Water Resources Data for Colorado

Water Year 1975

Volume 1. Missouri River Basin
Arkansas River Basin
Rio Grande Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-75-1

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

BIBLIOGRAPHIC DATA SHEET	1. Report No. USGS/WRD/HD-76/053	2.	3. Recipient's Accession No.

4. Title and Subtitle

Water Resources Data for Colorado, 1975

5. Report Date December 1976

6.

7. Author(s)

8. Performing Organization Rept. No. USGS-WRD-CO-75-1

9. Performing Organization Name and Address

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

10. Project/Task/Work Unit No.

11. Contract/Grant No.

12. Sponsoring Organization Name and Address

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

13. Type of Report & Period Covered Annual--Oct. 1, 1974, to Sept. 30, 1975

14.

15. Supplementary Notes

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

16. Abstracts

Water resources data for Colorado for the 1975 water year consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs, and water levels and water quality of wells and springs. This report (Volumes 1 and 2) contains discharge records for 367 gaging stations, stage and contents of 22 lakes and reservoirs, 5 partial-record flow stations, 77 crest-stage partial-record stations, and 4 miscellaneous sites; water quality for 91 gaging stations and 15 miscellaneous sites; and water levels for 49 observation wells. A few pertinent stations in bordering States are also included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of J. E. Biesecker, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

17. Key Words and Document Analysis. 17a. Descriptors

*Colorado, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Availability Statement No restriction on distribution. This report may be purchased from: National Technical Information Service, Springfield, VA 22161

19. Security Class (This Report) UNCLASSIFIED

20. Security Class (This Page UNCLASSIFIED

21. No. of Pages 274

22. Price

Water Resources Data for Colorado

Water Year 1975

Volume 1. Missouri River Basin
Arkansas River Basin
Rio Grande Basin

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CO-75-1

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

UNITED STATES DEPARTMENT OF THE INTERIOR

THOMAS S. KLEPPE, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

Prepared in cooperation with

Colorado Division of Water Resources
Colorado Water Conservation Board
Division of Highways, State of Colorado
Department of Health (Water Pollution Control Division), State of Colorado
Arkansas River Compact Administration
Colorado River Water Conservation District
Southwestern Water Conservation District
Southeastern Colorado Water Conservancy District
Urban Drainage and Flood Control District
Pikes Peak Area Council of Governments
City and County of Denver, Board of Water Commissioners
Eagle County Commissioners
El Paso County Board of Commissioners
Pitkin County Board of County Commissioners
City of Aspen
City of Aurora, Director of Utilities
Colorado City Water and Sanitation District
City of Colorado Springs, Department of Public Utilities
City of Fort Collins
Bureau of Reclamation, U.S. Department of the Interior
National Park Service, U.S. Department of the Interior
Corps of Engineers, U.S. Army

For additional information, write to:

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

1976

PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of Colorado and other agencies by personnel of the Colorado District of the Water Resources Division under the supervision of J. E. Biesecker, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region.

This report is one of a series issued State by State under the direction of J. S. Cragwall, Jr., Chief Hydrologist, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Colorado are in two volumes as follows:

Volume 1. Platte River, Arkansas River, and Rio Grande Basins in Colorado, and
Volume 2. Colorado River Basin in Colorado.

CONTENTS

TABLES

Letters after station name designate type of data:
(C) chemical; (S) sediment; (T) temperature.

OBSERVATION WELLS, BY COUNTY, FOR WHICH RECORDS ARE PUBLISHED

WATER RESOURCES DATA FOR COLORADO, 1975

VOLUME 1: PLATTE RIVER, ARKANSAS RIVER, AND RIO GRANDE BASINS
VOLUME 2: COLORADO RIVER BASIN

Section 1. Surface-Water Records
Section 2. Water-Quality Records
Section 3. Ground-Water Records

INTRODUCTION

Water resources data for Colorado for the 1975 water year consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells and springs. This report (Volumes 1 and 2) contains discharge records for 367 gaging stations, stage and contents of 22 lakes and reservoirs, 5 partial-record flow stations, 77 crest-stage partial-record stations, and 4 miscellaneous sites; water quality for 91 gaging stations and 15 miscellaneous sites; and water levels for 49 observation wells. Locations of lake- and stream-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. A few pertinent stations in bordering States are also included in this report. The records were collected and computed by the Water Resources Division of the U.S. Geological Survey under the direction of J. E. Biesecker, district chief. These data represent that portion of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

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." Through September 30, 1960, these Water-Supply Papers were published in an annual series, and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual Water-Supply Paper series entitled, "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1955 in an annual Water-Supply Paper series entitled, "Water Levels and Artesian Pressures in Wells in the United States," and from 1955 to the present time, in a 5-year Water-Supply Paper series entitled, "Ground-Water Levels in the United States."

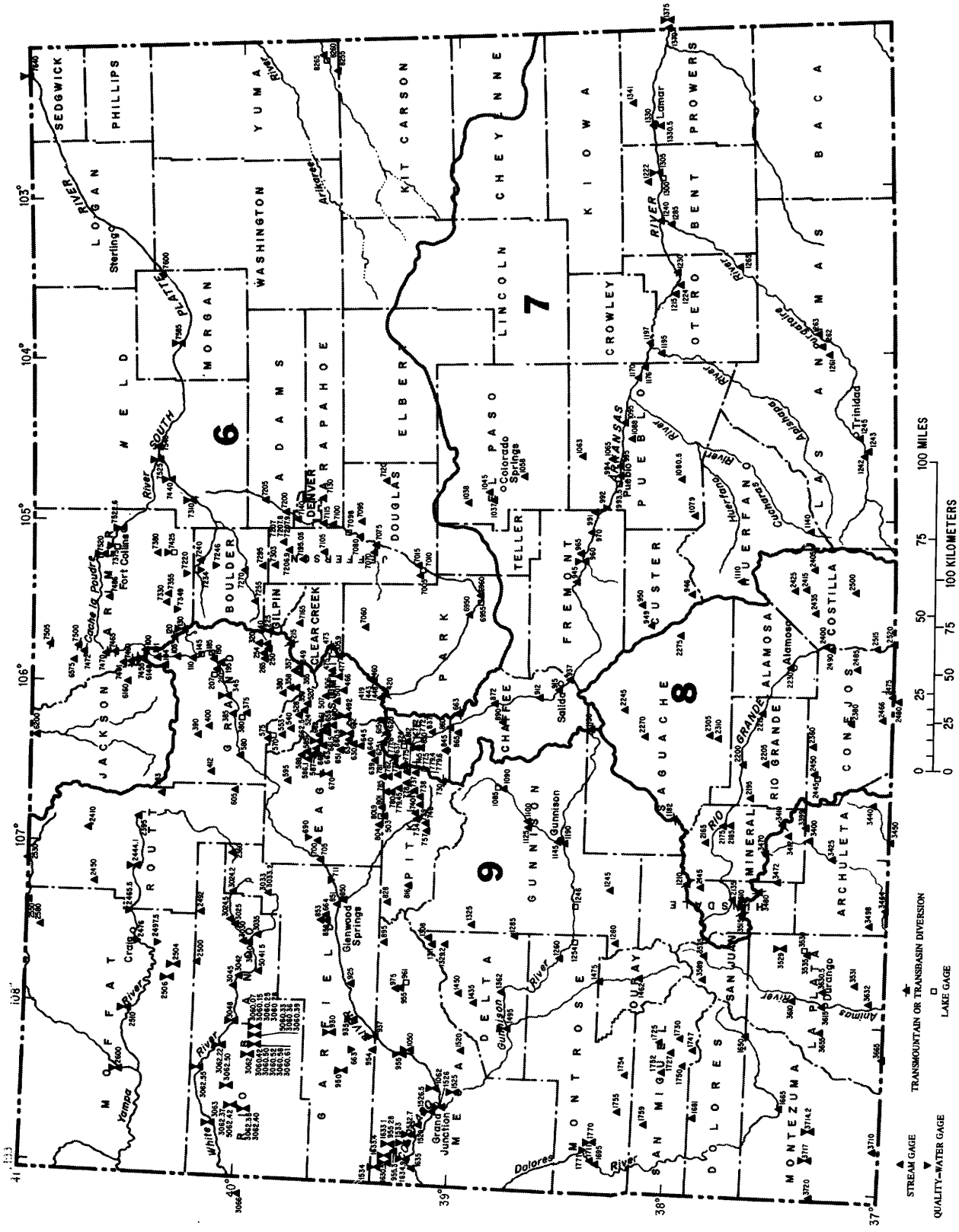

Figure 1.--Map showing locations of lake- and stream-gaging stations and water-quality stations in Colorado.

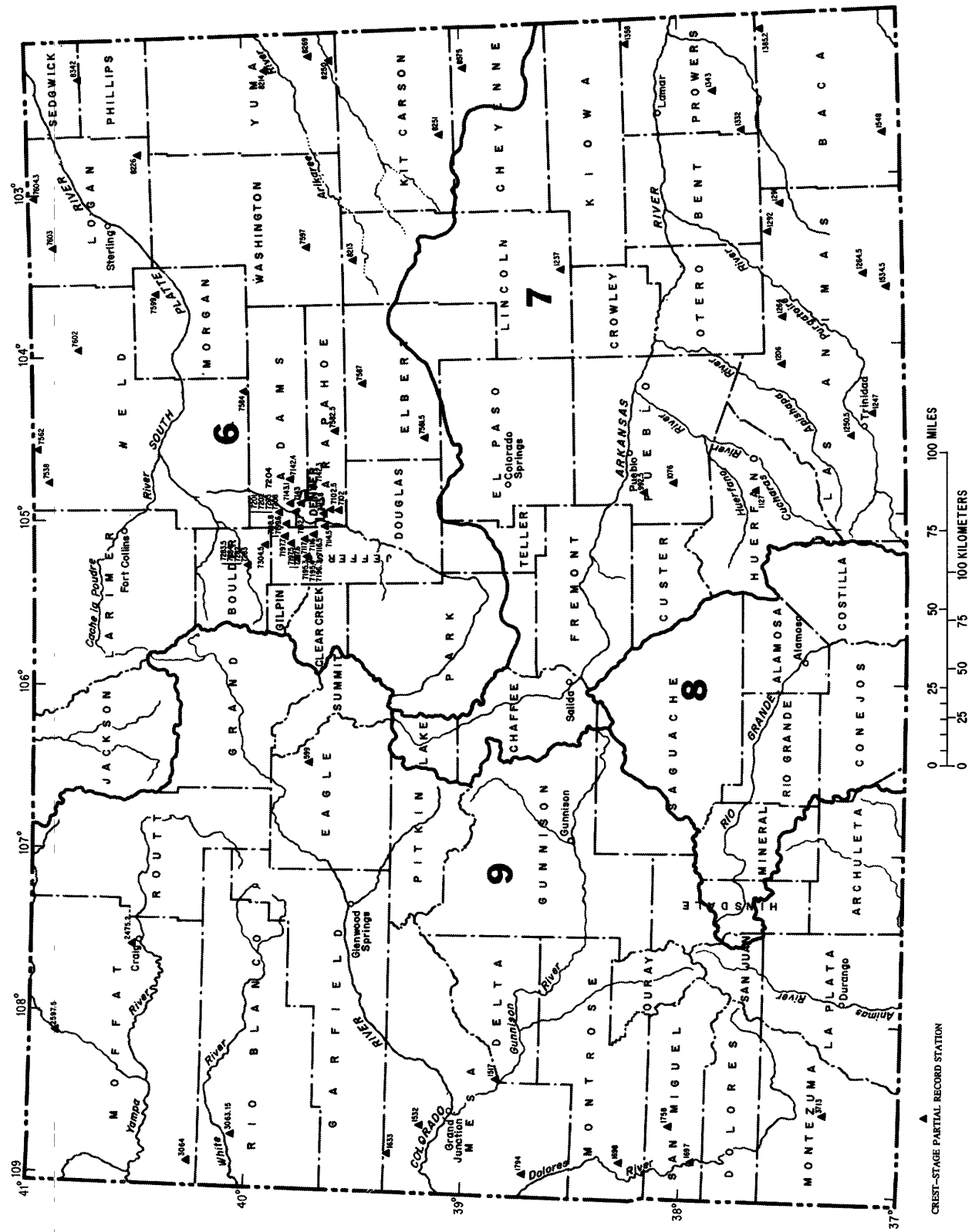

Figure 2.--Map showing locations of crest-stage partial-record stations in Colorado.

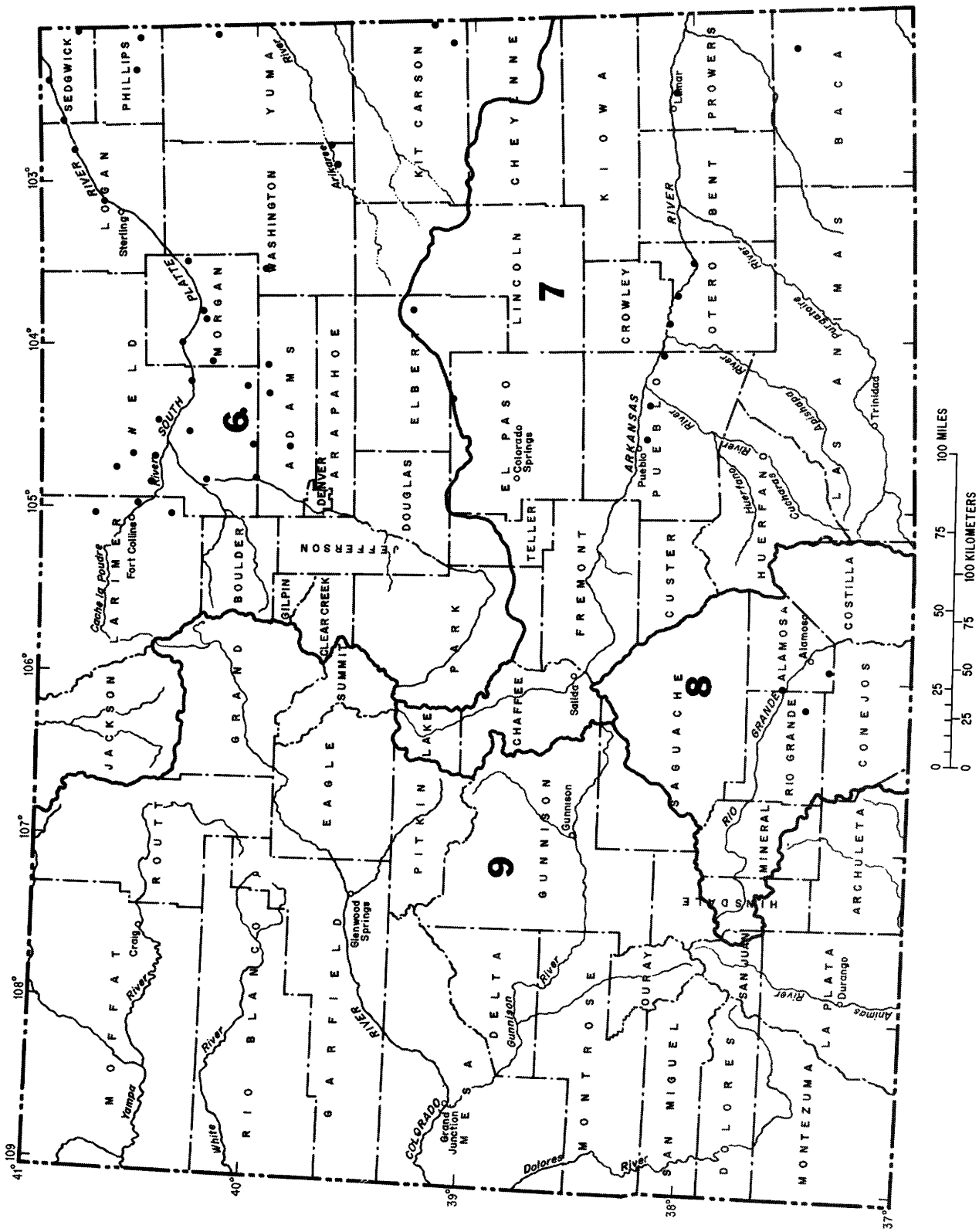

Figure 3.--Map showing locations of observation wells in Colorado.

Beginning with the 1961 water year, streamflow records and related data have been released by the Geological Survey in annual reports on a State-boundary basis. Beginning with the 1964 water year, water-quality records for surface and ground water have been similarly released in separate annual reports. These reports provided for rapid release of preliminary data shortly after the end of the water year. The final data were then released in the Water-Supply Paper series mentioned above. Beginning with the 1975 water year, water data will be released on a State-boundary basis in final form and will not be republished in the Water-Supply Paper series. The 1975 and subsequent water year reports will be in a series which will carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report CO-75-1." These reports are for sale to the public for a nominal fee from the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia 22151. For more information on available publications, see the section entitled, "PUBLICATIONS" on subsequent pages.

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:

Colorado Division of Water Resources, C. J. Kuiper, State engineer.
Colorado Water Conservation Board, F. L. Sparks, Director.
Division of Highways, State of Colorado, C. E. Shumate, Executive Director.
Department of Health (Water Pollution Control Division), State of Colorado, Frank J. Rozich, Director.
Arkansas River Compact Administration, Colonel Gustav L. Seligmann, Chairman, deceased, appointment of replacement pending.
Colorado River Water Conservation District, Roland C. Fischer, Secretary-Engineer.
Southwestern Water Conservation District, Robert H. Tyner, Manager.
Southeastern Colorado Water Conservancy District, C. L. Thomson, General Manager.
Urban Drainage and Flood Control District, L. Scott Tucker, Executive Director.
Pikes Peak Area Council of Governments, Michael J. Meehan, Executive Director.
City and County of Denver, Board of Water Commissioners, John A. Yelenick, President.

Eagle County Commissioners, Alfred Orlosky, Chairman.
El Paso County Board of Commissioners, Thom Foulks, Chairman.
Pitkin County Board of County Commissioners, Joseph E. Edwards, Jr.
City of Aspen, Russell Campbell, City Manager.
City of Aurora, C. A. Wemlinger, Director of Utilities.
Colorado City Water and Sanitation District, C. J. Miller, District Administrator.
City of Colorado Springs, Department of Public Utilities, James D. Phillips, Director.
City of Fort Collins, Charles Liquin, Director of Utilities.

Financial assistance was also provided by the Corps of Engineers, U.S. Army, and the Bureau of Reclamation and the National Park Service, U.S. Department of the Interior. Organizations that supplied data are acknowledged in station descriptions.

DEFINITION OF TERMS

Terms related to streamflow, water quality, and other hydrologic data as used in this report are defined below. See also table 5 for converting English units to metric units (International System, SI, units).

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.

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 intestine or feces of warmblooded 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 intestine of warmblooded animals; their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours, at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 ml of sample.

Bed material is the shifting portion of fragmented material of which the streambed is composed.

Biochemical oxygen demand (BOD) is the amount of oxygen required by bacteria while stabilizing decomposable organic matter under aerobic conditions.

Biomass is the amount of living matter present at any given time, expressed as the weight per unit area or volume of habitat.

Ash weight is the weight or amount of residue present after the residue from the dry weight determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash weight values of zooplankton and phytoplankton are expressed in g/m^3 (grams per cubic meter), and periphyton and benthic organisms in g/m^2 (grams per square meter).

Dry weight refers to the weight of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the weight remains unchanged. This weight represents the total organic matter, ash and sediment, in the sample. Dry weight values are expressed in the same units as ash weight.

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

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

Cfs-day is the volume of water represented by a 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 2,445 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) indicates the quantity of oxidizable compounds in water and varies with water composition(s), temperature, period of contact, and other factors.

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

Coliform organisms are a group of bacteria used as an indicator of the sanitary quality of the water. The number of coliform colonies per 100 milliliters is determined by the immediate incubation membrane filter method.

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, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second, and is equivalent to approximately 7.48 gallons per second, 448.8 gallons per minute, or 0.2832 cubic meters per second.

Discharge is the volume of water (or more broadly, total fluids), that passes a given point within a given period of time.

Mean discharge is the arithmetic average of individual daily mean discharge during a specific period.

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

Dissolved refers to the amount of a substance present in true chemical solution. In practice, however, the term includes all forms of the substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (colloidal) suspended particles. Analyses are performed on filtered samples.

Dissolved oxygen (DO).--The dissolved-oxygen content of water in equilibrium with air is a function of atmospheric pressure, and temperature and dissolved-solids content of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved solids, with small temperature changes having the more significant effect. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen content in water from some streams.

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

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 gage height or discharge 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 ($CaCO_3$).

Herbicides are substances or a mixture of substances intended to control or destroy vegetation.

Insecticides are substances or a mixture of substances intended to prevent, destroy, or repel insects.

Micrograms per liter (µg/l, UG/L) is a unit for expressing the trace concentration of chemical constituents in water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (mg/l, MG/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represents the weight of solute per unit volume of water. Milligrams or micrograms per liter may be converted to milliequivalents (one thousandth of a gram-equivalent weight of a constituent) per liter by multiplying by the factors in table 1. Concentration of suspended sediment also is expressed in mg/l, and is based on the weight of sediment per liter of water-sediment mixture. Sediment concentrations may be converted to parts per million by using the factors in table 2.

Table 1.--*Factors for conversion of chemical constituents in milligrams or micrograms per liter to milliequivalents per liter*

Ion	Multiply by	Ion	Multiply by
Aluminum (Al^{+3})*....	0.11119	Iodide (I^{-1}).....	0.00788
Ammonia as NH_4^{+1}....	.05544	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 (NO_3^{-1})...	.01613
Chromium (Cr^{+6})*....	.11539	Nitrite (NO_2^{-1})...	.02174
Cobalt (Co^{+2})*.....	.03394	Phosphate (PO_4^{-3}).	.03159
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.

Partial-record station is a particular site where limited streamflow 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 2.--*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 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide by	Range of concentration in 1000 mg/l	Divide 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, as used in this report, agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

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

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic 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 the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Since the first application of DDT as an insecticide, there have been almost 60,000 pesticide formulations registered, each containing at least one of the approximately 800 different basic pesticide compounds. The United States annually produces about 1 billion pounds of these compounds. Although efforts are being made to replace many of the chlorinated hydrocarbon pesticides with more specific, fast-acting, and easily degradable compounds, chlorinated hydrocarbon pesticides are still commonly used in many areas of the country.

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 100 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 100 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 dpm (disintegrations per minute).

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. These compounds 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 µg/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 (µg/l). Gross alpha and beta radioactivity associated with the fine-grained (silt and clay-sized) sediments in the samples are also determined.

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 discharge 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 by volume, that is discharged in a given time. It is computed by multiplying discharge times mg/l times 0.0027.

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 is discharged during a given time.

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

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

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 and is expressed in micromhos per centimeter at 25°C. Because the specific conductance is related to the number and specific chemical types of ions in solution, it can be used for approximating the dissolved-solids content in the water. Commonly, the amount of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos per centimeter at 25°C). This relation is not constant from stream to stream or from well to well, and it may even vary in the same source with changes in the composition of the water.

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

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

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 weight of dissolved solids in tons (0.9072 tonnes) in 1 acre-foot (1,233 m^3) 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 in tons (0.9072 tonnes) that passes a stream section during a 24-hour period.

Total (as used in tables of chemical analyses) refers to the amount of a substance that is present both in solution and in suspension. Analyses are performed on representative samples of water-suspended sediment mixtures.

Water year in Geological Survey reports dealing with surface water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1975, is called the "1975 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 used as an abbreviation for "Water-Resources Data" in the summary REVISIONS paragraph to refer to previously published State annual basic-data reports.

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.

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 is an accounting 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 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 water-quality conditions nationwide on a year-by-year basis, and (2) to detect and assess long-term changes in stream quality.

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 indention, each indention 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 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 Volume 2. 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.

EXPLANATION OF SURFACE WATER 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 15-, 30- or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the 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), 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 engineers 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 backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change is used as a factor in computing discharge.

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 occasional 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 reverse side of the back cover to facilitate finding the day of the week for any date.

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions or previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available.

River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies.

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."

The type of gage currently in use, the datum of the present gage above mean sea level, 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.

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).

In the first paragraph headed "Current year," the data given are for the complete current water year unless otherwise specified. In the second paragraph under "EXTREMES" headed "Period of record," the data given are for the period of record given in the PERIOD OF RECORD paragraph. Reliable information concerning major floods that occurred outside the period of record is given in the third or last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds 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 at the same time as the maximum discharge (or contents), it is given separately.

Information pertaining to the accuracy of the discharge records, to conditions that affect the natural flow at the gaging station, and availability of Water Quality records, is given under "REMARKS;" for the reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir, is also given under "REMARKS."

Previously published 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 "REVISIONS (WATER YEARS)" 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 were revised, that 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 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 is also expressed in acre-feet (line headed "AC-FT"). In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

Footnotes to the table of daily discharges 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.

Peak discharges and their times of occurrence and corresponding gage heights for many stations are listed below the yearly summary. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year can be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subjected 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.

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 are given in four tables at the end of the surface-water records in this report. 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, the third is a table of storm precipitation and related runoff at storm-runoff partial-record stations, and the fourth is a table of discharge measurements at miscellaneous sites.

ACCURACY OF DATA

The accuracy of discharge 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 interpretation 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 is 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 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to 3 significant figures above 1,000 ft^3/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, evaporation, or 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.

PUBLICATIONS

In each water-supply paper entitled, "Surface Water Supply of the United States" there is a list of numbers of preceding water-supply papers containing streamflow information for the area covered by that report. In addition, there is a list of numbers of water-supply papers containing detailed information on major floods in the area. Records for stations in Colorado for the period October 1960 to September 1965 are in Water-Supply Papers 1918, 1919, 1921, 1923, 1924, and 1925; and for the period October 1965 to September 1970 are in Water-Supply Papers 2118, 2119, 2121, 2123, 2124, and 2125.

Two series of summary reports entitled, "Compilation of Records of Surface Waters of the United States" have been published; the first series covers the entire period of record through September 1950 and the second series covers the period October 1950 to September 1960. These reports contain summaries of monthly and annual discharge and monthend storage for all previously published records, as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps where practical. The yearly summary table for each gaging station lists the numbers of the water-supply papers in which daily records were published for that station. Records for stations in Colorado are compiled in Water-Supply Papers 1310, 1311, 1312, and 1313 through September 1950; and in Water-Supply Papers 1730, 1731, 1732, and 1733 for October 1950 to September 1960.

Special reports on major floods or droughts or of other hydrologic studies for the area have been issued in publications other than water-supply papers. Information relative to these reports may be obtained from the district office.

OTHER DATA AVAILABLE

Information of a more detailed nature than that published for most of the gaging stations, such as 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.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

Records of discharge not published by the Geological Survey were collected at 84 sites in Colorado during the 1975 water year by the following agencies: City of Colorado Springs (36 sites); Colorado Division of Water Resources (23 sites); Forest Service, U.S. Department of Agriculture (9 sites); City and County of Denver, Board of Water Commissioners (11 sites); and National Weather Service, Department of Commerce (5 sites). Information on specific sites can be obtained from the district office of the U.S. Geological Survey at the address given on the back of the title page of this report.

EXPLANATION OF WATER QUALITY RECORDS

COLLECTION AND EXAMINATION OF DATA

Water samples for analyses usually are collected at or near gaging stations. The discharge records at these stations are used in conjunction with the computations of the chemical constituents and sediment loads.

Descriptive statements are given for water-quality stations located at or near streamflow stations. Information given include the location, drainage area, periods of record for the various water-quality data, extremes of the pertinent data, and general remarks in a format similar to that used for streamflow gaging stations.

Water-quality information is presented for chemical, biological, and microbiological quality, water temperature, and fluvial sediment. Chemical quality includes concentrations of individual dissolved constituents and certain properties or characteristics such as hardness, sodium-adsorption-ratio, specific conductance, and pH.

The biological information includes qualitative and quantitative analyses of plankton, bottom organisms, and particulate inorganic and amorphous matter present. Microbiological information includes quantitative identification of certain bacteriological indicator organisms.

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 g/ml (grams per milliliter), 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.

TEMPERATURE

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 daily stations, the water temperatures are taken at about the same time each day when the sample is collected. At stations where continuously recording thermographs are present, the records consist of maximum and minimum temperatures for each day; stations equipped with noncontinuous digital monitors provide records of daily mean values based on hourly punches.

Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

Table 3.--*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	100	48.0	118
8.5	47	18.5	65	28.5	83	38.5	101	48.5	119
9.0	48	19.0	66	29.0	84	39.0	102	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°.

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.)

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). The method for determining elemental constituents by emission spectographic techniques is described by Barnett and Mallory (1971). 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).

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

For chemical-quality stations equipped with noncontinuous-digital monitors, the records consist of daily 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 Geological Survey district office at the address given on the back of the title page of this report.

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.

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

Year	Part 6	Part 7	Part 8	Part 9	Irrigation (1951-65)[a]
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	[b]2165	[b]2166	[b]2167	[b]2168	----

[a]Annual series, "Quality of Surface Waters for Irrigation, Western States."
[b]In 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 in this report. 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 digit is a sequential number for wells within a 1-second grid, as shown below in figure 4.

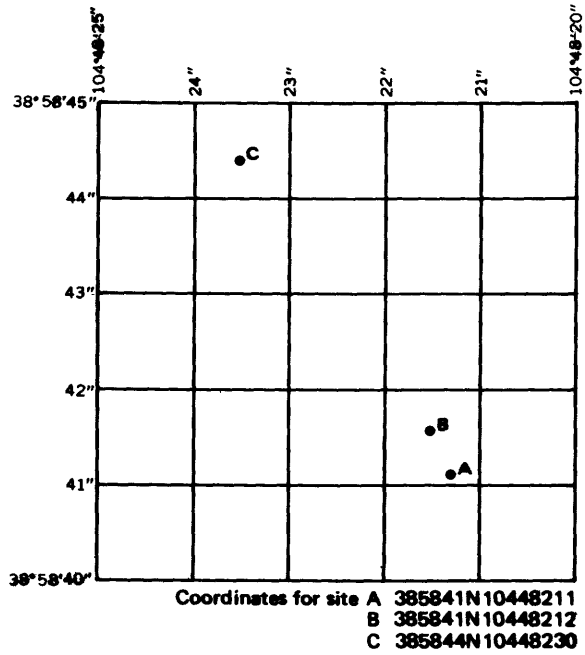

Figure 4.--System for numbering wells and miscellaneous sites (latitude and longitude).

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 numeral of the well location designates the township and the second numeral designates the range.

The 36-mi^2 (93-km^2) area described by the township and range designation is subdivided into 1-mi^2 (2.59-km^2) areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres (259 ha), is subdivided into quarter sections. The 160-acre (64.8-ha) area ia 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 U.S. 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.

SELECTED REFERENCES

The following publications are available for background information on the methods for collecting, analyzing, and evaluating the chemical and physical properties of surface waters:

American Public Health Association, and others, 1971, Standard methods for The examination of water and waste water, 13th ed: Am. Public Health Assoc., New York, 874 p.

Barker, F. B., and Johnson, J. O., 1964, Determination of radium in water: U.S. Geol. Survey Water-Supply Paper 1696-B, 29 p.

Barker, F. B., and others, 1965, Determination of uranium in natural water: U.S. Geol. Survey Water-Supply Paper 1696-C, 25 p.

Barker, F. B., and Robinson, B. P., 1963, Determination of beta activity in water: U.S. Geol. Survey Water-Supply Paper 1696-A, 32 p.

Barnett, P. R., and Mallory, E. C., Jr., 1971, Determination of minor elements in water by emission spectroscopy: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A2, 31 p.

Brown, Eugene, Skougstad, M. W., and Fishman, M. J., 1970, Methods for collection and analysis of water samples for dissolved minerals and gases: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A1, 160 p.

Carter, R. W., and Davidian, Jacob, 1968, General procedures for gaging streams: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. A6, 13 p.

Clarke, F. W., 1924, The composition of the river and lake waters of the United States: U.S. Geol. Survey Prof. Paper 135, 199 p.

Colby, B. R., 1963, Fluvial sediments--a summary of source, transportation, deposition, and measurements of sediment discharge: U.S. Geol. Survey Bull. 1181-A, 47 p.

Colby, B. R., and Hembree, C. H., 1955, Computations of total sediment discharge, Niobrara River near Cody, Nebraska: U.S. Geol. Survey Water-Supply Paper 1357, 187 p.

Colby, B. R., and Hubbell, D. W., 1961, Simplified methods for computing total sediment discharge with the modified Einstein procedure: U.S. Geol. Survey Water-Supply Paper 1593, 17 p.

Collins, W. D., and Howard, C. S., 1928, Quality of water of Colorado River in 1925-26: U.S. Geol. Survey Water-Supply Paper 596-B, p. 33-43.

Corbett, D. M., and others, 1943, Stream-gaging procedure, a manual describing methods and practices of the Geological Survey: U.S. Geol. Survey Water-Supply Paper 888, 245 p.

Goerlitz, D. F., and Brown, Eugene, 1972, Methods for analysis of organic substances in water: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A3, 40 p.

Goerlitz, D. F., and Lamar, W. L., 1967, Determination of phenoxy acid herbicides in water by electron-capture and microcoulemetric gas chromatography: U.S. Geol. Survey Water-Supply Paper 1817-C, 21 p.

Gregg, D. O., and others, 1961, Public water supplies of Colorado (1959-60): Fort Collins, Colorado State Univ. Agr. Expt. Sta., Gen. Ser. 757, 128 p.

Guy, H. P., 1970, Fluvial sediment concepts: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C1, 55 p.

_____1969, Laboratory theory and methods for sediment analysis: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. C1, 57 p.

Guy, H. P., and Norman, V. W., 1970, Field methods for measurement of fluial sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C2, 59 p.

Hem, John D., 1970, Study and interpretation of the chemical characteristics of natural water, 2d ed.: U.S. Geol. Survey Water-Supply Paper 1473, 363 p.

Howard, C. W., 1955, Quality of water of the Colorado River, 1925-40: U.S. Geol. Survey open-file report, 103 p.

Iorns, W. V., and others, 1964, Water resources of the Upper Colorado River Basin--basic data: U.S. Geol. Survey Prof. Paper 442, 1,036 p., 4 pls., 1 fig.

_____1965, Water resources of the Upper Colorado River Basin--technical report: U.S. Geol. Survey Prof. Paper 441, 370 p., 9 pls., 147 figs.

Lamar, W. L., Goerlitz, D. F., and Law, L. M., 1965, Identification and measurement of chlorinated organic pesticides in water by electron-capture gas chromatography: U.S. Geol. Survey Water-Supply Paper 1817-B, 12 p.

Lane, E. W., and others, 1947, Reports of Subcommittee on terminology: Am. Geophys. Union Trans., v. 28, p. 937.

Langbein, W. B., and Iseri, K. T., 1960, General introduction and hydrologic definitions: U.S. Geol. Survey Water-Supply Paper 1541-A, 29 p.

Lohman, S. W., and others, 1972, Definitions of selected ground-water terms--revisions and conceptual refinements: U.S. Geol. Survey Water-Supply Paper 1988, p..2.

McGuinness, C. L., 1963, The role of ground water in the national water situation: U.S. Geol. Survey Water-Supply Paper 1800, 1121 p.

Meinzer, O. E., 1923, The occurrence of ground water in the United States: U.S. Geol. Survey Water-Supply Paper 489, 321 p.

_____1923, Outline of ground-water hydrology, with definitions: U.S. Geol. Survey Water-Supply Paper 494, 71 p.

Porterfield, George, 1972, Computations of fluvial-sediment discharge: U.S. Geol. Survey Techniques of Water-Resources Inv., book 3, chap. C3, 66 p.

Ritter, J. R., and Helley, E. J., 1969, Optical method for determining particle sizes of coarse sediment: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap, C3, 33 p. (Open-file)

Rose, Arthur, and Rose, Elizabeth (Gates), 1966, The condensed chemical dictionary: New York, Reinhold Pub. Corp., 7th ed., 1044 p.

Slack, K. V., and others, 1973, Methods for collection and analysis of aquatic biological and microbiological samples: U.S. Geol. Survey Techniques of Water-Resources Inv., book 5, chap. A4, 165 p.

Stabler, Herman, 1911, Some stream waters of the Western United States: U.S. Geol. Survey Water-Supply Paper 274, 188 p.

U.S. Inter-Agency Committee on Water Resources, A study of methods used in measurements and analysis of sediment loads in streams:

Report 11, 1957, The development and calibration of visual accumulation tube: St. Anthony Falls Hydraulic Lab., Minneapolis, Minn., 109 p., 43 figs.

U.S. Inter-Agency Committee on Water Resources, A study of methods used in measurements and analysis of sediment loads in streams:

Report 12, 1957, Some fundamentals of particle-size analysis: Washington, D.C., U.S. Govt. Printing Office, 55 p., 9 figs.

Report AA, 1959, Federal Inter-Agency sedimentation instruments and reports: St. Anthony Falls Hydraulic Lab., Minneapolis, Minn., 41 p., 27 figs.

Report 13, 1961, The single-stage sampler for suspended sediment: Washington, D.C., U.S. Govt. Printing Office, 105 p., 51 figs.

Report 14, 1963, Determinations of fluvial sediment discharge: Washington, D.C., U.S. Govt. Printing Office, 151 p., 70 figs.

Table 5.--*Factors for converting English units to metric units*
[International System (SI) units]

The following factors may be used to convert the English units published herein to metric units. Subsequent reports will contain both the English and metric unit equivalents in the station manuscript descriptions until such time that all data will be published in metric units.

Multiply English units	By	To obtain metric units
	Length	
inch (in)	2.54	centimeter (cm)
	25.4	millimeter (mm)
	.0254	meter (m)
foot (ft)	.3048	meter (m)
yard (yd)	.9144	meter (m)
rod	5.0292	meter (m)
mile (mi)	1.609	kilometer (km)
	Area	
acre	4047	square meter (m^2)
	.4047	hectare (ha)
	.004047	square kilometer (km^2)
square mile (mi^2)	2.590	square kilometer (km^2)
	Volume	
gallon (gal)	3.785	liter (l)
	3.785	cubic decimeter (dm^3)
	.003785	cubic meter (m^3)
million gallons (10^6 gal or Mgal)	3785	cubic meter (m^3)
	.003785	cubic hectometer (hm^3)
cubic foot (ft^3)	28.32	cubic decimeter (dm^3)
	.02832	cubic meter (m^3)
cubic foot per second-day (ft^3/s-d)	2447	cubic meter (m^3)
	.002447	cubic hectometer (hm^3)
acre-foot (acre-ft)	1233	cubic meter (m^3)
	.001233	cubic hectometer (hm^3)
	Flow	
cubic foot per second (ft^3/s)	28.32	liter per second (l/s)
	28.32	cubic decimeter per second (dm^3/s)
	.02832	cubic meter per second (m^3/s)
gallon per minute (gal/min)	.06309	liter per second (l/s)
	.06309	cubic decimeter per second (dm^3/s)
	6.309×10^{-5}	cubic meter per second (m^3/s)
million gallons per day (10^6 gal/d or Mgal/d)	43.81	cubic decimeter per second (dm^3/s)
	.04381	cubic meter per second (m^3/s)
	Mass	
ton (short, 2,000 lbs)	907.2	kilogram (kg)
	.9072	tonne (t)

PLATTE RIVER BASIN

06614800 MICHIGAN RIVER NEAR CAMERON PASS, COLO.

LOCATION.--Lat 40°29'46", long 105°51'52", in S½ sec.12, T.6 N., R.76 W. (unsurveyed), Jackson County, on right bank 500 ft (152 m) upstream from Michigan ditch, 2.2 mi (3.5 km) southeast of Cameron Pass, 8 mi (13 km) east of Gould, and 27 mi (43 km) southeast of Walden.

DRAINAGE AREA.--1.53 mi^2 (3.96 km^2).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 10,390 ft (3,167 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 38 ft^3/s (1.08 m^3/s) July 5 (gage height, 3.41 ft or 1.039 m); minimum daily, 0.25 ft^3/s (0.007 m^3/s) Mar. 3, 6, 18-23.
Period of record: Maximum discharge, 44 ft^3/s (1.25 m^3/s) June 18, 1974 (gage height, 3.53 ft or 1.076 m); minimum daily, 0.16 ft^3/s (0.005 m^3/s) many days in March and April, 1974.

REMARKS.--Records good except those for winter period, which are fair. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.54	.37	.44	.39	.27	.33	.37	1.3	23	5.5	1.2
2	.45	.53	.37	.41	.37	.26	.34	.37	2.0	20	4.5	1.2
3	.45	.54	.36	.40	.37	.25	.33	.37	4.4	17	3.9	1.0
4	.47	.52	.34	.37	.35	.28	.33	.37	5.7	17	3.5	1.0
5	.44	.52	.33	.37	.33	.29	.33	.38	7.0	18	3.2	.97
6	.44	.50	.33	.37	.33	.25	.33	.41	8.9	16	3.1	.93
7	.44	.48	.33	.37	.33	.27	.30	.41	11	15	3.1	.90
8	.44	.46	.34	.37	.33	.29	.30	.41	14	16	3.0	.87
9	.45	.45	.33	.37	.33	.29	.33	.41	12	14	2.8	.90
10	.45	.42	.33	.37	.33	.29	.33	.41	9.5	16	2.6	.89
11	.44	.42	.33	.37	.33	.29	.33	.42	7.8	18	3.1	.86
12	.46	.41	.32	.37	.33	.29	.33	.48	7.2	16	3.6	.84
13	.50	.41	.33	.37	.33	.29	.32	.47	10	15	3.4	.79
14	.55	.45	.33	.37	.33	.29	.29	.55	13	14	3.7	.79
15	.53	.45	.34	.37	.33	.29	.29	.95	16	14	3.6	.77
16	.51	.45	.38	.35	.33	.29	.29	1.3	15	15	2.9	.77
17	.53	.45	.38	.33	.33	.27	.29	2.2	13	14	2.6	.64
18	.54	.52	.37	.33	.33	.25	.29	3.0	14	12	2.3	.61
19	.54	.49	.37	.33	.33	.25	.29	3.1	15	11	2.1	.59
20	.54	.45	.41	.33	.32	.25	.29	3.6	15	11	2.1	.57
21	.53	.45	.42	.33	.33	.25	.29	3.9	15	11	2.3	.55
22	.54	.43	.45	.34	.33	.25	.29	3.2	13	9.7	2.3	.54
23	.54	.41	.49	.33	.33	.25	.29	2.4	16	8.8	2.2	.53
24	.56	.41	.59	.33	.31	.27	.30	2.1	20	7.7	1.9	.46
25	.61	.41	.61	.36	.29	.29	.32	2.1	20	6.9	1.8	.45
26	.59	.41	.56	.41	.29	.32	.37	2.0	19	6.5	1.7	.42
27	.57	.41	.53	.41	.29	.33	.41	2.0	20	6.1	1.5	.41
28	.53	.41	.51	.41	.29	.33	.41	2.0	19	5.7	1.6	.38
29	.57	.38	.49	.41	---	.33	.37	1.7	18	5.4	1.5	.37
30	.54	.38	.45	.41	---	.33	.37	1.3	27	5.8	1.4	.37
31	.54	---	.45	.40	---	.33	---	1.3	---	5.6	1.3	---
TOTAL	15.75	13.56	12.54	11.50	9.21	8.78	9.68	43.98	388.8	391.2	84.1	21.57
MEAN	.51	.45	.40	.37	.33	.28	.32	1.42	13.0	12.6	2.71	.72
MAX	.61	.54	.61	.44	.39	.33	.41	3.9	27	23	5.5	1.2
MIN	.44	.38	.32	.33	.29	.25	.29	.37	1.3	5.4	1.3	.37
AC-FT	31	27	25	23	18	17	19	87	771	776	167	43

CAL YR 1974 TOTAL 1214.82 MEAN 3.33 MAX 29 MIN .16 AC-FT 2410
WTR YR 1975 TOTAL 1010.67 MEAN 2.77 MAX 27 MIN .25 AC-FT 2000

PEAK DISCHARGE (BASE, 35 FT^3/S).--July 5 (1515) 38 ft^3/s (3.41 ft).

06616000 NORTH FORK MICHIGAN RIVER NEAR GOULD, COLO.

LOCATION.--Lat 40°32'58", long 106°01'14", in SE¼NW¼ sec.27, T.7 N., R.77 W., Jackson County, on left bank 25 ft (8 m) upstream from county road bridge, 0.7 mi (1.1 km) downstream from dam on recreation lake, 1.6 mi (2.6 km) north of Gould, 2.8 mi (4.5 km) upstream from mouth, and 19 mi (31 km) southeast of Walden.

DRAINAGE AREA.--21.2 mi^2 (54.9 km^2).

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,793 ft (2,680.1 m) above mean sea level. Prior to Oct. 6, 1964, at site 0.6 mi (1.0 km) upstream at datum 55.00 ft (16.764 m) higher. Oct. 6, 1964, to Aug. 10, 1965, at site 0.2 mi (0.3 km) upstream at different datum.

AVERAGE DISCHARGE.--25 years, 17.7 ft^3/s (0.501 m^3/s) 12,820 acre-ft/yr (15.8 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 141 ft^3/s (3.99 m^3/s) May 22 (gage height, 4.36 ft or 1.329 m); minimum daily, 0.86 ft^3/s (0.024 m^3/s) Dec. 3.
Period of record: Maximum discharge, 290 ft^3/s (8.21 m^3/s May 25, 1961 (gage height, 3.15 ft or 0.960 m, site and datum then in use), from rating curve extended above 160 ft^3/s (4.5 m^3/s); maximum gage height, 4.91 ft (1.497 m) May 9, 1974; no flow Dec. 11, 1963, to Apr. 30, 1964, caused by filling recreation lake upstream.

REMARKS.--Records good except those for winter period, which are poor. One small diversion above station to Canadian River drainage. Slight natural regulation by recreation lake (capacity, 1,250 acre-ft or 1.54 hm^3) since Dec. 11, 1963.

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	4.0	1.2	1.6	1.2	2.2	2.2	20	70	31	8.1	3.4
2	3.5	4.0	.99	1.6	1.2	2.3	2.3	9.4	80	30	7.6	3.1
3	3.5	4.0	.86	1.6	1.2	2.4	2.4	11	85	30	7.2	3.1
4	3.7	3.4	.99	1.6	1.2	2.4	2.6	8.1	95	30	6.8	3.1
5	4.4	3.1	1.2	1.6	1.2	2.4	2.8	9.9	100	30	6.5	3.1
6	4.3	2.9	1.5	1.6	1.4	2.4	2.8	13	105	29	6.1	2.9
7	4.0	2.9	1.7	1.6	1.6	2.4	2.7	12	110	30	6.1	2.9
8	3.8	2.9	1.7	1.6	1.6	2.4	2.7	9.9	115	26	5.8	2.9
9	4.0	3.1	1.7	1.6	1.6	2.5	2.6	11	110	23	5.8	3.4
10	4.0	3.1	1.7	1.6	1.6	2.6	2.6	8.6	80	22	5.4	4.0
11	4.7	3.1	1.7	1.6	1.8	2.6	2.6	11	60	20	5.4	5.0
12	5.8	2.9	1.7	1.6	1.9	2.6	2.6	21	73	19	5.8	4.3
13	6.1	2.9	1.7	1.6	2.0	2.6	2.6	25	76	17	6.5	4.0
14	6.5	3.1	1.7	1.7	2.0	2.6	2.6	44	94	18	6.5	4.0
15	5.8	2.9	1.7	1.7	2.0	2.6	3.0	71	96	29	6.8	4.0
16	5.0	2.9	1.7	1.7	2.0	2.6	3.2	80	105	21	6.1	3.6
17	4.7	2.9	1.7	1.7	2.0	2.6	2.9	89	86	20	5.8	3.4
18	4.7	2.7	1.7	1.7	2.0	2.6	2.7	112	64	16	5.4	3.6
19	4.7	3.1	1.7	1.7	2.0	2.6	2.7	103	69	14	5.0	3.6
20	4.3	3.2	1.7	1.7	2.0	2.6	3.0	106	59	13	4.3	3.6
21	4.3	3.2	1.7	1.7	2.1	2.5	4.0	116	58	12	4.7	3.6
22	4.3	2.7	1.7	1.7	2.1	2.5	5.0	113	51	11	5.0	3.6
23	4.0	2.9	1.7	1.7	2.2	2.5	6.0	74	44	11	5.4	3.6
24	4.7	3.0	1.7	1.7	2.2	2.5	6.6	66	42	10	4.7	3.6
25	5.4	2.9	1.7	1.7	2.2	2.4	8.0	74	41	9.9	4.0	3.6
26	5.0	2.7	1.7	1.7	2.2	2.3	9.4	53	39	9.4	4.0	3.6
27	4.3	2.5	1.7	1.7	2.2	2.2	15	61	37	8.6	4.0	4.0
28	4.3	2.2	1.7	1.5	2.2	2.2	19	64	35	8.1	4.0	4.0
29	4.0	2.1	1.7	1.3	---	2.2	15	63	33	8.6	3.6	4.0
30	4.3	2.0	1.7	1.2	---	2.2	14	53	32	9.9	3.6	4.0
31	3.6	---	1.7	1.2	---	2.2	---	62	---	9.0	3.4	---
TOTAL	139.2	89.3	49.24	49.8	50.9	75.7	155.6	1573.9	2144	575.5	169.4	108.6
MEAN	4.49	2.98	1.59	1.61	1.82	2.44	5.19	50.8	71.5	18.6	5.46	3.62
MAX	6.5	4.0	1.7	1.7	2.2	2.6	19	116	115	31	8.1	5.0
MIN	3.5	2.0	.86	1.2	1.2	2.2	2.2	8.1	32	8.1	3.4	2.9
AC-FT	276	177	98	99	101	150	309	3120	4250	1140	336	215

CAL YR 1974 TOTAL 7361.24 MEAN 20.2 MAX 198 MIN .86 AC-FT 14600
WTR YR 1975 TOTAL 5181.14 MEAN 14.2 MAX 116 MIN .86 AC-FT 10280

PEAK DISCHARGE (BASE, 100 FT^3/S).--May 22 (0100) 141 ft^3/s (4.36 ft).

NOTE.--No gage-height record Mar. 11 to Apr. 30.

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, COLO.

LOCATION.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, on right bank 350 ft (110 m) downstream from bridge on State Highway 125, 0.8 mi (1.3 km) upstream from Camp Creek, 4.2 mi (6.8 km) northwest of Northgate, and 4.4 mi (7.1 km) south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi^2 (3,706 km^2).

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft (2,380.607 m) above mean sea level. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918 to Aug. 21, 1961, water-stage recorder, at site 0.8 mi (1.3 km) downstream at datum 3.36 ft (1.024 m) lower.

AVERAGE DISCHARGE.--60 years, 436 ft^3/s (12.35 m^3/s), 315,900 acre-ft/yr (390 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,430 ft^3/s (6.88 m^3/s) May 23 (gage height, 5.24 ft or 1.597 m); maximum gage height, 5.36 ft (1.634 m), Apr. 18 (backwater from ice); minimum daily discharge, 64 ft^3/s (1.81 m^3/s) Jan. 12.
Period of record: Maximum discharge, 6,720 ft^3/s (190 m^3/s) June 11, 1923 (gage height, 6.24 ft or 1.902 m, site and datum then in use); maximum gage height recorded, 8.84 ft (2.694 m) Apr. 9, 1962 (ice jam); minimum daily discharge, 19 ft^3/s (0.54 m^3/s) July 17-19, 1934.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 130,000 acres (526 km^2) of hay meadows above station. Transbasin diversions above station to Cache la Poudre River basin (see elsewhere in this report). Water-quality records for the current year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	128	90	70	70	90	100	300	626	1300	672	135
2	76	139	90	70	70	90	100	400	590	1350	585	126
3	76	145	90	70	70	90	110	500	622	1490	512	119
4	81	137	90	70	70	90	120	655	748	1540	455	115
5	99	118	90	70	70	90	130	831	885	1950	410	113
6	111	102	90	70	70	95	140	793	961	2250	376	110
7	119	104	90	70	70	100	140	606	1080	2250	353	106
8	117	92	90	70	70	100	130	505	1390	2090	334	103
9	111	108	90	70	70	100	130	494	1820	1970	322	105
10	106	114	85	70	70	100	130	527	2050	2030	312	118
11	109	119	80	66	70	100	140	617	2080	1980	297	146
12	125	144	80	64	70	100	150	784	1660	1570	296	161
13	155	115	80	66	70	100	180	884	1190	1310	404	163
14	156	120	80	70	70	100	180	881	911	1360	474	156
15	144	125	80	70	70	100	200	1010	1050	1390	477	153
16	133	130	80	70	70	100	230	1190	1320	1530	440	146
17	122	130	80	70	70	105	230	1340	1680	1680	380	139
18	117	130	80	70	70	110	200	1570	1880	1570	331	124
19	114	130	80	70	70	110	190	1840	1680	1310	290	110
20	111	130	80	70	70	110	190	2130	1400	1200	262	105
21	107	130	80	70	70	110	220	2030	1430	1240	260	104
22	106	120	80	70	70	110	300	2170	1490	1180	271	105
23	106	110	80	70	72	110	370	2340	1420	1110	262	105
24	110	110	75	70	76	110	440	2010	1320	1110	240	106
25	114	110	70	70	80	110	540	1450	1260	1040	216	103
26	124	110	70	70	80	110	640	1210	1270	905	198	100
27	126	105	70	70	80	110	560	1070	1210	778	184	97
28	121	100	70	70	85	105	400	919	1150	760	175	91
29	123	95	70	70	---	100	340	958	1190	748	165	90
30	126	90	70	70	---	100	310	911	1210	702	155	91
31	128	---	70	70	---	100	---	745	---	700	145	---
TOTAL	3551	3540	2500	2156	2013	3155	7240	33670	38573	43393	10253	3545
MEAN	115	118	80.6	69.5	71.9	102	241	1086	1286	1400	331	118
MAX	156	145	90	70	85	110	640	2340	2080	2250	672	163
MIN	76	90	70	64	70	90	100	300	590	700	145	90
AC-FT	7040	7020	4960	4280	3990	6260	14360	66780	76510	86070	20340	7030

CAL YR 1974 TOTAL 204251 MEAN 560 MAX 3900 MIN 70 AC-FT 405100
WTR YR 1975 TOTAL 153589 MEAN 421 MAX 2340 MIN 64 AC-FT 304600

06657500 LARAMIE RIVER NEAR GLENDEVEY, COLO.

LOCATION.--Lat 40°48'02", long 105°52'40", in NW¼NW¼ sec.36, T.10 N., R.76 W., Larimer County, on left bank 200 ft (61 m) downstream from bridge on county road, 350 ft (110 m) downstream from Nunn Creek, 1,300 ft (400 m) upstream from Stub Creek, and 3.0 mi (4.8 km) east of Glendevey.

DRAINAGE AREA.--101 mi^2 (262 km^2).

PERIOD OF RECORD.--June 1904 to October 1905, August 1910 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Glendevey" 1905, 1910-18.

GAGE.--Water-stage recorder. Altitude of gage is 8,230 ft (2,509 m) from topographic map. See WSP 1730 for history of changes prior to Sept. 20, 1935.

AVERAGE DISCHARGE.--66 years, 74.0 ft^3/s (2.096 m^3/s), 53,610 acre-ft/yr (66.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 624 ft^3/s (17.7 m^3/s) June 8 (gage height, 2.74 ft or 0.835 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Jan. 11, 12.
Period of record: Maximum discharge, 2,240 ft^3/s (63.4 m^3/s) June 9, 1923 (gage height, 4.55 ft or 1.387 m, site and datum then in use, from floodmarks), from rating curve extended above 1,400 ft^3/s (40 m^3/s); minimum daily recorded, 5.0 ft^3/s (0.14 m^3/s) Feb. 14, 15, 1911, but may have been less during winter periods of no gage-height record.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 700 acres (2.83 km^2) of hay meadows above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

REVISIONS (WATER YEARS).--WSP 469: 1911-12. WSP 506: Drainage area. WSP 1310: 1905, 1914. WSP 1918: 1918 (monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	24	19	14	15	15	16	30	121	207	51	48
2	26	26	18	14	15	16	16	34	144	230	46	47
3	26	27	18	14	15	16	17	39	270	262	43	46
4	28	24	18	14	15	16	18	49	331	269	40	45
5	31	23	18	14	15	16	19	53	374	263	37	44
6	29	24	18	14	15	17	21	43	458	296	35	43
7	29	24	18	14	15	17	21	36	522	252	35	42
8	27	24	17	14	15	18	20	31	609	210	32	41
9	26	24	16	14	15	18	20	31	484	206	30	41
10	26	23	16	14	15	19	19	34	405	359	29	44
11	30	22	15	13	15	19	19	37	339	378	29	51
12	35	24	15	13	15	19	20	43	322	340	30	46
13	34	22	15	14	15	19	19	43	354	202	37	44
14	37	22	15	14	15	19	20	71	497	251	40	44
15	32	21	15	14	15	19	20	108	457	223	37	42
16	31	21	15	15	15	19	24	124	544	233	30	40
17	32	22	15	15	15	19	24	136	451	212	27	40
18	32	21	15	15	15	19	21	159	406	210	25	37
19	30	21	15	15	15	19	20	143	478	182	24	36
20	29	27	15	15	15	19	20	148	401	124	67	37
21	28	23	15	15	14	19	23	143	422	122	88	36
22	29	22	15	15	14	18	31	118	360	102	79	34
23	30	20	15	15	14	18	38	96	355	93	75	33
24	36	21	15	15	14	18	44	99	404	87	69	32
25	39	23	15	15	15	18	54	116	461	80	64	31
26	36	23	15	15	15	17	68	94	408	69	61	31
27	32	22	15	15	15	17	60	106	377	62	58	30
28	30	21	15	15	15	16	40	112	270	58	58	29
29	29	21	15	15	---	16	37	98	214	59	55	29
30	29	20	15	15	---	16	33	95	209	67	52	30
31	22	---	15	15	---	16	---	116	---	58	51	---
TOTAL	937	682	491	448	416	547	822	2585	11447	5766	1434	1173
MEAN	30.2	22.7	15.8	14.5	14.9	17.6	27.4	83.4	382	186	46.3	39.1
MAX	39	27	19	15	15	19	68	159	609	378	88	51
MIN	22	20	15	13	14	15	16	30	121	58	24	29
AC-FT	1860	1350	974	889	825	1080	1630	5130	22710	11440	2840	2330

CAL YR 1974 TOTAL 29930 MEAN 82.0 MAX 654 MIN 15 AC-FT 59370
WTR YR 1975 TOTAL 26748 MEAN 73.3 MAX 609 MIN 13 AC-FT 53050

06695000 SOUTH PLATTE RIVER ABOVE ELEVENMILE CANYON RESERVOIR, NEAR HARTSEL, COLO.

LOCATION.--Lat 38°58'03", long 105°34'51", in NE¼ sec.32, T.12 S., R.73 W., Park County, on left bank 200 ft (61 m) downstream from highway bridge, 2.5 mi (4.0 km) upstream from water line of Elevenmile Canyon Reservoir at elevation 8,561 ft (2,609 m), and 13 mi (21 km) southeast of Hartsel.

DRAINAGE AREA.--880 mi^2 (2,279 km^2).

PERIOD OF RECORD.--June 1933 to current year (no winter records prior to 1940). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 8,612.83 ft (2,625.191 m) above mean sea level (datum of Denver Board of Water Commissioners). Prior to May 27, 1939, water-stage recorder near present site at different datum. May 27, 1939, to Nov. 4, 1961, at datum 0.46 ft (0.140 m) lower.

AVERAGE DISCHARGE.--36 years (1939-75), 79.8 ft^3/s (2,260 m^3/s), 57,820 acre-ft/yr (71.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 579 ft^3/s (16.4 m^3/s) July 8 (gage height, 3.10 ft or 0.945 m); minimum daily, 0.55 ft^3/s (0.016 m^3/s) Oct. 2-5, 9, 10.
Period of record: Maximum discharge not determined, occurred Apr. 28, 1970 (gage height, 7.60 ft or 2.316 m, from floodmarks); maximum daily, 3,970 ft^3/s (112 m^3/s) Apr. 27, 1970; minimum daily recorded, 0.55 ft^3/s (0.016 m^3/s) Oct. 2-5, 9, 10, 1974.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Antero Reservoir (capacity, 22,300 acre-ft or 27.5 hm^3). Many small diversions above station for irrigation of about 24,000 acres (97.1 km^2).

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

REVISIONS (WATER YEARS).--WSP 1630: 1958. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.78	38	17	4.0	8.5	16	23	49	37	253	173	57
2	.55	40	18	5.0	8.0	17	22	48	24	276	166	49
3	.55	41	18	5.0	7.5	18	25	49	27	322	149	45
4	.55	36	19	5.5	8.0	19	30	48	26	332	137	42
5	.55	35	20	6.0	8.5	20	40	45	24	361	134	40
6	.78	35	18	6.0	9.0	20	45	38	24	377	120	35
7	.78	35	16	5.0	9.5	20	50	29	24	377	122	37
8	.78	40	12	4.5	10	20	50	27	49	453	115	46
9	.55	48	11	4.0	10	20	50	36	107	492	114	52
10	.55	43	11	3.0	10	20	60	42	175	549	109	60
11	.78	32	10	3.5	9.5	20	70	54	382	555	107	70
12	3.2	31	10	3.5	9.0	19	75	60	445	489	118	90
13	7.8	37	8.0	4.0	9.5	19	80	52	405	408	142	106
14	7.2	40	5.0	6.0	9.5	20	90	43	315	361	213	102
15	12	37	3.5	7.0	9.5	21	109	29	251	413	197	118
16	26	35	4.0	7.0	9.0	20	109	32	151	429	185	93
17	36	31	4.5	7.0	9.0	22	130	40	164	467	177	83
18	36	32	4.5	7.0	8.5	22	117	40	164	448	160	81
19	33	27	4.5	7.0	8.0	23	86	48	172	389	127	62
20	31	26	4.5	7.0	9.0	24	89	50	155	366	117	48
21	27	26	5.0	6.0	9.0	24	87	52	155	400	99	48
22	24	27	4.5	5.0	9.0	24	90	56	151	379	95	48
23	34	27	4.0	7.0	9.0	22	102	60	144	359	81	42
24	41	27	3.0	9.0	11	22	101	58	146	301	83	45
25	41	25	2.5	10	11	23	102	48	164	262	80	42
26	40	22	3.0	9.0	11	24	122	45	148	240	79	34
27	40	20	3.5	9.0	13	22	114	44	127	197	76	33
28	37	20	3.5	9.0	15	19	79	42	148	162	68	31
29	38	20	4.0	8.5	---	20	58	46	183	158	62	29
30	41	17	4.0	8.5	---	21	49	58	223	172	61	29
31	38	---	4.0	8.5	---	23	---	46	---	183	60	---
TOTAL	600.40	950	259.5	196.5	267.5	644	2254	1414	4710	10930	3726	1697
MEAN	19.4	31.7	8.37	6.34	9.55	20.8	75.1	45.6	157	353	120	56.6
MAX	41	48	20	10	15	24	130	60	445	555	213	118
MIN	.55	17	2.5	3.0	7.5	16	22	27	24	158	60	29
AC-FT	1190	1880	515	390	531	1280	4470	2800	9340	21680	7390	3370

CAL YR 1974 TOTAL 9962.46 MEAN 27.3 MAX 170 MIN .55 AC-FT 19760
WTR YR 1975 TOTAL 27648.90 MEAN 75.8 MAX 555 MIN .55 AC-FT 54840

NOTE.--No gage-height record Nov. 24 to Apr. 5.

06696000 SOUTH PLATTE RIVER NEAR LAKE GEORGE, COLO.

LOCATION.--Lat 38°54'19", long 105°28'22", in SW¼ sec.20, T.13 S., R.72 W., Park County, on left bank 700 ft (210 m) downstream from Elevenmile Canyon Reservoir and 8.2 mi (13.2 km) southwest of town of Lake George.

DRAINAGE AREA.--963 mi² (2,494 km²).

PERIOD OF RECORD.--October 1929 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 8,458 ft (2,578.0 m) from topographic map. Prior to Oct. 26, 1940, at site 1 mi (1.6 km) downstream at datum 8,423.95 ft (2,567.620 m) above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--46 years, 72.8 ft³/s (2.062 m³/s), 52,740 acre-ft/yr (65.0 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 525 ft³/s (14.9 m³/s) July 20 (gage height, 3.98 ft or 1.213 m, from recorded range of stage); minimum daily, 5.5 ft³/s (0.16 m³/s) Jan. 7-13.
Period of record: Maximum discharge, about 3,000 ft³/s (85 m³/s) Apr. 28, 1970 (gage height, 8.34 ft or 2.542 m, from floodmarks), by computation of outflow from Elevenmile Canyon Reservoir; no flow at times in January 1930, February 1931, November 1935.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions through East and West Hoosier ditches at Hoosier Pass prior to 1941, storage in Elevenmile Canyon Reservoir (see elsewhere in this report) and Antero Reservoir (capacity, 22,300 acre-ft or 27.5 hm³), diversions for irrigation, and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1730: 1954, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	7.5	9.3	5.9	7.1	8.0	28	70	16	168	224	86
2	6.3	7.5	9.3	5.9	7.1	8.0	41	54	15	185	212	82
3	6.7	7.5	9.3	5.9	15	8.0	62	39	15	206	200	77
4	6.7	28	9.3	5.9	30	14	91	34	15	235	188	76
5	6.7	60	9.3	5.9	30	24	120	34	20	265	178	72
6	6.7	60	9.3	5.9	38	37	120	24	55	295	171	70
7	6.7	60	9.3	5.5	51	42	120	14	62	330	161	68
8	6.7	60	9.3	5.5	51	43	120	12	45	359	156	66
9	6.3	60	9.3	5.5	51	43	104	12	40	406	149	66
10	6.7	60	9.3	5.5	51	49	84	12	40	457	144	68
11	6.7	60	9.3	5.5	51	54	80	12	30	496	138	68
12	7.1	60	9.3	5.5	51	54	80	12	45	512	136	73
13	7.1	60	9.8	5.5	50	54	80	12	75	500	144	84
14	7.1	60	9.8	5.9	57	54	80	12	118	479	156	95
15	6.3	60	9.8	5.9	60	54	89	12	136	469	164	100
16	6.3	60	9.8	5.9	60	54	106	12	143	483	166	106
17	6.3	60	9.8	5.9	60	54	130	13	138	498	170	106
18	6.3	60	9.8	5.9	60	54	143	14	142	491	166	102
19	6.3	61	9.8	5.9	60	54	143	12	143	477	159	96
20	6.3	62	9.8	5.9	60	60	143	13	144	455	151	87
21	6.3	62	9.8	5.9	60	62	143	13	143	449	145	86
22	6.3	62	9.8	5.9	60	62	143	13	142	441	142	82
23	6.3	62	9.8	5.9	42	62	143	12	142	427	135	76
24	6.3	62	9.8	5.9	8.0	62	143	45	143	415	128	71
25	6.7	35	9.8	5.9	8.0	62	131	71	144	402	117	69
26	6.7	9.3	7.5	6.3	8.0	62	121	46	139	381	112	66
27	7.1	8.9	5.9	6.3	8.0	62	121	15	138	344	107	62
28	7.1	8.9	5.9	6.7	8.0	62	118	15	138	309	105	58
29	7.1	9.3	5.9	6.7	---	62	108	15	143	277	99	55
30	7.1	9.3	5.9	6.7	---	62	89	15	155	254	95	52
31	7.1	---	5.9	7.1	---	44	---	16	---	236	90	---
TOTAL	205.7	1342.2	276.0	184.5	1102.2	1486.0	3224	705	2864	11701	4608	2325
MEAN	6.64	44.7	8.90	5.95	39.4	47.9	107	22.7	95.5	377	149	77.5
MAX	7.1	62	9.8	7.1	60	62	143	71	155	512	224	106
MIN	6.3	7.5	5.9	5.5	7.1	8.0	28	12	15	168	90	52
AC-FT	408	2660	547	366	2190	2950	6390	1400	5680	23210	9140	4610

CAL YR 1974 TOTAL 15604.9 MEAN 42.8 MAX 200 MIN 4.0 AC-FT 30950
WTR YR 1975 TOTAL 30023.6 MEAN 82.3 MAX 512 MIN 5.5 AC-FT 59550

06700500 GOOSE CREEK ABOVE CHEESMAN LAKE, COLO.
(Known also as Lost Park Creek)

LOCATION.--Lat 39°12'32", long 105°18'11", in sec.2, T.10 S., R.71 W., Jefferson County, on right bank 1.0 mi (1.6 km) upstream from water line of Cheesman Lake at elevation 6,842 ft (2,085.4 m) and 1.7 mi (2.7 km) west of Cheesman Dam.

DRAINAGE AREA.--86.6 mi^2 (224 km^2).

PERIOD OF RECORD.--August to December 1899 (published as "at Lake Cheesman"), October 1924 to current year (no winter records in some years). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder and compound rectangular weir. Altitude of gage is 6,910 ft (2,106 m) from topographic map.

AVERAGE DISCHARGE.--38 years (1924-30, 1935-36, 1939-41, 1943-47, 1950-75), 28.9 ft^3/s (0.818 m^3/s), 20,940 acre-ft/yr (25.8 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 249 ft^3/s (7.05 m^3/s) June 14 (gage height, 2.63 ft or 0.802 m); minimum daily, 6.0 ft^3/s (0.17 m^3/s) Jan. 12.
Period of record: Maximum discharge, 487 ft^3/s (13.8 m^3/s) June 9, 1957 (gage height, 4.11 ft or 1.253 m), from rating curve extended above 170 ft^3/s (4.8 m^3/s); maximum gage height, 4.57 ft (1.393 m) May 30, 1942; minimum discharge not determined.

REMARKS.--Records good except those for winter period, which are poor. Small diversions above station for irrigation of about 100 acres (404,700 m^2).

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

REVISIONS (WATER YEARS).--WSP 1730: Drainage area. WSP 1918: 1953.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	8.0	7.5	8.0	9.5	7.0	28	101	65	31	12
2	12	16	9.0	7.5	8.0	9.5	6.5	25	112	63	34	12
3	12	16	10	7.5	8.0	9.5	7.0	25	101	59	31	14
4	12	14	10	8.0	8.0	9.5	8.0	36	94	56	28	14
5	13	12	10	8.0	7.5	10	9.0	67	91	52	26	14
6	12	12	9.5	8.5	7.0	10	10	49	91	50	24	13
7	12	11	8.5	8.5	7.5	9.5	10	33	92	59	24	13
8	12	10	7.5	8.5	8.0	9.5	9.0	28	95	55	22	12
9	12	9.5	8.0	8.0	8.0	9.5	8.5	28	99	68	22	12
10	12	9.0	8.0	7.5	8.0	9.0	8.5	40	120	56	22	14
11	12	9.0	8.0	6.5	8.0	8.5	9.0	69	119	65	20	14
12	19	9.0	8.5	6.0	8.0	8.0	9.0	83	154	56	21	14
13	20	9.5	8.5	7.0	8.0	8.5	9.5	77	199	47	47	16
14	23	9.5	8.5	7.5	8.0	8.5	11	83	229	43	64	21
15	22	9.0	8.5	8.0	7.5	9.0	13	98	202	66	37	22
16	22	9.0	8.5	8.0	7.5	9.0	14	89	169	68	28	19
17	25	9.0	8.5	8.0	7.5	9.5	15	86	166	69	25	16
18	25	9.0	8.5	8.0	7.0	9.5	17	82	166	48	24	14
19	22	9.0	8.5	7.5	7.0	10	16	94	158	41	22	13
20	19	9.0	8.5	7.5	7.5	10	17	86	145	39	20	12
21	18	9.5	9.0	7.5	7.5	10	18	86	130	53	21	13
22	17	9.5	9.0	7.0	7.0	11	23	78	120	75	22	13
23	19	9.0	8.0	7.5	7.0	10	32	65	113	52	20	12
24	19	8.5	7.0	8.0	7.5	9.5	30	57	103	48	17	12
25	22	8.5	6.5	8.5	8.0	9.5	34	62	95	46	16	12
26	25	8.5	7.0	9.0	8.0	9.5	55	57	88	40	15	11
27	22	8.0	7.5	8.5	8.5	8.0	69	57	83	35	15	11
28	19	8.0	8.0	8.0	9.0	7.0	46	62	78	32	15	10
29	18	7.5	8.0	8.0	---	7.5	43	67	74	32	14	11
30	18	7.0	7.5	8.0	---	8.0	34	55	69	34	13	10
31	17	---	7.5	8.0	---	7.5	---	84	---	32	13	---
TOTAL	544	299.5	258.0	241.5	216.5	283.5	598.0	1936	3656	1604	753	406
MEAN	17.5	9.98	8.32	7.79	7.73	9.15	19.9	62.5	122	51.7	24.3	13.5
MAX	25	16	10	9.0	9.0	11	69	98	229	75	64	22
MIN	12	7.0	6.5	6.0	7.0	7.0	6.5	25	69	32	13	10
AC-FT	1080	594	512	479	429	562	1190	3840	7250	3180	1490	805

CAL YR 1974 TOTAL 9938.5 MEAN 27.2 MAX 180 MIN 5.0 AC-FT 19710
WTR YR 1975 TOTAL 10796.0 MEAN 29.6 MAX 229 MIN 6.0 AC-FT 21410

PEAK DISCHARGE (BASE, 110 FT^3/S).--June 14 (1500) 249 ft^3/s (2.63 ft).

