20	161	17	98	8.0	6.1	4.8	110	135	131	133	170	150
21	154	17	61	7.9	6.1	4.9	103	128	130	134	170	154
22	153	16	14	7.8	6.0	5.0	108	127	133	143	182	162
23	154	16	13	7.8	6.0	5.0	118	128	145	239	190	158
24	150	15	12	7.6	6.0	5.1	112	118	163	150	180	150
25	150	15	11	7.8	6.1	5.1	103	115	154	146	165	145
26	154	15	11	7.6	6.0	4.7	101	118	139	142	155	140
27	174	15	11	7.6	6.0	4.7	102	120	130	147	142	130
28	159	15	11	7.6	5.9	4.7	104	127	114	154	132	140
29	118	15	10	7.4	---	4.6	112	130	102	150	130	160
30	96	15	9.8	7.4	---	4.9	121	137	109	145	131	182
31	141	---	9.6	7.4	---	4.7	---	150	---	145	132	---
TOTAL	5020	1326	949.4	252.2	184.0	159.8	2559.3	4101	4124	4170	4978	4480
MEAN	162	44.2	30.6	8.14	6.57	5.15	85.3	132	137	135	161	149
MAX	180	142	102	9.6	7.3	5.8	131	181	163	239	190	190
MIN	96	15	9.6	7.4	5.9	4.6	4.6	115	102	107	130	120
AC-FT	9960	2630	1880	500	365	317	5080	8130	8180	8270	9870	8890

CAL YR 1982 TOTAL 38323.6 MEAN 105 MAX 244 MIN 4.8 AC-FT 76010
WTR YR 1983 TOTAL 32303.7 MEAN 88.5 MAX 239 MIN 4.6 AC-FT 64070

NOTE.--NO GAGE-HEIGHT RECORD JULY 28 TO SEPT. 8.

REED WASH BASIN

09153300 REED WASH NEAR LOMA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.-- April 1973 to September 1983 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1973 to September 1983.

WATER TEMPERATURES: April 1973 to September 1983.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.-- Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 10,500 micromhos Jan. 21, 22, 1974; minimum, 390 micromhos April 14, 1982.

WATER TEMPERATURES: Maximum, 28.0°C June 9, July 9, 10, 1973; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 5,030 micromhos January 2; minimum, 1070 micromhos June 24.

WATER TEMPERATURES: Maximum, 23.5°C July 13,14; minimum, 0.0 C many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)	
OCT 14...	1130	175	1300	1590	7.7	8.5	10.1	600	
DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 14...	150	55	130	2	4.4	182	490	140	.30
DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	
OCT 14...	9.6	1100	1.5	514	1.70	.010	24	20	

REED WASH BASIN

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09153300 REED WASH NEAR LOMA, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1610	1680	4630	4870	4800	4760	4850	1460	1150	1340		---
2	1580	1740	4600	4870	4800	4770	4860	1450	1130	1310		---
3	1570	1770	4640	4830	4810	4790	4790	1550	1130	1360		---
4	1620	1790	4680	4850	4810	4810	4860	1590	1130	1350		---
5	1600	1800	4690	4840	4790	4900	4890	1660	1140	1390		---
6	1590	1860	4700	4830	4790	4870	4890	1620	1150	1430		---
7	1620	1930	4700	4830	4810	4900	4020	1620	1150	1480		---
8	1630	1900	4690	4820	4790	4890	1370	1640	1160	1430		---
9	1630	2640	4700	4830	4780	4900	1310	1640	1170	1430		1770
10	1620	4100	4700	4830	4790	4910	1260	1690	1170	1460		1730
11	1620	4380	4710	4820	4780	4920	1280	1590	1170	1480		1730
12	1630	4440	4720	4820	4790	4920	1290	1410	1160	1430		1760
13	1620	4460	4740	4830	4790	4910	1270	1390	1160	1390		1750
14	1620	4460	4580	4810	4790	4840	1280	1370	1170	1340		1760
15	1640	4480	1730	4800	4790	4870	1310	1380	1180	1350		1800
16	1640	4500	1640	4790	4790	4830	1320	1450	1190	1330		1810
17	1630	4500	1630	4770	4780	4790	1370	1440	1210	1340		1830
18	1660	4520	1580	4730	4800	4780	1430	1370	1230	1400		1820
19	1650	4450	1620	4760	4780	4790	1460	1360	1240	1510		1840
20	1660	4500	1600	4790	4770	4810	1490	1300	1310	1510		1810
21	1690	4520	1900	4780	4780	4830	1550	1100	1320	1500		1830
22	1690	4540	3590	1760	4780	4830	1510	1130	1280	1590		1840
23	1710	4560	4490	4770	4770	4800	1440	1150	1240	1690		1880
24	1700	4570	4620	4770	4780	4770	1460	1170	1140	1480		1930
25	1720	4570	4670	4740	4780	4820	1560	1180	1200	1580		1920
26	1720	4590	4690	4770	4780	4840	1550	1190	1270	1470		1940
27	1690	4610	4720	4820	4760	4840	1570	1200	1270	1410		1990
28	1680	4630	4730	4820	4780	4840	1580	1200	1300	1450		2020
29	1840	4610	4740	4800	---	4840	1520	1200	1350	1500		2000
30	2080	4620	4770	4800	---	4860	1480	1190	1360	1560		1900
31	1740	---	4860	4800	---	4840	---	1170	---	---		---
MEAN	1670	3720	3970	4710	4790	4840	2190	1380	1210	1440		1850
WTR YR 1983	MEAN	2910		MAX	4920	MIN	1100					

09153300 REED WASH NEAR LOMA, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

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

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	12.0	6.0	12.5	9.5	18.0	12.0	20.0	14.0			---	---
2	11.0	5.5	14.5	8.0	15.5	12.0	21.0	14.5			---	---
3	8.5	5.5	15.5	8.5	18.0	11.5	20.5	15.5			---	---
4	8.0	5.0	16.5	9.0	17.0	12.0	21.5	13.5			---	---
5	10.5	5.0	15.5	10.5	17.5	11.5	22.5	14.5			---	---
6	11.0	4.0	12.5	9.5	17.0	12.0	23.0	16.0			---	---
7	10.0	4.0	17.0	7.5	19.0	12.5	23.0	17.5			---	---
8	8.0	5.0	17.5	9.0	19.5	13.0	23.0	17.0			---	---
9	10.0	6.5	17.5	10.0	19.0	13.0	21.5	17.5			21.0	17.0
10	11.0	7.5	17.5	9.0	20.0	13.0	22.5	16.5			21.5	17.5
11	9.5	8.5	13.0	10.0	18.5	13.5	22.0	15.0			21.0	16.5
12	10.0	7.5	15.0	8.0	15.5	13.5	23.0	15.5			21.0	16.0
13	8.5	7.0	14.0	8.0	15.5	11.5	23.5	15.5			21.0	16.5
14	9.0	6.0	14.0	8.0	17.5	10.5	23.5	16.0			20.0	17.5
15	10.0	6.0	15.0	8.5	18.5	11.5	23.0	17.0			20.5	16.0
16	11.0	6.5	12.0	9.0	18.5	12.5	23.0	16.0			20.5	16.0
17	12.5	7.5	11.0	8.0	20.0	13.5	23.5	17.0			21.0	16.5
18	12.5	8.5	12.0	7.0	21.0	14.0	22.5	18.0			20.5	17.0
19	14.5	9.5	11.5	9.0	21.0	14.0	22.0	18.5			20.5	17.0
20	12.5	10.0	14.0	8.5	21.5	14.0	22.5	17.5			18.0	14.5
21	14.5	10.5	16.5	9.5	21.5	14.0	21.5	18.0			17.5	13.0
22	15.0	9.5	18.0	11.5	22.0	14.0	19.5	18.5			18.0	13.0
23	15.5	9.5	19.0	12.0	20.0	15.0	22.5	17.0			18.0	15.0
24	16.0	10.5	19.5	12.5	18.0	15.5	21.5	17.5			19.0	16.5
25	16.0	10.5	19.5	12.5	21.0	15.0	21.0	18.0			20.0	15.5
26	15.0	8.5	21.0	13.0	20.5	15.5	19.5	17.5			20.0	16.0
27	14.5	10.0	21.5	13.0	18.0	15.5	22.0	16.5			20.5	18.0
28	14.0	10.5	21.5	13.5	19.5	14.0	22.0	17.0			21.0	16.5
29	15.5	10.0	19.0	13.5	21.0	14.5	22.5	17.5			20.5	18.5
30	14.0	10.5	20.0	14.0	20.0	14.5	21.5	18.5			19.0	18.0
31	---	---	15.5	12.5	---	---	---	---			---	---
MONTH	16.0	4.0	21.5	7.0	22.0	10.5	23.5	13.5			21.5	13.0
YEAR	23.5	.0										

SALT CREEK BASIN

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09153400 WEST SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°18'31", long 108°58'59", in SW¼NE¼ sec.3, T.9 S., R.104 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank at upstream side of bridge, 0.8 mi downstream from Prairie Canyon, and 8.7 mi northwest of Mack.

DRAINAGE AREA.--168 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1973 to September 1983 (discontinued).

REVISED RECORDS.--WDR CO-75-2: 1974.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft, from topographic map.

REMARKS.--Records fair. No diversion above station. A few stock ponds on tributaries above station.

AVERAGE DISCHARGE.--10 years, 0.89 ft³/s; 645 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft³/s Aug. 15, 1982, gage height 7.43 ft, from floodmarks; rating extended above 40 ft³/s on basis of slope-area measurements at gage heights 5.18 ft, 5.93 ft, 7.0 ft, and 7.43 ft; no flow most of time each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
June 26	0100	634	5.08	a July 22	unknown	unknown	unknown
July 09	1800	273	3.70				

a-Maximum stage and discharge probably occurred this day.
No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.10	.00	.00	.00	2.9	.78	6.6	23	2.0	1.2	.12
2	.00	.00	.00	.00	.00	2.4	.10	6.0	22	2.0	1.6	.12
3	.00	.00	.00	.00	.00	2.1	.58	4.3	21	2.0	1.2	.14
4	.00	.00	.00	.00	.00	.56	.38	3.5	20	2.0	1.6	.14
5	.23	.00	.00	.00	.00	2.4	.03	4.0	19	2.0	1.4	.14
6	.01	.00	.00	.00	.00	2.2	.00	4.7	16	2.5	1.2	.15
7	.00	.00	.00	.00	.00	1.4	.00	4.0	16	2.5	1.4	.15
8	.00	.00	.00	.00	.00	.64	.00	4.3	16	3.5	1.6	.15
9	.00	.00	.00	.00	.00	.77	.00	5.7	16	40	1.4	.14
10	.00	.61	.00	.00	.10	1.1	.00	7.4	16	1.9	10	.13
11	.00	.63	.00	.00	.06	1.0	.00	9.8	14	.00	.10	.06
12	.00	.00	.00	.00	.04	1.4	.00	10	16	.00	5.0	.07
13	.00	.00	.00	.00	.10	1.6	.11	7.4	14	.00	.10	.01
14	.00	.00	.00	.00	.20	1.9	.00	6.3	11	.00	7.5	.05
15	.00	.00	.00	.00	.25	.90	.00	5.7	9.4	.00	.10	.15
16	.00	.00	.00	.00	.40	.00	.00	11	8.3	.00	.00	.15
17	.00	.00	.00	.00	.50	.06	.00	16	7.2	.00	.00	.14
18	.00	.00	.00	.00	1.0	.14	.00	12	6.9	.00	.00	.02
19	.00	.00	.00	.00	.70	.10	.48	14	6.0	.00	.03	.00
20	.00	.00	.00	.00	.85	.00	1.4	14	5.5	.00	.04	.00
21	.00	.00	.00	.00	.90	.00	1.9	12	5.2	.00	.05	.08
22	.00	.00	.00	.00	1.0	.00	2.8	11	4.7	65	.06	.14
23	.00	.00	.00	.00	1.3	.00	2.0	11	4.5	30	.08	.15
24	.00	.00	.00	.00	1.5	.01	2.8	11	4.5	7.0	.08	.16
25	.00	.00	.00	.00	2.0	.00	5.2	12	32	3.5	.08	.16
26	6.0	.00	.00	.00	1.8	.00	3.9	13	60	2.0	.10	.15
27	12	.00	.00	.00	.00	.00	2.5	16	10	20	.10	.15
28	.00	.00	.00	.00	2.0	.00	2.0	16	2.5	2.0	.10	.15
29	.00	.00	.00	.00	---	.00	3.0	19	2.0	1.2	.10	.14
30	.00	.00	.00	.00	---	.00	5.7	21	2.0	1.2	.10	12
31	.50	---	.00	.00	---	.50	---	22	---	1.2	.10	---
TOTAL	18.74	1.34	.00	.00	14.70	24.08	35.66	320.7	410.7	193.50	36.42	15.31
MEAN	.60	.045	.000	.000	.53	.78	1.19	10.3	13.7	6.24	1.17	.51
MAX	12	.63	.00	.00	2.0	2.9	5.7	22	60	65	10	12
MIN	.00	.00	.00	.00	.00	.00	.00	3.5	2.0	.00	.00	.00
AC-FT	37	2.7	.00	.00	29	48	71	636	815	384	72	30

CAL YR 1982	TOTAL	539.81	MEAN	1.48	MAX	150	MIN	.00	AC-FT	1070
WTR YR 1983	TOTAL	1071.15	MEAN	2.93	MAX	65	MIN	.00	AC-FT	2120

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1973 to September 1983 (discontinued).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1973 to September 1983 (discontinued).

WATER TEMPERATURE: September 1973 to September 1983 (discontinued).

INSTRUMENTATION.--Water-quality monitor September 1973 to September 1983; pumping sampler June 1979 to September 1982.

REMARKS.--No flow during most of period of record. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 12,800 micromhos Sept. 14, 1981; minimum, 240 micromhos July 3, 1981.

WATER TEMPERATURE: Maximum, 36.5°C Aug. 8, 1983; minimum, 0.0°C many days during winter months.

EXTREMES FOR MARCH TO SEPTEMBER.--

SPECIFIC CONDUCTANCE: Maximum recorded, 10,400 micromhos Sept. 29; minimum recorded, 320 micromhos Oct. 6.