NOTE.--No gage-height record Nov. 12 to Apr. 14, June 13, 14.

06701500 SOUTH PLATTE RIVER BELOW CHEESMAN LAKE, COLO.

LOCATION.--Lat 39°12'33", long 105°16'02", in SE¼NW¼ sec.6, T.10 S., R.70 W., Jefferson County, on left bank 1,400 ft (430 m) downstream from toe of Cheesman Dam and 3.8 mi (6.1 km) southwest of Deckers.

DRAINAGE AREA.--1,752 mi^2 (4,538 km^2).

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 6,609.29 ft (2,014.512 m) above mean sea level. Prior to May 14, 1956, at site 370 ft (110 m) upstream at datum 0.50 ft (0.152 m) higher.

AVERAGE DISCHARGE.--51 years, 159 ft^3/s (4.503 m^3/s), 115,200 acre-ft/yr (142 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) July 18 (gage height, 3.86 ft or 1.177 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Dec. 13-18.
Period of record: Maximum discharge, 4,640 ft^3/s (131 m^3/s) Apr. 29, 1970 (gage height, 13.4 ft or 4.08 m, from floodmarks), by computation of outflow from Cheesman Lake; minimum daily determined, 1.6 ft^3/s (0.045 m^3/s) Apr. 8-14, 1957.

REMARKS.--Records good. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Boreas Pass ditch (see elsewhere in this report), Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions for irrigation of about 40,000 acres (162 km^2), and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1310: 1949. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63	52	18	39	27	51	22	252	25	360	414	282
2	119	52	18	39	26	51	22	228	25	500	360	282
3	121	52	18	39	27	37	35	194	25	500	319	257
4	103	29	18	39	32	28	44	162	38	509	295	242
5	99	34	18	39	48	30	45	162	104	545	295	185
6	99	63	19	39	51	30	45	257	104	545	272	151
7	92	63	19	39	51	30	45	343	104	663	257	151
8	96	63	19	39	51	30	39	274	104	761	274	115
9	101	63	20	39	51	30	28	110	60	832	338	111
10	101	63	20	39	51	30	28	27	28	570	338	172
11	119	63	20	39	51	30	25	28	28	210	324	219
12	134	73	13	39	51	30	24	28	27	205	316	219
13	136	79	10	40	51	30	22	28	27	183	335	219
14	153	76	10	41	54	31	21	28	34	719	357	247
15	166	73	10	41	58	32	65	28	35	954	397	279
16	166	73	10	41	63	34	226	28	27	950	411	216
17	147	73	10	41	68	38	264	30	27	950	408	250
18	136	73	10	41	69	39	194	34	27	990	285	277
19	136	66	11	41	73	39	132	38	34	874	214	308
20	136	62	16	41	74	39	134	65	41	702	214	324
21	106	62	21	41	76	39	134	121	41	653	233	321
22	106	60	24	41	76	39	142	121	41	695	269	290
23	115	58	27	41	77	39	158	82	41	731	287	269
24	115	58	31	41	68	39	166	22	41	731	235	305
25	103	58	32	41	51	39	117	22	41	699	216	332
26	52	36	35	41	51	35	65	22	48	677	277	287
27	51	18	39	41	51	28	66	22	297	746	274	266
28	51	18	39	41	51	22	163	45	545	802	272	266
29	51	18	39	36	---	22	316	42	469	742	282	266
30	52	18	39	32	---	22	292	25	174	564	282	266
31	52	---	39	27	---	22	---	25	---	459	282	---
TOTAL	3277	1649	672	1218	1528	1035	3079	2893	2662	20021	9332	7374
MEAN	106	55.0	21.7	39.3	54.6	33.4	103	93.3	88.7	646	301	246
MAX	166	79	39	41	77	51	316	343	545	990	414	332
MIN	51	18	10	27	26	22	21	22	25	183	214	111
AC-FT	6500	3270	1330	2420	3030	2050	6110	5740	5280	39710	18510	14630

CAL YR 1974 TOTAL 43025 MEAN 118 MAX 481 MIN 10 AC-FT 85340
WTR YR 1975 TOTAL 54740 MEAN 150 MAX 990 MIN 10 AC-FT 108600

06706000 NORTH FORK SOUTH PLATTE RIVER BELOW GENEVA CREEK, AT GRANT, COLO.

LOCATION.--Lat 39°27'26", long 105°39'29", in NW¼ sec.10, T.7 S., R.74 W., Park County, on left bank at Grant, 1,550 ft (470 m) downstream from Geneva Creek and 1.3 mi (2.1 km) downstream from east portal of Harold D. Roberts tunnel.

DRAINAGE AREA.--127 mi^2 (329 km^2).

PERIOD OF RECORD.--July 1908 to November 1913 (published as "at Cassells"), June 1942 to current year. Monthly discharge only for some periods, published in WSP 1310. December 1913 to March 1918 equivalent records many be obtained by summation of flow of North Fork South Platte River at Grant (above Geneva Creek) and Geneva Creek at Grant.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 8,560.81 ft (2,609.335 m) above mean sea level. See WSP 1710 or 1730 for history of changes prior to July 23, 1948. July 23, 1948, to Nov. 15, 1968, water-stage recorder at site 50 ft (15 m) downstream at datum 3.49 ft (1.064 m) lower.

AVERAGE DISCHARGE.--38 years, 71.6 ft^3/s (2.028 m^3/s), 51,870 acre-ft/yr (64.0 hm^3/yr), adjusted for inflow from Harold D. Roberts tunnel since 1964.

EXTREMES.--Current year: Maximum discharge, 546 ft^3/s (15.5 m^3/s) May 19 (gage height, 1.82 ft or 0.555 m); minimum daily, 28 ft^3/s (0.79 m^3/s) Nov. 4.
Period of record: Maximum discharge observed, 990 ft^3/s (28.0 m^3/s) June 7, 8, 1912 (gage height, 3.30 ft or 1.006 m, site and datum then in use), from rating curve extended above 530 ft^3/s (15 m^3/s); maximum gage height, 4.72 ft (1.439 m), site and datum then in use, Feb. 11, 1952 (backwater from ice); minimum daily discharge, 6.5 ft^3/s (0.18 m^3/s) Nov. 27, 1958.

REMARKS.--Records good except those for winter period, which are poor. Small diversions above station for irrigation of about 200 acres (809,400 m^2). Transmountain diversions from Colorado River basin to North Fork South Platte River above station through Harold D. Roberts tunnel (see elsewhere in this report).

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

REVISIONS.--WSP 956: Drainage area at site at Cassells. WSP 1116: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	52	63	61	65	68	54	85	138	314	366	210
2	73	31	63	61	65	68	54	85	154	406	366	210
3	73	31	63	58	65	68	54	106	188	399	352	192
4	73	28	65	58	65	61	56	63	220	392	352	166
5	73	30	65	61	65	47	58	56	265	385	340	138
6	76	30	65	61	65	39	61	37	314	406	333	130
7	79	45	65	61	65	34	61	36	366	406	326	127
8	76	61	63	63	65	34	49	120	372	427	292	130
9	79	76	63	63	68	34	39	320	298	441	276	130
10	79	73	63	63	68	34	39	413	235	366	282	86
11	79	70	63	65	68	34	41	420	225	292	287	44
12	79	70	61	63	68	34	41	478	215	276	292	53
13	76	73	61	63	65	34	41	434	210	255	304	73
14	79	73	61	63	65	34	41	340	240	346	265	61
15	73	70	61	65	65	34	42	455	260	385	276	49
16	76	70	61	65	63	34	45	485	287	378	282	42
17	79	70	63	65	63	36	49	478	265	359	210	47
18	82	70	63	65	63	37	58	485	255	366	166	41
19	72	68	63	65	63	39	63	478	245	399	162	36
20	30	65	61	68	65	41	65	420	230	392	158	36
21	30	70	61	68	65	45	68	392	230	276	158	36
22	31	73	61	68	65	49	85	326	215	197	154	39
23	33	70	61	68	65	47	112	235	220	174	150	37
24	39	68	61	65	65	47	142	121	250	174	146	36
25	42	68	61	65	68	54	309	146	287	174	166	34
26	82	65	61	65	68	52	378	192	276	166	197	33
27	76	61	61	65	68	52	372	320	265	150	197	33
28	76	63	61	65	64	49	226	427	260	142	192	31
29	79	61	61	65	---	49	82	130	255	188	206	31
30	76	61	61	65	---	54	79	127	255	240	215	31
31	68	---	61	65	---	54	---	130	---	282	215	---
TOTAL	2111	1816	1927	1981	1832	1396	2864	8340	7495	9553	7683	2342
MEAN	68.1	60.5	62.2	63.9	65.4	45.0	95.5	269	250	308	248	78.1
MAX	82	76	65	68	68	68	378	485	372	441	366	210
MIN	30	28	61	58	63	34	39	36	138	142	146	31
AC-FT	4190	3600	3820	3930	3630	2770	5680	16540	14870	18950	15240	4650

CAL YR 1974 TOTAL 39930 MEAN 109 MAX 380 MIN 13 AC-FT 79200
WTR YR 1975 TOTAL 49340 MEAN 135 MAX 485 MIN 28 AC-FT 97870

06707000 NORTH FORK SOUTH PLATTE RIVER AT SOUTH PLATTE, COLO.

LOCATION.--Lat 39°24'32", long 105°10'31", in SW¼ sec.25, T.7 S., R.70 W., Jefferson County, on left bank 0.2 mi (0.3 km) west of South Platte and 0.3 mi (0.5 km) upstream from mouth.

DRAINAGE AREA.--479 mi^2 (1,241 km^2).

PERIOD OF RECORD.--June 1909 to September 1910, April 1913 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 6,090.55 ft (1,856.400 m) above mean sea level, adjustment of 1912. Prior to May 13, 1925, nonrecording gage at same site and datum.

AVERAGE DISCHARGE.--63 years, 155 ft^3/s (4.390 m^3/s), 112,300 acre-ft/yr (138 hm^3/yr), adjusted for inflow from Harold D. Roberts tunnel since 1964.

EXTREMES.--Current year: Maximum discharge, 755 ft^3/s (21.4 m^3/s) July 9 (gage height, 3.79 ft or 1.155 m); maximum gage height, 3.95 ft (1.204 m) Jan. 3; minimum daily discharge, 62 ft^3/s (1.76 m^3/s) Nov. 5.
Period of record: Maximum discharge, 2,050 ft^3/s (58.1 m^3/s) June 13, 1949 (gage height, 6.30 ft or 1.920 m); minimum observed, 4.0 ft^3/s (0.11 m^3/s) Dec. 8, 1932 (discharge measurement).

REMARKS.--Records good except those for winter period and period of indefinite stage-discharge relation, which are poor. Small diversions above station for irrigation of about 2,000 acres (8.09 km^2). Transmountain diversions from Colorado River basin to North Fork South Platte River above station through Harold D. Roberts tunnel (see elsewhere in this report).

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

REVISIONS (WATER YEARS).--WSP 1310: 1930(M), 1933(M), 1942(M). WSP 1730: 1954(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	107	104	78	77	92	106	86	154	276	497	462	294
2	104	83	88	80	88	112	74	154	307	575	483	288
3	104	74	91	84	87	115	88	158	365	582	469	282
4	104	65	89	81	91	105	97	162	420	598	455	230
5	104	62	96	86	88	99	107	141	462	590	448	199
6	104	63	94	87	78	88	114	114	518	590	441	171
7	107	68	84	89	88	85	117	97	598	575	441	166
8	102	90	86	92	86	83	90	90	620	598	413	162
9	102	111	73	88	90	84	81	289	590	680	372	162
10	104	107	85	88	96	78	80	504	546	612	365	166
11	107	102	85	81	96	75	78	532	504	490	372	107
12	150	104	89	79	91	70	74	575	553	427	372	99
13	141	111	84	83	95	67	76	635	582	392	469	124
14	141	107	86	92	96	69	78	469	672	427	406	134
15	137	111	79	95	90	74	80	560	688	568	365	117
16	134	107	82	95	84	69	90	620	695	582	358	99
17	137	102	78	95	90	75	102	635	658	590	338	92
18	137	104	83	95	88	76	111	658	635	532	242	95
19	134	104	80	95	90	83	104	658	642	582	230	83
20	104	92	72	93	97	90	120	665	590	582	220	81
21	76	102	81	94	97	97	124	582	590	598	225	83
22	76	102	87	85	94	95	134	568	568	448	220	83
23	81	104	86	94	87	86	171	441	546	386	210	80
24	83	97	75	96	86	86	189	288	553	386	204	80
25	97	100	67	95	96	88	307	265	568	372	204	78
26	104	98	74	97	103	95	518	265	546	345	276	74
27	117	97	77	97	103	88	575	372	525	320	282	72
28	114	92	71	93	102	70	518	628	518	294	282	70
29	117	78	78	92	---	80	204	386	490	276	288	70
30	124	83	77	94	---	88	162	259	490	351	294	69
31	107	---	70	94	---	97	---	276	---	358	294	---
TOTAL	3460	2824	2525	2786	2569	2673	4749	12200	16315	15203	10500	3910
MEAN	112	94.1	81.5	89.9	91.8	86.2	158	394	544	490	339	130
MAX	150	111	96	97	103	115	575	665	695	680	483	294
MIN	76	62	67	77	78	67	74	90	276	276	204	69
AC-FT	6860	5600	5010	5530	5100	5300	9420	24200	32360	30160	20830	7760

CAL YR 1974 TOTAL 64921 MEAN 178 MAX 553 MIN 14 AC-FT 128800
WTR YR 1975 TOTAL 79714 MEAN 218 MAX 695 MIN 62 AC-FT 158100

06707500 SOUTH PLATTE RIVER AT SOUTH PLATTE, COLO.

LOCATION.--Lat 39°24'33", long 105°10'10", in SE¼ sec.25, T.7 S., R.70 W., Jefferson County, on left bank at South Platte, 200 ft (61 m) downstream from bridge on State Highway 75 and 400 ft (120 m) downstream from North Fork.

DRAINAGE AREA.--2,579 mi^2 (6,680 km^2).

PERIOD OF RECORD.--July 1887 to September 1891, May to October 1892, October 1895 to September 1897, October 1898 to June 1900, October 1900 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at" or "near Deansbury," "at Deansbury and Platte Canyon," "at" or "near Platte Canyon," prior to 1901, and as "below North Fork, at South Platte" 1914.

GAGE.--Water-stage recorder. Datum of gage is 6,078.43 ft (1,852.705 m) above mean sea level, adjustment of 1912. See WSP 1710 or 1730 for history of changes prior to Mar. 14, 1910.

EXTREMES.--Current year: Maximum discharge, 1,610 ft^3/s (45.6 m^3/s) July 19 (gage height, 4.65 ft or 1.417 m); minimum daily, 90 ft^3/s (2.55 m^3/s) Nov. 30, Dec. 20.
Period of record: Maximum discharge, 6,320 ft^3/s (179 m^3/s) June 8, 1921 (gage height, 8.95 ft or 2.728 m), from rating curve extended above 3,500 ft^3/s (99 m^3/s); minimum daily determined, 10 ft^3/s (0.28 m^3/s) Dec. 5, 1899.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions through Boreas Pass ditch and Harold D. Roberts tunnel (see elsewhere in this report), Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions above station for irrigation of about 45,000 acres (182 km^2) and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 306: 1910. WSP 1310: 1887-91, 1893, 1896, 1900, 1904, 1915(M), 1922(M), 1936(M). WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	208	115	135	150	200	164	484	392	744	920	572
2	210	190	135	140	140	220	130	445	420	1030	865	572
3	280	175	140	150	140	220	165	438	470	1050	825	564
4	238	161	135	145	160	185	202	400	512	1060	766	480
5	235	122	150	155	150	180	215	375	588	1080	758	434
6	238	142	145	155	135	170	220	382	672	1080	735	344
7	238	159	125	160	170	173	230	512	730	1130	708	334
8	228	188	130	165	165	170	200	488	753	1300	681	328
9	235	220	105	155	170	173	161	540	730	1450	704	280
10	238	222	130	155	180	159	159	568	676	1330	704	331
11	245	208	130	140	180	154	154	576	654	726	699	334
12	331	208	135	135	170	142	138	632	722	686	686	328
13	316	235	120	145	180	136	142	686	748	618	810	361
14	331	228	125	165	185	142	142	540	835	922	762	372
15	344	222	110	170	180	152	144	640	830	1520	744	424
16	337	220	115	170	170	144	288	681	800	1540	762	322
17	337	212	105	170	200	159	420	686	766	1540	740	322
18	310	218	115	170	185	159	438	690	740	1470	604	372
19	307	212	110	170	190	170	307	690	722	1510	473	378
20	283	178	90	165	215	185	313	694	681	1320	456	410
21	248	195	130	165	210	198	310	672	681	1260	476	406
22	212	200	140	145	205	195	313	672	640	1100	512	396
23	240	200	140	165	190	180	368	560	627	1100	532	364
24	242	182	120	170	170	161	403	372	640	1100	508	382
25	256	192	100	170	200	178	492	344	658	1090	445	417
26	235	192	130	175	195	188	572	344	632	1020	548	400
27	222	127	135	175	195	170	596	428	681	1030	580	354
28	218	129	115	165	195	120	544	640	996	1080	556	354
29	218	100	140	160	---	130	540	473	980	1030	572	354
30	230	90	135	160	---	145	500	358	699	990	580	358
31	212	---	120	155	---	173	---	386	---	825	576	---
TOTAL	8022	5535	3870	4920	4975	5231	8970	16396	20675	34731	20287	11647
MEAN	259	185	125	159	178	169	299	529	689	1120	654	388
MAX	344	235	150	175	215	220	596	694	996	1540	920	572
MIN	208	90	90	135	135	120	130	344	392	618	445	280
AC-FT	15910	10980	7680	9760	9870	10380	17790	32520	41010	68890	40240	23100

CAL YR 1974 TOTAL 130042 MEAN 356 MAX 885 MIN 90 AC-FT 257900
WTR YR 1975 TOTAL 145259 MEAN 398 MAX 1540 MIN 90 AC-FT 288100

06708000 SOUTH PLATTE RIVER AT WATERTON, COLO.

LOCATION.--Lat 39°29'18", long 105°05'32", in NE¼ sec.34, T.6 S., R.69 W., Jefferson County, on left bank 168 ft (51 m) downstream from bridge on State Highway 221, 0.4 mi (0.6 km) south of Waterton, 4.7 mi (7.6 km) west of Louviers, and 6 mi (10 km) upstream from Plum Creek.

DRAINAGE AREA.--2,621 mi^2 (6,788 km^2).

PERIOD OF RECORD.--May 1926 to current year. Monthly discharge only prior to 1934, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 5,484.43 ft (1,671.654 m) above mean sea level, adjustment of 1912.

AVERAGE DISCHARGE.--49 years, 178 ft^3/s (5.041 m^3/s), 129,000 acre-ft/yr (159 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) July 18 (gage height, 2.51 ft or 0.765 m); minimum daily, 9.3 ft^3/s (0.26 m^3/s) Nov. 16-18, 21-23.
Period of record: Maximum discharge, 5,700 ft^3/s (161 m^3/s) Apr. 23, 1942 (gage height, 5.68 ft or 1.731 m); minimum daily, 0.1 ft^3/s (0.003 m^3/s) Mar. 6, 7, 1933, Feb. 28 to Mar. 2, Mar. 20, 1938.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), Elevenmile Canyon Reservoir and Cheesman Lake (see elsewhere in this report), diversions for irrigation of about 55,000 acres (223 km^2) and municipal use, and return flow from irrigated areas.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	72	19	12	12	15	19	15	105	127	348	454	184
2	50	12	12	11	15	19	15	56	100	607	394	182
3	61	11	12	11	15	15	17	44	106	616	360	157
4	58	11	15	11	15	15	18	87	246	629	292	96
5	58	11	31	11	15	14	19	172	209	611	279	141
6	61	10	50	11	15	15	17	230	125	626	249	86
7	61	10	33	14	15	15	15	194	64	661	205	82
8	58	10	27	14	15	14	17	171	97	837	228	74
9	58	10	20	12	15	15	17	129	102	761	341	68
10	61	10	19	12	15	14	17	171	431	659	317	77
11	61	10	17	12	17	17	17	186	497	278	312	84
12	61	10	20	14	17	19	19	243	464	236	306	91
13	48	10	22	15	17	19	19	278	432	179	448	167
14	56	10	26	17	17	19	35	61	499	554	324	257
15	53	10	20	15	17	17	36	142	436	1030	277	237
16	56	9.3	22	14	19	18	43	180	359	1110	352	97
17	56	9.3	19	14	19	17	53	166	350	1130	345	78
18	56	9.3	17	14	19	18	53	162	461	1140	297	145
19	75	10	17	14	19	17	37	166	440	1080	124	138
20	134	10	15	15	19	17	35	193	303	866	107	140
21	198	9.3	14	14	20	17	35	283	269	824	123	142
22	182	9.3	15	12	20	17	39	320	387	824	168	129
23	214	9.3	19	17	22	16	50	338	254	824	178	78
24	218	11	17	15	20	15	45	93	247	832	135	81
25	228	11	15	14	19	16	107	62	233	824	47	82
26	100	10	17	14	18	15	201	104	199	712	190	113
27	19	11	19	14	18	15	225	149	298	668	237	89
28	19	11	17	14	18	15	179	234	527	609	174	90
29	19	11	15	14	---	15	155	138	539	591	184	92
30	20	12	14	15	---	15	114	81	272	567	187	85
31	20	---	12	14	---	15	---	119	---	397	183	---
TOTAL	2491	316.8	600	420	485	504	1664	5057	9073	21630	7817	3562
MEAN	80.4	10.6	19.4	13.5	17.3	16.3	55.5	163	302	698	252	119
MAX	228	19	50	17	22	19	225	338	539	1140	454	257
MIN	19	9.3	12	11	15	14	15	44	64	179	47	68
AC-FT	4940	628	1190	833	962	1000	3300	10030	18000	42900	15510	7070

CAL YR 1974	TOTAL	31133.1	MEAN	85.3	MAX	361	MIN 2.4	AC-FT 61750
WTR YR 1975	TOTAL	53619.8	MEAN	147	MAX	1140	MIN 9.3	AC-FT 106400

06709500 PLUM CREEK NEAR LOUVIERS, COLO.

LOCATION.--Lat 39°29'04", long 105°00'07", in SE¼ sec.33, T.6 S., R.68 W., Douglas County, on downstream side of bridge on county road from U.S. Highway 85 to Louviers, 0.8 mi (1.3 km) northeast of Louviers, 1.2 mi (1.9 km) downstream from Indian Creek, and 7.5 mi (12.1 km) upstream from mouth.

DRAINAGE AREA.--302 mi^2 (782 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,585 ft (1,702 m) from topographic map. Prior to Feb. 12, 1957, at site 2.5 mi (4.0 km) downstream and Nov. 7, 1965, to Aug. 6, 1966, at site 2.2 mi (3.5 km) downstream at different datums. Feb. 12, 1957, to Nov. 6, 1965, at present site at about present datum.

AVERAGE DISCHARGE.--28 years, 28.4 ft^3/s (0.804 m^3/s), 20,580 acre-ft/yr (25.4 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 566 ft^3/s (16.0 m^3/s) about June 11 (gage height, 3.87 ft or 1.180 m, from recorded range in stage); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Sept. 8.
Period of record: Maximum discharge, 154,000 ft^3/s (4,360 m^3/s) June 16, 1965 (gage height, 22.4 ft or 6.83 m, from floodmarks), by slope-area measurement of peak flow; no flow at times in 1951-52, 1956-60, 1963-64.

REMARKS.--Records poor. Diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1730: 1958, drainage area at site 2.5 mi (4.0 km) downstream. WSP 1918: 1957(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	16	18	12	10	27	35	44	107	18	1.0	1.0
2	3.4	16	20	12	10	32	40	41	144	16	1.0	1.0
3	1.6	19	23	13	13	30	42	46	144	15	1.0	2.0
4	1.5	20	22	14	12	28	31	62	158	13	2.0	1.5
5	2.0	19	26	14	11	26	31	68	110	12	1.0	1.0
6	3.4	18	24	14	9.0	31	30	58	90	12	.80	.60
7	11	17	17	14	10	30	30	84	80	15	.60	.40
8	7.2	16	13	18	10	28	32	69	70	30	.60	.20
9	14	18	14	18	11	30	29	89	200	18	1.0	.40
10	22	18	15	15	11	31	32	93	350	14	2.0	.40
11	22	20	15	13	12	28	48	78	350	20	2.5	.40
12	28	22	15	12	15	29	50	78	200	13	4.0	.40
13	18	19	15	12	20	29	50	89	140	10	8.0	.40
14	16	16	16	13	19	33	35	89	172	8.0	5.0	.40
15	13	15	16	19	17	41	30	71	125	7.0	4.0	.40
16	14	15	16	21	15	25	29	74	130	8.0	4.0	.40
17	12	16	16	18	15	29	37	68	84	8.0	5.0	.40
18	14	14	18	18	15	17	65	98	71	8.0	3.0	.40
19	15	14	16	15	15	17	58	65	52	6.0	2.5	.40
20	13	15	16	14	15	21	65	48	39	7.0	2.0	.40
21	13	14	17	12	17	28	74	50	39	8.0	2.0	.40
22	13	17	18	9.0	16	28	71	78	35	5.0	2.0	.40
23	13	19	16	10	16	28	65	121	32	4.0	1.5	.40
24	13	16	14	11	20	29	58	89	31	5.0	1.0	.40
25	14	20	13	11	25	29	55	71	32	6.0	1.5	.40
26	15	19	13	11	22	30	58	74	30	5.0	1.0	.40
27	16	17	13	14	22	32	68	55	25	4.0	.80	.40
28	16	16	13	12	22	27	55	112	23	3.0	.80	.40
29	16	15	13	10	---	27	65	179	22	2.0	.80	.40
30	16	17	13	10	---	30	46	151	20	1.0	1.0	.40
31	16	---	13	10	---	30	---	151	---	1.0	1.5	---
TOTAL	398.2	513	507	419.0	425.0	880	1414	2542	3105	302.0	64.90	16.50
MEAN	12.8	17.1	16.4	13.5	15.2	28.4	47.1	82.0	104	9.74	2.09	.55
MAX	28	22	26	21	25	41	74	179	350	30	8.0	2.0
MIN	1.5	14	13	9.0	9.0	17	29	41	20	1.0	.60	.20
AC-FT	790	1020	1010	831	843	1750	2800	5040	6160	599	129	33

CAL YR 1974 TOTAL 18520.50 MEAN 50.7 MAX 481 MIN .10 AC-FT 36740
WTR YR 1975 TOTAL 10586.60 MEAN 29.0 MAX 350 MIN .20 AC-FT 21000

PEAK DISCHARGE (BASE, 220 FT^3/S).--May 29 (1700) 280 ft^3/s (3.68 ft); June 11 (time not determined) 566 ft^3/s (3.87 ft, from recorded range in stage).

NOTE.--No gage-height record Jan. 20 to Mar. 1, June 5-13, July 21 to Sept. 10.

06710000 SOUTH PLATTE RIVER AT LITTLETON, COLO.

LOCATION.--Lat 39°37'08", long 105°01'07", in NE¼ sec.17, T.5 S., R.68 W., Arapahoe County, on left bank 200 ft (61 m) downstream from Crestline Avenue Bridge at Littleton, 3.1 mi (5.0 km) upstream from Bear Creek, and 6.3 mi (10 km) downstream from Chatfield Reservoir.

DRAINAGE AREA.--3,069 mi^2 (7,949 km^2).

PERIOD OF RECORD.--July 1941 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,304.36 ft (1,616.769 m) above mean sea level (levels by Corps of Engineers). Prior to Nov. 23, 1948, nonrecording gage on bridge 200 ft (61 m) upstream at datum 1.00 ft (0.305 m) higher. Nov. 23, 1948, to Sept. 30, 1951, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--33 years, 234 ft^3/s (6.627 m^3/s), 169,500 acre-ft/yr (209 hm^3/yr), prior to completion of Chatfield Reservoir.

EXTREMES.--Current year: Maximum discharge, 1,420 ft^3/s (40.2 m^3/s) July 20 (gage height, 5.95 ft or 1.814 m); minimum daily, 36 ft^3/s (1.02 m^3/s) Nov. 30, Dec. 1.
Period of record: Maximum discharge, about 110,000 ft^3/s (3,100 m^3/s) June 16, 1965 (gage height, 15.45 ft or 4.709 m, from floodmarks), estimated from contracted-opening and flow-over-road measurements of peak flow at point 1.6 mi (2.6 km) downstream and slope-area measurement of peak flow on Plum Creek at point 12.7 mi (20.4 km) upstream; minimum daily, 7.2 ft^3/s (0.20 m^3/s) Oct. 2, 1956.
Stage and discharge of the flood of June 16, 1965, are the greatest since at least 1894.

REMARKS.--Records fair. Natural flow of stream affected by transmountain diversions, storage and flood-control reservoirs, power developments, diversions for irrigation and municipal use; and return flow from irrigated areas. Flow regulated by Chatfield Reservoir since May 29, 1975 (see sta. 06709600). Water-quality records for the current year are published in Section 2 of this report.

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	64	36	45	43	59	66	155	100	93	490	345
2	56	63	42	39	45	63	58	119	177	320	514	271
3	45	74	49	45	45	61	68	82	201	592	442	259
4	45	72	56	49	45	49	74	58	330	680	316	158
5	49	63	63	43	43	48	63	141	350	580	325	107
6	58	56	95	40	43	49	58	234	230	526	280	112
7	58	54	95	46	43	46	54	216	180	496	246	114
8	54	54	64	51	45	48	52	197	201	688	212	114
9	64	54	61	51	50	54	49	135	281	910	167	100
10	68	54	56	50	54	51	49	177	186	782	171	200
11	84	52	56	48	56	52	54	180	74	424	231	320
12	150	54	56	46	61	45	58	208	135	158	424	306
13	130	54	63	44	76	51	54	330	327	122	720	293
14	109	52	70	42	78	56	45	206	508	222	766	293
15	102	61	64	48	64	59	46	119	421	886	468	472
16	98	61	63	48	56	59	48	171	88	1100	267	617
17	88	52	59	49	61	52	64	177	95	1160	275	410
18	86	49	56	52	56	52	114	177	152	1240	400	107
19	82	46	52	54	56	51	107	180	78	1290	355	141
20	127	46	43	49	59	49	91	184	78	1350	254	138
21	177	48	46	43	63	51	80	219	177	973	223	141
22	263	46	45	40	51	54	72	293	194	729	190	144
23	263	59	45	38	46	48	76	355	194	722	190	127
24	250	58	40	38	54	42	91	221	184	870	180	109
25	280	52	43	38	70	43	91	84	184	926	177	95
26	230	48	39	39	72	48	216	70	171	774	246	106
27	61	49	46	45	64	46	284	88	180	722	325	147
28	51	48	48	45	63	48	293	177	362	598	271	147
29	54	38	48	45	---	49	216	278	496	508	171	102
30	63	36	45	40	---	56	180	43	369	388	112	74
31	68	---	38	40	---	63	---	61	---	430	144	---
TOTAL	3401	1617	1682	1390	1562	1602	2871	5335	6703	21259	9552	6069
MEAN	110	53.9	54.3	44.8	55.8	51.7	95.7	172	223	686	308	202
MAX	280	74	95	54	78	63	293	355	508	1350	766	617
MIN	45	36	36	38	43	42	45	43	74	93	112	74
AC-FT	6750	3210	3340	2760	3100	3180	5690	10580	13300	42170	18950	12040

CAL YR 1974 TOTAL 58964 MEAN 162 MAX 765 MIN 18 AC-FT 117000
WTR YR 1975 TOTAL 63043 MEAN 173 MAX 1350 MIN 36 AC-FT 125000

06710500 BEAR CREEK AT MORRISON, COLO.

LOCATION.--Lat 39°39'11", long 105°11'43", in SE¼SW¼ sec.35, T.4 S., R.70 W., Jefferson County, on left bank at Morrison, 180 ft (55 m) upstream from bridge on U.S. Highway 285 and 0.2 mi (0.3 km) upstream from Mount Vernon Creek.

DRAINAGE AREA.--164 mi^2 (425 km^2).

PERIOD OF RECORD.--September 1887 to September 1891, May 1895 to December 1901, February 1902 (gage heights only), October 1919 to current year. No winter records for water years 1888-90, 1896, 1898, 1900. Monthly discharge only for some periods, published in WSP 1310. Published as "near Morrison" 1900-1902, as "at Starbuck" 1919-28, and as "at Idledale" 1929-34.

GAGE.--Water-stage recorder. Datum of gage is 5,780.43 ft (1,761.875 m) above mean sea level. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1934. Oct. 1, 1934, to Oct. 10, 1961, water-stage recorder at site 80 ft (24 m) downstream at same datum.

AVERAGE DISCHARGE.--60 years (1890-91, 1896-97, 1898-99, 1900-1901, 1919-75), 53.8 ft^3/s (1.524 m^3/s), 38,980 acre-ft/yr (48.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 250 ft^3/s (7.08 m^3/s) June 14 (gage height, 6.12 ft or 1.865 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Jan. 11, 12.
Period of record: Maximum discharge, 8,600 ft^3/s (244 m^3/s, estimated, July 24, 1896; minimum daily, 0.8 ft^3/s (0.023 m^3/s) Nov. 26, 1939, result of freezeup.

REMARKS.--Records good except those for winter period, which are fair. Small diversions for irrigation of about 1,000 acres (4.05 km^2) above station.

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

REVISIONS (WATER YEARS).--WSP 976: 1942. WSP 1310: 1888, 1890-91, 1898, 1935(M). WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	25	16	11	14	24	18	45	148	99	61	25
2	20	28	17	12	14	27	20	44	163	98	57	25
3	20	29	18	11	14	25	24	42	183	98	51	27
4	18	22	18	12	14	22	26	46	187	99	47	27
5	18	21	16	12	12	20	27	53	171	94	45	25
6	20	22	16	13	12	20	27	48	171	96	42	24
7	20	22	15	11	13	18	25	43	167	95	42	23
8	19	22	15	11	15	18	23	43	157	96	42	22
9	18	26	16	12	14	19	20	42	152	118	40	23
10	18	24	15	11	13	16	19	42	181	119	39	25
11	20	22	15	10	14	16	18	50	173	106	37	30
12	49	22	15	10	14	16	18	58	191	98	37	28
13	35	27	15	12	14	17	19	62	205	89	63	36
14	36	22	15	11	14	17	20	65	238	82	70	43
15	33	24	15	11	14	18	20	72	232	105	53	37
16	27	22	15	12	14	14	24	73	212	106	45	30
17	29	20	16	12	16	18	28	73	203	112	43	27
18	30	22	15	13	14	16	31	74	205	90	41	26
19	29	22	15	14	16	20	27	73	197	84	39	25
20	28	18	12	13	18	22	31	79	183	90	38	24
21	27	22	14	14	14	25	36	80	173	103	38	24
22	29	23	14	12	14	22	39	75	161	96	46	24
23	32	22	14	12	14	17	46	70	152	90	40	24
24	38	16	12	11	18	18	45	64	144	92	35	24
25	46	20	12	12	18	18	53	63	136	81	32	22
26	36	18	12	14	18	20	63	62	127	75	32	22
27	32	16	14	14	18	18	72	65	119	67	32	22
28	30	20	14	13	19	16	53	84	113	64	32	22
29	28	17	14	13	---	18	52	118	109	63	29	22
30	31	15	12	13	---	22	48	107	103	64	28	22
31	25	---	14	13	---	21	---	136	---	66	27	---
TOTAL	861	651	456	375	416	598	972	2051	5056	2835	1303	780
MEAN	27.8	21.7	14.7	12.1	14.9	19.3	32.4	66.2	169	91.5	42.0	26.0
MAX	49	29	18	14	19	27	72	136	238	119	70	43
MIN	18	15	12	10	12	14	18	42	103	63	27	22
AC-FT	1710	1290	904	744	825	1190	1930	4070	10030	5620	2580	1550

CAL YR 1974 TOTAL 14497 MEAN 39.7 MAX 157 MIN 12 AC-FT 28750
WTR YR 1975 TOTAL 16354 MEAN 44.8 MAX 238 MIN 10 AC-FT 32440

PEAK DISCHARGE (BASE, 250 FT^3/S).--June 14 (0600) 250 ft^3/s (6.12 ft).

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, COLO.

LOCATION.--Lat 39°39'08", long 105°01'57", in NW¼NW¼ sec.5, T.5 S., R.68 W., Arapahoe County, on left bank just downstream from bridge on road to Fort Logan Mental Health Center, at Highway Department maintenance building at northwest city limits of Sheridan, 1.3 mi (2.1 km) upstream from mouth, and 2.1 mi (3.4 km) west of city hall in Englewood.

DRAINAGE AREA.--260 mi^2 (673 km^2).

PERIOD OF RECORD.--April to November 1914, March 1927 to current year. Monthly discharge only prior to October 1933, published in WSP 1310. Published as "at Sheridan Junction" 1934-41.

GAGE.--Water-stage recorder. Altitude of gage is 5,295 ft (1,614 m) from topographic map. See WSP 1710 or 1730 for history of changes prior to Oct. 9, 1953. Oct. 9, 1953, to Aug. 6, 1969, water-stage recorder at present site at datum 1.0 (0.305 m) higher.

AVERAGE DISCHARGE.--48 years (1927-75), 38.8 ft^3/s (1.099 m^3/s), 28,110 acre-ft/yr (34.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 401 ft^3/s (11.4 m^3/s) June 10 (gage height, 3.83 ft or 1.167 m, from recorded range of stage); minimum daily, 5.8 ft^3/s (0.16 m^3/s) Apr. 16.
Period of record: Maximum discharge, 8,150 ft^3/s (231 m^3/s) May 7, 1969 (gage height, 10.5 ft or 3.20 m, present datum, from floodmarks), from rating curve extended above 3,400 ft^3/s (96 m^3/s); no flow July 13, 1954.

REMARKS.--Records good except those for winter period, which are fair. Storage and diversions above station for irrigation of about 12,000 acres (48.6 km^2).

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

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	12	16	14	19	22	30	32	284	71	36	9.8
2	19	12	18	16	19	27	28	26	302	70	36	9.7
3	22	22	21	17	19	28	30	27	309	72	32	7.3
4	22	14	23	18	18	34	36	30	309	72	27	7.7
5	22	13	20	19	17	28	56	31	272	68	19	8.1
6	26	13	19	20	15	28	60	22	245	65	14	7.7
7	26	12	17	21	17	26	49	15	232	61	19	7.2
8	27	12	16	20	19	26	29	13	228	63	11	7.7
9	26	12	15	20	19	28	16	12	223	74	11	7.8
10	24	12	16	17	20	26	18	12	332	93	19	10
11	32	12	15	15	20	24	19	12	285	85	17	15
12	40	17	16	22	20	22	16	18	325	67	17	12
13	19	28	15	24	20	19	12	34	325	55	102	12
14	23	23	18	21	22	23	9.8	32	346	49	62	15
15	18	24	17	21	22	27	8.2	31	334	67	48	16
16	16	23	18	21	20	22	5.8	30	309	73	38	15
17	16	19	16	22	20	25	12	34	286	100	31	14
18	15	18	15	24	20	24	42	42	273	62	23	15
19	14	17	13	24	23	24	37	43	248	51	20	17
20	14	16	14	24	23	28	38	44	218	70	19	17
21	15	16	16	22	23	34	43	49	203	86	19	21
22	15	16	14	18	23	28	48	56	185	76	23	20
23	15	21	14	21	22	18	54	56	170	63	15	13
24	16	18	12	24	22	16	46	48	155	64	12	13
25	13	18	13	23	19	18	37	40	131	53	11	12
26	13	18	16	25	19	14	48	36	112	49	10	10
27	13	15	21	25	19	18	60	39	97	42	10	9.9
28	12	15	24	23	21	13	50	98	92	38	8.0	11
29	12	13	20	21	---	16	48	254	88	38	8.0	9.2
30	15	13	16	20	---	22	42	163	82	40	7.7	12
31	12	---	13	19	---	31	---	237	---	39	9.6	---
TOTAL	590	494	517	641	560	739	1027.8	1616	7000	1976	734.3	362.1
MEAN	19.0	16.5	16.7	20.7	20.0	23.8	34.3	52.1	233	63.7	23.7	12.1
MAX	40	28	24	25	23	34	60	254	346	100	102	21
MIN	12	12	12	14	15	13	5.8	12	82	38	7.7	7.2
AC-FT	1170	980	1030	1270	1110	1470	2040	3210	13880	3920	1460	718

CAL YR 1974 TOTAL 14598.5 MEAN 40.0 MAX 190 MIN 4.4 AC-FT 28960
WTR YR 1975 TOTAL 16257.2 MEAN 44.5 MAX 346 MIN 5.8 AC-FT 32250

06712000 CHERRY CREEK NEAR FRANKTOWN, COLO.

LOCATION.--Lat 39°21'21", long 104°45'46", in NE¼ sec.15, T.8 S., R.66 W., Douglas County, on right bank 1.5 mi (2.4 km) upstream from Russellville Gulch and 2.5 mi (4.0 km) south of Franktown.

DRAINAGE AREA.--169 mi^2 (438 km^2).

PERIOD OF RECORD.--November 1939 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,170 ft (1,881 m) from topographic map. See WSP 1730 for history of changes prior to Oct. 1, 1953.

AVERAGE DISCHARGE.--35 years (1940-75), 8.94 ft^3/s (0.253 m^3/s), 6,480 acre-ft/yr (7.99 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 71 ft^3/s (2.01 m^3/s) June 10 (gage height, 3.45 ft or 1.052 m); maximum gage height, 3.51 ft (1.070 m) Jan. 26 (backwater from ice); minimum daily discharge, 0.86 ft^3/s (0.024 m^3/s) Aug. 9.
Period of record: Maximum discharge, 9,170 ft^3/s (260 m^3/s) Aug. 5, 1945 (gage height, 4.91 ft or 1.497 m, site and datum then in use), by float measurement; minimum daily, 0.20 ft^3/s (0.006 m^3/s) July 13, 1946, Sept. 30, Oct. 1, 1950.
Flood of Aug. 3, 1933, caused by Castlewood Dam failure, exceeded all other observed floods at this location.

REMARKS.--Records fair except those for winter period, which are poor. Many small diversions above station for irrigation of about 800 acres (3.24 km^2).

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	8.7	6.8	6.0	9.4	19	8.4	8.1	17	3.1	1.2	1.4
2	4.0	8.7	6.2	6.0	11	28	7.4	7.3	14	2.9	1.1	1.3
3	4.2	10	6.8	6.2	9.4	34	8.0	6.8	11	2.6	1.1	1.7
4	4.0	11	7.2	6.6	9.6	22	9.0	6.4	10	2.4	1.5	1.3
5	4.1	10	8.1	6.7	7.0	23	13	6.1	9.2	2.2	1.2	1.2
6	4.0	10	8.9	6.7	5.2	28	15	5.4	7.8	2.0	.94	1.3
7	4.3	9.9	7.5	6.7	5.8	24	19	5.1	6.2	2.0	.98	1.1
8	4.4	9.9	8.9	6.3	6.4	23	18	4.9	5.7	6.8	.90	.98
9	4.5	9.6	9.0	7.1	6.8	21	14	5.1	10	3.1	.86	1.1
10	4.5	9.6	8.9	5.8	7.4	18	13	5.2	43	2.5	1.1	1.1
11	4.7	9.2	7.3	5.4	8.0	16	13	4.9	46	3.9	1.1	1.6
12	11	8.3	7.1	4.6	9.0	11	14	4.8	23	2.4	1.3	1.6
13	11	9.2	6.8	5.0	11	12	14	8.0	18	2.1	8.8	1.8
14	9.2	8.3	7.1	5.4	12	15	13	7.5	14	1.8	2.9	1.8
15	8.5	9.6	7.1	6.0	9.0	18	13	6.0	11	1.8	1.9	1.8
16	8.3	9.4	7.1	6.4	7.0	15	12	5.1	9.2	2.0	1.8	1.9
17	7.8	9.6	6.7	6.7	5.8	19	11	5.4	9.0	2.0	4.6	1.8
18	7.3	9.9	7.5	7.8	5.0	19	14	5.7	9.4	1.8	3.0	1.8
19	7.2	9.4	6.8	8.7	5.6	21	16	5.8	7.5	1.5	2.1	1.8
20	7.1	8.1	7.6	8.9	6.4	26	15	5.2	6.7	1.9	1.8	1.8
21	7.0	9.4	8.0	8.9	7.4	28	14	5.1	6.3	2.6	1.6	1.8
22	6.7	10	7.8	8.1	8.6	24	13	5.4	6.2	2.2	1.6	2.0
23	6.8	10	6.4	8.3	10	21	11	12	8.9	2.1	1.5	2.1
24	7.2	6.6	5.4	8.7	13	14	9.2	8.5	6.6	2.2	1.4	2.0
25	7.5	8.5	5.0	9.2	16	16	8.3	6.7	5.3	2.4	1.3	2.0
26	7.6	8.7	5.0	9.4	16	16	7.2	5.7	4.7	2.0	1.4	2.0
27	8.1	7.1	6.0	13	16	7.6	7.8	5.3	4.2	1.8	1.3	1.9
28	8.3	7.1	7.0	11	17	7.0	10	6.0	3.9	1.6	1.2	1.8
29	8.7	5.4	7.0	10	---	7.4	12	32	3.8	1.4	1.1	1.8
30	8.9	7.3	6.6	9.6	---	8.0	10	41	3.5	1.3	1.1	1.9
31	8.9	---	6.2	9.6	---	9.0	---	25	---	1.2	1.2	---
TOTAL	209.9	268.5	219.8	234.8	260.8	570.0	362.3	271.5	341.1	71.6	54.88	49.48
MEAN	6.77	8.95	7.09	7.57	9.31	18.4	12.1	8.76	11.4	2.31	1.77	1.65
MAX	11	11	9.0	13	17	34	19	41	46	6.8	8.8	2.1
MIN	4.0	5.4	5.0	4.6	5.0	7.0	7.2	4.8	3.5	1.2	.86	.98
AC-FT	416	533	436	466	517	1130	719	539	677	142	109	98

CAL YR 1974 TOTAL 5622.60 MEAN 15.4 MAX 273 MIN 1.9 AC-FT 11150
WTR YR 1975 TOTAL 2914.66 MEAN 7.99 MAX 46 MIN .86 AC-FT 5780

PEAK DISCHARGE (BASE, 200 FT^3/S).--No peak above base.

06713000 CHERRY CREEK BELOW CHERRY CREEK LAKE, COLO.

LOCATION.--Lat 39°39'12", long 104°51'41", in SW¼SW¼ sec.35, T.4 S., R.67 W., Arapahoe County, on right bank 2,000 ft (610 m) downstream from Cherry Creek Dam, 2.2 mi (3.5 km) southeast of Sullivan, 9 mi (14 km) southeast of Civic Center in Denver, and 11 mi (18 km) upstream from mouth.

DRAINAGE AREA.--385 mi^2 (997 km^2).

PERIOD OF RECORD.--June 1950 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,490.51 ft (1,673.507 m) above mean sea level (Corps of Engineers bench mark).

AVERAGE DISCHARGE.--25 years, 4.57 ft^3/s (0.129 m^3/s), 3,310 acre-ft/yr (4.08 hm^3/yr), unadjusted.

EXTREMES.--Current year: Maximum discharge, 85 ft^3/s (2.41 m^3/s) Apr. 23 (gage height, 3.68 ft or 1.122 m); no flow most of year.
Period of record: Maximum discharge, 1,440 ft^3/s (40.8 m^3/s) July 31, 1956 (gage height, 6.07 ft or 1.850 m); no flow most of time since May 1957.
Maximum flood known, 34,000 ft^3/s (963 m^3/s) Aug. 3, 1933, by slope-area measurement near present site (Castlewood Dam failure).

REMARKS.--Records good. Flow regulated by Cherry Creek Lake (capacity, 95,960 acre-ft or 118 hm^3). See table below for monthend contents. Dam completed in June 1950. Permanent storage started May 15, 1957. Diversions above station for irrigation of about 1,800 acres (7.28 km^2).

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	34				
2							0	0				
3							0	0				
4							0	0				
5							0	0				
6							0	0				
7							0	0				
8							0	0				
9							0	0				
10							0	0				
11							0	0				
12							0	0				
13							0	0				
14							29	0				
15							52	0				
16							52	0				
17							54	0				
18							55	0				
19							55	0				
20							55	0				
21							55	0				
22							58	0				
23							58	0				
24							58	0				
25							58	0				
26							60	0				
27							60	0				
28							58	0				
29					---		58	0				
30					---		55	0				
31		---			---		---	0	---			---
TOTAL	0	0	0	0	0	0	930	34	0	0	0	0
MEAN	0	0	0	0	0	0	31.0	1.10	0	0	0	0
MAX	0	0	0	0	0	0	60	34	0	0	0	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	1840	67	0	0	0	0
†	12,720	12,620	12,640	12,000	12,820	14,230	14,080	13,490	13,770	13,460	13,150	12,800

CAL YR 1974 TOTAL 6023.07 MEAN 16.5 MAX 261 MIN 0 AC-FT 11950
WTR YR 1975 TOTAL 964.00 MEAN 2.64 MAX 60 MIN 0 AC-FT 1910

†Monthend contents of Cherry Creek Lake.

06714000 SOUTH PLATTE RIVER AT DENVER, COLO.

LOCATION.--Lat 39°45'35", long 105°00'10", in NW¼SE¼ sec.28, T.3 S., R.68 W., Denver County, on right bank 90 ft (27 m) upstream from Nineteenth Street Bridge in Denver and 0.4 mi (0.6 km) downstream from Cherry Creek.

DRAINAGE AREA.--3,804 mi^2 (9,852 km^2).

PERIOD OF RECORD.--May to October 1889, June to October 1890, July 1895 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 5,157.64 ft (1,572.049 m) above mean sea level. Prior to Aug. 12, 1909, nonrecording gages and Aug. 12, 1909, to Aug. 28, 1931, water-stage recorder, at several sites within 0.5 mi (0.8 km) of present site at various datums. Aug. 29, 1931, to June 28, 1965, water-stage recorder at site 70 ft (21 m) downstream at datum 3.66 ft (1.116 m) higher. June 29, 1965, to Mar. 18, 1966, water-stage recorder at site 70 ft (21 m) downstream at present datum.

AVERAGE DISCHARGE.--80 years, 343 ft^3/s (9.714 m^3/s), 248,500 acre-ft/yr (306 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 7,600 ft^3/s (215 m^3/s) July 20 (gage height, 7.88 ft or 2.402 m); minimum daily, 79 ft^3/s (2.24 m^3/s) Nov. 30.
Period of record: Maximum discharge, 40,300 ft^3/s (1,140 m^3/s) June 17, 1965 (gage height, 18.66 ft or 5.688 m, from floodmarks, present datum), from rating curve extended above 2,700 ft^3/s (76 m^3/s), on basis of contracted-opening measurement of peak flow; minimum daily, 8.8 ft^3/s (0.25 m^3/s) Mar. 25, 1951.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, groundwater withdrawals, and diversions for irrigation of about 79,000 acres (320 km^2) and municipal use, and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1310: 1934(M). WSP 1730: 1957(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	142	114	83	90	93	96	209	290	380	313	543	275
2	145	108	88	96	96	104	213	229	494	346	558	268
3	109	271	98	93	96	105	172	167	508	705	480	276
4	114	156	103	90	90	105	167	139	657	844	334	242
5	123	135	106	98	86	109	154	183	705	835	316	146
6	126	129	156	96	82	102	152	288	565	730	296	144
7	149	117	149	98	96	100	139	276	480	697	258	136
8	142	117	120	98	96	95	116	255	697	1120	245	136
9	138	117	111	103	93	125	119	224	732	1100	180	131
10	135	114	106	93	117	120	92	206	1380	1160	190	149
11	240	114	98	83	123	120	134	221	487	883	180	358
12	655	114	98	81	107	124	109	263	536	456	339	323
13	257	178	100	96	108	109	99	612	657	354	2280	323
14	262	167	111	96	117	99	96	339	984	321	956	323
15	178	138	111	100	132	124	129	190	1010	966	618	400
16	156	132	111	100	114	122	119	232	444	1230	354	657
17	152	129	108	100	123	99	146	258	444	1280	342	578
18	149	120	108	103	100	99	444	258	580	1250	354	160
19	156	114	103	108	98	99	268	265	420	1350	405	242
20	147	108	88	106	100	102	221	263	370	2030	288	226
21	208	114	96	103	108	129	213	299	426	1270	285	224
22	294	97	93	86	98	119	211	458	456	835	271	224
23	294	129	93	103	88	96	206	558	486	844	221	208
24	320	111	83	114	98	89	211	375	405	1280	206	167
25	331	100	81	117	114	94	203	212	375	1190	195	136
26	309	98	90	108	114	96	276	167	350	928	213	134
27	163	93	96	114	111	149	435	185	330	773	306	194
28	126	100	98	98	98	104	420	484	426	697	293	203
29	123	90	100	93	---	99	354	1530	705	588	239	187
30	200	79	100	90	---	109	323	408	618	480	149	156
31	129	---	98	96	---	144	---	334	---	487	139	---
TOTAL	6172	3703	3184	3050	2896	3386	6150	10168	17107	27342	12033	7326
MEAN	199	123	103	98.4	103	109	205	328	570	882	388	244
MAX	655	271	156	117	132	149	444	1530	1380	2030	2280	657
MIN	109	79	81	81	82	89	92	139	330	313	139	131
AC-FT	12240	7340	6320	6050	5740	6720	12200	20170	33930	54230	23870	14530

CAL YR 1974 TOTAL 99097 MEAN 271 MAX 1670 MIN 68 AC-FT 196600
WTR YR 1975 TOTAL 102517 MEAN 281 MAX 2280 MIN 79 AC-FT 203300

06716500 CLEAR CREEK NEAR LAWSON, COLO.

LOCATION.--Lat 39°45'57", long 105°37'32", in NW¼NW¼ sec.25, T.3 S., R.74 W., Clear Creek County, on left bank at east edge of Lawson, 30 ft (9 m) downstream from private bridge and 2.0 mi (3.2 km) downstream from West Fork Clear Creek.

DRAINAGE AREA.--147 mi^2 (381 km^2).

PERIOD OF RECORD.--March 1946 to current year. Records prior to 1959 include inflow from August P. Gumlick Tunnel (formerly Jones Pass tunnel).

GAGE.--Water-stage recorder. Altitude of gage is 8,080 ft (2,463 m) from topographic map. Mar. 29, 1946, to Sept. 30, 1967, at site 1.5 mi (2.4 km) upstream at different datum.

AVERAGE DISCHARGE.--29 years, 138 ft^3/s (3.908 m^3/s), 99,980 acre-ft/yr (123 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) July 8 (gage height, 5.69 ft or 1.734 m); minimum daily, 26 ft^3/s (0.74 m^3/s) Jan. 12.
Period of record: Maximum discharge, 6,130 ft^3/s (174 m^3/s) June 4, 1956 (gage height, 7.41 ft or 2.259 m, site and datum then in use), from rating curve extended above 1,600 ft^3/s (45 m^3/s), on basis of computation of peak flow over dam, caused by failure of Georgetown Dam on White Reservoir 5.0 mi (8.0 km) upstream; minimum daily, 13 ft^3/s (0.37 m^3/s) Feb. 20, 1955.

REMARKS.--Records good except those for winter period, which are poor. Natural flow affected by minor trans-mountain diversion from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report). No diversion above station.

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

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	58	41	31	30	39	34	49	177	737	304	103
2	64	59	43	33	30	41	32	50	191	773	278	103
3	62	60	45	32	31	39	32	51	238	814	260	108
4	66	56	46	32	30	36	36	57	289	814	241	105
5	68	51	46	32	29	36	38	64	333	774	235	102
6	68	50	44	33	29	36	40	62	414	733	225	97
7	67	49	40	33	31	34	41	54	467	764	220	95
8	64	47	33	32	33	34	36	53	506	802	216	95
9	62	51	34	32	36	35	34	53	459	820	209	100
10	63	50	36	30	35	34	36	60	408	770	206	130
11	63	46	37	28	35	34	35	70	361	740	193	103
12	73	46	38	26	34	31	34	82	347	696	193	109
13	68	48	30	28	34	34	35	80	356	637	227	128
14	71	44	29	30	33	35	35	86	402	636	218	118
15	62	44	30	31	34	37	36	116	490	661	199	116
16	63	43	31	32	33	36	39	138	574	646	189	118
17	64	42	32	33	34	36	42	161	531	617	178	129
18	66	43	31	34	31	34	44	169	543	562	170	116
19	67	42	30	34	31	37	38	169	544	528	165	100
20	65	40	30	35	34	39	38	188	541	519	154	94
21	63	47	31	35	32	40	38	211	558	471	149	91
22	65	48	31	30	29	36	41	222	524	448	150	85
23	67	46	29	31	35	33	46	194	547	425	133	86
24	71	41	27	33	38	31	49	175	628	403	127	87
25	70	46	29	33	36	36	56	194	687	371	121	82
26	65	47	31	32	34	37	68	201	645	345	117	79
27	63	41	32	32	33	35	75	221	670	324	122	77
28	62	38	33	31	37	30	60	225	695	309	114	74
29	66	35	32	30	---	38	55	202	683	311	109	72
30	65	35	31	31	---	37	53	187	711	309	106	74
31	55	---	30	31	---	34	---	187	---	299	106	---
TOTAL	2020	1393	1062	980	921	1104	1276	4031	14519	18058	5634	2976
MEAN	65.2	46.4	34.3	31.6	32.9	35.6	42.5	130	484	583	182	99.2
MAX	73	60	46	35	38	41	75	225	711	820	304	130
MIN	55	35	27	26	29	30	32	49	177	299	106	72
AC-FT	4010	2760	2110	1940	1830	2190	2530	8000	28800	35820	11180	5900

CAL YR 1974 TOTAL 53379 MEAN 146 MAX 910 MIN 26 AC-FT 105900
WTR YR 1975 TOTAL 53974 MEAN 148 MAX 820 MIN 26 AC-FT 107100

PEAK DISCHARGE (BASE, 600 FT^3/S).--July 8 (2200) 1,020 ft^3/s (5.69 ft).

06719505 CLEAR CREEK AT GOLDEN, COLO.

LOCATION.--Lat 39°45'11", long 105°14'05", in NE¼NW¼ sec.33, T.3 S., R.70 W., Jefferson County, on left bank 100 ft (30 m) downstream from U.S. Highway 6 bridge at west edge of Golden, 0.7 mi (1.1 km) downstream from headgate of Church ditch, and 13.3 mi (21.4 km) downstream from North Clear Creek.

DRAINAGE AREA.--400 mi^2 (1,036 km^2).

PERIOD OF RECORD.--October 1974 to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 5,695 ft (1,736 m) from topographic map.

EXTREMES.--Current year (also period of record): Maximum discharge, 1,190 ft^3/s (33.7 m^3/s) July 9 (gage height, 4.31 ft or 1.314 m); minimum daily, 30 ft^3/s (0.85 m^3/s) Mar. 28.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Natural flow of stream affected by minor transmountain diversions from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report) and several small reservoirs above station. Diversion by Welch ditch 1.4 mi (2.3 km) upstream and by Church Ditch 0.7 mi (1.1 km) upstream for irrigation of about 5,200 acres (21.0 km^2) below station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	80	52	45	42	50	47	58	218	924	357	123
2	94	84	55	48	42	53	42	59	238	942	319	114
3	91	88	58	46	44	50	45	58	322	990	280	125
4	89	78	60	46	42	46	54	65	417	1000	260	126
5	91	73	60	46	40	46	56	93	502	971	251	125
6	93	75	58	48	40	45	62	98	659	895	248	121
7	91	73	51	48	44	41	63	90	761	877	246	119
8	89	72	38	46	48	45	38	86	836	933	238	118
9	86	78	40	46	54	46	34	84	771	1070	234	120
10	88	73	47	43	52	44	38	91	722	1000	217	158
11	91	67	53	40	52	41	33	104	616	962	194	142
12	114	66	55	36	50	41	31	129	583	901	191	140
13	103	70	43	39	50	46	32	134	575	811	249	156
14	107	67	41	42	48	47	32	146	650	771	233	161
15	98	67	43	44	50	48	31	181	764	846	195	151
16	93	66	45	46	48	46	34	186	973	804	175	145
17	91	62	47	48	50	48	39	207	910	816	173	149
18	91	67	45	50	46	44	47	220	881	701	158	149
19	93	63	43	50	46	53	40	229	916	635	152	138
20	91	59	43	52	51	56	39	251	841	662	146	124
21	86	73	45	52	48	62	38	291	859	615	158	120
22	91	75	45	45	44	60	39	330	789	531	161	119
23	94	72	42	46	50	48	46	243	781	529	137	115
24	101	63	39	48	55	43	45	201	877	526	126	107
25	107	70	42	48	52	49	51	212	962	473	117	101
26	98	72	45	46	48	54	66	236	904	432	121	101
27	93	52	47	46	46	49	79	275	877	379	152	106
28	89	47	49	44	48	30	63	319	914	337	152	105
29	91	43	47	42	---	53	58	285	877	348	138	105
30	98	43	45	44	---	59	56	227	914	362	126	105
31	81	---	43	44	---	64	---	232	---	358	128	---
TOTAL	2902	2038	1466	1414	1330	1507	1378	5420	21909	22401	6032	3788
MEAN	93.6	67.9	47.3	45.6	47.5	48.6	45.9	175	730	723	195	126
MAX	114	88	60	52	55	64	79	330	973	1070	357	161
MIN	81	43	38	36	40	30	31	58	218	337	117	101
AC-FT	5760	4040	2910	2800	2640	2990	2730	10750	43460	44430	11960	7510

WTR YR 1975 TOTAL 71585 MEAN 196 MAX 1070 MIN 30 AC-FT 142000

PEAK DISCHARGE (BASE, 1,100 FT^3/S).--July 9 (0300) 1,200 ft^3/s (4.31 ft).

NOTE.--No gage-height record Oct. 1 to Feb. 24.

06720000 CLEAR CREEK AT MOUTH, NEAR DERBY, COLO.

LOCATION.--Lat 39°49'42", long 104°57'30", in SW¼SW¼ sec.36, T.2 S., R.68 W., Adams County, on right bank 210 ft (64 m) downstream from York Street bridge, 0.6 mi (1.0 km) upstream from mouth, and 2.5 mi (4.0 km) west of Derby.

DRAINAGE AREA.--575 mi^2 (1,489 km^2).

PERIOD OF RECORD.--April to November 1914, March 1927 to current year. Prior to October 1933 monthly discharge only, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 5,110 ft (1,558 m) from topographic map. See WSP 1710 or 1730 for history of changes prior to July 16, 1958. July 16, 1958, to Sept. 20, 1965, water-stage recorder at site 50 ft (15 m) upstream at datum 1.56 ft (0.475 m) higher.

AVERAGE DISCHARGE.--48 years (1927-75), 94.0 ft^3/s (2.662 m^3/s), 68,100 acre-ft/yr (84.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,210 ft^3/s (34.3 m^3/s) July 16 (gage height, 4.71 ft or 1.436 m); minimum daily, 0.43 ft^3/s (0.012 m^3/s) May 5.
Period of record: Maximum discharge, 5,070 ft^3/s (144 m^3/s) July 24, 1965 (gage height, 8.97 ft or 2.734 m, present datum); minimum daily, 0.4 ft^3/s (0.011 m^3/s) Mar. 11, 1943.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs, diversions for irrigation of about 75,000 acres (304 km^2) above station, and return flow from irrigated areas.

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

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	39	13	16	23	14	51	8.0	19	558	12	9.1
2	11	34	13	15	20	14	52	2.0	18	589	11	8.3
3	8.8	86	15	17	21	16	34	1.1	44	616	8.3	11
4	5.5	38	17	16	21	14	29	1.2	18	610	6.3	11
5	6.6	28	17	17	17	15	23	.43	26	622	8.5	10
6	6.6	43	29	18	13	14	17	25	74	593	12	9.2
7	7.5	25	22	20	16	9.5	15	10	141	551	12	9.0
8	6.7	23	17	19	20	13	26	6.8	219	651	9.9	9.3
9	5.8	24	17	17	18	22	26	4.0	268	716	9.1	8.3
10	4.8	25	15	15	20	33	11	4.0	712	604	12	8.5
11	16	26	14	10	13	27	45	7.3	515	540	14	20
12	214	24	13	11	14	26	26	15	503	479	16	13
13	96	46	14	12	11	23	18	107	436	410	402	16
14	118	45	16	14	7.4	22	21	31	382	434	195	35
15	81	33	13	16	30	22	21	37	417	514	85	34
16	56	24	12	24	24	21	13	50	536	609	60	23
17	48	22	17	23	21	20	17	65	581	753	61	11
18	42	20	15	19	24	22	101	22	631	423	33	16
19	47	18	17	20	18	16	32	16	669	319	18	32
20	42	17	20	19	18	17	16	9.4	589	391	12	28
21	35	17	14	28	16	23	11	34	539	421	12	17
22	38	16	9.1	25	14	17	8.7	73	483	260	61	14
23	44	23	9.0	28	14	14	9.3	76	485	251	14	13
24	58	19	9.0	27	17	10	8.4	4.3	501	291	9.2	13
25	79	25	9.0	24	12	12	5.3	1.8	565	167	8.9	11
26	58	26	13	22	9.2	14	3.1	.65	485	107	8.1	9.3
27	47	23	20	21	8.4	31	21	9.6	444	56	9.3	10
28	44	17	30	21	9.0	22	24	190	459	25	11	11
29	46	13	38	22	---	16	10	460	430	14	10	10
30	88	12	23	20	---	15	13	86	454	22	10	13
31	53	---	19	20	---	24	---	30	---	23	12	---
TOTAL	1428.3	831	519.1	596	469.0	578.5	707.8	1387.58	11643	12619	1162.6	443.0
MEAN	46.1	27.7	16.7	19.2	16.8	18.7	23.6	44.8	388	407	37.5	14.8
MAX	214	86	38	28	30	33	101	460	712	753	402	35
MIN	4.8	12	9.0	10	7.4	9.5	3.1	.43	18	14	6.3	8.3
AC-FT	2830	1650	1030	1180	930	1150	1400	2750	23090	25030	2310	879

CAL YR 1974 TOTAL 31681.40 MEAN 86.8 MAX 694 MIN .90 AC-FT 62840
WTR YR 1975 TOTAL 32384.88 MEAN 88.7 MAX 753 MIN .43 AC-FT 64240

06720500 SOUTH PLATTE RIVER AT HENDERSON, COLO.

LOCATION.--Lat 39°55'19", long 104°52'00", in SE¼NE¼ sec.34, T.1 S., R.67 W., Adams County, on right bank 500 ft (150 m) upstream from bridge on State Highway 22 and 0.2 mi (0.3 km) northwest of Henderson.

DRAINAGE AREA.--4,713 mi^2 (12,207 km^2).

PERIOD OF RECORD.--May 1926 to current year. Prior to October 1933 monthly discharge only, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 5,003.12 ft (1,524.951 m) above mean sea level. See WSP 1710 or 1730 for history of changes prior to June 1, 1960. June 1, 1960, to May 10, 1969, water-stage recorder at site 1,200 ft (370 m) upstream at datum 2.00 ft (0.610 m) higher. May 11 to Oct. 2, 1969, nonrecording gage at site 500 ft (150 m) downstream at present datum.

AVERAGE DISCHARGE.--49 years, 367 ft^3/s (10.39 m^3/s), 265,900 acre-ft/yr (328 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 9,690 ft^3/s (274 m^3/s) Aug. 13 (gage height, 7.77 ft or 2.368 m), from rating curve extended as explained below; minimum daily, 80 ft^3/s (2.27 m^3/s) May 25.
Period of record: Maximum discharge, 33,000 ft^3/s (935 m^3/s) May 6, 1973 (gage height, 11.67 ft or 3.557 m), from rating curve extended above 7,200 ft^3/s (200 m^3/s), partly on basis of flow-over-road measurement at peak flow; maximum gage height, 12.93 ft (3.941 m) June 17, 1965, site and datum then in use; minimum daily discharge, 4.4 ft^3/s (0.12 m^3/s) Apr. 1, 1950.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, groundwater withdrawal, diversions for irrigation of about 253,000 acres (1,020 km^2), and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1310: 1934-36(M). WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	265	322	158	148	165	237	571	472	300	867	748	226
2	305	305	186	143	163	228	614	366	322	910	755	305
3	255	540	203	160	173	260	564	275	322	1320	680	378
4	280	457	211	171	172	250	530	202	219	1480	446	360
5	265	305	213	166	212	255	466	170	290	1470	366	165
6	255	322	242	173	204	250	433	354	316	1390	402	214
7	305	290	215	168	186	242	320	402	384	1200	390	198
8	275	300	204	164	165	151	270	378	862	2100	396	228
9	275	285	208	158	144	124	290	349	695	1630	384	237
10	280	285	214	138	170	164	228	265	2620	1370	366	159
11	280	295	208	137	145	154	210	300	1040	969	396	246
12	1440	295	194	139	137	143	202	372	858	537	530	240
13	538	358	192	172	131	150	183	1080	748	414	4270	198
14	492	390	171	181	166	149	193	524	1060	558	1270	225
15	390	344	169	163	290	148	171	310	1530	1600	942	235
16	344	327	187	172	378	162	160	344	994	1840	442	537
17	332	316	192	193	360	154	216	338	926	2430	718	472
18	332	310	191	170	366	161	950	349	1220	1290	378	219
19	316	310	194	164	332	154	634	316	1130	1270	466	237
20	316	242	196	190	322	150	408	265	935	1270	307	202
21	344	172	202	197	310	172	327	344	786	2110	259	189
22	349	195	166	184	290	176	190	524	755	867	416	206
23	354	193	167	193	285	129	202	1080	896	884	255	206
24	372	227	165	199	316	152	396	137	665	1150	261	197
25	420	290	151	170	295	167	384	80	672	1250	354	192
26	372	196	147	167	300	246	408	175	650	778	378	197
27	338	197	165	168	327	322	662	250	585	550	463	217
28	332	184	164	168	242	408	778	685	498	504	466	250
29	344	169	149	168	---	344	613	2860	613	457	344	285
30	446	161	152	181	---	349	524	738	665	648	206	314
31	378	---	169	173	---	378	---	316	---	755	157	---
TOTAL	11589	8582	5745	5238	6746	6529	12097	14620	23556	35868	18211	7534
MEAN	374	286	185	169	241	211	403	472	785	1157	587	251
MAX	1440	540	242	199	378	408	950	2860	2620	2430	4270	537
MIN	255	161	147	137	131	124	160	80	219	414	157	159
AC-FT	22990	17020	11400	10390	13380	12950	23990	29000	46720	71140	36120	14940

CAL YR 1974 TOTAL 185653 MEAN 509 MAX 3290 MIN 139 AC-FT 368200
WTR YR 1975 TOTAL 156315 MEAN 428 MAX 4270 MIN 80 AC-FT 310100

06720690 WOMAN CREEK NEAR PLAINVIEW, COLO.

LOCATION.--Lat 39°53'07", long 105°11'52", in SE¼SW¼ sec.11, T.2 S., R.70 W., Jefferson County, on left bank 50 ft (15 m) upstream from road crossing on south side of Rocky Flats Plant, 0.2 mi (0.3 km) downstream from unnamed spring-fed tributary, and 4.2 mi (6.8 km) southeast of Plainview.