WATER TEMPERATURE: Maximum, 36.5°C Aug. 8; minimum, 0.0°C Mar. 16, 19, April 3, 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

[illegible]

SALT CREEK BASIN

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09153400 WEST SALT CREEK NEAR MACK, CO--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
FEB								
24...	--	--	--	--	--	--	--	--
28...	5.4	3400	4.6	17	.410	.170	420	100
28...	--	--	--	--	--	--	--	--
MAR								
14...	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--
APR								
13...	--	--	--	--	--	--	--	--
MAY								
03...	11	2900	4.0	41	.390	.050	30	20
03...	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--
JUN								
07...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--
JUL								
06...	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--
AUG								
09...	--	--	--	--	--	--	--	--
SEP								
07...	--	--	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2890			---	1780	5370	3890	1930	---	4760	---
2	---	---			---	1940	---	3670	1970	---	4950	---
3	---	---			---	2280	7200	3460	2050	---	5100	---
4	---	---			---	3600	7600	3470	2120	---	5240	---
5	1020	---			---	3790	---	3440	2180	---	5390	---
6	697	---			---	2770	---	3380	2250	---	5550	---
7	---	---			---	3840	---	3410	2270	---	5710	---
8	---	---			---	4920	---	3420	2310	3770	5880	---
9	---	---			---	5640	---	3280	2420	3390	6050	---
10	---	1400			---	5650	---	3200	2470	3360	4980	---
11	---	1250			---	5240	---	3160	2580	---	2840	---
12	---	---			---	4990	---	3150	2650	---	3080	---
13	---	---			---	4900	6700	3220	2460	---	2990	---
14	---	---			---	4810	---	3230	2250	---	3140	---
15	---	---			---	4340	---	3220	2260	---	3320	---
16	---	---			---	5100	---	3220	2290	---	---	---
17	---	---			---	7200	---	2710	2320	---	---	---
18	---	---			---	7720	---	1510	2330	---	---	---
19	---	---			---	7770	7070	1600	2340	---	---	---
20	---	---			---	---	5630	1650	2350	---	---	---
21	---	---			---	---	4910	1740	2370	---	---	---
22	---	---			---	---	4720	1810	2390	4860	---	---
23	---	---			---	---	4740	1870	2390	4670	---	---
24	---	---			---	---	4720	1780	2410	4370	---	---
25	---	---			3610	---	4310	1770	2500	4160	---	8560
26	1080	---			3550	---	3980	1770	---	4060	---	9550
27	2150	---			---	---	4030	1770	---	4190	---	9590
28	2880	---			2930	---	4250	1750	---	3460	---	8540
29	---	---			---	---	4450	1780	---	3640	---	8820
30	---	---			---	---	4260	1840	---	4080	---	5720
31	3100	---			---	3840	---	1870	---	4470	---	---
MEAN	1820	1850			3360	4610	5250	2610	2310	4040	4600	8460
WTR YR 1983	MEAN	3720		MAX	9590		MIN	697				

SALT CREEK BASIN

09153400 WEST SALT CREEK NEAR MACK, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	---	---	6.0	5.0					---	---	18.5	9.0
2	---	---	---	---					---	---	15.5	7.5
3	---	---	---	---					---	---	12.5	6.0
4	---	---	---	---					---	---	16.0	6.5
5	5.5	5.0	---	---					---	---	13.5	8.5
6	6.0	5.5	---	---					---	---	16.5	5.0
7	---	---	---	---					---	---	14.5	6.5
8	---	---	---	---					---	---	17.5	5.0
9	---	---	---	---					---	---	19.0	4.5
10	---	---	4.5	2.5					---	---	18.0	5.0
11	---	---	7.0	1.0					---	---	19.0	6.5
12	---	---	---	---					---	---	19.5	8.5
13	---	---	---	---					---	---	14.0	6.0
14	---	---	---	---					---	---	11.0	5.5
15	---	---	---	---					---	---	9.5	1.0
16	---	---	---	---					---	---	18.5	.0
17	---	---	---	---					---	---	10.0	2.0
18	---	---	---	---					---	---	10.0	3.0
19	---	---	---	---					---	---	14.5	.0
20	---	---	---	---					---	---	---	---
21	---	---	---	---					---	---	---	---
22	---	---	---	---					---	---	---	---
23	---	---	---	---					---	---	---	---
24	---	---	---	---					---	---	---	---
25	---	---	---	---					9.5	3.5	---	---
26	9.0	8.5	---	---					10.5	4.0	---	---
27	10.0	4.0	---	---					---	---	---	---
28	3.5	3.0	---	---					16.5	10.0	---	---
29	---	---	---	---					---	---	---	---
30	---	---	---	---					---	---	---	---
31	7.5	6.5	---	---					---	---	14.0	1.5
MONTH	10.0	3.0	7.0	1.0					16.5	3.5	19.5	.0

[illegible]

SALT CREEK BASIN

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09163490 SALT CREEK NEAR MACK, CO

LOCATION.--Lat 39°13'18", long 108°53'32", in NE¼NW¼ sec.4, T.10 S., R.103 W., Sixth Principal Meridian, Mesa County, Hydrologic Unit 14010005, on right bank 800 ft downstream from bridge on Interstate Highway 70, 1.4 mi west of Mack, and 2.1 mi upstream from mouth.

DRAINAGE AREA.--436 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to September 1983 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft, from topographic map.

REMARKS.--Records good except those for winter period and those for period of no gage-height record, which are poor. Flow is mostly return flow and waste water from lands irrigated under the Government Highline Canal. Some regulation by many small detention reservoirs and stock ponds on tributaries above station and by Highline Lake, capacity, 3,400 acre-ft on Mack Wash above station. A few small diversions for irrigation of hay meadows above station.

AVERAGE DISCHARGE.--10 years, 93.8 ft³/s; 67,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,580 ft³/s Aug. 8, 1974, gage height, 5.57 ft, from rating curve extended above 270 ft³/s, on basis of slope-area measurement at gage height 5.69 ft; minimum daily, 4.2 ft³/s Jan. 24, 1974.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage of 5.69 ft, Sept. 19, 1972, from floodmarks, discharge, 1,680 ft³/s, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown; minimum daily, 7.8 ft³/s Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	255	116	26	12	8.8	38	159	154	310	190	210	160
2	258	68	22	12	8.3	41	285	175	320	160	230	170
3	253	42	18	12	8.4	89	253	142	320	190	150	180
4	258	33	18	12	7.9	91	216	110	310	150	160	190
5	227	29	18	12	7.8	20	155	115	300	110	130	170
6	243	27	17	13	8.6	26	85	120	290	100	140	160
7	263	27	17	14	8.3	17	79	100	290	120	150	160
8	226	26	17	12	8.6	14	153	120	290	129	170	162
9	227	26	17	11	9.4	14	141	150	303	157	130	159
10	231	25	17	12	16	14	104	170	202	304	110	182
11	244	42	17	12	10	59	58	180	268	201	170	189
12	238	27	17	12	9.4	20	67	180	185	120	190	184
13	228	23	17	12	10	20	89	150	188	130	315	200
14	244	21	16	12	10	20	199	130	243	110	207	217
15	267	20	15	11	9.4	23	213	130	261	110	400	195
16	264	20	15	11	10	17	215	210	262	110	330	211
17	264	20	15	9.8	11	17	222	240	267	120	320	200
18	219	20	15	9.1	11	19	191	190	247	100	280	170
19	128	26	15	8.8	13	19	97	220	184	100	250	200
20	160	24	15	8.8	13	17	162	200	142	110	270	210
21	219	22	14	8.8	12	16	225	180	133	200	220	140
22	226	21	15	8.8	13	16	180	170	132	440	190	160
23	231	20	16	8.8	15	17	102	170	123	500	150	140
24	243	18	15	8.8	18	20	106	180	132	240	140	110
25	247	18	14	8.8	22	18	131	170	149	210	150	110
26	243	18	13	8.8	23	15	126	190	248	270	160	115
27	253	18	12	8.8	15	15	111	220	184	334	150	120
28	249	18	13	8.8	17	14	109	260	190	300	130	130
29	216	19	12	8.8	---	14	121	280	210	250	120	130
30	179	22	11	8.8	---	13	136	300	170	200	160	170
31	147	---	12	8.8	---	18	---	300	---	190	150	---
TOTAL	7150	856	491	325.3	333.9	771	4490	5606	6853	5955	6032	4994
MEAN	231	28.5	15.8	10.5	11.9	24.9	150	181	228	192	195	166
MAX	267	116	26	14	23	91	285	300	320	500	400	217
MIN	128	18	11	8.8	7.8	13	58	100	123	100	110	110
AC-FT	14180	1700	974	645	662	1530	8910	11120	13590	11810	11960	9910
CAL YR 1982 TOTAL	34911.4	MEAN	95.6	MAX 360	MIN 7.3	AC-FT	69250					
WTR YR 1983 TOTAL	43857.2	MEAN	120	MAX 500	MIN 7.8	AC-FT	86990					

NOTE.--NO GAGE-HEIGHT RECORD MAY 4 TO JUNE 8, JULY 12-26.

SALT CREEK BASIN

09163490 SALT CREEK NEAR MACK, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1973 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: April 1973 to current year.

WATER TEMPERATURES: April 1973 to current year.

INSTRUMENTATION.--Water-quality monitor since April 1973.

REMARKS.--Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 9,770 micromhos Aug. 28, 1983; minimum, 590 micromhos Sept. 14, 1982.

WATER TEMPERATURES: Maximum, 36.5°C July 17, 1976; minimum, freezing point on many days during winter months most years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 9,770 micromhos Aug. 28; minimum, 620 micromhos Aug. 17.

WATER TEMPERATURES: Maximum, 26.5°C Aug. 14, 17; minimum, 0.0°C many days during December to February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	HARD- NESS (MG/L AS CACO3)
OCT 14...	1245	269	1390	1490	8.5	10.0	9.8	510
JAN 06...	1200	13	4510	4870	8.6	.0	13.8	2400
MAY 03...	1200	147	1550	1870	8.3	12.0	8.4	630
AUG 10...	0900	102	1930	2780	8.1	20.5	6.9	850
SEP 07...	1055	155	1390	1830	8.3	19.5	8.2	590

DATE	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
OCT 14...	130	46	130	3	3.7	164	450	140	.30
JAN 06...	500	280	490	4	8.4	326	2800	230	.30
MAY 03...	140	68	160	3	4.3	210	650	98	.30
AUG 10...	200	86	160	2	5.2	154	1200	87	.30
SEP 07...	150	52	120	2	8.7	165	700	100	.30

DATE	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	IRON, DIS- SOLVED (UG/L AS FE)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)
OCT 14...	8.4	1000	1.4	731	.640	.010	11	22
JAN 06...	12	4500	6.1	152	5.30	.020	40	220
MAY 03...	11	1300	1.7	499	.990	.030	<3	9
AUG 10...	11	1800	2.5	507	1.30	.060	6	13
SEP 07...	9.0	1200	1.7	519	2.90	.010	10	9

SALT CREEK BASIN

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09163490 SALT CREEK NEAR MACK, CO--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2180	5330	7100	6040	3020	3240	1480	---	1210	971	---
2	---	2430	4920	7130	5980	2930	3270	1520	---	1260	975	---
3	---	2840	5160	7190	5350	2960	3330	---	---	1210	975	---
4	---	3170	5330	5380	5900	2900	2820	---	---	1320	---	---
5	---	3450	5460	4720	5870	3140	1870	---	---	1460	---	---
6	---	3640	5560	4890	6040	3240	2600	---	---	1610	---	---
7	---	3780	5650	5670	5900	3380	2980	---	---	1620	---	---
8	---	3870	5720	6220	5850	3620	2110	---	---	1490	---	---
9	---	4000	5740	6230	5880	3850	2320	---	---	1420	---	---
10	---	4060	5790	---	4870	4010	2260	---	1150	1110	---	---
11	---	3860	5780	---	4650	3980	2020	---	1190	1060	---	---
12	---	3910	5740	---	4950	3960	1990	---	1150	1370	---	---
13	---	4080	5880	---	5040	4050	1990	---	1160	---	965	1400
14	---	4240	5970	---	5060	3800	1860	---	1120	---	1140	1430
15	---	4350	6020	---	4970	2740	1680	---	1120	---	948	1490
16	---	4490	6140	---	4800	2820	1380	---	1130	---	739	1510
17	1960	4590	6230	---	4620	3030	1490	---	1170	---	677	1490
18	1310	4700	6320	6080	4560	3210	1710	---	1220	---	744	1580
19	1420	4710	6350	6130	4600	3370	1550	---	1390	---	770	1250
20	1370	4840	6380	6150	4410	3560	1610	---	1640	---	742	1170
21	1290	4640	6440	6170	4240	3740	1820	---	1700	---	872	1410
22	1320	4800	6580	6090	4080	3950	1790	---	1700	---	1730	1320
23	1380	4900	6610	6100	3920	4150	1680	---	1730	---	3750	1580
24	1400	4990	6470	6100	3800	4280	1580	---	1700	---	6000	1950
25	1450	5100	6400	6030	3200	4280	1440	---	1640	---	3880	1750
26	1550	5220	6350	6090	2810	4100	1400	---	1480	---	3210	1750
27	1660	5270	6510	6090	2870	3700	1410	---	1320	---	4260	1730
28	1720	5310	6820	6060	3100	3270	1430	---	1180	---	5200	1690
29	1820	5380	6980	6080	---	3140	1470	---	1240	1080	4940	1760
30	1960	5490	7100	6050	---	3170	1470	---	1220	1170	---	1200
31	2100	---	7100	6040	---	3230	---	---	---	1050	---	---
MEAN	1580	4280	6090	6080	4760	3500	1990	1500	1350	1300	2170	1530
WTR YR 1983	MEAN	3420		MAX	7190	MIN	677					