DRAINAGE AREA.--1.77 mi^2 (4.58 km^2).

PERIOD OF RECORD.--July 1973 to October 1974 (discontinued).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,855 ft (1,785 m) from topographic map.

EXTREMES.--July to September 1973: Maximum discharge during period, 0.68 ft^3/s (0.019 m^3/s) date and gage height not determined; minimum daily, 0.03 ft^3/s (0.001 m^3/s) July 11, 12.
October 1973 to September 1974: Maximum discharge, 8.4 ft^3/s (0.24 m^3/s Apr. 16 (gage height, 2.90 ft or 0.884 m); minimum daily, 0.05 ft^3/s (0.001 m^3/s) Oct. 7, 8, 23.
October 1974: Maximum discharge, 1.6 ft^3/s (0.045 m^3/s) Oct. 10 (gage height, 2.39 ft or 0.728 m); minimum daily, 0.14 ft^3/s (0.004 m^3/s) Oct. 10.

REMARKS.--Records good except those for period of no gage-height record, which are poor.

COOPERATION.--Rockwell International (formerly Dow Chemical Co.) and the U.S. Energy Research and Development Administration (formerly the U.S. Atomic Energy Commission).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	.08	.07	.05
2									---	.08	.06	.05
3									---	.07	.22	.05
4									---	.08	.08	.05
5									---	.06	.05	.05
6									---	.04	.18	.05
7									---	.05	.07	.05
8									---	.08	.07	.10
9									---	.07	.08	.10
10									---	.06	.18	.10
11									---	.03	.10	.20
12									---	.03	.30	.20
13									---	.08	.38	.20
14									---	.10	.33	.10
15									---	.18	.23	.10
16									---	.19	.20	.22
17									---	.22	.20	.25
18									---	.28	.20	.13
19									---	.25	.20	.06
20									---	.28	.20	.10
21									---	.28	.20	.04
22									---	.19	.06	.09
23									---	.10	.04	.09
24									---	.39	.05	.07
25									---	.49	.05	.09
26									---	.42	.05	.11
27									.22	.36	.05	.09
28									.16	.13	.05	.24
29									.19	.08	.05	.47
30									.19	.36	.05	.24
31									---	.13	.05	---
TOTAL										5.24	4.10	3.74
MEAN										.17	.13	.12
MAX										.49	.38	.47
MIN										.03	.04	.04
AC-FT										10	8.1	7.4

06720690 WOMAN CREEK NEAR PLAINVIEW, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.13	.24	.20	.48	.68	.19	.77	.56	.29	.24	.32
2	.08	.19	.19	.20	.41	.64	.24	.68	.38	.44	.35	.48
3	.10	.19	.24	.20	.32	.46	.68	.60	.32	.38	.32	.34
4	.10	.22	.26	.20	.32	.35	.73	.56	.32	.38	.29	.24
5	.08	.28	.26	.20	.32	.42	.82	.60	.32	.29	.24	.60
6	.06	.36	.19	.20	.26	.29	.60	2.0	.38	.29	.29	.24
7	.05	.32	.29	.20	.30	.29	.38	1.7	.41	.29	.29	.19
8	.05	.28	.52	.20	.30	.32	.35	1.4	2.5	.35	.38	.24
9	.06	.22	.41	.20	.40	.29	.32	1.4	.82	.48	.35	.24
10	.13	.19	.26	.20	.44	.38	.29	1.4	.44	.48	.39	.24
11	.13	.16	.29	.20	.67	.44	.29	1.0	.44	.44	.19	.38
12	.10	.20	.35	.20	.52	.32	.35	.73	.41	.48	.19	.64
13	.07	.20	.24	.20	.41	.29	.41	.60	.38	.48	.26	.35
14	.07	.20	.27	.20	.41	.26	.82	.52	.38	.35	.26	.35
15	.08	.20	.19	.50	.35	.26	3.0	.41	.48	.35	.40	.26
16	.08	.20	.22	1.2	.38	.29	3.8	.41	.41	.35	.29	.24
17	.08	.20	.38	1.4	.44	.22	2.6	.41	.44	.29	.29	.26
18	.08	.20	.29	2.0	.46	.26	1.4	.41	.38	.22	.24	.32
19	.10	.20	.24	1.4	.62	.38	.87	.73	.38	.19	.35	.32
20	.07	.26	.32	.87	.56	.32	.64	.60	.41	.19	.29	.32
21	.06	.24	.44	.73	.41	.29	.48	.64	.35	.19	.38	.32
22	.06	.17	.44	.68	.44	.24	.48	.68	.41	.22	.35	.26
23	.05	.17	.32	.50	.41	.24	.52	.64	.32	.22	.29	.24
24	.06	.19	.32	.50	.38	.29	.52	.64	.32	.15	.24	.24
25	.06	.17	.32	.50	.52	1.2	.52	.64	.26	.14	.24	.22
26	.07	.17	.29	.52	.52	.73	.48	.60	.26	.12	.24	.19
27	.07	.17	.20	.48	.50	.41	.38	.52	.24	.14	.29	.29
28	.07	.24	.24	.32	.59	.32	.41	.52	.24	.19	.32	.24
29	.13	.35	.20	.32	---	.22	2.9	.44	.14	.24	.35	.15
30	.28	.22	.20	.32	---	.24	1.4	.41	.17	.19	.35	.24
31	.16	---	.20	.41	---	.24	---	.44	---	.22	.29	---
TOTAL	2.74	6.49	8.82	15.45	12.14	11.58	26.87	23.10	13.27	9.03	9.24	8.96
MEAN	.088	.22	.28	.50	.43	.37	.90	.75	.44	.29	.30	.30
MAX	.28	.36	.52	2.0	.67	1.2	3.8	2.0	2.5	.48	.40	.64
MIN	.05	.13	.19	.20	.26	.22	.19	.41	.14	.12	.19	.15
AC-FT	5.4	13	17	31	24	23	53	46	26	18	18	18

WTR YR 1974 TOTAL 147.69 MEAN .40 MAX 3.8 MIN .05 AC-FT 293

06720690 WOMAN CREEK NEAR PLAINVIEW, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24											
2	.24											
3	.22											
4	.24											
5	.22											
6	.24											
7	.24											
8	.24											
9	.19											
10	.14											
11	.38											
12	.73											
13	.38											
14	.52											
15	.35											
16	.32											
17	.29											
18	.29											
19	.26											
20	.32											
21	.26											
22	.29											
23	.29											
24	.35											
25	.35											
26	.32											
27	.29											
28	.29											
29	.35											
30	.44											
31	.35											
TOTAL	9.63											
MEAN	.31											
MAX	.73											
MIN	.14											
AC-FT	19											

06720700 WOMAN CREEK AT ROCKY FLATS PLANT, COLO.

LOCATION.--Lat 39°53'14", long 105°11'05", in SE¼ sec.11, T.2 S., R.70 W., Jefferson County, on right bank 200 ft (61 m) upstream from east section line fence, 0.5 mi (0.8 km) southeast of Rocky Flats plant east guard house and 6 mi (9.7 km) southwest of Broomfield.

DRAINAGE AREA.--2.10 mi^2 (5.44 km^2).

PERIOD OF RECORD.--August 1972 to May 1973 (discontinued).

GAGE--Water-stage recorder and Ogee-type concrete weir. Altitude of gage is 5,755 ft (1,754 m) from topographic map.

EXTREMES.--August 1972 to September 1973: Maximum discharge during period, 4.6 ft^3/s (0.130 m^3/s) Sept. 15 (gage height, 1.44 ft or 0.439 m); no flow Aug. 9, 13, 14.
October 1972 to May 1973: Maximum discharge during period, about 100 ft^3/s (2.8 m^3/s) May 6 (gage height unknown); minimum daily, 0.02 ft^3/s (<0.001 m^3/s) Oct. 15, 16.

REMARKS.--Records fair except those for period of no gage-height record, which are poor.

COOPERATION.--Rockwell International (formerly Dow Chemical Co.) and the U.S. Energy Research and Development Administration (formerly the U.S. Atomic Energy Commission).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1										---	.02	.06
2										---	.09	.40
3										---	.06	.19
4										---	.04	.15
5										---	.06	.12
6										---	.03	.09
7										---	.01	.09
8										---	.01	.09
9										---	0	.09
10										---	.01	.06
11										---	.01	.06
12										---	.01	.28
13										---	0	.19
14										---	0	.23
15										---	.02	.98
16										---	.19	.19
17										---	.03	.12
18										---	.02	.09
19										---	.03	.09
20										---	.02	.23
21										---	.03	.19
22										---	.03	.09
23										---	.09	.04
24										---	.04	.03
25										---	.04	.03
26										0	.04	.15
27										.03	.04	.54
28										.03	.04	.12
29										.02	.04	.09
30										0	.04	.12
31										0	.04	---
TOTAL											1.13	5.20
MEAN											.037	.17
MAX											.19	.98
MIN											0	.03
AC-FT											2.2	10

06720700 WOMAN CREEK AT ROCKY FLATS PLANT, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.47	.47	.50	.54	.54	1.5	47	.50			
2	.06	.61	.61	.50	.61	.54	1.9	60	.50			
3	.19	.69	.61	.50	.98	.88	3.4	42	.50			
4	.47	.69	.54	.50	1.2	.88	4.0	34	.50			
5	.23	.69	.50	.50	1.5	.88	9.8	37	.50			
6	.04	.69	.50	.50	1.3	.88	1.9	50	.50			
7	.03	.47	.50	.50	.88	1.1	1.5	30	.50			
8	.03	.69	.50	.50	.88	1.1	2.4	15	.50			
9	.09	.78	.50	.50	.88	1.6	3.4	10	.40			
10	.54	.40	.50	.50	.78	1.7	13	8.0	.40			
11	.23	.34	.50	.50	.98	1.2	9.8	4.0	.40			
12	.06	.40	.50	.60	1.7	.88	10	4.0	.40			
13	.03	.40	.50	.60	.98	.98	10	2.0	.30			
14	.03	.34	.50	.90	.78	.61	10	2.0	.30			
15	.02	.40	.50	.90	.78	.78	12	1.0	.30			
16	.02	.40	.50	.90	.98	.69	12	.50	.30			
17	.03	.40	.50	.98	1.1	.61	14	.50	.30			
18	.34	.47	.50	.78	.98	.54	16	.50	.30			
19	.09	.40	.50	.88	.88	1.2	25	.50	.30			
20	.09	.40	.50	.69	.78	2.3	31	.50	.30			
21	.19	.34	.40	.61	.88	1.6	20	.50	.30			
22	.19	.40	.40	.15	.88	.78	20	.50	.20			
23	.61	.40	.30	.19	.88	.78	21	.50	.20			
24	.54	.40	.30	.23	.69	.69	32	.50	.20			
25	.34	.34	.30	.50	.69	1.3	29	.50	.20			
26	.03	.40	.20	.60	.69	1.5	50	.50	.20			
27	.09	.40	.15	.54	.61	.88	31	.50	---			
28	.12	.54	.15	.47	.54	.88	36	.50	---			
29	.23	.61	.12	.98	---	1.2	41	3.0	---			
30	.28	.61	.23	.98	---	1.7	44	1.0	---			
31	.40	---	.30	.78	---	2.6	---	1.0	---			
TOTAL	5.70	14.57	13.08	18.76	25.35	33.80	516.6	357.50				
MEAN	.18	.49	.42	.61	.91	1.09	17.2	11.5				
MAX	.61	.78	.61	.98	1.7	2.6	50	60				
MIN	.02	.34	.12	.15	.54	.54	1.5	.50				
AC-FT	11	29	26	37	50	67	1020	709				

NOTE.--No gage-height record May 7 to June 26.

06720780 WALNUT CREEK AT ROCKY FLATS PLANT, COLO.

LOCATION.--Lat 39°53'57", long 105°11'03", in NE¼ sec.11, T.2 S., R.70 W., Jefferson County, on right bank 50 ft (15 m) upstream from east section line fence, 0.7 mi (1.1 km) northeast of Rocky Flats plant east guard house, and 5.8 mi (9.3 km) southwest of Broomfield.

DRAINAGE AREA.--7.95 mi^2 (20.59 km^2).

PERIOD OF RECORD.--June 1972 to October 1974 (discontinued).

GAGE.--Water-stage recorder with Ogee control. Altitude of gage is 5,760 ft (1,756 m) from topographic map.

EXTREMES.--June to September 1972: Maximum discharge during period of record, approximately 2.5 ft^3/s (0.071 m^3/s) Aug. 19 (gage height, 1.36 ft or 0.415 m); no flow many days.
October 1972 to September 1973: Maximum discharge, 52 ft^3/s (1.47 m^3/s) May 6 (gage height, 2.76 ft or 0.841 m); no flow many days.
October 1973 to September 1974: Maximum discharge, 3.0 ft^3/s (0.085 m^3/s) Apr. 1 (gage height, 2.32 ft or 0.707 m); no flow many days.
October 1974: No flow.

REMARKS.--Records good except those for period of no gage-height record, which are poor.

COOPERATION.--Rockwell International (formerly Dow Chemical Co.) and the U.S. Energy Research and Development Administration (formerly the U.S. Atomic Energy Commission).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								---	.52		0	.15
2								---	.58		0	.15
3								---	.58		0	.15
4								---	.58		0	.15
5								---	.17		0	.15
6								---	2.0		0	.15
7								---	.58		0	.15
8								---	.21		0	.15
9								---	.08		0	.15
10								---	.08		0	.15
11								---	.05		0	.20
12								---	.05		0	.40
13								---	.03		0	.72
14								---	.03		0	.40
15								---	.01		0	.11
16								---	0		0	.03
17								---	.01		0	.01
18								---	.03		0	0
19								---	.01		.10	.05
20								---	0		.30	0
21								---	0		.15	0
22								.21	0		.15	0
23								.25	0		.15	0
24								.30	.01		1.5	0
25								.35	0		1.0	0
26								.35	0		.50	0
27								.40	0		.50	0
28								.30	0		.25	.98
29								.35	0		.15	.01
30								.40	0		.15	0
31								.46	---		.15	---
TOTAL									5.61	0	5.05	4.41
MEAN									.19	0	.16	.15
MAX									2.0	0	1.5	.98
MIN									0	0	0	0
AC-FT									11	0	10	8.7

06720780 WALNUT CREEK AT ROCKY FLATS PLANT, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.05	.11	.05	.30	.25	.87	7.8	.14	.01		0
2	0	.14	.11	.05	.30	.25	2.0	13	.05	.01		0
3	0	.14	.08	.05	.30	.65	3.2	9.5	.03	.01		0
4	0	.17	.11	.05	.30	.65	3.2	9.0	.14	.01		0
5	0	.11	.05	.05	.30	.79	2.0	8.3	.11	.01		0
6	0	.05	.05	.05	.30	.46	1.4	21	.05	.01		0
7	.01	.05	.05	.05	.30	.58	2.9	7.8	.05	.01		0
8	.03	.03	.05	.05	.20	.52	5.0	1.8	.03	.01		0
9	.05	.03	.05	.05	.20	.72	6.6	1.3	.03	.01		0
10	0	.03	.05	.05	.25	.72	6.6	.87	.01	.01		0
11	0	0	.05	.05	.30	.52	6.6	.65	.01	.01		.40
12	0	0	.05	.15	.30	.46	8.0	.52	.03	.01		.14
13	.03	0	.05	.30	.30	.52	3.9	.46	.05	.01		.01
14	0	0	.05	.30	.25	.17	1.5	.40	.05	.01		0
15	.05	0	.05	.30	.25	.30	2.4	.35	0	.01		0
16	0	0	.05	.30	.25	.30	2.2	.30	.01	.01		0
17	0	0	.05	.30	.25	.30	.95	.21	0	.01		0
18	0	0	.05	.30	.25	.30	1.3	.25	0	.01		0
19	0	0	.05	.30	.25	.95	.95	.25	.01	.01		0
20	0	0	.03	.30	.25	.87	4.2	.17	.01	.03		0
21	0	0	.01	.30	.25	.95	2.1	.40	.01	.21		0
22	0	0	.01	.30	.25	.58	1.7	.58	.01	.08		0
23	0	0	0	.30	.25	.35	4.1	.25	.01	.03		0
24	0	0	0	.30	.30	.30	6.0	.21	.01	.02		0
25	.01	0	0	.30	.30	.95	6.6	.30	.01	.03		0
26	.01	0	0	.30	.30	.87	7.6	.11	.01	0		0
27	0	.01	.05	.30	.30	.52	6.2	.03	.01	0		0
28	0	0	.05	.30	.30	.79	5.3	.01	.01	0		0
29	0	0	.05	.30	---	1.4	5.3	.14	.01	0		.25
30	.03	.11	.05	.30	---	1.9	6.2	1.8	.01	0		.30
31	.05	---	.05	.30	---	1.6	---	.35	---	0		---
TOTAL	.27	.92	1.46	6.40	7.65	20.49	116.87	88.11	.91	.59	0	1.10
MEAN	.009	.031	.047	.21	.27	.66	3.90	2.84	.030	.019	0	.037
MAX	.05	.17	.11	.30	.30	1.9	8.0	21	.14	.21	0	.40
MIN	0	0	0	.05	.20	.17	.87	.01	0	0	0	0
AC-FT	.5	1.8	2.9	13	15	41	232	175	1.8	1.2	0	2.2

WTR YR 1973 TOTAL 244.77 MEAN .67 MAX 21 MIN 0 AC-FT 486

06720780 WALNUT CREEK AT ROCKY FLATS PLANT, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	.11	.26	.50	.84	1.1	2.2				---	
2	.21	0	.01	.50	.42	1.2	2.2				---	
3	0	0	.01	.50	.38	1.1	2.2				---	
4	0	0	.01	.50	.52	.87	1.9				---	
5	0	0	.01	.50	.33	.80	1.8				---	
6	0	.05	.01	.50	.19	.97	2.2				---	
7	0	.52	.01	.50	.35	.95	2.3				---	
8	0	0	.01	.50	.48	1.0	2.3				0	
9	0	0	.03	.50	.51	.96	2.3				0	
10	0	0	.68	.50	.52	1.2	2.3				0	
11	0	0	1.4	.50	.70	1.1	---				0	
12	0	0	.03	.50	.61	1.1	---				0	
13	0	0	.01	.50	.65	1.1	---				0	
14	0	0	.01	.55	.73	1.1	---				0	
15	0	0	.01	.66	1.2	1.2	---				0	
16	0	0	.01	1.3	.78	1.2	---				0	
17	.35	0	.01	1.9	.74	1.3	---				0	
18	.10	0	.01	2.1	.90	1.8	---				0	
19	0	0	.02	2.0	.75	1.9	---				0	
20	0	0	.09	1.6	.67	2.0	---				0	
21	0	.08	.24	1.2	.46	1.5	---				0	
22	0	.02	.58	.58	.72	1.5	---				0	
23	0	0	.67	.59	.70	1.5	---				0	
24	0	0	.44	1.0	.59	1.9	---				0	
25	0	0	.41	1.3	1.0	2.5	---				0	
26	0	0	.47	1.1	.89	2.2	---				0	
27	0	.01	.56	.88	1.1	2.2	---				0	
28	0	.01	.65	.90	1.0	2.2	---				0	
29	0	.01	.50	.81	---	2.2	---				0	
30	0	.33	.50	.81	---	2.2	---				0	
31	.40	---	.50	.81	---	2.5	---				0	---
TOTAL	1.98	1.14	8.16	26.59	18.73	46.35						0
MEAN	.064	.038	.26	.86	.67	1.50						0
MAX	.92	.52	1.4	2.1	1.2	2.5						0
MIN	0	0	.01	.50	.19	.80						0
AC-FT	3.9	2.3	16	53	37	92						0

06720780 WALNUT CREEK AT ROCKY FLATS PLANT, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0											
2	0											
3	0											
4	0											
5	0											
6	0											
7	0											
8	0											
9	0											
10	0											
11	0											
12	0											
13	0											
14	0											
15	0											
16	0											
17	0											
18	0											
19	0											
20	0											
21	0											
22	0											
23	0											
24	0											
25	0											
26	0											
27	0											
28	---											
29	---											
30	---											
31	---											
TOTAL												
MEAN												
MAX												
MIN												
AC-FT												

06720790 SOUTH WALNUT CREEK AT ROCKY FLATS PLANT, COLO.

LOCATION.--Lat 39°54'14", long 105°11'03", in NE¼ sec.11, T.2 S., R.70 W., Jefferson County, on left bank 10 ft (3 m) upstream from east section line fence, 0.6 mi (1.0 km) northeast of Rocky Flats plant east guard house, and 5.9 mi (9.5 km) southwest of Broomfield.

DRAINAGE AREA.--0.46 mi^2 (1.19 km^2).

PERIOD OF RECORD.--July 1972 to October 1974 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,800 ft (1,768 m) from topographic map.

EXTREMES.--July to September 1972: Maximum discharge during period, 2.7 ft^3/s (0.076 m^3/s) Sept. 11 (gage height, 1.42 ft or 0.433 m); minimum daily, 0.02 ft^3/s (<0.001 m^3/s) Sept. 25.
October 1972 to September 1973: Maximum discharge, about 50 ft^3/s (1.42 m^3/s) May 6 (gage height unknown); no flow Oct. 14-18.
October 1973 to September 1974: Maximum discharge, about 8.0 ft^3/s (0.23 m^3/s) June 8 (gage height unknown); minimum daily, 0.01 ft^3/s (<0.001 m^3/s) several days.
October 1974: Maximum discharge, about 0.9 ft^3/s (0.025 m^3/s) date unknown (gage height, about 2.0 ft or 0.6 m); minimum daily, 0.01 ft^3/s (<0.001 m^3/s) Oct. 5, 19, and 26.

REMARKS.--Records good until May 6, 1973, and poor thereafter.

COOPERATION.--Rockwell International (formerly Dow Chemical Co.) and the U.S. Energy Research and Development Administration (formerly the U.S. Atomic Energy Commission).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1971 TO SEPTEMBER 1972
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									---	.42	.10	1.0
2									---	.37	.10	.75
3									---	.42	.10	.28
4									---	.47	.10	.28
5									---	.28	.10	.37
6									---	.47	.10	.32
7									---	.47	.15	.16
8									---	.37	.15	.32
9									---	.24	.12	.42
10									---	.28	.16	.32
11									---	.47	.16	.58
12									---	.42	.16	.88
13									---	.37	.09	.20
14									---	.37	.12	.47
15									---	.37	.28	.58
16									---	.28	.58	.52
17									---	.24	.42	.20
18									---	.37	.24	.32
19									---	.37	.52	.47
20									---	.37	.42	.47
21									---	.42	.20	.63
22									---	.28	.28	.24
23									---	.20	.28	.07
24									---	.32	1.6	.04
25									---	.47	.58	.02
26									.28	.52	.42	.16
27									.37	.40	.32	.63
28									.37	.35	.28	.63
29									.42	.30	.37	.52
30									.42	.20	.32	.37
31									---	.15	.32	---
TOTAL										11.03	9.14	12.22
MEAN										.36	.29	.41
MAX										.52	1.6	1.0
MIN										.15	.09	.02
AC-FT										22	18	24

06720790 SOUTH WALNUT CREEK AT ROCKY FLATS PLANT, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1972 TO SEPTEMBER 1973
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.20	.32	.25	.30	.35	.28	.28	1.6	.50	.12	.20	.28
2	.69	.47	.25	.30	.35	.37	1.4	1.3	.50	.16	.20	.16
3	.12	.75	.25	.30	.35	.47	2.2	.12	.50	.20	.20	.12
4	.09	.75	.25	.30	.35	.47	.88	.16	.50	.16	.20	.16
5	.07	.58	.25	.30	.32	.42	.69	.12	.50	.16	.20	.28
6	.04	.42	.25	.30	.37	.42	.75	40	.50	.20	.20	.16
7	.04	.37	.25	.30	.32	.42	.81	20	.50	.16	.20	.28
8	.04	.37	.25	.30	.32	.37	.81	10	.50	.12	.10	.28
9	.04	.37	.25	.30	.32	.32	1.1	5.0	.50	.12	.10	.20
10	.02	.32	.25	.32	.24	.32	1.4	4.0	.50	.20	.10	.30
11	.02	.28	.30	.32	.20	.24	1.6	3.0	.50	.20	.10	1.0
12	.01	.28	.30	.32	.32	.20	1.6	2.0	.50	.20	.10	.50
13	.01	.42	.30	.35	.28	.24	1.2	1.0	.50	.32	.10	.30
14	0	.42	.30	.35	.28	.20	1.2	.50	.50	.20	.10	.30
15	0	.42	.30	.35	.28	.20	1.0	.50	.50	.28	.05	.30
16	0	.42	.30	.35	.28	.20	.52	.50	.50	.58	.05	.30
17	0	.42	.30	.35	.28	.28	.52	.50	.50	.47	.05	.30
18	0	.32	.30	.35	.20	.63	.52	.50	.50	.37	.05	.30
19	.07	.16	.30	.35	.20	.58	1.4	.50	.50	.42	.05	.30
20	.16	.16	.30	.35	.32	.47	.69	.50	.40	.42	.05	.28
21	.52	.32	.30	.35	.32	.42	.52	.50	.40	.75	.05	.28
22	.28	.28	.30	.35	.32	.37	.31	.50	.24	.16	.10	.28
23	.20	.28	.30	.35	.28	.32	.42	.50	.24	.20	.10	.20
24	.58	.16	.30	.35	.24	.32	.42	.50	.16	.28	.07	.12
25	.88	.09	.30	.35	.16	.52	1.0	.50	.16	.32	.16	.04
26	.75	.25	.30	.35	.16	.28	.69	.50	.16	.24	.09	.04
27	.52	.25	.30	.35	.28	.28	.09	.50	.16	.32	.12	.20
28	.37	.25	.30	.35	.28	.37	.09	.50	.16	.24	.24	.60
29	.28	.25	.30	.35	---	.42	.09	.50	.16	.16	.28	1.0
30	.24	.25	.30	.35	---	.37	.20	.50	.20	.16	.24	.52
31	.28	---	.30	.35	---	.32	---	.50	---	.20	.28	---
TOTAL	6.52	10.40	8.80	10.31	7.97	11.09	24.40	97.30	11.94	8.09	4.13	9.38
MEAN	.21	.35	.28	.33	.28	.36	.81	3.14	.40	.26	.13	.31
MAX	.88	.75	.30	.35	.37	.63	2.2	40	.50	.75	.28	1.0
MIN	0	.09	.25	.30	.16	.20	.09	.12	.16	.12	.05	.04
AC-FT	13	21	17	20	16	22	48	193	24	16	8.2	19

WTR YR 1973 TOTAL 210.33 MEAN .58 MAX 40 MIN 0 AC-FT 417

NOTE.--No gage-height record Dec. 29 to Feb. 4, May 16 to June 21.

06720790 SOUTH WALNUT CREEK AT ROCKY FLATS PLANT, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.52	.52	.10	.29	.20	.53	.47	.06	.01	.01	.01
2	.20	.64	.02	.10	.14	.20	.19	.37	.06	.01	.02	.14
3	.20	.48	.04	.10	.03	.20	1.0	.10	.02	.06	.01	.06
4	.20	.54	.37	.10	.28	.20	.17	.09	.24	.02	.01	.08
5	.20	.02	.58	.10	.17	.20	.56	.44	.21	.01	.03	.01
6	.10	.35	.02	.10	.29	.20	.10	.06	.13	.01	.01	.01
7	.10	.45	.44	.10	.30	.20	.10	.36	.44	.03	.01	.02
8	.10	.01	.44	.10	.35	.20	.50	.10	2.4	.01	.05	.06
9	.20	.01	.02	.10	.30	.20	.33	.28	1.0	.01	.04	.01
10	.05	.01	.02	.10	.27	.20	.79	.12	.10	.01	.01	.01
11	.40	.01	.07	.10	.24	.20	.10	.05	.01	.01	.04	.03
12	.50	.01	.71	.10	.16	.20	.37	.13	.01	.02	.10	.13
13	.05	.01	.05	.10	.32	.20	.31	.32	.01	.01	.07	.08
14	.05	.01	.16	.42	.19	.20	.83	.04	.01	.01	.05	.01
15	.05	.01	.92	.51	.20	.20	1.1	.23	.01	.02	.02	.05
16	.04	.01	.07	.60	.20	.20	.63	.03	.01	.01	.03	.05
17	.50	.01	.02	.37	.20	.20	.49	.33	.01	.02	.01	.03
18	.32	.01	.39	1.7	.20	.20	.24	.03	.01	.01	.03	.03
19	.57	.01	.43	.59	.20	.20	.41	.03	.01	.05	.06	.01
20	.81	.01	.63	.16	.20	.20	.17	.30	.01	.01	.02	.02
21	.09	.50	.74	.33	.20	.50	.16	.02	.01	.01	.04	.02
22	.07	.50	.36	.39	.20	2.0	.43	.26	.01	.20	.02	.01
23	.46	.01	.06	.34	.20	.50	.33	.06	.01	.01	.04	.01
24	.24	.01	.23	.56	.20	.20	.38	.31	.01	.02	.01	.03
25	.09	.01	.35	.60	.20	.20	.18	.04	.01	.01	.01	.04
26	.68	.50	.21	.43	.20	.20	.44	.03	.01	.03	.05	.01
27	.57	.01	.33	.22	.20	.58	.11	.02	.01	.01	.08	.03
28	.04	.01	.30	.26	.20	.10	.10	.02	.01	.01	.05	.03
29	.02	.01	.46	.12	---	.69	1.0	.20	.01	.02	.12	.01
30	.35	.50	.11	.55	---	.10	.61	.03	.01	.01	.06	.03
31	.05	---	.10	.29	---	.14	---	.01	---	.02	.01	---
TOTAL	8.30	5.19	9.17	9.74	6.08	9.21	12.66	4.89	4.86	.70	1.12	1.07
MEAN	.27	.17	.30	.31	.22	.30	.42	.16	.16	.023	.036	.036
MAX	1.0	.64	.92	1.7	.35	2.0	1.1	.47	2.4	.20	.12	.14
MIN	.02	.01	.02	.10	.03	.10	.10	.01	.01	.01	.01	.01
AC-FT	16	10	18	19	12	18	25	9.7	9.6	1.4	2.2	2.1

WTR YR 1974 TOTAL 72.99 MEAN .20 MAX 2.4 MIN .01 AC-FT 145

NOTE.--No gage-height record Feb. 15 to Mar. 25, indefinite record June 9 to Aug. 23.

06720790 SOUTH WALNUT CREEK AT ROCKY FLATS PLANT, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.36											
2	.06											
3	.36											
4	.06											
5	.01											
6	.35											
7	.09											
8	.47											
9	.61											
10	.17											
11	.26											
12	.57											
13	.19											
14	.34											
15	.19											
16	.08											
17	.20											
18	.06											
19	.01											
20	.13											
21	.10											
22	.19											
23	.05											
24	.15											
25	.06											
26	.01											
27	.10											
28	.06											
29	.16											
30	.17											
31	.18											
TOTAL	5.80											
MEAN	.19											
MAX	.61											
MIN	.01											
AC-FT	12											

06724000 ST. VRAIN CREEK AT LYONS, COLO.

LOCATION.--Lat 40°13'05", long 105°15'34", in NW¼NW¼ sec.20, T.3 N., R.70 W., Boulder County, on left bank 75 ft (23 m) southwest of State Highways 7 and 66 at southeast edge of Lyons, 400 ft (120 m) upstream from St. Vrain Supply Canal, and 0.4 mi (0.6 km) downstream from confluence of North and South St. Vrain Creeks.

DRAINAGE AREA.--212 mi^2 (549 km^2).

PERIOD OF RECORD.--August 1887 to September 1891, June 1895 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Lyons" 1901, 1903.

GAGE.--Water-stage recorder. Altitude of gage is 5,292 ft (1,613 m) from topographic map. Prior to Apr. 6, 1923, nonrecording gages near present site at different datums. Apr. 6, 1923, to Sept. 30, 1956, water-stage recorder at same site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--84 years, 129 ft^3/s (3.653 m^3/s), 93,460 acre-ft/yr (115 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 922 ft^3/s (26.1 m^3/s) June 9 (gage height, 4.94 ft or 1.506 m); minimum daily, 4.5 ft^3/s (0.13 m^3/s) Feb. 18, Mar. 15.
Period of record: Maximum discharge, 10,500 ft^3/s (297 m^3/s) June 22, 1941 (gage height, 9.06 ft or 2.761 m, present datum, from floodmark), from rating curve extended above 2,100 ft^3/s (59 m^3/s) on basis of slope-area measurement at gage height 8.90 ft (2.713 m); no flow Jan. 19, 20, 1922, Jan. 12, 13, 1950.
Outstanding floods occurred in June 1864 and May 1876. Flood in May or June 1894 reached a stage of 9.13 ft (2.783 m), from information by local resident (discharge, about 9,800 ft^3/s or 278 m^3/s). For discussions of these floods, see WSP 997.

REMARKS.--Records good. Diversions above station for irrigation of about 20,000 acres (80.9 km^2). Flow partly regulated by small diversions above station.

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

REVISIONS (WATER YEARS).--WSP 1310: 1898, 1900. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	23	23	14	10	10	20	98	288	472	237	108
2	28	28	20	12	11	11	22	92	380	496	230	108
3	31	31	22	14	10	11	20	92	520	540	216	102
4	30	25	25	14	8.5	9.0	25	88	460	572	198	100
5	34	23	25	12	10	9.5	30	90	380	546	174	92
6	25	23	23	11	10	8.0	31	90	380	546	148	88
7	23	23	20	11	15	10	32	88	472	514	145	83
8	22	25	16	12	14	11	25	88	770	514	151	83
9	21	26	21	11	16	12	25	100	852	533	145	79
10	22	26	21	15	16	12	26	105	730	520	143	67
11	20	23	17	14	12	14	27	113	620	478	157	67
12	39	22	16	15	6.0	14	27	124	578	484	174	67
13	36	27	17	20	7.0	14	31	140	508	444	186	62
14	40	25	15	18	7.0	6.5	32	148	585	416	189	58
15	28	27	15	15	6.5	4.5	28	165	685	432	157	58
16	25	25	17	15	6.0	5.0	23	174	692	432	115	51
17	23	28	20	16	7.5	7.0	36	195	662	502	113	51
18	22	27	17	16	4.5	10	42	212	648	472	110	51
19	17	23	15	12	5.5	12	43	220	662	432	108	51
20	21	21	15	14	8.5	14	55	223	599	416	110	51
21	22	26	17	14	6.0	15	56	226	585	390	115	50
22	25	27	14	14	6.0	16	51	226	552	360	121	48
23	26	26	15	16	7.5	11	58	202	514	355	118	45
24	30	22	16	15	10	14	56	189	502	350	115	43
25	32	25	21	14	9.0	15	95	183	540	332	110	40
26	30	22	23	15	8.5	11	105	183	552	314	118	43
27	26	20	20	11	8.5	17	105	192	514	306	129	43
28	23	25	17	11	9.0	16	102	209	478	278	124	43
29	25	18	17	14	---	17	105	310	449	240	113	44
30	28	21	15	15	---	16	102	195	454	237	110	51
31	23	---	15	14	---	18	---	226	---	240	108	---
TOTAL	827	733	570	434	255.5	370.5	1435	4986	16611	13163	4487	1927
MEAN	26.7	24.4	18.4	14.0	9.13	12.0	47.8	161	554	425	145	64.2
MAX	40	31	25	20	16	18	105	310	852	572	237	108
MIN	17	18	14	11	4.5	4.5	20	88	288	237	108	40
AC-FT	1640	1450	1130	861	507	735	2850	9890	32950	26110	8900	3820

CAL YR 1974 TOTAL 35586.0 MEAN 97.5 MAX 566 MIN 4.0 AC-FT 70580
WTR YR 1975 TOTAL 45799.0 MEAN 125 MAX 852 MIN 4.5 AC-FT 90840

06725500 MIDDLE BOULDER CREEK AT NEDERLAND, COLO.

LOCATION.--Lat 39°57'42", long 105°30'14", in NE¼SE¼ sec.13, T.1 S., R.73 W., Boulder County, on left bank at Nederland just downstream from North Beaver Creek, 1,000 ft (300 m) upstream from Barker Reservoir.

DRAINAGE AREA.--36.2 mi^2 (93.8 km^2).

PERIOD OF RECORD.--June 1907 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder and compound sharp-crested weir. Datum of gage is 8,186.0 ft (2,495.09 m) above mean sea level (Public Service Co. bench mark). Prior to Mar. 18, 1909, at datum 4.0 ft (1.22 m) lower. Mar. 18, 1909, to Apr. 23, 1952, at datum 2.5 ft (0.76 m) lower than present datum.

AVERAGE DISCHARGE.--68 years, 54.3 ft^3/s (1.538 m^3/s), 39,340 acre-ft/yr (48.5 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 496 ft^3/s (14.0 m^3/s) June 8 (gage height, 3.29 ft or 1.003 m); minimum daily, 4.7 ft^3/s (0.13 m^3/s) Feb. 24.
Period of record: Maximum discharge, 811 ft^3/s (23.0 m^3/s) June 2, 1914 (gage height, 5.37 ft or 1.637 m, datum then in use), by computation of peak flow over compound weir; minimum daily, 0.8 ft^3/s (0.023 m^3/s) Jan. 14, 1908.

REMARKS.--Records good. No diversion above station. Flow regulated at times by Jasper Lake (capacity, 326 acre-ft or 402,000 m^3). North Beaver Creek entered Middle Boulder Creek downstream from station June 1 to Dec. 31, 1907, March 1911 to Dec. 31, 1916.

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

REVISIONS.--WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	12	7.1	5.9	5.9	6.1	24	102	302	110	25
2	12	16	8.3	6.9	5.7	6.9	8.5	25	116	328	97	25
3	12	14	8.5	6.5	5.7	6.5	6.9	27	156	325	83	25
4	13	11	8.5	6.3	5.7	6.5	8.1	34	197	307	77	25
5	13	13	8.3	6.1	5.5	6.7	9.8	40	234	289	74	25
6	14	12	8.3	5.9	5.7	6.3	12	36	302	279	72	24
7	14	12	7.9	5.9	5.5	6.5	10	35	346	269	74	22
8	13	12	7.9	6.5	5.7	7.1	8.7	31	434	266	75	22
9	13	13	8.1	6.7	5.7	6.9	8.9	31	323	266	72	22
10	12	11	7.7	6.9	5.5	6.9	8.1	36	229	252	68	25
11	13	9.3	7.7	6.5	5.7	6.7	7.9	48	185	229	64	31
12	18	12	7.9	5.9	5.7	6.7	7.9	59	176	220	64	26
13	17	12	7.5	5.5	5.9	6.5	8.1	59	194	210	77	25
14	19	12	7.7	5.5	5.9	6.5	8.3	78	262	237	71	24
15	15	12	7.5	5.5	5.7	6.5	9.5	101	294	234	59	26
16	15	11	7.5	5.7	5.7	6.5	12	118	323	242	54	34
17	17	11	7.5	5.7	5.5	6.3	14	139	252	244	50	34
18	18	11	8.1	6.1	5.5	5.9	12	151	249	208	46	33
19	16	9.5	8.1	6.1	5.5	7.1	10	176	274	192	43	32
20	14	9.3	7.5	6.1	5.3	7.7	12	194	256	190	41	31
21	14	10	7.7	5.9	5.1	7.7	12	183	254	162	44	30
22	15	10	8.3	6.1	5.1	7.7	14	151	227	151	51	29
23	15	8.7	8.7	6.1	5.3	7.7	18	120	242	143	42	29
24	19	8.5	8.5	5.9	4.7	7.9	22	104	282	130	39	22
25	22	9.5	8.3	6.1	4.9	6.7	27	116	289	114	34	16
26	20	7.9	8.1	6.3	5.1	6.5	34	126	254	108	31	14
27	17	8.9	7.7	6.3	5.5	6.9	37	132	259	102	31	13
28	15	8.3	7.7	6.3	5.5	6.9	31	134	262	101	28	12
29	15	7.7	7.9	6.3	---	8.3	29	114	264	101	28	12
30	15	8.3	7.1	6.1	---	10	25	101	286	108	26	12
31	11	---	7.1	5.9	---	6.3	---	102	---	106	26	---
TOTAL	468	325.9	249.6	190.7	154.2	215.2	437.8	2825	7523	6415	1751	725
MEAN	15.1	10.9	8.05	6.15	5.51	6.94	14.6	91.1	251	207	56.5	24.2
MAX	22	16	12	7.1	5.9	10	37	194	434	328	110	34
MIN	11	7.7	7.1	5.5	4.7	5.9	6.1	24	102	101	26	12
AC-FT	928	646	495	378	306	427	868	5600	14920	12720	3470	1440

CAL YR 1974 TOTAL 21650.9 MEAN 59.3 MAX 372 MIN 5.3 AC-FT 42940
WTR YR 1975 TOTAL 21280.4 MEAN 58.3 MAX 434 MIN 4.7 AC-FT 42210

PEAK DISCHARGE (BASE, 280 FT^3/S).--June 8 (0030) 496 ft^3/s (3.29 ft).

06727000 BOULDER CREEK NEAR ORODELL, COLO.

LOCATION.--Lat 40°00'23", long 105°19'49", in NE¼SW¼ sec.34, T.1 N., R.71 W., Boulder County, on left bank along State Highway 119, 0.7 mi (1.1 km) southwest of old Orodell, 1.1 mi (1.8 km) upstream from Fourmile Creek, and 2.9 mi (4.7 km) southwest of courthouse in Boulder.

DRAINAGE AREA.--102 mi^2 (264 km^2).

PERIOD OF RECORD.--August to October 1887, April to October 1888, October 1906 to November 1914, March 1916 to current year. Monthly discharge only for some periods, published in WSP 1310. Figures of daily discharge for Feb. 3-10, 17-25, 1912, published in WSP 326, have been found to be unreliable and should not be used. Published as North Boulder Creek, Colorado 1887-88 and as "at Orodell" March 1907 to December 1916.

GAGE.--Water-stage recorder. Altitude of gage is 5,826 ft (1,775.8 m) from topographic map. Prior to Sept. 1, 1907, nonrecording gage and Sept. 1, 1907, to May 11, 1917, water-stage recorder, at sites 1.1 mi (1.8 km) downstream, just upstream from Fourmile Creek, at different datums.

AVERAGE DISCHARGE.--67 years (1906-14, 1916-75), 90.0 ft^3/s (2.549 m^3/s), 65,200 acre-ft/yr (80.4 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 460 ft^3/s (13.0 m^3/s) July 3 (gage height, 3.35 ft or 1.021 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Dec. 15, Feb. 8.
Period of record: Maximum discharge, 2,500 ft^3/s (70.8 m^3/s) June 6, 1921 (gage height, 4.31 ft or 1.314 m), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s); minimum daily, 1 ft^3/s (0.03 m^3/s) Jan. 29, Feb. 1-3, 16-24, 1933.
Outstanding floods are known to have occurred in June 1864, May 1876, June 1894 and June 1914, stages and discharges unknown.

REMARKS.--Records good. Flow regulated by Barker Reservoir (capacity, 11,500 acre-ft or 14.2 hm^3). Low flow during non-irrigation season regulated by Orodell powerplant 1,500 ft (460 m) upstream from station.

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

REVISIONS (WATER YEARS).--WSP 1310: 1941(M). WSP 1560: 1914(M). WSP 1730: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	15	9.4	51	4.0	11	16	33	130	395	145	32
2	4.5	7.5	12	47	3.8	4.2	14	39	135	424	140	32
3	4.0	12	13	10	43	40	15	34	137	442	120	33
4	3.8	17	11	4.5	45	51	15	39	136	418	95	33
5	6.4	17	11	4.0	44	54	19	37	128	390	75	42
6	9.9	17	13	44	47	56	19	57	128	375	72	47
7	46	18	19	46	2.7	8.8	18	51	137	350	72	47
8	53	18	5.2	34	2.0	4.9	17	38	188	355	56	38
9	55	18	13	58	2.3	6.0	15	39	173	360	66	35
10	43	18	14	36	46	52	15	40	166	380	70	38
11	54	12	7.2	54	46	5.3	15	59	161	326	66	43
12	58	12	6.7	44	44	53	13	56	170	290	62	50
13	54	15	11	54	46	53	13	86	164	264	95	47
14	54	16	10	53	4.2	9.8	18	90	173	264	111	39
15	43	16	2.0	48	17	13	23	101	167	296	98	35
16	50	20	52	40	3.0	8.2	26	108	237	297	85	25
17	61	20	46	47	2.8	13	40	125	370	323	85	27
18	56	16	47	43	50	7.7	36	157	355	277	77	24
19	53	15	48	43	43	7.5	30	170	375	252	67	20
20	45	15	12	65	50	19	33	199	336	240	58	18
21	57	14	6.6	49	3.7	16	33	213	331	223	58	18
22	23	13	14	44	3.6	8.3	35	195	308	209	70	14
23	13	13	43	41	11	16	34	171	308	193	73	14
24	20	12	49	45	51	15	45	141	331	187	71	13
25	11	16	49	49	52	15	46	122	355	172	57	13
26	8.8	11	48	45	54	14	69	134	317	140	53	13
27	6.1	11	4.0	54	38	11	69	145	308	123	45	13
28	5.8	11	4.0	51	12	12	52	168	371	120	41	12
29	13	11	4.0	49	---	11	37	158	367	120	40	13
30	22	9.0	51	46	---	18	41	109	390	125	35	14
31	20	---	53	11	---	20	---	124	---	142	33	---
TOTAL	958.2	435.5	688.1	1309.5	771.1	633.7	871	3238	7352	8472	2291	842
MEAN	30.9	14.5	22.2	42.2	27.5	20.4	29.0	104	245	273	73.9	28.1
MAX	61	20	53	65	54	56	69	213	390	442	145	50
MIN	3.8	7.5	2.0	4.0	2.0	4.2	13	33	128	120	33	12
AC-FT	1900	864	1360	2600	1530	1260	1730	6420	14580	16800	4540	1670

CAL YR 1974 TOTAL 27725.3 MEAN 76.0 MAX 460 MIN 2.0 AC-FT 54990
WTR YR 1975 TOTAL 27862.1 MEAN 76.3 MAX 442 MIN 2.0 AC-FT 55260

06729500 SOUTH BOULDER CREEK NEAR ELDORADO SPRINGS, COLO.

LOCATION.--Lat 39°55'52", long 105°17'43", in SE¼ sec.26, T.1 S., R.71 W., Boulder County, on left bank 0.2 mi (0.3 km) downstream from South Draw, 1.0 mi (1.6 km) west of Eldorado Springs, 1.8 mi (2.9 km) downstream from South Boulder diversion canal, 5.0 mi (8.0 km) south of Boulder, and 6.7 mi (10.8 km) downstream from Gross Reservoir.

DRAINAGE AREA.--109 mi^2 (282 km^2).

PERIOD OF RECORD.--April 1888 to October 1892, May 1895 to September 1901, August 1904 to current year. No winter records for water years 1889-92, 1900. Monthly discharge only for some periods, published in WSP 1310. Prior to January 1911, published as "at" or "near Marshall;" January 1911 to December 1913 as "at Eldorado Springs." Records for periods June 1900 to September 1901, August 1904 to September 1908, October 1909 to September 1911 are not adjusted for diversions by Community ditch and South Boulder and Coal Creek ditch; all other records contain flow in these ditches.

GAGE.--Water-stage recorder. Altitude of gage is 6,080 ft (1,853 m) from topographic map. See WSP 1710 or 1730 for history of changes prior to May 10, 1940.

AVERAGE DISCHARGE.--69 years (1895-99, 1908-9, 1911-75), 76.1 ft^3/s (2.155 m^3/s), 55,130 acre-ft/yr (68.0 hm^3/yr), adjusted for storage and diversions.

EXTREMES.--Current year: Maximum discharge, 344 ft^3/s (9.74 m^3/s) July 3 (gage height, 3.05 ft or 0.930 m); minimum daily, 3.0 ft^3/s (0.085 m^3/s) Dec. 18, 19.
Period of record: Maximum discharge, 7,390 ft^3/s (209 m^3/s) Sept. 2, 1938 (gage height, 9.24 ft or 2.816 m, from floodmarks, site and datum then in use), from rating curve extended above 600 ft^3/s (17 m^3/s) on basis of slope-area measurement of peak flow; no flow Oct. 15, 1932.

REMARKS.--Records good except those for winter period, which are fair. Many small diversions above station for irrigation. Water is imported above Gross Reservoir from Colorado River basin through Moffat water tunnel (see elsewhere in this report). Flow regulated since May 1, 1955, by Gross Reservoir (capacity, 43,060 acre-ft or 53.1 hm^3), 6.7 mi (10.8 km) above station. City of Denver diverts water 1.8 mi (2.9 km) above station.

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

REVISIONS (WATER YEARS).--WSP 856: 1937(M). WSP 1310: 1937. WSP 1440: 1896. WSP 1710: Drainage area. WSP 1730: 1959-60.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	35	19	9.0	8.0	4.5	17	131	243	302	104	26
2	19	35	19	9.0	7.5	4.5	16	96	262	314	98	28
3	19	36	19	8.5	7.5	4.5	15	72	278	334	94	33
4	19	36	13	8.5	7.5	4.5	14	72	215	306	81	38
5	19	34	7.2	9.0	7.5	26	13	56	203	262	59	31
6	19	33	7.2	9.0	7.5	20	12	45	218	254	67	19
7	19	33	7.2	8.5	7.5	17	12	45	232	236	69	18
8	16	33	7.0	8.0	7.0	17	11	36	243	218	67	21
9	3.7	33	7.0	8.0	7.0	17	10	23	254	250	64	24
10	8.6	33	7.0	8.0	7.0	17	11	24	187	266	59	23
11	12	33	6.0	8.0	7.0	17	10	23	128	254	69	28
12	14	28	6.0	8.0	7.0	17	10	41	131	193	62	36
13	12	25	6.0	8.0	7.0	17	9.5	74	131	212	67	40
14	12	25	6.0	8.0	7.0	17	9.5	81	142	226	76	40
15	11	25	5.5	8.0	7.0	18	9.5	81	147	215	74	31
16	10	25	5.5	8.0	7.0	18	9.5	100	155	246	65	26
17	12	25	4.0	8.0	7.0	22	21	142	155	250	58	19
18	19	25	3.0	8.0	10	21	34	184	144	163	56	14
19	25	25	3.0	8.0	14	21	34	203	144	133	50	25
20	25	25	8.5	8.5	19	21	35	170	152	175	42	36
21	25	25	8.5	8.5	25	21	37	155	175	200	38	36
22	22	25	8.5	8.5	25	21	37	190	187	215	49	25
23	19	25	8.5	8.5	23	20	36	190	209	155	54	16
24	19	25	8.5	8.5	12	19	48	150	226	133	50	16
25	19	24	8.5	8.5	4.5	19	62	128	243	147	43	11
26	19	24	8.5	8.5	4.5	21	60	150	266	126	35	5.6
27	19	25	8.5	8.0	4.5	21	60	190	270	85	32	5.2
28	19	26	8.5	8.0	4.5	21	59	193	278	72	29	4.4
29	19	22	8.5	8.0	---	20	101	222	298	102	28	8.3
30	19	19	9.0	8.0	---	18	133	200	302	126	28	12
31	28	---	9.0	8.0	---	19	---	196	---	111	27	---
TOTAL	541.3	842	260.6	257.0	269.0	541.0	946.0	3663	6218	6281	1794	695.5
MEAN	17.5	28.1	8.41	8.29	9.61	17.5	31.5	118	207	203	57.9	23.2
MAX	28	36	19	9.0	25	26	133	222	302	334	104	40
MIN	3.7	19	3.0	8.0	4.5	4.5	9.5	23	128	72	27	4.4
AC-FT	1070	1670	517	510	534	1070	1880	7270	12330	12460	3560	1380

CAL YR 1974 TOTAL 26158.4 MEAN 71.7 MAX 445 MIN 3.0 AC-FT 51890
WTR YR 1975 TOTAL 22308.4 MEAN 61.1 MAX 334 MIN 3.0 AC-FT 44250

NOTE.--No gage-height record Dec. 9 to Mar. 14.

06730300 COAL CREEK NEAR PLAINVIEW, COLO.

LOCATION.--Lat 39°52'40", long 105°16'36", in SE¼NE¼ sec.13, T.2 S., R.71 W., Jefferson County, on left bank 100 ft (30 m) upstream from culvert on State Highway 72, 1.2 mi (1.9 km) south of Plainview, 4.9 mi (7.9 km) downstream from Beaver Creek, and 9 mi (14 km) north of Golden.

DRAINAGE AREA.--15.1 mi^2 (39.1 km^2).

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,540 ft (1,993 m) from topographic map. Prior to June 17, 1964, water-stage recorder at site 60 ft (18 m) downstream at datum 4.49 ft (1.369 m) lower.

AVERAGE DISCHARGE.--16 years, 4.53 ft^3/s (0.128 m^3/s), 3,280 acre-ft/yr (4.04 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 76 ft^3/s (2.15 m^3/s) June 3 (gage height, 1.59 ft or 0.485 m); minimum daily, 0.03 ft^3/s (0.001 m^3/s) Sept. 6-10, 13-16.
Period of record: Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) May 7, 1969 (gage height, 5.30 ft or 1.615 m), from rating curve extended above 730 ft^3/s (21 m^3/s); no flow for many days in most years.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.55	.45	.20	.28	.61	.67	6.5	49	3.9	.73	.04
2	.12	.61	.40	.20	.22	.93	.86	6.0	58	3.2	.67	.04
3	.12	.79	.40	.10	.22	.93	1.1	5.8	64	2.7	.45	.03
4	.12	.73	.40	.15	.22	.79	1.8	5.4	56	2.6	.36	.04
5	.12	.79	.40	.20	.22	.79	2.9	5.8	39	2.1	.28	.04
6	.12	.86	.45	.25	.15	.79	3.0	5.4	29	2.1	.22	.03
7	.14	.79	.45	.32	.20	.73	2.9	5.4	22	1.8	.16	.03
8	.14	.79	.50	.28	.20	.73	2.6	5.1	20	1.9	.14	.03
9	.12	.79	.50	.25	.20	.73	2.6	4.8	18	1.9	.12	.03
10	.14	.73	.45	.20	.30	.67	2.6	4.3	23	2.1	.10	.03
11	.16	.67	.45	.15	.30	.61	2.4	4.1	27	2.3	.08	.05
12	1.1	.61	.45	.10	.35	.86	2.6	4.3	31	1.6	.08	.05
13	.93	.61	.40	.15	.40	1.1	2.7	6.5	31	1.3	.16	.03
14	.93	.67	.40	.20	.40	1.0	2.9	6.1	29	1.3	.50	.03
15	.93	.73	.36	.25	.30	.93	3.0	6.5	23	1.5	.79	.03
16	.79	.67	.36	.20	.20	.93	3.2	6.5	20	1.3	.40	.03
17	.67	.67	.36	.20	.25	1.0	3.5	6.9	18	1.6	.45	.04
18	.55	.67	.36	.25	.25	.86	3.5	6.5	17	1.0	.25	.05
19	.45	.55	.32	.25	.30	1.0	4.1	5.4	14	.93	.14	.06
20	.45	.55	.32	.25	.30	1.2	6.5	5.1	12	1.2	.12	.06
21	.40	.55	.28	.30	.30	1.2	6.5	5.1	10	1.3	.10	.06
22	.45	.55	.32	.30	.30	1.2	6.9	5.4	9.0	1.2	.12	.06
23	.45	.61	.32	.30	.35	.93	6.9	5.4	9.0	.93	.10	.05
24	.50	.50	.20	.30	.40	.79	6.5	4.3	8.2	1.1	.08	.06
25	.86	.55	.20	.35	.40	.73	7.7	4.1	6.5	.86	.06	.08
26	.79	.40	.25	.40	.45	.73	8.2	3.9	5.8	.61	.05	.06
27	.67	.50	.25	.45	.45	.73	8.6	3.7	5.1	.55	.05	.08
28	.55	.45	.30	.45	.45	.67	8.2	6.9	4.8	.45	.05	.08
29	.55	.55	.25	.45	---	.86	7.7	20	4.3	.40	.05	.08
30	.67	.55	.25	.45	---	.61	6.9	27	4.1	.55	.04	.10
31	.61	---	.20	.36	---	.67	---	42	---	.67	.04	---
TOTAL	14.72	19.04	11.00	8.26	8.36	26.31	129.53	240.2	666.8	46.95	6.94	1.48
MEAN	.47	.63	.35	.27	.30	.85	4.32	7.75	22.2	1.51	.22	.049
MAX	1.1	.86	.50	.45	.45	1.2	8.6	42	64	3.9	.79	.10
MIN	.12	.40	.20	.10	.15	.61	.67	3.7	4.1	.40	.04	.03
AC-FT	29	38	22	16	17	52	257	476	1320	93	14	2.9

CAL YR 1974 TOTAL 1157.67 MEAN 3.17 MAX 27 MIN .01 AC-FT 2300
WTR YR 1975 TOTAL 1179.59 MEAN 3.23 MAX 64 MIN .03 AC-FT 2340

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, COLO.

LOCATION.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., Weld County, on right bank 140 ft (43 m) downstream from bridge on county road, 1.3 mi (2.1 km) upstream from mouth, and 4.2 mi (6.8 km) northwest of Platteville.

DRAINAGE AREA.--976 mi^2 (2,528 km^2).

PERIOD OF RECORD.--July 1904 to December 1906, April to December 1915, March 1927 to current year. Prior to October 1933 monthly discharge only, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft (1,445 m) from topographic map. See WSP 1730 for history of changes prior to Apr. 25, 1960.

AVERAGE DISCHARGE.--50 years (1904-6, 1927-75), 204 ft^3/s (5.777 m^3/s), 147,800 acre-ft/yr (182 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,420 ft^3/s (40.2 m^3/s) June 11 (gage height, 4.24 ft or 1.292 m); minimum daily, 72 ft^3/s (2.04 m^3/s) May 10.
Period of record: Maximum discharge, 11,300 ft^3/s (320 m^3/s) Sept. 3, 1938 (gage height, 8.93 ft or 2.722 m, site and datum then in use), from rating curve extended above 4,700 ft^3/s (133 m^3/s); minimum daily, 12 ft^3/s (0.34 m^3/s) Apr. 23, 1935.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 177,000 acres (716 km^2). Flow partly regulated by many small reservoirs above station. Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 956: 1938(M). WSP 1440: 1934, 1935(M). WSP 1730: 1958, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	166	191	139	173	125	136	115	189	279	152	316	162
2	168	182	143	189	112	124	120	176	342	170	352	159
3	168	183	148	197	106	116	124	167	587	194	355	170
4	155	212	152	180	121	129	131	163	566	211	299	197
5	149	202	156	164	130	138	138	163	450	221	259	216
6	153	193	155	155	111	132	126	149	326	237	243	224
7	157	186	154	170	163	131	114	117	267	223	257	199
8	168	182	147	195	149	117	99	101	540	241	251	192
9	170	184	139	189	102	108	92	87	1060	268	262	197
10	167	178	148	185	140	107	89	72	1060	395	266	193
11	166	172	144	162	165	116	91	73	1240	334	272	213
12	228	166	138	123	156	122	109	89	966	276	263	252
13	251	161	129	167	160	124	109	123	794	262	446	339
14	218	162	134	231	158	123	110	148	770	256	526	333
15	227	163	131	236	145	114	104	125	985	326	524	337
16	215	163	126	193	133	108	101	109	1030	365	474	314
17	203	166	147	172	134	106	95	91	1170	391	430	289
18	193	166	160	161	130	105	114	114	1260	332	389	264
19	196	165	161	145	151	108	144	136	1270	262	327	275
20	202	160	154	144	165	107	138	134	1070	254	283	255
21	204	159	149	154	166	108	127	141	892	248	276	257
22	204	161	140	145	141	115	117	142	819	239	266	240
23	190	160	124	128	123	106	111	161	645	242	284	198
24	187	158	142	144	125	104	109	143	508	262	272	187
25	191	157	151	146	153	97	118	126	466	248	210	185
26	186	158	160	141	161	93	151	109	416	258	189	176
27	183	155	183	139	163	81	178	96	360	247	176	168
28	177	154	176	141	155	97	199	114	251	237	197	176
29	174	149	170	128	---	129	199	680	201	225	209	172
30	183	139	163	138	---	113	185	861	150	239	200	183
31	202	---	177	143	---	113	---	352	---	302	186	---
TOTAL	5801	5087	4640	5078	3943	3527	3757	5451	20740	8117	9259	6722
MEAN	187	170	150	164	141	114	125	176	691	262	299	224
MAX	251	212	183	236	166	138	199	861	1270	395	526	339
MIN	149	139	124	123	102	81	89	72	150	152	176	159
AC-FT	11510	10090	9200	10070	7820	7000	7450	10810	41140	16100	18370	13330

CAL YR 1974 TOTAL 70920 MEAN 194 MAX 1420 MIN 93 AC-FT 140700
WTR YR 1975 TOTAL 82122 MEAN 225 MAX 1270 MIN 72 AC-FT 162900

06733000 BIG THOMPSON RIVER AT ESTES PARK, COLO.

LOCATION.--Lat 40°22'42", long 105°30'48", in NW¼NW¼ sec.30, T.5 N., R.72 W., Larimer County, on right bank in Estes Park, 600 ft (180 m) downstream from bridge on State Highways 7 and 66, 900 ft (270 m) downstream from Black Canyon Creek, and 0.3 mi (0.5 km) northwest of Estes powerplant. Station is upstream from Lake Estes.

DRAINAGE AREA.--137 mi^2 (486 km^2).

PERIOD OF RECORD.--October 1946 to current year. Prior to October 1947, published as Thompson River at Estes Park.

GAGE.--Water-stage recorder and Parshall flume with overflow weirs. Datum of gage is 7,492.5 ft (2,283.71 m) above mean sea level (levels by Bureau of Reclamation). Prior to May 18, 1949, at site 740 ft (230 m) downstream at different datum. May 18, 1949, to Mar. 22, 1951, at site 60 ft (18 m) upstream at datum 1.2 ft (0.37 m) higher.

AVERAGE DISCHARGE.--29 years, 126 ft^3/s (3.568 m^3/s), 91,290 acre-ft/yr (113 hm^3/yr), adjusted for inflow from Alva B. Adams tunnel Aug. 10, 1947, to Aug. 2, 1950.

EXTREMES.--Current year: Maximum discharge, 968 ft^3/s (27.4 m^3/s) July 3 (gage height, 5.70 ft or 1.737 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Mar. 18, 26.
Period of record: Maximum discharge, 1,660 ft^3/s (47.0 m^3/s) June 18, 1949 (gage height, 3.16 ft or 0.963 m, site and datum then in use); maximum gage height, 6.89 ft (2.100 m) June 17, 1965; minimum discharge not determined.

REMARKS.--Records good except those for winter period, which are fair. Diversion from Colorado River basin to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947, and ended Aug. 2, 1950. Small power developments and small diversions for irrigation and municipal use above station. Diversions above station from Wind River to Lake Estes (bypassing this station) were 1,520 acre-ft (1.87 hm^3) during current year.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	45	21	11	14	12	13	44	227	653	282	73
2	33	47	20	11	14	12	17	40	254	775	250	73
3	32	46	20	11	14	12	19	43	342	793	215	75
4	36	39	20	11	14	13	18	52	435	721	192	71
5	40	42	21	11	14	13	20	66	451	702	178	70
6	41	40	20	12	14	14	23	66	585	630	172	67
7	38	40	18	12	14	14	23	59	685	612	170	64
8	33	38	17	12	13	14	22	56	716	676	179	62
9	32	37	19	12	13	14	21	48	612	664	172	61
10	32	35	18	12	12	15	16	53	469	608	161	62
11	36	34	16	12	12	15	14	64	387	542	155	68
12	51	36	15	12	12	15	15	88	361	502	194	69
13	47	33	13	11	11	15	16	89	396	461	215	66
14	54	34	14	11	11	13	17	115	603	483	216	65
15	48	32	14	11	11	11	22	168	581	538	197	64
16	43	32	14	11	11	11	26	207	704	553	179	60
17	45	30	14	11	12	11	28	262	592	695	168	60
18	46	29	15	12	12	10	26	305	510	527	175	55
19	45	26	16	12	12	12	22	339	596	441	163	53
20	44	30	16	12	12	16	24	328	504	412	152	51
21	41	30	16	13	12	16	29	309	510	410	171	49
22	45	28	16	13	11	13	36	277	463	377	168	47
23	45	26	14	13	11	12	40	227	477	357	136	45
24	53	24	14	13	11	13	44	190	585	344	121	41
25	59	26	14	13	11	11	52	195	690	293	109	40
26	53	24	13	13	11	10	66	185	574	272	100	36
27	51	26	13	13	11	12	77	194	527	262	93	35
28	48	20	12	14	11	12	62	225	574	257	88	34
29	48	18	12	14	---	13	56	218	521	254	86	33
30	54	20	12	14	---	13	49	200	617	263	82	37
31	40	---	11	14	---	13	---	228	---	268	77	---
TOTAL	1347	967	488	377	341	400	913	4940	15548	15345	5016	1686
MEAN	43.5	32.2	15.7	12.2	12.2	12.9	30.4	159	518	495	162	56.2
MAX	59	47	21	14	14	16	77	339	716	793	282	75
MIN	32	18	11	11	11	10	13	40	227	254	77	33
AC-FT	2670	1920	968	748	676	793	1810	9800	30840	30440	9950	3340

CAL YR 1974 TOTAL 40460 MEAN 111 MAX 796 MIN 11 AC-FT 80250
WTR YR 1975 TOTAL 47368 MEAN 130 MAX 793 MIN 10 AC-FT 93950

PEAK DISCHARGE (BASE, 600 FT^3/S).--July 3 (0200) 968 ft^3/s (5.70 ft).

NOTE.--No gage-height record Dec. 15 to Mar. 14.

06735500 BIG THOMPSON RIVER NEAR ESTES PARK, COLO.

LOCATION.--Lat 40°22'35", long 105°29'06", in NE¼NE¼ sec.29, T.5 N., R.72 W., Larimer County, on right bank 100 ft (30 m) upstream from Dry Creek, 600 ft (180 m) downstream from Olympus Dam, and 2.0 mi (3.2 km) east of Estes Park.

DRAINAGE AREA.--156 mi^2 (404 km^2).

PERIOD OF RECORD.--July 1930 to current year. Prior to October 1933 monthly discharge only, published in WSP 1310. Published as Thompson River near Estes Park 1934-47.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,422.5 ft (2,262.38 m) above mean sea level (levels by Bureau of Reclamation). Prior to Jan. 29, 1934, nonrecording gage on highway bridge 1.5 mi (2.4 km) downstream at different datum. Jan. 29, 1934, to Mar. 21, 1951, water-stage recorder at site 0.4 mi (0.6 km) downstream at datum 10.5 ft (3.20 m) lower.

EXTREMES.--Current year: Maximum discharge, 383 ft^3/s (10.8 m^3/s) July 3 (gage height, 3.26 ft or 0.994 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Mar. 3-5.
Period of record: Maximum discharge observed, 2,800 ft^3/s (79.3 m^3/s) June 20, 1933 (gage height, 4.0 ft or 1.22 m, site and datum then in use), from rating curve extended above 460 ft^3/s (13 m^3/s); minimum daily, 4.4 ft^3/s (0.12 m^3/s) Dec. 12, 1940, but may have been less during periods of no gage-height record.

REMARKS.--Records excellent. Low flow regulated by Lake Estes since Nov. 30, 1948. Diversion from Colorado River to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947 (see sta. 09013000 for diversion during current year); since Apr. 15, 1953, this imported water has been diverted from Lakes Estes through Olympus tunnel bypassing this station. Since May 17, 1955, part of the natural flow of Big Thompson River (58,360 acre-ft or 72.0 hm^3 during current year) has also been diverted through Olympus tunnel and returned to the river below the station at mouth of canyon, near Drake. Small power developments and small diversions for irrigation and municipal use above station.

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

REVISIONS (WATER YEARS).--WSP 1310: 1931. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	42	24	13	13	12	16	54	100	111	104	74
2	33	48	24	13	14	12	16	47	100	145	102	50
3	34	48	24	12	14	11	16	43	100	369	102	50
4	33	41	24	12	15	11	16	46	100	316	102	51
5	36	45	22	12	15	11	16	54	100	224	102	50
6	38	40	21	12	15	12	16	70	100	197	102	49
7	40	42	19	12	15	14	16	71	100	118	101	50
8	36	40	17	12	15	14	16	64	174	102	100	50
9	33	38	21	12	16	14	16	58	206	164	99	50
10	33	36	18	13	16	14	16	53	104	155	100	50
11	33	34	17	13	16	15	16	57	102	293	100	50
12	38	35	16	13	16	15	16	68	104	227	100	50
13	50	33	16	13	15	16	16	75	102	184	100	48
14	49	32	14	13	14	16	15	74	102	102	100	49
15	54	31	13	13	14	16	15	75	102	102	100	49
16	47	31	13	13	14	16	15	75	104	102	99	49
17	43	29	13	12	14	16	22	75	209	229	99	49
18	45	27	13	12	14	16	28	75	102	171	100	48
19	47	25	13	12	15	16	25	75	104	101	99	49
20	45	30	13	12	15	16	26	75	104	102	100	49
21	44	30	13	12	15	16	32	75	105	104	100	49
22	44	28	13	13	15	16	40	75	102	104	100	49
23	47	26	13	13	14	16	45	75	102	102	99	47
24	48	27	13	13	13	16	49	75	102	102	99	45
25	55	30	13	13	13	16	59	75	214	102	99	42
26	59	28	13	13	13	16	71	74	185	102	75	41
27	56	28	13	12	13	16	84	73	102	102	75	39
28	50	22	13	12	12	16	68	75	101	102	76	37
29	49	21	13	12	---	16	64	75	101	102	77	36
30	50	26	13	13	---	16	62	76	102	102	76	36
31	54	---	13	14	---	16	---	76	---	102	76	---
TOTAL	1359	993	498	389	403	459	928	2108	3535	4640	2963	1435
MEAN	43.8	33.1	16.1	12.5	14.4	14.8	30.9	68.0	118	150	95.6	47.8
MAX	59	48	24	14	16	16	84	76	214	369	104	74
MIN	33	21	13	12	12	11	15	43	100	101	75	36
AC-FT	2700	1970	988	772	799	910	1840	4180	7010	9200	5880	2850

CAL YR 1974 TOTAL 27609 MEAN 75.6 MAX 568 MIN 12 AC-FT 54760
WTR YR 1975 TOTAL 19710 MEAN 54.0 MAX 369 MIN 11 AC-FT 39090

06738000 BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE, COLO.

LOCATION.--Lat 40°25'18", long 105°13'34", in SW¼SW¼ sec.3, T.5 N., R.70 W., Larimer County, on right bank at mouth of canyon, 400 ft (120 m) upstream from Handy Ditch diversion dam and 6.0 mi (9.7 km) east of Drake.

DRAINAGE AREA.--304 mi^2 (787 km^2).

PERIOD OF RECORD.--August 1887 to September 1892, May 1895 to September 1903, October 1926 to September 1933 (no winter records prior to October 1932, except water years 1927-28), April 1938 to September 1949, March 1951 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as Big Thompson Creek at Arkins 1887-92, Big Thompson Creek near Arkins 1901-3, and as Thompson River at mouth of canyon, near Drake 1927-30, 1938-47.

GAGE.--Water-stage recorder. Datum of gage is 5,297.47 ft (1,614.669 m) above mean sea level (Bureau of Reclamation bench mark). See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1949.

EXTREMES.--Current year: Maximum discharge, 560 ft^3/s (15.9 m^3/s) July 3 (gage height, 3.04 ft or 0.927 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Nov. 30.
Period of record: Maximum discharge, 7,600 ft^3/s (215 m^3/s) July 19, 1945 (gage height, 7.55 ft or 2.301 m, site and datum then in use), from rating curve extended above 2,200 ft^3/s (62 m^3/s); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Dec. 10-21, 1969.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation. Diversions from Colorado River to Big Thompson River basin above station through Alva B. Adams tunnel began Aug. 10, 1947 (see sta. 09013000 for diversion for water year 1973); since Apr. 15, 1953, this imported water has been diverted from Lake Estes through Olympus tunnel bypassing this station. Part of the natural flow of Big Thompson River has also been diverted through Olympus tunnel since May 17, 1955 (58,360 acre-ft or 72.0 hm^3 during current year), and Dille tunnel since Apr. 20, 1959 (9,740 acre-ft or 12.0 hm^3 during current year), and returned to the river just below this station.

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

REVISIONS (WATER YEARS).--WSP 1310: 1891, 1927. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	54	22	25	18	23	26	91	130	249	134	69
2	50	67	31	24	20	23	32	83	96	282	132	76
3	43	70	39	23	20	22	39	72	81	452	97	76
4	49	60	42	22	19	22	35	76	143	456	74	76
5	48	54	47	18	18	22	34	85	219	358	89	72
6	54	60	40	18	16	22	35	97	261	324	93	70
7	40	60	31	21	21	22	35	49	285	267	137	69
8	27	60	18	21	19	26	35	21	334	240	156	67
9	23	64	16	21	21	25	34	62	306	279	151	64
10	38	55	26	18	24	24	34	85	225	288	151	74
11	48	48	27	18	23	25	34	44	89	348	151	70
12	38	49	27	19	23	23	33	29	51	318	151	70
13	30	58	26	16	25	22	33	69	47	267	166	69
14	63	46	23	18	24	27	33	85	200	231	163	70
15	73	50	17	18	23	29	34	85	291	228	158	70
16	62	46	18	18	22	28	38	82	318	231	156	69
17	62	44	25	18	24	29	40	85	386	321	153	67
18	62	49	25	17	21	26	60	93	340	303	148	67
19	64	44	22	17	21	30	49	99	321	225	146	67
20	64	37	22	16	18	30	52	127	297	205	144	65
21	60	48	22	16	24	32	60	79	294	205	146	65
22	58	48	26	15	18	26	69	60	282	194	146	65
23	62	43	21	18	21	26	80	50	267	194	141	65
24	64	36	14	18	24	21	85	50	270	196	136	50
25	72	44	28	18	22	26	97	55	327	183	136	46
26	76	43	23	18	21	27	112	50	372	156	95	38
27	72	39	25	18	19	27	132	52	279	148	74	52
28	49	42	33	16	21	19	112	75	255	127	72	55
29	22	18	30	16	---	19	108	73	243	112	70	54
30	30	10	27	18	---	28	98	78	246	114	70	52
31	26	---	25	19	---	32	---	112	---	125	69	---
TOTAL	1581	1446	818	576	590	783	1698	2253	7255	7626	3905	1939
MEAN	51.0	48.2	26.4	18.6	21.1	25.3	56.6	72.7	242	246	126	64.6
MAX	76	70	47	25	25	32	132	127	386	456	166	76
MIN	22	10	14	15	16	19	26	21	47	112	69	38
AC-FT	3140	2870	1620	1140	1170	1550	3370	4470	14390	15130	7750	3850

CAL YR 1974 TOTAL 30530 MEAN 83.6 MAX 632 MIN 10 AC-FT 60560
WTR YR 1975 TOTAL 30470 MEAN 83.5 MAX 456 MIN 10 AC-FT 60440

06744000 BIG THOMPSON RIVER AT MOUTH, NEAR LA SALLE, COLO.

LOCATION.--Lat 40°21'00", long 104°47'04", in SW¼SE¼ sec.33, T.5 N., R.66 W., Weld County, on left bank just southeast of gage on Evans Town ditch, 0.7 mi (1.1 km) upstream from highway bridge, 1.6 mi (2.6 km) upstream from mouth, and 4.2 mi (6.8 km) west of La Salle.

DRAINAGE AREA.--828 mi² (2,145 km²).

PERIOD OF RECORD.--April 1914 to October 1915, March 1927 to current year. Prior to October 1933 monthly discharge only, published in WSP 1310. Published as Thompson River at mouth, near La Salle, 1934-47.

GAGE.--Water-stage recorder. Altitude of gage is 4,680 ft (1,426 m) from topographic map. Apr. 1, 1914, to Oct. 31, 1915, nonrecording gage and Mar. 1, 1927, to Sept. 30, 1951, water-stage recorder, at bridge 0.7 mi (1.1 km) downstream at different datums. Datum lowered 0.50 ft (0.152 m) May 21, 1962.

EXTREMES.--Current year: Maximum discharge, 902 ft³/s (25.5 m³/s) June 18 (gage height, 4.28 ft or 1.305 m); minimum daily, 15 ft³/s (0.42 m³/s) May 19.
Period of record: Maximum discharge, 6,100 ft³/s (173 m³/s) Aug. 4, 1951 (gage height, 7.80 ft or 2.377 m, site and datum then in use), from rating curve extended above 4,500 ft³/s (127 m³/s); maximum gage height, 8.72 ft (2.658 m) May 9, 1957, present datum; no flow at times in 1934-35, 1948.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 95,000 acres (384 km²) above station, and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 976: 1941(M). WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	48	94	74	66	66	64	66	151	200	39	109	66
2	46	94	77	67	64	64	61	141	195	51	105	60
3	48	95	78	69	60	64	60	129	153	64	98	54
4	44	95	77	70	60	60	66	122	116	98	91	58
5	45	96	77	72	53	60	72	111	98	66	91	61
6	46	93	78	70	54	58	74	98	85	96	91	63
7	50	93	77	67	66	58	67	84	78	82	89	58
8	52	91	75	72	67	60	63	74	116	82	177	60
9	60	89	75	66	58	60	66	66	200	87	193	57
10	75	89	78	64	63	61	61	53	120	102	193	61
11	75	87	77	61	61	61	66	43	120	93	195	173
12	91	85	75	58	67	60	70	34	155	84	193	225
13	93	85	75	61	63	60	72	40	155	67	344	220
14	91	85	74	64	66	60	70	27	137	70	275	218
15	91	85	74	64	67	60	67	17	452	94	232	210
16	89	85	74	61	60	60	63	16	744	112	208	198
17	87	85	74	57	60	57	63	19	807	175	193	195
18	87	85	75	72	60	56	77	20	807	162	188	208
19	89	85	75	66	60	56	84	15	695	166	186	208
20	85	84	70	63	61	56	77	27	619	129	182	202
21	85	84	75	66	60	56	70	56	651	147	193	193
22	89	84	74	58	58	57	69	82	579	122	191	191
23	87	84	70	67	60	54	66	122	524	114	184	191
24	91	80	67	66	61	51	67	72	395	114	112	173
25	94	80	69	66	64	54	118	25	359	109	111	98
26	91	80	70	66	61	56	151	32	430	103	102	64
27	89	78	75	66	61	32	179	40	323	100	89	54
28	89	80	77	66	63	44	198	58	184	100	87	54
29	94	77	74	63	---	74	170	346	105	96	78	56
30	102	72	72	64	---	70	166	238	60	94	72	63
31	98	---	70	67	---	67	---	153	---	105	72	---
TOTAL	2401	2579	2302	2025	1724	1810	2619	2511	9662	3123	4724	3792
MEAN	77.5	86.0	74.3	65.3	61.6	58.4	87.3	81.0	322	101	152	126
MAX	102	96	78	72	67	74	198	346	807	175	344	225
MIN	44	72	67	57	53	32	60	15	60	39	72	54
AC-FT	4760	5120	4570	4020	3420	3590	5190	4980	19160	6190	9370	7520

CAL YR 1974 TOTAL 33883 MEAN 92.8 MAX 514 MIN 15 AC-FT 67210
WTR YR 1975 TOTAL 39272 MEAN 108 MAX 807 MIN 15 AC-FT 77900

06746100 JOE WRIGHT CREEK NEAR CAMERON PASS, COLO.

LOCATION.--Lat 40°32'49", long 105°52'31", in SW¼NW¼ sec.25, T.7 N., R.76 W., Larimer County, on left bank 1,850 ft (560 m) downstream from Montgomery Creek, 1.0 mi (1.6 km) upstream from Joe Wright Reservoir dam, 1.9 mi (3.1 km) northeast of Cameron Pass, and 8 mi (13 km) east of Gould.

DRAINAGE AREA.--5.05 mi² (13.08 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,910 ft (3,021 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 154 ft³/s (4.36 m³/s) July 1, 2 (gage height, 4.28 ft or 1.305 m); minimum daily, 0.22 ft³/s (0.006 m³/s) Mar. 17-19, 31, Apr. 3, 4.
Period of record: Maximum discharge, 154 ft³/s (4.36 m³/s) July 1, 2, 1975 (gage height, 4.28 ft or 1.305 m); minimum daily, 0.22 ft³/s (0.006 m³/s) Mar. 17-19, 31, Apr. 3, 4, 1975.

REMARKS.--Records good except those for winter period, which are poor. Transbasin diversions from North Platte River basin to Cache la Poudre River basin enter above this station (see elsewhere in this report).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	1.7	.66	.56	.40	.30	.28	.80	7.2	116	15	2.1
2	1.1	2.0	.64	.56	.40	.28	.25	.80	10	125	12	2.0
3	1.1	1.9	.62	.56	.40	.30	.22	.70	17	121	11	2.0
4	1.6	1.4	.62	.56	.39	.30	.22	.80	26	118	9.8	2.0
5	1.6	1.3	.62	.56	.38	.28	.25	1.0	36	110	9.4	1.9
6	1.4	1.3	.60	.54	.38	.30	.26	1.1	46	107	8.7	1.9
7	1.2	1.3	.60	.54	.38	.30	.28	1.0	53	96	8.7	1.7
8	1.1	1.3	.60	.54	.38	.28	.28	1.0	61	96	8.2	1.7
9	1.0	1.3	.60	.54	.37	.28	.25	.90	48	87	7.7	2.0
10	1.1	1.2	.60	.54	.36	.30	.25	1.0	28	76	7.4	2.7
11	1.3	1.1	.58	.54	.35	.30	.28	1.1	18	67	8.2	2.3
12	1.8	1.0	.58	.54	.35	.28	.25	1.6	16	58	7.4	2.0
13	1.7	1.0	.58	.54	.35	.28	.25	1.8	28	51	5.9	1.9
14	1.8	.90	.58	.54	.35	.28	.25	2.6	37	50	5.7	1.9
15	1.5	.90	.58	.54	.34	.28	.25	3.3	45	49	4.9	1.9
16	1.4	.80	.58	.52	.33	.28	.28	3.9	48	49	4.1	1.7
17	1.7	.80	.58	.50	.32	.22	.30	9.8	39	44	4.0	1.6
18	1.8	.90	.58	.50	.32	.22	.30	13	49	37	3.8	1.4
19	1.6	1.0	.58	.50	.32	.22	.30	14	49	33	3.7	1.4
20	1.5	.80	.58	.50	.31	.25	.25	20	46	32	3.7	1.4
21	1.5	.80	.58	.50	.31	.25	.25	20	44	31	4.1	1.4
22	1.5	.70	.58	.50	.30	.25	.40	13	39	28	4.0	1.4
23	1.4	.80	.58	.50	.30	.25	.50	11	45	26	3.7	1.4
24	2.1	.70	.58	.48	.30	.25	.40	8.3	56	23	3.2	1.3
25	2.0	.70	.58	.45	.30	.28	.80	9.5	64	20	2.9	1.3
26	1.5	.80	.56	.42	.30	.30	.90	8.9	61	19	2.7	1.3
27	1.3	.70	.56	.40	.30	.28	1.2	7.9	64	17	2.6	1.2
28	1.2	.70	.56	.40	.30	.25	1.0	8.5	68	16	2.6	1.2
29	1.2	.68	.56	.40	---	.25	.80	7.6	96	16	2.3	1.2
30	1.2	.66	.56	.35	---	.25	.90	6.3	110	16	2.3	1.2
31	2.0	---	.56	.40	---	.26	---	6.6	---	15	2.1	---
TOTAL	45.4	31.14	18.22	15.52	9.59	8.40	12.40	187.80	1354.2	1749	181.8	50.4
MEAN	1.46	1.04	.59	.50	.34	.27	.41	6.06	45.1	56.4	5.86	1.68
MAX	2.1	2.0	.66	.56	.40	.30	1.2	20	110	125	15	2.7
MIN	1.0	.66	.56	.35	.30	.22	.22	.70	7.2	15	2.1	1.2
AC-FT	90	62	36	31	19	17	25	373	2690	3470	361	100

CAL YR 1974 TOTAL 4330.09 MEAN 11.9 MAX 107 MIN .25 AC-FT 8590
WTR YR 1975 TOTAL 3663.87 MEAN 10.0 MAX 125 MIN .22 AC-FT 7270

PEAK DISCHARGE (BASE, 110 FT³/S).--July 1 (1700) 154 ft³/s (4.28 ft).

NOTE.--No gage-height record Nov. 28 to Jan. 26.

06748600 SOUTH FORK CACHE LA POUDRE RIVER NEAR RUSTIC, COLO.

LOCATION.--Lat 40°38'49", long 105°29'35", in SW¼ sec.20, T.8 N., R.72 W., Larimer County, on left bank 5.7 mi (9.2 km) upstream from mouth, 6 mi (10 km) southeast of Rustic, and 22 mi (35 km) west of Fort Collins.

DRAINAGE AREA.--90.3 mi^2 (234 km^2).

PERIOD OF RECORD.--August 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7,596.86 ft (2,315.523 m) above mean sea level (Bureau of Reclamation bench mark).

AVERAGE DISCHARGE.--19 years, 65.1 ft^3/s (1.844 m^3/s) 47,160 acre-ft/yr (58.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 446 ft^3/s (12.6 m^3/s) July 16, 17 (gage height, 3.65 ft or 1.113 m); minimum daily, 9.0 ft^3/s (0.25 m^3/s) Feb. 22.
Period of record: Maximum discharge, 1,260 ft^3/s (35.7 m^3/s) June 17, 1965 (gage height, 5.05 ft or 1.539 m), from rating curve extended above 780 ft^3/s (22 m^3/s); minimum not determined.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Slight regulation by small reservoirs and lakes.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	22	12	11	10	11	11	16	91	338	159	37
2	18	22	12	11	10	11	11	16	111	374	145	35
3	18	22	12	11	10	11	12	17	156	362	139	36
4	18	22	12	11	10	11	12	19	190	334	154	34
5	19	22	12	11	10	11	12	21	196	331	160	32
6	20	22	12	11	10	11	12	18	226	315	155	31
7	20	21	12	11	10	11	12	17	245	300	153	30
8	18	20	10	11	10	11	12	16	244	272	145	29
9	18	20	11	11	10	11	12	16	232	275	134	29
10	18	20	11	11	10	11	11	17	197	276	121	29
11	21	18	11	10	10	10	11	20	183	253	113	30
12	25	18	11	10	10	10	11	22	203	233	108	31
13	24	18	11	10	10	11	11	21	221	225	117	30
14	26	18	11	11	10	12	11	25	288	227	131	32
15	23	18	11	11	10	13	11	31	327	226	129	28
16	24	18	11	11	10	13	12	39	359	258	125	26
17	25	18	11	11	10	13	11	79	330	333	124	25
18	24	18	11	11	10	13	11	80	312	254	120	24
19	23	18	11	11	10	13	10	88	337	230	118	24
20	22	18	11	11	10	13	10	87	305	226	115	23
21	22	18	11	11	9.5	13	12	97	304	224	117	23
22	24	18	11	11	9.0	13	14	72	293	193	119	23
23	23	18	11	11	10	13	16	60	281	179	113	22
24	28	18	11	11	11	13	19	52	298	170	112	21
25	31	18	11	11	11	13	22	54	332	153	114	21
26	26	17	11	10	11	13	23	50	295	136	117	21
27	24	16	11	10	11	13	21	51	318	124	116	21
28	23	15	11	10	11	12	19	66	328	120	110	20
29	22	14	11	10	---	11	17	65	314	171	104	19
30	26	14	11	10	---	11	16	63	328	171	93	21
31	20	---	11	10	---	11	---	81	---	161	63	---
TOTAL	691	559	347	332	283.5	367	405	1376	7844	7444	3843	807
MEAN	22.3	18.6	11.2	10.7	10.1	11.8	13.5	44.4	261	240	124	26.9
MAX	31	22	12	11	11	13	23	97	359	374	160	37
MIN	18	14	10	10	9.0	10	10	16	91	120	63	19
AC-FT	1370	1110	688	659	562	728	803	2730	15560	14770	7620	1600

CAL YR 1974 TOTAL 28206.4 MEAN 77.3 MAX 510 MIN 8.4 AC-FT 55950
WTR YR 1975 TOTAL 24298.5 MEAN 66.6 MAX 374 MIN 9.0 AC-FT 48200

PEAK DISCHARGE (BASE, 250 FT^3/S).--July 16 (2400) 446 ft^3/s (3.65 ft).

NOTE.--No gage-height record Nov. 11 to May 1.

TRANSBASIN DIVERSIONS FROM NORTH PLATTE RIVER BASIN TO CACHE LA POUDRE RIVER BASIN IN COLORADO

The following seven diversions, which are equipped with water-stage recorders, divert water from tributaries of the North Platte River to the Cache la Poudre River or its tributaries. Records furnished by Colorado Division of Water Resources.

06745500 Cameron Pass ditch diverts water from tributaries of Michigan River in sec.10, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746000 Michigan ditch diverts water from Michigan River, headgate in sec.12, T.6 N., R.76 W., and many small tributaries and Agnes Creek (tributary to Michigan River), headgate in sec.15, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746500 Skyline ditch diverts water from West Branch Laramie River (tributary to Laramie River), headgate in sec.14, T.8 N., R.76 W., to Chambers Lake (tributary to Cache la Poudre River) in sec.31, T.8 N., R.75 W.

06747000 Laramie-Poudre tunnel diverts water from Laramie River in sec.7, T.8 N., R.75 W., and Rawah Creek (tributary to Laramie River) in sec.14, T.9 N., R.76 W., to Cache la Poudre River in sec.9, T.8 N., R.75 W.

06747200 Bob Creek ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.9, T.9 N., R.75 W., to Roaring Creek (tributary to Cache la Poudre River) in sec.11, T.9 N., R.75 W.

06750000 Columbine ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.3, T.9 N., R.75 W., to North Fork Cache la Poudre River (tributary to Cache la Poudre River) in sec.25, T.10 N., R.75 W.

06750500 Wilson supply ditch diverts water from Sand Creek in sec.22, T.11 N., R.75 W., and at times includes water diverted from tributaries of Deadman Creek in sec.9, T.10 N., R.75 W. Diversion is from the Laramie River basin to Sheep Creek (tributary to North Fork Cache la Poudre River) in sec.23, T.11 N., R.75 W., in the Cache la Poudre River basin. Records represent total flow diverted from the Laramie River basin by Wilson supply ditch.

REVISIONS (WATER YEARS).--WSP 1310: 1945, 1947.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

Month	06745500 Cameron Pass ditch	06746000 Michigan ditch	06746500 Skyline ditch	06747000 Laramie-Poudre tunnel	06747200 Bob Creek ditch	06750000 Columbine ditch	06750500 Wilson supply ditch
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	0	104	0	2,750	0	0	374
June	60	360	266	1,490	0	0	1,420
July	216	1,160	1,410	9,930	0	0	159
August	0	90	0	2,960	0	0	0
September	0	0	0	0	0	0	0
Water year 1975	276	1,710	1,680	17,130	0	0	1,950

06752000 CACHE LA POUDRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS, COLO.

LOCATION.--Lat 40°39'52", long 105°13'26", in NW¼ sec.15, T.8 N., R.70 W., Larimer County, on left bank at mouth of canyon, 0.5 mi (0.8 km) downstream from headgate of Poudre Valley Canal, 1.2 mi (1.9 km) upstream from Lewstone Creek, and 9.3 mi (15.0 km) northwest of courthouse in Fort Collins.

DRAINAGE AREA.--1,055 mi^2 (2,732 km^2).

PERIOD OF RECORD.--June to August 1881, May to July 1883, October 1883 to current year. Monthly discharge only for some periods, published in WSP 1310. Records for Mar. 23 to Apr. 30 and July 4 to Aug. 20, 1883, published in WSP 9, have been found to be unreliable and should not be used. Prior to 1902, published as Cache la Poudre Creek or River at or near Fort Collins.

GAGE.--Water-stage recorder. Altitude of gage is 5,220 ft (1,591 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 2,510 ft^3/s (71.1 m^3/s) July 3 (gage height, 4.94 ft or 1.506 m); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Jan. 12.
Period of record: Maximum discharge not determined, occurred May 20, 1904; maximum discharge determined, 21,000 ft^3/s (595 m^3/s) June 9, 1891 (from reports of State engineer of Colorado), caused by failure of Chambers Lake Dam; minimum daily discharge, 1.6 ft^3/s (0.045 m^3/s) Nov. 20, 28, 1948, caused by diversion of Poudre Valley Canal 0.5 mi (0.8 km) upstream.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transbasin and transmountain diversions (see elsewhere in this report), diversions above station for irrigation of about 50,000 acres (202 km^2), most of which is below station (77,240 acre-ft or 95.2 hm^3 during current year), and diversions for municipal use (11,930 acre-ft or 14.7 hm^3 during current year). Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 1310: 1885-87, 1889, 1892, 1894-96, 1934. WSP 1730: 1960, drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	57	16	9.0	15	20	15	53	330	2150	492	212
2	24	61	17	9.0	15	19	14	36	437	2250	460	257
3	24	64	25	11	12	19	18	35	888	2290	369	266
4	33	58	35	13	11	15	17	28	1100	2120	342	212
5	32	47	45	15	10	17	19	32	1120	2120	300	194
6	44	54	47	16	10	17	34	48	1260	2050	275	168
7	45	66	36	14	12	16	40	66	1510	1950	270	82
8	43	75	32	13	12	15	33	135	1510	1900	266	78
9	40	78	25	12	12	22	24	252	1510	2000	234	73
10	37	70	23	11	15	21	24	248	1250	1890	208	95
11	40	44	23	9.5	15	20	27	315	1180	1510	190	112
12	96	38	25	8.0	15	15	22	428	1120	1180	198	110
13	117	53	22	12	15	16	22	446	1080	1270	234	92
14	117	46	20	17	13	18	25	380	1420	1240	305	90
15	117	39	22	16	11	21	26	315	1470	1260	325	84
16	103	48	25	11	12	17	33	295	1850	1320	290	75
17	103	38	26	12	13	16	37	410	1930	1610	290	63
18	100	45	27	15	13	15	45	550	1700	1130	320	55
19	105	47	25	14	13	20	33	619	2050	896	295	73
20	105	29	26	14	13	37	27	605	1760	848	230	90
21	103	32	30	14	12	27	32	591	1710	992	230	78
22	103	55	27	12	12	28	34	544	1510	856	239	66
23	105	48	20	14	14	23	42	446	1460	752	212	48
24	110	40	10	15	17	13	50	386	1530	696	208	47
25	122	24	8.5	15	14	20	50	404	1880	619	266	54
26	115	43	9.0	16	13	16	60	320	1820	538	315	48
27	90	24	9.5	15	16	15	71	386	1620	472	330	42
28	82	22	10	14	18	8.8	70	369	1800	422	310	30
29	80	20	10	14	---	14	58	305	1860	446	257	36
30	73	18	10	14	---	17	58	160	2110	512	226	68
31	68	---	10	14	---	22	---	266	---	498	212	---
TOTAL	2392	1383	696.0	408.5	373	579.8	1060	9473	43775	39787	8698	2998
MEAN	77.2	46.1	22.5	13.2	13.3	18.7	35.3	306	1459	1283	281	99.9
MAX	122	78	47	17	18	37	71	619	2110	2290	492	266
MIN	16	18	8.5	8.0	10	8.8	14	28	330	422	190	30
AC-FT	4740	2740	1380	810	740	1150	2100	18790	86830	78920	17250	5950

CAL YR 1974 TOTAL 132238.0 MEAN 362 MAX 2580 MIN 8.5 AC-FT 262300
WTR YR 1975 TOTAL 111623.3 MEAN 306 MAX 2290 MIN 8.0 AC-FT 221400

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, COLO.

LOCATION.--Lat 40°35'17", long 105°04'08", in NE¼SW¼ sec.12, T.7 N., R.69 W., Larimer County, on left bank 150 ft (46 m) downstream from Lincoln Ave. Bridge, and 2,200 ft (670 m) east of intersection of College Ave. (U.S. Highway 287) and Mountain Ave. in Fort Collins.

DRAINAGE AREA.--1,127 mi² (2,919 km²).

PERIOD OF RECORD.--April to September 1975.

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft (1,506 m) from topographic map.

EXTREMES.--Maximum discharge during period April to September, 2,200 ft³/s (62.3 m³/s) June 19 (gage height, 5.93 ft or 1.807 m); minimum daily, 2.3 ft³/s (0.065 m³/s) May 4, Sept. 23.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation, and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							---	4.8	14	452	70	2.8
2							---	3.1	7.5	406	115	29
3							---	2.6	309	372	32	43
4							---	2.3	402	276	32	23
5							---	2.4	261	225	13	7.3
6							---	2.4	308	358	12	6.6
7							---	2.5	574	360	17	5.9
8							6.0	2.6	925	318	33	5.5
9							6.0	2.6	783	649	15	4.2
10							5.7	5.8	548	1450	3.9	2.8
11							11	21	573	823	47	4.1
12							6.4	16	549	283	61	5.0
13							5.6	14	499	286	141	4.2
14							5.2	7.3	636	104	33	2.6
15							5.0	11	629	111	30	11
16							5.1	24	771	161	11	5.3
17							10	17	880	360	6.0	5.7
18							9.8	103	803	72	26	8.5
19							5.5	174	1770	172	19	13
20							5.7	152	1620	130	33	25
21							5.3	118	1510	196	31	4.1
22							5.3	62	1280	85	66	10
23							5.3	21	1170	51	36	2.3
24							5.3	9.3	950	72	13	2.4
25							5.3	83	900	52	25	18
26							5.1	61	735	53	39	6.3
27							5.3	65	427	24	74	5.2
28							4.8	108	434	19	35	5.3
29							5.4	65	390	37	13	5.0
30							5.4	6.0	451	99	4.0	12
31							---	11	---	50	2.9	---
TOTAL								1179.7	21108.5	8106	1088.8	285.1
MEAN								38.1	704	261	35.1	9.50
MAX								174	1770	1450	141	43
MIN								2.3	7.5	19	2.9	2.3
AC-FT								2340	41870	16080	2160	565

06752500 CACHE LA POUDRE RIVER NEAR GREELEY, COLO.

LOCATION.--Lat 40°25'04", long 104°38'22", in NW¼ sec.11, T.5 N., R.65 W., Weld County, on right bank 25 ft (8 m) downstream from highway bridge, 2.9 mi (4.7 km) east of courthouse in Greeley, and 3.0 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--1,877 mi^2 (4,861 km^2).

PERIOD OF RECORD.--March to October 1903, August to November 1904, January 1914 to December 1919, June 1924 to current year. Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 4,610 ft (1,405 m) from topographic map. See WSP 1710 or 1730 for history of changes prior to Dec. 14, 1933.

AVERAGE DISCHARGE.--56 years (1914-19, 1924-75), 105 ft^3/s (2.974 m^3/s), 76,070 acre-ft/yr (93.8 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,730 ft^3/s (49.0 m^3/s) June 20 (gage height, 5.67 ft or 1.728 m); minimum daily, 9.8 ft^3/s (0.28 m^3/s) May 17.
Period of record: Maximum daily discharge, 4,220 ft^3/s (120 m^3/s) June 24, 26, 1917; minimum daily, 0.8 ft^3/s (0.023 m^3/s) Oct. 3, 1946.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions above station for irrigation of about 250,000 acres (1,010 km^2), and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 1440: 1935, 1938(M), 1942-43. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	105	150	148	132	128	126	88	111	220	64	52	27
2	107	148	154	137	130	122	90	117	181	44	43	28
3	101	162	152	128	141	122	94	109	159	39	34	22
4	92	164	154	134	128	128	100	107	191	34	22	30
5	88	152	164	132	101	132	100	111	234	57	27	37
6	90	145	171	132	103	124	107	93	157	105	37	30
7	92	148	181	139	130	117	94	58	162	70	43	27
8	87	148	181	128	130	117	88	52	360	62	44	22
9	85	145	171	139	109	115	94	43	565	66	37	18
10	101	145	171	120	126	113	83	29	399	507	28	21
11	103	148	166	113	126	109	90	25	431	1030	22	44
12	198	141	159	109	124	96	92	25	534	464	28	54
13	225	132	159	128	130	87	94	64	480	145	76	58
14	212	126	159	148	126	90	90	57	419	87	105	54
15	194	126	152	148	120	90	90	31	480	85	98	52
16	206	128	154	143	110	96	87	17	336	87	78	55
17	196	124	148	141	105	105	90	9.8	516	152	54	55
18	178	122	143	145	109	111	107	28	560	178	48	58
19	174	141	134	139	111	115	101	45	975	103	43	62
20	181	169	117	141	111	120	90	39	1610	96	38	48
21	178	166	126	145	100	128	83	36	1400	107	42	44
22	171	162	128	130	98	109	87	50	1320	92	39	34
23	178	166	111	150	109	96	78	55	1140	87	28	40
24	165	169	105	166	120	88	119	48	980	103	28	78
25	175	174	90	157	113	87	126	43	614	107	28	96
26	178	166	100	150	111	90	126	36	650	83	40	122
27	178	164	126	148	113	67	128	26	452	52	33	141
28	171	162	128	143	124	64	134	85	191	62	29	164
29	162	145	139	134	---	72	137	562	148	52	40	164
30	164	137	137	132	---	78	122	281	94	39	29	171
31	164	---	137	124	---	94	---	225	---	55	25	---
TOTAL	4699	4475	4465	4255	3286	3208	3009	2617.8	15958	4314	1318	1856
MEAN	152	149	144	137	117	103	100	84.4	532	139	42.5	61.9
MAX	225	174	181	166	141	132	137	562	1610	1030	105	171
MIN	85	122	90	109	98	64	78	9.8	94	34	22	18
AC-FT	9320	8880	8860	8440	6520	6360	5970	5190	31650	8560	2610	3680

CAL YR 1974 TOTAL 57752.3 MEAN 158 MAX 1810 MIN 7.3 AC-FT 114600
WTR YR 1975 TOTAL 53460.8 MEAN 146 MAX 1610 MIN 9.8 AC-FT 106000

06754000 SOUTH PLATTE RIVER NEAR KERSEY, COLO.

LOCATION.--Lat 40°24'44", long 104°33'46", in NW¼SW¼ sec.9, T.5 N., R.64 W., Weld County, on downstream side of bridge on State Highway 37, 1.9 mi (3.1 km) north of railroad in Kersey, and 2.5 mi (4.0 km) downstream from Cache la Poudre River.

DRAINAGE AREA.--9,598 mi^2 (24,859 km^2).

PERIOD OF RECORD.--May 1901 to December 1903, March 1905 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Kersey" 1901-3.

GAGE.--Water-stage recorder. Datum of gage is 4,575.77 ft (1,394.695 m) above mean sea level. See WSP 1710 or 1730 for history of changes prior to July 3, 1935.

AVERAGE DISCHARGE.--72 years, 778 ft^3/s (22.03 m^3/s), 563,700 acre-ft/yr (695 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 5,500 ft^3/s (156 m^3/s) June 20 (gage height, 6.70 ft or 2.042 m); minimum daily, 118 ft^3/s (3.34 m^3/s) May 11, 12.
Period of record: Maximum discharge, 31,500 ft^3/s (892 m^3/s) May 8, 1973 (gage height, 11.73 ft or 3.575 m); minimum daily, 28 ft^3/s (0.79 m^3/s) Apr. 30, 1955.

REMARKS.--Records good. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, groundwater withdrawals and diversions for irrigation of about 888,000 acres (3,590 km^2), and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1310: 1902, 1906, 1935(M). WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	594	860	730	643	587	714	650	730	1710	247	450	300
2	594	790	730	636	580	682	833	643	1480	198	411	291
3	594	806	756	622	587	682	824	554	1340	208	416	305
4	574	887	756	643	580	690	806	450	1370	355	416	370
5	594	924	764	629	515	730	764	345	1070	578	340	438
6	608	833	790	622	491	706	738	273	943	1190	315	438
7	601	798	806	622	548	690	698	215	924	905	305	444
8	615	869	798	643	530	690	636	171	1120	682	335	433
9	594	878	764	650	509	622	608	165	2200	1130	406	473
10	601	869	764	636	560	594	587	147	2310	1620	406	497
11	608	860	772	574	587	587	580	118	3750	2140	400	601
12	722	851	756	525	622	587	615	118	2990	1180	400	781
13	1360	860	747	560	608	560	601	168	2570	601	656	943
14	1140	860	714	670	601	567	580	514	2240	406	3150	981
15	1060	914	714	740	615	560	515	455	2800	480	1910	972
16	1010	896	714	730	608	554	467	315	3180	1160	1530	952
17	924	887	690	706	650	554	455	231	3530	2120	1200	1010
18	878	905	730	722	666	548	491	219	4030	2370	1120	1040
19	869	905	714	714	682	554	629	268	4940	1580	772	972
20	860	934	674	690	714	554	764	231	5200	1360	629	905
21	833	914	698	706	706	548	650	247	4850	1810	567	833
22	815	851	682	698	690	541	594	278	4220	1660	541	806
23	833	851	601	706	674	515	541	411	3470	1020	450	772
24	798	851	594	730	690	491	560	806	2890	815	400	764
25	824	842	580	730	682	491	587	455	2190	851	380	756
26	842	851	594	706	714	497	643	291	2100	924	350	747
27	833	806	594	666	714	467	666	208	1600	636	315	690
28	815	790	658	650	738	467	851	222	924	491	291	690
29	790	764	658	601	---	615	914	2120	554	395	315	714
30	806	730	650	601	---	706	798	3920	370	315	310	772
31	869	---	622	608	---	698	---	2010	---	335	305	---
TOTAL	24458	25636	21814	20379	17448	18461	19645	17298	72865	29762	19791	20690
MEAN	789	855	704	657	623	596	655	558	2429	960	638	690
MAX	1360	934	806	740	738	730	914	3920	5200	2370	3150	1040
MIN	574	730	580	525	491	467	455	118	370	198	291	291
AC-FT	48510	50850	43270	40420	34610	36620	38970	34310	144500	59030	39260	41040

CAL YR 1974 TOTAL 325492 MEAN 892 MAX 6710 MIN 184 AC-FT 645600
WTR YR 1975 TOTAL 308247 MEAN 845 MAX 5200 MIN 118 AC-FT 611400

06758500 SOUTH PLATTE RIVER NEAR WELDONA, COLO.

LOCATION.--Lat 40°19'19", long 103°55'17", in SW¼SW¼ sec.7, T.4 N., R.58 W., Morgan County, on left bank 400 ft (120 m) downstream from bridge on State Highway 144, 2.8 mi (4.5 km) southeast of Weldona, and 4.2 mi (6.8 km) upstream from Bijou Creek.

DRAINAGE AREA.--13,245 mi^2 (34,305 km^2).

PERIOD OF RECORD.--October 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,307.80 ft (1,313.017 m) above mean sea level.

AVERAGE DISCHARGE.--23 years, 571 ft^3/s (16.17 m^3/s), 413,700 acre-ft/yr (510 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,750 ft^3/s (106 m^3/s) June 21 (gage height, 6.76 ft or 2.060 m); minimum daily, 58 ft^3/s (1.64 m^3/s) Apr. 19.
Period of record: Maximum discharge, 26,800 ft^3/s (759 m^3/s) May 8, 1973 (gage height, 11.68 ft or 3.560 m), from rating curve extended above 16,000 ft^3/s (453 m^3/s); minimum daily, 39 ft^3/s (1.10 m^3/s) May 19, 1972.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by trans-mountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS.--WSP 1710: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	588	496	402	518	611	402	392	550	1370	147	187	428
2	572	501	343	480	572	387	397	459	954	153	410	438
3	629	496	307	534	528	368	418	392	732	147	491	438
4	611	491	312	518	480	368	334	307	665	139	443	438
5	594	501	312	480	443	368	260	165	665	210	302	507
6	512	501	298	464	353	387	210	84	653	624	252	583
7	338	392	312	501	507	377	170	176	550	938	241	566
8	290	358	325	464	683	368	160	277	464	860	218	578
9	260	368	320	578	641	363	150	248	611	770	281	588
10	241	397	307	594	707	348	120	222	1230	930	307	545
11	241	423	298	459	732	305	160	204	1490	1120	312	353
12	256	377	348	400	665	255	150	187	2600	1280	325	377
13	325	353	392	450	635	226	130	298	2230	738	860	507
14	694	338	372	525	594	215	110	302	1920	523	797	588
15	665	307	407	600	377	211	90	438	1720	423	1920	635
16	594	298	372	700	298	208	77	528	2220	443	1430	623
17	539	290	325	825	256	204	66	397	2490	867	1170	583
18	470	285	229	744	252	131	60	312	2790	1580	909	611
19	418	277	198	695	252	105	58	294	3030	1320	719	635
20	485	269	222	534	256	88	117	343	3490	930	507	600
21	501	264	215	475	260	83	358	320	3630	811	433	572
22	496	256	215	448	245	282	285	363	3250	1130	363	539
23	485	237	208	480	233	320	181	433	2950	860	433	507
24	496	233	211	475	248	294	222	233	2310	566	418	475
25	485	233	350	443	260	273	290	208	1820	507	387	459
26	491	237	539	454	285	138	412	153	1260	600	402	433
27	496	252	611	470	368	119	485	136	1060	617	368	412
28	485	241	641	464	372	360	566	142	701	423	368	480
29	475	222	600	448	---	501	647	302	312	334	338	701
30	459	201	545	459	---	659	659	1530	165	248	412	665
31	464	---	518	572	---	402	---	2380	---	215	443	---
TOTAL	14655	10094	11054	16251	12113	9115	7734	12383	49332	20453	16446	15864
MEAN	473	336	357	524	433	294	258	399	1644	660	531	529
MAX	694	501	641	825	732	659	659	2380	3630	1580	1920	701
MIN	241	201	198	400	233	83	58	84	165	139	187	353
AC-FT	29070	20020	21930	32230	24030	18080	15340	24560	97850	40570	32620	31470

CAL YR 1974 TOTAL 213927 MEAN 586 MAX 3780 MIN 165 AC-FT 424300
WTR YR 1975 TOTAL 195494 MEAN 536 MAX 3630 MIN 58 AC-FT 387800

06760000 SOUTH PLATTE RIVER AT BALZAC, COLO.

LOCATION.--Lat 40°24'24", long 103°27'58", in NE¼NE¼ sec.13, T.5 N., R.55 W., Morgan County, on right bank just upstream from highway bridge at Balzac siding, 2.8 mi (4.5 km) northeast of Union and 7.0 mi (11.3 km) downstream from Beaver Creek.

DRAINAGE AREA.--16,852 mi^2 (43,647 km^2).

PERIOD OF RECORD.--October 1916 to current year. Prior to October 1933 monthly discharge only, published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 4,091.06 ft (1,246.955 m) above mean sea level. Since Oct. 1, 1936, supplementary water-stage recorder on secondary channel 600 ft (180 m) to the left; at datum 1.69 ft (0.515 m) lower prior to July 24, 1973, and at datum 0.09 ft (0.027 m) lower thereafter. See WSP 1710 or 1730 for history of changes prior to Aug. 21, 1947.

AVERAGE DISCHARGE.--59 years, 402 ft^3/s (11.38 m^3/s), 291,200 acre-ft/yr (359 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,010 ft^3/s (85.2 m^3/s) June 21 (gage height, 7.09 ft or 2.161 m); minimum daily, 28 ft^3/s (0.79 m^3/s) Mar. 8, 9, 15, 18-20.
Period of record: Maximum discharge, 123,000 ft^3/s (3,480 m^3/s) June 18, 1965 (gage height, 13.32 ft or 4.060 m), from rating curve extended above 6,400 ft^3/s (180 m^3/s) on basis of contracted-opening measurement of peak flow; minimum daily, 1.3 ft^3/s (0.037 m^3/s) Jan. 25, 1947.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, groundwater withdrawals and diversions above station for irrigation of about 1,065,000 acres (4,310 km^2), and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1310: 1937(M). WSP 1730: 1957, drainage area. WSP 1918: 1928 (monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	252	88	178	312	615	88	489	493	1850	124	200	287
2	227	99	428	366	642	77	470	399	1140	111	218	285
3	221	108	335	328	451	38	491	298	725	122	365	290
4	214	113	209	348	372	35	494	233	573	124	405	301
5	221	109	107	412	403	32	472	186	508	124	363	315
6	271	108	87	338	266	30	402	161	476	142	266	399
7	203	112	82	239	220	30	343	160	388	523	207	493
8	130	83	89	204	273	28	321	237	246	807	191	504
9	95	74	84	211	265	28	290	305	180	753	173	510
10	89	78	81	155	393	34	256	278	384	828	189	515
11	85	84	86	136	628	67	290	246	941	750	216	460
12	82	75	66	133	684	43	359	255	1690	1030	212	363
13	80	67	76	111	716	30	318	465	2000	780	258	396
14	94	64	86	148	708	29	316	507	1720	512	689	485
15	185	60	139	201	576	28	280	438	1500	357	1040	566
16	131	51	212	333	421	30	226	490	1480	363	1380	588
17	131	48	195	391	396	30	212	484	1770	432	1100	585
18	96	46	143	356	397	28	201	378	1980	771	860	566
19	80	44	109	348	212	28	189	284	2180	1030	693	457
20	76	43	109	310	166	28	187	246	2450	570	531	359
21	94	39	109	214	174	29	211	269	2900	378	384	341
22	80	40	106	235	144	29	345	184	2820	416	352	296
23	78	40	95	416	130	29	281	211	2500	972	302	298
24	84	39	73	472	117	42	216	279	2120	716	324	261
25	89	40	68	455	105	130	173	146	1560	438	302	265
26	89	39	93	447	82	119	184	123	1120	436	274	226
27	91	40	276	442	70	235	260	117	783	502	253	195
28	94	40	275	430	85	619	496	141	551	444	215	190
29	91	45	383	394	---	513	560	481	252	273	224	295
30	87	77	312	408	---	706	565	749	96	208	224	440
31	88	---	326	543	---	691	---	2140	---	236	276	---
TOTAL	3928	1993	5017	9836	9711	3903	9897	11383	38883	15272	12686	11531
MEAN	127	66.4	162	317	347	126	330	367	1296	493	409	384
MAX	271	113	428	543	716	706	565	2140	2900	1030	1380	588
MIN	76	39	66	111	70	28	173	117	96	111	173	190
AC-FT	7790	3950	9950	19510	19260	7740	19630	22580	77120	30290	25160	22870

CAL YR 1974 TOTAL 172574 MEAN 473 MAX 2170 MIN 39 AC-FT 342300
WTR YR 1975 TOTAL 134040 MEAN 367 MAX 2900 MIN 28 AC-FT 265900

06764000 SOUTH PLATTE RIVER AT JULESBURG, COLO.

LOCATION.--Lat 40°58'46", long 102°15'15", in NW¼NE¼ and SE¼NE¼ (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, on left bank of channel no. 4 (left channel) 215 ft (66 m) downstream from bridge, and on right bank of channel no. 2, 800 ft (244 m) downstream from bridge on U.S. Highway 385, 0.9 mi (1.4 km) southeast of Julesburg, 3.0 mi (4.8 km) upstream from Colorado-Nebraska State line, and 8 mi (13 km) downstream from Lodgepole Creek.

DRAINAGE AREA.--23,138 mi² (59,927 km²).

PERIOD OF RECORD.--April 1902 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "near Julesburg" 1903-8, 1915-16 and as "at Ovid" 1922-24.

GAGE.--Two water-stage recorders. Datum of gages is 3,446.76 ft (1,050.572 m) above mean sea level. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1956. Since Oct. 1, 1956, water-stage recorders on channels nos. 2 and 4. Channel no. 2: Oct. 1, 1956, to Sept. 22, 1965, at site 300 ft (91 m) downstream at present datum. Channel no. 4: Oct. 1, 1956, to Dec. 10, 1958, at site 135 ft (41 m) downstream at present datum. Since May 11, 1973, supplementary water-stage recorder on channel no. 2 at bridge 800 ft (244 m) upstream at same datum.

AVERAGE DISCHARGE.--73 years, 486 ft³/s (13.76 m³/s), 352,100 acre-ft/yr (434 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,510 ft³/s (71.1 m³/s) June 23 (gage height, 5.23 ft or 1.594 m); minimum daily, 34 ft³/s (0.96 m³/s) July 27, Sept. 1.
Period of record: Maximum discharge, 37,600 ft³/s (1,060 m³/s) June 20, 1965 (gage height, 10.44 ft or 3.182 m, from floodmarks in gage well); no flow Aug. 18-20, 1902, July 25 to Aug. 7, 1903.

REMARKS.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, groundwater withdrawals and diversions for irrigation of 1,200,000 acres (4,940 km²) above station, and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 1310: 1902, 1906-7, 1948(P). WSP 1440: 1903-4. WSP 1730: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	91	230	510	475	390	600	122	1280	349	75	34
2	159	90	240	475	510	365	700	108	2020	223	58	36
3	157	91	222	475	690	354	850	86	2040	161	48	44
4	174	91	272	495	815	349	880	67	1600	94	45	44
5	182	91	341	495	550	332	846	61	1230	84	44	45
6	188	91	406	490	365	314	842	57	1020	78	44	43
7	186	91	363	530	330	298	829	57	844	68	39	43
8	185	91	320	535	320	278	752	54	746	62	40	48
9	181	92	301	460	345	230	671	52	664	54	43	58
10	174	92	309	400	390	252	635	50	553	65	41	63
11	168	91	315	400	435	249	636	49	459	63	41	67
12	160	92	310	385	500	184	630	59	500	65	39	75
13	160	88	300	355	705	171	607	138	768	68	56	98
14	154	84	297	355	855	173	628	134	1230	65	106	139
15	153	86	295	350	675	169	604	116	1570	79	77	176
16	132	86	289	365	785	158	588	110	1480	77	79	193
17	118	87	323	395	765	132	586	102	1340	52	105	211
18	110	87	351	475	735	130	548	100	1670	47	295	242
19	101	86	360	560	700	119	472	199	1750	46	338	256
20	97	92	342	565	690	119	442	196	1840	43	204	263
21	95	162	324	530	590	119	428	208	1890	43	134	243
22	94	202	322	495	510	121	316	198	2020	45	85	227
23	97	216	305	410	485	121	276	279	2360	45	57	199
24	97	217	300	370	525	144	288	322	2340	42	45	184
25	94	228	271	460	505	158	257	377	2180	42	42	165
26	90	235	255	570	500	235	180	358	1860	39	41	146
27	93	235	235	580	490	390	149	334	1500	34	39	141
28	94	234	245	555	532	350	159	329	1100	37	38	155
29	95	235	350	540	---	300	152	666	781	39	37	160
30	97	229	435	520	---	400	136	1110	527	50	37	176
31	95	---	490	470	---	500	---	1220	---	147	36	---
TOTAL	4151	3983	9718	14570	15772	7604	15687	7318	41162	2406	2408	3974
MEAN	134	133	313	470	563	245	523	236	1372	77.6	77.7	132
MAX	188	235	490	580	855	500	880	1220	2360	349	338	263
MIN	90	84	222	350	320	119	136	49	459	34	36	34
AC-FT	8230	7900	19280	28900	31280	15080	31120	14520	81640	4770	4780	7880

CAL YR 1974 TOTAL 170821 MEAN 468 MAX 2000 MIN 22 AC-FT 338800
WTR YR 1975 TOTAL 128753 MEAN 353 MAX 2360 MIN 34 AC-FT 255400

RESERVOIRS IN SOUTH PLATTE RIVER BASIN

06695500 ELEVENMILE CANYON RESERVOIR NEAR LAKE GEORGE, COLO.--Lat 38°54'19", long 105°28'30", in N½SW¼ sec.20, T.13 S., R.72 W., Park County, at north end of dam on South Platte River, 8 mi (13 km) southwest of Lake George. Drainage area, 963 mi^2 (2,494 km^2). Period of record, October 1932 to current year. Prior to September 1938, published in WSP 1310. Nonrecording gage read twice daily. Datum of gage is at mean sea level (datum of Denver Board of Water Commissioners). Extremes for current year: Maximum contents observed, 103,500 acre-ft (128 hm^3) July 11, 16, 17 (elevation, 8,598.65 ft or 2,620.869 m); minimum observed, 94,730 acre-ft (117 hm^3) Oct. 10, 11 (elevation, 8,596.09 ft or 2,620.088 m). Extremes for period of record: Maximum contents observed, 111,200 acre-ft (137 hm^3) Apr. 28, 1970 (elevation, 8,600.82 ft or 2,621.530 m); no contents at times in 1935.

Reservoir is formed by concrete arch dam completed by Denver Board of Water Commissioners in November 1932. Spillway built 5.00 ft (1.524 m) higher Aug. 1, 1957. Storage began in October 1932. Capacity, 97,780 acre-ft (121 hm^3) between elevations 8,488.25 ft or 2,587.219 m (invert of outlet pipe) and 8,597.00 ft or 2,620.366 m (crest of spillway). Dead storage is negligible. Figures given are total contents (extremes are at 0800 hours). Water is for municipal use by city of Denver. Records furnished by Denver Board of Water Commissioners.

REVISIONS.--WSP 1730: Drainage area.

06701000 CHEESMAN LAKE NEAR DECKERS, COLO.--Lat 39°12'26", long 105°16'18", in NW¼SW¼ sec.6, T.10 S., R.70 W., Douglas County, at dam on South Platte River, 4.1 mi (6.6 km) southwest of Deckers. Drainage area, 1,752 mi^2 (4,538 km^2). Period of record, September 1900 to December 1901, September 1902 to current year. Prior to October 1938, published in WSP 1310. Published as Lake Cheesman Reservoir prior to 1947. Nonrecording gage read twice daily. Datum of gage is 6,622.91 ft (2,018.663 m) above mean sea level (datum of Denver Board of Water Commissioners). Extremes for current year: Maximum contents observed, 68,900 acre-ft (85.0 hm^3) July 13 (gage height, 199.88 ft or 60.923 m); minimum observed, 41,200 acre-ft (50.8 hm^3) Mar. 2 (gage height, 160.00 ft or 48.768 m). Extremes for period of record: Maximum contents observed, 81,360 acre-ft (100 hm^3) Apr. 29, 1970 (gage height, 214.60 ft or 65.410 m); minimum observed since appreciable storage was attained, 3,650 acre-ft (4.50 hm^3) Apr. 20, 1933 (gage height, 55.02 ft or 16.770 m).

Reservoir is formed by masonry dam completed about October 1902. Capacity, 79,060 acre-ft (97.5 hm^3) at gage height 212 ft or 64.6 m (spillway crest) above sill of lowest gate. No dead storage. Figures given are total contents (extremes are at 0800 hours). Water is for municipal use by city of Denver. Records furnished by Denver Board of Water Commissioners.

REVISIONS.--WSP 1730: Drainage area.

06709600 CHATFIELD LAKE NEAR LITTLETON, COLO.--Lat 39°33'26", long 105°03'27", in NW¼SE¼ sec.1, T.6 S., R.69 W., Jefferson County, near left end of dam on South Platte River at mouth of Plum Creek and 4.7 mi (7.6 km) southwest of Littleton Courthouse. Drainage area, 3,018 mi^2 (7,817 km^2). Period of record, May to September 1975. Water-stage recorder. Datum of gage is at mean sea level, datum of 1929 (levels by Corps of Engineers). Extremes for period May to September 1975: Maximum contents observed, 11,330 acre-ft (14.0 hm^3) July 2 (elevation, 5,418.16 ft or 1,651.455 m); no contents prior to May 29, 1975.

Reservoir is formed by an earthfill dam. Storage began May 29, 1975 (dam still under construction September 1975). Capacity, 235,000 acre-ft (290 hm^3) at elevation 5,500 ft or 1,676.400 m (crest of spillway). No dead storage. Reservoir is for flood control and recreation. Records furnished by Corps of Engineers.

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, COLO.--Lat 40°36'00", long 105°10'06", in NW¼SW¼ sec.6, T.7 N., R. 69 W., Larimer County, on right bank near abutment of Horsetooth Dam on tributaries of Cache la Poudre River, 4.8 mi (7.7 km) west of city hall in Fort Collins. Period of record, April 1951 to current year. Nonrecording gage read at irregular intervals varying from 1 to 10 days. Datum of gage is 5,270.00 ft (1,606.296 m) above mean sea level (levels by Bureau of Reclamation). Gage readings have been reduced to elevations above mean sea level. Extremes for current year: Maximum contents observed, 129,300 acre-ft (159 hm^3) June 2 (elevation, 5,422.30 ft or 1,652.717 m); minimum contents, 43,230 acre-ft (53.3 hm^3) Oct. 22 (elevation, 5,361.80 ft or 1,634.277 m). Extremes for period of record: Maximum contents observed, 141,600 acre-ft (175 hm^3) July 2, 1970 (elevation, 5,429.02 ft or 1,654.765 m); minimum observed, 3,040 acre-ft (3.75 hm^3) Sept. 23, 1954 (elevation, 5,302.20 ft or 1,616.111 m); no storage prior to Apr. 18, 1951.

Reservoir is formed by earth and rockfill dike and dams closing openings in a subsequent valley between hogbacks. Dams completed July 21, 1949; storage began Jan. 10, 1951; dead storage pools filled Apr. 18, 1951. Usable capacity, 143,500 acre-ft (177 hm^3) above elevations 5,320 ft or 1,621.5 m (invert of channel from Spring Canyon Dam), 5,310 ft or 1,618.5 m (invert of channel from Dixon Canyon Dam), 5,270 ft or 1,606.3 m (trashrack sill of outlet at Soldier Canyon Dam), and below maximum water surface elevation 5,430 ft or 1,655.1 m (6 ft or 1.8 m below crest of Satanka Dike). Dead storage, 8,270 acre-ft (10.2 hm^3). Reservoir is used for storage of water diverted from Colorado River basin through Alva B. Adams tunnel for supplemental irrigation supply to Cache la Poudre River as part of the Colorado-Big Thompson project. Figures given are usable contents (extremes are at 0800 hours). Records furnished by Bureau of Reclamation. Water-quality records for the current year are published in Part 2 of this report.

06742500 CARTER LAKE NEAR BERTHOUD, COLO.--Lat 40°19'28", long 105°12'41", in SE¼ sec.10, T.4 N., R.70 W., Larimer County, in hoist house 293 ft (89 m) from right abutment of Carter Lake Dam on Dry Creek, 7.0 mi (11.3 km) west of Berthoud, and 8.9 mi (14.3 km) upstream from mouth. Period of record, March 1954 to current year. Nonrecording gage read at irregular intervals varying from 1 to 13 days. Datum of gage is 5,618.00 ft (1,712.366 m) above mean sea level (levels by Bureau of Reclamation). Gage readings have been reduced to elevations above mean sea level. Extremes for current year: Maximum contents observed, 108,800 acre-ft (134 hm^3) Apr. 28 (elevation, 5,758.85 ft or 1,755.297 m); minimum observed, 47,200 acre-ft (58.2 hm^3) Oct. 2 (elevation, 5,698.05 ft or 1,736.766 m). Extremes for period of record: Maximum contents observed, 109,100 acre-ft (135 hm^3) Apr. 27-29, 1971 (elevation, 5,759.12 ft or 1,755.380 m); minimum observed since appreciable storage was attained, 960 acre-ft (1.18 hm^3) Oct. 25, 1954 (elevation, 5,621.40 ft or 1,713.403 m).

Reservoir is formed by earth and rockfill dam and dikes enlarging the natural basin of Carter Lake. Storage began in February 1954 and dead storage pool was filled Mar. 5, 1954. Usable capacity, 113,500 acre-ft (140 hm^3) between elevations 5,618.00 ft or 1,712.366 m (trashrack sill at Carter Lake Dam Outlet) and 5,763.00 ft or 1,756.562 m (maximum water surface, 6 ft or 1.8 m below crest of dam). Dead storage, 3,310 acre-ft (4.08 hm^3). Water diverted from Colorado River basin through Alva B. Adams tunnel is pumped from Flatiron Reservoir into Carter Lake for supplemental irrigation supply to Little Thompson River, St. Vrain Creek, and Boulder Creek basins. Water above elevation 5,620 ft (1,713.0 m) may be released for return to Flatiron Reservoir where pump turbines can operate in reverse to generate power and water can be used for irrigation in Big Thompson or Cache la Poudre River basins. It is part of the Colorado-Big Thompson project. Figures given are usable contents (extremes are at 0800 hours). Records furnished by Bureau of Reclamation. Water-quality records for the current year are published in Part 2 of this report.

RESERVOIRS IN SOUTH PLATTE RIVER BASIN--Continued

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS AT 0800, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)	ELEVATION OR GAGE HEIGHT (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
	06695500 ELEVENMILE CANYON RESERVOIR			06701000 CHEESMAN LAKE		
Sept. 30	8,596.19	95,060	-	166.98	45,450	-
Oct. 31	8,596.39	95,430	+370	160.88	41,270	-3,730
Nov. 30	8,596.53	96,200	+770	163.24	43,140	+1,420
Dec. 31	8,596.55	96,270	+70	163.60	43,360	+220
CAL YR 1974	-	-	-2,510	-	-	-10,750
Jan. 31	8,596.53	96,200	-70	161.18	41,900	-1,460
Feb. 28	8,596.64	96,570	+370	160.20	41,320	-580
Mar. 31	8,596.60	96,440	-130	165.02	44,230	+2,910
Apr. 30	8,596.55	96,270	-170	175.11	50,710	+6,480
May 31	8,596.74	96,910	+640	179.30	53.560	+2,850
June 30	8,597.76	100,400	+3,490	197.88	67,310	+13,750
July 31	8,597.98	101,100	+700	194.85	64,940	-2,370
Aug. 31	8,597.54	99,630	-1,470	190.32	61,480	-3,460
Sept. 30	8,597.41	99,190	-440	179.83	53,920	-7,560
WTR YR 1975	-	-	+4,130	-	-	+8,470

MONTHEND ELEVATION AND CONTENTS AT 2400, MAY TO SEPTEMBER 1975

	06709600 CHATFIELD LAKE		
May 31	5,400.21	1,270	-
June 30	5,417.68	10,910	+9,640
July 31	5,417.17	10,470	-440
Aug. 31	5,417.17	10,470	0
Sept. 30	5,411.49	6,130	-4,340

MONTHEND ELEVATION OR GAGE HEIGHT AND CONTENTS AT 0800, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	06737500 HORSETOOTH RESERVOIR			06742500 CARTER LAKE		
Sept. 30	5,376.10	59,710	-	5,697.15	46,420	-
Oct. 31	5,362.20	43,660	-16,050	5,710.10	58,010	+11,590
Nov. 30	5,368.25	50,370	+6,710	5,721.50	68,930	+10,920
Dec. 31	5,380.50	65,270	+14,900	5,728.90	76,360	+7,430
CAL YR 1974	-	-	-31,470	-	-	+6,690
Jan. 31	5,392.50	81,520	+16,250	5,737.60	85,390	+9,030
Feb. 28	5,398.10	89,680	+8,160	5,750.80	99,680	+14,290
Mar. 31	5,406.80	103,100	+13,420	5,756.90	106,500	+6,820
Apr. 30	5,414.10	115,100	+12,000	5,758.75	108,600	+2,100
May 31	5,421.70	128,200	+13,100	5,755.20	104,600	-4,000
June 30	5,421.60	128,000	-200	5,756.90	106,500	+1,900
July 31	5,413.30	113,700	-14,300	5,744.40	92,660	-13,840
Aug. 31	5,390.25	78,360	-35,360	5,717.84	65,360	-27,300
Sept. 30	5,383.90	69,700	-8,640	5,698.50	47,590	-17,770
WTR YR 1975	-	-	+9,990	-	-	+1,170

06825500 LANDSMAN CREEK NEAR HALE, COLO.

LOCATION.--Lat 39°34'32", long 102°15'06", in SE¼ sec.35, T.5 S., R.44 W., Yuma County, on right bank 900 ft (270 m) upstream from bridge on U.S. Highway 385, 3.2 mi (5.1 km) upstream from mouth, 5.2 mi (8.4 km) southwest of Bonny Dam, and 7 mi (11 km) southwest of Hale.

DRAINAGE AREA.--268 mi^2 (694 km^2).

PERIOD OF RECORD.--May 1950 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,720 ft (1,134 m) from topographic map. Prior to Aug. 3, 1965, at site 1,200 ft (370 m) downstream: at datum 0.68 ft (0.207 m) lower prior to Oct. 21, 1950, and June 6 to Aug. 10, 1951; at datum 0.79 ft (0.241 m) higher Oct. 21, 1950, to June 5, 1951; and at present datum subsequent to Aug. 10, 1951.

AVERAGE DISCHARGE.--25 years, 3.80 ft^3/s (0.108 m^3/s), 2,750 acre-ft/yr (3.39 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 13,000 ft^3/s (368 m^3/s) June 20 (gage height, 14.91 ft or 4.545 m, from high-water mark in well); minimum daily, 0.10 ft^3/s (0.003 m^3/s) May 3.
Period of record: Maximum discharge, 13,000 ft^3/s (368 m^3/s) June 20, 1975 (gage height, 14.91 ft or 4.545 m), by slope-area measurement of peak flow; maximum gage height, 15.78 ft (4.810 m) Aug. 23, 1969; no flow for several days in 1955 and 1965.
Outstanding flood of May 30, 31, 1935, reached a stage of about 10 ft or 3.0 m (at former site and present datum) from information by local resident.

REMARKS.--Records poor. Small diversions above station for irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	.12	.42	.35	.26	.32	.30	.11	.19	.57	.64	.28
2	1.3	.13	.44	.35	.26	.32	.29	.11	.11	.52	.42	.32
3	1.4	.14	.43	.31	.28	.29	.29	.10	.22	.55	.39	.28
4	1.5	.14	.51	.30	.28	.25	.30	.18	.28	.55	.39	.32
5	1.5	.13	.39	.31	.28	.25	.32	.28	.28	.55	.36	.28
6	1.7	.13	.39	.31	.28	.25	.30	.18	.30	.55	.36	.28
7	1.8	.18	.39	.32	.28	.25	.26	.16	.35	.55	.36	.28
8	2.0	.17	.39	.32	.28	.25	.26	.15	.37	.55	.36	.28
9	2.0	.18	.39	.33	.28	.27	.25	.17	.29	90	.36	.25
10	2.1	.16	.36	.32	.29	.26	.26	.21	.17	18	.32	.28
11	2.2	.18	.36	.32	.29	.27	.26	.27	.15	1.5	.32	.28
12	2.4	.18	.36	.26	.29	.24	.25	.25	.17	.83	.28	.28
13	2.4	.22	.36	.25	.29	.24	.24	.24	.15	.55	.36	.28
14	2.1	.21	.39	.25	.30	.25	.22	.18	.18	.51	.36	.28
15	2.5	.21	.39	.25	.30	.25	.22	.26	.20	.51	.36	.25
16	2.7	.21	.39	.22	.28	.25	.22	.20	.29	.49	.32	.25
17	2.9	.23	.39	.21	.28	.25	.23	.12	21	.50	.32	.25
18	2.6	.25	.40	.22	.28	.25	.25	.15	120	.48	.32	.28
19	.52	.28	.39	.21	.28	.25	.25	.16	1.2	.49	.32	.28
20	.36	.28	.39	.21	.28	.26	.25	.22	779	32	.32	.32
21	.32	.30	.39	.21	.28	.28	.23	.20	231	.80	.39	.32
22	.28	.32	.39	.21	.28	.28	.19	.13	5.7	.49	.39	.32
23	.26	.34	.38	.22	.28	.29	.20	.14	234	.48	.39	.32
24	.51	.33	.39	.25	.29	.29	.20	.25	4.0	.46	.42	.32
25	1.1	.37	.39	.25	.28	.28	.20	.38	2.5	.44	.42	.36
26	1.7	.39	.39	.25	.29	.30	.17	.24	1.7	.44	.42	.36
27	1.4	.38	.39	.25	.30	.37	.19	.01	1.3	.44	.39	.36
28	.14	.37	.39	.25	.31	.34	.21	.07	.97	.44	.39	.36
29	.11	.39	.36	.25	---	.32	.23	.23	.74	.44	.32	.36
30	.10	.39	.35	.25	---	.30	.14	.23	.60	.51	.28	.39
31	.10	---	.36	.25	---	.30	---	.29	---	58	.28	---
TOTAL	43.20	7.31	12.11	8.26	7.95	8.57	7.18	5.87	1407.41	213.19	11.33	9.07
MEAN	1.39	.24	.39	.27	.28	.28	.24	.19	46.9	6.88	.37	.30
MAX	2.9	.39	.51	.35	.31	.37	.32	.38	779	90	.64	.39
MIN	.10	.12	.35	.21	.26	.24	.14	.01	.11	.44	.28	.25
AC-FT	86	14	24	16	16	17	14	12	2790	423	22	18

CAL YR 1974 TOTAL 183.00 MEAN .50 MAX 2.9 MIN .10 AC-FT 363
WTR YR 1975 TOTAL 1741.45 MEAN 4.77 MAX 779 MIN .01 AC-FT 3450

PEAK DISCHARGE (BASE, 350 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
6-18	0130	9.96	915	7- 9	2200	10.09	980
6-20	2015	14.91	13,000	7-20	1945	10.14	1,000
6-23	0215	10.14	1,000	7-31	0245	9.77	820

06826000 BONNY RESERVOIR NEAR HALE, COLO.

LOCATION.--Lat 39°37'24", long 102°10'26", in SE¼SE¼ sec.9, T.5 S., R.43 W., Yuma County, in stair well to outlet conduit of Bonny Dam on South Fork Republican River, 1.7 mi (2.7 km) west of Hale, and 3.0 mi (4.8 km) downstream from Landsman Creek.

DRAINAGE AREA.--1,820 mi^2 (4,710 km^2), approximately.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to Oct. 1, 1967, nonrecording gage at same site and datum.

EXTREMES.--Current year: Maximum contents, 45,440 acre-ft (56.0 hm^3) June 25 (elevation, 3,673.95 ft or 1,119.820 m); minimum, 35,410 acre-ft (43.7 hm^3) Oct. 11-17 (elevation, 3,668.95 ft or 1,118.296 m).
Period of record: Maximum contents observed, 55,030 acre-ft (67.9 hm^3) May 17, 1957 (elevation, 3,678.10 ft or 1,121.085 m); minimum observed since appreciable contents was attained, 22,520 acre-ft (27.83 hm^3) Oct. 6-14, 1952 (elevation, 3,661.20 ft or 1,115.934 m).

REMARKS.--Reservoir is formed by an earthfill dam. Storage began July 6, 1950; dam completed May 4, 1951. Capacity of reservoir, 170,200 acre-ft (210 hm^3) below elevation 3,710 ft or 1,130.8 m (crest of spillway) of which 128,800 acre-ft (159 hm^3) is for flood control and 39,900 acre-ft (49.2 hm^3) for irrigation. Dead storage, 1,420 acre-ft (I.75 hm^3) below elevation 3,635.0 ft or 1,107.95 m (sill of trashrack at outlet conduit). Figures given are total contents.

REVISIONS (WATER YEARS).--WSP 1710: 1955.

Capacity table (elevation, in feet, and total contents, in acre-feet)
(Furnished by Bureau of Reclamation)

3,665.0	28,460
3,670.0	37,390
3,675.0	47,760

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35600	35700	37000	38100	39600	40700	41700	41200	43700	44000	40800	39300
2	35500	35800	37000	38100	39600	40700	41700	41300	43500	43600	40700	39200
3	35500	36000	37000	38200	39600	40800	41800	41300	43300	43400	40700	39100
4	35500	36100	37100	38200	39700	40800	41800	41300	43100	43100	40700	39100
5	35500	36100	37100	38300	39700	40800	41900	41200	42900	42800	40600	39000
6	35500	36100	37200	38300	39700	40900	41900	41200	42700	42500	40600	39000
7	35500	36200	37200	38400	39800	40900	42000	41200	42500	42200	40500	38900
8	35500	36200	37200	38400	39800	40900	41900	41200	42300	42000	40400	38900
9	35400	36300	37300	38500	39800	41000	41900	41200	42100	42100	40300	38800
10	35400	36300	37300	38500	39900	41000	42000	41100	41900	42200	40300	38800
11	35400	36300	37400	38600	39900	41000	42000	41100	41600	42000	40300	38700
12	35400	36400	37400	38600	40000	41100	42000	41100	41400	41700	40200	38600
13	35400	36400	37400	38600	40000	41100	42000	41200	41300	41400	40200	38600
14	35400	36400	37400	38700	40100	41200	42000	41200	41300	41200	40200	38600
15	35400	36400	37500	38700	40100	41200	41900	41200	41300	41100	40200	38600
16	35400	36500	37500	38800	40200	41200	41900	41200	41300	41000	40200	38600
17	35400	36500	37500	38800	40200	41300	41800	41100	41400	41000	40100	38500
18	35400	36500	37600	38900	40200	41300	41800	41100	41700	40900	40000	38400
19	35400	36600	37600	39000	40300	41400	41700	41100	41600	40900	40000	38400
20	35400	36600	37600	39000	40400	41400	41700	41000	43700	40900	39900	38400
21	35500	36600	37700	39100	40400	41400	41700	41000	44900	41000	39900	38300
22	35500	36700	37700	39100	40400	41500	41600	41000	45000	40900	39800	38300
23	35500	36700	37700	39200	40400	41500	41500	41000	45400	40800	39800	38200
24	35500	36700	37800	39300	40500	41500	41500	41000	45400	40800	39700	38200
25	35500	36800	37800	39300	40500	41500	41400	41000	45400	40700	39600	38200
26	35600	36800	37900	39400	40600	41600	41400	41000	45400	40700	39500	38100
27	35600	36800	37900	39400	40600	41600	41300	42000	45300	40600	39500	38100
28	35700	36900	38000	39400	40600	41600	41200	43200	45000	40500	39500	38000
29	35700	36900	38000	39500	---	41600	41200	43900	44700	40400	39400	38000
30	35700	36900	38000	39500	---	41700	41200	44000	44300	40600	39400	38000
31	35700	---	38100	39500	---	41700	---	43800	---	40800	39300	---
MAX	35700	36900	38100	39500	40600	41700	42000	44000	45400	44000	40800	39300
MIN	35400	35700	37000	38100	39600	40700	41200	41000	41300	40400	39300	38000
(†)	3,669.12	3,669.74	3,670.35	3,671.09	3,671.64	3,672.16	3,671.93	3,673.17	3,673.40	3,671.75	3,671.00	3,670.32
(‡)	+110	+1,160	+1,170	+1,450	+1,090	+1,070	-480	+2,580	+490	-3,430	-1,500	-1,330

CAL YR 1974.... ‡ -110
WTR YR 1975.... ‡ +2,380

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06826500 SOUTH FORK REPUBLICAN RIVER NEAR HALE, COLO.

LOCATION.--Lat 39°37'26", long 102°09'47", in SW¼NE¼ sec.15, T.5 S., R.43 W., Yuma County, on right bank 0.5 mi (0.8 km) downstream from Bonny Dam and 1.2 mi (1.9 km) west of Hale.

DRAINAGE AREA.--1,825 mi² (4,730 km²), approximately.

PERIOD OF RECORD.--October 1946 to September 1948, May 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,610 ft (1,100 m) from topographic map. Oct. 1, 1946, to Sept. 30, 1948, at site 4 mi (6 km) downstream at different datum.