SALT CREEK BASIN

09163490 SALT CREEK NEAR MACK. CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	15.5	12.0	9.5	7.0	6.0	3.5	.0	.0	4.0	.0	9.5	5.5
2	16.5	14.5	10.0	6.5	5.5	3.0	.0	.0	4.5	.0	8.5	4.5
3	16.0	11.5	8.0	4.0	4.5	1.0	.0	.0	3.0	.0	7.0	3.5
4	16.5	12.0	8.0	3.5	4.5	1.0	.0	.0	3.0	.0	8.5	4.5
5	14.5	12.5	8.0	3.5	4.5	1.0	.0	.0	5.5	1.0	8.5	6.0
6	15.5	10.5	7.5	2.0	4.5	1.0	.0	.0	5.0	.0	10.0	4.0
7	14.5	10.5	8.5	4.5	4.0	1.5	.0	.0	4.0	2.0	9.5	5.0
8	13.0	11.0	9.0	6.0	5.5	2.5	.0	.0	5.5	2.0	10.5	4.0
9	12.5	9.5	11.0	7.0	5.0	3.0	.0	.0	8.0	3.5	11.0	3.5
10	11.5	9.0	9.0	6.5	7.0	4.0	.0	.0	5.5	.5	11.0	3.5
11	11.0	7.0	7.5	5.0	5.5	2.5	.0	.0	6.0	.0	10.0	5.5
12	11.5	7.0	7.0	2.0	4.0	.5	.0	.0	6.0	.0	14.0	7.0
13	12.5	8.0	7.5	3.5	3.5	2.0	.0	.0	6.5	1.5	10.5	5.5
14	14.5	7.5	6.0	2.0	3.5	1.0	.0	.0	6.5	2.5	10.5	7.5
15	11.5	7.0	5.5	1.0	3.5	1.0	.0	.0	7.0	.5	8.0	5.5
16	11.5	7.0	5.5	1.0	4.0	.5	.0	.0	6.5	2.0	10.5	4.0
17	11.0	7.0	6.5	2.0	3.0	.0	1.5	.0	6.5	.5	8.5	5.0
18	11.0	7.0	6.5	4.0	3.0	.0	2.5	.0	6.0	.5	7.5	5.0
19	10.5	7.0	6.5	4.5	2.0	.0	3.0	.0	6.0	3.0	9.5	4.0
20	11.0	7.0	5.5	3.0	2.0	.0	4.5	1.0	8.0	2.5	8.5	3.0
21	11.0	7.0	7.5	5.0	3.0	.0	3.5	1.5	7.0	1.0	7.0	1.0
22	10.5	7.5	6.0	4.5	3.5	1.0	5.5	2.0	7.5	1.5	8.5	3.0
23	11.0	7.5	5.5	2.0	5.5	3.5	3.0	1.0	8.0	2.0	9.5	5.0
24	11.5	8.5	5.0	1.5	3.5	.5	3.5	1.5	8.0	1.5	5.5	4.0
25	11.5	9.5	6.0	3.5	2.0	.0	4.0	1.5	6.0	3.5	7.5	4.5
26	11.0	9.5	5.5	1.5	.0	.0	5.5	2.5	5.0	2.0	10.0	3.0
27	10.0	8.5	5.0	1.0	.0	.0	4.5	1.0	7.5	3.5	10.5	4.0
28	9.5	7.5	5.0	.5	.0	.0	6.5	2.0	9.0	5.0	9.5	6.0
29	8.5	6.5	4.0	3.0	.0	.0	5.5	1.5	---	---	11.5	4.0
30	9.5	7.5	5.5	4.0	.0	.0	5.5	1.5	---	---	14.0	4.5
31	10.0	8.5	---	---	.0	.0	4.5	1.0	---	---	10.0	5.5
MONTH	16.5	6.5	11.0	.5	7.0	.0	6.5	.0	9.0	.0	14.0	1.0
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	11.5	4.0	14.5	10.0	---	---	21.5	15.5	24.0	18.5	---	---
2	10.5	3.5	16.0	9.0	---	---	23.0	15.5	26.0	19.0	---	---
3	8.0	3.5	---	---	---	---	21.5	17.0	26.0	19.5	---	---
4	8.0	2.0	---	---	---	---	23.5	15.5	24.5	19.0	---	---
5	9.5	6.0	---	---	---	---	25.0	16.0	26.0	19.0	---	---
6	11.0	5.0	---	---	---	---	25.5	17.5	---	---	---	---

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, 12 mi southwest of Mack, Colo., and 1.5 mi upstream from Colorado-Utah State line.

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. Altitude of gage is 4,325 ft, from topographic map. May 1951, to October 1979, water-stage recorder at site 5.7 mi upstream at different datum.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power development, and diversions for irrigation. (Records include all return flow from irrigated areas).

AVERAGE DISCHARGE.--32 years, 5,904 ft³/s; 4,277,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,100 ft³/s June 27, 1983, gage height, 15.02 ft; maximum gage height, 16.40 ft, June 9, 1957, site and datum then in use; minimum daily discharge, 960 ft³/s Sept. 7, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 62,100 ft³/s at 1600 June 27, gage height, 15.02 ft; minimum daily, 3,220 ft³/s Apr. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6560	5960	5050	3580	4350	4530	4020	9660	45600	46500	13800	5860
2	6670	5970	5100	3850	4330	4620	4020	8740	43200	42800	14400	5790
3	6400	5590	4980	3990	4320	4580	3980	7840	41200	38900	13300	5670
4	6190	4370	4800	3960	4200	4580	3980	7620	36400	38300	12700	5480
5	6040	4100	4710	4160	4190	4480	3950	8180	35600	36600	13000	5620
6	5810	4970	4830	4410	4300	4560	3580	8500	35500	34000	13300	5670
7	5570	5220	4790	4630	4280	4430	3420	8800	33100	30900	13700	5530
8	5540	5230	4830	4690	4180	4320	3360	8600	33100	30300	13100	5480
9	5600	5570	4730	4660	4250	4270	3380	10700	34200	32200	12300	5430
10	5580	5670	4710	4520	4280	4390	3260	14000	35100	32000	11800	5470
11	5520	5830	4760	4350	3820	4220	3220	16500	35600	31400	11300	5190
12	5600	6000	4750	4320	3800	4220	3340	17400	37600	30000	10400	5140
13	5430	5630	4610	4340	4000	4350	3360	15300	42900	28500	10700	5070
14	5470	5440	4450	4320	4120	4520	3400	14600	37300	27500	10200	5000
15	5390	5250	4580	4240	4200	5100	3320	13300	32300	26100	10200	4830
16	5270	5040	4520	4280	4090	4920	3380	13100	30700	22400	9400	4780
17	5350	5140	4450	4320	4130	4700	3400	15000	31000	19500	9070	4600
18	5290	5180	4760	4460	4130	4580	3440	13900	32500	19000	8720	4400
19	5400	5410	4650	4550	4180	4500	3520	12900	35700	18100	8750	4280
20	5590	5540	4350	4550	4270	4520	4200	13100	41500	17300	9240	4240
21	5670	5440	4600	4500	4220	4400	4700	13100	41200	15800	9420	4260
22	5650	5240	4660	4520	4200	4180	4880	14200	46500	18000	9130	4650
23	5610	5080	4790	4400	4210	4280	4820	17000	47000	20100	8590	4730
24	5560	4980	4790	4430	4290	4280	4880	19600	48000	20400	8010	4420
25	5560	4740	4650	4490	4320	4380	6330	23500	49700	19100	7950	4480
26	5470	4790	4290	4520	4420	4250	8080	27700	56900	18800	7990	4530
27	5840	4890	4180	4460	4410	4150	8220	31000	60200	18200	7640	4710
28	6990	4780	4050	4420	4400	3980	7840	35500	57400	17400	7100	4820
29	6150	4810	4000	4470	---	4080	7470	39400	54900	16200	6980	4800
30	5670	4910	3840	4450	---	3880	8460	41100	50000	15200	7050	4800
31	5770	---	3680	4410	---	3650	---	44000	---	13800	6780	---
TOTAL	178210	156770	141940	135250	117890	135900	137210	543840	1241900	795300	316020	149730
MEAN	5749	5226	4579	4363	4210	4384	4574	17540	41400	25650	10190	4991
MAX	6990	6000	5100	4690	4420	5100	8460	44000	60200	46500	14400	5860
MIN	5270	4100	3680	3580	3800	3650	3220	7620	30700	13800	6780	4240
AC-FT	353500	311000	281500	268300	233800	269600	272200	1079000	2463000	1577000	626800	297000
CAL YR 1982	TOTAL	2430080	MEAN	6658	MAX	18600	MIN	2280	AC-FT	4820000		
WTR YR 1983	TOTAL	4049960	MEAN	11100	MAX	60200	MIN	3220	AC-FT	8033000		

COLORADO RIVER MAIN STEM

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued
(National stream-quality accounting network station)

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1979 to current year.

WATER TEMPERATURES: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1979.

REMARKS.--Water-quality data collection was moved 5.5 miles upstream to this site from previous site 09163530. Water-quality records for this site are considered to be equivalent to data obtained at old site. Daily maximum and minimum specific-conductance data available in district office.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,940 micromhos Aug. 13, 1981; minimum, 306 micromhos June 19, 1983.

WATER TEMPERATURE: Maximum, 27.0°C Aug. 7-9, 1981; minimum, freezing point on many days during December 1980 to February 1981, January and February 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,220 micromhos Nov. 6; minimum, 306 micromhos June 19.

WATER TEMPERATURES: Maximum, 24.5°C Aug. 18, Sept. 2, 3; minimum, freezing point on many days during January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	SPE- CIFIC CON- DUCT- ANCE LAB (UMHOS)	PH (STAND- ARD UNITS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)
NOV 03...	1300	5470	1020	986	--	6.5	180	--	--	--
DEC 06...	0945	5060	950	913	8.8	2.5	2.1	11.4	K7	290
FEB 15...	1030	4280	948	947	7.8	3.5	16	11.0	620	130
MAY 10...	1230	13400	556	568	8.0	11.5	230	8.4	500	730
30...	1130	40600	380	425	7.8	13.0	850	--	--	--
JUN 28...	1220	57600	340	359	8.0	13.0	500	--	--	--
AUG 10...	1025	11800	550	612	7.7	22.0	90	7.0	3400	950

DATE	HARD- NESS (MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)
NOV 03...	310	80	27	82	2	3.3	152	260	75	.40
DEC 06...	320	80	28	83	2	3.0	146	240	70	.30
FEB 15...	290	71	26	89	2	3.2	143	200	84	.30
MAY 10...	200	51	18	44	1	3.5	122	130	32	.30
30...	160	41	13	27	1	4.0	108	82	27	.20
JUN 28...	130	37	9.6	18	.7	2.7	82	77	11	.20
AUG 10...	220	57	18	45	1	2.4	113	150	38	.30

K BASED ON NON-IDEAL COLONY COUNT.

COLORADO RIVER MAIN STEM

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09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER DAY)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 03...	11	661	630	9760	2.30	.100	1.1	.120	.030
DEC 06...	9.8	616	600	8420	.710	<.060	1.1	.040	.020
FEB 15...	10	592	570	6840	.720	.170	.80	.070	.050
MAY 10...	10	359	360	13000	.810	.340	1.4	.340	.130
30...	11	255	270	28000	1.10	.240	3.6	.480	.060
JUN 28...	10	205	220	31900	.370	<.060	.90	.220	.040
AUG 10...	11	387	390	12300	.430	.070	1.0	.130	.070

DATE	TIME	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)
NOV 03...	1300	1	76	3	<1	<1	3
FEB 15...	1030	1	49	1	<1	<1	1
MAY 30...	1130	3	62	2	<1	<1	19
JUN 28...	1220	1	53	<1	<1	6	3
AUG 10...	1025	1	67	1	<1	<1	4

DATE	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	ZINC, DIS- SOLVED (UG/L AS ZN)
NOV 03...	14	6	7	<.1	6	<1	11
FEB 15...	8	<1	16	<.1	5	<1	6
MAY 30...	110	4	10	.2	2	<1	40
JUN 28...	56	5	11	<.1	2	<1	12
AUG 10...	19	1	5	.2	3	1	13

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM	DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
OCT 06...	1315	5950	114	1830	72	MAY 28...	1200	34800	3550	334000	80
DEC 06...	1230	5060	34	465	73	30...	1130	40600	2750	301000	82
MAR 10...	1230	4530	151	1850	86	JUN 25...	1330	48800	1140	150000	--
APR 07...	1215	3410	413	3800	95	28...	1130	57600	1050	163000	94
						AUG 10...	1400	11800	432	13800	68

COLORADO RIVER MAIN STEM

09163500 COLORADO RIVER NEAR COLORADO-UTAH STATE LINE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	920	---	960	866	930	870	963	554	395	326	623	881
2	902	---	949	941	921	873	965	613	371	334	598	882
3	908	---	955	1030	922	891	982	635	360	347	599	895
4	917	1010	953	1020	917	895	1000	621	360	345	629	899
5	927	1110	959	992	917	890	1010	593	360	346	638	908
6	856	1150	959	961	903	893	1030	---	353	353	635	923
7	---	968	980	948	927	906	1030	---	360	363	610	936
8	---	940	967	921	919	910	999	---	352	372	600	947
9	---	923	976	898	919	901	948	---	351	355	614	961
10	---	896	975	893	932	893	888	---	345	352	---	975
11	---	929	957	906	952	862	860	401	340	346	---	990
12	---	899	964	916	1010	833	849	340	338	347	635	1010
13	---	881	956	938	997	804	827	345	352	352	678	1030
14	---	830	956	947	956	784	831	352	365	358	716	1050
15	---	807	948	952	941	763	827	376	364	361	737	1040
16	---	816	950	932	934	760	825	403	352	391	754	1030
17	---	829	913	945	913	772	818	430	349	440	767	1060
18	---	836	905	947	901	775	799	469	338	456	770	1080
19	---	835	877	946	890	778	786	499	325	473	810	1120
20	---	836	879	949	881	785	760	511	338	491	822	1130
21	---	834	871	946	873	826	737	522	333	535	843	1150
22	---	834	896	932	861	850	706	525	331	576	834	1150
23	---	849	914	931	855	869	682	505	333	572	840	1110
24	---	867	920	940	857	871	669	479	338	528	858	1090
25	---	889	918	935	855	878	630	466	346	523	871	1150
26	---	905	892	933	863	883	558	452	373	535	865	1160
27	---	927	850	934	846	897	533	426	370	564	867	1130
28	---	936	928	939	868	910	531	394	335	566	889	---
29	---	835	919	935	---	917	546	376	325	583	905	---
30	---	946	960	946	---	926	551	385	324	583	917	---
31	---	---	912	947	---	954	---	388	---	598	917	---
MEAN	905	901	933	941	909	859	805	464	349	441	753	1030
WTR YR 1983	MEAN	764	MAX	1160	MIN	324						

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TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH		
1	13.5	12.5	---	---	4.5	4.0	.0	.0	3.5	2.5	8.0	6.5
2	13.5	12.0	---	---	4.0	3.5	.0	.0	3.0	1.5	8.0	7.0
3	13.5	12.5	---	---	4.0	3.0	.0	.0	2.0	1.5	7.5	6.5
4	14.0	12.5	7.0	6.0	3.5	2.5	.0	.0	2.0	1.5	7.5	6.5
5	13.5	12.5	6.5	5.5	3.0	2.5	.0	.0	3.0	1.5	7.0	6.5
6	13.0	11.5	6.0	5.0	3.0	2.0	.0	.0	3.0	1.5	8.0	6.0
7	12.5	11.0	6.5	5.5	3.0	2.5	1.0	.0	3.0	2.5	8.5	7.0
8	12.0	11.0	7.5	6.5	3.5	3.0	1.5	1.0	3.5	2.5	9.0	7.5
9	11.0	9.5	8.5	7.5	3.5	3.0	1.0	.5	5.0	3.5	9.0	7.0
10	9.5	9.0	8.0	7.5	4.5	3.5	1.0	.0	4.5	3.5	9.5	8.0
11	9.0	8.0	8.0	7.0	5.0	4.0	.5	.0	4.5	3.0	10.0	8.5
12	10.0	8.0	7.0	6.0	4.5	3.5	1.0	.0	4.5	3.5	11.0	9.0
13	11.0	9.0	6.0	5.0	4.0	2.5	1.0	.0	4.5	3.5	10.0	9.5
14	11.0	9.5	5.0	4.5	2.5	2.0	1.0	.0	5.0	3.5	10.5	9.0
15	11.5	10.0	4.5	3.5	2.0	2.0	1.0	.0	4.5	3.0	9.0	7.5
16	11.5	10.5	4.0	3.0	2.0	1.5	1.0	.0	5.5	4.0	8.0	6.5
17	12.0	10.5	4.0	3.0	2.0	1.0	2.0	.5	5.0	4.0	7.5	7.0
18	11.5	10.5	5.0	4.0	2.0	1.5	2.5	2.0	5.0	4.0	7.0	6.5
19	11.5	10.0	5.5	5.0	2.0	1.0	2.5	2.0	5.5	4.5	7.5	5.5
20	10.5	9.5	5.5	4.5	1.5	.5	2.5	2.0	6.0	4.0	7.0	6.0
21	10.0	8.5	5.5	5.0	1.5	.5	2.5	2.0	5.5	4.0	6.5	5.5
22	9.5	8.5	5.0	4.5	2.0	1.5	3.0	2.0	6.5	4.5	7.0	5.5
23	10.0	8.5	4.5	4.0	3.0	2.0	2.5	2.0	7.0	5.0	7.5	6.5
24	10.5	9.0	4.0	3.0	3.0	2.0	2.5	2.0	7.5	5.5	6.5	6.0
25	11.5	10.5	4.0	3.5	2.0	.5	2.5	1.5	7.0	6.0	6.5	5.0
26	11.5	11.0	3.5	3.0	.5	.0	3.0	2.0	6.0	5.5	7.0	5.0
27	11.0	9.5	3.5	3.0	.0	.0	3.0	2.5	6.0	5.0	8.0	6.0
28	9.0	8.0	3.5	2.5	.0	.0	4.0	2.5	7.0	6.0	8.0	7.0
29	8.0	7.0	3.0	3.0	.0	.0	3.5	3.0	---	---	9.5	7.0
30	8.0	7.0	4.0	3.5	.0	.0	3.5	2.5	---	---	10.5	8.0
31	8.5	8.0	---	---	.0	.0	3.5	2.5	---	---	10.0	9.0
MONTH	14.0	7.0	8.5	2.5	5.0	.0	4.0	.0	7.5	1.5	11.0	5.0
APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER		
1	9.5	8.0	11.5	9.5	12.0	10.5	15.0	14.0	21.5	19.0	24.0	23.0
2	9.5	8.0	11.5	8.5	12.5	11.5	15.5	14.0	21.0	19.5	24.5	23.0
3	9.0	7.5	12.5	10.0	12.5	11.0	16.0	15.0	21.0	19.5	24.5	23.0
4	8.0	6.5	14.0	11.5	13.5	11.5	16.0	14.5	21.0	19.5	24.0	22.5
5	8.0	6.0	14.0	13.0	13.5	12.0	16.0	14.5	21.5	20.0	23.5	22.0
6	8.0	6.0	---	---	13.0	12.0	17.0	15.5	22.5	20.5	23.5	21.5
7	8.0	6.0	---	---	13.5	11.5	17.5	16.5	22.5	21.0	22.5	21.0
8	8.5	6.5	---	---	14.0	12.5	18.0	17.0	23.0	21.0	22.5	20.5
9	10.5	8.0	---	---	13.5	12.0	18.0	17.0	23.0	21.0	22.5	21.0
10	11.5	9.0	---	---	14.0	12.0	18.5	17.0	23.0	21.5	23.0	21.5
11	11.0	9.0	13.0	11.0	14.0	12.5	18.0	17.0	22.5	21.0	22.5	21.0
12	9.5	8.0	11.0	9.0	13.5	12.5	18.0	16.5	22.0	20.5	22.0	20.0
13	9.5	7.5	11.5	9.0	12.0	11.0	18.5	17.0	22.0	20.5	21.5	20.0
14	9.0	7.0	11.0	9.0	12.5	10.5	18.5	17.0	23.0	21.5	21.0	20.0
15	10.0	7.5	11.5	9.0	13.5	11.5	18.5	17.5	23.0	21.5	20.5	18.0
16	11.0	8.5	11.5	10.0	14.5	13.0	18.0	17.0	23.5	22.0	19.5	18.0
17	12.0	9.5	10.0	8.0	15.0	13.5	19.5	17.5	24.0	22.5	19.5	18.0
18	12.0	10.5	10.0	7.0	15.5	14.0	19.5	18.0	24.5	23.5	19.5	18.0
19	14.0	11.5	11.0	9.0	15.5	14.0	20.0	18.5	23.5	22.5	19.0	18.0
20	13.5	12.5	12.5	10.0	15.0	14.0	20.5	18.5	23.5	22.0	17.5	16.0
21	13.5	12.0	14.0	11.5	15.0	14.0	21.0	19.5	22.5	21.5	16.5	14.5
22	13.5	11.5	15.0	12.5	15.0	14.0	21.0	19.5	23.0	21.0	15.5	13.5
23	14.0	12.5	15.5	13.0	15.0	14.5	20.0	18.5	22.5	21.5	15.5	14.0
24	14.5	13.0	15.0	13.0	14.5	14.0	19.5	18.0	22.5	21.0	16.5	14.5
25	14.0	13.5	15.0	12.5	15.0	14.0	20.0	18.5	22.5	21.0	17.5	15.0
26	13.5	11.5	14.5	12.5	15.0	14.0	20.0	18.5	22.5	21.0	17.5	16.0
27	12.0	10.5	14.5	12.5	14.0	13.5	19.5	18.5	23.5	21.5	18.0	16.5
28	12.0	10.5	14.5	12.5	14.0	13.0	19.0	17.5	24.0	22.0	---	---
29	12.5	11.0	13.5	12.5	14.5	13.5	20.5	18.0	23.5	22.5	---	---
30	12.5	11.5	14.0	12.0	15.0	14.0	21.0	19.0	24.0	22.0	---	---
31	---	---	13.0	11.5	---	---	20.5	19.0	24.0	22.5	---	---
MONTH	14.5	6.0	15.5	7.0	15.5	10.5	21.0	14.0	24.5	19.0	24.5	13.5
YEAR	24.5	.0										

COLORADO RIVER BASIN

09163570 HAY PRESS CREEK ABOVE FRUITA RESERVOIR NO. 3, NEAR GLADE PARK, CO

LOCATION.--Lat 38°51'03", long 108°46'56", in NE¼SW¼ sec.10, T.14 S., R.102 W., Mesa County, Hydrologic Unit 14030001, on left bank, 10 mi southwest of Glade Park Post Office

DRAINAGE AREA.--0.77 mi².

PERIOD OF RECORD.--April to September 1983.

GAGE.--Water-stage recorder. Altitude of gage is 8,885 ft, from topographic map. April 1, 1983 to August 23, 1983, water-stage recorder at site 100 ft upstream, at datum 5 ft, higher.

REMARKS.--Records fair except those for periods of indefinite stage-discharge relationship, which are poor. Several observations of specific conductance and water temperature were obtained and are published elsewhere in this report.

EXTREMES FOR PERIOD APRIL TO SEPTEMBER.--Maximum discharge, not determined; maximum gage height recorded, 2.41 ft, May 30 (backwater from ice); minimum daily discharge, 0.07 ft³/s Aug. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.20	1.3	9.9	.98	.28	.10
2							.20	1.4	8.3	.98	.28	.10
3							.20	1.4	6.9	.84	.28	.12
4							.20	1.6	9.9	.71	.30	.14
5							.20	1.8	8.3	.59	.28	.14
6							.22	1.8	8.3	.45	.25	.12
7							.22	2.0	9.9	.35	.25	.10
8							.25	2.3	7.6	.91	.20	.10
9							.25	2.3	6.9	.91	.20	.09
10							.28	2.6	6.3	.77	.22	.09
11							.28	2.6	6.3	.84	.25	.10
12							.28	3.0	6.9	.91	.32	.10
13							.30	3.0	4.1	.77	.32	.10
14							.30	2.0	3.0	.71	.30	.17
15							.32	3.0	3.0	.59	.30	.16
16							.32	3.4	3.0	.59	.30	.14
17							.35	3.0	3.0	.49	.30	.12
18							.35	2.0	3.8	.49	.28	.12
19							.38	2.0	4.6	.49	.28	.12
20							.45	2.3	5.7	.42	.28	.12
21							.45	3.0	2.0	.42	.28	.14
22							.54	5.1	1.6	.45	.28	.12
23							.65	5.1	1.2	.42	.22	.10
24							.98	7.6	1.2	.40	.16	.12
25							1.6	9.9	8.3	.35	.07	.12
26							3.0	11	6.9	.32	.08	.10
27							1.4	12	4.0	.35	.09	.12
28							1.3	12	2.0	.32	.09	.16
29							1.4	14	1.6	.28	.10	.16
30							1.4	16	1.2	.28	.10	.22
31							---	11	---	.28	.10	---
TOTAL							18.27	151.5	155.7	17.66	7.04	3.71
MEAN							.61	4.89	5.19	.57	.23	.12
MAX							3.0	16	9.9	.98	.32	.22
MIN							.20	1.3	1.2	.28	.07	.09
AC-FT							36	301	309	35	14	7.4

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
TO PLATTE RIVER BASIN												
09010000 Water year	0 12,670	0	0	0	0	0	0	0	0	6,590	5,110	965
09013000 Water year	15,520 165,800	11,550	15,150	19,450	20,920	18,610	5,050	1,190	140	17,710	26,450	14,030
09021500 Water year	5.7 674	0	0	0	0	0	0	0	30	369	196	73
09050590 Water year	0 8,000	7,330	0	0	0	0	0	0	0	0	0	673
TO ARKANSAS RIVER BASIN												
09042000 Water year	900 6,160	0	0	0	0	0	0	278	3,150	423	900	509
09063700 Water year	0 22,740	0	0	6,520	6,960	7,660	1,600	0	0	0	0	0

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

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	09347000 Don LaFont ditches 1&2
09047300 Vidler tunnel	09073000 Twin Lakes tunnel	09348000 Williams Cr- Squaw Pass ditch
	09077160 Chas. H. Boustead tunnel	09351000 Pine River- Weminuche Pass ditch
	09077500 Busk-Ivanhoe tunnel	09351500 Weminuche Pass ditch
	09115000 Larkspur 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 1983

Station no.	Station name	Location	area (mi ²)	of record	Drainage Period	
					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	1965-83	10-06-82	0.07
					7-13-83	1.62
					8-11-83	0.53
					9-14-83	0.11

*Also a crest-stage partial-record station.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1983

Station no.	Station name	Location	Drainage area (mi ²)	Non-contributing	Period of record	Date	Gage height (feet)	Discharge (ft ³ /s)
PINEY RIVER BASIN								
*09058900	Moniger Creek near Minturn, CO	Lat 39°43'37", long 106°28'50", in Eagle County, on left bank 1.5 mi upstream from mouth, 7.5 mi north of Minturn.	0.76	-	1965-83	07-13-83	1.02	1.62 (observed)
COLORADO RIVER BASIN								
09061450	Sweetwater Creek at mouth near Dotsero, CO	Lat 39°43'20", long 107°02'22", in NW¼NE¼ sec.9, T.4 S., R.86 W., Eagle County, 5.3 mi north of Dotsero.	105	-	1979-83	06-25-83	9.56	750
09091100	Mamm Creek near Silt, CO	Lat 39°43'54", long 107°42'48", in NW¼NW¼ sec.18, T.6 S., R.92 W., Garfield County, 3.3 mi southeast of Silt.	63.3	-	1979-83	unknown	10.81	105
GUNNISON RIVER BASIN								
09149450	Dry Creek near Olathe, CO	Lat 39°33'19", long 108°02'43", SW¼NE¼ sec. 36, T.50 N., R.11 W., Montrose County, 4.9 mi southwest of Olathe.	102	-	1979-83	05-31-83	3.46	350

*Also a low-flow partial-record station.