AVERAGE DISCHARGE.--24 years (1951-75), 23.0 ft³/s (0.651 m³/s), 16,660 acre-ft/yr (20.5 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 149 ft³/s (4.22 m³/s) June 27, 28 (gage height, 4.88 ft or 1.487 m); minimum daily, 5.2 ft³/s (0.15 m³/s) Dec. 29, Sept. 9, 10.
Period of record: Maximum discharge, 3,790 ft³/s (107 m³/s) May 28, 1947 (gage height, 4.71 ft or 1.436 m, site and datum then in use); maximum gage height, 4.84 ft (1.475 m) Apr. 28, 1947, site and datum then in use; no flow Aug. 11-13, 1947.
Greatest flood known occurred May 31, 1935, stage and discharge not determined. A discharge of 103,000 ft³/s (2,920 m³/s) was determined at a site near Newton, 5.5 mi (8.8 km) upstream, with a drainage area of approximately 1,270 mi² (3,290 km²).

REMARKS.--Records excellent. Flow regulated by Bonny Reservoir since July 6, 1950 (see sta. 06826000). Many diversions above station for irrigation. Water diverted by Hale ditch from Bonny Reservoir bypasses station (2,290 acre-ft or 2.82 hm³ diverted during current year).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	6.6	5.8	5.3	5.7	5.9	5.4	6.6	108	130	6.8	5.6
2	6.2	6.6	5.8	5.6	5.8	5.9	5.4	6.7	115	130	7.3	5.6
3	6.2	7.4	6.1	5.4	5.8	5.8	5.4	6.6	120	126	7.0	5.5
4	6.2	6.8	5.7	5.4	5.7	5.8	5.5	6.7	118	126	6.8	5.5
5	6.1	6.5	5.6	5.4	5.8	5.8	5.5	6.9	121	126	6.6	5.5
6	6.2	6.0	5.7	5.4	5.7	5.8	5.6	6.9	121	126	6.6	5.5
7	6.6	5.9	5.6	5.5	5.7	5.7	5.8	6.9	122	126	6.7	5.5
8	6.6	7.3	5.5	5.5	5.6	5.8	5.6	6.9	122	130	6.5	5.5
9	6.6	6.1	5.5	5.5	5.8	5.8	5.5	6.9	122	135	6.5	5.2
10	6.6	5.9	5.7	5.3	5.8	5.8	5.5	7.0	123	135	6.4	5.2
11	6.6	6.2	6.0	5.3	5.8	5.9	19	6.9	123	117	6.2	5.5
12	6.8	5.8	5.7	5.3	5.7	5.8	30	7.5	122	135	6.0	5.5
13	6.6	5.7	5.6	5.3	5.8	5.8	31	7.4	49	140	7.2	5.5
14	6.6	5.9	5.7	5.4	5.8	5.9	36	7.2	8.3	140	6.7	5.5
15	6.6	5.8	5.7	5.3	5.7	5.9	39	7.2	8.2	55	6.5	5.5
16	6.6	5.8	5.7	5.3	5.8	5.9	40	7.3	8.2	9.0	6.3	5.5
17	7.1	5.7	5.6	5.4	5.8	5.9	39	7.0	9.0	8.9	6.1	5.5
18	7.2	5.9	5.8	5.3	5.8	5.9	41	7.0	9.4	8.9	6.2	5.5
19	7.4	5.9	5.8	5.3	5.8	8.0	40	6.9	8.5	8.8	6.2	5.8
20	7.3	5.8	5.6	5.3	5.8	5.8	41	6.9	13	8.7	6.1	5.8
21	7.1	5.8	5.7	5.4	5.8	5.8	41	6.8	12	8.3	6.2	5.8
22	7.4	5.9	5.4	5.6	5.7	6.0	43	6.9	10	8.4	6.3	5.8
23	6.2	5.9	5.4	5.8	5.8	6.3	43	6.8	9.6	8.0	6.0	5.8
24	6.2	5.9	5.5	5.8	5.8	6.2	43	6.7	9.5	7.9	6.0	5.8
25	6.3	6.3	5.6	5.8	5.8	6.7	44	6.8	9.6	7.3	5.8	5.8
26	6.4	6.0	5.7	5.8	5.8	6.1	44	6.6	8.9	6.9	5.8	5.8
27	6.5	5.9	5.7	5.7	5.9	7.5	45	7.4	59	6.7	5.7	5.8
28	6.7	5.8	5.5	5.8	5.9	6.4	19	13	144	6.6	5.8	6.3
29	6.6	5.9	5.2	5.8	---	5.4	6.7	11	140	6.5	5.7	6.5
30	6.6	5.8	5.3	5.8	---	5.3	6.6	38	135	6.9	5.7	5.9
31	6.6	---	5.3	5.7	---	5.3	---	104	---	8.5	5.7	---
TOTAL	205.0	182.8	174.5	170.5	161.7	185.9	746.5	353.4	2088.2	2003.3	195.4	169.5
MEAN	6.61	6.09	5.63	5.50	5.78	6.00	24.9	11.4	69.6	64.6	6.30	5.65
MAX	7.4	7.4	6.1	5.8	5.9	8.0	45	104	144	140	7.3	6.5
MIN	6.1	5.7	5.2	5.3	5.6	5.3	5.4	6.6	8.2	6.5	5.7	5.2
AC-FT	407	363	346	338	321	369	1480	701	4140	3970	388	336

CAL YR 1974 TOTAL 3823.4 MEAN 10.5 MAX 109 MIN 5.0 AC-FT 7580
WTR YR 1975 TOTAL 6636.7 MEAN 18.2 MAX 144 MIN 5.2 AC-FT 13160

ARKANSAS RIVER BASIN

07081200 ARKANSAS RIVER NEAR LEADVILLE, COLO.

LOCATION (REVISED).--Lat 39°15'26", long 106°20'35", in NW¼NW¼ sec.21, T.9 S., R.80 W., Lake County, on right bank 500 ft (150 m) downstream from confluence of East Fork Arkansas River and Tennessee Creek, 0.5 mi (0.8 km) downstream from highway bridge, and 2.8 mi (4.5 km) west of Leadville.

DRAINAGE AREA.--97.2 mi^2 (251.7 km^2).

PERIOD OF RECORD.--October 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,730 ft (2,966 m) from topographic map.

AVERAGE DISCHARGE.--8 years, 71.9 ft^3/s (2.036 m^3/s), 52,090 acre-ft/yr (64.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 537 ft^3/s (15.2 m^3/s) June 16 (gage height, 3.92 ft or 1.195 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Dec. 24-25, Jan. 10-11.
Period of record: Maximum discharge, 803 ft^3/s (22.7 m^3/s) June 12, 1973 (gage height, 4.34 ft or 1.323 m); minimum daily, 8.5 ft^3/s (0.24 m^3/s) Mar. 21 to Apr. 14, 1974.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversion from Colorado River basin to Arkansas River basin enters above this station (see elsewhere in this report). Small diversions upstream for irrigation and municipal use.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	17	12	11	16	12	12	18	111	355	104	31
2	16	17	12	11	16	12	12	18	121	385	95	30
3	17	17	12	11	16	12	12	20	148	335	85	30
4	19	16	12	11	16	12	12	24	189	360	78	30
5	19	15	12	11	14	13	12	26	226	395	74	29
6	20	14	12	11	13	13	12	23	292	335	70	27
7	20	17	12	11	13	13	12	21	340	325	68	26
8	20	17	12	11	13	13	12	22	385	325	67	26
9	19	16	13	11	14	13	12	27	288	360	64	27
10	18	16	13	10	14	13	12	38	246	310	62	38
11	18	16	13	10	14	13	12	50	209	266	60	34
12	22	18	13	11	14	13	12	63	186	246	63	39
13	22	16	13	11	14	13	12	65	192	223	86	40
14	21	16	13	12	14	13	12	83	279	216	80	41
15	19	13	12	13	14	13	12	111	400	246	68	39
16	17	14	12	13	14	13	12	127	465	250	60	34
17	16	14	12	13	13	13	13	136	345	262	55	39
18	16	14	12	14	12	13	12	130	297	198	53	37
19	17	15	12	14	11	13	12	123	258	174	50	32
20	17	13	12	13	11	14	13	138	246	174	47	31
21	18	13	12	12	11	14	13	150	242	189	51	30
22	19	14	12	13	11	13	15	152	246	160	48	29
23	19	15	11	13	12	12	16	121	274	148	43	27
24	20	15	10	15	12	12	18	115	340	132	41	27
25	19	15	10	17	12	13	22	136	435	123	39	27
26	18	15	11	17	12	13	27	145	340	117	37	27
27	17	15	12	17	12	12	26	158	340	111	37	26
28	18	14	12	17	12	12	20	155	360	106	38	26
29	19	13	12	16	---	12	21	138	340	108	35	26
30	19	13	12	16	---	12	20	119	355	113	33	25
31	16	---	11	16	---	12	---	115	---	110	32	---
TOTAL	572	453	371	402	370	394	440	2767	8495	7157	1823	930
MEAN	18.5	15.1	12.0	13.0	13.2	12.7	14.7	89.3	283	231	58.8	31.0
MAX	22	18	13	17	16	14	27	158	465	395	104	41
MIN	16	13	10	10	11	12	12	18	111	106	32	25
AC-FT	1130	899	736	797	734	781	873	5490	16850	14200	3620	1840

CAL YR 1974 TOTAL 20187.2 MEAN 55.3 MAX 370 MIN 8.5 AC-FT 40040
WTR YR 1975 TOTAL 24174.0 MEAN 66.2 MAX 465 MIN 10 AC-FT 47950

NOTE.--No gage-height record Dec. 10 to Apr. 2.

07082400 TURQUOISE LAKE NEAR LEADVILLE, COLO.

LOCATION.--Lat 39°15'10", long 106°22'26", in SW¼NE¼ sec.19, T.9 S., R.80 W., Lake County, in control house of Sugar Loaf Dam on Lake Fork, 4.0 mi (6.4 km) west of Leadville and 4.6 mi (7.4 km) upstream from mouth.

DRAINAGE AREA.--28.1 mi^2 (72.8 km^2).

PERIOD OF RECORD.--April 1968 to current year.

GAGE.--Nonrecording gage read once daily. Datum of gage is 9,754.00 ft (2,973.019 m) above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level.

EXTREMES (at 0800 of following day).--Current year: Maximum contents, 86,600 acre-ft (107 hm^3) July 30 (elevation, 9,844.11 ft or 3,000.485 m); minimum, 41,330 acre-ft (51.0 hm^3) May 16 (elevation, 9,811.56 ft or 2,990.563 m).
Period of record: Maximum contents, 104,900 acre-ft (129 hm^3) July 25, 26, 1973 (elevation, 9,855.28 ft or 3,003.889 m); minimum since appreciable storage was attained, 14,510 acre-ft (17.9 hm^3) Oct. 1, 1968 (elevation, 9,782.85 ft or 2,981.813 m).

REMARKS.--Reservoir formed by earthfill dam completed in 1909 (capacity, 17,400 acre-ft or 21.5 hm^3). Enlargement of dam began Dec. 8, 1965, and closure was made Apr. 15, 1968. Enlarged capacity, 129,400 acre-ft (160 hm^3) at elevation 9,869.4 ft or 3,008.19 m (crest of spillway). Dead storage, 2,770 acre-ft (3.42 hm^3) below elevation 9,765.90 ft or 2,976.646 m (sill of lowest outlet). Figures given are total contents. Since Apr. 15, 1968, Turquoise Lake has been a regulatory reservoir for the Fryingpan-Arkansas Project and stores water imported from the Colorado River basin through Charles H. Boustead Tunnel for irrigation, municipal water supply, and power development. It also stores water for industrial use, and water imported from the Colorado River basin through Busk-Ivanhoe Tunnel for irrigation and through Homestake Tunnel for municipal water supply.

COOPERATION.--Records furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS, OCTOBER 1974 TO SEPTEMBER 1975

DATE	ELEVATION (FEET)†	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30	9,820.26	52,060	-
Oct. 31	9,819.98	51,700	-360
Nov. 30	9,816.52	47,320	-4,380
Dec. 31	9,816.52	47,440	+120
CAL YR 1974	-	-	-27,080
Jan. 31	9,816.78	47,640	+200
Feb. 28	9,816.38	47,150	-490
Mar. 31	9,816.44	47,220	+70
Apr. 30	9,812.57	42,510	-4,710
May 31	9,813.99	44,210	+1,700
June 30	9,831.68	67,660	+23,450
July 31	9,844.07	86,530	+18,870
Aug. 31	9,838.75	78,210	-8,320
Sept. 30	9,837.30	75,990	-2,220
WTR YR 1975	-	-	+23,930

† At 0800 hours of following day.

07083000 HALFMOON CREEK NEAR MALTA, COLO.

(Hydrologic bench-mark station)

LOCATION.--Lat 39°10'20", long 106°23'19", in SE¼SE¼ sec.13, T.10 S., R.81 W., Lake County, on right bank 1.4 mi (2.3 km) upstream from culvert, 3.3 mi (5.3 km) upstream from mouth, and 4.3 mi (6.9 km) southwest of Malta.

DRAINAGE AREA.--23.6 mi^2 (61.1 km^2).

PERIOD OF RECORD.--July 1946 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,830 ft (2,996 m) from topographic map. Prior to Oct. 19, 1966, at sites 1.4 mi (2.3 km) downstream at different datums.

AVERAGE DISCHARGE.--29 years, 28.7 ft^3/s (0.813 m^3/s), 20,790 acre-ft/yr (25.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 235 ft^3/s (6.66 m^3/s) July 1 (gage height, 3.23 ft or 0.985 m); minimum daily, 2.3 ft^3/s (0.065 m^3/s) Mar. 28, Apr. 6-14.
Period of record: Maximum discharge, 450 ft^3/s (12.7 m^3/s) June 30, 1957 (gage height, 3.48 ft or 1.061 m, site and datum then in use); minimum not determined.

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station. Water-quality records for the current year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WRD Colo. 1967: Drainage area. WRD Colo. 1968: 1967(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	6.4	2.9	3.5	3.2	2.7	2.4	3.5	28	182	67	16
2	6.1	6.1	3.2	3.5	3.2	2.7	2.4	3.7	32	185	61	16
3	6.4	6.1	3.2	3.5	3.2	2.7	2.4	3.9	43	175	55	16
4	7.2	5.5	3.2	3.5	3.2	2.9	2.4	5.5	59	185	51	15
5	7.5	3.4	3.2	3.5	2.9	2.7	2.4	5.5	79	185	49	14
6	7.8	5.1	3.5	3.5	2.9	2.7	2.3	4.4	108	169	47	13
7	7.5	5.1	3.3	3.5	2.9	2.7	2.3	3.7	125	172	45	13
8	7.2	5.1	3.2	3.5	2.9	2.7	2.3	4.4	115	172	45	13
9	6.9	6.1	2.9	3.5	2.9	2.7	2.3	5.1	82	175	42	14
10	6.7	5.6	2.9	3.5	2.9	2.7	2.3	6.9	68	175	41	16
11	6.7	5.1	3.2	3.5	3.2	2.7	2.3	9.5	56	164	38	15
12	7.5	5.1	3.3	3.5	3.2	2.7	2.3	11	52	155	40	15
13	7.5	5.5	2.9	3.5	2.9	2.6	2.3	10	58	146	47	15
14	7.2	5.1	2.9	3.5	2.9	2.6	2.3	14	89	150	42	16
15	6.9	4.9	3.0	3.5	2.9	2.7	2.6	21	115	162	36	15
16	6.9	4.6	3.0	3.5	2.9	2.4	2.7	29	129	177	34	14
17	6.7	4.4	3.0	3.3	2.9	2.7	2.7	33	108	152	32	14
18	6.7	4.9	3.0	3.3	2.7	2.4	2.4	38	91	127	31	13
19	6.4	4.6	3.2	3.3	2.7	2.4	2.3	43	77	117	30	12
20	6.1	4.6	3.2	3.2	2.7	2.7	2.6	46	69	119	29	11
21	6.1	4.9	3.2	3.2	2.7	2.7	2.7	48	70	113	32	11
22	6.4	4.9	3.2	3.2	2.7	2.7	3.3	48	79	104	29	11
23	6.7	4.6	3.2	3.2	2.7	2.7	3.5	39	94	94	26	11
24	7.2	4.4	3.4	3.2	2.7	2.7	4.1	36	131	88	24	11
25	6.9	4.4	3.4	3.3	2.7	2.7	5.6	42	152	79	23	11
26	6.9	4.4	3.4	3.3	2.7	2.7	6.1	44	129	79	22	11
27	6.7	3.7	3.4	3.3	2.7	2.4	5.5	49	146	73	21	9.9
28	6.7	3.9	3.4	3.2	2.7	2.3	4.4	45	157	69	21	9.5
29	6.9	3.3	3.5	3.3	---	2.4	3.9	36	159	69	19	9.5
30	6.1	3.2	3.5	3.3	---	2.4	3.5	30	167	70	18	9.5
31	6.0	---	3.5	3.2	---	2.4	---	29	---	69	18	---
TOTAL	210.9	145.0	99.3	104.8	80.8	81.2	90.6	747.1	2867	4151	1115	390.4
MEAN	6.80	4.83	3.20	3.38	2.89	2.62	3.02	24.1	95.6	134	36.0	13.0
MAX	7.8	6.4	3.5	3.5	3.2	2.9	6.1	49	167	185	67	16
MIN	6.0	3.2	2.9	3.2	2.7	2.3	2.3	3.5	28	69	18	9.5
AC-FT	418	288	197	208	160	161	180	1480	5690	8230	2210	774

CAL YR 1974 TOTAL 7740.2 MEAN 21.2 MAX 131 MIN 2.4 AC-FT 15350
WTR YR 1975 TOTAL 10083.1 MEAN 27.6 MAX 185 MIN 2.3 AC-FT 20000

PEAK DISCHARGE (BASE, 150 FT^3/S).--July 1 (2230) 235 ft^3/s (3.23 ft).

07083700 ARKANSAS RIVER NEAR MALTA, COLO.

LOCATION.--Lat 39°10'08", long 106°19'23", in NE¼NW¼ sec.22, T.10 S., R.80 W., Lake County, on left bank 40 ft (12 m) downstream and 30 ft (9 m) shoreward of left end of bridge on U.S. Highway 24, 3.5 mi (5.6 km) downstream from Halfmoon Creek, 4.4 mi (7.1 km) southeast of Malta, and 5.7 mi (9.2 km) south of Leadville.

DRAINAGE AREA.--228 mi^2 (590 km^2).

PERIOD OF RECORD.--October 1964 to September 1967, October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,300 ft (2,835 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 1,130 ft^3/s (32.0 m^3/s) July 5 (gage height, 4.42 ft or 1.347 m); minimum daily, 40 ft^3/s (1.13 m^3/s) Oct. 11, 12, 16-20.
Period of record: Maximum discharge, 1,300 ft^3/s (36.8 m^3/s) June 16, 1965 (gage height, 4.44 ft or 1.353 m); minimum daily, 40 ft^3/s (1.13 m^3/s) Oct. 11, 12, 16-20, 1974.

REMARKS.--Records fair prior to April 1975, and good thereafter. Diversions for irrigation of about 5,600 acres (22.7 km^2) above station. Turquoise Lake is on a tributary above station (see sta. 07082400). Transmountain diversions from Colorado River basin to Arkansas River basin enter upstream from this station (see elsewhere in this report).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	65	44	50	55	60	58	364	440	982	550	450
2	67	65	45	50	55	60	62	364	445	1040	525	445
3	67	65	45	50	60	60	67	368	495	1030	510	450
4	67	65	45	50	67	60	67	376	565	1040	515	445
5	67	80	45	50	70	60	69	372	605	1040	515	360
6	67	100	41	50	70	60	69	328	700	946	520	217
7	67	99	41	50	70	60	69	300	710	970	525	307
8	67	95	41	50	70	60	69	328	830	952	520	360
9	55	102	45	50	70	58	69	340	775	946	515	297
10	45	97	48	50	70	57	69	352	725	875	510	280
11	40	134	50	50	70	56	140	380	650	810	515	276
12	40	170	50	50	70	56	214	364	610	740	515	292
13	42	167	50	50	68	56	214	435	580	715	555	292
14	45	161	50	50	65	55	300	505	705	705	555	292
15	43	158	50	50	65	54	364	560	845	715	530	341
16	40	161	50	50	65	54	380	540	982	770	520	440
17	40	158	50	50	60	52	395	520	870	790	515	445
18	40	158	50	50	60	56	390	525	795	705	510	377
19	40	149	50	50	60	55	368	525	765	665	505	260
20	40	146	50	50	60	50	368	520	750	690	505	252
21	50	149	50	50	60	51	364	525	735	655	490	252
22	55	146	50	50	60	48	372	530	730	575	475	252
23	65	143	50	50	60	49	368	525	750	550	470	252
24	70	140	50	50	60	59	372	525	835	495	465	252
25	70	140	50	50	60	70	385	530	982	490	455	244
26	70	112	50	52	60	56	405	535	952	490	445	232
27	68	63	50	55	60	56	385	545	916	470	445	220
28	66	41	50	55	60	56	372	550	916	460	440	220
29	65	41	50	55	---	58	368	545	916	445	445	217
30	65	41	50	55	---	58	364	530	958	495	450	214
31	65	---	50	55	---	58	---	490	---	555	450	---
TOTAL	1755	3411	1490	1577	1780	1758	7556	14196	22532	22806	15460	9233
MEAN	56.6	114	48.1	50.9	63.6	56.7	252	458	751	736	499	308
MAX	70	170	50	55	70	70	405	560	982	1040	555	450
MIN	40	41	41	50	55	48	58	300	440	445	440	214
AC-FT	3480	6770	2960	3130	3530	3490	14990	28160	44690	45240	30660	18310

WTR YR 1975 TOTAL 103554 MEAN 284 MAX 1040 MIN 40 AC-FT 205400

NOTE.--No gage-height record Oct. 1 to Nov. 6, Dec. 23 to Mar. 5.

07084500 LAKE CREEK ABOVE TWIN LAKES RESERVOIR, COLO.

LOCATION.--Lat 39°03'47", long 106°24'26", Lake County, on left bank 1.2 mi (1.9 km) upstream from water line of Twin Lakes Reservoir at elevation 9,200 ft (2,804.2 m) and 1.9 mi (3.1 km) southwest of village of Twin Lakes.

DRAINAGE AREA.--75 mi^2 (194 km^2).

PERIOD OF RECORD.--April 1946 to September 1962, October 1963 to current year. Monthly discharge only for some periods, published in WSP 1241, 1311, and 1731.

GAGE.--Water-stage recorder. Altitude of gage is 9,310 ft (2,838 m), from topographic map. Prior to May 20, 1950, at site 190 ft (58 m) downstream at different datum. May 20, 1950, to Apr. 7, 1953, at site 10 ft (3 m) upstream at present datum.

AVERAGE DISCHARGE.--28 years, 171 ft^3/s (4.843 m^3/s), 123,900 acre-ft/yr (153 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,830 ft^3/s (51.8 m^3/s) June 24 (gage height, 4.53 ft or 1.381 m); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Mar. 4.
Period of record: Maximum discharge, 3,150 ft^3/s (89.2 m^3/s) June 10, 1952 (gage height, 5.74 ft or 1.750 m), from rating curve extended above 1,400 ft^3/s (40 m^3/s); minimum not determined.

REMARKS.--Records good except those for period of no gage-height record, which are poor. No diversion above station. Records include inflow from Roaring Fork River in Colorado River basin through Twin Lakes tunnel (see elsewhere in this report).

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

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1711: 1951(M), 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	18	15	9.5	9.5	9.5	9.5	13	183	1490	359	56
2	35	18	15	11	10	9.5	9.5	17	236	1440	296	56
3	20	17	15	12	10	9.0	10	17	413	1500	248	55
4	20	17	15	12	11	8.0	10	18	644	1520	233	55
5	20	14	14	12	10	8.5	10	19	861	1350	218	53
6	20	15	14	13	10	8.5	9.5	18	982	1230	186	52
7	20	17	14	13	10	8.5	9.5	18	1310	1360	170	50
8	20	20	14	13	11	8.5	9.0	17	1150	1340	170	50
9	20	30	13	13	11	8.5	9.0	19	756	1280	164	80
10	20	34	13	12	11	8.5	9.0	29	638	1280	162	113
11	19	36	13	12	11	8.5	9.5	39	480	1090	156	53
12	21	41	13	11	11	8.5	9.5	36	475	935	172	39
13	20	19	13	12	11	8.5	9.5	35	545	833	200	43
14	21	17	13	12	11	9.0	9.5	43	882	833	195	43
15	19	17	13	11	11	9.0	10	60	1330	868	192	41
16	19	17	12	11	10	9.0	10	107	1450	912	192	38
17	20	17	12	11	9.5	9.0	10	105	1200	840	170	36
18	19	16	12	11	9.0	9.0	10	139	819	670	139	35
19	19	16	12	10	9.0	9.0	11	186	618	599	122	32
20	18	16	12	10	9.0	9.0	11	289	528	605	109	32
21	18	17	12	10	9.0	9.0	12	286	480	593	122	32
22	19	18	12	9.5	9.0	9.0	12	303	551	528	113	31
23	20	18	12	10	9.0	8.5	13	266	683	475	107	31
24	20	18	11	10	9.0	8.5	14	218	1140	418	103	29
25	19	17	10	10	9.5	8.5	15	236	1390	390	97	28
26	18	16	11	10	9.5	9.0	15	266	1150	350	91	28
27	18	16	11	10	9.5	9.0	16	306	1180	346	88	27
28	19	16	11	10	9.5	8.5	16	314	1330	322	84	26
29	19	16	11	10	---	8.5	16	269	1350	318	81	26
30	17	16	11	10	---	8.5	17	200	1360	346	74	26
31	17	---	10	10	---	9.0	---	178	---	342	58	---
TOTAL	629	580	389	341.0	279.0	271.5	341.0	4066	26114	26403	4871	1296
MEAN	20.3	19.3	12.5	11.0	9.96	8.76	11.4	131	870	852	157	43.2
MAX	35	41	15	13	11	9.5	17	314	1450	1520	359	113
MIN	17	14	10	9.5	9.0	8.0	9.0	13	183	318	58	26
AC-FT	1250	1150	772	676	553	539	676	8060	51800	52370	9660	2570

CAL YR 1974 TOTAL 49567.0 MEAN 136 MAX 1330 MIN 9.0 AC-FT 98320
WTR YR 1975 TOTAL 65580.5 MEAN 180 MAX 1520 MIN 8.0 AC-FT 130100

NOTE.--No gage-height record Nov. 6 to May 1.

07086000 ARKANSAS RIVER AT GRANITE, COLO.

LOCATION.--Lat 39°02'34", long 106°15'55", in SE¼SW¼ sec.31, T.11 S., R.79 W., Chaffee County, on right bank at Granite, 100 ft (30 m) east of U.S. Highway 34, 100 ft (30 m) downstream from county bridge, and 200 ft (61 m) upstream from Cache Creek.

DRAINAGE AREA.--427 mi^2 (1,106 km^2).

PERIOD OF RECORD.--April to October 1895, May to December 1897, August to September 1898, March to October 1899, April to May 1902 (gage heights and discharge measurements only in 1895, 1899, and 1901), April 1910 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 8,914.86 ft (2,717.249 km) above mean sea level. Prior to Apr. 6, 1910, nonrecording gages near present site at different datums. Apr. 6, 1910, to Oct. 25, 1917, water-stage recorder or nonrecording gage at site 832 ft (254 m) upstream at different datum. Oct. 26, 1917, to Oct. 26, 1960, water-stage recorder at site 168 ft (51 m) downstream at present datum.

AVERAGE DISCHARGE.--65 years (1910-75), 368 ft^3/s (10.42 m^3/s), 266,600 acre-ft/yr (329 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,640 ft^3/s (74.8 m^3/s) July 5 (gage height, 5.03 ft or 1.533 m); minimum daily, 55 ft^3/s (1.56 m^3/s) Jan. 12.
Period of record: Maximum discharge, 5,360 ft^3/s (152 m^3/s) June 28, 1957 (gage height, 7.20 ft or 2.195 m); minimum not determined.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 6,700 acres (27.1 km^2). Sugar Loaf and Twin Lakes Reservoirs are on tributaries above station (combined capacity, 182,700 acre-ft or 225 hm^3). Transmountain diversions from Colorado River basin to Arkansas River basin enter above this station (see elsewhere in this report).

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

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1711: 1952, 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	129	115	60	90	85	100	822	644	2210	1320	628
2	107	127	110	60	90	85	90	804	660	2340	1030	620
3	109	127	110	60	95	85	95	644	723	2400	732	628
4	118	131	105	65	90	80	105	652	858	2480	741	652
5	111	170	105	70	90	80	110	660	966	2580	777	590
6	118	170	105	75	85	80	115	604	1100	2560	741	282
7	118	170	100	75	85	80	110	545	1220	2500	759	345
8	114	168	100	75	90	80	100	566	1350	2480	966	390
9	105	165	100	75	90	80	95	596	1300	2510	1060	315
10	102	162	100	65	90	80	100	588	1210	2420	1040	286
11	102	173	95	60	85	80	165	588	1100	2270	1040	315
12	112	211	90	55	85	80	223	573	1000	2100	1060	335
13	114	214	85	60	85	85	226	628	885	1970	1170	320
14	109	208	85	65	85	85	286	652	984	1870	1170	310
15	105	202	85	70	85	80	402	696	1190	1800	1110	330
16	103	202	85	80	85	75	426	741	1680	1710	1080	486
17	102	199	85	95	85	75	426	759	1740	1540	930	492
18	100	199	85	100	80	75	420	732	1440	1410	732	450
19	100	193	85	95	80	80	420	723	1320	1280	723	290
20	100	187	85	95	80	90	432	786	1250	1210	696	270
21	100	190	90	90	80	85	450	813	1090	957	705	270
22	102	190	90	90	80	85	474	849	957	813	628	262
23	107	190	90	100	70	75	468	804	975	1060	552	258
24	116	184	80	105	85	70	456	723	1120	1100	545	250
25	120	187	65	105	80	85	480	723	1500	1130	524	247
26	131	179	70	95	75	95	876	750	1660	1210	504	241
27	129	138	80	85	75	95	867	786	1700	1310	498	235
28	129	114	85	85	75	90	813	831	1860	1220	492	229
29	134	110	85	90	---	90	795	831	1940	1130	580	226
30	134	115	75	95	---	95	813	759	2090	1230	660	223
31	127	---	65	95	---	100	---	714	---	1320	652	---
TOTAL	3487	5104	2790	2490	2350	2585	10938	21942	37512	54120	25217	10775
MEAN	112	170	90.0	80.3	83.9	83.4	365	708	1250	1746	813	359
MAX	134	214	115	105	95	100	876	849	2090	2580	1320	652
MIN	100	110	65	55	70	70	90	545	644	813	492	223
AC-FT	6920	10120	5530	4940	4660	5130	21700	43520	74410	107300	50020	21370

CAL YR 1974 TOTAL 172997 MEAN 474 MAX 1760 MIN 65 AC-FT 343100
WTR YR 1975 TOTAL 179310 MEAN 491 MAX 2580 MIN 55 AC-FT 355700

NOTE.--No gage-height record Dec. 25 to Apr. 15.

TRANSMOUNTAIN DIVERSIONS FROM ARKANSAS RIVER BASIN TO SOUTH PLATTE RIVER BASIN IN COLORADO

07086300 Aurora-Homestake pipeline diverts water from Arkansas River in sec.8, T.12 S., R.79 W., to Elevenmile Canyon Reservoir (South Platte River) in sec.29, T.13 S., R.72 W., in South Platte River basin. Diversion began Aug. 24, 1967. Pipeline is equipped with a discharge recorder and venturi meter. Records furnished by Colorado Division of Water Resources. Diversions for water year October 1974 to September 1975 are given below.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
0	2,440	0	0	1,830	0	1,140	0	291	605	710	1,860	8,880

07086500 CLEAR CREEK ABOVE CLEAR CREEK RESERVOIR, COLO.

LOCATION.--Lat 39°01'05", long 106°16'38", in SE¼ sec.12, T.12 S., R.80 W., Chaffee County, on right bank 0.5 mi (0.8 km) upstream from water line of Clear Creek Reservoir at elevation 8,875 ft (2,705.1 m), 1.5 mi (2.4 km) downstream from unnamed tributary, and 1.9 mi (3.1 km) southwest of Granite.

DRAINAGE AREA.--67.1 mi^2 (173.8 km^2).

PERIOD OF RECORD.--May 1946 to current year. Monthly discharge only for some periods, published in WSP 1241 and 1311.

GAGE.--Water-stage recorder. Altitude of gage is 8,885 ft (2,708 m) from topographic map. May 7, 1946, to Apr. 20, 1954, water-stage recorder at site 133 ft (41 m) upstream at different datum. Apr. 21, 1954, to May 28, 1958, water-stage recorder 333 ft (101 m) upstream at different datum. Datum raised 2.19 ft (0.668 m) Apr. 21, 1954.

AVERAGE DISCHARGE.--29 years, 68.6 ft^3/s (1.943 m^3/s), 49,700 acre-ft/yr (61.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, about 500 ft^3/s (14.2 m^3/s) July 4; minimum daily, 6.5 ft^3/s (0.18 m^3/s) Apr. 10.
Period of record: Maximum daily discharge, 1,300 ft^3/s (36.8 m^3/s) June 29, 1957; maximum gage height recorded, 4.34 ft or 1.323 m (site and datum then in use) June 16, 1952; minimum discharge not determined.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions for irrigation of about 250 acres (1.01 km^2) above station.

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

REVISIONS.--WRD Colo. 1969: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	15	11	9.0	8.0	11	9.0	9.5	65	324	115	38
2	16	15	11	10	8.5	11	8.5	10	80	365	105	37
3	16	15	11	9.5	9.0	10	9.0	10	111	455	85	36
4	18	15	11	10	9.5	10	9.5	11	145	440	74	36
5	18	14	11	10	9.0	10	9.5	11	172	410	72	36
6	17	14	11	11	8.5	10	9.5	12	224	380	70	35
7	17	14	11	11	9.5	10	9.0	12	262	400	68	33
8	16	15	10	11	10	10	8.0	13	240	420	67	33
9	16	16	10	11	10	10	7.0	13	208	395	66	35
10	15	15	10	10	10	10	6.5	14	177	350	65	36
11	16	15	10	10	10	10	7.0	15	147	310	64	37
12	20	14	10	9.5	10	9.5	7.0	16	137	270	67	38
13	20	14	10	10	10	9.0	7.0	18	156	230	97	42
14	18	13	9.0	11	10	9.5	7.0	21	234	230	100	42
15	16	13	9.5	11	10	10	7.5	25	299	230	87	37
16	15	13	10	11	9.5	10	7.5	37	302	245	82	35
17	15	13	11	11	8.0	10	8.0	42	254	225	77	31
18	15	13	10	11	7.5	9.5	8.0	50	218	195	76	30
19	15	13	10	10	8.0	10	8.0	58	186	170	71	27
20	14	12	9.5	10	8.0	10	8.0	64	156	165	66	27
21	14	14	10	9.5	8.0	10	8.0	70	147	145	70	27
22	14	14	10	8.0	8.0	9.5	8.0	70	152	125	67	26
23	15	13	10	9.0	8.0	9.0	8.0	62	184	110	63	25
24	16	13	9.5	9.0	9.0	8.5	8.0	58	234	100	59	24
25	15	13	9.0	9.0	10	8.5	8.0	68	282	110	56	24
26	15	12	8.5	9.0	10	9.0	8.5	72	265	120	54	23
27	15	11	9.0	9.0	10	9.0	8.5	86	282	115	52	22
28	15	12	9.0	9.0	11	8.5	8.5	86	293	120	48	21
29	16	11	9.5	8.5	---	8.5	8.5	77	290	130	44	20
30	16	10	9.0	9.0	---	9.0	9.0	68	293	130	42	20
31	15	---	9.0	8.5	---	9.0	---	68	---	120	40	---
TOTAL	495	404	308.5	304.5	257.0	298.0	243.5	1246.5	6195	7534	2169	933
MEAN	16.0	13.5	9.95	9.82	9.18	9.61	8.12	40.2	207	243	70.0	31.1
MAX	20	16	11	11	11	11	9.5	86	302	455	115	42
MIN	14	10	8.5	8.0	7.5	8.5	6.5	9.5	65	100	40	20
AC-FT	982	801	612	604	510	591	483	2470	12290	14940	4300	1850

CAL YR 1974 TOTAL 16115.5 MEAN 44.2 MAX 284 MIN 6.0 AC-FT 31970
WTR YR 1975 TOTAL 20388.0 MEAN 55.9 MAX 455 MIN 6.5 AC-FT 40440

PEAK DISCHARGE (BASE, 400 FT^3/S).--July 4 (time unknown) about 500 ft^3/s (gage height not determined).

NOTE.--No gage-height record Dec. 21 to May 14, July 2 to Aug. 30.

07087200 ARKANSAS RIVER AT BUENA VISTA, COLO.

LOCATION.--Lat 38°50'56", long 106°07'27", in NW¼NW¼ sec.9, T.14 S., R.78 W., Chaffee County, on right bank at northeast corner of Buena Vista city limits and 1.1 mi (1.8 km) upstream from Cottonwood Creek.

DRAINAGE AREA.--611 mi^2 (1,582 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 7,920 ft (2,414 m) from topographic map.

AVERAGE DISCHARGE.--11 years, 523 ft^3/s (14.81 m^3/s), 378,900 acre-ft/yr (467 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,650 ft^3/s (75.0 m^3/s) July 6 (gage height, 5.60 ft or 1.707 m); minimum daily, 60 ft^3/s (1.70 m^3/s) Jan. 10-11.
Period of record: Maximum discharge, 3,640 ft^3/s (103 m^3/s) July 13, 1965 (gage height, 6.32 ft or 1.926 m); minimum daily, 60 ft^3/s (1.70 m^3/s) Jan. 10, 11, 1975.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs (combined capacity, 193,900 acre-ft or 239 hm^3), diversions above station for irrigation of 7,400 acres (29.9 km^2), and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	151	118	70	113	110	102	795	735	2350	1450	735
2	132	147	122	69	112	105	80	795	760	2420	1270	725
3	134	143	105	80	112	100	90	755	800	2440	924	754
4	149	145	99	71	96	100	102	765	972	2520	882	858
5	140	131	102	73	99	100	104	785	1140	2570	882	795
6	143	140	104	75	113	97	110	710	1320	2540	840	418
7	149	141	102	72	110	92	113	610	1490	2470	864	516
8	141	141	105	69	105	91	96	610	1670	2410	1020	600
9	136	143	134	65	100	99	92	640	1640	2430	1150	534
10	131	138	96	60	100	96	97	655	1520	2390	1130	236
11	129	138	92	60	95	94	106	665	1370	2270	1130	257
12	140	180	86	65	98	92	215	690	1220	2180	1150	296
13	140	195	88	80	100	110	224	655	1060	2090	1230	289
14	134	182	75	88	100	105	250	705	1150	2020	1270	292
15	131	172	75	112	100	92	380	760	1420	1900	1220	277
16	129	172	75	138	100	82	424	805	2000	1780	1270	448
17	129	170	70	134	95	90	440	790	2130	1700	1180	456
18	125	172	80	120	95	82	384	795	1800	1630	960	453
19	125	165	85	108	98	102	373	846	1570	1510	972	269
20	125	155	85	100	95	104	388	894	1490	1450	894	248
21	125	161	85	100	95	104	404	960	1330	1270	942	257
22	129	163	80	99	110	99	428	984	1100	992	840	254
23	131	161	80	105	140	85	436	912	1160	1280	755	251
24	138	151	70	107	110	76	420	840	1310	1330	725	245
25	140	155	70	102	95	91	444	815	1760	1350	705	239
26	149	161	70	86	95	120	796	840	1970	1380	670	233
27	147	161	75	91	98	108	864	876	2000	1470	645	224
28	149	131	80	92	100	97	780	894	2120	1370	640	215
29	153	112	80	115	---	94	775	918	2200	1300	720	210
30	159	117	75	105	---	105	775	858	2250	1350	835	210
31	147	---	70	105	---	108	---	795	---	1470	785	---
TOTAL	4265	4594	2733	2816	2879	3030	10292	24417	44457	57632	29950	11794
MEAN	138	153	88.2	90.8	103	97.7	343	788	1482	1859	966	393
MAX	159	195	134	138	140	120	864	984	2250	2570	1450	858
MIN	125	112	70	60	95	76	80	610	735	992	640	210
AC-FT	8460	9110	5420	5590	5710	6010	20410	48430	88180	114300	59410	23390

CAL YR 1974 TOTAL 184032 MEAN 504 MAX 1950 MIN 70 AC-FT 365000
WTR YR 1975 TOTAL 198859 MEAN 545 MAX 2570 MIN 60 AC-FT 394400

07089000 COTTONWOOD CREEK BELOW HOT SPRINGS, NEAR BUENA VISTA, COLO.

LOCATION.--Lat 38°48'46", long 106°13'18", in SE¼SE¼ sec.21, T.14 S., R.79 W., Chaffee County, on left bank 0.2 mi (0.3 km) downstream from Cottonwood Hot Springs, 0.9 mi (1.4 km) downstream from confluence of Middle Cottonwood and South Cottonwood Creeks, 2.9 mi (4.7 km) upstream from North Cottonwood Creek, and 5.5 mi (8.8 km) southwest of Buena Vista.

DRAINAGE AREA.--65 mi^2 (168 km^2).

PERIOD OF RECORD.--October 1910 to September 1923, August 1949 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 8,532 ft (2,600.6 m) from river-profile survey. Prior to Oct. 1, 1923, nonrecording gage near present site at different datum.

AVERAGE DISCHARGE.--39 years, 57.5 ft^3/s (1.628 m^3/s), 41,660 acre-ft/yr (51.4 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 313 ft^3/s (8.86 m^3/s) July 8 (gage height, 2.89 ft or 0.881 m); minimum daily, 14 ft^3/s (0.40 m^3/s) many days.
Period of record: Maximum discharge, 1,180 ft^3/s (33.4 m^3/s) July 1, 1957 (gage height, 4.52 ft or 1.378 m, from floodmarks), from rating curve extended above 690 ft^3/s (20 m^3/s); minimum observed, 10 ft^3/s (0.28 m^3/s) Mar. 20-23, 25, Apr. 9, 19, 1914.

REMARKS.--Records good. Several small diversions above station for irrigation.

REVISIONS (WATER YEARS).--WSP 1177: 1915, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	23	20	17	16	15	14	17	48	203	89	36
2	25	23	20	17	15	15	14	16	52	208	78	35
3	26	25	20	17	16	15	14	17	82	214	73	36
4	28	24	19	17	15	14	15	18	103	196	69	37
5	28	21	19	17	15	14	15	20	121	183	66	36
6	27	22	20	17	15	15	16	18	147	185	64	35
7	26	22	20	17	15	14	16	17	155	178	60	34
8	26	23	20	17	15	14	15	17	145	205	61	33
9	26	24	20	17	15	15	15	17	138	237	58	36
10	25	23	19	17	16	14	15	18	127	193	57	37
11	25	23	20	17	15	14	15	21	104	176	55	35
12	30	23	19	16	15	14	15	24	104	167	57	36
13	27	23	19	17	15	14	15	24	111	154	75	40
14	28	23	18	17	15	14	15	26	147	157	70	42
15	26	22	19	17	15	15	15	32	155	177	60	40
16	25	22	18	17	15	14	16	36	183	158	54	39
17	25	22	18	16	15	14	16	39	171	156	53	36
18	25	23	18	16	15	14	16	47	164	150	51	34
19	24	21	18	16	15	14	15	51	153	144	49	33
20	24	20	18	16	15	14	16	57	137	142	47	34
21	24	21	18	16	15	15	16	65	140	135	51	34
22	24	21	18	16	15	14	17	70	141	130	50	34
23	25	21	18	16	15	14	18	52	154	118	48	34
24	26	20	18	16	14	14	19	44	163	116	45	33
25	26	20	18	17	14	14	20	53	187	117	43	33
26	25	20	18	16	14	14	21	55	172	108	41	32
27	24	20	18	16	14	14	21	71	173	99	41	31
28	24	21	18	16	14	14	19	68	182	102	41	31
29	25	20	18	16	---	14	18	64	184	91	40	31
30	25	20	18	16	---	14	17	46	191	102	38	31
31	23	---	17	16	---	14	---	51	---	95	37	---
TOTAL	792	656	579	512	418	441	489	1171	4234	4796	1721	1048
MEAN	25.5	21.9	18.7	16.5	14.9	14.2	16.3	37.8	141	155	55.5	34.9
MAX	30	25	20	17	16	15	21	71	191	237	89	42
MIN	23	20	17	16	14	14	14	16	48	91	37	31
AC-FT	1570	1300	1150	1020	829	875	970	2320	8400	9510	3410	2080

CAL YR 1974 TOTAL 13620 MEAN 37.3 MAX 155 MIN 14 AC-FT 27020
WTR YR 1975 TOTAL 16857 MEAN 46.2 MAX 237 MIN 14 AC-FT 33440

PEAK DISCHARGE (BASE, 300 FT^3/S).--July 8 (2300) 313 ft^3/s (2.89 ft).

07091200 ARKANSAS RIVER NEAR NATHROP, COLO.

LOCATION.--Lat 38°39'08", long 106°03'02", in SE¼SW¼ sec.23, T.51 N., R.8 E., Chaffee County, on right bank 300 ft (91 m) upstream from end of Chaffee County road 60, in Browns Canyon, 3.7 mi (5.9 km) downstream from Browns Creek, 6.7 mi (10.8 km) south of Nathrop, and 9 mi (14 km) north of Salida.

DRAINAGE AREA.--1,060 mi^2 (2,745 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 7,350 ft (2,240 m) from topographic map.

AVERAGE DISCHARGE.--11 years, 665 ft^3/s (18.83 m^3/s), 481,800 acre-ft/yr (594 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,170 ft^3/s (89.8 m^3/s) July 6 (gage height, 7.95 ft or 2.423 m); minimum daily, 140 ft^3/s (3.96 m^3/s) Jan. 11-13.
Period of record: Maximum discharge, 4,480 ft^3/s (127 m^3/s) July 13, 1965 (gage height, 7.79 ft or 2.374 m); maximum gage height, 8.94 ft (2.725 m) Aug. 31, 1972 (backwater from unnamed tributary); minimum daily discharge, 110 ft^3/s (3.12 m^3/s) Dec. 31, 1972.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs, power developments, diversions for irrigation of about 15,000 acres (60.7 km^2) and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	224	282	246	180	210	186	180	862	886	2880	1590	802
2	226	282	260	170	210	201	156	862	910	2960	1450	790
3	226	292	230	160	210	196	159	850	982	3030	1040	796
4	240	275	222	170	210	184	172	844	1180	3070	976	910
5	246	268	220	190	200	186	176	868	1380	3070	976	892
6	240	272	228	190	196	189	184	826	1630	3030	940	578
7	246	285	212	190	212	183	189	695	1870	2940	952	585
8	240	285	214	180	222	182	163	695	2020	2880	1060	705
9	234	295	216	170	210	188	163	715	1970	2920	1220	655
10	224	282	242	150	214	183	167	720	1870	2820	1210	412
11	224	270	201	140	206	182	170	730	1670	2710	1210	392
12	282	312	203	140	194	177	270	750	1430	2560	1220	428
13	260	342	189	140	201	184	305	725	1260	2430	1330	419
14	252	330	197	160	206	192	302	796	1450	2340	1400	434
15	244	325	190	200	216	183	433	832	1800	2280	1330	416
16	240	320	184	240	205	173	488	898	2400	2120	1370	534
17	236	312	183	240	208	177	536	910	2640	1990	1300	565
18	232	312	188	240	201	169	468	898	2230	1890	1020	565
19	226	315	188	230	192	180	448	952	1950	1790	1050	425
20	228	295	197	230	201	184	460	1010	1800	1700	952	380
21	230	302	218	230	201	178	468	1100	1640	1570	1010	386
22	234	308	203	230	196	174	504	1140	1410	1120	946	386
23	240	310	201	220	190	164	516	1070	1470	1400	850	380
24	255	288	189	220	244	152	496	988	1670	1480	814	377
25	268	295	180	220	194	159	512	946	2160	1510	796	368
26	275	295	170	220	178	192	774	976	2440	1510	766	365
27	280	292	160	220	177	188	940	1030	2430	1630	740	353
28	280	272	170	220	180	174	862	1070	2600	1510	730	348
29	288	236	180	220	---	167	856	1100	2720	1450	771	342
30	302	255	180	220	---	167	850	1010	2770	1460	886	342
31	280	---	180	210	---	184	---	964	---	1600	868	---
TOTAL	7702	8804	6241	6140	5684	5578	12367	27832	54638	67650	32773	15330
MEAN	248	293	201	198	203	180	412	898	1821	2182	1057	511
MAX	302	342	260	240	244	201	940	1140	2770	3070	1590	910
MIN	224	236	160	140	177	152	156	695	886	1120	730	342
AC-FT	15280	17460	12380	12180	11270	11060	24530	55200	108400	134200	65010	30410

CAL YR 1974 TOTAL 223559 MEAN 612 MAX 2180 MIN 160 AC-FT 443400
WTR YR 1975 TOTAL 250739 MEAN 687 MAX 3070 MIN 140 AC-FT 497300

07091500 ARKANSAS RIVER AT SALIDA, COLO.

LOCATION.--Lat 38°32'45", long 106°00'36", in NE¼ sec.31, T.50 N., R.9 E., Chaffee County, on right bank at Salida, 450 ft (140 m) upstream from bridge on State Highway 291 and 2.7 mi (4.3 km) upstream from South Arkansas River.

DRAINAGE AREA.--1,218 mi^2 (3,155 km^2).

PERIOD OF RECORD.--April to October 1895, May to December 1897, August 1898 to September 1899, April to October 1900, April 1901 to October 1903, October 1909 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 7,050.45 ft (2,148.977 m) above mean sea level. See WSP 1711 or 1731 for history of changes prior to Dec. 6, 1957.

AVERAGE DISCHARGE.--69 years (1898-99, 1901-3, 1909-75), 633 ft^3/s (17.93 m^3/s), 458,600 acre-ft/yr (565 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 3,680 ft^3/s (104 m^3/s) July 6 (gage height, 3.79 ft or 1.155 m); minimum daily, 150 ft^3/s (4.25 m^3/s) Jan. 12.
Period of record: Maximum discharge, 9,220 ft^3/s (261 m^3/s) June 29, 1957 (gage height, 7.82 ft or 2.384 m, present datum; minimum observed, 100 ft^3/s (2.83 m^3/s) Oct. 4, 6, 7, 1898.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs (combined capacity, 193,900 acre-ft or 239 hm^3), diversions for irrigation of about 18,000 acres (72.8 km^2) above station, and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1311: 1899, 1900, 1914(M), 1921(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	286	260	175	205	195	200	812	783	3190	1630	754
2	260	292	260	175	200	210	175	812	802	3330	1520	745
3	254	306	254	170	210	205	170	783	870	3400	1060	736
4	260	292	249	175	205	195	190	764	1040	3470	990	870
5	273	286	244	180	210	195	190	774	1150	3520	980	860
6	266	286	249	190	200	200	200	736	1300	3540	950	569
7	273	299	244	195	195	195	205	605	1420	3410	960	526
8	260	318	244	195	222	195	180	596	1520	3380	1030	660
9	232	325	238	190	210	200	170	614	1490	3460	1210	623
10	222	312	244	170	205	200	170	632	1450	3350	1180	395
11	216	306	232	160	200	195	175	641	1410	3120	1180	360
12	260	332	238	150	195	190	244	660	1380	2930	1210	395
13	244	374	216	160	200	195	292	632	1150	2750	1330	388
14	232	360	210	165	200	200	292	698	1320	2590	1430	403
15	238	346	210	170	205	195	411	745	1720	2530	1330	388
16	238	339	210	180	200	180	475	802	2490	2280	1370	475
17	232	339	216	232	200	180	526	830	2810	2140	1340	534
18	238	346	210	238	195	175	467	821	2300	1970	1000	534
19	232	339	216	232	185	185	443	870	1920	1830	1010	419
20	232	318	210	227	190	200	443	920	1750	1750	920	353
21	238	318	222	227	195	195	451	990	1570	1610	980	360
22	238	332	227	216	185	190	484	1050	1330	1120	920	360
23	244	339	222	222	155	180	509	980	1380	1410	812	360
24	254	318	216	238	216	160	492	910	1560	1510	783	360
25	266	312	185	254	205	165	500	850	2120	1520	764	353
26	273	318	175	232	185	205	716	880	2570	1540	726	353
27	273	312	195	200	180	210	930	930	2570	1690	707	346
28	273	306	205	195	185	195	830	970	2750	1570	688	339
29	280	273	216	205	---	185	802	1000	2920	1500	698	332
30	292	254	205	216	---	190	774	930	3020	1500	850	325
31	273	---	180	216	---	195	---	850	---	1660	850	---
TOTAL	7788	9483	6902	6150	5538	5955	12106	25087	51865	74570	32408	14475
MEAN	251	316	223	198	198	192	404	809	1729	2405	1045	483
MAX	292	374	260	254	222	210	930	1050	3020	3540	1630	870
MIN	216	254	175	150	155	160	170	596	783	1120	688	325
AC-FT	15450	18810	13690	12200	10980	11810	24010	49760	102900	147900	64280	28710

CAL YR 1974 TOTAL 230527 MEAN 632 MAX 2490 MIN 160 AC-FT 457300
WTR YR 1975 TOTAL 252327 MEAN 691 MAX 3540 MIN 150 AC-FT 500500

07093700 ARKANSAS RIVER NEAR WELLSVILLE, COLO.

LOCATION.--Lat 38°30'10", long 105°56'21", in SW¼NE¼ sec.14, T.49 N., R.9 E., Chaffee County, on right bank 50 ft (15 m) upstream from Chaffee-Fremont County line, 2.0 mi (3.2 km) northwest of Wellsville, 2.8 mi (4.5 km) downstream from South Arkansas River, and 3.5 mi (5.6 km) southeast of Salida.

DRAINAGE AREA.--1,485 mi² (3,846 km²).

PERIOD OF RECORD.--April 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,883.4 ft (2,098.06 m) above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--14 years, 711 ft³/s (20.14 m³/s), 515,100 acre-ft/yr (635 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 3,510 ft³/s (99.4 m³/s) July 8 (gage height, 6.62 ft or 2.018 m); minimum daily, 202 ft³/s (5.72 m³/s) Jan. 10, Mar. 24.
Period of record: Maximum discharge, 4,390 ft³/s (124 m³/s) July 13, 1965 (gage height, 7.36 ft or 2.243 m); minimum daily, 110 ft³/s (3.12 m³/s) Jan. 12, 1963.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 26,000 acres (105 km²), and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	339	331	230	258	272	264	872	890	3050	1600	806
2	295	359	335	220	258	295	233	860	884	3160	1530	788
3	287	371	335	230	258	287	216	860	1000	3290	1080	782
4	291	359	331	250	261	254	244	824	1260	3350	1010	864
5	307	351	331	258	258	250	250	842	1520	3380	1000	878
6	295	355	331	261	222	258	258	800	1840	3420	962	645
7	303	375	319	250	244	250	261	675	2100	3270	962	575
8	287	383	315	230	287	247	230	665	2230	3270	1030	700
9	264	395	295	236	275	250	219	675	2200	3320	1210	700
10	244	391	315	202	275	254	212	692	2140	3240	1190	500
11	236	375	291	205	264	247	219	692	1870	3080	1190	430
12	335	404	299	205	254	247	295	710	1600	2920	1210	450
13	319	449	279	250	264	247	363	692	1380	2730	1320	440
14	291	431	268	264	264	264	359	746	1530	2620	1410	450
15	283	426	264	258	279	261	469	788	1900	2570	1330	440
16	287	426	268	264	268	244	560	848	2560	2340	1340	550
17	283	413	275	283	272	240	615	878	2920	2160	1340	590
18	275	408	272	283	258	233	550	872	2490	2040	1050	575
19	268	422	275	275	236	247	521	920	2150	1910	1050	476
20	268	395	264	272	250	272	530	983	1920	1840	969	395
21	268	395	287	264	261	261	540	1070	1780	1720	1010	408
22	272	404	287	233	247	250	570	1110	1530	1210	962	408
23	279	404	279	264	219	233	590	1070	1550	1430	866	400
24	291	383	258	272	287	202	580	983	1700	1520	830	395
25	311	383	230	283	291	216	590	920	2210	1530	806	387
26	315	383	220	275	247	264	765	955	2590	1520	782	375
27	323	383	230	261	247	268	997	1010	2570	1650	752	363
28	323	383	280	258	258	247	896	1070	2700	1540	740	359
29	335	331	287	247	---	226	872	1110	2860	1470	752	355
30	359	323	268	275	---	226	842	1020	2900	1460	872	347
31	331	---	264	275	---	254	---	941	---	1610	872	---
TOTAL	9075	11599	8883	7833	7262	7766	14110	27153	58774	73620	33027	15851
MEAN	293	387	287	253	259	251	470	876	1959	2375	1065	528
MAX	359	449	335	283	291	295	997	1110	2920	3420	1600	884
MIN	236	323	220	202	219	202	212	665	884	1210	740	347
AC-FT	18000	23010	17620	15540	14400	15400	27990	53860	116600	146000	65510	31440

CAL YR 1974 TOTAL 239924 MEAN 657 MAX 2240 MIN 182 AC-FT 475900
WTR YR 1975 TOTAL 274953 MEAN 753 MAX 3420 MIN 202 AC-FT 545400

07094500 ARKANSAS RIVER AT PARKDALE, COLO.

LOCATION.--Lat 38°29'14", long 105°22'23", in NE¼NW¼ sec.18, T.18 S., R.71 W., Fremont County, on left bank at Parkdale, 100 ft (30 m) upstream from Bumback Gulch, 300 ft (91 m) upstream from bridge on U.S. Highway 50, and 0.9 mi (1.4 km) upstream from Copper Gulch.

DRAINAGE AREA.--2,548 mi^2 (6,599 km^2).

PERIOD OF RECORD.--October 1945 to September 1955, October 1964 to current year. Monthly discharge only for October 1945 to May 1946, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 5,720 ft (1,743 m) from topographic map. Prior to Oct. 1, 1964, at site 600 ft (180 m) downstream at different datum.

AVERAGE DISCHARGE.--21 years, 786 ft^3/s (22.26 m^3/s), 569,500 acre-ft/yr (702 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 5,200 ft^3/s (147 m^3/s) July 8 (gage height, 6.91 ft or 2.106 m); minimum daily, 213 ft^3/s (6.03 m^3/s) Jan. 12.
Period of record: Maximum discharge, 5,880 ft^3/s (167 m^3/s) June 22, 1947 (gage height, 9.02 ft or 2.749 m, site and datum then in use), from rating curve extended above 3,000 ft^3/s (85 m^3/s); minimum daily, 200 ft^3/s (5.66 m^3/s) Jan. 5-7, 1971.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 35,000 acres (142 hm^3) above station, and return flow from irrigated areas.

REVISIONS.--WSP 1117: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	282	358	358	264	294	315	330	940	972	3280	1720	841
2	304	377	370	282	288	334	313	930	916	3370	1690	802
3	319	398	374	278	291	350	283	910	1010	3590	1320	797
4	319	396	382	273	324	324	310	900	1280	3600	1110	878
5	330	389	378	304	315	315	341	880	1590	3710	1060	899
6	326	373	366	290	284	323	356	860	1860	3720	1030	811
7	330	385	358	300	295	322	342	750	2170	3560	1010	583
8	332	401	344	276	325	319	295	670	2320	3700	1010	669
9	315	416	328	291	332	317	294	670	2400	3920	1260	714
10	297	419	342	252	318	320	383	703	2410	3660	1280	655
11	291	404	342	216	319	311	457	707	2220	3440	1270	449
12	342	395	339	213	316	306	663	725	1890	3210	1290	475
13	380	443	332	242	314	294	599	724	1580	3010	1370	515
14	337	461	309	307	307	310	639	724	1610	2860	1560	509
15	325	448	307	324	312	329	640	796	1950	2820	1470	507
16	325	440	313	310	310	310	640	855	2500	2560	1420	496
17	321	436	313	328	312	295	630	933	3130	2400	1470	621
18	316	430	322	328	298	291	610	944	2770	2250	1230	616
19	313	438	315	343	287	289	600	981	2490	2140	1110	595
20	311	424	298	324	295	318	590	1050	2210	2040	1050	452
21	312	411	315	294	297	341	590	1150	2030	1970	1050	451
22	315	416	334	265	291	324	610	1210	1820	1470	1050	458
23	321	422	302	262	272	303	640	1220	1750	1500	938	447
24	324	416	250	294	300	280	640	1100	1850	1740	863	442
25	337	401	249	321	348	278	660	980	2220	1700	833	434
26	341	404	257	339	300	305	800	995	2750	1700	811	422
27	347	401	310	318	296	338	950	1050	2760	1750	780	418
28	353	411	300	304	299	311	1050	1170	2840	1700	761	405
29	354	371	324	307	---	295	980	1250	3050	1620	749	403
30	384	339	314	304	---	285	950	1180	3110	1590	847	398
31	372	---	286	297	---	297	---	1040	---	1700	894	---
TOTAL	10175	12223	10031	9050	8539	9649	17185	28997	63458	81280	35306	17162
MEAN	328	407	324	292	305	311	573	935	2115	2622	1139	572
MAX	384	461	382	343	348	350	1050	1250	3130	3920	1720	899
MIN	282	339	249	213	272	278	283	670	916	1470	749	398
AC-FT	20180	24240	19900	17950	16940	19140	34090	57520	125900	161200	70030	34040

CAL YR 1974 TOTAL 254096 MEAN 696 MAX 2320 MIN 234 AC-FT 504000
WTR YR 1975 TOTAL 303055 MEAN 830 MAX 3920 MIN 213 AC-FT 601100

07094600 SOUTH COLONY CREEK NEAR WESTCLIFFE, COLO.

LOCATION.--Lat 37°59'57", long 105°29'25", in NW¼NW¼ sec.6, T.24 S., R.72 W., Custer County, on left bank 50 ft (15 m) upstream from Middle Colony Creek, and 9.5 mi (15.3 km) south of Westcliffe.

DRAINAGE AREA.--6.5 mi^2 (16.8 km^2).

PERIOD OF RECORD.--Aug. 1, 1974, to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,940 ft (2,725 m) from topographic map.

EXTREMES.--Maximum discharge during period Aug. 1 to Sept. 30, 1974, 11 ft^3/s (0.31 m^3/s) Aug. 2 (gage height, 0.92 ft or 0.280 m); minimum daily, 1.5 ft^3/s (0.042 m^3/s) Sept. 12.
Maximum discharge during 1975 water year, 70 ft^3/s (1.98 m^3/s) May 7 (gage height, 1.52 ft or 0.463 m); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Jan. 4 to Mar. 31.

REMARKS.--Records good except those for winter period, which are poor.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											5.3	1.9
2											6.6	1.9
3											8.2	1.9
4											9.0	1.8
5											9.5	1.7
6											9.0	1.7
7											8.2	1.6
8											7.4	1.6
9											6.6	1.6
10											6.6	1.6
11											5.5	1.6
12											4.9	1.5
13											4.6	1.6
14											4.2	1.6
15											3.9	2.0
16											3.6	2.3
17											3.3	2.2
18											3.1	2.0
19											3.2	2.0
20											4.0	1.9
21											3.2	1.9
22											3.1	2.0
23											3.1	2.1
24											2.9	2.0
25											2.7	2.0
26											2.5	2.0
27											2.4	2.1
28											2.4	2.3
29											2.4	2.2
30											2.2	2.1
31											2.0	---
TOTAL											145.6	56.7
MEAN											4.70	1.89
MAX											9.5	2.3
MIN											2.0	1.5
AC-FT											289	112

07094600 SOUTH COLONY CREEK NEAR WESTCLIFFE, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.0	.90	.25	.20	.20	.25	1.2	11	34	12	4.0
2	2.0	1.9	.90	.25	.20	.20	.25	1.3	14	33	10	3.8
3	2.0	1.8	.90	.25	.20	.20	.30	1.7	23	31	9.4	3.6
4	2.6	2.0	.90	.20	.20	.20	.30	2.5	28	31	8.7	4.0
5	2.1	2.2	.90	.20	.20	.20	.30	2.9	28	29	8.0	4.3
6	2.0	2.3	.80	.20	.20	.20	.30	11	39	34	7.5	3.8
7	2.0	2.3	.80	.20	.20	.20	.30	22	46	33	7.3	3.5
8	2.0	2.3	.70	.20	.20	.20	.30	1.9	47	35	7.5	3.3
9	2.0	1.8	.70	.20	.20	.20	.30	2.4	42	41	7.0	3.6
10	2.0	1.6	.70	.20	.20	.20	.30	4.2	30	35	6.5	3.7
11	1.9	2.0	.65	.20	.20	.20	.35	7.0	24	30	6.3	4.0
12	2.3	2.0	.60	.20	.20	.20	.35	8.5	20	28	7.3	4.9
13	2.3	1.4	.60	.20	.20	.20	.35	7.4	21	24	8.4	5.5
14	2.4	1.4	.60	.20	.20	.20	.35	8.9	28	21	7.5	5.3
15	2.1	1.2	.60	.20	.20	.20	.35	14	36	21	6.6	5.4
16	2.1	1.1	.55	.20	.20	.20	.35	17	42	24	6.0	5.3
17	2.0	1.4	.55	.20	.20	.20	.37	20	38	42	6.1	5.1
18	2.0	1.1	.55	.20	.20	.20	.25	20	40	38	5.6	4.7
19	1.9	1.0	.50	.20	.20	.20	.25	19	37	30	5.3	4.4
20	1.9	1.4	.50	.20	.20	.20	.25	18	26	24	5.0	4.0
21	1.9	1.1	.50	.20	.20	.20	.32	17	23	22	7.1	4.4
22	1.9	1.0	.45	.20	.20	.20	.48	14	20	21	6.2	4.1
23	1.9	.92	.45	.20	.20	.20	.64	11	21	20	5.9	3.7
24	1.8	.92	.40	.20	.20	.20	.76	10	31	18	5.6	3.6
25	1.9	1.1	.35	.20	.20	.20	1.2	13	42	16	5.2	3.5
26	1.8	.92	.30	.20	.20	.20	1.5	16	37	14	4.9	3.3
27	1.9	.92	.30	.20	.20	.20	1.2	17	35	13	4.6	3.2
28	1.9	1.0	.30	.20	.20	.20	1.1	18	34	13	4.6	3.0
29	1.8	1.0	.30	.20	---	.20	1.0	15	33	13	4.5	3.1
30	1.4	.92	.30	.20	---	.20	1.2	12	34	13	4.7	3.1
31	1.8	---	.30	.20	---	.20	---	11	---	13	4.4	---
TOTAL	61.6	44.00	17.85	6.35	5.60	6.20	15.52	344.9	930	794	205.7	121.2
MEAN	1.99	1.47	.58	.20	.20	.20	.52	11.1	31.0	25.6	6.64	4.04
MAX	2.6	2.3	.90	.25	.20	.20	1.5	22	47	42	12	5.5
MIN	1.4	.92	.30	.20	.20	.20	.25	1.2	11	13	4.4	3.0
AC-FT	122	87	35	13	11	12	31	684	1840	1570	408	240

WTR YR 1975 TOTAL 2552.92 MEAN 6.99 MAX 47 MIN .20 AC-FT 5060

NOTE.--No gage-height record Dec. 24 to Apr. 17.

07094900 MIDDLE TAYLOR CREEK NEAR WESTCLIFFE, COLO.

LOCATION.--Lat 48°06'30", long 105°36'03", in SW¼NE¼ sec.36, T.45 N., R.12 E., Custer County, on right bank 300 ft (91 m) downstream from Rainbow Trail crossing and 7.5 mi (12.1 km) west of Westcliffe.

DRAINAGE AREA.--3.2 mi^2 (8.3 km^2).

PERIOD OF RECORD.--August 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 9,960 ft (3,036 m) from topographic map.

EXTREMES.--August to September 1974: Maximum discharge during period, 3.8 ft^3/s (0.11 m^3/s) Aug. 5 (gage height, 1.06 ft or 0.323 m); minimum daily, 1.1 ft^3/s (0.031 m^3/s) Sept. 11-12.
Water year 1975: Maximum discharge, 49 ft^3/s (1.39 m^3/s) July 10 (gage height, 1.94 ft or 0.591 m); minimum daily, 0.40 ft^3/s (0.011 m^3/s) Dec. 26 to Apr. 18.

REMARKS.--Records good except those for winter period and period of no gage-height record, which are poor. No regulation or diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											1.3	1.3
2											1.5	1.4
3											1.8	1.3
4											1.8	1.2
5											2.1	1.2
6											1.8	1.2
7											2.0	1.2
8											1.9	1.2
9											1.9	1.2
10											2.0	1.2
11											1.8	1.1
12											1.7	1.1
13											1.7	1.3
14											1.6	1.4
15											1.5	1.6
16											1.5	1.8
17											1.6	1.7
18											1.5	1.6
19											1.5	1.5
20											1.4	1.5
21											1.4	1.4
22											1.4	1.4
23											1.5	1.5
24											1.4	1.5
25											1.4	1.4
26											1.4	1.4
27											1.3	1.4
28											1.3	1.4
29											1.3	1.3
30											1.3	1.3
31											1.4	---
TOTAL											49.0	41.0
MEAN											1.58	1.37
MAX											2.1	1.8
MIN											1.3	1.1
AC-FT											97	81

07094900 MIDDLE TAYLOR CREEK NEAR WESTCLIFFE, COLO.--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.5	.80	.40	.40	.40	.40	.75	7.8	27	8.4	2.4
2	1.3	1.3	.70	.40	.40	.40	.40	.77	8.6	28	8.2	2.4
3	1.2	1.6	.70	.40	.40	.40	.40	1.3	14	27	7.6	2.4
4	1.4	1.6	.60	.40	.40	.40	.40	2.3	21	28	7.1	2.5
5	1.3	1.4	.60	.40	.40	.40	.40	2.7	23	28	6.6	2.6
6	1.3	1.3	.60	.40	.40	.40	.40	1.8	22	28	6.0	2.5
7	1.2	1.3	.60	.40	.40	.40	.40	1.5	18	26	6.1	2.4
8	1.2	1.2	.60	.40	.40	.40	.40	1.5	24	28	6.0	2.3
9	1.2	1.2	.60	.40	.40	.40	.40	1.8	26	27	5.8	2.3
10	1.1	1.2	.60	.40	.40	.40	.40	6.2	30	38	5.7	2.2
11	1.1	1.1	.60	.40	.40	.40	.40	5.1	17	31	5.6	2.4
12	1.3	1.1	.60	.40	.40	.40	.40	5.0	14	26	5.7	2.8
13	1.4	1.1	.50	.40	.40	.40	.40	4.8	15	21	6.4	2.8
14	1.4	1.0	.50	.40	.40	.40	.40	5.8	17	19	5.8	2.7
15	1.3	1.0	.50	.40	.40	.40	.40	8.6	21	19	5.3	2.4
16	1.3	1.1	.50	.40	.40	.40	.40	12	25	19	4.9	2.1
17	1.3	1.0	.50	.40	.40	.40	.40	15	23	17	4.7	2.0
18	1.3	1.0	.50	.40	.40	.40	.40	17	26	16	4.4	1.8
19	1.3	.99	.50	.40	.40	.40	.45	15	25	15	4.2	1.8
20	1.2	1.0	.50	.40	.40	.40	.45	15	22	16	4.0	1.8
21	1.2	.96	.50	.40	.40	.40	.50	15	19	15	4.4	2.0
22	1.2	.93	.50	.40	.40	.40	.55	13	15	15	4.1	1.9
23	1.3	.94	.50	.40	.40	.40	.60	10	17	14	4.2	1.9
24	1.2	.98	.50	.40	.40	.40	.70	9.7	21	13	4.0	1.7
25	1.3	.99	.50	.40	.40	.40	.90	11	27	12	3.4	1.7
26	1.2	.98	.40	.40	.40	.40	1.2	14	27	11	3.3	1.6
27	1.2	.98	.40	.40	.40	.40	1.0	15	27	10	3.2	1.6
28	1.3	.98	.40	.40	.40	.40	.92	15	28	9.8	3.0	1.6
29	1.4	.95	.40	.40	---	.40	.84	15	26	9.8	2.6	1.4
30	1.5	.90	.40	.40	---	.40	.78	9.3	26	9.5	2.6	1.4
31	1.6	---	.40	.40	---	.40	---	8.1	---	9.3	2.4	---
TOTAL	39.8	33.58	16.50	12.40	11.20	12.40	16.09	259.02	632.4	612.4	155.7	63.4
MEAN	1.28	1.12	.53	.40	.40	.40	.54	8.36	21.1	19.8	5.02	2.11
MAX	1.6	1.6	.80	.40	.40	.40	1.2	17	30	38	8.4	2.8
MIN	1.1	.90	.40	.40	.40	.40	.40	.75	7.8	9.3	2.4	1.4
AC-FT	79	67	33	25	22	25	32	514	1250	1210	309	126

WTR YR 1975 TOTAL 1864.89 MEAN 5.11 MAX 38 MIN .40 AC-FT 3700

PEAK DISCHARGE (BASE, 30 FT^3/S).--July 10 (2030) 49 ft^3/s (1.94 ft).

NOTE.--No gage-height record Nov. 27 to Apr. 27.

07095000 GRAPE CREEK NEAR WESTCLIFFE, COLO.

LOCATION.--Lat 38°11'10", long 105°28'59", in NW¼NW¼ sec.31, T.21 S., R.72 W., Custer County, on left bank 0.5 mi (0.8 km) upstream from water line of De Weese Reservoir at elevation 7,665 ft (2,336.3 m), 0.5 mi (0.8 km) downstream from Swift Creek, and 3.6 mi (5.8 km) northwest of Westcliffe.

DRAINAGE AREA.--320 mi^2 (829 km^2).

PERIOD OF RECORD.--October 1924 to September 1961, October 1962 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,690 ft (2,344 m) from topographic map. Prior to Mar. 17, 1939, at site 30 ft (9 m) upstream at same datum.

AVERAGE DISCHARGE.--50 years, 32.5 ft^3/s (0.920 m^3/s), 23,550 acre-ft/yr (29.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 806 ft^3/s (22.8 m^3/s) Apr. 16 (gage height, 3.17 ft or 0.966 m); minimum daily, 4.7 ft^3/s (0.13 m^3/s) May 25-27.
Period of record: Maximum discharge, 7,460 ft^3/s (211 m^3/s) Aug. 2, 1966 (gage height, 8.45 ft or 2.576 m), from rating curve extended above 320 ft^3/s (9.1 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.1 ft^3/s (0.003 m^3/s) June 19-22, 1936.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 15,000 acres (60.7 km^2).

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

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1241: 1950(M). WSP 1311: 1927(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	12	12	10	12	21	60	20	37	92	56	11
2	6.4	12	13	10	11	25	50	19	27	103	51	8.9
3	6.4	14	13	10	11	26	55	17	27	119	46	8.9
4	6.4	15	14	10	11	28	65	16	43	121	41	12
5	5.8	15	14	10	11	30	70	15	50	163	36	17
6	5.8	17	13	11	10	33	65	12	55	185	32	12
7	5.8	17	12	11	11	35	55	12	82	201	32	12
8	6.4	18	11	10	11	38	46	12	89	186	29	12
9	6.4	19	12	10	11	40	44	12	121	600	35	9.8
10	6.4	20	13	9.0	11	42	42	11	302	366	35	9.8
11	6.4	18	13	9.0	10	43	40	9.8	433	334	28	12
12	11	18	12	8.0	10	42	35	9.8	290	272	44	19
13	12	19	12	10	11	40	38	8.9	132	252	59	19
14	9.8	18	12	12	12	43	47	8.9	108	211	65	25
15	8.0	18	12	12	11	45	119	8.0	123	196	46	18
16	7.4	17	12	12	10	45	313	5.8	156	175	40	16
17	7.4	15	13	11	10	45	240	7.4	170	284	41	13
18	6.9	16	13	11	10	50	96	12	163	249	36	12
19	7.4	17	13	11	10	60	52	12	235	193	31	12
20	6.9	14	12	11	10	70	56	16	183	173	28	12
21	6.9	15	12	11	10	70	56	13	132	175	36	16
22	6.9	15	12	10	9.0	70	55	12	119	166	36	15
23	7.4	15	11	11	11	65	45	8.9	101	156	31	13
24	7.4	15	10	12	14	65	37	5.8	108	144	27	12
25	8.9	16	9.0	13	15	70	32	4.7	123	156	24	12
26	8.9	13	10	13	15	75	28	4.7	137	119	22	12
27	9.8	12	10	13	16	65	26	4.7	130	96	19	12
28	13	13	10	13	18	55	19	5.8	117	89	18	12
29	12	11	11	13	---	55	21	84	101	79	16	12
30	12	12	10	13	---	55	18	118	97	84	13	12
31	11	---	10	12	---	60	---	52	---	65	12	---
TOTAL	249.6	466	366.0	342.0	322.0	1506	1925	558.2	3991	5804	1065	399.4
MEAN	8.05	15.5	11.8	11.0	11.5	48.6	64.2	18.0	133	187	34.4	13.3
MAX	13	20	14	13	18	75	313	118	433	600	65	25
MIN	5.8	11	9.0	8.0	9.0	21	18	4.7	27	65	12	8.9
AC-FT	495	924	726	678	639	2990	3820	1110	7920	11510	2110	792

CAL YR 1974 TOTAL 3977.4 MEAN 10.9 MAX 41 MIN 2.2 AC-FT 7890
WTR YR 1975 TOTAL 16994.2 MEAN 46.6 MAX 600 MIN 4.7 AC-FT 33710

PEAK DISCHARGE (BASE, 250 FT^3/S).--Apr. 16 (2130) 806 ft^3/s (3.17 ft).

NOTE.--No gage-height record Feb. 2 to Apr. 10.

07096000 ARKANSAS RIVER AT CANON CITY, COLO.

LOCATION.--Lat 38°26'02", long 105°15'24", in SE¼SE¼ sec.31, T.18 S., R.70 W., Fremont County, on right bank 800 ft (240 m) upstream from Sand Creek, 0.7 mi (1.1 km) downstream from Grape Creek, and 0.7 mi (1.1 km) upstream from First Street Bridge in Canon City.

DRAINAGE AREA.--3,117 mi^2 (8,073 km^2).

PERIOD OF RECORD.--January 1888 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near Canyon" 1900-1906.

GAGE.--Water-stage recorder. Datum of gage is 5,342.13 ft (1,628.281 m) above mean sea level. See WSP 1711 or 1731 for history of changes prior to Oct. 1, 1957. Oct. 1, 1957, to Nov. 15, 1962, water-stage recorder at present site at datum 1.49 ft (0.454 m) higher.

AVERAGE DISCHARGE.--87 years, 722 ft^3/s (20.45 m^3/s), 523,100 acre-ft/yr (645 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 4,960 ft^3/s (140 m^3/s) July 9 (gage height, 8.89 ft or 2.710 m); minimum daily, 156 ft^3/s (4.42 m^3/s) Oct. 1.
Period of record: Maximum discharge, 19,000 ft^3/s (538 m^3/s) Aug. 2, 1921 (gage height, 10.7 ft or 3.26 m, site and datum then in use, from floodmark), from rating curve extended above 5,000 ft^3/s (140 m^3/s); minimum daily, 69 ft^3/s (1.95 m^3/s) May 13, 1959.

REMARKS.--Records good, except those for winter period and those in April, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation of about 56,000 acres (227 km^2), and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1311: 1897-98.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	156	209	267	225	270	286	282	878	860	3300	1660	743
2	167	222	278	230	265	290	282	852	800	3420	1620	703
3	184	237	278	235	260	317	249	843	869	3650	1280	680
4	184	237	271	235	265	298	253	767	1090	3740	1060	751
5	190	233	282	250	280	290	336	767	1410	3850	1000	800
6	195	227	286	260	275	303	412	800	1740	3920	986	727
7	195	230	282	260	270	317	433	751	2110	3790	959	473
8	195	243	275	255	298	317	312	658	2270	3830	959	537
9	182	256	267	255	298	322	253	658	2430	4370	1180	599
10	170	275	278	240	286	332	271	695	2640	4130	1210	564
11	165	275	286	220	294	312	290	695	2600	3900	1200	351
12	182	263	282	205	278	303	294	719	2250	3650	1210	361
13	224	298	278	205	286	286	387	719	1760	3400	1300	414
14	201	332	256	230	290	290	370	688	1610	3230	1460	425
15	190	327	253	255	294	317	393	767	2000	3130	1380	408
16	184	322	243	260	278	298	820	818	2550	2820	1330	376
17	176	317	233	265	286	282	1150	860	3350	2670	1380	498
18	174	308	230	280	271	271	996	834	3000	2550	1180	492
19	172	317	227	290	259	271	676	852	2670	2360	1040	485
20	172	308	227	285	259	294	589	923	2380	2240	1000	356
21	178	282	230	275	263	327	580	1020	2140	2180	995	346
22	180	290	237	250	263	332	623	1090	1860	1590	1010	346
23	184	294	230	240	263	312	685	1120	1750	1570	905	337
24	184	298	225	250	286	278	598	977	1840	1800	826	328
25	188	278	205	260	322	243	555	843	2210	1770	784	319
26	195	278	210	275	278	256	580	843	2810	1740	759	315
27	199	278	225	285	256	341	1220	878	2870	1760	727	307
28	201	282	240	270	263	303	1080	1000	2950	1700	711	300
29	206	271	250	260	---	259	959	1100	3090	1590	688	292
30	219	253	245	267	---	243	896	1060	3180	1540	743	281
31	219	---	235	270	---	256	---	905	---	1670	792	---
TOTAL	5811	8240	7811	7842	7756	9146	16824	26380	65089	86860	33334	13914
MEAN	187	275	252	253	277	295	561	851	2170	2802	1075	464
MAX	224	332	286	290	322	341	1220	1120	3350	4370	1660	800
MIN	156	209	205	205	256	243	249	658	800	1540	688	281
AC-FT	11530	16340	15490	15550	15380	18140	33370	52320	129100	172300	66120	27600

CAL YR 1974 TOTAL 223132 MEAN 611 MAX 2320 MIN 78 AC-FT 442600
WTR YR 1975 TOTAL 289007 MEAN 792 MAX 4370 MIN 156 AC-FT 573200

07096500 FOURMILE CREEK NEAR CANON CITY, COLO.

LOCATION.--Lat 38°26'11", long 105°11'27", in NE¼SW¼ sec.35, T.18 S., R.70 W., Fremont County, on right bank 1,000 ft (300 m) downstream from railroad bridge, 0.6 mi (1.0 km) upstream from mouth, and 2.8 mi (4.5 km) east of courthouse in Canon City.

DRAINAGE AREA.--434 mi^2 (1,124 km^2).

PERIOD OF RECORD.--April to October 1910 (gage heights and discharge measurements only), October 1948 to September 1953, November 1970 to current year. Published as "Oil or Fourmile Creek" in 1910 and as Oil Creek near Canon City, 1948-53.

GAGE.--Water-stage recorder. Concrete control since Oct. 1, 1974. Altitude of gage is 5,254 ft (1,601 m) from topographic map. April to October 1910, nonrecording gage at site 1,200 ft (370 m) upstream at different datum. October 1948 to September 1953, water-stage recorder at site 0.6 mi (1.0 km) upstream at different datum.

AVERAGE DISCHARGE.--9 years (1949-53, 1972-75), 16.9 ft^3/s (0.479 m^3/s), 12,240 acre-ft/yr (15.1 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 275 ft^3/s (7.79 m^3/s) July 20 (gage height, 3.99 ft or 1.216 m), from rating curve extended above 54 ft^3/s (1.5 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.05 ft^3/s (0.001 m^3/s) Mar. 18.
Period of record: Maximum discharge, 4,260 ft^3/s (121 m^3/s) July 11, 1951 (gage height, 9.25 ft or 2.819 m, from floodmarks, site and datum then in use), from rating curve extended above 96 ft^3/s (2.7 m^3/s) on basis of slope-area measurement of peak flow; no flow Sept. 3-10, 1950, Sept. 23, 1951.

REMARKS.--Records good. Diversions for irrigation of about 500 acres (2.02 km^2) above station. Water imported to basin from Arkansas River for irrigation of a few small orchards above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	16	8.0	6.5	15	11	24	12	15	14	11	20
2	27	17	8.0	6.5	15	11	24	11	12	14	12	16
3	25	22	10	7.0	14	8.5	30	10	10	15	14	17
4	25	23	8.0	7.5	13	9.5	35	9.6	11	15	14	19
5	25	22	8.0	8.0	13	9.5	26	9.3	16	16	16	21
6	25	20	9.0	8.0	12	8.5	21	10	17	15	15	22
7	25	21	8.0	7.5	13	9.5	28	13	14	17	14	19
8	25	20	9.5	7.0	14	10	39	14	20	20	13	22
9	25	16	9.5	6.0	14	10	40	13	27	20	13	24
10	25	16	6.4	6.0	14	8.5	41	12	43	18	17	17
11	26	16	6.8	6.4	13	3.0	41	16	23	17	16	16
12	30	18	6.4	7.6	12	.40	42	14	20	15	16	17
13	29	19	7.6	8.0	12	.30	47	12	17	16	21	17
14	27	18	4.8	8.5	10	.20	40	14	18	15	23	17
15	25	22	5.1	9.0	10	.15	23	14	20	20	19	18
16	25	22	5.0	9.0	11	.15	19	15	25	15	17	16
17	25	22	5.8	7.6	11	.10	18	15	29	12	18	17
18	25	23	7.0	6.0	11	.05	30	13	24	11	16	15
19	24	29	6.5	6.0	11	.70	30	13	22	11	16	17
20	23	30	6.0	9.0	11	2.3	23	12	23	46	14	20
21	21	23	6.0	9.0	9.8	3.5	12	13	20	40	16	20
22	20	20	6.5	11	12	3.6	9.2	14	15	41	17	20
23	20	20	6.0	13	12	3.6	7.4	13	9.5	27	14	19
24	20	20	5.5	13	11	3.7	10	12	9.5	29	19	19
25	21	19	5.5	13	11	21	12	12	13	24	20	22
26	25	18	6.0	12	11	43	9.4	14	18	24	17	23
27	24	17	7.5	11	10	30	11	12	19	24	14	24
28	24	16	8.5	11	10	30	12	15	16	19	16	21
29	22	15	8.0	11	---	30	15	17	18	13	16	16
30	17	12	7.0	13	---	20	11	17	16	12	16	15
31	16	---	6.5	14	---	18	---	17	---	11	22	---
TOTAL	743	592	218.4	278.1	335.8	309.75	730.0	407.9	560.0	606	502	566
MEAN	24.0	19.7	7.05	8.97	12.0	9.99	24.3	13.2	18.7	19.5	16.2	18.9
MAX	30	30	10	14	15	43	47	17	43	46	23	24
MIN	16	12	4.8	6.0	9.8	.05	7.4	9.3	9.5	11	11	15
AC-FT	1470	1170	433	552	666	614	1450	809	1110	1200	996	1120

CAL YR 1974 TOTAL 7838.10 MEAN 21.5 MAX 102 MIN 4.8 AC-FT 15550
WTR YR 1975 TOTAL 5848.95 MEAN 16.0 MAX 47 MIN .05 AC-FT 11600

PEAK DISCHARGE (BASE, 300 FT^3/s).--No peak above base.

07097000 ARKANSAS RIVER AT PORTLAND, COLO.

LOCATION.--Lat 38°23'18", long 105°00'56", in NE¼NE¼ sec.20, T.19 S., R.68 W., Fremont County, on right bank at bridge on Colorado Highway 120 at Portland and 1 mi (1.6 km) downstream from Hardscrabble Creek.

DRAINAGE AREA.--4,024 mi^2 (10,422 km^2).

RECORDS AVAILABLE.--May 1939 to September 1952, October 1974 to September 1975.

GAGE.--Water-stage recorder. Datum of gage is 5,021.59 ft (1,530.581 m) above mean sea level, datum of 1929. Prior to Oct. 1, 1974, at site 400 ft (120 m) downstream at datum 0.03 ft (0.009 m) lower.

AVERAGE DISCHARGE.--14 years (1939-52, 1974-75), 762 ft^3/s (21.58 m^3/s), 552,100 acre-ft/yr (681 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 10,200 ft^3/s (289 m^3/s) Aug. 2 (gage height, 10.09 ft or 3.075 m), from rating curve extended above 4,200 ft^3/s (120 m^3/s); minimum daily, 150 ft^3/s (4.25 m^3/s) Jan. 11.
Period of record: Maximum discharge, 21,100 ft^3/s (598 m^3/s) June 5, 1949 (gage height, 12.18 ft or 3.712 m), from rating curve extended above 5,300 ft^3/s (150 m^3/s); minimum daily, 71 ft^3/s (2.01 m^3/s) Apr. 2, 1945.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 60,000 acres (243 km^2) and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report as "near Portland."

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	259	276	170	231	240	266	735	866	3210	1680	753
2	170	263	286	180	216	243	276	747	789	3400	2240	705
3	196	307	293	180	213	263	253	747	814	3670	1680	681
4	183	318	293	190	222	256	247	687	1000	3670	1100	735
5	183	303	286	200	225	243	289	681	1330	3890	1030	821
6	188	289	289	220	196	250	360	675	1740	3950	990	765
7	191	293	286	240	172	256	380	614	2100	3780	951	460
8	183	310	269	230	228	253	310	510	2320	3730	951	490
9	180	329	253	230	240	250	256	505	2520	4300	1130	587
10	170	340	256	160	237	272	247	530	2850	4140	1240	560
11	165	318	259	150	237	256	263	545	2700	3840	1210	352
12	185	310	247	160	228	253	266	570	2390	3560	1230	360
13	270	348	250	200	237	250	303	582	1950	3340	1470	412
14	240	388	225	220	247	247	314	520	1820	3140	1580	434
15	220	384	225	260	250	263	333	592	2110	3040	1480	400
16	213	380	225	231	237	253	560	648	2610	2760	1400	368
17	199	372	234	231	243	247	821	735	3460	2620	1440	465
18	180	360	243	310	231	243	814	753	3230	2500	1260	490
19	183	356	231	250	210	237	729	765	2760	2320	1050	480
20	185	356	231	243	204	243	658	814	2390	2570	1020	368
21	185	333	231	240	210	263	653	906	2120	2230	997	348
22	190	333	256	199	216	276	670	984	1880	1740	1020	348
23	200	344	266	183	196	269	687	1020	1770	1550	918	344
24	205	348	178	234	213	243	648	925	1790	1760	821	333
25	216	325	170	256	276	219	525	814	2090	1770	777	329
26	237	325	175	269	250	243	505	802	2610	1740	759	318
27	240	329	180	253	213	322	815	834	2710	1750	723	307
28	243	333	190	237	213	296	860	1180	2810	1730	705	300
29	250	314	195	213	---	259	771	1070	3000	1600	687	300
30	272	269	190	222	---	243	735	1040	3090	1550	711	286
31	286	---	180	243	---	247	---	918	---	1660	802	---
TOTAL	6378	9836	7368	6804	6291	7898	14814	23448	65619	86510	35052	13899
MEAN	206	328	238	219	225	255	494	756	2187	2791	1131	463
MAX	286	388	293	310	276	322	860	1180	3460	4300	2240	821
MIN	165	259	170	150	172	219	247	505	789	1550	687	286
AC-FT	12650	19510	14610	13500	12480	15670	29380	46510	130200	171600	69530	27570

WTR YR 1975 TOTAL 283917 MEAN 778 MAX 4300 MIN 150 AC-FT 563100

07099100 BEAVER CREEK NEAR PORTLAND, COLO.

LOCATION.--Lat 38°22'27", long 104°57'49", in NW¼NE¼ sec.26, T.19 S., R.68 W., Fremont County, on right bank 80 ft (24 m) downstream from bridge on State Highway 120, 1,500 ft (460 m) upstream from mouth, and 3.4 mi (5.5 km) southeast of Portland.

DRAINAGE AREA.--214 mi^2 (554 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,993 ft (1,522 m) above mean sea level, from topographic map.

EXTREMES.--Current year: Maximum discharge, 1,820 ft^3/s (51.5 m^3/s) Aug. 2 (gage height, 5.24 ft or 1.597 m) from rating curve extended as explained below; no flow July 13-19.
Period of record: Maximum discharge, 4,800 ft^3/s (136 m^3/s) Sept. 9, 1973 (gage height, 7.56 ft or 2.304 m in gage well, 8.79 ft or 2.679 m, from floodmarks), from rating curve extended above 17 ft^3/s (0.5 m^3/s) on basis of slope-area measurement at gage height 4.36 ft (1.329 m); no flow for several days in 1971, 1974, and 1975.

REMARKS.--Records good except those above 250 ft^3/s (7.08 m^3/s), which are fair. Storage and diversions above station for municipal supply of city of Colorado Springs. Water exported above station for irrigation of a few hundred acres in adjacent basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.29	.36	.65	.24	.24	.18	.18	.13	.09	.98	.04
2	.08	.31	.32	.49	.23	.24	.17	.17	.11	.08	145	.05
3	.08	.51	.30	.59	.22	.24	.15	.16	.11	.08	32	.06
4	.08	.30	.32	.43	.22	.23	.13	.16	.11	.07	.55	.07
5	.08	.29	.32	.43	.20	.23	.13	.16	.10	.07	.15	.07
6	.08	.28	.28	.38	.32	.23	.13	.17	.10	.06	.14	.03
7	.07	.28	.25	.39	.37	.24	.14	.17	.10	.04	.13	.02
8	.07	.26	.22	.39	.33	.24	.16	.17	.10	.04	.13	.02
9	.08	.28	.29	.37	.38	.27	.15	.17	.10	.04	.13	.02
10	.08	.28	.27	.35	.35	.30	.14	.16	17	.03	.12	.03
11	.10	.28	.29	.25	.30	.30	.17	.17	1.1	.02	.11	.06
12	.18	.24	.27	.20	.29	.34	.18	.16	.31	.01	.13	.07
13	.47	.33	.35	.25	.30	.24	.18	.16	.39	0	.78	.08
14	.15	.33	.32	.40	.30	.21	.16	.13	.34	0	57	.07
15	.13	.30	.38	.35	.32	.18	.15	.13	.16	0	15	.02
16	.13	.26	.30	.33	.32	.18	.16	.13	.10	0	.49	.02
17	.13	.25	.32	.32	.32	.18	.13	.13	.08	0	.22	.02
18	.12	.33	.32	.36	.28	.18	.26	.12	.06	0	.21	.02
19	.14	.39	.32	.23	.28	.16	.28	.11	.11	0	.21	.03
20	.13	.39	.39	.26	.25	.14	.23	.11	.18	.11	.21	.03
21	.13	.41	.37	.24	.26	.14	.21	.11	.13	3.1	.22	.03
22	.17	.44	.35	.37	.27	.15	.17	.13	.16	73	.13	.03
23	.17	.38	.39	.30	.34	.20	.18	.11	.13	4.2	.12	.03
24	.19	.31	.30	.30	.28	.23	.18	.11	.16	2.3	.11	.04
25	.18	.31	.25	.29	.24	.21	.16	.10	.13	7.4	.11	.06
26	.22	.30	.25	.27	.24	.18	.17	.11	.08	7.4	.11	.05
27	.24	.27	.35	.24	.24	.21	.18	.12	.08	3.3	.06	.06
28	.23	.30	.58	.25	.24	.22	.18	35	.08	1.3	.05	.07
29	.27	.29	.48	.25	---	.19	.18	2.0	.09	1.1	.05	.06
30	.22	.33	.66	.26	---	.17	.18	.69	.10	.98	.05	.08
31	.23	---	.55	.25	---	.18	---	.25	---	.98	.04	---
TOTAL	4.71	9.52	10.72	10.44	7.93	6.65	5.17	41.75	21.93	105.80	254.74	1.34
MEAN	.15	.32	.35	.34	.28	.21	.17	1.35	.73	3.41	8.22	.045
MAX	.47	.51	.66	.65	.38	.34	.28	35	17	73	145	.08
MIN	.07	.24	.22	.20	.20	.14	.13	.10	.06	0	.04	.02
AC-FT	9.3	19	21	21	16	13	10	83	43	210	505	2.7

CAL YR 1974 TOTAL 442.55 MEAN 1.21 MAX 50 MIN 0 AC-FT 878
WTR YR 1975 TOTAL 480.70 MEAN 1.32 MAX 145 MIN 0 AC-FT 953

07099350 PUEBLO RESERVOIR NEAR PUEBLO, COLO.

LOCATION.--Lat 38°16'15", long 104°43'30", in NE¼ sec.36, T.20 S., R.66 W., Pueblo County, at dam on Arkansas River 7 mi (11 km) west of Pueblo.

DRAINAGE AREA.--4,669 mi^2 (12,093 km^2).

PERIOD OF RECORD.--January 1974 to current year.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

EXTREMES (at 2400).--Current year: Maximum contents, 35,040 acre-ft (43.2 hm^3) Aug. 3 (elevation, 4,800.42 ft or 1,463.168 m); minimum, 22,680 acre-ft (28.0 hm^3) Nov. 13 (elevation, 4,790.50 ft or 1,460.144 m).
Period of record: Maximum contents, 35,040 acre-ft (43.2 hm^3) Aug. 3, 1975 (elevation, 4,800.42 ft or 1,463.168 m); minimum since appreciable storage was attained, 22,680 acre-ft (28.0 hm^3) Nov. 13, 1974 (elevation, 4,790.50 ft or 1,460.144 m).

REMARKS.--Reservoir is formed by concrete and earthfill dam. Storage began Jan. 9, 1974; (dam completed August 1975. Capacity, 357,000 acre-ft (440 hm^3) at elevation 4,898.74 ft or 1,493.136 m (crest of spillway). Dead storage, 3,400 acre-ft (4.19 hm^3) below elevation 4,764.00 ft or 1,452.067 m (invert of river outlet). Reservoir is terminal reservoir of the Fryingpan-Arkansas Project and is used to provide flood control, municipal and industrial supplies and for irrigation requirements in the Arkansas Valley. Figures given are total contents.

COOPERATION.--Records furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS AT 2400, OCTOBER 1974 TO SEPTEMBER 1975

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30	4,791.03	23,260	-
Oct. 31	4,790.82	23,020	-240
Nov. 30	4,791.51	23,780	+760
Dec. 31	4,791.42	23,690	-90
CAL YR 1974	-	-	+23,690
Jan. 31	4,791.53	23,810	+120
Feb. 28	4,791.46	23,740	-70
Mar. 31	4,791.18	23,420	-320
Apr. 30	4,797.15	30,620	+7,200
May 31	4,797.89	31,580	+960
June 30	4,799.17	33,300	+1,720
July 31	4,799.11	33,230	-70
Aug. 31	4,798.31	32,150	-1,080
Sept. 30	4,798.27	32,100	-50
WTR YR 1975	-	-	+8,840

07099400 ARKANSAS RIVER ABOVE PUEBLO, COLO.

LOCATION.--Lat 38°16'17", long 104°43'06", in NE¼NE¼ sec.36, T.20 S., R.66 W., Pueblo County, on left bank 450 ft (140 m) downstream from headgate of West Pueblo ditch, 0.4 mi (0.6 km) downstream from Pueblo Dam, and 7 mi (11 km) west of Pueblo.

DRAINAGE AREA.--4,670 mi^2 (12,095 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,740 ft (1,445 m) from topographic map. Prior to Mar. 23, 1967, at site 730 ft (220 m) upstream at datum 1.23 ft (0.375 m) higher. May 24, 1974 to Feb. 24, 1975, at site 2,000 ft (610 m) downstream at different datum.

AVERAGE DISCHARGE.--8 years (1965-73), 643 ft^3/s (18.21 m^3/s), 465,900 acre-ft/yr (574 hm^3/yr), prior to completion of Pueblo Reservoir.

EXTREMES.--Current year: Maximum discharge, 4,600 ft^3/s (130 m^3/s) July 10 (gage height, 5.68 ft or 1.731 m); minimum daily, 116 ft^3/s (3.29 m^3/s) Mar. 2.
Period of record: Maximum discharge, 10,100 ft^3/s (286 m^3/s) Aug. 1, 1966 (gage height, 9.4 ft or 2.87 m, from floodmarks, present site and datum), from rating curve extended above 1,600 ft^3/s (45 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 28 ft^3/s (0.79 m^3/s) May 11, 1967.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 88,000 acres (356 km^2) and return flow from irrigated areas. Flow completely regulated by Pueblo Reservoir since Jan. 9, 1974 (see sta. 07099350).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	135	235	205	229	223	142	156	418	756	2990	1500	805
2	135	226	205	229	254	116	158	463	712	3080	1410	766
3	135	217	205	208	241	154	182	458	646	3320	1860	739
4	135	217	214	187	205	250	178	458	805	3470	1160	712
5	135	241	217	184	205	223	162	472	1180	3470	817	678
6	135	260	217	187	223	195	162	490	1630	3520	800	695
7	135	260	217	205	208	188	240	505	1950	3460	788	445
8	135	260	217	241	190	195	324	495	2050	3380	750	468
9	135	260	217	257	190	195	260	445	2340	3420	907	500
10	135	260	202	244	226	195	180	427	2500	4270	1160	560
11	135	264	169	223	274	195	170	450	2660	4090	1150	468
12	138	257	152	223	274	195	170	463	2240	3220	1240	332
13	145	244	152	184	247	195	170	535	1950	2870	1350	271
14	175	238	155	130	238	195	180	550	1600	2730	1590	260
15	196	229	155	122	241	195	175	565	1810	2960	1730	278
16	205	214	155	155	257	195	154	684	2280	2750	1570	332
17	217	205	155	226	260	175	329	750	3460	2330	1440	306
18	208	202	155	244	264	152	545	744	3600	1950	1370	247
19	175	202	155	244	241	152	409	560	2930	2260	1000	220
20	166	205	155	306	205	152	345	728	2410	2080	949	208
21	172	220	158	428	186	166	360	853	2200	2770	788	208
22	148	247	155	465	193	180	302	937	1910	1700	695	268
23	125	260	169	278	193	192	302	992	1660	1130	722	320
24	138	247	223	208	214	192	274	859	1700	1330	662	320
25	145	232	229	220	235	178	180	739	1740	1690	570	320
26	148	205	196	238	276	146	162	695	2190	1760	595	320
27	169	205	158	274	282	172	362	662	2530	1650	545	241
28	178	208	148	313	215	212	656	728	2660	1660	565	200
29	190	205	148	278	---	212	560	949	2630	1640	590	220
30	202	205	166	235	---	212	445	1070	2970	1460	728	241
31	211	---	211	223	---	190	---	865	---	1410	877	---
TOTAL	4936	6930	5635	7388	6460	5706	8252	20009	61699	79820	31878	11948
MEAN	159	231	182	238	231	184	275	645	2057	2575	1028	398
MAX	217	264	229	465	282	250	656	1070	3600	4270	1860	805
MIN	125	202	148	122	186	116	154	418	646	1130	545	200
AC-FT	9790	13750	11180	14650	12810	11320	16370	39690	122400	158300	63230	23700

CAL YR 1974 TOTAL 177595 MEAN 487 MAX 1910 MIN 49 AC-FT 352300
WTR YR 1975 TOTAL 250661 MEAN 687 MAX 4270 MIN 116 AC-FT 497200

07099500 ARKANSAS RIVER NEAR PUEBLO, COLO.

LOCATION.--Lat 38°16'02", long 104°39'26", in SE¼NW¼ sec.34, T.20 S., R.65 W., Pueblo County, on right bank at intake of south-side waterworks, 1.6 mi (2.6 km) upstream from Dry Creek and 2.5 mi (4.0 km) west of city hall in Pueblo.

DRAINAGE AREA.--4,686 mi^2 (12,137 km^2).

PERIOD OF RECORD.--May to June 1885, January 1886 to December 1887, May to August 1889, September 1894 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "at Rock Canyon" 1889 and as "at Pueblo" 1885-87, 1894-1924.

GAGE.--Water-stage recorder and concrete control on river; water-stage recorder and Parshall flume at north-side waterworks intake. Datum of river gage is 4,689.74 ft (1,429.433 m) above mean sea level. See WSP 1731 for history of changes prior to May 26, 1925.

AVERAGE DISCHARGE.--80 years (1886-87, 1894-1973), 709 ft^3/s (20.08 m^3/s), 513,700 acre-ft/yr (633 hm^3/yr), prior to completion of Pueblo Reservoir.

EXTREMES.--Current year: Maximum discharge, 4,400 ft^3/s (125 m^3/s) July 10 (gage height, 5.22 ft or 1.591 m); minimum daily, 93 ft^3/s (2.63 m^3/s) Mar. 2.
Period of record: Maximum discharge, 103,000 ft^3/s (2,920 m^3/s) June 3, 1921 (gage height, 24.66 ft or 7.516 m, site and datum then in use), from rating curve extended above 6,800 ft^3/s (190 m^3/s) on basis of float measurement at gage height 11.2 ft (3.41 m) and slope-area measurement of peak flow; minimum daily, 18 ft^3/s or 0.51 m^3/s (including 13 ft^3/s or 0.37 m^3/s diverted into intake of north-side waterworks) Apr. 7, 1935.
Maximum stage since at least 1865, that of June 3, 1921.

REMARKS.--Records good. Records include water diverted above station into intake of north-side waterworks for municipal supply of Pueblo, but not water diverted by south-side waterworks. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions above station for irrigation of about 88,000 acres (356 km^2), and return flow from irrigated areas. Flow regulated by Pueblo Reservoir since Jan. 9, 1974 (See sta. 07099350).

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

REVISIONS (WATER YEARS).--WSP 1311: 1896, 1902. WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	136	236	184	209	204	128	122	394	670	2930	1470	782
2	128	230	184	209	245	93	122	438	632	3020	1460	750
3	132	224	184	189	227	120	151	439	548	3240	1830	727
4	102	224	195	167	190	243	143	447	670	3390	1260	696
5	142	241	200	167	179	226	122	456	1040	3370	812	675
6	148	267	197	167	194	182	118	481	1520	3470	788	675
7	152	261	198	187	169	177	192	491	1950	3540	777	470
8	166	262	192	218	169	182	319	482	1970	3280	737	471
9	157	255	187	236	184	182	257	456	2190	3300	877	479
10	161	248	179	230	250	182	145	439	2350	4060	1140	570
11	150	248	144	201	262	182	140	465	2500	4020	1110	471
12	158	242	127	200	233	187	148	473	2160	3290	1210	331
13	172	214	123	167	215	182	140	518	1870	2930	1370	242
14	202	208	127	111	215	182	145	536	1520	2780	1640	230
15	177	201	130	99	228	182	146	518	1650	3020	1810	243
16	177	196	130	136	251	182	119	630	2090	2900	1630	302
17	191	190	130	208	251	166	278	667	3140	2370	1490	292
18	186	190	130	224	239	127	599	713	3480	1920	1400	215
19	152	190	125	225	227	128	470	483	2880	2280	1010	183
20	142	190	125	286	179	108	270	612	2340	2130	933	164
21	156	207	125	406	154	119	356	721	2160	2830	792	167
22	127	225	125	446	168	140	262	808	1890	1800	684	202
23	96	231	141	283	168	152	269	885	1640	1090	707	268
24	106	225	203	190	188	152	255	768	1670	1270	655	268
25	138	213	206	194	209	140	148	652	1730	1660	568	275
26	130	185	176	210	250	98	119	613	2160	1770	577	268
27	166	185	138	246	281	111	286	585	2490	1650	550	213
28	190	185	129	290	226	177	656	641	2660	1630	567	162
29	166	185	129	256	---	177	588	869	2620	1650	595	177
30	196	184	145	215	---	177	436	1000	2910	1450	683	202
31	207	---	181	204	---	157	---	822	---	1400	852	---
TOTAL	4809	6542	4889	6776	5955	4941	7521	18502	59100	79440	31984	11170
MEAN	155	218	158	219	213	159	251	597	1970	2563	1032	372
MAX	207	267	206	446	281	243	656	1000	3480	4060	1830	782
MIN	96	184	123	99	154	93	118	394	548	1090	550	162
AC-FT	9540	12980	9700	13440	11810	9800	14920	36700	117200	157600	63440	22160

CAL YR 1974 TOTAL 174482 MEAN 478 MAX 2010 MIN 36 AC-FT 346100
WTR YR 1975 TOTAL 241629 MEAN 662 MAX 4060 MIN 93 AC-FT 479300

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, COLO.

LOCATION.--Lat 38°51'17", long 104°52'39", in SE¼SW¼ sec.3, T.14 S., R.67 W., El Paso County, on left bank 200 ft (61 m) upstream from diversion to city of Colorado Springs, 0.5 mi (0.8 km) east of bridge on U.S. Highway 24 near west city limits of Colorado Springs, and 1.0 mi (1.6 km) downstream from Sutherland Creek.

DRAINAGE AREA.--102 mi^2 (264 km^2).

PERIOD OF RECORD.--April 1958 to current year.

GAGE.--Water-stage recorder and Parshall flume with overflow weirs. Altitude of gage is 6,110 ft (1,862 m) from topographic map.

AVERAGE DISCHARGE.--17 years, 12.2 ft^3/s (0.346 m^3/s), 8,840 acre-ft/yr (10.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 492 ft^3/s (13.9 ft^3/s) July 20 (gage height, 4.08 ft or 1.244 m); minimum daily, 3.4 ft^3/s (0.096 m^3/s) Jan. 29.
Period of record: Maximum discharge, 2,630 ft^3/s (74.5 m^3/s) Aug. 4, 1964 (gage height, 5.27 ft or 1.606 m), from rating curve extended above 190 ft^3/s (5.4 m^3/s) on basis of slope-area measurements at gage heights 3.87, 4.52, and 5.27 ft (1.180, 1.378, and 1.606 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Jan. 24, 1969.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation and municipal use, and at times, transbasin diversion from Beaver Creek drainage and trans-mountain diversions from Colorado River basin.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	5.5	6.2	5.2	5.4	4.6	5.8	6.4	15	13	11	4.3
2	5.1	5.5	7.0	4.8	5.0	5.1	5.9	6.5	14	14	11	5.4
3	4.8	6.6	7.7	4.5	5.2	5.2	6.5	6.4	14	13	12	7.3
4	4.8	5.8	8.6	4.8	4.8	4.9	6.0	7.0	12	13	6.7	9.7
5	4.8	6.0	8.0	5.4	4.3	5.0	6.5	7.6	12	12	5.4	7.1
6	5.1	5.8	6.7	6.0	4.5	4.9	6.5	8.7	12	12	4.0	7.8
7	5.6	5.7	6.0	6.5	5.1	4.8	6.8	11	12	12	4.4	5.7
8	5.2	5.7	4.8	6.0	5.3	4.9	6.0	11	15	19	5.4	5.2
9	5.0	5.8	5.1	5.5	5.2	5.0	5.7	10	25	22	4.7	5.0
10	4.8	5.8	6.4	5.0	5.1	5.0	6.8	10	51	25	5.1	5.6
11	5.5	5.8	6.3	4.0	4.8	5.3	7.7	18	25	20	6.3	6.2
12	25	5.5	6.9	5.0	5.0	4.6	7.4	12	27	22	7.6	8.9
13	8.2	5.4	6.1	6.5	4.9	5.3	7.2	12	36	25	9.9	12
14	7.5	5.3	5.1	8.0	4.7	5.4	7.2	11	43	23	11	13
15	6.2	5.5	5.6	7.5	5.2	5.4	7.8	11	41	25	7.9	10
16	5.2	5.5	7.1	7.0	4.9	5.1	8.5	11	38	28	6.6	6.2
17	5.5	5.4	7.6	5.4	5.4	5.3	8.1	11	37	20	6.5	5.4
18	5.6	5.3	6.7	5.5	4.1	5.6	8.6	11	34	17	5.8	5.4
19	5.3	5.4	5.8	5.4	4.5	5.6	6.7	13	31	17	4.7	6.0
20	5.3	5.2	4.7	5.5	5.5	5.5	7.1	12	28	31	4.4	5.8
21	5.2	6.7	6.7	4.7	4.3	5.7	6.8	12	25	14	7.6	6.1
22	5.5	6.2	6.1	3.7	4.6	5.2	7.3	12	21	9.4	5.2	6.0
23	5.5	6.2	4.1	5.7	5.2	5.0	7.7	13	19	15	4.6	5.8
24	6.1	6.1	4.8	5.3	5.9	4.8	7.5	12	18	17	4.5	5.4
25	5.4	6.1	5.0	5.1	4.9	5.6	8.1	11	18	14	4.4	5.4
26	5.4	5.9	5.2	5.0	4.5	6.4	8.0	11	17	16	5.9	5.2
27	7.1	5.8	5.4	4.9	4.7	5.4	8.0	11	16	12	5.6	5.3
28	6.6	5.8	5.6	4.7	4.5	6.0	6.5	13	14	8.8	5.3	5.7
29	6.0	4.2	5.4	3.4	---	6.9	6.5	14	14	9.7	5.6	5.2
30	6.4	3.8	5.0	5.3	---	7.2	6.5	13	14	8.3	6.1	5.3
31	5.7	---	5.4	4.7	---	6.4	---	15	---	6.2	5.5	---
TOTAL	194.5	169.3	187.1	166.0	137.5	167.1	211.7	343.6	698	513.4	200.7	197.4
MEAN	6.27	5.64	6.04	5.35	4.91	5.39	7.06	11.1	23.3	16.6	6.47	6.58
MAX	25	6.7	8.6	8.0	5.9	7.2	8.6	18	51	31	12	13
MIN	4.8	3.8	4.1	3.4	4.1	4.6	5.7	6.4	12	6.2	4.0	4.3
AC-FT	386	336	371	329	273	331	420	682	1380	1020	398	392

CAL YR 1974 TOTAL 3139.4 MEAN 8.60 MAX 33 MIN 3.8 AC-FT 6230
WTR YR 1975 TOTAL 3186.3 MEAN 8.73 MAX 51 MIN 3.4 AC-FT 6320

07103800 WEST MONUMENT CREEK AT U.S. AIR FORCE ACADEMY, COLO.

LOCATION.--Lat 38°58'14", long 104°54'08", in SW¼SW¼ sec.28, T.12 S., R.67 W., El Paso County, on left bank 500 ft (150 m) upstream from diversion to city of Colorado Springs water treatment plant, 2.7 mi (4.3 km) south of U.S. Air Force Academy chapel, and 4.4 mi (7.1 km) upstream from mouth.

DRAINAGE AREA.--14.9 mi^2 (38.6 km^2).

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

GAGE.--Water-stage recorder and concrete flume. Altitude of gage is 7,180 ft (2,188 m) from topographic map.

AVERAGE DISCHARGE .--5 years, 4.00 ft^3/s (0.113 m^3/s), 2,900 acre-ft/yr (3.58 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 18 ft^3/s (0.51 m^3/s) Mar. 31 (gage height, 1.93 ft or 0.588 m); maximum gage height, 2.15 ft (0.655 m) Dec. 2 (backwater from ice); minimum daily discharge, 0.03 ft^3/s (0.001 m^3/s) Sept. 1.
Period of record: Maximum discharge, 47 ft^3/s (1.33 m^3/s) May 20, 1970 (gage height, 2.69 ft or 0.820 m); maximum gage height, 2.78 ft (0.847 m) Jan. 1, 1973 (backwater from ice); minimum daily discharge, 0.02 ft^3/s (0.001 m^3/s) Mar. 27, 1974.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions from Colorado River basin, storage reservoirs, and operation of a water-supply system.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.46	.65	.70	.43	.18	.47	.53	.58	.65	.79	.46	.03
2	.35	.72	.80	.28	.10	.23	1.0	.57	.52	.72	.38	.05
3	.40	.59	.80	.44	.16	.33	.49	.58	.45	.66	.25	.07
4	.52	.83	.90	.47	.22	.39	.40	.62	.46	.62	.22	.10
5	.46	.99	.98	.26	.09	.23	.81	.70	.37	.58	.19	.07
6	.40	.80	.80	.51	.41	.36	.87	.62	.35	.55	.19	.06
7	.65	.98	.72	.33	.31	.46	.37	.56	.33	.52	.18	.05
8	.65	1.1	.80	.25	.10	.27	.52	.54	.37	.53	.15	.20
9	.58	.57	.65	.46	.27	.44	.68	.54	.57	.54	.14	.10
10	.52	.60	.72	.33	.24	.42	.51	.56	1.3	.64	.13	.06
11	.52	.71	.88	.30	.11	.28	.26	.60	1.6	.67	.13	.07
12	1.1	.65	.58	.25	.18	.55	.31	.67	2.5	.53	.11	.09
13	.78	.49	.80	.47	.23	.28	.32	.66	3.0	.45	.17	.10
14	.85	.94	.88	.47	.11	.41	.77	.66	3.3	.46	.32	.10
15	.53	.97	.65	.29	.06	.46	.56	.63	2.9	.58	.32	.14
16	.48	.91	.72	.41	.20	.27	.59	.61	2.4	.90	.22	.07
17	.79	.56	.94	.27	.23	.40	.60	.63	2.1	.73	.19	.05
18	.74	.68	.78	.36	.11	.47	.53	.65	2.0	.52	.16	.04
19	.34	.97	.71	.25	.30	.33	.54	.62	1.7	.43	.13	.06
20	.58	.94	.24	.32	.11	.52	.58	.58	1.7	1.5	.12	.06
21	.68	.50	.78	.23	.13	.48	.53	.56	1.6	2.0	.14	.09
22	.45	.54	.49	.34	.31	.34	.65	.61	1.5	1.3	.11	.07
23	.73	.58	.60	.16	.16	.47	.71	.66	1.4	1.1	.09	.05
24	.50	1.1	.29	.23	.42	.80	.74	.47	1.3	.88	.08	.07
25	.49	1.4	.30	.30	.28	.95	.84	.44	1.2	.72	.07	.07
26	.70	.68	.41	.14	.30	.32	.85	.40	1.1	.58	.07	.06
27	.44	.80	.53	.15	.17	1.2	.90	.39	1.1	.46	.07	.06
28	1.0	.70	.51	.08	.18	.37	.70	.47	.99	.40	.06	.07
29	.72	.60	.30	.15	---	.63	.67	.51	.90	.52	.05	.07
30	.87	.60	.37	.20	---	3.8	.62	.44	.81	.31	.04	.08
31	.67	---	.41	.07	---	1.7	---	.58	---	.29	.04	---
TOTAL	18.95	23.15	20.04	9.20	5.67	18.63	18.45	17.71	40.47	21.48	4.98	2.26
MEAN	.61	.77	.65	.30	.20	.60	.62	.57	1.35	.69	.16	.075
MAX	1.1	1.4	.98	.51	.42	3.8	1.0	.70	3.3	2.0	.46	.20
MIN	.34	.49	.24	.07	.06	.23	.26	.39	.33	.29	.04	.03
AC-FT	38	46	40	18	11	37	37	35	80	43	9.9	4.5

CAL YR 1974 TOTAL 308.73 MEAN .85 MAX 8.1 MIN .02 AC-FT 612
WTR YR 1975 TOTAL 200.99 MEAN .55 MAX 3.8 MIN .03 AC-FT 399

07104500 TEMPLETON GAP FLOODWAY AT COLORADO SPRINGS, COLO.

LOCATION.--Lat 38°53'17", long 104°49'01", in SE¼ sec.30, T.13 S., R.66 W., El Paso County, on left bank 75 ft (23 m) upstream from head of concrete flume, 400 ft (120 m) upstream from bridge on U.S. Highways 85 and 87, and 0.8 mi (1.3 km) north of Colorado Springs.

DRAINAGE AREA.--8.46 mi^2 (21.91 km^2).

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,200 ft (1,890 m) from topographic map.

AVERAGE DISCHARGE.--24 years, 0.37 ft^3/s (0.0105 m^3/s), 268 acre-ft/yr (330,000 m^3/yr).

EXTREMES.--Current year: Maximum discharge, 150 ft^3/s (4.25 m^3/s) Aug. 14 (gage height, 2.40 ft or 0.732 m), from rating curve extended above 130 ft^3/s (3.7 m^3/s); no flow for most of year.
Period of record: Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) July 24, 1970 (gage height, 3.45 ft or 1.052 m), from rating curve based on computation of flow at critical depth at gage heights 1.3, 1.4, 1.8, and 3.0 ft (0.40, 0.43, 0.55, and 0.91 m); no flow most of time.

REMARKS.--Records good except those above 125 ft^3/s (3.54 m^3/s), which are fair. This is an artificial channel constructed to divert flood flows from normally dry channels around Colorado Springs during periods of heavy rainfall.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0					0		0	0	9.1	0
2	0	0					0		0	0	24	0
3	0	.02					0		0	0	.03	0
4	0	.02					0		0	0	0	1.0
5	0	0					0		0	0	0	.06
6	0	0					0		0	0	0	0
7	0	0					0		0	0	0	0
8	0	0					0		0	0	0	0
9	0	0					0		18	0	0	0
10	0	0					0		26	0	0	0
11	0	0					0		.13	0	0	0
12	19	0					.01		0	0	4.0	0
13	1.2	0					0		0	0	.60	.11
14	0	0					0		0	0	17	.05
15	0	0					0		0	0	.12	0
16	0	0					0		0	0	.07	0
17	0	0					0		0	0	0	0
18	0	0					0		0	0	0	0
19	0	0					0		0	0	0	0
20	0	0					0		0	0	0	0
21	0	0					0		0	0	0	0
22	0	0					0		0	0	0	0
23	0	0					0		12	1.7	0	0
24	0	0					0		.60	.02	0	0
25	0	0					0		.02	0	0	0
26	0	0					0		0	0	0	0
27	.02	0					0		0	0	0	0
28	.04	0					0		0	0	0	0
29	0	0			---		0		0	0	0	0
30	0	0			---		0		0	0	0	0
31	0	---			---		---		---	0	0	---
TOTAL	20.26	.04	0	0	0	0	.01	0	56.75	1.72	54.92	1.22
MEAN	.65	.001	0	0	0	0	.0003	0	1.89	.056	1.77	.041
MAX	19	.02	0	0	0	0	.01	0	26	1.7	24	1.0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	40	.08	0	0	0	0	.02	0	113	3.4	109	2.4

CAL YR 1974 TOTAL 212.19 MEAN .58 MAX 70 MIN 0 AC-FT 421
WTR YR 1975 TOTAL 134.92 MEAN .37 MAX 26 MIN 0 AC-FT 268

07105800 FOUNTAIN CREEK AT SECURITY, COLO.

LOCATION.--Lat 38°43'46", long 104°44'00", in SW¼ sec.24, T.15 S., R.66 W., El Paso County, on right bank 980 ft (300 m) downstream from Carson Road bridge, 1.0 mi (1.6 km) southwest of South Security School, 3.5 mi (5.6 km) northeast of Fountain, and 5.0 mi (8.0 km) upstream from Jimmy Camp Creek.

DRAINAGE AREA.--488 mi^2 (1,264 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 5,640 ft (1,719 m) from topographic map. Prior to Oct. 26, 1966, at site 1,040 ft (320 m) upstream at datum 6.00 ft (1.829 m) higher. Oct. 26, 1966, to July 18, 1972, at site 980 ft (300 m) upstream at datum 6.00 ft (1.829 m) higher.

AVERAGE DISCHARGE.--11 years, 56.6 ft^3/s (1.603 m^3/s), 41,010 acre-ft/yr (50.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,900 ft^3/s (53.8 m^3/s) July 23 (gage height, 4.93 ft or 1.503 m), from rating curve extended above 1,300 ft^3/s (36.8 m^3/s), on basis of slope-area measurement of peak flow; minimum daily, 14 ft^3/s (0.40 m^3/s) Aug. 14.
Period of record: Maximum discharge, 25,000 ft^3/s (708 m^3/s) July 24, 1965 (gage height, 11.30 ft or 3.444 m, site and datum then in use, from floodmarks), from rating curve extended above 2,900 ft^3/s (82 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 1.9 ft^3/s (0.054 m^3/s) Mar. 1, 1965.

REMARKS.--Records fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation of about 5,100 acres (20.6 km^2), municipal use, and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	32	28	25	36	33	44	32	56	28	80	30
2	20	34	36	24	40	33	47	34	70	29	359	29
3	18	37	36	24	40	33	37	30	56	29	20	29
4	17	37	33	24	37	32	33	29	49	28	14	39
5	17	37	28	20	35	31	31	18	60	26	15	39
6	17	34	36	22	38	30	28	15	46	36	16	37
7	17	34	31	20	43	29	30	21	36	46	17	33
8	17	36	23	20	44	33	30	36	49	78	22	32
9	17	38	19	19	44	37	28	40	390	38	30	36
10	17	37	17	18	43	38	25	28	788	74	29	34
11	17	43	19	19	43	39	47	58	148	110	29	35
12	258	46	20	22	46	37	41	69	152	72	30	36
13	29	53	20	22	52	35	55	60	156	79	36	40
14	25	54	20	20	43	36	54	62	110	60	237	40
15	22	55	25	20	46	42	44	49	138	47	89	39
16	30	55	28	20	35	42	30	47	148	98	56	32
17	33	59	30	25	30	40	29	39	148	58	68	29
18	32	49	25	25	27	42	28	46	116	52	48	28
19	29	46	25	26	27	41	20	45	104	32	35	28
20	31	44	25	29	27	41	36	42	62	95	32	27
21	32	48	22	29	26	42	41	38	36	93	27	28
22	35	44	20	25	31	42	22	62	66	38	24	29
23	35	43	16	22	28	44	26	60	93	281	23	29
24	34	37	16	27	28	42	23	50	85	70	20	29
25	33	42	18	26	28	53	21	46	60	68	22	30
26	32	38	20	24	30	47	29	42	62	63	23	31
27	38	32	60	26	34	47	27	43	37	54	23	34
28	44	32	45	27	33	48	52	55	36	32	25	35
29	37	29	35	29	---	45	41	50	30	30	25	32
30	36	28	30	32	---	47	25	53	30	32	28	33
31	35	---	26	28	---	46	---	50	---	28	29	---
TOTAL	1075	1233	832	739	1014	1227	1024	1349	3417	1904	1531	982
MEAN	34.7	41.1	26.8	23.8	36.2	39.6	34.1	43.5	114	61.4	49.4	32.7
MAX	258	59	60	32	52	53	55	69	788	281	359	40
MIN	17	28	16	18	26	29	20	15	30	26	14	27
AC-FT	2130	2450	1650	1470	2010	2430	2030	2680	6780	3780	3040	1950

CAL YR 1974 TOTAL 18601 MEAN 51.0 MAX 258 MIN 11 AC-FT 36900
WTR YR 1975 TOTAL 16327 MEAN 44.7 MAX 788 MIN 14 AC-FT 32380

07106300 FOUNTAIN CREEK NEAR PINON, COLO.

LOCATION.--Lat 38°26'50", long 104°35'28", in NE¼NE¼ sec.31, T.18 S., R.84 W., Pueblo County, near left bank on downstream side of county road bridge, 1.2 mi (1.9 km) northeast of Pinon and 3.2 mi (5.1 km) upstream from Steele Hollow Creek.

DRAINAGE AREA.--846 mi^2 (2,191 km^2).

PERIOD OF RECORD.--April 1973 to current year.

GAGE.--Nonrecording gage. Altitude of gage is 5,005 ft (1,526 m) from topographic map.

EXTREMES.--Current year: Maximum discharge observed, 1,870 ft^3/s (53.0 m^3/s) July 23 (gage height 4.68 ft or 1.426 m); no flow many days.
Period of record: Maximum discharge observed, 1,970 ft^3/s (55.8 m^3/s) May 7, 1973 (gage height, 4.60 ft or 1.402 m); maximum gage height observed (4.68 ft or 1.426 m) July 23, 1975; no flow at times most years.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions for municipal use, diversions above station for irrigation of about 10,000 acres (40.5 km^2) and for municipal use, and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	0	44	50	39	55	17	0	0	0	0	
2	0	1.0	61	60	70	45	19	0	0	0	260	
3	0	6.0	58	60	49	49	3.5	0	0	0	92	
4	0	18	39	60	41	44	2.0	0	0	0	18	
5	0	9.3	58	55	40	44	5.0	0	0	0	5.6	
6	0	9.3	49	52	40	44	2.5	0	0	0	0	
7	.50	6.5	44	50	60	39	2.0	0	0	0	0	
8	.30	1.0	39	45	100	44	4.4	0	35	0	0	
9	0	0	32	40	85	52	2.5	0	52	45	0	
10	0	4.0	34	35	75	41	.50	0	1200	190	0	
11	1.0	11	44	33	61	36	.50	0	283	80	0	
12	140	32	61	70	44	41	24	25	149	52	0	
13	88	19	52	130	68	45	13	4.4	105	39	3.0	
14	11	18	52	160	68	55	4.4	0	129	26	100	
15	6.5	19	55	120	49	21	.50	0	195	5.0	90	
16	.50	26	55	90	105	24	0	0	135	1.0	10	
17	0	19	52	60	68	26	0	0	142	5.0	1.0	
18	0	13	49	45	65	22	0	0	129	1.0	.50	
19	0	15	52	40	76	18	0	0	61	0	0	
20	0	13	58	35	44	17	0	0	32	55	0	
21	0	10	80	30	55	14	0	0	15	230	0	
22	0	8.7	72	30	58	19	0	0	5.0	16	0	
23	0	12	65	35	55	34	0	0	1.0	191	0	
24	0	13	60	35	68	30	0	0	0	298	0	
25	0	15	60	35	61	26	0	0	2.0	49	0	
26	0	13	100	34	39	22	0	0	0	16	0	
27	0	19	170	32	90	21	0	0	0	3.0	0	
28	9.3	26	130	30	55	70	0	0	0	0	0	
29	1.0	24	80	39	---	40	0	0	0	0	0	
30	0	21	55	34	---	25	.10	.50	0	0	0	
31	0	---	60	34	---	10	---	0	---	0	0	---
TOTAL	258.20	401.8	1920	1658	1728	1073	100.90	29.90	2670.0	1302.0	580.10	0
MEAN	8.33	13.4	61.9	53.5	61.7	34.6	3.36	.96	89.0	42.0	18.7	0
MAX	140	32	170	160	105	70	24	25	1200	298	260	0
MIN	0	0	32	30	39	10	0	0	0	0	0	0
AC-FT	512	797	3810	3290	3430	2130	200	59	5300	2580	1150	0

CAL YR 1974 TOTAL 15466.80 MEAN 42.4 MAX 283 MIN 0 AC-FT 30680
WTR YR 1975 TOTAL 11721.90 MEAN 32.1 MAX 1200 MIN 0 AC-FT 23250

07106500 FOUNTAIN CREEK AT PUEBLO, COLO.

LOCATION.--Lat 38°18'27", long 104°36'09", in NE¼SW¼ sec.18, T.20 S., R.64 W., Pueblo County, on left bank at downstream side of bridge on State Highway 47 at Pueblo and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--920 mi^2 (2,383 km^2).

PERIOD OF RECORD.--January 1922 to September 1925, October 1940 to September 1965, February 1971 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 4,725.30 ft (1,440.271 m) above mean sea level. See WSP 1711 or 1731 for history of changes prior to Oct. 1, 1940. Oct. 1, 1940, to Apr. 6, 1965, water-stage recorder at site 2.4 mi (3.9 km) downstream at datum 4,663.45 ft (1,421.420 m) above mean sea level (unadjusted). Apr. 7 to Sept. 30, 1965, water-stage recorder at site 2.3 mi (3.7 km) downstream at datum 4,668.4 ft (1,422.93 m) above mean sea level (unadjusted).

AVERAGE DISCHARGE.--32 years, 54.5 ft^3/s (1.543 m^3/s), 39,490 acre-ft/yr (48.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 5,360 ft^3/s (152 m^3/s) July 20 (gage height, 3.71 ft or 1.128 m); on basis of rating curve extended above 3,400 ft^3/s (96.0 m^3/s); maximum gage height, 4.35 ft (1.326 m) Jan. 11 (backwater from ice); minimum daily discharge, 0.02 ft^3/s (0.001 m^3/s) July 4, 6.
Period of record: Maximum discharge, 47,000 ft^3/s (1,330 m^3/s) June 17, 1965 (gage height, 19.0 ft or 5.79 m, from floodmarks, site and datum then in use), from rating curve extended above 400 ft^3/s (11 m^3/s), on basis of contracted-opening measurement of peak flow; no flow at times many years.
Maximum stage since at least 1903, that of June 17, 1965. Flood of June 4, 1921, reached a discharge of 34,000 ft^3/s (963 m^3/s), by slope-area measurement. Flood of May 30, 1935, reached a discharge of 35,000 ft^3/s (991 m^3/s) by slope-area measurement.

REMARKS.--Records fair. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions for municipal use, diversions for irrigation of about 14,000 acres (56.7 km^2) above station and municipal use and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	11	23	40	35	77	21	4.5	.70	.02	11	.86
2	7.0	7.0	63	55	46	77	21	4.5	.70	.14	80	.86
3	7.5	14	48	60	48	69	17	4.5	.42	.05	11	.86
4	7.5	29	38	58	46	73	13	4.2	.31	.02	5.3	.86
5	6.6	26	38	51	40	58	11	3.5	.31	.09	3.9	.86
6	6.6	24	40	51	34	53	14	3.5	.25	.02	3.1	.86
7	6.6	14	35	46	102	48	9.5	3.2	.25	.05	2.5	.70
8	6.6	7.5	30	41	123	48	9.0	3.2	24	.14	2.0	.70
9	6.6	5.3	29	38	105	55	7.0	3.5	44	5.0	1.4	.70
10	6.1	5.3	28	32	117	58	5.7	4.2	1000	120	1.0	.70
11	6.1	9.0	25	30	105	63	6.6	6.9	367	194	.80	.86
12	84	16	29	30	89	60	20	3.6	97	477	.80	.70
13	94	21	32	80	93	63	28	4.9	85	153	139	.70
14	11	20	35	160	85	63	17	7.0	85	13	63	.70
15	7.0	20	35	110	93	53	7.5	2.3	101	3.8	5.7	.70
16	5.7	20	36	75	97	46	7.0	2.1	93	2.6	2.6	.55
17	5.3	16	40	41	93	40	6.1	1.6	65	1.4	1.6	.55
18	5.0	11	38	36	93	40	8.0	1.4	53	1.0	.86	.55
19	4.9	11	36	35	81	32	6.1	1.2	32	.86	.86	.55
20	4.9	9.5	30	32	81	24	5.7	.86	13	594	.86	.55
21	4.7	9.5	34	26	89	20	5.7	.70	7.0	479	.86	.55
22	4.7	8.5	36	23	81	20	5.7	.70	3.5	71	.70	.55
23	4.7	8.0	28	34	81	21	5.7	.70	2.5	216	.86	.55
24	4.5	11	25	43	85	22	5.7	.70	2.0	297	.86	.55
25	4.5	11	41	51	85	22	5.3	.70	1.4	20	.86	.55
26	4.5	11	90	43	85	21	4.9	.70	1.2	14	.86	.70
27	4.5	12	170	41	81	13	4.9	.70	1.4	10	.86	.86
28	4.5	16	135	46	85	40	4.9	1.0	1.2	8.5	.86	.70
29	6.1	19	65	43	---	53	4.9	1.6	.70	10	.86	.70
30	7.5	14	46	41	---	53	4.5	1.0	.31	10	.86	.55
31	8.5	---	53	38	---	36	---	.70	---	9.5	.86	---
TOTAL	355.7	416.6	1431	1530	2278	1421	292.4	79.86	2083.15	2711.19	346.58	20.63
MEAN	11.5	13.9	46.2	49.4	81.4	45.8	9.75	2.58	69.4	87.5	11.2	.69
MAX	94	29	170	160	123	77	28	7.0	1000	594	139	.86
MIN	4.5	5.3	23	23	34	13	4.5	.70	.25	.02	.70	.55
AC-FT	706	826	2840	3030	4520	2820	580	158	4130	5380	687	41

CAL YR 1974 TOTAL 14321.99 MEAN 39.2 MAX 187 MIN 0 AC-FT 28410
WTR YR 1975 TOTAL 12966.11 MEAN 35.5 MAX 1000 MIN .02 AC-FT 25720

07108050 GREENHORN CREEK NEAR COLORADO CITY, COLO.

LOCATION.--Lat 37°57'06", long 104°47'42", Pueblo County, on right bank 15 ft (5 m) upstream from county road crossing, 1.3 mi (2.1 km) upstream from Graneros Creek, and 2.3 mi (3.7 km) east of fire station in Colorado City.

DRAINAGE AREA.--32 mi^2 (83 km^2), approximately.

PERIOD OF RECORD.--February 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,630 ft (1,716 m), from topographic map.

EXTREMES.--Current year: Maximum discharge, 400 ft^3/s (11.3 m^3/s) July 10 (gage height, 3.30 ft or 1.006 m, from floodmark), from rating curve extended above 27 ft^3/s (0.8 m^3/s) on basis of runoff comparison with upstream station; minimum daily, 0.26 ft^3/s (0.007 m^3/s) Sept. 3.
Period of record: Maximum discharge, 400 ft^3/s (113 m^3/s) July 10, 1975 (gage height, 3.30 ft or 1.006 m, from floodmark), from rating curve extended as explained above; minimum daily, 0.03 ft^3/s (0.001 m^3/s) Sept. 8-9, 1973.
REVISIONS.--The maximum discharge for the water year 1974 has been revised to 22 ft^3/s (0.62 m^3/s) May 10, 1974 (gage height, 1.05 ft or 0.320 m), superseding figure published in WRD Colo. 1974.

REMARKS.--Records good except those for winter period, which are fair, and those above 30 ft^3/s (0.85 m^3/s), which are poor. Diversions for irrigation of about 4,300 acres (17.4 km^2) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.87	.93	.94	2.0	2.6	2.9	2.6	1.5	2.4	1.2	3.8	.54
2	.67	.98	1.2	2.0	2.4	3.2	2.6	1.4	3.5	1.0	4.6	.28
3	.72	1.3	1.2	2.0	2.6	3.0	3.1	1.4	7.1	1.0	5.0	.26
4	.58	1.4	1.3	2.5	2.5	2.8	2.8	1.1	31	1.4	3.0	.94
5	.68	2.2	1.3	2.5	2.5	2.8	2.9	1.1	32	2.0	1.9	1.7
6	.69	1.9	1.3	2.8	2.4	2.8	2.5	1.1	25	2.5	1.5	1.2
7	.85	.75	1.3	3.5	2.4	2.9	2.8	1.1	19	2.3	1.1	.81
8	.84	.96	1.4	3.0	3.2	2.9	2.8	.99	14	2.3	.72	1.0
9	.81	.77	1.4	2.1	4.2	3.0	2.8	.92	15	3.0	1.1	1.3
10	.74	1.1	1.9	2.1	2.8	2.9	2.5	.93	26	70	1.5	1.3
11	.77	1.0	1.9	2.0	2.5	3.0	2.7	1.4	17	25	.41	.72
12	.84	1.4	1.9	2.0	2.5	2.9	2.8	3.3	23	30	.59	.96
13	1.8	1.3	2.2	2.5	2.5	2.9	3.2	7.0	23	20	2.8	1.0
14	2.1	.68	2.5	3.0	2.5	2.9	2.6	5.1	20	16	4.0	1.2
15	1.5	.69	3.3	3.5	2.5	3.1	2.4	5.0	20	14	1.7	1.4
16	.74	.69	2.6	2.3	2.4	2.8	2.3	9.7	19	13	4.7	1.3
17	.79	.68	3.1	2.0	2.3	2.9	2.1	10	16	14	3.0	1.0
18	.98	.61	2.6	2.2	2.3	2.9	2.6	12	16	12	1.8	1.3
19	1.1	.53	2.5	3.9	2.4	2.8	3.0	26	13	9.8	.80	.77
20	1.2	.60	3.1	2.1	2.7	2.9	3.4	13	10	12	.72	.53
21	1.0	.96	2.7	2.1	2.5	3.3	3.2	13	8.7	28	1.6	.59
22	.72	1.4	2.5	3.9	2.3	3.1	2.9	12	7.3	13	1.8	1.8
23	.76	1.9	2.3	3.8	2.3	3.1	3.0	5.4	5.9	11	.93	2.7
24	.75	1.6	2.3	2.6	3.5	2.7	2.2	2.5	3.4	10	.64	2.6
25	1.2	1.1	2.0	2.8	3.0	3.0	2.1	3.8	2.5	10	.54	1.9
26	1.9	1.3	2.0	2.9	2.7	3.2	2.3	5.3	2.2	7.4	.48	1.5
27	1.9	1.2	2.5	2.9	2.6	2.8	2.2	5.8	2.0	6.6	.44	1.5
28	1.3	1.3	3.5	2.6	2.6	2.6	1.9	4.4	1.8	5.9	.40	1.5
29	1.7	.98	3.0	2.4	---	3.0	1.7	4.2	1.6	5.2	.40	1.6
30	1.5	.75	2.5	2.8	---	2.8	1.5	4.2	1.4	4.9	.40	1.6
31	.97	---	2.0	2.7	---	3.1	---	2.4	---	4.0	.94	---
TOTAL	32.97	32.96	66.24	81.5	73.7	91.0	77.5	167.04	388.8	358.5	53.31	36.80
MEAN	1.06	1.10	2.14	2.63	2.63	2.94	2.58	5.39	13.0	11.6	1.72	1.23
MAX	2.1	2.2	3.5	3.9	4.2	3.3	3.4	26	32	70	5.0	2.7
MIN	.58	.53	.94	2.0	2.3	2.6	1.5	.92	1.4	1.0	.40	.26
AC-FT	65	65	131	162	146	180	154	331	771	711	106	73

WTR YR 1975 TOTAL 1460.32 MEAN 4.00 MAX 70 MIN .26 AC-FT 2900

NOTE.--No gage-height record June 25 to July 14.

07107900 GREENHORN CREEK NEAR RYE, COLO.

LOCATION.--Lat 37°55'14", long 104°57'21", Pueblo County, in midstream, 15 ft (5 m) upstream from road bridge in Rye Park and 1.4 mi (2.3 km) west of Post Office in Rye.

DRAINAGE AREA.--11 mi^2 (28 km^2), approximately.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,220 ft (2,201 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 340 ft^3/s (9.63 m^3/s) July 10 (gage height, 3.90 ft or 1.189 m, from floodmark), from rating curve extended as explained below; minimum daily, 1.0 ft^3/s (0.028 m^3/s) Jan. 12-14, Feb. 5-8.
Period of record: Maximum discharge, 340 ft^3/s (9.63 m^3/s) July 10, 1975 (gage height, 3.90 ft or 1.189 m, from floodmark), from rating curve extended above 25 ft^3/s (0.7 m^3/s) on basis of slope-area measurement of peak discharge; minimum daily, 0.94 ft^3/s (0.027 m^3/s) Dec. 13-25, 1973.