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09010500 - COLORADO R BELOW BAKER GULCH, NR GRAND LAKE, CO. (LAT 40 19 33 LONG 105 51 22)							
OCT , 1982				APR , 1983			
05...	1125	67	5.0	20...	1010	90	.0
NOV				MAY			
17...	1305	76	1.0	24...	1130	70	4.5
DEC				JUN			
21...	1005	75	.0	29...	1500	40	9.5
FEB , 1983				JUL			
08...	1325	80	1.0	19...	1045	53	11.0
MAR				AUG			
23...	1350	82	.0	18...	1245	65	15.0
09011000 - COLORADO RIVER NEAR GRAND LAKE, CO. (LAT 40 13 08 LONG 105 51 25)							
OCT , 1982				APR , 1983			
05...	0930	72	4.0	20...	1245	88	5.5
NOV				MAY			
17...	1140	86	.0	24...	1715	62	8.0
DEC				JUN			
21...	1140	90	.5	30...	1045	40	5.5
FEB , 1983				JUL			
08...	1535	100	1.0	19...	1345	52	15.0
MAR							
23...	1035	90	1.5				
09019500 - COLORADO RIVER NEAR GRANBY, CO. (LAT 40 07 15 LONG 105 54 00)							
OCT , 1982				JUL , 1983			
05...	1455	72	9.0	13...	1505	58	15.0
MAY , 1983				AUG			
24...	1940	82	10.0	17...	0930	75	9.5
JUN				17...	0950	75	9.5
29...	1150	75	10.0				
09024000 - FRASER RIVER NEAR WINTER PARK, CO. (LAT 39 54 00 LONG 105 46 34)							
FEB , 1983				JUN , 1983			
25...	1350	160	1.0	28...	1340	60	6.5
MAR				JUL			
29...	1045	128	4.0	18...	1300	62	12.0
29...	1300	128	4.0	AUG			
APR				16...	1330	60	12.0
13...	1210	120	2.0				
MAY							
23...	1215	150	6.0				
09025000 - VASQUEZ CREEK NEAR WINTER PARK, CO. (LAT 39 55 13 LONG 105 47 05)							
NOV , 1982				MAY , 1983			
15...	1345	47	.0	03...	1210	72	2.0
JAN , 1983				23...	1615	60	4.5
03...	1400	12	.5	JUL			
FEB				01...	1700	25	7.5
23...	1050	60	1.0	05...	1715	22	9.0
MAR				20...	0945	30	6.5
29...	1555	60	.5				
09025400 - ELK CREEK NEAR FRASER, CO. (LAT 39 55 09 LONG 105 49 31)							
FEB , 1983				JUN , 1983			
23...	1225	55	.5	07...	1450	42	5.5
MAR				JUL			
30...	1300	80	.5	01...	1405	32	9.0
APR				AUG			
13...	1650	68	.5	17...	1630	52	16.0
MAY							
26...	1500	38	1.5				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09026500 - ST. LOUIS CREEK NEAR FRASER, CO. (LAT 39 54 36 LONG 105 52 40)							
NOV , 1982				APR , 1983			
15...	1530	73	.0	13...	1510	92	.0
FEB , 1983				JUN			
23...	1445	110	.5	30...	1500	63	7.5
MAR				AUG			
30...	1030	100	.5	03...	1625	84	10.0
09032000 - RANCH CREEK NEAR FRASER, CO. (LAT 39 57 00 LONG 105 45 54)							
NOV , 1982				MAY , 1983			
17...	1400	48	.0	25...	1700	52	1.5
FEB , 1983				JUL			
23...	1700	70	.5	01...	1200	24	4.5
MAR				18...	1840	33	9.5
29...	1725	58	.5	AUG			
APR				02...	1355	45	11.5
20...	1555	62	2.0				
09034250 - COLORADO RIVER AT WINDY GAP, NEAR GRANBY, CO. (LAT 40 06 30 LONG 106 00 13)							
OCT , 1982				MAY , 1983			
05...	1630	140	9.0	25...	1150	115	.0
NOV				JUN			
17...	1000	100	.0	13...	1250	72	6.5
DEC				29...	0950	66	8.0
21...	1340	140	.0	JUL			
FEB , 1983				13...	1810	65	17.0
09...	1000	130	1.0	AUG			
MAR				17...	1430	110	19.5
22...	1510	150	1.0				
APR							
14...	1015	135	2.0				
09034900 - BOBTAIL CREEK NEAR JONES PASS, CO. (LAT 39 45 37 LONG 105 54 21)							
OCT , 1982				MAY , 1983			
15...	1045	50	.5	16...	1300	60	.0
NOV				JUN			
23...	1105	68	.0	02...	1200	52	.0
JAN , 1983				JUL			
13...	1210	--	.0	08...	1210	50	3.5
FEB				AUG			
24...	1205	48	.0	09...	1030	--	7.0
MAR				SEP			
30...	0950	70	4.0	28...	1040	<50	15.0
APR							
21...	1215	50	.0				
09035500 - WILLIAMS FORK BELOW STEELMAN CREEK, CO. (LAT 39 46 44 LONG 105 55 40)							
OCT , 1982				JUN , 1983			
15...	1250	50	15.0	02...	1325	65	.5
JAN , 1983				JUL			
13...	1250	65	.0	08...	1130	50	18.0
FEB				AUG			
24...	1200	60	.0	09...	1430	60	12.0
APR				SEP			
21...	1330	70	.0	28...	1320	<50	10.0
09035700 - WILLIAMS FORK ABOVE DARLING CREEK, NR LEAL, CO. (LAT 39 47 22 LONG 106 01 18)							
NOV , 1982				JUN , 1983			
16...	1105	70	.5	08...	1620	55	5.0
FEB , 1983				23...	1630	50	4.5
24...	1110	80	.5	JUL			
MAR				20...	1930	37	10.0
29...	1310	120	1.0	AUG			
MAY				26...	0910	58	9.0
04...	1445	72	4.0				

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09035800 - DARLING CREEK NEAR LEAL, CO. (LAT 39 48 17 LONG 106 01 11)							
NOV , 1982				MAY , 1983			
16...	1400	73	.5	04...	1130	82	2.0
FEB , 1983				JUL			
24...	1453	90	.5	21...	0910	70	3.5
24...	1455	90	.5				
09035900 - SOUTH FORK OF WILLIAMS FORK NEAR LEAL, CO. (LAT 39 47 44 LONG 106 01 49)							
MAY , 1983				JUL , 1983			
04...	1500	90	4.5	20...	1630	44	11.0
JUN				AUG			
09...	1740	70	5.5	26...	1120	70	10.0
23...	1820	65	7.5				
09037500 - WILLIAMS FORK NEAR PARSHALL, CO. (LAT 40 00 01 LONG 106 10 45)							
NOV , 1982				APR , 1983			
17...	0930	110	.5	20...	1010	112	1.0
FEB , 1983				AUG			
25...	1030	70	.0	04...	1010	<50	10.0
MAR							
30...	0915	80	.0				
09038500 - WILLIAMS FORK BELOW WILLIAMS FORK RESERVOIR, CO. (LAT 40 02 07 LONG 106 12 17)							
FEB , 1983				MAY , 1983			
25...	1200	115	4.0	25...	1630	120	6.0
MAR				JUL			
30...	0950	70	4.0	05...	1500	130	9.5
MAY				21...	1315	130	8.0
05...	1445	120	3.0				
09039000 - TROUBLESOME CREEK NEAR PEARMONT, CO. (LAT 40 13 03 LONG 106 18 45)							
OCT , 1982				APR , 1983			
20...	1210	95	2.5	13...	1745	110	.0
NOV				JUN			
16...	1355	100	.5	24...	1140	115	10.0
DEC				JUL			
20...	1215	115	.0	19...	1620	80	14.0
FEB , 1983				AUG			
07...	1250	110	.5	03...	1600	60	20.0
MAR				25...	1445	95	18.0
21...	1245	105	1.0				
09040000 - EAST FORK TROUBLESOME C NEAR TROUBLESOME, CO. (LAT 40 09 27 LONG 106 16 58)							
OCT , 1982				APR , 1983			
20...	1330	200	4.5	20...	1210	189	5.0
NOV				JUN			
16...	1520	214	.5	07...	1600	110	9.0
DEC				JUL			
20...	1400	220	.0	19...	1910	190	21.0
FEB , 1983				AUG			
07...	1530	220	1.0	25...	1650	180	14.5
MAR							
21...	1500	200	2.0				
09041500 - MUDDY CREEK AT KREMMLING, CO. (LAT 40 03 37 LONG 106 23 51)							
OCT , 1982				APR , 1983			
21...	0905	800	5.0	20...	1340	1340	3.5
NOV				JUL			
17...	0830	--	.0	01...	1000	460	14.0
DEC				AUG			
20...	1550	570	.0	02...	1900	1120	19.0
FEB , 1983				29...	1805	830	18.5
08...	0945	500	1.0				
MAR							
22...	1030	800	.5				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09046600 - BLUE RIVER NEAR DILLON, CO. (LAT 39 32 55 LONG 106 02 19)							
OCT , 1982				MAY , 1983			
04... 1155		185	11.0	11... 1345		200	5.0
DEC				JUN			
07... 1420		120	1.0	01... 0955		100	4.0
JAN , 1983				21... 1000		100	8.0
05... 1445		180	6.0	JUL			
FEB				19... 1515		80	9.0
15... 1350		260	1.0	AUG			
MAR				24... 0905		80	8.0
22... 1315		180	1.5				
09047500 - SNAKE RIVER NEAR MONTEZUMA, CO. (LAT 39 36 20 LONG 105 56 33)							
OCT , 1982				MAY , 1983			
12... 1220		90	.5	23... 1000		110	2.5
NOV				JUN			
15... 1120		100	.0	15... 1330		70	5.0
DEC				27... 0950		44	4.0
13... 1130		110	.0	JUL			
JAN , 1983				28... 0950		60	7.0
25... 1130		100	.0	AUG			
MAR				29... 1210		75	9.0
01... 1115		105	.0				
APR							
06... 1230		118	1.0				
09047700 - KEYSTONE GULCH NEAR DILLON, CO. (LAT 39 35 40 LONG 105 58 19)							
OCT , 1982				MAY , 1983			
12... 1320		78	.0	23... 1220		85	4.5
NOV				JUN			
15... 1300		80	.0	15... 1055		57	4.0
DEC				27... 1320		49	5.5
13... 1310		82	.0	JUL			
JAN , 1983				28... 1205		65	10.0
25... 1300		<50	.0	AUG			
MAR				29... 1310		74	10.0
01... 1305		81	.0				
APR							
06... 1720		85	.0				
09050100 - TENMILE CREEK BL NORTH TENMILE C, AT FRISCO, CO. (LAT 39 34 37 LONG 106 06 33)							
OCT , 1982				MAY , 1983			
04... 1020		140	9.0	11... 0845		180	5.0
DEC				JUN			
07... 1555		<50	.0	07... 1340		180	5.0
JAN , 1983				21... 1500		150	8.0
05... 0930		120	1.0	JUL			
FEB				19... 1205		220	9.0
15... 1540		200	1.0	AUG			
MAR				24... 1210		80	7.0
22... 1615		150	.0				
29... 1100		1300	1.0				
09050700 - BLUE RIVER BELOW DILLON, CO. (LAT 39 37 32 LONG 106 03 57)							
OCT , 1982				MAY , 1983			
12... 1600		165	9.0	11... 1155		200	8.0
DEC				JUN			
07... 1205		190	1.0	01... 1310		180	3.0
JAN , 1983				21... 1315		120	9.0
05... 1130		160	5.0	JUL			
FEB				19... 1720		180	8.0
15... 0940		200	4.0	AUG			
MAR				24... 1700		100	10.0
22... 0940		180	1.0				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09052000 - ROCK CREEK NEAR DILLON, CO. (LAT 39 43 23 LONG 106 07 41)							
OCT , 1982				MAY , 1983			
14...	1600	53	2.5	23...	1450	50	6.0
NOV				JUN			
15...	1630	63	.0	15...	0915	32	2.5
DEC				28...	1655	24	9.0
13...	1630	70	.0	JUL			
JAN , 1983				26...	1100	30	8.0
25...	1700	<50	.0	AUG			
MAR				29...	1620	42	11.0
01...	1600	63	.5				
APR							
07...	1300	72	.5				
09052800 - SLATE CREEK AT UPPER STATION, NEAR DILLON, CO. (LAT 39 45 47 LONG 106 11 31)							
OCT , 1982				APR , 1983			
14...	1110	45	1.0	14...	1600	40	.0
NOV				JUN			
17...	1510	58	.0	02...	1315	36	5.0
DEC				16...	1550	31	8.0
15...	1545	50	.0	29...	1300	22	6.0
JAN , 1983				JUL			
27...	1300	<50	.0	26...	1715	21	10.0
MAR				AUG			
03...	1100	66	.0	31...	1115	38	11.0
09054000 - BLACK CREEK BELOW BLACK LAKE, NEAR DILLON, CO. (LAT 39 47 59 LONG 106 16 04)							
OCT , 1982				APR , 1983			
14...	1325	24	7.5	07...	1745	38	1.0
NOV				JUN			
16...	1615	29	1.0	01...	1200	31	3.0
DEC				28...	1500	22	6.0
15...	1100	25	1.0	JUL			
JAN , 1983				27...	1530	25	8.5
26...	1620	<50	1.0	AUG			
MAR				30...	1545	23	14.0
03...	1500	34	2.0				
09055300 - CATARACT CREEK NEAR KREMMLING, CO. (LAT 39 50 07 LONG 106 18 57)							
OCT , 1982				MAY , 1983			
13...	0920	34	5.0	25...	1500	62	4.0
NOV				JUN			
16...	1030	36	3.0	14...	1130	40	5.0
DEC				28...	1000	25	5.5
14...	1030	35	1.5	29...	1000	25	5.5
JAN , 1983				JUL			
26...	1000	<50	1.0	27...	0940	25	12.0
MAR				AUG			
02...	1600	50	1.0	30...	0855	28	15.0
APR							
14...	1020	62	1.0				
09057500 - BLUE RIVER BELOW GREEN MOUNTAIN RESERVOIR, CO. (LAT 39 52 49 LONG 106 20 00)							
OCT , 1982				JUN , 1983			
13...	1220	132	11.0	01...	1730	160	4.5
NOV				14...	1530	190	6.0
16...	1310	155	6.5	28...	1145	175	9.5
DEC				JUL			
14...	1350	160	5.0	05...	1600	158	10.5
JAN , 1983				27...	1045	160	10.0
26...	1330	115	2.0	AUG			
MAR				30...	1150	170	15.0
02...	1230	163	2.0				
APR							
27...	1230	230	3.0				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09058000 - COLORADO RIVER NEAR KREMMLING, CO. (LAT 40 02 12 LONG 106 26 22)							
OCT , 1982				JUN , 1983			
20...	1100	175	8.0	08...	0930	190	8.5
DEC				AUG			
06...	1400	190	6.0	03...	1130	180	15.0
MAR , 1983				30...	1025	186	14.0
29....	1650	165	5.0				
MAY							
24...	1215	230	10.0				
09058500 - PINEY RIVER BELOW PINEY LAKE, NEAR MINTURN, CO. (LAT 39 42 29 LONG 106 25 38)							
OCT , 1982				APR , 1983			
06...	1125	43	4.5	19...	1550	70	.5
NOV				JUN			
03...	1210	65	.0	29...	1100	--	6.0
DEC				JUL			
14...	1310	55	.0	13...	1135	21	8.5
JAN , 1983				AUG			
28...	1145	38	.0	10...	1700	31	17.5
MAR							
03...	1115	--	.0				
09058610 - DICKSON CREEK NEAR VAIL, CO. (LAT 39 42 14 LONG 106 27 25)							
OCT , 1982				JUN , 1983			
06...	1535	380	7.5	22...	1035	--	2.5
NOV				JUL			
03...	1005	360	2.0	13...	1425	265	15.0
APR , 1983				AUG			
20...	1235	230	.0	11...	1210	300	14.5
09058700 - FREEMAN CREEK NEAR MINTURN, CO. (LAT 39 41 55 LONG 106 26 41)							
OCT , 1982				JUN , 1983			
06...	1615	220	7.0	22...	0935	--	2.5
NOV				JUL			
04...	1335	225	.5	13...	1525	245	19.0
APR , 1983				AUG			
20...	1120	235	.5	11...	1255	205	19.5
09058800 - EAST MEADOW CREEK NEAR MINTURN CO. (LAT 39 43 54 LONG 106 25 36)							
OCT , 1982				JUL , 1983			
06...	0930	50	.5	13...	1020	32	4.5
APR , 1983				AUG			
19...	1150	70	.0	11...	1540	45	11.0
JUN				SEP			
27...	1550	36	4.5	13...	1020	32	4.5
29...	0930	39	4.0				
09059500 - PINEY RIVER NEAR STATE BRIDGE, CO. (LAT 39 48 00 LONG 106 35 00)							
OCT , 1982				MAY , 1983			
07...	1020	280	3.0	05...	1140	320	6.5
NOV				31...	1710	160	6.0
01...	1440	300	4.0	JUL			
DEC				14...	1120	125	10.0
13...	1515	370	.0	AUG			
JAN , 1983				12...	1120	190	14.0
24...	1545	780	.0				
FEB							
28...	1420	350	2.5				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09060950 - BIG ALKALI CREEK BELOW CASTLE CR NEAR BURNS, CO. (LAT 39 51 52 LONG 106 49 01)							
NOV , 1982				MAY , 1983			
05...	1030	950	.0	06...	1125	665	3.5
DEC				31...	1345	450	10.5
13...	1240	940	.0	JUN			
JAN , 1983				20...	1450	360	14.5
24...	1345	800	.0	28...	1110	520	11.0
FEB				JUL			
28...	1230	840	3.0	11...	1600	600	17.0
APR				AUG			
18...	1330	875	8.5	12...	1430	1000	15.5
21...	1400	928	9.0				
09063000 - EAGLE RIVER AT RED CLIFF, CO. (LAT 39 30 34 LONG 106 22 00)							
NOV , 1982				JUN , 1983			
02...	1515	200	2.5	01...	1355	160	7.5
DEC				21...	1340	135	9.0
16...	1305	210	.0	29...	1035	155	6.0
JAN , 1983				JUL			
25...	1315	--	.0	12...	1730	190	14.5
MAR				AUG			
01...	1300	--	2.0	10...	1220	190	12.0
APR							
21...	1510	210	6.5				
09063200 - WEARYMAN CREEK NEAR RED CLIFF, CO. (LAT 39 31 14 LONG 106 19 06)							
OCT , 1982				APR , 1983			
05...	1440	--	4.0	22...	1420	300	.5
NOV				JUN			
02...	1330	270	.0	01...	1115	170	3.5
DEC				21...	1535	220	5.5
16...	1010	290	.0	23...	1415	--	5.0
JAN , 1983				JUL			
25...	1015	260	.0	12...	1520	200	8.0
MAR				AUG			
01...	1015	280	.5	10...	0930	200	5.0
09063400 - TURKEY CREEK NEAR RED CLIFF, CO. (LAT 39 31 22 LONG 106 20 15)							
NOV , 1982				JUN , 1983			
02...	1420	280	1.0	01...	1225	240	4.5
DEC				21...	1640	195	5.5
16...	1130	270	.0	23...	1300	--	5.0
JAN , 1983				29...	0820	195	3.5
25...	1150	200	.0	JUL			
MAR				12...	1620	165	9.0
01...	1110	275	.5	AUG			
APR				10...	1120	215	7.5
22...	1040	280	1.5				
09063900 - MISSOURI CREEK NEAR GOLD PARK, CO. (LAT 39 23 25 LONG 106 28 10)							
OCT , 1982				JUN , 1983			
05...	1000	25	2.5	02...	1320	--	2.0
NOV				21...	1000	24	2.5
02...	0955	30	.0	23...	1010	--	2.5
DEC				JUL			
15...	1110	40	.0	12...	0935	23	4.5
JAN , 1983				AUG			
27...	1100	39	.0	09...	1055	22	10.0
MAR				SEP			
02...	0930	--	.0	13...	1005	31	6.5
APR							
21...	1010	44	.0				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09064000 - HOMESTAKE CREEK AT GOLD PARK, CO. (LAT 39 24 20 LONG 106 25 58)							
OCT , 1982				JUN , 1983			
05...	1115	30	4.0	21...	1105	23	5.0
NOV				23...	1105	--	4.5
02...	1110	32	1.0	JUL			
DEC				12...	1145	24	9.5
15...	1230	--	.0	AUG			
APR , 1983				09...	1200	21	11.0
21...	1200	40	1.0	SEP			
JUN				13...	1140	30	11.5
02...	1105	--	4.5				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09064500 - HOMESTAKE CREEK NEAR RED CLIFF, CO. (LAT 39 28 24 LONG 106 22 02)							
OCT , 1982				JUN , 1983			
05...	1225	34	9.0	02...	1000	--	5.0
NOV				21...	1215	23	8.0
02...	1210	38	1.0	23...	1200	--	8.5
DEC				JUL			
15...	1430	42	.0	12...	1315	28	14.5
JAN , 1983				AUG			
25...	1450	52	.0	09...	1340	25	14.0
MAR				SEP			
02...	1330	--	.0	13...	1300	38	12.5
APR							
21...	1335	48	1.0				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09065100 - CROSS CREEK NEAR MINTURN, CO. (LAT 39 34 05 LONG 106 24 45)							
OCT , 1982				APR , 1983			
07...	1245	48	5.5	21...	1625	57	1.5
NOV				JUN			
04...	1035	48	.5	20...	1715	20	9.0
DEC				29...	1120	50	6.0
16...	1350	53	.0	JUL			
JAN , 1983				14...	1350	18	10.5
27...	1505	60	.0	AUG			
MAR				10...	1435	27	14.5
02...	1525	--	.0				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09065500 - GORE CREEK AT UPPER STATION, NEAR MINTURN, CO. (LAT 39 37 40 LONG 106 16 24)							
OCT , 1982				MAY , 1983			
04...	1545	85	9.0	12...	0850	80	3.0
NOV				JUN			
09...	1005	<50	.0	02...	1420	60	2.0
JAN , 1983				22...	1040	85	8.0
04...	1350	<50	.0	JUL			
FEB				20...	0845	<50	5.0
16...	1425	<50	.0	AUG			
MAR				25...	1035	<50	5.0
24...	0835	<50	.0				
APR							
20...	1250	120	1.0				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09066000 - BLACK GORE CREEK NEAR MINTURN, CO. (LAT 39 35 47 LONG 106 15 52)							
OCT , 1982				APR , 1983			
04...	1420	110	10.0	26...	1810	280	1.0
NOV				JUN			
09...	1245	<50	.0	02...	1235	150	2.0
JAN , 1983				22...	1240	85	8.0
04...	1020	<50	.0	JUL			
FEB				20...	1810	60	5.0
16...	1105	85	.0	AUG			
MAR				25...	1235	<50	8.0
23...	1010	<50	.0				

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09066100 - BIGHORN CREEK NEAR MINTURN, CO. (LAT 39 38 24 LONG 106 17 34)							
OCT , 1982				MAY , 1983			
05...	0850	<50	8.0	12...	1055	<50	2.0
NOV				JUN			
10...	1245	<50	.0	02...	1045	180	2.0
JAN , 1983				22...	1410	80	9.0
04...	1545	<50	.0	JUL			
FEB				21...	1220	<50	5.0
17...	1425	<50	.0	AUG			
MAR				26...	1345	<50	6.0
24...	1015	<50	.0				
APR							
19...	1620	<50	1.0				
09066150 - PITKIN CREEK NEAR MINTURN, CO. (LAT 39 38 37 LONG 106 18 07)							
OCT , 1982				MAY , 1983			
05...	1040	<50	9.0	12...	1250	60	3.0
NOV				JUN			
10...	1030	<50	.0	03...	0855	80	2.0
JAN , 1983				23...	1115	80	7.0
06...	1015	<50	.0	JUL			
FEB				21...	1105	<50	5.0
17...	1120	<50	.0	AUG			
MAR				25...	1515	<50	5.0
23...	1540	<50	.0				
APR							
20...	1330	80	1.0				
09066200 - BOOTH CREEK NEAR MINTURN, CO. (LAT 39 39 02 LONG 106 19 16)							
OCT , 1982				APR , 1983			
05...	1315	<50	5.0	20...	1440	100	1.0
05...	1505	<50	8.0	MAY			
NOV				12...	1455	80	3.0
09...	1545	<50	.0	12...	1550	<50	2.0
10...	1420	<50	.0	JUN			
JAN , 1983				02...	1545	80	2.5
06...	1255	<50	.0	03...	1120	85	2.0
06...	1510	<50	.0	23...	0950	85	7.0
FEB				23...	1315	<50	8.0
17...	0950	<50	.0	JUL			
17...	1615	<50	.0	21...	1430	120	5.0
MAR				21...	1635	<50	5.0
23...	1650	<50	.0	AUG			
24...	1255	<50	.0	25...	1445	<50	8.0
APR				26...	1005	<50	5.0
19...	1600	<50	1.0				
09066300 - MIDDLE CREEK NEAR MINTURN, CO. (LAT 39 38 50 LONG 106 22 48)							
OCT , 1982				MAY , 1983			
05...	1505	<50	8.0	12...	1550	<50	2.0
NOV				JUN			
10...	1420	<50	.0	03...	1120	85	2.0
JAN , 1983				23...	1315	<50	8.0
06...	1510	<50	.0	JUL			
FEB				21...	1635	<50	5.0
17...	1615	<50	.0	AUG			
MAR				25...	1445	<50	8.0
23...	1650	<50	.0				
APR							
19...	1600	<50	1.0				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09066400 - RED SANDSTONE CREEK NEAR MINTURN, CO. (LAT 39 40 58 LONG 106 24 03)							
OCT , 1982				APR , 1983			
07... 1445		80	4.0	20... 1635		--	.5
NOV				JUN			
03... 1500		90	.0	02... 1635		58	2.0
DEC				22... 1700		--	4.5
14... 1100		80	.0	23... 1635		--	4.5
JAN , 1983				JUL			
28... 1020		70	.0	14... 1535		47	11.0
MAR				AUG			
03... 0945		--	.5	11... 0450		75	7.5
09070000 - EAGLE RIVER BELOW GYPSUM, CO. (LAT 39 38 58 LONG 106 57 11)							
OCT , 1982				MAY , 1983			
26... 1600		700	9.0	25... 0900		314	8.0
NOV				JUN			
19... 1430		755	4.0	24... 1005		163	7.5
DEC				26... 1100		195	9.0
22... 1105		810	2.0	29... 1530		205	11.5
JAN , 1983				JUL			
27... 1000		920	.5	19... 1400		--	14.5
FEB				AUG			
24... 1200		813	2.0	17... 1000		658	15.0
MAR				SEP			
22... 1130		893	4.0	21... 0800		730	7.0
APR							
14... 0900		900	2.0				
09071300 - GRIZZLY CREEK NEAR GLENWOOD SPRINGS, CO. (LAT 39 43 04 LONG 107 18 51)							
OCT , 1982				JUN , 1983			
04... 1530		280	5.0	06... 1345		240	2.0
JAN , 1983							
31... 1440		335	.0				
09072550 - ROARING FORK RIVER AB LOST MAN C, NEAR ASPEN CO. (LAT 39 07 13 LONG 106 37 27)							
OCT , 1982				JUN , 1983			
19... 1205		32	1.0	28... 1430		40	5.0
NOV				JUL			
08... 0840		55	2.0	07... 1650		45	5.0
JUN , 1983				SEP			
07... 1215		45	3.0	13... 0410		55	10.0
22... 1600		40	5.0				
09073005 - LINCOLN CREEK BL GRIZZLY RESERVOIR, NR ASPEN CO. (LAT 39 04 48 LONG 106 36 57)							
OCT , 1982				JUL , 1983			
19... 1000		80	3.0	21... 1245		--	9.0
JUN , 1983				21... 1340		--	9.0
07... 1020		65	4.0	AUG			
22... 1415		50	5.0	10... 0935		135	10.0
JUL				SEP			
07... 1920		220	7.5	13... 1035		100	9.0
21... 0955		--	9.0				
09073300 - ROARING FORK RIVER AB DIFFICULT C NR ASPEN, CO. (LAT 39 08 28 LONG 106 46 25)							
OCT , 1982				MAY , 1983			
19... 1430		45	3.5	11... 1230		55	4.0
NOV				JUN			
17... 1015		75	.5	07... 1445		105	6.0
JAN , 1983				22... 1150		30	5.0
03... 1415		40	.0	29... 0940		30	5.5
FEB				AUG			
08... 1125		65	.5	10... 1310		45	10.0
MAR				SEP			
29... 1235		70	1.0	13... 1300		85	11.0

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09073400 - ROARING FORK RIVER NEAR ASPEN, CO. (LAT 39 10 48 LONG 106 48 05)							
OCT , 1982				MAY , 1983			
19...	1650	65	6.0	11...	1400	53	6.0
NOV				JUN			
17...	1210	70	.5	07...	1655	150	6.0
JAN , 1983				AUG			
03...	1605	75	.0	11...	1020	60	11.0
07...	1655	150	6.0	SEP			
FEB				13...	1410	110	13.0
08...	0920	85	.5				
MAR							
29...	1005	75	1.5				
09074000 - HUNTER CREEK NEAR ASPEN, CO. (LAT 39 12 21 LONG 106 47 49)							
OCT , 1982				JUN , 1983			
20...	0940	40	1.0	08...	0900	70	3.0
NOV				22...	1620	35	4.0
17...	1500	35	.0	29...	1615	20	7.0
JAN , 1983				JUL			
04...	1725	65	--	07...	1445	35	5.5
FEB				AUG			
08...	1440	60	.0	11...	1145	45	8.0
MAR				SEP			
30...	0905	65	.0	14...	0910	65	9.0
MAY							
11...	1730	35	4.0				
09074800 - CASTLE CREEK ABOVE ASPEN, CO. (LAT 39 05 15 LONG 106 48 42)							
OCT , 1982				MAY , 1983			
20...	1225	350	4.0	11...	1550	320	6.0
NOV				JUN			
16...	1530	350	.0	08...	1520	320	7.0
JAN , 1983				23...	0820	215	4.5
04...	0955	290	.0	29...	1415	220	7.5
FEB				AUG			
08...	1635	290	.5	11...	1320	250	8.0
MAR				SEP			
29...	1455	420	2.0	13...	1530	320	13.0
09075700 - MAROON CREEK ABOVE ASPEN, CO. (LAT 39 07 25 LONG 106 54 17)							
OCT , 1982				MAY , 1983			
20...	1415	500	6.0	12...	0910	340	4.0
NOV				JUN			
16...	1235	550	3.5	08...	1255	380	8.0
JAN , 1983				23...	1115	210	6.0
04...	1305	600	.0	28...	1010	200	5.5
FEB				AUG			
07...	1700	650	.0	11...	1530	270	8.0
MAR				SEP			
30...	1150	550	.5	13...	1650	450	10.5
09076520 - OWL CREEK NEAR ASPEN, CO. (LAT 39 13 25 LONG 106 52 45)							
OCT , 1982				MAY , 1983			
20...	1535	520	5.0	12...	1140	265	3.5
NOV				JUN			
16...	1020	540	.0	08...	1045	210	6.5
JAN , 1983				28...	1230	340	9.0
04...	1525	520	.0	AUG			
FEB				11...	1630	525	8.0
07...	1450	490	--	SEP			
MAR				13...	1750	450	15.0
30...	1425	740	.5				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
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09078000 - FRYINGPAN RIVER AT NORRIE, CO. (LAT 39 19 51 LONG 106 39 27)