REMARKS.--Records good except those for winter period, which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	3.2	1.8	1.2	1.4	1.8	2.7	3.6	15	15	7.5	1.8
2	2.2	3.2	1.8	1.2	1.4	1.8	10	3.5	18	14	8.2	2.2
3	2.2	3.1	1.8	1.2	1.4	1.8	6.4	3.6	29	14	7.5	3.0
4	2.8	3.1	1.8	1.3	1.3	2.2	1.5	4.5	29	15	6.7	4.3
5	2.6	3.0	1.9	1.4	1.0	1.7	1.6	5.5	26	15	5.9	4.1
6	2.6	3.0	2.0	1.4	1.0	1.7	1.8	4.8	25	18	5.9	2.8
7	2.6	2.9	2.0	1.4	1.0	1.6	1.8	4.1	25	17	5.0	2.2
8	2.4	3.0	2.0	1.4	1.0	1.6	3.9	3.9	25	18	4.0	2.6
9	2.4	2.6	2.0	1.4	1.2	1.5	4.3	4.2	26	31	4.0	4.1
10	2.3	2.5	2.0	1.4	1.4	1.6	2.1	5.3	24	69	3.5	2.9
11	2.4	2.5	1.8	1.1	1.4	1.5	4.6	7.0	27	29	3.5	4.0
12	4.2	3.0	1.8	1.0	1.4	2.4	2.6	8.5	30	41	4.3	4.3
13	4.0	2.3	1.8	1.0	1.4	2.1	2.4	8.3	21	29	8.5	4.0
14	4.2	2.8	1.8	1.0	1.3	2.4	2.8	7.6	22	23	8.8	6.3
15	3.6	2.3	1.8	1.1	1.3	1.5	2.3	10	25	20	6.6	6.0
16	3.8	2.2	1.8	1.4	1.2	2.0	3.4	15	25	17	6.1	3.9
17	4.2	2.2	1.8	1.7	1.2	1.5	4.3	15	24	18	5.3	3.0
18	4.2	2.1	1.8	1.7	1.2	1.7	4.4	20	24	16	4.7	2.7
19	4.0	2.1	1.8	1.7	1.2	1.5	4.2	18	23	16	4.8	3.2
20	4.2	3.4	1.8	1.7	1.2	1.9	3.9	18	22	19	5.3	3.1
21	4.0	2.1	1.8	1.7	1.2	2.0	4.3	19	21	22	11	3.5
22	3.8	2.1	1.8	1.7	1.2	1.6	5.4	17	20	14	6.7	3.3
23	3.6	2.1	1.7	1.7	1.4	2.2	5.8	13	20	13	5.1	3.6
24	3.6	2.1	1.4	1.2	1.7	4.5	4.8	13	20	12	3.8	3.4
25	4.5	2.3	1.2	1.1	1.8	2.1	4.6	16	19	11	3.5	3.3
26	4.2	2.3	1.2	1.1	1.8	1.3	5.2	17	18	10	3.5	3.0
27	3.8	2.3	1.2	1.1	1.7	2.7	4.8	16	17	9.1	3.4	3.1
28	3.6	2.1	1.2	1.2	1.7	6.3	3.8	16	17	8.5	3.1	3.7
29	3.6	1.9	1.2	1.4	---	5.3	4.2	13	17	8.2	2.6	3.5
30	3.6	1.8	1.2	1.4	---	3.6	3.7	13	15	7.5	2.3	3.8
31	3.2	---	1.2	1.4	---	1.5	---	14	---	7.5	2.2	---
TOTAL	104.8	75.6	52.2	41.7	37.4	70.9	117.6	337.4	669	576.8	163.3	104.7
MEAN	3.38	2.52	1.68	1.35	1.34	2.29	3.92	10.9	22.3	18.6	5.27	3.49
MAX	4.5	3.4	2.0	1.7	1.8	8.3	10	20	30	69	11	6.3
MIN	2.2	1.8	1.2	1.0	1.0	1.3	1.5	3.5	15	7.5	2.2	1.8
AC-FT	208	150	104	83	74	141	233	669	1330	1140	324	208

CAL YR 1974 TOTAL 1376.6 MEAN 3.77 MAX 25 MIN 1.2 AC-FT 2730
WTR YR 1975 TOTAL 2351.4 MEAN 6.44 MAX 69 MIN 1.0 AC-FT 4660

PEAK DISCHARGE (BASE, 20 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
4- 2	0830	1.26	20	7-10	0015	3.90	340
6- 3	2000	2.06	73				

07109500 ARKANSAS RIVER NEAR AVONDALE, COLO.

LOCATION.--Lat 38°14'53", long 104°23'55", in NE¼SW¼ sec.1, T.21 S., R.63 W., Pueblo County, on right bank 15 ft (5 m) downstream from bridge on Sixmile Rd., 0.3 mi (0.5 km) upstream from Sixmile Creek, and 2.6 mi (4.2 km) west of Avondale.

DRAINAGE AREA.--6,327 mi^2 (16,387 km^2).

PERIOD OF RECORD.--May 1939 to September 1951, February 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,509.53 ft (1,374.505 m) above mean sea level. Prior to February 1965 at site 550 ft (170 m) downstream at datum 1.37 ft (0.418 m) lower.

AVERAGE DISCHARGE.--20 years (1940-1951, 1966-1973), 867 ft^3/s (24.55 m^3/s), 628,100 acre-ft/yr (774 hm^3/yr), prior to completion of Pueblo Reservoir.

EXTREMES.--Current year: Maximum discharge, 6,030 ft^3/s (171 m^3/s) July 21 (gage height, 6.15 ft or 1.875 m); minimum daily, 180 ft^3/s (5.10 m^3/s) Oct. 3.
Period of record: Maximum discharge, about 50,000 ft^3/s (1,416 m^3/s) June 18, 1965 (gage height, 9.77 ft or 2.978 m), from rating curve extended above 6,700 ft^3/s (190 m^3/s) on basis of records for station near Pueblo and indirect measurements of peak flow on Fountain Creek at Pueblo, Chico Creek near North Avondale, and Arkansas River near North Avondale; minimum daily, 50 ft^3/s (1.42 m^3/s) Apr. 2, 1940.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation of about 123,000 acres (498 km^2) and municipal use, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir since Jan. 9, 1974 (see sta. 07099350).

REVISIONS (WATER YEARS).--WSP 1087: 1942. WSP 1311: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	200	299	279	356	369	378	288	550	867	2700	1430	818
2	185	306	296	374	400	352	282	561	825	2700	1940	778
3	180	332	313	369	460	344	320	566	659	2900	1740	765
4	188	310	313	324	414	446	302	594	725	3000	1690	745
5	198	320	324	320	356	475	267	566	1230	3100	906	745
6	198	348	328	340	356	387	249	611	1790	3100	766	712
7	198	352	324	356	369	378	258	665	2290	3300	774	544
8	200	352	320	405	392	360	450	635	2310	3200	740	493
9	200	344	324	441	369	356	475	583	2600	3100	784	439
10	190	336	324	418	392	378	296	525	3630	3880	1130	658
11	190	332	310	352	485	405	285	588	3420	3980	1120	542
12	327	340	279	340	510	410	336	611	2680	3720	1160	422
13	338	336	276	320	475	396	310	677	2270	2920	1460	350
14	252	328	273	267	432	410	299	738	1830	2720	2130	326
15	276	320	285	249	450	410	299	647	1920	2810	1980	322
16	276	313	288	267	500	396	264	777	2470	2840	1750	354
17	282	288	296	336	500	387	284	846	2810	2470	1660	383
18	276	282	306	423	485	316	804	994	3000	2100	1400	329
19	261	282	302	414	470	316	764	672	2680	2280	1130	304
20	261	282	299	441	405	279	372	770	2390	2260	956	289
21	249	292	296	594	374	264	540	954	2330	3660	899	284
22	243	302	296	677	356	313	410	1070	2240	2520	722	297
23	218	336	296	485	356	336	396	1220	2090	1910	734	363
24	208	324	332	378	382	360	405	1080	2090	1940	709	367
25	220	324	356	352	418	360	310	860	2120	1770	618	365
26	218	288	332	382	470	316	246	770	2280	1850	591	368
27	218	279	296	410	535	279	258	725	2500	1730	602	393
28	234	279	276	500	480	378	804	764	2620	1620	602	307
29	252	276	276	470	---	428	853	1140	2620	1700	618	299
30	270	276	279	382	---	396	600	1380	2900	1500	633	317
31	276	---	310	344	---	382	---	1190	---	1400	936	---
TOTAL	7282	9378	9404	12086	11960	11391	12026	24329	66186	80680	34310	13638
MEAN	235	313	303	390	427	367	401	785	2206	2603	1107	455
MAX	338	352	356	677	535	475	853	1380	3630	3980	2130	818
MIN	180	276	273	249	356	264	246	525	659	1400	591	284
AC-FT	14440	18600	18650	23970	23720	22590	23850	48260	131300	160000	68050	27050

CAL YR 1974 TOTAL 215920 MEAN 592 MAX 2100 MIN 152 AC-FT 428300
WTR YR 1975 TOTAL 292670 MEAN 802 MAX 3980 MIN 180 AC-FT 580500

07111000 HUERFANO RIVER AT MANZANARES CROSSING, NEAR REDWING, COLO.

LOCATION.--Lat 37°43'40", long 105°21'03", in sec.5, T.27 S., R.71 W., Huerfano County, on left bank at Manzanares Crossing, 500 ft (150 m) downstream from private bridge, 0.2 mi (0.3 km) downstream from Manzanares Creek, and 3.5 mi (5.6 km) southwest of Redwing.

DRAINAGE AREA.--73 mi^2 (189 km^2).

PERIOD OF RECORD.--July 1923 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 8,270 ft (2,521 m) from topographic map. Apr. 26, 1946, to Sept. 30, 1972, at datum 1.00 ft (0.305 m) higher. See WSP 1711 or 1731 for history of changes prior to Apr. 26, 1946.

AVERAGE DISCHARGE.--52 years, 31.6 ft^3/s (0.895 m^3/s), 22,890 acre-ft/yr (28.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 120 ft^3/s (3.40 m^3/s) July 8 (gage height, 2.30 ft or 0.701 m); minimum daily, 3.5 ft^3/s (0.099 m^3/s) Mar. 30.
Period of record: Maximum discharge, 10,200 ft^3/s (289 m^3/s) Aug. 2, 1951 (gage height, 8.14 ft or 2.481 m), from rating curve extended above 270 ft^3/s (7.6 m^3/s) on basis of slope-area measurement of peak flow; minimum daily determined, 3.5 ft^3/s (0.099 m^3/s) Mar. 30, 1975.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 1,800 acres (7.28 km^2).

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

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1311: 1945(M). WSP 1921: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	12	8.0	8.0	7.5	10	9.6	24	59	83	40	18
2	9.0	12	8.0	8.0	7.5	9.5	8.7	27	62	79	36	18
3	9.0	12	8.5	8.0	8.0	9.0	11	28	71	79	34	20
4	11	12	8.5	8.5	7.5	9.0	12	32	83	75	33	23
5	12	11	8.5	8.5	7.0	10	14	33	86	74	32	26
6	11	12	8.0	9.0	7.5	10	16	29	91	72	29	24
7	10	13	7.5	9.0	8.5	10	14	25	99	71	29	22
8	10	13	7.5	9.0	8.5	10	12	28	100	81	29	21
9	11	11	8.0	8.5	8.5	10	14	30	94	90	30	22
10	11	9.6	8.0	7.5	8.5	10	13	33	96	88	31	21
11	11	9.1	8.0	6.5	8.5	10	13	37	87	83	29	23
12	12	8.7	8.0	5.5	8.5	10	12	41	79	80	33	29
13	13	9.1	8.0	7.0	8.5	10	12	41	72	75	40	30
14	13	8.7	8.0	7.5	8.5	12	13	43	77	74	34	31
15	12	8.7	8.0	7.5	8.0	10	15	53	86	74	32	30
16	12	8.3	7.5	7.5	7.5	11	18	72	97	75	29	28
17	12	8.3	8.0	7.5	7.5	10	18	94	97	86	28	26
18	12	8.3	8.5	8.0	7.5	11	18	96	100	72	26	24
19	12	8.3	8.0	8.0	8.0	12	16	91	99	66	25	21
20	12	7.5	8.0	8.0	9.0	14	18	88	83	62	24	21
21	12	7.9	8.0	7.0	8.5	14	22	87	76	61	33	23
22	12	7.9	8.0	6.0	8.0	12	27	84	71	57	33	20
23	12	7.9	7.5	7.5	8.0	10	29	75	72	55	31	19
24	12	7.5	6.5	8.0	9.0	15	29	67	77	52	28	18
25	12	7.9	7.5	8.5	9.5	16	36	65	84	51	26	18
26	12	7.5	8.0	9.0	9.5	12	38	68	86	45	23	18
27	12	7.5	8.0	8.5	9.5	10	33	71	84	43	22	17
28	12	7.0	8.0	8.0	9.5	7.9	30	71	86	40	21	17
29	13	6.5	8.0	7.5	---	6.0	26	71	84	40	21	16
30	14	7.5	8.0	7.5	---	3.5	24	65	83	39	20	16
31	12	---	8.0	7.5	---	5.3	---	62	---	39	19	---
TOTAL	359.5	277.7	246.0	242.0	232.0	319.2	571.3	1731	2521	2061	900	660
MEAN	11.6	9.26	7.94	7.81	8.29	10.3	19.0	55.8	84.0	66.5	29.0	22.0
MAX	14	13	8.5	9.0	9.5	16	38	96	100	90	40	31
MIN	9.0	6.5	6.5	5.5	7.0	3.5	8.7	24	59	39	19	16
AC-FT	713	551	488	480	460	633	1130	3430	5000	4090	1790	1310

CAL YR 1974 TOTAL 5348.5 MEAN 14.7 MAX 43 MIN 6.4 AC-FT 10610
WTR YR 1975 TOTAL 10120.7 MEAN 27.7 MAX 100 MIN 3.5 AC-FT 20070

PEAK DISCHARGE (BASE, 200 FT^3/S).--No peak above base.

NOTE.--No gage-height record Dec. 1 to Mar. 5.

07114000 CUCHARAS RIVER AT BOYD RANCH, NEAR LA VETA, COLO.

LOCATION.--Lat 37°25'12", long 105°03'08", in SE¼NE¼SE¼ sec.24, T.30 S., R.69 W., Huerfano County, on left bank at Boyd Ranch, 29 ft (9 m) downstream from private bridge, 1.4 mi (2.3 km) downstream from Chaparral Creek, and 6.5 mi (10.5 km) southwest of La Veta.

DRAINAGE AREA.--56 mi^2 (145 km^2).

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,781 ft (2.371.6 m) from topographic map.

AVERAGE DISCHARGE.--41 years, 22.8 ft^3/s (0.646 m^3/s), 16,520 acre-ft/yr (20.4 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 103 ft^3/s (2.92 m^3/s) June 4 (gage height, 1.82 ft or 0.555 m); minimum daily, 4.0 ft^3/s (0.11 m^3/s) Jan. 12.
Period of record: Maximum discharge, 444 ft^3/s (12.6 m^3/s) May 23, 1955 (gage height, 4.05 ft or 1.234 m); minimum daily, 2 ft^3/s (0.057 m^3/s) for several days November 1934 to January 1935, Sept. 29, 1950.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Diversions for irrigation of about 500 acres (2.02 km^2) above station.

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

REVISIONS (WATER YEARS).--WSP 827: 1936. WSP 1007: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	6.8	6.0	6.0	5.5	7.0	9.2	23	59	62	28	12
2	5.9	7.1	6.0	6.5	5.5	6.0	8.5	23	66	60	27	12
3	5.6	7.4	6.5	6.5	6.0	5.5	10	25	89	59	26	14
4	6.2	7.1	6.5	7.0	5.5	5.5	12	29	96	59	25	16
5	5.9	5.9	6.5	7.0	5.0	6.0	12	31	91	56	25	14
6	5.9	6.5	6.0	7.5	5.5	6.2	12	29	91	52	24	13
7	5.9	6.2	5.5	7.5	6.5	6.2	11	26	89	50	23	12
8	5.6	5.9	5.5	7.5	6.5	6.5	11	25	84	57	23	12
9	5.6	6.8	6.0	7.0	6.5	6.8	11	26	86	60	23	13
10	5.4	6.2	6.0	6.0	6.5	6.8	10	26	91	56	23	12
11	5.4	5.6	6.0	5.0	6.5	6.5	9.2	31	88	55	23	14
12	7.4	6.5	6.0	4.0	6.5	6.8	9.2	35	83	55	26	16
13	8.5	6.5	6.0	5.5	6.5	7.8	8.2	38	78	54	25	15
14	8.8	6.5	6.0	6.0	6.5	6.8	8.8	36	86	54	23	15
15	8.2	6.2	6.0	6.0	6.0	7.4	10	39	93	50	21	14
16	8.2	6.2	5.5	6.0	5.5	7.8	15	48	100	48	20	13
17	7.8	5.6	6.0	6.0	5.5	6.8	18	52	96	45	19	12
18	7.8	5.9	6.5	6.5	5.5	6.2	18	52	96	43	18	12
19	7.8	5.9	6.0	6.5	6.0	7.8	16	55	96	42	18	13
20	7.8	5.6	6.0	6.5	6.5	8.5	18	55	93	40	19	13
21	7.8	6.5	6.0	5.5	6.0	9.6	24	55	88	39	20	14
22	8.2	6.2	6.0	4.5	5.5	8.5	28	57	84	37	18	13
23	8.5	6.2	5.5	5.5	5.5	8.8	34	51	81	36	17	13
24	8.2	6.2	4.5	6.0	6.0	10	34	44	80	35	15	13
25	10	6.8	5.5	6.5	6.5	9.6	39	41	81	34	15	12
26	8.2	5.6	6.0	7.0	6.5	9.6	40	43	80	33	15	12
27	8.2	6.5	6.0	6.5	6.5	9.2	35	45	78	32	15	12
28	8.2	6.0	6.0	6.0	6.5	8.0	30	52	70	31	15	12
29	7.8	5.0	6.0	5.5	---	8.5	26	56	66	30	13	12
30	8.2	5.5	6.0	5.5	---	9.0	23	57	64	29	13	12
31	6.5	---	6.0	5.5	---	9.5	---	55	---	28	12	---
TOTAL	225.7	186.9	184.0	190.5	169.0	235.2	550.1	1260	2523	1421	627	392
MEAN	7.28	6.23	5.94	6.15	6.04	7.59	18.3	40.6	84.1	45.8	20.2	13.1
MAX	10	7.4	6.5	7.5	6.5	10	40	57	100	62	28	16
MIN	5.4	5.0	4.5	4.0	5.0	5.5	8.2	23	59	28	12	12
AC-FT	448	371	365	378	335	467	1090	2500	5000	2820	1240	778

CAL YR 1974 TOTAL 4491.8 MEAN 12.3 MAX 40 MIN 4.5 AC-FT 8910
WTR YR 1975 TOTAL 7964.4 MEAN 21.8 MAX 100 MIN 4.0 AC-FT 15800

PEAK DISCHARGE (BASE, 150 FT^3/S).--No peak above base.

NOTE.--No gage-height record Nov. 29 to Mar. 6.

07117000 ARKANSAS RIVER NEAR NEPESTA, COLO.

LOCATION.--Lat 38°11'03", long 104°10'22", in SW¼SE¼ sec.25, T.21 S., R.61 W., Pueblo County, on right bank 0.7 mi (1.1 km) upstream from headgate of Oxford Farmers Co. canal, 1.9 mi (3.1 km) northwest of Nepesta, 2.7 mi (4.3 km) upstream from Kramer Creek, and 6.6 mi (10.6 km) downstream from Huerfano River.

DRAINAGE AREA.--9,345 mi^2 (24,204 km^2), of which 54 mi^2 (140 km^2) is probably noncontributing.

PERIOD OF RECORD.--April to October 1903, April to November 1912, October 1913 to current year. Monthly discharge only for some periods, published in WSP 1311. Records originally published for October 1933 to June 1936 did not include diversion to Oxford Farmers Co. canal, but monthly figures only for this period have been adjusted for diversion and published in WSP 1311.

Records for river below Oxford Farmers Co. canal (diversion to canal not included), published as "at Nepesta," September 1897 to October 1903 (irrigation seasons only), April to October 1904, June 1906 to September 1908 (irrigation seasons only), September 1909 to December 1910, February to September 1911 (gage heights and discharge measurements only), October 1911 to November 1912, March to August 1913 (discharge measurements only), October 1913 to September 1936. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 4,385 ft (1,337 m) from topographic map. Prior to June 5, 1921, nonrecording gages or water-stage recorders at various sites within 4.5 mi (7.2 km) upstream and 3.0 mi (4.8 km) downstream at different datums. June 5, 1921, to Apr. 4, 1966, water-stage recorders at sites on river or river and canal within 0.7 mi (1.1 km) downstream at various datums.

AVERAGE DISCHARGE.--60 years (1913-73), 684 ft^3/s (19.37 m^3/s), 495,600 acre-ft/yr (611 hm^3/yr), prior to completion of Pueblo Reservoir.

EXTREMES.--Current year: Maximum discharge, 8,310 ft^3/s (235 m^3/s) July 21 (gage height, 7.78 ft or 2.371 m); minimum daily, 65 ft^3/s (1.84 m^3/s) Feb. 10.

Period of record: Maximum discharge, 180,000 ft^3/s (5,100 m^3/s) June 4, 1921 (gage height not determined) by slope-area measurement of peak flow at a point 8 mi (13 km) upstream; no flow at times in 1902, 1910, 1931, and 1934.

REMARKS.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 230,000 acres (931 km^2), and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir since Jan. 9, 1974 (see sta. 07099350).

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

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	109	294	261	110	341	372	311	109	767	2140	896	391
2	97	288	294	110	347	311	245	283	689	2190	1600	341
3	88	329	335	150	384	294	245	97	599	2210	1520	317
4	86	305	323	200	384	294	245	118	545	2310	1600	294
5	91	283	317	220	378	417	235	118	840	2450	1050	283
6	112	311	335	290	359	378	210	122	1320	2450	672	272
7	118	335	329	320	235	323	191	155	1980	2520	664	329
8	122	329	335	340	125	323	230	182	1990	2390	615	444
9	118	335	329	430	81	335	372	136	2210	2290	560	398
10	118	359	341	444	65	311	347	112	3060	3060	568	472
11	112	384	335	398	103	311	250	100	2620	3980	560	515
12	149	365	323	360	272	341	256	129	1910	4380	560	451
13	284	317	317	370	347	347	278	133	1860	2450	887	323
14	205	305	329	350	378	341	245	191	1730	1960	2460	240
15	186	311	335	300	372	353	210	191	1640	2050	1730	230
16	196	294	353	288	384	341	173	160	2140	2350	1300	256
17	196	278	359	329	391	305	173	261	2540	1820	1260	288
18	205	250	347	404	391	300	356	353	2640	1920	956	256
19	210	245	347	424	404	266	680	493	2150	2450	906	210
20	210	245	335	424	372	261	205	639	1920	2120	887	182
21	205	250	359	365	317	220	472	794	1990	3960	840	173
22	191	272	365	305	300	230	404	925	1920	2540	607	168
23	178	294	372	225	294	259	335	998	1580	1620	568	230
24	173	288	398	106	288	266	335	998	1450	2850	591	288
25	225	272	404	118	288	305	294	830	1560	1460	508	283
26	240	272	400	230	329	300	205	732	1780	1590	424	278
27	225	256	350	272	391	261	155	689	2060	1420	465	261
28	240	250	250	359	417	272	182	647	2150	1260	424	230
29	261	250	170	404	---	365	278	840	2030	1310	458	182
30	283	245	140	430	---	384	196	1120	2150	1060	465	186
31	300	---	130	372	---	372	---	1130	---	916	458	---
TOTAL	5533	8811	9917	9447	8737	9758	8313	13785	53820	69476	27059	8771
MEAN	178	294	320	305	312	315	277	445	1794	2241	873	292
MAX	300	384	404	444	417	417	680	1130	3060	4380	2460	515
MIN	86	245	130	106	65	220	155	97	545	916	424	168
AC-FT	10970	17480	19670	18740	17330	19350	16490	27340	106800	137800	53670	17400

CAL YR 1974 TOTAL 149564 MEAN 410 MAX 1660 MIN 44 AC-FT 296700
WTR YR 1975 TOTAL 233427 MEAN 640 MAX 4380 MIN 65 AC-FT 463000

07119500 APISHAPA RIVER NEAR FOWLER, COLO.

LOCATION.--Lat 38°05'28", long 103°58'52", in SE¼NW¼ sec.35, T.22 S., R.59 W., Otero County, near right bank on downstream side of county highway bridge, 3.5 mi (5.6 km) southeast of Fowler and 5.4 mi (8.7 km) upstream from mouth.

DRAINAGE AREA.--1,125 mi^2 (2,914 km^2).

PERIOD OF RECORD.--April 1922 to September 1925, May 1939 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 4,317.05 ft (1,315.837 m) above mean sea level. Prior to Aug. 29, 1923, at site 3 mi (5 km) downstream at different datum. Aug. 29, 1923, to Sept. 30, 1925, at present site at different datum.

AVERAGE DISCHARGE.--39 years, 31.7 ft^3/s (0.898 m^3/s), 22,970 acre-ft/yr (28.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,420 ft^3/s (40.2 m^3/s) July 21 (gage height, 6.04 ft or 1.841 m); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Dec. 30.
Period of record: Maximum discharge, 83,000 ft^3/s (2,350 m^3/s) Aug. 22, 1923, by slope-area measurement 2 mi (3 km) upstream from present station, caused by failure of Apishapa Dam 31 mi (50 km) upstream; no flow Feb. 5, 1951.

REMARKS.--Records good. Waste water from Oxford Farmers Co. and Rocky Ford Highline canals enters river above station. Diversions above station for irrigation of about 4,700 acres (19.0 km^2).

REVISIONS (WATER YEARS).--WSP 957: 1939, 1941. WSP 1117: Drainage area. WSP 1241: 1923(M). WRD Colo. 1974: 1973(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.5	45	4.5	34	3.6	2.5	1.6	1.8	6.6	3.9	5.0
2	1.4	2.8	48	7.0	25	3.6	3.8	1.8	1.6	6.6	114	6.2
3	1.4	2.5	50	5.0	25	3.5	11	1.2	2.5	3.1	16	4.6
4	1.3	2.0	53	4.0	10	3.0	11	1.2	2.3	4.2	92	4.2
5	1.4	1.6	61	3.0	23	3.0	2.0	1.2	2.5	5.4	26	4.2
6	1.5	3.1	58	3.0	10	3.5	2.0	1.3	2.3	7.1	6.6	3.9
7	1.6	3.1	59	5.0	8.0	4.0	2.0	1.3	3.4	7.6	5.0	3.6
8	1.6	3.6	58	5.0	10	15	3.2	1.3	2.5	9.1	4.6	3.6
9	1.5	5.5	55	3.0	10	9.5	2.1	1.3	2.9	12	3.9	3.9
10	1.6	29	30	2.5	10	8.6	2.1	1.3	8.4	25	3.9	5.7
11	1.5	15	20	2.0	18	4.0	2.0	1.3	12	23	4.2	4.6
12	2.3	6.6	20	1.5	17	3.0	1.8	1.3	12	53	4.2	4.2
13	2.0	51	20	2.0	12	3.5	1.8	1.5	12	4.6	5.0	5.4
14	2.0	77	15	3.0	5.0	3.0	1.8	1.5	14	11	6.2	7.3
15	1.8	66	15	5.0	5.4	2.5	1.6	1.4	7.0	6.6	7.6	9.6
16	1.8	71	15	7.0	5.0	2.5	1.8	1.8	12	11	7.1	7.2
17	1.6	74	12	7.5	4.2	2.5	1.8	1.8	14	17	4.2	4.2
18	1.6	79	12	7.1	4.2	2.5	2.1	1.6	17	17	4.6	4.8
19	1.8	85	9.1	7.1	4.6	2.5	1.8	1.6	18	7.2	6.2	4.6
20	1.6	74	8.6	7.6	4.2	2.5	2.0	1.6	17	7.1	6.6	4.2
21	1.6	71	17	7.6	4.2	2.5	1.8	1.8	12	244	6.6	4.6
22	1.6	72	4.2	7.6	3.6	3.5	1.6	1.6	2.9	85	6.3	6.1
23	1.6	78	1.3	9.6	3.3	3.0	1.6	2.0	8.3	29	3.9	8.1
24	1.6	79	1.5	9.1	4.2	2.5	1.6	2.0	4.2	21	4.2	6.6
25	8.0	78	2.0	11	3.9	2.3	1.6	2.0	3.1	18	5.0	5.0
26	2.7	80	2.0	12	3.6	2.5	1.6	2.0	2.9	18	5.0	4.6
27	1.8	80	1.8	13	3.6	2.3	1.4	2.0	2.3	20	3.9	4.6
28	1.6	84	1.5	19	3.6	2.5	1.4	2.5	2.3	15	4.2	5.8
29	1.6	81	1.5	25	---	2.5	1.4	2.5	3.1	10	5.0	5.4
30	1.6	70	1.0	33	---	2.3	1.4	2.0	7.7	11	5.0	6.6
31	1.6	---	2.5	33	---	2.3	---	1.8	---	9.4	4.2	---
TOTAL	58.0	1426.3	700.0	271.7	274.6	114.0	75.6	51.1	214.0	724.6	385.1	158.4
MEAN	1.87	47.5	22.6	8.76	9.81	3.68	2.52	1.65	7.13	23.4	12.4	5.28
MAX	8.0	85	61	33	34	15	11	2.5	18	244	114	9.6
MIN	1.3	1.5	1.0	1.5	3.3	2.3	1.4	1.2	1.6	3.1	3.9	3.6
AC-FT	115	2830	1390	539	545	226	150	101	424	1440	764	314

CAL YR 1974 TOTAL 4637.6 MEAN 12.7 MAX 85 MIN 1.0 AC-FT 9200
WTR YR 1975 TOTAL 4453.4 MEAN 12.2 MAX 244 MIN 1.0 AC-FT 8830

PEAK DISCHARGE (BASE, 3,000 FT^3/S).--No peak above base.

07119700 ARKANSAS RIVER AT CATLIN DAM, NEAR FOWLER, COLO.

LOCATION.--Lat 38°07'33", long 103°54'41", in NW¼NW¼ sec.21, T.22 S., R.58 W., Otero County, 600 ft (180 m) downstream from gage on Catlin Canal, on right bank 2.2 mi (3.5 km) downstream from diversion dam for Catlin Canal, 2.3 mi (3.7 km) downstream from Apishapa River and 6.0 mi (9.7 km) east of Fowler.

DRAINAGE AREA.--10,901 mi^2 (28,234 km^2), of which 54 mi^2 (140 km^2) is probably noncontributing.

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

GAGE.--Water-stage recorders on river and on Catlin Canal. Datum of river gage is 4,245.92 ft (1,294.156 m) above mean sea level. Datum of canal gage is 4,257.87 ft (1,297.799 m) above mean sea level. Prior to May 13, 1971, river gage at site 2.2 mi (3.5 km) upstream at datum 24.08 ft (7.340 m) higher and canal gage at site 1.7 mi (2.7 km) upstream at datum 3.26 ft (0.994 m) higher.

AVERAGE DISCHARGE.--11 years, 612 ft^3/s (17.33 m^3/s), 443,400 acre-ft/yr (547 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 6,050 ft^3/s (171 m^3/s) July 21 (gage height, 6.44 ft or 1.963 m); minimum daily, 78 ft^3/s (2.21 m^3/s) Oct. 4.
Period of record: Maximum discharge, 43,200 ft^3/s (1,220 m^3/s) June 18, 1965 (gage height, 7.95 ft or 2.423 m, site and datum then in use), from rating curve extended above 13,000 ft^3/s (370 m^3/s) on basis of flow-over-dam computation of peak flow; minimum daily, 30 ft^3/s (0.850 m^3/s) Sept. 12, 1974.

REMARKS.--Records good. Discharge computed by combining discharge of river below canal with that of Catlin Canal. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	96	303	369	104	396	453	291	158	892	2010	884	368
2	95	281	378	101	391	394	241	126	699	2040	1460	267
3	87	325	412	131	402	345	217	113	647	2120	1920	271
4	78	329	420	204	394	335	233	117	542	2090	1240	279
5	79	280	400	225	361	368	196	124	590	2240	1110	271
6	85	274	420	290	311	357	181	122	998	2430	834	249
7	104	319	408	320	272	317	152	128	1460	2330	731	248
8	104	318	379	338	195	304	150	150	1920	2330	702	318
9	106	318	351	427	145	295	235	152	2060	2330	649	374
10	109	314	372	445	168	280	288	115	2210	2660	650	353
11	109	361	380	378	145	300	220	102	2510	3400	618	451
12	131	336	380	361	208	315	192	85	1990	4080	625	418
13	199	314	336	373	315	357	208	98	1750	2740	669	365
14	234	304	342	360	394	301	222	111	1990	2230	1840	282
15	185	314	338	327	383	325	202	152	1780	2100	1340	231
16	212	301	339	306	383	336	202	135	1980	2270	1280	211
17	224	296	363	360	414	317	192	162	2390	1910	1170	214
18	232	263	365	427	423	304	202	215	2320	1640	999	253
19	221	268	355	437	437	272	519	292	2410	1870	835	232
20	211	282	343	427	429	253	517	370	1990	2090	833	196
21	217	290	356	411	377	227	303	514	2080	2910	797	183
22	206	320	374	394	348	198	390	656	2250	2310	704	169
23	206	343	342	382	337	211	287	787	1820	1770	552	168
24	192	354	320	271	329	221	282	840	1460	2300	570	222
25	223	364	350	201	367	230	274	753	1470	1560	546	268
26	236	363	345	232	423	257	214	663	1480	1360	454	264
27	243	365	301	285	447	262	160	625	1870	1340	421	276
28	255	358	203	341	498	244	140	624	1850	1200	417	276
29	267	351	163	417	---	268	135	660	1870	1130	402	195
30	285	350	123	477	---	310	145	916	2060	1070	412	173
31	296	---	113	431	---	305	---	1070	---	900	410	---
TOTAL	5527	9558	10440	10183	9692	9261	7190	11135	51338	64760	26074	8045
MEAN	178	319	337	328	346	299	240	359	1711	2089	841	268
MAX	296	365	420	477	498	453	519	1070	2510	4080	1920	451
MIN	78	263	113	101	145	198	135	85	542	900	402	168
AC-FT	10960	18960	20710	20200	19220	18370	14260	22090	101800	128500	51720	15960

CAL YR 1974 TOTAL 136804 MEAN 375 MAX 1490 MIN 30 AC-FT 271400
WTR YR 1975 TOTAL 223203 MEAN 612 MAX 4080 MIN 78 AC-FT 442700

07121500 TIMPAS CREEK AT MOUTH, NEAR SWINK, COLO.

LOCATION (REVISED).--Lat 38°00'11", long 103°39'20", in NW¼SW¼ sec.35, T.23 S., R.56 W., Otero County, on left bank 40 ft (12 m) shoreward and 125 ft (38 m) upstream from left end of 20th Road Bridge, 1.7 mi (2.7 km) southwest of Swink, and 2.9 mi (4.7 km) upstream from mouth.

DRAINAGE AREA.--496 mi^2 (1,285 km^2).

PERIOD OF RECORD.--January 1922 to September 1925, March 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,120 ft (1,256 m) from topographic map. Prior to May 29, 1975, at site 140 ft (43 m) downstream at datum 0.13 ft (0.040 m) lower.

AVERAGE DISCHARGE.--10 years, 74.5 ft^3/s (2.110 m^3/s), 53,980 acre-ft/yr (66.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 151 ft^3/s (4.28 m^3/s) Sept. 13 (gage height, 2.25 ft or 0.686 m); maximum gage height, 2.68 ft (0.817 m) Feb. 25 (backwater from beaver dam); minimum daily discharge, 6.0 ft^3/s (0.17 m^3/s) Dec. 27 to Jan. 4, Jan. 11-13.
Period of record: Maximum discharge not determined, probably occurred June 8, 1923 (discharge, 11,200 ft^3/s or 317 m^3/s, at site 6 mi or 10 km upstream); minimum daily, 6.0 ft^3/s (0.17 m^3/s) Dec. 27-31, 1974, Jan. 1-4, 11-13, 1975.
Maximum discharge since at least 1922, 21,400 ft^3/s (606 m^3/s) June 17, 1965.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by minor diversions above station for irrigation, water imported from Arkansas River and Crooked Arroyo for irrigation above station, and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23		---	6.0	11	36	---	12	8.4	19	20	23
2	26		---	6.0	11	36	---	12	22	19	30	18
3	25		---	6.0	11	33	---	9.7	20	21	25	18
4	---		19	6.0	11	32	---	8.8	16	23	30	19
5	---		16	6.5	10	34	---	8.2	14	30	70	21
6	---		---	7.0	11	42	---	7.9	12	21	50	20
7	---		---	8.0	10	62	---	8.2	12	42	35	22
8	---		13	8.0	10	42	---	11	20	25	25	27
9	---		16	7.5	11	45	---	10	20	36	20	29
10	---		15	6.5	11	45	---	10	28	35	20	34
11	---		9.7	6.0	11	40	---	9.2	40	56	25	29
12	---		8.8	6.0	12	---	---	12	40	75	23	39
13	---		7.0	6.0	11	---	---	25	43	39	23	50
14	---		6.7	6.5	13	---	---	12	50	73	27	39
15	---		8.2	7.5	13	---	---	10	60	56	37	70
16	---		14	9.5	10	---	---	12	60	48	41	41
17	---		7.9	10	11	---	---	8.7	50	37	46	28
18	---		7.0	9.7	13	---	---	8.3	49	34	40	33
19	---		6.7	11	17	---	---	7.3	42	26	34	28
20	---		7.3	7.9	20	---	---	7.0	45	19	35	30
21	---		8.5	7.3	15	---	---	6.9	35	33	35	15
22	---		11	7.0	13	---	12	15	35	24	40	28
23	---		13	7.3	15	---	18	19	22	51	30	32
24	---		8.5	7.6	13	---	14	19	22	77	21	23
25	---		7.6	7.6	36	---	11	24	19	40	42	26
26	---		6.5	8.2	40	---	11	27	16	30	20	28
27	---		6.0	9.4	40	---	13	25	16	25	18	32
28	---		6.0	10	36	---	12	21	20	50	20	30
29	---		6.0	10	---	---	11	34	17	35	21	26
30	---		6.0	11	---	---	11	29	39	30	23	24
31	---		6.0	11	---	---	---	23	---	25	20	---
TOTAL				244.0	446			452.2	892.4	1154	946	882
MEAN				7.87	15.9			14.6	29.7	37.2	30.5	29.4
MAX				11	40			34	60	77	70	70
MIN				6.0	10			6.9	8.4	19	18	15
AC-FT				484	885			897	1770	2290	1880	1750

07122200 FORT LYON CANAL NEAR HASTY, COLO.

LOCATION.--Lat 38°08'39", long 102°57'30", in SW¼SW¼ sec.7, T.22 S., R.49 W., Bent County, on left bank 60 ft (18 m) downstream from bridge, 2.1 mi (3.4 km) north of Hasty, and 50 mi (80 km) downstream from headgate.

PERIOD OF RECORD.--October 1968 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Altitude of gage is 3,953 ft (1,204.9 m) from topographic map.

EXTREMES.--Period of record: Maximum daily discharge, 969 ft^3/s (27.4 m^3/s) May 27, 1970; no flow for many days in most years.

REMARKS.--Records good except those for winter period, which are fair. Canal diverts from left bank of Arkansas River in SW¼SW¼ sec.29, T.23 S., R.55 W., for irrigation and offstream reservoir storage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	168	7.8	70	410	238	48	0	0	232	448	111
2	0	166	7.0	104	400	306	53	1.6	0	602	200	107
3	0	176	51	98	400	242	106	1.9	0	703	479	90
4	32	178	166	67	450	114	76	13	0	479	409	90
5	72	178	234	104	480	124	63	10	0	174	160	101
6	74	184	332	86	300	172	80	23	0	375	172	108
7	70	184	315	82	250	196	78	49	24	534	122	97
8	90	184	313	100	240	218	72	53	76	549	111	90
9	94	178	311	130	200	174	70	47	407	684	134	90
10	96	182	332	160	113	166	60	48	609	518	146	112
11	96	178	206	160	57	174	118	64	485	394	139	126
12	104	40	21	160	80	168	142	59	433	397	131	124
13	128	2.5	74	160	150	162	134	48	318	656	132	120
14	134	27	232	160	200	162	136	55	374	658	145	115
15	158	13	250	170	250	162	156	69	597	370	328	105
16	184	100	265	200	250	172	155	57	620	371	408	100
17	174	176	285	250	216	192	135	66	616	641	372	100
18	164	218	276	250	300	182	122	77	378	632	272	105
19	152	242	325	270	330	164	122	59	194	555	94	110
20	146	222	336	340	330	150	163	122	424	426	3.2	115
21	154	228	321	400	296	148	164	207	583	293	1.3	120
22	72	230	242	300	303	154	129	231	574	364	0	115
23	6.2	218	204	220	284	82	39	239	521	817	20	110
24	10	222	321	200	264	26	1.2	236	219	527	101	105
25	53	232	431	257	205	1.5	0	239	464	492	114	100
26	118	238	321	345	188	0	0	248	546	295	213	105
27	160	238	230	254	234	0	0	259	524	198	217	110
28	162	238	86	163	168	0	0	247	561	465	202	115
29	146	102	70	244	---	0	0	244	441	361	207	120
30	180	1.0	140	316	---	0	0	113	138	308	133	120
31	180	---	106	450	---	3.7	---	6.8	---	262	109	---
TOTAL	3209.2	4943.5	6810.8	6270	7348	4053.2	2422.2	3192.3	10126	14332	5722.5	3236
MEAN	104	165	220	202	262	131	80.7	103	338	462	185	108
MAX	184	242	431	450	480	306	164	259	620	817	479	126
MIN	0	1.0	7.0	67	57	0	0	0	0	174	0	90
AC-FT	6370	9810	13510	12440	14570	8040	4800	6330	20080	28430	11350	6420

CAL YR 1974 TOTAL 54395.01 MEAN 149 MAX 699 MIN 0 AC-FT 107900
WTR YR 1975 TOTAL 71665.70 MEAN 196 MAX 817 MIN 0 AC-FT 142100

07122400 CROOKED ARROYO NEAR SWINK, COLO.

LOCATION.--Lat 37°58'56", long 103°35'52", in SW¼SW¼ sec.5, T.24 S., R.55 W., Otero County, on right bank 54 ft (16 m) downstream from bridge on State Highway 10, 2.0 mi (3.2 km) upstream from mouth, and 2.8 mi (4.5 km) southeast of Swink.

DRAINAGE AREA.--108 mi^2 (280 km^2).

PERIOD OF RECORD.--February 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,100 ft (1,250 m) from topographic map.

AVERAGE DISCHARGE.--7 years, 13.1 ft^3/s (0.371 m^3/s), 9,490 acre-ft/yr (11.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 72 ft^3/s (2.04 m^3/s) July 21 (gage height, 2.60 ft or 0.792 m); no flow Oct. 1-16, Apr. 29, 30, May 1-15, 20, 21.
Period of record: Maximum discharge, 1,200 ft^3/s (34.0 m^3/s) Aug. 7, 1971 (gage height, 7.91 ft or 2.411 m), from rating curve extended above 87 ft^3/s (2.5 m^3/s); no flow at times most years.

REMARKS.--Records good. Natural flow of stream affected by minor diversions above station for irrigation, water exported above station to Timpas Creek, water imported from Arkansas River for irrigation above station, and return flow from irrigated areas.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	7.1		---	.94		---	0	5.5	6.3	6.4	6.6
2	0	3.6		---	.94		---	0	8.5	4.3	17	7.2
3	0	4.0		---	.94		---	0	6.5	6.7	10	14
4	0	---		---	.94		---	0	5.3	7.6	8.6	6.0
5	0	---		---	.94		---	0	5.5	10	11	11
6	---	---		---	.88		---	0	3.9	13	10	9.7
7	---	---		---	.94		---	0	3.8	13	9.2	7.5
8	---	---		---	.88		---	0	7.3	9.2	5.6	10
9	---	---		---	.88		---	0	7.2	12	5.1	9.2
10	---	---		---	.94		---	0	12	18	4.9	7.4
11	---	---		---	.88		---	0	18	11	5.4	5.3
12	---	---		---	.82		---	0	14	10	4.5	16
13	---	---		---	.82		---	0	15	22	3.9	17
14	---	---		---	.82		---	0	24	18	5.5	18
15	---	---		---	.82		---	0	28	12	6.7	18
16	0	---		---	.82		---	.09	28	9.6	10	13
17	.24	---		---	.82		---	.07	24	10	8.2	9.2
18	.36	---		---	.82		---	.05	15	10	8.6	7.2
19	.52	---		---	.82		---	.02	15	8.3	8.5	6.1
20	.58	---		---	.88		---	0	13	8.1	8.0	5.9
21	.58	---		---	.82		---	0	8.2	15	5.5	5.8
22	.64	---		---	---		---	.98	15	19	7.9	5.1
23	.70	---		---	---		1.5	2.2	14	44	5.9	5.0
24	.70	---		---	---		2.0	.57	11	27	8.0	5.8
25	.76	---		---	---		7.9	2.4	4.8	19	7.0	5.8
26	.76	---		1.1	---		4.2	3.3	5.2	15	5.4	5.3
27	.76	---		1.0	---		.12	3.8	7.1	10	5.7	4.5
28	.82	---		1.0	---		.01	5.1	7.7	11	6.5	4.5
29	3.2	---		.94	---		0	11	9.3	9.5	6.8	4.5
30	7.1	---		1.0	---		0	14	7.4	6.6	5.7	4.6
31	9.1	---		1.0	---			6.4	---	6.6	6.8	---
TOTAL								49.98	349.2	401.8	228.3	255.2
MEAN								1.61	11.6	13.0	7.36	8.51
MAX								14	28	44	17	18
MIN								0	3.8	4.3	3.9	4.5
AC-FT								99	693	797	453	506

07123000 ARKANSAS RIVER AT LA JUNTA, COLO.

LOCATION.--Lat 37°59'26", long 103°31'55", in SE¼NE¼ sec.2, T.24 S., R.55 W., Otero County, on right bank at upstream side of bridge on State Highway 109 in La Junta, 450 ft (140 m) upstream from King Arroyo.

DRAINAGE AREA.--12,210 mi^2 (31,623 km^2), of which 115 mi^2 (298 km^2) is probably noncontributing.

PERIOD OF RECORD.--May to August 1889, September 1893 to December 1895 (gage heights, discharge measurements, and flood data only), April to October 1903, June to November 1908 (gage heights and discharge measurements only), April 1912 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near La Junta" in 1903.

GAGE.--Water-stage recorder, and nonrecording gage read twice daily. Datum of gage is 4,039.60 ft (1,231.270 m) above mean sea level. See WSP 1711 or 1731 for history of changes prior to June 13, 1940. June 13, 1940, to June 6, 1967, water-stage recorder at site 300 ft (91 m) upstream at present datum.

AVERAGE DISCHARGE.--63 years (1912-75), 241 ft^3/s (6.825 m^3/s), 174,600 acre-ft/yr (215 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 4,460 ft^3/s (126 m^3/s) June 11 (gage height, 7.78 ft or 2.371 m); minimum daily, 5.6 ft^3/s (0.16 m^3/s) May 15, 16.
Period of record: Maximum discharge, 200,000 ft^3/s (5,660 m^3/s) June 4, 1921 (gage height, 18.4 ft or 5.61 m, site and datum then in use), from rating curve extended above 15,000 ft^3/s (420 m^3/s) on basis of slope-area measurement of peak flow; no flow Jan. 20-23, Mar. 20-22, 1915.

REMARKS.--Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, groundwater withdrawals and diversions for irrigation of about 400,000 acres (1,620 km^2), and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1341: Drainage area. WSP 1731: 1922.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	36	23	30	11	43	23	30	985	570	544	67
2	14	29	20	25	13	40	18	15	680	519	410	26
3	13	42	18	25	14	39	17	12	275	710	710	23
4	12	62	17	25	15	47	14	11	178	579	485	23
5	12	64	16	30	16	54	13	11	94	606	553	25
6	12	24	16	25	22	58	13	9.0	113	904	528	23
7	14	19	17	20	60	80	13	8.8	536	730	422	20
8	13	54	16	18	136	36	12	7.8	670	720	126	25
9	14	56	19	18	217	45	12	7.4	660	651	83	42
10	14	67	16	17	129	54	14	7.6	859	826	80	106
11	13	62	42	20	37	39	28	7.2	2020	945	100	62
12	16	103	29	20	14	32	15	6.6	740	1660	32	100
13	12	64	21	20	12	37	14	6.2	570	932	32	162
14	18	62	25	25	14	47	18	5.8	670	562	110	144
15	28	78	33	17	14	42	15	5.6	771	750	519	78
16	20	67	39	22	15	42	13	5.6	928	651	363	33
17	16	62	40	21	15	42	12	6.8	1160	848	544	35
18	12	56	29	20	14	35	14	6.4	606	478	502	45
19	12	54	24	20	14	23	39	6.6	916	633	295	69
20	28	64	27	51	14	16	166	6.6	848	720	204	49
21	21	40	28	35	13	19	100	16	670	570	183	54
22	17	54	24	18	13	17	19	30	815	1020	154	29
23	17	67	23	151	16	16	24	94	633	670	151	24
24	17	54	26	133	18	33	20	147	317	815	129	25
25	15	75	35	17	27	27	20	217	464	651	91	47
26	20	45	50	14	43	36	23	110	553	633	37	100
27	36	51	60	12	56	35	20	64	710	633	36	103
28	35	47	75	9.9	58	28	18	42	485	606	21	97
29	24	43	80	10	---	16	18	129	422	562	28	94
30	20	24	55	12	---	23	18	370	519	562	21	60
31	26	---	40	12	---	37	---	670	---	553	49	---
TOTAL	555	1625	983	892.9	1040	1138	763	2072.0	19867	22269	7542	1790
MEAN	17.9	54.2	31.7	28.8	37.1	36.7	25.4	66.8	662	718	243	59.7
MAX	36	103	80	151	217	80	166	670	2020	1660	710	162
MIN	12	19	16	9.9	11	16	12	5.6	94	478	21	20
AC-FT	1100	3220	1950	1770	2060	2260	1510	4110	39410	44170	14960	3550

CAL YR 1974 TOTAL 35934.9 MEAN 98.5 MAX 680 MIN 4.4 AC-FT 71280
WTR YR 1975 TOTAL 60536.9 MEAN 166 MAX 2020 MIN 5.6 AC-FT 120100

07124000 ARKANSAS RIVER AT LAS ANIMAS, COLO.

LOCATION.--Lat 38°04'51", long 103°13'09", in SE¼NE¼ sec.3, T.23 S., R.52 W., Bent County, on right bank at upstream side of bridge on U.S. Highway 50, 1.1 mi (1.8 km) north of courthouse in Las Animas, and 4.2 mi (6.8 km) upstream from Purgatoire River.

DRAINAGE AREA.--14,417 mi^2 (37,340 km^2), of which 441 mi^2 (1,142 km^2) is probably noncontributing.

PERIOD OF RECORD.--May to November 1898 (gage heights only), August to November 1909 (gage heights and discharge measurements only), May 1939 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,883.97 ft (1,183.834 m) above mean sea level. May 13 to Nov. 12, 1898, and Aug. 1 to Nov. 10, 1909, nonrecording gages near present site at different datums. May 23, 1939, to Apr. 27, 1967, water-stage recorder at site 0.4 mi (0.6 km) downstream at datum 9.00 ft (2.743 m) lower.

AVERAGE DISCHARGE.--34 years, 203 ft^3/s (5.749 m^3/s), 147,100 acre-ft/yr (181 hm^3/yr), prior to completion of Pueblo Reservoir.

EXTREMES.--Current year: Maximum discharge, 2,760 ft^3/s (78.2 m^3/s) June 11 (gage height, 4.91 ft or 1.497 m); minimum daily, 3.0 ft^3/s (0.085 m^3/s) Nov. 30.
Period of record: Maximum discharge, 44,000 ft^3/s (1,250 m^3/s) May 20, 1955 (gage height, 15.03 ft or 4.581 m, site and datum then in use), from rating curve extended above 24,000 ft^3/s (680 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.9 ft^3/s (0.025 m^3/s) July 31, Aug. 1, 3, 1964.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 412,000 acres (1,670 km^2), and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir since Jan. 9, 1974 (see sta. 07099350).

REVISIONS.--WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	7.2	3.7	10	16	8.5	11	12	432	408	474	20
2	4.9	6.4	6.4	10	17	8.5	11	12	355	408	474	18
3	4.5	5.3	6.4	10	18	8.5	12	12	204	450	438	15
4	4.5	5.3	8.5	11	20	8.5	12	12	168	548	462	15
5	4.1	5.3	11	11	18	8.5	11	11	100	504	366	13
6	4.1	6.0	12	13	14	8.9	11	11	49	580	396	14
7	4.5	6.0	7.6	15	16	8.5	11	11	177	636	396	14
8	4.9	6.8	6.0	15	17	8.5	12	12	612	510	270	12
9	4.5	7.6	5.3	15	77	8.5	12	10	564	450	165	12
10	4.9	6.8	6.0	15	93	8.5	12	10	522	780	129	14
11	4.9	6.0	6.0	10	63	8.9	12	10	1510	710	112	17
12	4.9	6.4	11	8.0	19	8.5	11	8.9	612	1160	87	16
13	8.0	6.8	15	10	18	8.5	11	9.4	438	1330	48	28
14	7.0	5.6	18	11	16	8.5	12	8.5	350	668	67	55
15	6.8	6.4	16	13	16	8.5	11	8.0	644	612	215	48
16	6.4	5.6	16	13	16	8.9	11	7.6	474	572	310	21
17	6.4	5.6	18	20	16	9.4	11	7.2	612	676	456	12
18	6.4	6.4	18	26	14	9.3	10	6.4	516	556	426	12
19	6.4	6.4	16	29	14	9.8	10	6.4	498	572	372	11
20	6.0	4.9	14	33	13	9.8	20	6.4	660	740	248	11
21	5.6	5.6	14	44	12	10	90	7.2	468	628	184	12
22	5.6	6.4	14	33	12	10	100	9.4	492	790	135	12
23	5.6	6.4	12	33	11	10	30	8.9	800	580	129	11
24	5.6	6.0	12	49	11	11	14	45	396	636	102	11
25	5.6	7.6	12	29	10	10	14	123	355	676	105	11
26	5.6	7.2	12	21	9.4	11	14	115	486	644	71	22
27	5.6	6.4	10	17	9.4	11	14	50	604	620	40	52
28	5.6	5.6	10	16	8.5	11	13	22	516	628	31	59
29	6.0	4.5	10	14	---	11	12	16	305	556	21	61
30	6.0	3.0	9.0	16	---	11	12	129	335	564	22	55
31	6.0	---	10	16	---	11	---	300	---	572	22	---
TOTAL	171.8	181.5	345.9	586.0	594.3	292.5	547	1017.3	14254	19764	6773	684
MEAN	5.54	6.05	11.2	18.9	21.2	9.44	18.2	32.8	475	638	218	22.8
MAX	8.0	7.6	18	49	93	11	100	300	1510	1330	474	61
MIN	4.1	3.0	3.7	8.0	8.5	8.5	10	6.4	49	408	21	11
AC-FT	341	360	686	1160	1180	580	1080	2020	28270	39200	13430	1360

CAL YR 1974 TOTAL 29949.2 MEAN 82.1 MAX 504 MIN 3.0 AC-FT 59400
WTR YR 1975 TOTAL 45211.3 MEAN 124 MAX 1510 MIN 3.0 AC-FT 89680

07124200 PURGATOIRE RIVER AT MADRID, COLO.

LOCATION.--Lat 37°07'46", long 104°38'20", in SW¼NE¼ sec.35, T.33 S., R.65 W., Las Animas County, on left bank 70 ft (21 m) downstream from county bridge, 0.3 mi (0.5 km) northeast of Madrid, and 1.0 mi (1.6 km) downstream from Burro Canyon.

DRAINAGE AREA.--550 mi^2 (1,420 km^2), approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 6,261.61 ft (1,908.539 m) above mean sea level (Corps of Engineers bench mark).

EXTREMES.--Current year: Maximum discharge, 4,500 ft^3/s (127 m^3/s) July 12 (gage height, 8.00 ft or 2.438 m, from floodmark), from rating table extended as explained below; minimum daily, 8.0 ft^3/s (0.23 m^3/s) Jan. 10-14.
Period of record: Maximum discharge, 4,500 ft^3/s (127 m^3/s) July 12, 1975 (gage height, 8.00 ft or 2.438 m, from floodmark), from rating table extended above 300 ft^3/s (8.5 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 4.7 ft^3/s (0.13 m^3/s) Feb. 8, 1973.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 6,000 acres (24.3 km^2) above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	12	10	21	16	16	38	90	147	128	20
2	12	16	17	10	27	21	18	36	92	170	70	21
3	12	18	17	10	26	34	15	38	101	175	39	23
4	11	17	20	11	25	27	14	44	110	168	33	35
5	12	15	16	12	25	22	15	50	119	160	33	37
6	12	16	16	12	30	30	17	52	143	143	41	31
7	12	16	16	12	40	21	23	46	160	127	42	26
8	12	15	16	12	34	20	18	45	157	119	43	24
9	12	17	14	9.0	38	25	17	40	163	160	50	28
10	12	18	14	8.0	36	21	21	42	289	204	52	30
11	12	16	14	8.0	22	20	17	45	243	249	52	23
12	19	16	14	8.0	17	20	17	62	180	490	58	37
13	22	16	14	8.0	26	17	18	75	158	190	95	36
14	20	15	14	8.0	17	16	16	74	164	164	80	34
15	19	15	12	9.0	17	72	16	74	160	160	53	30
16	17	15	12	10	14	91	16	83	173	155	34	26
17	16	14	13	10	20	17	16	101	188	164	34	25
18	15	15	13	10	16	15	20	91	170	150	36	23
19	15	15	12	9.5	14	16	20	62	175	133	32	22
20	14	14	13	9.0	16	17	18	63	176	117	31	22
21	14	14	13	9.0	14	21	20	70	172	167	47	24
22	15	13	15	9.0	20	20	23	99	168	165	44	24
23	16	13	14	8.6	13	16	33	119	145	122	41	24
24	16	13	12	9.2	36	14	42	97	146	121	32	22
25	17	14	10	10	36	16	46	76	158	118	30	20
26	17	15	10	12	30	16	54	87	148	93	26	20
27	16	13	10	15	25	16	60	103	141	76	25	19
28	17	13	10	14	15	16	48	108	146	66	25	18
29	17	12	12	15	---	17	50	131	145	62	24	18
30	18	10	12	17	---	15	38	115	152	58	22	17
31	18	---	11	19	---	17	---	99	---	48	21	---
TOTAL	469	445	418	333.3	670	722	762	2265	4732	4621	1373	759
MEAN	15.1	14.8	13.5	10.8	23.9	23.3	25.4	73.1	158	149	44.3	25.3
MAX	22	18	20	19	40	91	60	131	289	490	128	37
MIN	11	10	10	8.0	13	14	14	36	90	48	21	17
AC-FT	930	883	829	661	1330	1430	1510	4490	9390	9170	2720	1510

CAL YR 1974	TOTAL	7639.0	MEAN	20.9	MAX	75	MIN	10	AC-FT 15150
WTR YR 1975	TOTAL	17569.3	MEAN	48.1	MAX	490	MIN	8.0	AC-FT 34850

PEAK DISCHARGE (BASE, 2,500 FT^3/S).--July 12 (1615) 4,500 ft^3/s (8.00 ft).

07124300 LONG CANYON CREEK NEAR MADRID, COLO.

LOCATION.--Lat 37°06'53", long 104°36'17", in SE¼NW¼ sec.6, T.34 S., R.64 W., Las Animas County, on left bank 700 ft (210 m) upstream from private bridge, 1.4 mi (2.3 km) upstream from Oso Canyon, 2.2 mi (3.5 km) southeast of Madrid, and 2.3 mi (3.7 km) upstream from mouth.

DRAINAGE AREA.--100 mi^2 (260 km^2), approximately.

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 6,259.09 ft (1,907.771 m) above mean sea level.

EXTREMES.--Current year: Maximum discharge, 246 ft^3/s (6.97 m^3/s) Aug. 13 (gage height, 3.32 ft or 1.012 m); minimum daily, 0.02 ft^3/s (0.001 m^3/s) Sept. 25.
Period of record: Maximum discharge, 1,150 ft^3/s (32.6 m^3/s) Apr. 14, 1973 (gage height, 4.7 ft or 1.43 m, from floodmarks); minimum daily, 0.01 ft^3/s (<0.001 m^3/s) Dec. 9-16, 1972.

REMARKS.--Records good. No diversion above station.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.21	.09	.06	.16	.15	.15	.12	.11	.07	.05	.05
2	.11	.21	.08	.07	.16	.15	.15	.13	.11	.07	.05	.05
3	.11	.21	.08	.08	.16	.15	.15	.13	.09	.07	.05	.04
4	.13	.21	.08	.08	.15	.15	.15	.12	.09	.08	.04	.11
5	.11	.21	.08	.08	.15	.15	.14	.11	.11	.09	.04	.07
6	.11	.21	.07	.09	.15	.14	.14	.13	.11	.10	.05	.04
7	.11	.19	.08	.12	.15	.13	.15	.13	.11	.09	.05	.04
8	.11	.19	.09	.12	.14	.13	.15	.11	.09	.09	.04	.04
9	.11	.19	.09	.10	.15	.16	.15	.11	.11	.17	.04	3.1
10	.21	.19	.10	.05	.15	.15	.15	.12	.19	.23	.05	.21
11	.30	.19	.10	.05	.15	.15	.16	.11	.15	.67	.04	.07
12	5.1	.19	.10	.05	.15	.15	.16	.11	.12	17	.04	.09
13	.37	.19	.10	.06	.15	.14	.18	.12	.11	.47	27	.07
14	.27	.19	.10	.10	.15	.13	.17	.12	.10	.17	2.5	.05
15	.27	.19	.08	.18	.15	.12	.16	.11	.09	.08	.49	.04
16	.24	.19	.09	.16	.16	.17	.15	.11	.08	.07	.16	.04
17	.24	.18	.09	.13	.15	.18	.14	.11	.10	.07	.12	.03
18	.24	.18	.07	.12	.15	.16	.14	.11	.10	.07	.10	.03
19	.24	.17	.06	.14	.15	.17	.15	.11	.09	.07	.09	.03
20	.21	.17	.06	.14	.14	.16	.15	.11	.09	.33	.09	.03
21	.21	.16	.08	.12	.16	.15	.15	.11	.09	.11	.08	.03
22	.21	.15	.09	.13	.14	.15	.15	.11	.09	.07	.09	.03
23	.21	.15	.09	.12	.13	.15	.15	.11	.10	16	.07	.03
24	.21	.15	.06	.14	.16	.14	.13	.11	.09	.53	.06	.03
25	.21	.14	.06	.21	.15	.13	.12	.11	.08	.11	.04	.02
26	.21	.14	.07	.20	.14	.13	.12	.13	.08	.07	.05	.03
27	.21	.14	.09	.18	.14	.15	.12	.13	.07	.07	.05	.03
28	.21	.13	.09	.17	.14	.15	.12	.13	.08	.07	.06	.03
29	.21	.13	.09	.17	---	.15	.12	.15	.09	.07	.04	.03
30	.24	.12	.07	.17	---	.14	.13	.15	.07	.07	.04	.03
31	.21	---	.06	.16	---	.15	---	.13	---	.05	.04	---
TOTAL	11.04	5.27	2.54	3.75	4.18	4.58	4.35	3.70	2.99	37.28	31.71	4.52
MEAN	.36	.18	.082	.12	.15	.15	.15	.12	.10	1.20	1.02	.15
MAX	5.1	.21	.10	.21	.16	.18	.18	.15	.19	17	27	3.1
MIN	.11	.12	.06	.05	.13	.12	.12	.11	.07	.05	.04	.02
AC-FT	22	10	5.0	7.4	8.3	9.1	8.6	7.3	5.9	74	63	9.0

CAL YR 1974 TOTAL 208.31 MEAN .57 MAX 8.7 MIN .06 AC-FT 413
WTR YR 1975 TOTAL 115.91 MEAN .32 MAX 27 MIN .02 AC-FT 230

PEAK DISCHARGE (BASE, 50 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
10-12	0900	2.54	56	7-23	1645	3.28	234
7-12	0045	3.05	165	8-13	1800	3.32	246

NOTE.--No gage-height record Dec. 22 to Jan. 21.

07124500 PURGATOIRE RIVER AT TRINIDAD, COLO.

LOCATION.--Lat 37°10'15", long 104°30'31", in SW¼SE¼ sec.13, T.33 S., R.64 W., Las Animas County, on left bank 90 ft (27 m) downstream from railroad bridge and 680 ft (210 m) downstream from Animas Street Bridge in Trinidad.

DRAINAGE AREA.--795 mi^2 (2,059 km^2).

PERIOD OF RECORD.--October 1895 to September 1899, August to December 1905, November 1906 to March 1907, October 1907 to November 1908, May to August 1909 (gage heights and discharge measurements only), September 1909 to November 1912, October 1915 to September 1960, October 1961 to current year. Monthly discharge only for some periods, published in WSP 1311. Prior to October 1915, published as "Purgatory River."

GAGE.--Water-stage recorder. Datum of gage is 5,979.76 ft (1,822.631 m) above mean sea level. See WSP 1711 or 1731 for history of changes prior to Dec. 11, 1950. Dec. 11, 1950, to Sept. 30, 1960, water-stage recorder at site 180 ft (55 m) upstream at datum 2.00 ft (0.610 m) higher. Since May 30, 1955, supplemental nonrecording gage at site 90 ft (27 m) upstream on downstream side of railroad bridge; at datum 3.00 ft (0.914 m) lower prior to Oct. 1, 1962, and at present datum thereafter.

AVERAGE DISCHARGE.--67 years (1895-99, 1907-8, 1909-12, 1915-60, 1961-75), 84.0 ft^3/s (2.379 m^3/s), 60,860 acre-ft/yr (75.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,450 ft^3/s (41.1 m^3/s) July 12 (gage height, 3.85 ft or 1.173 m); minimum daily, 6.0 ft^3/s (0.17 m^3/s) Jan. 12.
Period of record: Maximum discharge, 28,000 ft^3/s (793 m^3/s) May 19, 1955 (gage height, 14.35 ft or 4.374 m, site and datum then in use), from rating curve extended above 2,800 ft^3/s (79 m^3/s) on basis of indirect measurements of peak flow above and below station; no flow for several days during summer of 1896, June 11, 1950, Sept. 20, 25, 28, 29, Oct. 3-5, 7, 8, 1956.
Maximum discharge since at least 1859, 45,400 ft^3/s (1,290 m^3/s) Sept. 30, 1904 (gage height, 16.6 ft or 5.06 m, at site 680 ft or 210 m upstream), by slope-area measurement of peak flow.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation of about 6,500 acres (26.3 km^2).

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

REVISIONS (WATER YEARS).--WSP 1117: Drainage area. WSP 1311: 1935(M). WSP 1731: 1925(M), 1942(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	16	9.0	10	8.3	18	20	34	72	149	89	19
2	12	17	9.0	10	9.7	19	17	32	67	172	103	18
3	12	21	10	11	9.2	25	16	33	69	194	76	21
4	10	21	10	11	8.3	29	16	33	74	183	47	36
5	12	16	11	11	8.0	26	16	39	86	183	46	42
6	12	15	12	11	7.5	23	18	47	110	162	52	34
7	13	17	11	12	9.0	25	20	47	138	124	52	30
8	14	15	9.0	10	9.7	23	18	42	156	103	48	25
9	13	16	9.5	9.0	10	23	22	41	162	149	54	29
10	12	18	9.5	8.0	11	22	21	42	225	311	60	32
11	14	16	9.5	7.0	13	19	21	44	259	273	56	25
12	30	14	10	6.0	13	20	22	52	190	595	48	38
13	32	16	10	10	14	18	23	69	135	307	185	42
14	26	16	10	14	16	16	23	71	132	172	130	40
15	25	14	9.5	11	11	22	18	64	138	159	108	36
16	21	16	9.5	11	9.2	36	17	69	146	149	49	30
17	18	12	10	12	9.7	26	18	88	176	162	44	25
18	16	14	12	13	7.9	23	21	86	190	146	42	24
19	16	14	12	14	9.2	21	22	57	186	127	40	24
20	12	14	11	14	11	22	22	51	194	124	39	25
21	12	13	14	9.0	9.7	23	21	54	198	216	44	28
22	14	13	15	8.0	7.9	24	20	83	183	135	52	30
23	16	13	13	11	7.0	23	22	98	176	169	45	29
24	16	14	10	12	9.0	16	30	81	172	112	33	26
25	16	14	8.0	17	10	16	39	61	169	105	29	23
26	18	17	10	21	12	18	44	64	166	90	27	21
27	17	13	11	18	14	21	49	79	159	77	23	18
28	18	9.7	11	14	16	19	49	86	159	72	25	18
29	17	11	11	13	---	14	48	117	153	67	24	17
30	18	9.5	10	16	---	14	41	101	159	67	22	17
31	20	---	10	12	---	16	---	79	---	63	21	---
TOTAL	515	445.2	326.5	366.0	290.3	660	754	1944	4599	5117	1713	822
MEAN	16.6	14.8	10.5	11.8	10.4	21.3	25.1	62.7	153	165	55.3	27.4
MAX	32	21	15	21	16	36	49	117	259	595	185	42
MIN	10	9.5	8.0	6.0	7.0	14	16	32	67	63	21	17
AC-FT	1020	883	648	726	576	1310	1500	3860	9120	10150	3400	1630

CAL YR 1974 TOTAL 8401.9 MEAN 23.0 MAX 135 MIN 6.3 AC-FT 16670
WTR YR 1975 TOTAL 17552.0 MEAN 48.1 MAX 595 MIN 6.0 AC-FT 34810

PEAK DISCHARGE (BASE, 3,000 FT^3/S).--No peak above base.

07126100 LUNING ARROYO NEAR MODEL, COLO.

LOCATION.--Lat 37°18'16", long 104°00'54", in sec.33, T.31 S., R.59 W., Las Animas County, on right bank 600 ft (180 m) downstream from ford, 6 mi (10 km) upstream from mouth, 13.5 mi (21.7 km) east of Model, and 29 mi (47 km) northeast of Trinidad.

DRAINAGE AREA.--86 mi^2 (223 km^2).

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 5,150 ft (1,570 m) from topographic map.

AVERAGE DISCHARGE.--9 years, 1.12 ft^3/s (0.032 m^3/s), 811 acre-ft/yr (1.00 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 266 ft^3/s (7.53 m^3/s) Aug. 14 (gage height, 5.38 ft or 1.640 m), from rating curve extended as explained below; no flow most of year.
Period of record: Maximum discharge, 9,400 ft^3/s (2.66 m^3/s) Aug. 9, 1968 (gage height, 12.46 ft or 3.798 m), from rating curve extended above 32 ft^3/s (0.91 m^3/s) on basis of slope-area measurements at gage heights 8.78 and 11.39 ft (2.676 and 3.472 m); no flow for many days each year.

REMARKS.--Records good.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0	0	0	
2									0	0	0	
3									0	0	20	
4									0	0	5.3	
5									0	0	1.1	
6									0	0	0	
7									0	0	0	
8									11	0	0	
9									17	0	7.9	
10									8.3	0	2.8	
11									4.2	0	.12	
12									1.1	0	0	
13									.07	0	24	
14									0	0	65	
15									0	0	4.4	
16									0	0	2.1	
17									0	0	.78	
18									0	0	.06	
19									0	0	0	
20									0	1.4	0	
21									0	24	0	
22									0	.39	0	
23									0	0	0	
24									0	0	0	
25									0	0	0	
26									0	0	0	
27									0	0	0	
28									0	0	0	
29					---				0	0	0	
30					---				0	0	0	
31		---			---		---		---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	41.67	25.79	133.56	0
MEAN	0	0	0	0	0	0	0	0	1.39	.83	4.31	0
MAX	0	0	0	0	0	0	0	0	17	24	65	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	83	51	265	0

CAL YR 1974 TOTAL 4.53 MEAN .012 MAX 3.1 MIN 0 AC-FT 9
WTR YR 1975 TOTAL 201.02 MEAN .55 MAX 65 MIN 0 AC-FT 399

PEAK DISCHARGE (BASE, 500 FT^3/S).--No peak above base.

07126200 VAN BREMER ARROYO NEAR MODEL, COLO.

LOCATION.--Lat 37°20'45", long 103°57'27", in sec.13, T.31 S., R.59 W., Las Animas County, on right bank 3 mi (5 km) upstream from mouth, 16 mi (26 km) east of Model, and 33 mi (53 km) northeast of Trinidad.

DRAINAGE AREA.--168 mi^2 (435 km^2).

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

GAGE.--Water-stage recorder and crest-stage gage. Altitude of gage is 4,960 ft (1,512 m) from topographic map.