OCT , 1982				MAY , 1983			
18...	1240	43	5.0	10...	1505	55	8.0
NOV				JUN			
15...	1540	60	.0	06...	1505	35	8.0
JAN , 1983				21...	1305	65	6.0
05...	1120	80	.0	AUG			
FEB				09...	1450	35	10.0
09...	1140	75	.0	SEP			
MAR				14...	1305	50	11.5
31...	1035	65	.5				

09080400 - FRYINGPAN RIVER NEAR RUEDI, CO. (LAT 39 21 56 LONG 106 49 30)

OCT , 1982				JUN , 1983			
18...	1435	230	9.0	06...	1300	315	5.5
NOV				21...	1045	320	4.5
15...	1255	255	8.0	27...	1530	240	5.0
JAN , 1983				30...	1550	240	5.0
05...	1310	310	3.0	AUG			
FEB				09...	1305	175	10.0
09...	1350	430	3.0	SEP			
MAR				14...	1130	160	11.0 #
31...	1310	300	3.0				
MAY							
10...	1705	340	5.5				

09081600 - CRYSTAL RIVER AB AVALANCHE C, NEAR REDSTONE, CO. (LAT 39 13 56 LONG 107 13 36)

OCT , 1982				MAY , 1983			
21...	1105	440	4.0	31...	1630	270	9.0
NOV				JUN			
18...	1215	500	2.0	23...	1525	173	9.5
JAN , 1983				26...	1450	189	8.0
05...	1500	540	3.0	JUL			
FEB				08...	1130	240	10.5
10...	1005	620	2.5	AUG			
MAR				09...	1035	410	11.0
31...	1610	550	4.0	SEP			
MAY				12...	1615	440	16.0
10...	1210	265	8.0				

09085200 - CANYON CREEK ABOVE NEW CASTLE, CO. (LAT 39 36 19 LONG 107 24 21)

OCT , 1982				MAY , 1983			
27...	1535	365	4.0	04...	1530	270	12.0
NOV				19...	1400	270	9.0
23...	1450	340	5.0	JUN			
JAN , 1983				09...	1400	220	8.5
06...	1515	350	.0	24...	1125	215	9.5
FEB				26...	1430	--	9.0
10...	1230	345	2.0	JUL			
MAR				01...	1320	220	10.0
28...	1740	290	1.0	20...	1430	--	8.0

09085300 - EAST CANYON CREEK NEAR NEW CASTLE, CO. (LAT 39 36 33 LONG 107 26 03)

OCT , 1982				MAY , 1983			
27...	1400	305	4.0	04...	1400	320	6.5
NOV				JUN			
23...	1550	360	2.5	09...	1535	210	8.5
JAN , 1983				22...	1535	189	12.0
06...	1405	360	.0	JUL			
FEB				20...	1210	280	8.0
10...	1410	390	1.0	SEP			
MAR				12...	1205	335	11.5
28...	1620	380	1.0				

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09089500 - WEST DIVIDE CREEK NEAR RAVEN, CO. (LAT 39 19 52 LONG 107 34 46)							
NOV , 1982				MAY , 1983			
04...	1150	425	3.0	06...	0925	300	2.0
23...	1150	340	.0	25...	1130	210	6.0
JAN , 1983				JUN			
07...	1215	360	.0	02...	1215	420	11.0
FEB				22...	1255	187	9.5
11...	1030	390	1.0	AUG			
MAR				08...	1330	335	21.0
28...	1230	355	3.0	26...	1450	320	19.5

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09093000 - PARACHUTE CREEK NEAR PARACHUTE CO. (LAT 39 34 01 LONG 108 06 37)							
OCT , 1982				MAY , 1983			
12...	1500	720	9.0	09...	1200	580	8.0
NOV				26...	1330	670	10.5
16...	1300	540	5.5	27...	1210	450	10.0
DEC				JUN			
22...	1100	940	4.0	15...	1000	800	7.0
FEB , 1983				JUL			
14...	1105	900	5.0	07...	1000	920	11.5
MAR				AUG			
11...	1400	860	11.5	08...	1300	910	15.0
APR							
15...	1200	938	10.5				
27...	1200	628	5.5				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09093700 - COLORADO RIVER NEAR DE BEQUE, CO. (LAT 39 21 45 LONG 108 09 07)							
OCT , 1982				JUN , 1983			
25...	1100	818	10.5	21...	1405	310	10.5
25...	1100	816	10.5	25...	1310	248	14.0
JAN , 1983				JUL			
11...	1200	1080	.0	22...	1200	370	17.5
FEB				AUG			
14...	1500	1000	4.0	10...	1200	475	19.0
APR				SEP			
06...	1200	1050	6.5	08...	1230	715	18.5
MAY							
31...	1200	302	10.0				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
090955285 - GOV'T HIGHLINE CA AB CAMP #7 SPILL, NR MACK, CO. (LAT 39 16 21 LONG 108 49 56)							
APR , 1983				JUN , 1983			
15...	1345	1080	9.0	07...	1310	333	15.0
25...	0945	927	14.0	JUL			
29...	1115	746	17.5	06...	1040	286	17.5
MAY				AUG			
02...	1025	772	10.5	08...	1115	449	23.0
04...	0945	788	12.5	SEP			
09...	1010	721	14.0	08...	1125	762	20.0
13...	0950	510	11.0				
27...	1100	320	14.0				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09106104 - KIEFER EXTENSION GRAND VALLEY CA NR FRUITA, CO. (LAT 39 13 31 LONG 108 46 28)							
OCT , 1982				MAY , 1983			
13...	1350	900	9.0	20...	1005	645	11.0
NOV				JUN			
08...	1240	930	6.5	16...	1400	335	16.0
DEC				JUL			
17...	0950	1070	1.0	14...	1335	350	21.0
APR , 1983				SEP			
11...	1250	970	9.0	06...	1310	--	22.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09106108 - KIEFER EXTENSION GRAND VALLEY CANAL NR LOMA, CO. (LAT 39 13 40 LONG 108 49 06)							
OCT , 1982				JUN , 1983			
14...	1145	975	8.0	08...	1340	388	16.0
DEC				JUL			
17...	1125	1030	1.0	06...	1245	352	19.5
APR , 1983				AUG			
11...	1435	980	9.5	08...	1300	505	24.0
MAY				SEP			
03...	1400	747	12.5	07...	1400	814	21.0
09109000 - TAYLOR RIVER BELOW TAYLOR PARK RESERVOIR, CO. (LAT 38 49 06 LONG 106 36 31)							
OCT , 1982				MAY , 1983			
05...	1610	80	9.5	17...	1425	140	3.0
NOV				JUN			
09...	1350	80	4.5	15...	1535	78	7.0
DEC				JUL			
14...	1350	90	4.0	20...	1745	83	12.5
JAN , 1983				AUG			
25...	1330	95	3.0	17...	1610	88	13.5
MAR				SEP			
08...	1315	50	3.0	14...	1440	83	10.0
29...	1340	110	2.5				
APR							
19...	1415	100	3.0				
09110000 - TAYLOR RIVER AT ALMONT, CO. (LAT 38 39 52 LONG 106 50 41)							
OCT , 1982				MAY , 1983			
05...	1410	130	9.0	17...	1240	180	4.0
NOV				JUN			
09...	1225	120	3.5	15...	1350	130	8.0
DEC				22...	1355	100	9.5
14...	1155	85	.0	JUL			
JAN , 1983				20...	1535	150	13.5
25...	1150	160	.0	AUG			
MAR				17...	1235	160	14.0
08...	1145	150	2.5	SEP			
29...	1505	130	5.0	14...	1650	105	11.0
APR							
19...	1150	125	5.0				
09112500 - EAST RIVER AT ALMONT CO. (LAT 38 39 52 LONG 106 50 50)							
OCT , 1982				MAY , 1983			
05...	1310	250	9.0	17...	1140	263	4.0
NOV				JUN			
09...	1125	125	3.5	15...	1205	120	8.0
DEC				22...	1210	170	8.5
14...	1100	300	.0	JUL			
JAN , 1983				20...	0920	222	11.0
25...	1055	270	2.0	AUG			
MAR				17...	1055	281	14.0
08...	1100	347	3.0	SEP			
APR				14...	1200	303	11.5
19...	1050	315	7.5				
09114500 - GUNNISON RIVER NEAR GUNNISON, CO. (LAT 38 32 31 LONG 106 56 57)							
OCT , 1982				MAY , 1983			
06...	1525	160	9.0	18...	1440	195	8.0
NOV				JUN			
09...	1630	180	5.0	16...	1540	180	10.5
DEC				22...	1550	162	11.0
15...	1520	195	.0	JUL			
JAN , 1983				21...	1615	182	15.0
26...	1550	160	.0	SEP			
MAR				15...	1445	175	13.0
09...	1435	210	5.0				
APR							
20...	1430	180	7.0				

ANALYSES OF MISCELLANEOUS STATIONS

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DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09118450 - COCHETOPA CREEK BELOW ROCK CREEK NR PARLIN, CO. (LAT 38 20 08 LONG 106 46 18)							
OCT , 1982				MAY , 1983			
05...	0930	135	4.0	17...	0945	200	2.0
NOV				JUN			
09...	0920	145	.5	15...	0940	180	9.0
DEC				22...	0940	120	10.5
14...	0920	200	.0	29...	1535	160	14.0
JAN , 1983				JUL			
25...	0920	220	.0	20...	1115	273	155
MAR				AUG			
08...	0915	222	--	17...	0915	242	13.5
APR				SEP			
19...	0900	212	.5	14...	0905	170	8.5
09119000 - TOMICHI CREEK AT GUNNISON, CO. (LAT 38 31 18 LONG 106 56 25)							
OCT , 1982				MAY , 1983			
05...	1110	210	7.5	17...	1715	283	7.0
NOV				JUN			
10...	0905	330	2.0	15...	1810	263	9.0
DEC				22...	1735	260	10.5
14...	1545	240	.0	JUL			
JAN , 1983				20...	1340	273	20.0
25...	1600	340	.0	AUG			
MAR				17...	1755	242	21.5
08...	1530	225	6.5	SEP			
28...	1435	258	4.0	14...	1050	263	13.0
APR							
19...	1635	237	9.5				
09123400 - LAKE FORK BELOW MILL GULCH NEAR LAKE CITY, CO. (LAT 37 54 23 LONG 107 23 03)							
OCT , 1982				MAY , 1983			
06...	1135	120	3.5	18...	1015	119	5.0
NOV				JUN			
08...	1520	280	3.0	16...	1155	78	7.0
DEC				23...	1310	63	7.5
15...	1040	55	2.0	30...	1145	68	10.0
JAN , 1983				JUL			
26...	1045	125	.0	21...	1115	83	10.0
MAR				AUG			
09...	1030	134	.0	18...	1250	110	13.0
APR				SEP			
20...	0955	125	3.5	15...	1125	125	9.0
09124500 - LAKE FORK AT GATEVIEW, CO. (LAT 38 17 56 LONG 107 13 46)							
OCT , 1982				MAY , 1983			
06...	0950	130	4.0	18...	1225	170	7.5
NOV				JUN			
08...	1345	140	5.0	16...	0945	110	6.0
DEC				23...	1015	100	9.0
15...	1300	120	.0	JUL			
JAN , 1983				21...	1340	105	13.5
26...	1315	180	.0	AUG			
MAR				18...	1030	130	14.0
09...	1235	180	.0	SEP			
29...	1000	180	.0	15...	0925	150	10.5
APR							
20...	1200	180	6.5				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09126000 - CIMARRON RIVER NEAR CIMARRON, CO. (LAT 38 15 45 LONG 107 32 39)							
OCT , 1982				MAY , 1983			
07...	1015	110	9.0	19...	1025	140	3.5
NOV				JUN			
04...	1315	110	4.0	17...	1035	73	5.5
DEC				23...	1710	78	7.0
16...	1040	120	.0	JUL			
JAN , 1983				22...	1025	68	9.0
27...	1030	140	.0	AUG			
MAR				19...	1020	88	11.0
10...	1145	120	4.5	SEP			
APR				16...	1025	99	12.0
21...	1020	130	3.0				
09128000 - GUNNISON RIVER BELOW GUNNISON TUNNEL, CO. (LAT 38 31 45 LONG 107 38 54)							
OCT , 1982				MAY , 1983			
07...	1355	180	11.5	19...	1340	222	7.0
NOV				JUN			
10...	1240	200	8.0	17...	1410	125	10.0
DEC				27...	1330	182	9.0
16...	1450	280	4.0	AUG			
JAN , 1983				19...	1355	170	13.0
27...	1440	200	2.5	SEP			
MAR				16...	1415	170	14.0
10...	1425	222	4.0				
APR							
21...	1405	242	4.5				
09128500 - SMITH FORK NEAR CRAWFORD, CO. (LAT 38 43 40 LONG 107 30 22)							
OCT , 1982				JUN , 1983			
06...	0930	170	4.0	03...	1225	98	8.0
NOV				14...	0930	135	6.0
02...	1445	160	4.5	23...	1000	80	8.0
DEC				JUL			
14...	1140	170	.0	12...	1100	135	14.0
FEB , 1983				AUG			
01...	1230	170	.0	11...	1320	209	18.0
MAR				23...	1055	195	14.5
15...	1135	150	2.5	SEP			
APR				21...	1110	--	7.5
19...	1115	205	5.5				
MAY							
17...	0900	115	2.0				
09129600 - SMITH FORK NEAR LAZEAR, CO. (LAT 38 42 27 LONG 107 42 35)							
OCT , 1982				JUN , 1983			
06...	1115	2600	10.5	02...	1535	323	10.0
NOV				03...	1515	371	13.0
03...	0845	2600	3.5	14...	1125	525	10.5
DEC				23...	1230	390	13.0
14...	1310	2600	3.0	JUL			
FEB , 1983				12...	1320	1100	21.0
01...	1410	2500	.0	AUG			
MAR				23...	1235	2550	23.5
15...	1330	2160	8.0	SEP			
APR				21...	1235	--	14.0
21...	1045	760	8.0				
MAY							
17...	1055	715	8.0				

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09132500 - NORTH FORK GUNNISON RIVER NEAR SOMERSET, CO. (LAT 38 55 45 LONG 107 26 53)							
OCT , 1982				JUN , 1983			
05...	1145	130	7.5	01...	0835	115	6.5
13...	1200	155	5.5	03...	0750	110	6.0
13...	1200	155	5.5	03...	0750	110	6.0
NOV				10...	0925	105	6.0
02...	1100	220	7.5	10...	0925	105	6.0
02...	1100	220	7.5	12...	0835	115	6.5
DEC				23...	1450	80	15.0
14...	0925	210	.0	23...	1450	80	15.0
14...	0925	210	.0	JUL			
FEB , 1983				06...	1625	85	17.0
01...	0935	--	.0	07...	1625	85	17.0
01...	0935	--	.0	21...	1530	95	18.5
MAR				21...	1530	95	18.5
15...	0910	585	2.5	AUG			
15...	0910	585	2.5	17...	1200	148	21.0
APR				23...	0855	175	12.0
19...	0915	210	5.0	23...	0855	175	12.0
19...	0915	210	5.0	SEP			
MAY				21...	0915	--	7.5
03...	1455	240	8.0	21...	0915	--	7.5
03...	1455	240	8.0				
09135900 - LEROUX CREEK AT HOTCHKISS, CO. (LAT 38 47 53 LONG 107 43 53)							
OCT , 1982				JUN , 1983			
06...	1320	750	10.0	14...	1340	345	10.0
NOV				23...	1425	190	12.0
03...	1015	1100	5.5	JUL			
DEC				12...	1435	1560	20.0
14...	1430	930	4.5	AUG			
MAR , 1983				11...	1550	1380	21.0
15...	1445	850	6.5	23...	1415	1600	18.0
APR				SEP			
19...	1355	870	14.0	21...	1350	--	13.5
MAY							
18...	0825	685	5.5				
09136200 - GUNNISON RIVER NEAR LAZEAR, CO. (LAT 38 46 59 LONG 107 50 14)							
OCT , 1982				MAY , 1983			
04...	1245	1100	13.0	18...	1425	330	10.0
28...	1050	750	5.5	JUN			
DEC				24...	0910	240	11.5
14...	1620	1100	3.0	JUL			
FEB , 1983				12...	1625	380	20.5
02...	1555	1070	6.0	AUG			
MAR				23...	1600	1240	22.0
16...	1355	570	7.0	SEP			
APR				07...	1040	1210	16.0
20...	1350	615	10.5	30...	1120	1110	14.0
09137050 - CURRANT CREEK NEAR READ, CO. (LAT 38 47 05 LONG 107 56 18)							
OCT , 1982				MAY , 1983			
05...	1555	--	11.5	26...	1100	556	17.5
NOV				JUN			
03...	1210	3200	5.0	13...	1645	1040	10.5
DEC				JUL			
13...	1535	3100	2.5	11...	1710	3090	25.0
JAN , 1983				AUG			
31...	1500	3300	3.0	11...	0950	5110	20.0
MAR				23...	1710	4650	24.5
15...	1600	1900	6.5	SEP			
APR				21...	1455	--	12.5
18...	1650	1850	10.5				
MAY							
12...	1410	1190	11.5				
18...	0940	--	7.5				

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09143000 - SURFACE CREEK NEAR CEDAREGE, CO. (LAT 38 59 05 LONG 107 51 13)							
OCT , 1982				JUN , 1983			
07...	0845	95	1.5	01...	1445	105	5.5
NOV				15...	0830	120	3.0
04...	0850	170	.0	22...	0825	80	4.0
FEB , 1983				JUL			
02...	0950	--	.0	13...	0835	70	9.0
MAR				AUG			
16...	0920	185	.5	24...	0840	145	12.5
APR				SEP			
20...	0915	185	2.0	22...	0840	--	6.5
09143500 - SURFACE CREEK AT CEDAREGE, CO. (LAT 38 54 06 LONG 107 55 14)							
OCT , 1982				MAY , 1983			
07...	1055	120	4.5	28...	1415	145	9.0
NOV				JUN			
04...	1025	170	.0	15...	1020	155	6.0
DEC				22...	1040	95	7.0
15...	1040	220	.0	JUL			
FEB , 1983				13...	1000	95	10.0
02...	1205	<50	1.0	AUG			
MAR				24...	1000	130	14.0
16...	1115	235	2.0	SEP			
APR				22...	1010	--	8.0
20...	1115	225	6.0				
MAY							
18...	1135	225	4.0				
26...	1545	140	9.0				
09144200 - TONGUE CREEK AT CORY, CO. (LAT 38 47 16 LONG 107 59 41)							
OCT , 1982				MAY , 1983			
07...	1300	870	9.0	17...	1335	890	7.0
NOV				26...	1330	445	11.5
04...	1240	--	5.0	28...	1550	386	11.0
DEC				JUN			
13...	1150	1150	2.5	15...	1240	430	11.0
13...	1430	1150	2.5	22...	1305	325	13.0
FEB , 1983				JUL			
02...	1350	1100	4.0	13...	1145	800	17.0
MAR				AUG			
14...	1650	705	9.5	24...	1120	1320	17.5
APR				SEP			
18...	1555	660	9.0	21...	1605	--	13.0
09144250 - GUNNISON RIVER AT DELTA, CO. (LAT 38 45 01 LONG 108 04 06)							
OCT , 1982				MAY , 1983			
08...	0900	800	9.5	28...	0825	800	9.0
NOV				JUN			
03...	1315	1150	7.5	02...	1135	303	10.0
DEC				14...	1540	355	12.0
15...	1240	500	4.0	22...	1355	300	12.5
FEB , 1983				27...	1045	500	12.0
01...	1610	450	4.0	JUL			
MAR				13...	1300	380	14.5
15...	1640	540	6.0	AUG			
APR				24...	1220	800	16.0
19...	1455	640	13.5	SEP			
MAY				22...	1115	--	11.5
17...	1415	715	8.5				

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DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09146200 - UNCOMPAHGRE RIVER NEAR RIDGWAY, CO. (LAT 38 11 02 LONG 107 44 43)							
OCT , 1982				MAY , 1983			
04...	1325	540	11.0	16...	1225	618	8.5
NOV				JUN			
03...	1215	710	4.5	14...	1240	398	10.0
DEC				21...	1200	263	10.0
13...	1235	500	2.5	25...	1105	280	10.5
JAN , 1983				JUL			
24...	1240	810	1.5	19...	1455	306	16.0
MAR				AUG			
07...	1245	1100	7.0	16...	1235	408	16.0
APR				SEP			
18...	1225	876	10.0	13...	1205	618	14.0
09147000 - DALLAS CREEK NEAR RIDGWAY, CO. (LAT 38 10 40 LONG 107 45 28)							
OCT , 1982				MAY , 1983			
04...	1210	400	6.5	27...	0840	382	6.5
NOV				JUN			
03...	1120	500	.5	14...	1105	479	7.0
DEC				24...	1100	308	10.0
13...	1140	400	.0	28...	1110	337	8.5
JAN , 1983				JUL			
24...	1145	700	.0	19...	1240	326	13.5
MAR				AUG			
07...	1155	752	4.5	16...	1140	347	11.5
APR				SEP			
18...	1140	659	8.0	13...	1105	388	10.0
MAY							
16...	1125	418	7.0				
09147500 - UNCOMPAHGRE RIVER AT COLONA, CO. (LAT 38 19 53 LONG 107 46 44)							
OCT , 1982				MAY , 1983			
04...	1530	510	11.5	16...	1430	449	8.0
NOV				27...	1015	318	7.5
03...	1410	630	5.0	JUN			
17...	1440	600	5.0	14...	1505	347	12.0
DEC				21...	1430	232	13.0
13...	1435	570	2.0	24...	1435	212	13.0
JAN , 1983				25...	1330	300	11.0
24...	1420	790	.0	28...	1335	265	10.5
FEB				JUL			
22...	1315	825	5.0	19...	1655	273	17.5
MAR				AUG			
07...	1440	906	6.5	16...	1450	428	17.5
30...	1040	1030	5.0	31...	1410	731	20.0
APR				SEP			
18...	1405	772	11.0	13...	1355	608	18.0
09149500 - UNCOMPAHGRE RIVER AT DELTA, CO. (LAT 38 44 31 LONG 108 04 49)							
OCT , 1982				MAY , 1983			
07...	1535	1200	12.5	10...	1355	535	13.0
NOV				16...	1355	880	11.0
01...	1510	2050	11.5	28...	1205	689	14.5
DEC				JUN			
13...	1310	2000	2.0	13...	1510	650	14.0
JAN , 1983				21...	1435	660	17.5
31...	1400	2050	3.0	25...	1630	535	16.0
MAR				JUL			
14...	1535	1220	13.0	11...	1630	655	19.5
APR				AUG			
18...	1435	1070	13.5	22...	1630	1360	20.0

ANALYSES OF MISCELLANEOUS STATIONS

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09150500 - ROUBIDEAU CREEK AT MOUTH, NEAR DELTA, CO. (LAT 38 44 06 LONG 108 09 40)							
OCT , 1982				MAY , 1983			
04...	1515	1100	14.0	28...	1720	257	14.0
NOV				JUN			
01...	1340	1300	11.0	01...	1240	268	11.0
DEC				13...	1315	315	10.5
13...	1140	1520	1.5	JUL			
JAN , 1983				11...	1345	970	20.5
31...	1240	1500	2.0	AUG			
MAR				22...	1450	1310	21.0
14...	1345	1440	13.0	SEP			
APR				20...	1435	--	14.5
18...	1315	940	11.5				
MAY							
11...	1335	225	8.0				
16...	1255	310	8.0				
09151500 - ESCALANTE CREEK NEAR DELTA, CO. (LAT 38 45 24 LONG 108 15 34)							
OCT , 1982				MAY , 1983			
06...	1545	530	14.0	18...	1650	200	10.0
NOV				31...	1348	165	8.0
01...	1125	500	9.5	JUN			
DEC				15...	1525	235	16.0
13...	0945	540	1.0	JUL			
JAN , 1983				11...	1005	500	17.5
31...	1020	570	.5	AUG			
MAR				24...	1530	525	21.0
14...	1030	420	9.5	SEP			
MAY				20...	0950	755	22.0
11...	1050	165	7.0				
09152600 - ORCHARD MESA DRAIN AT GRAND JUNCTION, CO. (LAT 39 02 49 LONG 108 34 17)							
OCT , 1982				MAY , 1983			
27...	1100	3100	9.5	20...	1400	1200	14.0
NOV				20...	1400	1200	14.0
15...	1500	4800	8.5	JUN			
DEC				27...	1600	858	18.0
22...	1500	5000	6.0	27...	1600	858	18.0
22...	1500	5000	6.0	JUL			
APR , 1983				06...	1100	1010	18.5
07...	1300	2180	14.5	AUG			
07...	1300	2180	14.5	29...	1435	1430	19.5
09152650 - LEACH CREEK AT DURHAM, CO. (LAT 39 05 27 LONG 108 36 25)							
OCT , 1982				APR , 1983			
27...	0900	1250	9.5	07...	1500	1660	10.0
NOV				18...	1000	--	11.0
15...	1300	5000	7.0	JUN			
DEC				10...	1005	1100	13.0
23...	1100	4000	5.0	JUL			
JAN , 1983				06...	1300	872	18.0
25...	0800	5250	4.0	AUG			
FEB				29...	1330	1420	19.5
23...	1130	4100	5.5				
09152900 - ADOBE CREEK NEAR FRUITA, CO. (LAT 39 08 13 LONG 108 41 48)							
OCT , 1982				APR , 1983			
13...	0905	1570	8.0	14...	0935	1750	5.5
NOV				JUN			
08...	0925	2300	7.0	16...	0935	1120	12.5
DEC				JUL			
16...	1100	3800	4.0	14...	0925	1040	16.0
FEB , 1983				AUG			
03...	0920	5000	2.0	25...	0920	1390	18.0
MAR							
17...	0930	4020	8.0				

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DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (UMHOS)	TEMPER- ATURE (DEG C)
09153290 - REED WASH NEAR MACK, CO. (LAT 39 12 41 LONG 108 48 11)							
OCT , 1982				APR , 1983			
14...	0840	1500	8.0	14...	1350	1150	9.0
NOV				MAY			
09...	0910	2550	8.0	20...	1125	1420	11.5
DEC				JUN			
16...	0935	1500	1.5	17...	0950	1120	14.0
FEB , 1983				JUL			
03...	1125	5000	3.5	15...	0915	1070	19.0
MAR				AUG			
17...	1015	4120	8.0	25...	1435	1960	22.0

09163570 - HAY PRESS C AB FRUITA RES #3, NR GLADE PARK, CO. (LAT 38 51 03 LONG 108 46 56)

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
APR , 1983					
11...	1210	140	11...	1210	140
27...	1015	88	27...	1015	88
MAY					
11...	1200	52	11...	1200	52
25...	1310	<50	25...	1310	<50
25...	1835	<50	25...	1835	<50
31...	1035	<50	31...	1035	<50
31...	1520	<50	31...	1520	<50
31...	1835	<50	31...	1835	<50
JUN					
08...	1130	<50	08...	1130	<50
09...	1215	55	09...	1215	55
17...	1115	<50	17...	1115	<50
20...	1315	<50	20...	1315	<50
27...	1530	60	27...	1530	60
JUL					
12...	1120	--	12...	1120	--
15...	1300	70	15...	1300	70
29...	1020	103	29...	1020	103
AUG					
24...	1345	118	24...	1345	118
31...	1000	110	31...	1000	110
SEP					
12...	1115	70	12...	1115	70

DATE	TIME	TEMPER- ATURE (DEG C)	DATE	TIME	TEMPER- ATURE (DEG C)
09078600 - FRYINGPAN RIVER NEAR THOMASVILLE, CO. (LAT 39 20 41 LONG 106 40 23)					
OCT , 1982			APR , 1983		
20...	1315	3.0	21...	1400	1.5
NOV			MAY		
19...	1400	.5	06...	1100	1.5
DEC			19...	1230	3.5
21...	1500	.0	JUN		
JAN , 1983			07...	1255	6.5
06...	1550	.0	JUL		
FEB			14...	1550	13.0
02...	1205	.0	AUG		
17...	1230	.0	05...	0855	11.5
24...	1140	.5	18...	1200	14.5
MAR			SEP		
03...	1310	.5	01...	1230	13.5
07...	1255	6.5	15...	1420	12.5
11...	1505	.5	28...	1330	10.0
23...	1315	1.5			
APR					
07...	1505	.0			
14...	1310	.0			

GROUND-WATER LEVELS

DELTA COUNTY

384234N108085101

SC15-96-32BAD1. State of Colorado. Drilled domestic water-table well in Dakota Group. Diameter, 6 in. Depth, 230 ft. MP, 0.3 ft above lsd. Altitude of land surface, 4,960 ft. Records available: 1976, 1978-81.

Aug. 10, 1983 (flowing)

GRAND COUNTY

400248N105560301

SB 1-76-18DBC. W. F. Linke. Drilled recreation water-table well in Middle Park Formation. Diameter, 6 in. Depth, 603 ft. MP, 6.0 ft above lsd. Altitude of land surface, 8,075 ft. Records available: 1973-81, 1983

Highest water level, 3.4 ft below lsd, Aug. 28, 1974; lowest water level, 76.25 ft below lsd, Aug. 11, 1977.

Aug. 11, 1983 3.60 ft

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

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

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

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