AVERAGE DISCHARGE.--9 years, 1.73 ft^3/s (0.0490 m^3/s), 1,250 acre-ft/yr (1.54 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,400 ft^3/s (39.6 m^3/s) July 21 (gage height, 5.90 ft or 1.798 m, from floodmark), from rating curve extended above 1,200 ft^3/s (34.0 m^3/s) on basis of step-backwater rating; minimum daily, 0.03 ft^3/s (0.001 m^3/s) many days during May, June, and July.
Period of record: Maximum discharge, 6,240 ft^3/s (177 m^3/s) May 26, 1967 (gage height, 9.4 ft or 2.87 m, from floodmarks), from rating curve extended above 65 ft^3/s (1.8 m^3/s) on basis of slope-area measurement of peak flow; no flow June 7-13, 1968.

REMARKS.--Records good except those above 40 ft^3/s (1.133 m^3/s), which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.15	.18	.15	.15	.15	.18	.15	.12	.03	.09	.12
2	.06	.15	.18	.12	.15	.15	.18	.15	.12	.03	.09	.15
3	.06	.15	.18	.12	.15	.15	.18	.15	.09	.03	.09	.30
4	.06	.15	.18	.12	.15	.15	.18	.12	.09	.03	.09	.30
5	.06	.15	.18	.12	.15	.15	.18	.12	.06	.03	.09	.22
6	.06	.12	.18	.12	.15	.12	.18	.12	.06	.03	.09	.22
7	.06	.12	.18	.12	.15	.12	.12	.09	.03	.03	.09	.18
8	.06	.12	.18	.12	.15	.12	.15	.12	.03	.03	.09	.18
9	.06	.15	.18	.12	.15	.15	.12	.12	.06	3.5	.09	.15
10	.06	.15	.18	.12	.15	.18	.15	.12	4.0	2.6	.09	.12
11	.06	.15	.18	.12	.15	.18	.15	.12	.94	.30	.09	.12
12	.26	.15	.18	.12	.15	.18	.18	.09	.15	2.3	.09	.12
13	.22	.15	.18	.12	.15	.18	.18	.09	.12	.26	106	.12
14	.18	.15	.18	.15	.15	.18	.22	.12	.09	.06	43	.12
15	.15	.15	.18	.15	.15	.26	.22	.12	.09	.03	3.5	.12
16	.15	.15	.18	.15	.15	.26	.18	.12	.06	.03	.80	.12
17	.12	.15	.18	.15	.15	.26	.18	.12	.06	.03	.40	.12
18	.12	.15	.18	.15	.15	.26	.18	.09	.03	.03	.22	.12
19	.12	.15	.15	.15	.15	.26	.18	.06	.03	.03	.18	.12
20	.12	.15	.15	.15	.15	.22	.15	.09	.03	.03	.15	.50
21	.12	.15	.12	.15	.15	.22	.15	.09	.03	158	.15	.18
22	.12	.15	.12	.15	.15	.22	.15	.06	.03	2.8	.15	.12
23	.12	.18	.12	.15	.15	.18	.15	.06	.03	.60	.12	.12
24	.12	.18	.12	.18	.15	.18	.12	.03	.06	.26	.12	.12
25	.12	.18	.15	.18	.15	.18	.12	.03	.06	.18	.12	.12
26	.12	.18	.15	.18	.15	.18	.12	.03	.03	.18	.15	.12
27	.12	.18	.15	.15	.15	.18	.09	.03	.03	.15	.15	.09
28	.15	.18	.12	.15	.15	.18	.09	.12	.03	.15	.15	.09
29	.15	.18	.12	.15	---	.18	.09	.15	.03	.12	.15	.09
30	.15	.18	.18	.15	---	.18	.12	.15	.03	.12	.12	.09
31	.15	---	.15	.15	---	.18	---	.12	---	.09	.15	---
TOTAL	3.54	4.65	5.04	4.38	4.20	5.74	4.64	3.15	6.62	172.09	156.86	4.66
MEAN	.11	.16	.16	.14	.15	.19	.15	.10	.22	5.55	5.06	.16
MAX	.26	.18	.18	.18	.15	.26	.22	.15	4.0	158	106	.50
MIN	.06	.12	.12	.12	.15	.12	.09	.03	.03	.03	.09	.09
AC-FT	7.0	9.2	10.0	8.7	8.3	11	9.2	6.2	13	341	311	9.2

CAL YR 1974 TOTAL 70.29 MEAN .19 MAX 1.4 MIN .04 AC-FT 139
WTR YR 1975 TOTAL 375.57 MEAN 1.03 MAX 158 MIN .03 AC-FT 745

PEAK DISCHARGE (BASE, 450 FT^3/S).--July 21 (0330) 1,400 ft^3/s (5.90 ft); Aug. 14 (1900) 1,220 ft^3/s (5.60 ft).

07126300 PURGATOIRE RIVER NEAR THATCHER, COLO.

LOCATION.--Lat 37°21'30", long 103°53'44", in sec.10, T.31 S., R.58 W., Las Animas County, 250 ft (76 m) downstream from county road bridge at gas line crossing, 1.2 mi (1.9 km) downstream from Van Bremer Arroyo, and 18 mi (29 km) southeast of Thatcher.

DRAINAGE AREA.--1,935 mi^2 (5,012 km^2).

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

GAGE.--Water-stage recorder. Altitude of gage is 4,790 ft (1,460 m) from topographic map.

AVERAGE DISCHARGE.--9 years, 40.7 ft^3/s (1.153 m^3/s), 29,490 acre-ft/yr (36.4 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,120 ft^3/s (60.0 m^3/s) Aug. 13 (gage height, 6.70 ft or 2.042 m); minimum daily, 0.01 ft^3/s (<0.001 m^3/s) Sept. 3.
Period of record: Maximum discharge, 15,100 ft^3/s (428 m^3/s) June 17, 1967 (gage height, 12.35 ft or 3.764 m), from rating curve extended above 2,100 ft^3/s (59 m^3/s); no flow at times most years.
Floods of July 22, 1954, and May 19, 1955, reached stages of 26.7 and 25.2 ft (8.14 and 7.68 m), respectively (from floodmarks). Flood of June 8, 1965, reached a stage of 23.5 ft (7.16 m), from floodmarks, discharge, 47,700 ft^3/s or 1,350 m^3/s).

REMARKS.--Records good except those for winter period, which are fair and those for period of no gage-height record, which are poor. Diversions above station for irrigation of about 30,000 acres (121 km^2).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.5	2.3	8.5	17	10	9.1	3.5	16	20	5.0	.10
2	.10	1.6	2.5	8.8	14	9.1	9.4	3.2	9.1	12	9.0	.02
3	.10	2.5	2.6	8.2	10	11	8.5	3.2	6.7	8.0	20	.01
4	.10	3.7	3.3	8.5	9.5	9.7	9.1	2.8	7.0	5.5	12	.72
5	.10	4.6	3.3	8.5	6.5	8.2	7.6	2.2	8.5	4.5	7.0	.86
6	.10	4.9	3.8	9.1	6.5	7.6	9.7	1.5	7.0	4.3	4.5	.37
7	.10	4.6	5.2	9.4	10	6.7	14	1.5	10	4.3	3.0	.10
8	.10	3.8	5.5	9.7	15	6.4	12	2.0	13	4.3	2.8	.10
9	.10	3.7	5.5	10	15	5.8	8.5	2.2	15	126	2.5	.88
10	.10	3.7	6.0	9.5	14	6.1	9.7	2.0	44	90	10	.77
11	.20	3.5	6.0	9.0	16	6.1	7.6	2.3	133	30	5.0	1.0
12	42	3.2	6.5	9.0	20	5.8	5.2	1.8	64	50	2.5	.64
13	91	3.2	8.0	9.7	18	5.5	5.2	1.8	28	30	347	.75
14	15	3.0	9.5	12	15	5.2	7.0	2.2	20	15	297	.62
15	6.1	3.0	9.5	12	12	5.5	10	2.0	15	20	63	.83
16	3.2	2.8	9.5	12	10	7.0	7.3	1.8	8.5	15	24	1.8
17	2.0	2.8	10	12	10	7.3	4.6	1.9	7.0	10	14	3.0
18	1.4	2.8	10	12	12	14	30	2.0	5.2	7.0	9.1	2.3
19	1.3	2.8	11	13	14	13	27	1.3	3.2	5.0	8.4	1.9
20	1.0	3.0	12	16	17	9.7	12	4.0	3.0	7.0	6.5	1.6
21	.80	3.0	10	16	14	8.2	9.7	3.8	2.4	200	4.5	5.8
22	.90	3.0	10	14	12	7.6	8.2	1.8	1.8	80	2.9	3.0
23	1.1	3.0	12	10	14	7.3	11	.80	15	15	2.7	1.4
24	1.0	3.3	9.5	10	16	9.1	18	.30	24	8.0	2.3	.93
25	.90	3.7	6.5	16	13	8.2	7.0	12	27	5.5	1.8	.56
26	.80	3.7	7.0	22	11	9.7	3.5	9.4	25	4.5	1.3	.31
27	.60	3.7	7.3	27	10	9.1	2.3	4.3	25	4.0	.76	.15
28	.80	3.5	8.5	19	9.1	9.7	1.8	2.8	24	3.5	.36	.04
29	.70	2.6	9.1	19	---	13	1.6	8.6	24	3.0	.08	.26
30	1.4	2.5	9.1	16	---	10	3.2	34	24	3.0	.67	.21
31	1.6	---	9.1	18	---	9.7	---	29	---	6.0	.26	---
TOTAL	174.80	96.7	230.1	393.9	360.6	261.3	279.8	152.00	615.4	800.4	869.93	31.03
MEAN	5.64	3.22	7.42	12.7	12.9	8.43	9.33	4.90	20.5	25.8	28.1	1.03
MAX	91	4.9	12	27	20	14	30	34	133	200	347	5.8
MIN	.10	1.5	2.3	8.2	6.5	5.2	1.6	.30	1.8	3.0	.08	.01
AC-FT	347	192	456	781	715	518	555	301	1220	1590	1730	62

CAL YR 1974 TOTAL 4736.89 MEAN 13.0 MAX 96 MIN .10 AC-FT 9400
WTR YR 1975 TOTAL 4265.96 MEAN 11.7 MAX 347 MIN .01 AC-FT 8460

PEAK DISCHARGE (BASE, 2,700 FT^3/S).--No peak above base.

NOTE.--No gage-height record July 10 to Aug. 12.

07126500 PURGATOIRE RIVER AT NINEMILE DAM, NEAR HIGBEE, COLO.

LOCATION.--Lat 37°44'06", long 103°29'45", in NW¼ sec.7, T.27 S., R.54 W., Otero County, on left bank 850 ft (260 m) upstream from Ninemile Dam, 4 mi (6 km) southwest of Higbee, and 5.5 mi (8.8 km) upstream from Smith Canyon.

DRAINAGE AREA.--2,900 mi^2 (7,511 km^2).

PERIOD OF RECORD.--October 1924 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 4,240.59 ft (1,292.532 m) above mean sea level. See WSP 1711 or 1731 for history of changes prior to Dec. 6, 1956.

AVERAGE DISCHARGE.--51 years, 96.1 ft^3/s (2.722 m^3/s), 69,620 acre-ft/yr (85.8 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 5,120 ft^3/s (145 m^3/s) Aug. 1 (gage height, 6.30 ft or 1.920 m); no flow many days.
Period of record: Maximum discharge, 105,000 ft^3/s or 2,970 m^3/s (estimated) June 18, 1965 (gage height, 19.6 ft or 5.97 m, from floodmarks); no flow at times in most years.

REMARKS.--Records fair. Diversions for irrigation of about 32,000 acres (130 km^2) above station.

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

REVISIONS (WATER YEARS).--WSP 1311: 1934(M), 1936(M), 1941-42(M), 1948-49(M). WSP 1731: 1929(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0		0	0	17	12	10	3.0	10	8.0	301	
2	0		0	0	18	11	9.0	2.0	18	7.0	84	
3	0		0	0	14	10	11	2.0	11	5.0	1.5	
4	0		0	0	13	10	9.5	2.0	6.5	7.5	300	
5	0		0	0	5.5	10	8.5	2.0	3.5	41	115	
6	0		0	0	7.0	11	8.0	1.5	2.0	63	55	
7	0		0	0	13	9.0	7.5	.50	.50	16	22	
8	0		0	0	9.0	8.5	6.5	.50	0	6.5	12	
9	0		0	0	8.0	9.0	7.5	1.0	0	3.0	5.5	
10	0		0	0	13	10	11	1.0	5.0	2.5	3.5	
11	0		0	0	15	9.0	12	1.0	13	177	1.0	
12	0		0	0	19	8.0	9.0	1.0	96	88	1.0	
13	0		0	0	16	7.5	10	1.5	92	74	2.0	
14	4.0		0	0	14	7.0	9.0	2.5	40	104	50	
15	23		0	0	12	7.5	7.0	0	23	202	115	
16	8.5		0	0	12	9.5	6.0	0	15	56	100	
17	3.0		0	0	13	9.5	6.0	0	12	20	50	
18	0		0	0	9.0	9.0	11	0	7.5	17	25	
19	0		0	1.0	9.0	8.5	10	0	3.0	30	13	
20	0		1.0	3.0	10	9.0	16	0	1.5	19	8.0	
21	0		3.5	7.0	9.0	11	22	0	0	9.5	4.5	
22	0		3.0	10	8.0	11	14	0	0	194	2.0	
23	0		2.0	11	8.0	9.0	10	0	0	48	1.5	
24	0		1.0	13	14	8.0	9.0	0	0	18	0	
25	0		0	14	12	7.5	7.0	0	0	9.5	0	
26	0		0	19	10	7.0	10	0	1.0	4.5	0	
27	0		0	16	9.5	.0	9.5	0	5.5	1.5	0	
28	0		0	19	10	7.0	6.5	2.5	6.5	0	0	
29	0		0	20	---	8.0	5.0	8.5	8.0	0	0	
30	0		0	22	---	9.5	4.0	8.0	12	0	0	
31	0	---	0	17	---	10	---	5.0	---	0	0	---
TOTAL	38.5	0	10.5	172.0	327.0	281.0	281.5	45.50	392.50	1231.5	1272.5	0
MEAN	1.24	0	.34	5.55	11.7	9.06	9.38	1.47	13.1	39.7	41.0	0
MAX	23	0	3.5	22	19	12	22	8.5	96	202	301	0
MIN	0	0	0	0	5.5	7.0	4.0	0	0	0	0	0
AC-FT	76	0	21	341	649	557	558	90	779	2440	2520	0

CAL YR 1974 TOTAL 4423.03 MEAN 12.1 MAX 238 MIN 0 AC-FT 8770
WTR YR 1975 TOTAL 4052.50 MEAN 11.1 MAX 301 MIN 0 AC-FT 8040

PEAK DISCHARGE (BASE, 3,000 FT^3/S).--Aug. 1 (2200) 5,120 ft^3/s (6.30 ft).

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, COLO.

LOCATION.--Lat 38°02'02", long 103°12'00", in NE¼SW¼ sec.23, T.23 S., R.52 W., Bent County, on right bank at downstream side of bridge on State Highway 101, 2.3 mi (3.7 km) southeast of courthouse in Las Animas and 4.5 mi (7.2 km) upstream from mouth.

DRAINAGE AREA.--3,503 mi² (9,073 km²).

PERIOD OF RECORD.--May to September 1889, July to October 1909 (gage heights and discharge measurements only), January 1922 to September 1931, July 1948 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Purgatoire Creek at Las Animas in 1889 and as Purgatory River near Las Animas in 1909.

GAGE.--Water-stage recorder. Datum of gage is 3,874.94 ft (1,181.082 m) above mean sea level. See WSP 1731 for history of changes prior to Oct. 1, 1955. Oct. 1, 1955, to July 11, 1966, at datum 3.00 ft (0.914 m) higher. Supplementary water-stage recorder at site 1.6 mi (2.6 km) downstream at different datum July 12 to Nov. 17, 1966.

AVERAGE DISCHARGE.--36 years (1922-31, 1948-75), 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (106 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 604 ft³/s (17.1 m³/s) Aug. 2 (gage height, 5.06 ft or 1.542 m); minimum daily, 0.15 ft³/s (0.004 m³/s) Oct. 1, 2, 5, 21, 22.
Period of record: Maximum discharge, 70,000 ft³/s (1,980 m³/s) May 20, 1955 (gage height, 20.00 ft or 6.096 m, present datum), from rating curve extended above 38,000 ft³/s (1,100 m³/s); no flow at times in 1924-25, 1927, 1949, 1974.
Greatest flood since at least 1860 occurred Oct. 1, 1904.

REMARKS.--Records good. Diversions for irrigation of about 36,000 acres (146 km²) above station.

REVISIONS (WATER YEARS).--WSP 1241: 1927(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.15	.90	5.2	8.5	14	4.4	2.2	1.5	2.2	2.2	19	.90
2	.15	1.5	6.8	9.0	15	5.2	2.8	1.5	2.2	.90	121	.90
3	.45	2.8	12	9.0	15	2.8	2.2	2.2	1.5	.90	40	.90
4	.90	1.5	16	9.0	15	3.6	2.2	1.5	1.5	1.5	4.8	.90
5	.15	1.5	17	9.5	12	2.2	1.5	1.5	1.5	1.5	101	.90
6	.45	1.5	16	10	5.0	6.8	1.5	.90	1.5	2.2	34	.90
7	.90	1.5	12	12	6.0	15	1.5	1.5	1.5	2.8	4.4	.90
8	.90	1.5	12	12	10	3.6	1.5	1.5	1.5	3.6	2.2	.90
9	.90	1.5	11	11	12	2.8	1.5	1.5	2.5	3.6	3.6	.90
10	.45	1.5	12	9.0	16	2.8	2.2	2.8	2.2	12	2.8	.90
11	.45	1.5	11	8.0	17	2.2	2.8	1.5	3.0	12	1.5	.90
12	4.4	1.5	12	6.0	18	2.2	4.4	2.2	2.2	26	1.5	.90
13	2.2	1.5	12	7.0	17	2.8	4.4	2.8	17	8.2	1.5	1.5
14	1.5	2.2	12	10	15	2.8	3.6	2.8	7.6	2.2	2.2	1.5
15	1.5	1.5	11	17	13	5.2	3.6	2.2	1.5	2.2	95	1.5
16	.45	5.2	12	16	11	7.6	2.2	2.2	2.2	6.8	101	1.5
17	.45	2.2	15	15	7.6	4.4	1.5	2.2	2.2	16	33	1.5
18	.45	1.5	15	12	7.6	3.6	2.2	1.5	4.3	3.6	9.2	.90
19	.45	1.5	17	12	6.8	3.6	1.5	1.5	2.8	2.2	2.8	.90
20	.45	1.5	16	12	6.0	3.6	2.2	1.5	12	1.5	1.5	.90
21	.15	2.2	12	13	6.8	3.6	2.2	2.8	6.0	1.5	1.5	.90
22	.15	2.2	14	12	6.8	3.6	2.2	1.5	2.8	2.2	1.2	.90
23	.45	2.2	13	11	6.0	2.8	2.2	1.5	26	2.2	1.1	.90
24	.45	4.4	14	15	11	2.8	2.2	1.5	25	2.8	1.1	.90
25	.45	3.6	14	16	6.0	2.8	1.5	1.5	2.8	7.6	1.1	.90
26	.45	3.6	13	15	4.4	3.6	.90	1.5	1.5	5.2	1.0	.90
27	.45	2.2	11	13	2.2	6.0	.90	2.2	2.2	3.6	1.0	.90
28	.45	2.2	10	16	4.4	3.6	.90	2.8	1.5	2.2	1.0	.90
29	.45	7.6	7.0	14	---	2.8	.90	3.6	1.5	2.2	1.0	.90
30	.45	10	7.0	14	---	2.2	2.2	3.6	1.5	1.5	1.0	.90
31	.90	---	8.0	14	---	1.5	---	2.2	---	2.5	.90	---
TOTAL	22.50	76.00	376.0	367.0	286.6	122.5	63.60	61.50	143.7	145.40	593.90	30.00
MEAN	.73	2.53	12.1	11.8	10.2	3.95	2.12	1.98	4.79	4.69	19.2	1.00
MAX	4.4	10	17	17	18	15	4.4	3.6	26	26	121	1.5
MIN	.15	.90	5.2	6.0	2.2	1.5	.90	.90	1.5	.90	.90	.90
AC-FT	45	151	746	728	568	243	126	122	285	288	1180	60

CAL YR 1974 TOTAL 7026.10 MEAN 19.2 MAX 355 MIN 0 AC-FT 13940
WTR YR 1975 TOTAL 2288.70 MEAN 6.27 MAX 121 MIN .15 AC-FT 4540

PEAK DISCHARGE (BASE, 6,000 FT³/S).--No peak above base.

07130000 JOHN MARTIN RESERVOIR AT CADDOA, COLO.

LOCATION.--Lat 38°04'05", Iong I02°56'13", in NE¼NW¼ sec.8, T.23 S., R.49 W., Bent County, at dam on Arkansas River at Caddoa, 3.2 mi (5.1 km) southeast of Hasty and 58 mi (93 km) upstream from Colorado-Kansas State Iine.

DRAINAGE AREA.--18,9I5 mi² (48,990 km²), of which 785 mi² (2,033 km²) is probabIy noncontributing.

PERIOD OF RECORD.--January 1943 to current year. Monthend contents onIy prior to November I943, published in WSP I3II.

GAGE.--Water-stage recorder for elevations above about 3,785 ft (1,153.7 m) and nonrecording gage read once daily for those beIow. Datum of gage is 3,760.00 ft (I,I46.048 m) above mean sea IeveI (Corps of Engineers bench mark); gage readings have been reduced to eIevations above mean sea level.

EXTREMES (at 2400).--Current year: Maximum contents, 87,860 acre-ft (I0.8 hm³) Apr. 7 (eIevation, 3,792.41 ft or 1,155.927 m); no contents Oct. 1 to Nov. 11, Apr. 12 to Sept. 30.
Period of record: Maximum contents, 429,600 acre-ft (530 hm³) Aug. 25, I965 (eIevation, 3,856.I6 ft or 1,I75.358 m); no contents at times most years.

REMARKS.--Reservoir is formed by concrete and earthfiI1 dam. Storage began whiIe dam was under construction prior to I943, and record of contents began Jan. I, 1943. Capacity (based on 1972 resurvey; new capacity tabIe put into use Nov. 1, I972), 62I,300 acre-ft (766 hm³) at elevation 3,870.00 ft or I,I79.576 m (top of spiIlway gates), of which 35I,000 acre-ft or 433 hm³ (between eIevations 3,764.20 ft or I,I47.328 m, eIevation of no contents, and 3,851.00 ft or 1,173.785 m) is for conservation and 270,300 acre-ft or 333 hm³ (between elevations 3,851.00 ft or I,I73.785 m and 3,870.00 ft or I,I79.576 m) is reserved for fIood controI. No dead storage. Figures given herein represent total contents.

COOPERATION.--Record of contents furnished by Corps of Engineers.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER I974 TO SEPTEMBER I975

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30	--	0	-
Oct. 31	--	0	0
Nov. 30	3,779.70	3I9	+3I9
Dec. 3I	3,785.42	1,560	+I,240
CAL YR I974	-	-	-7,920
Jan. 3I	3,789.53	4,800	+3,240
Feb. 28	3,79I.83	7,870	+3,070
Mar. 3I	3,792.28	8,560	+690
Apr. 30	--	0	-8,560
May 3I	--	0	0
June 30	--	0	0
July 3I	--	0	0
Aug. 31	--	0	0
Sept. 30	--	0	0
WTR YR 1975	--	-	0

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, COLO.

LOCATION (REVISED).--Lat 38°03'59", long 102°55'55", in NW¼NE¼ sec.8, T.23 S., R.49 W., Bent County, on right bank 2.6 mi (4.2 km) upstream from Caddoa Creek, 0.2 mi (0.3 km) downstream from John Martin Dam, and 3.5 mi (5.6 km) southeast of Hasty.

DRAINAGE AREA.--18,915 mi² (48,990 km²), of which 785 mi² (2,033 km²) is probably noncontributing.

PERIOD OF RECORD.--March 1938 to current year. Published as "at Caddoa" prior to October 1947.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,765 ft (1,147.6 m) above mean sea level, from topographic map. Prior to Feb. 22, 1940, at site 3 mi (5 km) upstream at datum 22.83 ft (6.959 m) higher. Feb. 22, 1940, to Feb. 4, 1943, at site 700 ft (210 m) upstream at datum 3.64 ft (1.109 m) higher. Feb. 5, 1943, to Apr. 8, 1975, at site 1.5 mi (2.4 km) downstream at datum approximately 27.5 ft (8.38 m) lower.

AVERAGE DISCHARGE.--37 years, 311 ft³/s (8.808 m³/s), 225,300 acre-ft/yr (278 hm³/yr), adjusted for storage in John Martin Reservoir.

EXTREMES.--Current year: Maximum discharge, 2,260 ft³/s (64.0 m³/s) June 11 (gage height, 5.05 ft or 1.539 m), from rating curve extended above 1,100 ft³/s (31.2 m³/s), on the basis of comparison with discontinued downstream station; minimum daily, 1.6 ft³/s (0.045 m³/s) Feb. 22-24.
Period of record: Maximum discharge, 40,000 ft³/s (1,130 m³/s) Apr. 24, 1942 (gage height, 10.46 ft or 3.188 m, site and datum then in use), from rating curve extended above 12,000 ft³/s (340 m³/s) on basis of flow-over-dam and critical-depth measurement of peak flow; no flow at times in 1945-47; minimum daily prior to construction of John Martin Reservoir, 5 ft³/s (0.14 m³/s) July 16, 1939.

REMARKS.--Records good. Storage and diversions above station for irrigation of about 438,000 acres (1,770 km²) and for flood control. Flow completely regulated by John Martin Reservoir 0.2 mi (0.3 km) upstream (see sta. 07130000). Water-quality records for the current year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1241: 1942(M). WSP 1341: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	13	20	2.0	2.0	13	13	30	280	368	550	29
2	6.6	14	19	2.0	2.0	13	12	30	348	380	448	26
3	6.6	14	11	2.0	2.0	13	12	29	256	356	490	25
4	6.2	14	5.2	2.0	2.3	13	12	30	186	444	448	23
5	5.7	18	12	2.0	2.3	13	11	29	158	428	420	23
6	5.7	20	14	2.0	2.3	11	11	26	105	470	416	23
7	6.2	18	14	2.0	2.3	12	11	26	135	575	388	23
8	6.6	17	14	2.0	2.2	12	663	28	261	480	340	22
9	7.6	16	14	2.0	2.2	12	948	26	413	456	232	18
10	8.5	16	14	2.0	2.2	13	918	25	416	535	166	17
11	8.1	6.6	14	2.0	2.1	12	924	25	1030	605	138	17
12	13	3.3	13	2.3	2.1	12	838	23	1060	826	124	24
13	20	3.0	13	2.3	2.1	12	62	22	495	1200	99	29
14	15	3.3	13	2.6	2.1	13	51	24	400	690	76	37
15	14	3.3	12	2.6	2.0	13	35	24	488	495	98	58
16	14	4.8	12	2.6	2.0	13	35	23	485	535	362	49
17	13	15	11	2.6	2.0	13	34	22	485	525	356	33
18	13	5.7	11	2.3	2.0	13	33	27	615	570	384	24
19	13	2.0	9.9	2.3	1.8	13	34	19	408	448	348	22
20	13	4.8	11	2.6	1.7	14	33	19	610	585	272	21
21	13	14	9.9	2.6	1.7	13	45	17	510	655	211	22
22	13	14	9.9	2.3	1.6	13	90	17	436	642	176	22
23	14	14	9.9	2.0	1.6	13	56	18	735	575	144	22
24	13	14	11	2.3	1.6	13	39	20	510	540	130	21
25	13	16	11	2.0	7.6	14	36	45	336	610	114	20
26	13	19	6.2	2.3	19	14	33	90	384	555	105	21
27	14	18	2.3	2.3	19	13	30	88	432	560	78	31
28	15	19	2.3	2.0	16	13	29	62	480	575	56	51
29	14	22	2.3	2.0	---	13	30	45	352	545	44	60
30	14	20	2.3	2.0	---	13	31	36	316	485	35	62
31	14	---	2.0	2.0	---	13	---	116	---	490	33	---
TOTAL	352.0	381.8	326.2	68.0	109.8	398	5109	1061	13125	17203	7281	875
MEAN	11.4	12.7	10.5	2.19	3.92	12.8	170	34.2	438	555	235	29.2
MAX	20	22	20	2.6	19	14	948	116	1060	1200	550	62
MIN	5.7	2.0	2.0	2.0	1.6	11	11	17	105	356	33	17
AC-FT	698	757	647	135	218	789	10130	2100	26030	34120	14440	1740

CAL YR 1974 TOTAL 43287.5 MEAN 119 MAX 1080 MIN 2.0 AC-FT 85860
WTR YR 1975 TOTAL 46289.8 MEAN 127 MAX 1200 MIN 1.6 AC-FT 91820

07133000 ARKANSAS RIVER AT LAMAR, COLO.

LOCATION.--Lat 38°06'24", long 102°37'04", in SE¼ sec.30, T.22 S., R.46 W., Prowers County, on left bank at downstream side of bridge on U.S. Highways 50 and 287, 1.4 mi (2.3 km) north of courthouse in Lamar.

DRAINAGE AREA.--19,780 mi² (51,230 km²), of which 950 mi² (2,460 km²) is probably noncontributing.

PERIOD OF RECORD.--May 1913 to September 1955, April 1959 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 3,602.23 ft (1,097.960 m) above mean sea level. See WSP 1731 for history of changes prior to Apr. 4, 1959. Apr. 4, 1959, to Mar. 26, 1968, at site 450 ft (140 m) upstream at datum 2.42 ft (0.738 m) lower.

AVERAGE DISCHARGE.--58 years, 207 ft³/s (5.862 m³/s), 150,000 acre-ft/yr (185 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 1,790 ft³/s (50.7 m³/s) June 23 (gage height, 5.95 ft or 1.814 m); minimum daily, 0.90 ft³/s (0.025 m³/s) Oct. 18, Mar. 30, June 1.
Period of record: Maximum discharge, 130,000 ft³/s (3,680 m³/s) June 5, 1921 (gage height, 14.55 ft or 4.435 m, present datum), from rating curve extended above 10,000 ft³/s (280 m³/s); maximum gage height, 16.48 ft (5.023 m), present datum (from floodmarks) June 18, 1965; no flow at times in 1913-15, 1953.

REMARKS.--Records good. Flow regulated by John Martin Reservoir 21 mi (34 km) upstream (see sta. 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, groundwater withdrawals and diversions for irrigation of about 487,000 acres (1,970 km²), and return flow from irrigated areas.

REVISIONS (WATER YEARS).--WSP 1341: 1921(M), 1945-46(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.9	3.9	3.5	9.2	3.9	1.9	9.2	.90	27	74	13
2	1.9	3.9	5.0	3.0	9.2	3.9	8.0	8.6	22	28	58	11
3	1.9	3.9	5.6	3.0	9.2	3.9	5.6	7.4	61	4.4	30	10
4	1.4	3.9	8.0	3.5	9.2	3.9	3.9	5.0	53	5.0	7.4	11
5	1.4	3.9	6.8	3.5	6.0	3.4	2.9	3.9	74	27	5.6	13
6	1.4	4.4	4.4	4.0	4.0	2.4	3.4	2.9	54	36	3.9	12
7	1.4	4.4	5.0	5.0	5.0	2.9	3.4	3.4	40	38	3.9	10
8	1.4	3.9	5.6	5.0	5.0	3.4	52	5.0	34	13	2.9	10
9	1.4	3.9	7.4	4.0	6.0	4.4	374	7.4	70	9.2	11	10
10	1.4	3.9	6.8	2.5	8.0	3.4	404	9.2	20	16	15	9.2
11	1.4	3.4	6.8	1.5	13	2.9	419	5.6	27	35	14	8.6
12	2.9	3.4	9.8	1.5	12	2.9	401	6.2	427	31	14	10
13	2.4	3.4	9.2	2.0	11	2.9	180	7.4	82	228	30	16
14	2.4	3.4	9.0	2.0	9.2	2.9	62	5.6	48	176	25	19
15	1.9	3.4	10	2.0	7.4	2.9	73	5.6	62	30	20	24
16	1.4	3.9	10	2.5	9.8	2.9	53	5.0	97	74	78	37
17	1.4	3.9	11	3.0	7.4	2.9	36	3.9	42	55	110	31
18	.90	4.4	10	5.0	8.6	2.9	24	2.9	117	102	24	18
19	1.4	4.4	8.6	18	8.0	2.9	22	2.9	57	62	19	13
20	1.4	3.9	10	15	8.6	2.4	17	2.4	68	89	32	12
21	1.4	3.4	10	11	6.2	2.4	14	2.4	55	130	24	14
22	1.4	4.4	12	10	4.4	2.4	18	2.4	20	64	28	8.6
23	1.4	4.4	10	8.6	5.6	1.4	35	2.9	955	113	19	8.0
24	1.4	3.4	8.0	12	7.4	1.4	25	3.4	441	56	20	6.2
25	1.4	3.4	7.0	10	3.9	1.9	15	2.9	105	79	14	6.8
26	1.4	5.0	5.0	8.6	5.0	5.6	11	6.7	33	72	22	7.4
27	1.4	5.6	5.0	7.4	4.4	3.4	7.4	53	37	64	28	7.4
28	1.9	4.4	3.0	10	3.9	1.4	6.2	55	159	58	24	8.6
29	1.4	4.0	3.0	8.0	---	1.9	6.8	27	59	53	18	24
30	1.4	4.0	2.5	8.6	---	.90	8.0	2.4	41	27	18	33
31	1.4	---	3.0	11	---	1.4	---	1.9	---	35	18	---
TOTAL	48.90	118.5	221.4	194.7	206.6	88.10	2292.5	269.5	3360.90	1836.6	810.7	421.8
MEAN	1.58	3.95	7.14	6.28	7.38	2.84	76.4	8.69	112	59.2	26.2	14.1
MAX	2.9	5.6	12	18	13	5.6	419	55	955	228	110	37
MIN	.90	2.9	2.5	1.5	3.9	.90	1.9	1.9	.90	4.4	2.9	6.2
AC-FT	97	235	439	386	410	175	4550	535	6670	3640	1610	837

CAL YR 1974 TOTAL 14266.00 MEAN 39.1 MAX 492 MIN .40 AC-FT 28300
WTR YR 1975 TOTAL 9870.20 MEAN 27.0 MAX 955 MIN .90 AC-FT 19580

07133050 WILLOW CREEK NEAR LAMAR, COLO.

LOCATION.--Lat 38°02'16", long 102°36'51", in SE¼NE¼ sec.19, T.23 S., R.46 W., Prowers County, on left bank 40 ft (12 m) downstream from bridge on U.S. Highway 287, and 3.5 mi (5.6 km) south of Lamar.

DRAINAGE AREA.--42 mi^2 (109 km^2), approximately.

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,685 ft (1,123 m) from topographic map.

EXTREMES.--Current year: Maximum discharge, 2,460 ft^3/s (69.7 m^3/s) June 27 (gage height, 8.15 ft or 2.484 m, from floodmark), from rating curve extended above 110 ft^3/s (3.1 m^3/s) on basis of slope-area measurements of peak flows; no flow most of year.
Period of record: Maximum discharge, 2,460 ft^3/s (69.7 m^3/s) June 27, 1975 (gage height, 8.15 ft or 2.484 m, from floodmark), from rating curve extended above 110 ft^3/s (3.1 m^3/s) on basis of slope-area measurements of peak flows; no flow most of each year.

REMARKS.--Records good except those above 500 ft^3/s (14.2 m^3/s), which are fair.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									0	.02	0	0
2									0	.01	0	0
3									0	.01	0	0
4									0	.01	0	0
5									0	.01	0	0
6									0	0	0	0
7									0	0	0	0
8									0	0	0	0
9									0	1.0	0	.90
10									0	.31	0	.47
11									0	.02	0	0
12									0	.01	0	0
13									0	0	0	0
14									0	0	0	0
15									0	0	0	0
16									0	0	2.4	0
17									0	0	.23	0
18									0	0	.01	0
19									0	0	0	0
20									0	0	0	0
21									0	0	0	0
22									0	0	0	0
23									52	0	0	0
24									1.8	0	0	0
25									0	0	0	0
26									0	0	0	0
27									123	0	0	0
28									11	0	0	0
29					---				.13	0	0	0
30					---				.02	0	0	0
31		---			---		---		---	0	0	---
TOTAL	0	0	0	0	0	0	0	0	187.95	1.40	2.64	1.37
MEAN	0	0	0	0	0	0	0	0	6.27	.045	.085	.046
MAX	0	0	0	0	0	0	0	0	123	1.0	2.4	.90
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	0	0	0	0	373	2.8	5.2	2.7

WTR YR 1975 TOTAL 193.36 MEAN .53 MAX 123 MIN 0 AC-FT 384

PEAK DISCHARGE (BASE, 25 FT^3/S).--June 23 (0400) 475 ft^3/s (5.16 ft, from floodmarks); June 27 (2130) 2,460 ft^3/s (8.15 ft, from floodmarks).

07134100 BIG SANDY CREEK NEAR LAMAR, COLO.

LOCATION.--Lat 38°06'51", long 102°29'00", in SW¼SW¼ sec.21, T.22 S., R.45 W., Prowers County, on left bank 15 ft (5 m) upstream from State Highway 196, 950 ft (290 m) upstream from mouth, and 7.5 mi (12.1 km) east of Lamar.

DRAINAGE AREA.--3,248 mi² (8,412 km²).

PERIOD OF RECORD.--February 1968 to current year.

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 3,545 ft (1,080 m) from topographic map.

AVERAGE DISCHARGE.--7 years, 16.6 ft³/s (0.470 m³/s), 12,030 acre-ft/yr (14.8 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 601 ft³/s (17.0 m³/s) June 28 (gage height, 6.53 ft or 1.990 m), from rating curve extended above 260 ft³/s (7.4 m³/s); minimum daily, 0.30 ft³/s (0.008 m³/s) several days.
Period of record: Maximum discharge, 601 ft³/s (17.0 m³/s) June 28, 1975 (gage height, 6.53 ft or 1.990 m), from rating curve extended above 260 ft³/s (7.4 m³/s); minimum daily, 0.16 ft³/s (0.005 m³/s) Aug. 13, 1968.
Flood of Aug. 21, 1965, reached a stage of 9.93 ft (3.027 m) from floodmarks (discharge not determined).

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by diversions above station for irrigation and return flow from irrigated areas.

REVISIONS.--WRD Colo. 1971: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.60	.30	2.7	5.0	7.0	6.4	3.8	3.3	2.4	11	3.6	.90
2	.45	.60	3.3	5.0	7.0	6.0	3.3	3.3	1.8	8.0	3.6	.60
3	.60	1.2	4.2	5.0	7.0	5.7	3.6	3.3	.90	4.8	3.0	.60
4	.60	1.8	5.4	5.0	7.0	5.0	3.0	3.3	.90	2.4	2.7	.90
5	.60	2.1	6.0	5.5	7.0	5.0	2.4	3.0	.90	2.7	3.6	1.2
6	.60	2.1	5.5	6.0	6.0	4.6	3.0	3.6	.90	2.7	2.4	.90
7	.60	2.4	5.5	6.0	6.0	4.2	3.3	1.8	.30	3.0	3.9	.60
8	.30	3.9	5.5	6.0	7.0	6.1	3.0	1.8	.30	2.4	3.3	.60
9	.30	2.4	5.5	5.5	7.0	9.3	3.6	2.4	2.4	1.5	4.2	2.4
10	.30	1.8	5.4	5.0	8.0	9.2	3.7	2.4	3.0	1.8	3.3	2.1
11	.30	2.1	6.0	5.0	12	8.1	3.6	3.3	2.1	2.4	1.8	1.2
12	1.8	2.4	5.4	5.0	13	8.9	3.0	2.4	1.8	4.2	2.4	.90
13	.60	2.7	5.4	7.0	13	8.4	3.0	2.7	1.5	2.4	1.5	1.5
14	.61	2.7	5.4	9.0	13	8.4	5.2	2.4	1.2	3.0	1.2	1.5
15	.60	2.1	5.1	11	11	9.4	4.5	2.4	.90	2.4	1.5	1.8
16	.60	2.4	5.1	9.2	10	8.1	4.4	2.1	.90	2.4	1.5	1.5
17	.60	2.7	5.1	8.0	11	8.6	3.9	1.8	1.2	2.4	2.4	1.5
18	.64	3.0	5.3	7.0	11	7.9	3.9	.90	1.2	1.8	3.0	1.5
19	.54	2.4	4.3	7.0	11	8.1	3.3	.90	1.8	1.8	3.0	1.2
20	.60	2.4	4.6	7.0	9.6	8.4	3.3	.60	1.8	4.5	2.4	1.5
21	.30	2.1	5.0	6.6	9.2	9.5	3.3	.30	2.4	2.4	1.5	1.1
22	.44	2.1	5.5	6.0	6.8	10	2.4	.30	4.5	1.8	1.5	.75
23	.59	2.4	5.2	6.0	6.0	11	2.4	.90	85	1.8	1.8	.60
24	.60	2.4	5.0	6.0	5.1	9.6	3.3	1.2	6.0	2.4	1.5	.90
25	.60	2.7	5.0	6.5	6.9	9.6	3.3	.30	1.2	3.0	1.2	1.2
26	.60	2.1	5.0	7.5	7.2	9.4	3.3	1.8	.60	1.5	1.2	1.5
27	.60	3.0	5.0	8.0	6.8	8.8	3.3	.60	26	1.5	.90	1.2
28	.63	3.0	5.0	8.0	6.0	7.5	3.3	3.0	147	2.1	.90	1.8
29	.77	3.0	5.0	8.0	---	6.2	3.3	3.6	9.6	1.8	.90	1.8
30	.60	1.8	5.0	7.0	---	5.8	2.4	3.3	8.8	3.0	.90	1.8
31	.30	---	5.0	7.0	---	5.2	---	3.3	---	1.8	.90	---
TOTAL	17.87	68.10	156.4	205.8	237.6	238.4	101.1	66.30	319.30	90.7	67.50	37.55
MEAN	.58	2.27	5.05	6.64	8.49	7.69	3.37	2.14	10.6	2.93	2.18	1.25
MAX	1.8	3.9	6.0	11	13	11	5.2	3.6	147	11	4.2	2.4
MIN	.30	.30	2.7	5.0	5.1	4.2	2.4	.30	.30	1.5	.90	.60
AC-FT	35	135	310	408	471	473	201	132	633	180	134	74

CAL YR 1974 TOTAL 4359.94 MEAN 11.9 MAX 66 MIN .30 AC-FT 8650
WTR YR 1975 TOTAL 1606.62 MEAN 4.40 MAX 147 MIN .30 AC-FT 3190

07137000 FRONTIER DITCH NEAR COOLIDGE, KANS.

LOCATION.--Lat 38°02'18", long 102°02'19", in NE¼ sec.21, T.23 S., R.43 W., Hamilton County, on left bank 0.3 mi (0.5 km) east of Colorado-Kansas State line, 0.5 mi (0.8 km) downstream from Holly drain diversion, 1.5 mi (2.4 km) west of Coolidge, and 2.3 mi (3.7 km) downstream from diversion from Arkansas River.

PERIOD OF RECORD.--October 1950 to current year.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,353.14 ft (1,022.037 m) above mean sea level.

EXTREMES.--Period of record: Maximum daily discharge, 84 ft^3/s (2.38 m^3/s) Aug. 1, 1975; no flow for many days each year.

REMARKS.--Records good. This ditch diverts water from Arkansas River in Colorado for use in Kansas. These records and records for Arkansas River near Coolidge represent total flow of Arkansas River at the Colorado-Kansas State line.

REVISIONS (WATER YEARS).--WSP 1731: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7	7.9	3.6				0	22	1.1	4.9	84	21
2	3.7	7.9	5.0				0	26	6.8	24	45	21
3	4.3	7.9	6.9				0	21	6.8	23	51	25
4	4.1	7.9	4.6				0	21	6.8	18	54	30
5	4.1	7.9	7.7				0	19	8.4	14	46	26
6	4.3	7.7	10				0	15	9.8	15	28	24
7	4.6	7.9	10				0	16	9.0	24	18	19
8	4.6	9.2	7.8				0	16	8.2	46	13	20
9	4.6	8.7	10				0	16	16	42	13	17
10	4.6	8.7	8.9				23	16	15	37	13	18
11	4.6	8.4	7.7				45	30	16	35	12	18
12	12	9.2	7.8				43	21	13	24	11	16
13	9.8	9.2	7.8				41	19	29	24	24	14
14	7.2	9.2	10				38	18	24	34	44	13
15	7.0	8.7	10				24	16	20	42	41	13
16	6.5	8.2	12				21	15	19	40	31	14
17	6.3	8.4	11				16	17	20	43	.56	14
18	6.1	8.4	11				8.2	12	15	38	33	12
19	6.1	8.2	12				12	11	16	32	36	13
20	6.1	8.4	12				24	12	17	33	34	12
21	6.5	8.4	14				24	12	12	23	29	12
22	6.3	9.7	14				24	11	0	30	18	11
23	6.3	9.0	14				22	11	.21	27	39	13
24	6.5	7.4	12				20	12	0	36	39	14
25	7.0	7.2	0				19	11	0	28	33	16
26	7.2	7.7	0				20	10	0	26	31	17
27	7.7	7.9	0				17	11	0	22	28	16
28	7.9	7.7	0				17	37	14	33	27	16
29	7.9	7.4	0		---		18	4.1	0	63	26	16
30	8.2	7.0	0		---		21	0	0	65	24	16
31	8.2	---	0		---		---	0	---	47	23	---
TOTAL	194.0	247.4	229.8	0	0	0	497.2	478.1	303.11	992.9	948.56	507
MEAN	6.26	8.25	7.41	0	0	0	16.6	15.4	10.1	32.0	30.6	16.9
MAX	12	9.7	14	0	0	0	45	37	29	65	84	30
MIN	3.7	7.0	0	0	0	0	0	0	0	4.9	.56	11
AC-FT	385	491	456	0	0	0	986	948	601	1970	1880	1010

CAL YR 1974 TOTAL 4745.30 MEAN 13.0 MAX 48 MIN 0 AC-FT 9410
WTR YR 1975 TOTAL 4398.07 MEAN 12.0 MAX 84 MIN 0 AC-FT 8720

07137500 ARKANSAS RIVER NEAR COOLIDGE, KANS.

LOCATION.--Lat 38°01'34", long 102°00'41", in NE¼NW¼ sec.26, T.23 S., R.43 W., Hamilton County, on right bank at downstream side of bridge, 1.0 mi (1.6 km) south of Coolidge, and 1.9 mi (3.1 km) downstream from Colorado-Kansas State line.

DRAINAGE AREA.--25,410 mi^2 (65,812 km^2), of which 1,708 mi^2 (4,424 km^2) is probably noncontributing.

PERIOD OF RECORD.--May to October 1903, March to May 1921, October 1950 to current year. Monthly discharge only for some periods, published in WSP 1311.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft (1,015.240 m) above mean sea level. May 5 to Oct. 31, 1903, nonrecording gage, and Mar. 1 to May 31, 1921, water-stage recorder at present site at different datums. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi (0.5 km) upstream at datum 3.00 ft (0.914 m) higher.

AVERAGE DISCHARGE.--25 years, 207 ft^3/s (5.862 m^3/s), 150,000 acre-ft/yr (185 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 5,500 ft^3/s (156 m^3/s) June 28 (gage height, 6.95 ft or 2.118 m); minimum daily, 2.2 ft^3/s (0.062 m^3/s) Oct. 10.
Period of record: Maximum discharge, 158,000 ft^3/s (4,470 m^3/s) June 17, 1965 (gage height, 14.8 ft or 4.51 m, present site and datum, from floodmarks), from rating curve extended above 13,000 ft^3/s (370 m^3/s) on basis of slope-area measurement of peak flow; no flow for many days in 1903, 1954, 1960.

REMARKS.--Records good except those for winter period, which are fair. Combined flow of river and Frontier ditch (see sta. 07137000) represents entire flow that enters Kansas. Flow regulated by John Martin Reservoir (see sta. 07130000). Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres (2,020 km^2), and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

REVISIONS (WATER YEARS).--WSP 1341: 1903, drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	4.9	6.0	6.0	18	27	19	11	36	192	710	13
2	3.9	5.3	6.0	6.0	18	27	19	11	22	92	296	13
3	4.9	5.3	6.0	6.0	18	27	22	11	16	83	164	11
4	4.9	5.3	6.5	7.0	15	26	19	11	19	65	110	11
5	6.7	4.9	6.5	8.0	13	25	19	11	19	55	86	13
6	3.6	4.6	6.5	9.0	12	25	16	11	19	44	77	11
7	3.0	4.9	6.5	9.0	12	25	16	11	19	39	57	11
8	2.8	5.3	6.5	9.0	12	25	19	11	19	24	55	10
9	3.0	5.3	6.5	9.0	12	25	24	11	32	26	49	10
10	2.2	5.3	6.7	8.0	13	30	52	11	49	24	49	13
11	2.6	5.3	7.2	7.0	16	40	125	14	47	29	47	16
12	14	4.9	9.0	6.0	18	34	188	41	36	39	42	16
13	44	5.7	11	6.0	18	32	208	89	85	24	41	16
14	9.3	5.3	9.0	10	18	32	125	13	55	37	16	14
15	4.6	5.7	8.6	20	20	34	55	8.6	39	62	16	16
16	4.9	5.3	7.8	24	20	34	47	7.8	44	24	146	16
17	4.9	4.9	7.8	22	20	36	39	7.8	44	26	593	14
18	4.6	4.9	8.0	20	20	36	32	8.6	39	24	179	16
19	5.7	4.9	9.0	18	20	42	26	7.8	29	26	89	16
20	4.6	6.2	10	18	22	36	22	7.8	36	149	77	14
21	3.3	7.8	14	18	26	34	14	7.2	55	1120	68	9.3
22	3.3	6.2	10	16	30	34	14	7.2	95	196	55	9.3
23	3.6	5.7	8.0	16	25	32	14	8.6	200	110	39	10
24	4.9	7.0	7.5	19	20	32	14	7.2	914	116	32	13
25	4.6	8.6	7.0	16	23	29	13	6.7	345	89	24	19
26	4.2	8.6	6.0	16	25	29	11	6.7	184	77	24	16
27	3.9	8.6	6.0	16	23	150	11	6.7	110	74	22	9.3
28	3.9	8.6	6.0	13	25	32	9.3	167	2220	60	19	8.6
29	3.9	8.0	6.0	14	---	22	11	872	622	42	19	7.2
30	4.2	7.0	6.0	14	---	22	11	128	310	32	19	6.7
31	4.6	---	6.0	18	---	22	---	55	---	32	14	---
TOTAL	182.2	180.3	233.6	404.0	532	1056	1214.3	1587.7	5759	3032	3234	378.4
MEAN	5.88	6.01	7.54	13.0	19.0	34.1	40.5	51.2	192	97.8	104	12.6
MAX	44	8.6	14	24	30	150	208	872	2220	1120	710	19
MIN	2.2	4.6	6.0	6.0	12	22	9.3	6.7	16	24	14	6.7
AC-FT	361	358	463	801	1060	2090	2410	3150	11420	6010	6410	751

CAL YR 1974 TOTAL 21913.5 MEAN 60.0 MAX 625 MIN 1.1 AC-FT 43470
WTR YR 1975 TOTAL 17793.5 MEAN 48.7 MAX 2220 MIN 2.2 AC-FT 35290

RIO GRANDE BASIN

08213500 RIO GRANDE AT THIRTYMILE BRIDGE, NEAR CREEDE, COLO.

LOCATION.--Lat 37°43'29", long 107°15'18", in NE¼ sec.13, T.40 N., R.4 W., Hinsdale County, on right bank 70 ft (21 m) downstream from bridge, 500 ft (150 m) upstream from Squaw Creek, 0.8 mi (1.3 km) downstream from Rio Grande Reservoir, and 20 mi (32 km) southwest of Creede.

DRAINAGE AREA.--163 mi^2 (422 km^2).

PERIOD OF RECORD.--June 1909 to September 1923, May 1925 to current year. No winter records 1910, 1926. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 9,300 ft (2,835 m) from topographic map. See WSP 1712 or 1732 for history of changes prior to Oct. 1, 1934.

AVERAGE DISCHARGE.--62 years (1910-23, 1926-75), 214 ft^3/s (6.060 m^3/s), 155,000 acre-ft/yr (191 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,470 ft^3/s (41.6 m^3/s) July 4 (gage height, 3.74 ft or 1.140 m); minimum daily, 2.6 ft^3/s (0.074 m^3/s) Nov. 4-20.
Period of record: Maximum discharge, 7,500 ft^3/s (212 m^3/s) June 28, 1927 (gage height, 7.03 ft or 2.143 m, present datum), from rating curve extended above 1,200 ft^3/s (34 m^3/s); minimum daily, 0.10 ft^3/s (0.003 m^3/s) Nov. 2-4, 1960.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Flow regulated by Rio Grande Reservoir (capacity, 51,110 acre-ft or 63.0 hm^3) since 1912. Natural flow of stream affected by transmountain diversions from Colorado River basin to drainage area above station through Weminuche Pass and Pine River-Weminuche Pass ditches (see elsewhere in this report). No known diversions above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	3.0	2.7	2.9	3.2	3.5	3.9	60	777	1200	895	218
2	32	2.8	2.7	2.9	3.2	3.5	3.9	61	784	1260	867	232
3	32	2.8	2.7	2.9	3.2	3.5	3.9	90	860	1280	846	246
4	32	2.6	2.7	2.9	3.2	3.5	3.9	152	909	1400	811	239
5	32	2.6	2.7	2.9	3.2	3.5	3.9	180	606	1380	770	232
6	32	2.6	2.8	3.0	3.2	3.5	4.0	180	194	1240	751	204
7	32	2.6	2.8	3.0	3.2	3.5	4.0	180	76	1200	718	194
8	32	2.6	2.8	3.0	3.2	3.5	4.0	125	758	1110	692	130
9	32	2.6	2.8	3.0	3.2	3.5	4.0	110	1100	951	686	87
10	32	2.6	2.8	3.0	3.2	3.5	4.0	112	1290	1060	706	81
11	32	2.6	2.8	3.0	3.3	3.6	4.1	174	1270	1060	706	71
12	32	2.6	2.8	3.0	3.3	3.6	4.1	268	1100	1010	660	73
13	32	2.6	2.8	3.0	3.3	3.6	4.1	344	1180	811	666	77
14	32	2.6	2.8	3.0	3.3	3.6	4.1	570	1380	718	630	94
15	32	2.6	2.8	3.0	3.3	3.6	4.1	811	944	686	570	115
16	32	2.6	2.8	3.0	3.3	3.6	4.2	860	686	764	518	115
17	32	2.6	2.8	3.0	3.3	3.6	4.2	738	371	839	280	115
18	32	2.6	2.8	3.0	3.3	3.6	4.2	630	536	867	197	115
19	32	2.6	2.8	3.0	3.3	3.6	4.2	606	712	764	184	115
20	32	2.6	2.8	3.0	3.3	3.6	4.4	692	853	846	174	85
21	32	2.7	2.9	3.1	3.4	3.7	4.4	732	937	944	174	65
22	32	2.7	2.9	3.1	3.4	3.7	4.4	725	881	937	174	61
23	32	2.7	2.9	3.1	3.4	3.7	4.4	540	909	1020	218	61
24	32	2.7	2.9	3.1	3.4	3.7	37	425	1040	1100	242	61
25	32	2.7	2.9	3.1	3.4	3.7	60	425	1100	1070	211	61
26	32	2.7	2.9	3.1	3.4	3.8	61	425	1100	965	197	61
27	32	2.7	2.9	3.1	3.4	3.8	61	524	1100	930	197	60
28	32	2.7	2.9	3.1	3.4	3.8	60	725	1180	930	197	60
29	32	2.7	2.9	3.1	---	3.8	60	720	1180	944	197	60
30	32	2.7	2.9	3.1	---	3.8	60	790	1160	937	194	60
31	15	---	2.9	3.1	---	3.8	---	784	---	902	211	---
TOTAL	975	79.8	87.4	93.6	92.2	112.3	493.4	13758	26973	31125	14539	3448
MEAN	31.5	2.66	2.82	3.02	3.29	3.62	16.4	444	899	1004	469	115
MAX	32	3.0	2.9	3.1	3.4	3.8	61	860	1380	1400	895	246
MIN	15	2.6	2.7	2.9	3.2	3.5	3.9	60	76	686	174	60
AC-FT	1930	158	173	186	183	223	979	27290	53500	61740	28840	6840

CAL YR 1974 TOTAL 48633.7 MEAN 133 MAX 1320 MIN 2.6 AC-FT 96460
WTR YR 1975 TOTAL 91776.7 MEAN 251 MAX 1400 MIN 2.6 AC-FT 182000

NOTE.--No gage-height record Nov. 6 to Apr. 19.

08214500 NORTH CLEAR CREEK BELOW CONTINENTAL RESERVOIR, COLO.

LOCATION.--Lat 37°53'18", long 107°12'10", in NE¼SW¼ sec.21, T.42 N., R.3 S., Hinsdale County, on left bank 100 ft (30 m) downstream from bridge, 1,000 ft (300 m) downstream from Continental Reservoir, and 15 mi (24 km) west of Creede.

DRAINAGE AREA.--51.7 mi^2 (134 km^2).

PERIOD OF RECORD.--May 1929 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1960, published as Clear Creek below Continental Reservoir.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 10,200 ft (3,109 m) from topographic map. Prior to Oct. 2, 1951, at site 150 ft (46 m) upstream at different datum.

AVERAGE DISCHARGE.--46 years, 30.7 ft^3/s (0.869 m^3/s), 22,240 acre-ft/yr (27.4 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 265 ft^3/s (7.50 m^3/s) May 20 (gage height, 2.50 ft or 0.762 m); minimum daily, 0.70 ft^3/s (0.020 m^3/s) Oct. 4-6.
Period of record: Maximum discharge, 362 ft^3/s (10.3 m^3/s) May 8, 1952 (gage height, 3.66 ft or 1.116 m), from rating curve extended above 120 ft^3/s (3.4 m^3/s); no flow June 22, 23, 1935.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Flow regulated by Continental Reservoir (capacity, 26,720 acre-ft or 32.9 hm^3). No diversion above station.

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

REVISIONS.--WSP 1008: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	2.0	1.9	1.9	2.0	2.1	2.2	15	129	105	177	11
2	1.0	1.8	1.9	1.9	2.0	2.1	2.2	15	148	114	84	10
3	.80	1.8	1.9	1.9	2.0	2.1	2.2	15	229	131	99	11
4	.70	1.8	1.9	1.9	2.0	2.1	2.2	15	257	121	112	12
5	.70	1.8	1.9	1.9	2.0	2.1	2.2	15	147	110	83	13
6	.70	1.8	1.9	1.9	2.0	2.1	2.2	7.6	33	110	66	13
7	2.4	1.8	1.9	1.9	2.0	2.1	2.2	2.1	3.1	121	75	13
8	6.7	1.8	1.9	1.9	2.0	2.1	2.2	2.1	24	124	63	13
9	10	1.8	1.9	1.9	2.0	2.1	2.2	2.1	40	119	50	14
10	12	1.8	1.9	1.9	2.0	2.1	2.2	2.1	67	112	25	14
11	15	1.8	1.9	1.9	2.0	2.1	2.2	2.1	152	110	8.0	14
12	17	1.8	1.9	1.9	2.0	2.1	2.2	2.1	240	109	22	15
13	23	1.8	1.9	1.9	2.0	2.1	2.2	2.1	261	88	40	16
14	28	1.8	1.9	1.9	2.0	2.1	2.2	2.1	261	64	47	16
15	29	1.8	1.9	1.9	2.0	2.1	2.2	2.1	261	62	26	16
16	30	1.8	1.9	1.9	2.0	2.1	2.2	2.1	229	79	22	16
17	22	1.8	1.9	1.9	2.0	2.1	2.2	3.0	181	99	25	16
18	12	1.8	1.9	1.9	2.0	2.1	2.2	80	157	79	25	16
19	6.0	1.8	1.9	1.9	2.0	2.1	2.2	173	124	54	25	15
20	2.2	1.8	1.9	1.9	2.0	2.1	2.2	227	116	31	22	14
21	1.6	1.8	1.9	1.9	2.0	2.1	2.2	232	114	32	22	12
22	1.3	1.8	1.9	1.9	2.0	2.1	2.2	223	101	51	23	11
23	3.2	1.8	1.9	1.9	2.0	2.1	2.2	225	96	164	25	11
24	4.4	1.8	1.9	1.9	2.0	2.1	2.2	225	107	213	25	11
25	6.1	1.8	1.9	1.9	2.0	2.1	8.2	225	128	221	23	11
26	8.2	1.8	1.9	1.9	2.0	2.1	14	225	129	223	18	11
27	8.2	1.8	1.9	1.9	2.0	2.1	15	227	121	221	15	11
28	9.2	1.8	1.9	1.9	2.0	2.1	15	223	116	229	13	11
29	25	1.8	1.9	1.9	---	2.1	15	219	112	238	13	12
30	13	1.8	1.9	1.9	---	2.1	15	201	105	236	13	12
31	6.6	---	1.9	1.9	---	2.1	---	179	---	232	13	---
TOTAL	307.20	54.2	58.9	58.9	56.0	65.1	135.0	2990.6	4188.1	4002	1299.0	391
MEAN	9.91	1.81	1.90	1.90	2.00	2.10	4.50	96.5	140	129	41.9	13.0
MAX	30	2.0	1.9	1.9	2.0	2.1	15	232	261	238	177	16
MIN	.70	1.8	1.9	1.9	2.0	2.1	2.2	2.1	3.1	31	8.0	10
AC-FT	609	108	117	117	111	129	268	5930	8310	7940	2580	776

CAL YR 1974 TOTAL 5193.20 MEAN 14.2 MAX 136 MIN .50 AC-FT 10300
WTR YR 1975 TOTAL 13606.00 MEAN 37.3 MAX 261 MIN .70 AC-FT 26990

NOTE.--No gage-height record Nov. 6 to May 16.

08216500 WILLOW CREEK AT CREEDE, COLO.

LOCATION.--Lat 37°51'22", long 106°55'37", in SW¼ sec.25, T.42 N., R.1 W., (projected), Mineral County, on left bank at north city limits of Creede, 8 ft (2 m) upstream from entrance to paved channel just downstream from Windy Gulch, 0.5 mi (0.8 km) downstream from confluence of East and West Willow Creeks, and 2.6 mi (4.2 km) upstream from mouth.

DRAINAGE AREA.--35.3 mi^3 (91.4 km^2).

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,880 ft (2,707 m) from topographic map. Prior to Sept. 2, 1953, at site 17 ft (5 m) upstream at same datum.

AVERAGE DISCHARGE.--24 years, 22.1 ft^3/s (0.626 m^3/s), 16,010 acre-ft/yr (19.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 324 ft^3/s (9.18 m^3/s) June 5 (gage height, 3.99 ft or 1.216 m); minimum daily, 2.6 ft^3/s (0.074 m^3/s) Mar. 16.
Period of record: Maximum discharge, 430 ft^3/s (12.2 m^3/s) June 5, 1957 (gage height, 4.14 ft or 1.262 m); maximum gage height, 4.16 ft (1.268 m) May 23, 1958; minimum daily discharge, 0.2 ft^3/s (0.006 m^3/s) Mar. 25, 1956, probably caused by snowslide upstream.

REMARKS.--Records good except those for period of no gage-height record, which are poor. Diversions above station for municipal supply of Creede.

REVISIONS (WATER YEARS).--WSP 1712: 1955, 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.0	5.0	3.8	3.2	3.4	3.2	3.1	8.8	96	98	29	12
2	5.0	5.0	3.6	3.2	3.4	3.0	3.5	10	143	92	26	12
3	4.5	5.0	3.8	3.6	3.6	3.0	3.3	14	191	94	25	13
4	5.0	4.9	3.8	3.4	3.4	3.2	3.5	19	217	90	24	14
5	5.0	4.9	4.0	3.4	3.2	3.4	4.1	21	231	84	24	12
6	4.2	4.5	4.2	3.2	3.2	3.4	4.4	16	222	80	24	12
7	4.5	4.5	3.8	3.2	3.2	3.2	4.4	14	196	75	23	12
8	4.2	4.2	3.6	3.2	3.0	3.2	4.7	14	183	94	23	12
9	4.2	4.5	3.8	3.2	3.0	3.0	4.4	16	174	102	22	12
10	4.0	4.0	3.6	3.6	3.0	2.8	4.4	24	144	81	22	12
11	4.0	4.0	3.6	3.6	3.0	2.8	4.7	36	118	87	21	12
12	4.0	4.0	3.4	3.2	3.0	2.8	4.7	47	111	73	25	14
13	4.0	4.0	3.4	3.2	3.0	3.0	4.1	54	129	79	28	12
14	4.0	4.0	3.4	3.4	3.0	3.0	5.0	71	154	72	25	11
15	3.8	4.0	3.6	3.4	3.0	3.0	5.3	100	165	70	24	11
16	3.8	3.8	3.6	3.4	3.0	2.6	6.2	118	164	68	24	11
17	3.8	3.5	3.6	3.2	3.0	3.1	5.9	122	144	63	23	11
18	3.5	3.8	3.6	3.2	3.0	3.1	5.3	118	131	55	21	11
19	3.8	3.8	3.6	3.4	3.0	3.1	5.0	118	111	47	20	9.6
20	3.8	3.5	3.6	3.4	3.0	3.3	5.6	117	98	47	20	9.6
21	4.0	3.5	3.6	3.4	3.2	3.3	7.0	101	87	46	20	9.2
22	4.2	3.8	3.6	3.4	3.2	3.0	8.8	86	90	40	19	9.2
23	4.5	3.8	3.4	3.4	3.0	3.0	9.2	69	95	36	18	8.8
24	4.5	3.5	3.6	3.6	3.2	3.1	12	63	111	34	18	8.3
25	4.5	3.8	3.4	3.6	3.2	3.0	15	84	116	33	16	8.8
26	4.5	3.5	3.6	3.4	3.2	3.3	14	124	110	35	16	8.8
27	4.2	3.5	3.6	3.4	3.2	3.3	12	155	111	30	16	8.3
28	5.0	3.4	3.6	3.4	3.2	3.1	9.6	147	108	28	16	8.3
29	5.0	3.6	3.4	3.6	---	3.1	9.2	107	101	28	15	9.6
30	4.5	3.8	3.4	3.6	---	3.0	9.7	93	101	35	13	9.2
31	4.5	---	3.4	3.4	---	3.3	---	92	---	33	12	---
TOTAL	133.5	121.1	112.0	104.8	87.8	95.7	198.1	2178.8	4152	1929	652	323.7
MEAN	4.31	4.04	3.61	3.38	3.14	3.09	6.60	70.3	138	62.2	21.0	10.8
MAX	5.0	5.0	4.2	3.6	3.6	3.4	15	155	231	102	29	14
MIN	3.5	3.4	3.4	3.2	3.0	2.6	3.1	8.8	87	28	12	8.3
AC-FT	265	240	222	208	174	190	393	4320	8240	3830	1290	642

CAL YR 1974 TOTAL 4004.3 MEAN 11.0 MAX 78 MIN 3.4 AC-FT 7940
WTR YR 1975 TOTAL 10088.5 MEAN 27.6 MAX 231 MIN 2.6 AC-FT 20010

PEAK DISCHARGE (BASE, 120 FT^3/S).--June 5 (2130) 324 ft^3/s (3.99 ft).

NOTE.--No gage-height record Nov. 28 to Mar. 10.

08217500 RIO GRANDE AT WAGONWHEEL GAP, COLO.

LOCATION.--Lat 37°46'01", long 106°49'51", in NW¼NE¼ sec.35, T.41 N., R.1 E., Mineral County, on right bank 250 ft (76 m) upstream from private bridge, 0.4 mi (0.6 km) upstream from Goose Creek, and 0.4 mi (0.6 km) west of town of Wagonwheel Gap.

DRAINAGE AREA.--780 mi^2 (2,020 km^2).

PERIOD OF RECORD.--May 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 8,431.26 ft (2,569.848 m) above mean sea level.

AVERAGE DISCHARGE.--24 years, 507 ft^3/s (14.36 m^3/s), 367,300 acre-ft/yr (453 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 4,040 ft^3/s (114 m^3/s) June 15 (gage height, 5.34 ft or 1.628 m); minimum daily, 60 ft^3/s (1.70 m^3/s) Feb. 3.
Period of record: Maximum discharge, 4,870 ft^3/s (138 m^3/s) July 26, 1957 (gage height, 5.38 ft or 1.640 m); maximum gage height, 5.84 ft (1.780 m) Sept. 6, 1970; minimum daily discharge, 46 ft^3/s (1.30 m^3/s) Dec. 9, 1956.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Santa Maria, Rio Grande and Continental Reservoirs (total capacity, 121,400 acre-ft or 150 hm^3). Diversions above station for irrigation. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120	110	75	70	65	65	102	360	2060	2570	1600	380
2	120	105	80	70	65	70	105	405	2330	2720	1520	380
3	121	101	80	80	60	75	104	459	2820	2700	1460	400
4	124	95	85	85	70	80	102	639	3340	2740	1430	410
5	124	99	85	80	70	80	102	723	3380	2800	1410	390
6	123	96	85	80	65	80	109	542	2860	2670	1260	380
7	121	92	85	85	65	80	120	476	2750	2450	1290	356
8	121	94	80	85	65	85	118	442	2460	2360	1250	356
9	123	103	75	75	65	90	117	426	2870	2190	1190	298
10	123	97	75	70	65	95	111	536	3050	2080	1140	275
11	126	96	80	75	65	95	114	738	2800	2220	1120	280
12	134	94	80	80	65	90	116	953	2640	2020	1040	320
13	140	99	80	80	65	90	109	1020	2840	1860	1040	306
14	140	99	80	85	65	90	109	1250	3440	1720	1050	316
15	140	96	75	85	65	90	113	1750	3590	1500	953	329
16	136	94	80	85	65	90	121	2020	3190	1630	858	306
17	138	91	80	80	65	95	128	2060	2700	1760	760	298
18	128	95	80	75	65	95	123	1920	2360	1630	500	284
19	121	102	80	75	65	100	117	2060	2280	1480	470	275
20	118	92	80	75	70	110	138	2220	2060	1380	448	271
21	123	89	80	75	70	118	166	2260	2200	1580	459	241
22	123	94	75	75	65	110	245	2170	2200	1500	454	222
23	124	98	75	75	65	108	293	1870	2220	1520	448	215
24	123	88	80	75	65	114	311	1510	2430	1790	482	212
25	121	88	75	70	70	110	448	1670	2700	1820	464	208
26	117	85	75	70	70	107	530	1910	2460	1760	415	205
27	117	85	80	70	70	106	459	2210	2460	1630	400	205
28	117	85	75	70	70	109	365	2420	2540	1640	405	198
29	120	85	80	70	---	107	342	2300	2520	1700	395	198
30	114	80	80	70	---	111	306	2090	2430	1800	385	198
31	106	---	80	65	---	104	---	2070	---	1670	375	---
TOTAL	3846	2827	2455	2360	1855	2949	5743	43479	79980	60890	26471	8712
MEAN	124	94.2	79.2	76.1	66.3	95.1	191	1403	2666	1964	854	290
MAX	140	110	85	85	70	118	530	2420	3590	2800	1600	410
MIN	106	80	75	65	60	65	102	360	2060	1380	375	198
AC-FT	7630	5610	4870	4680	3680	5850	11390	86240	158600	120800	52510	17280

CAL YR 1974 TOTAL 111125 MEAN 304 MAX 1790 MIN 75 AC-FT 220400
WTR YR 1975 TOTAL 241567 MEAN 662 MAX 3590 MIN 60 AC-FT 479100

08218500 GOOSE CREEK AT WAGONWHEEL GAP, COLO.

LOCATION.--Lat 37°45'07", long 106°49'46", in SW¼SE¼ sec.35, T.41 N., R.1 E., Mineral County, on left bank 0.2 mi (0.3 km) downstream from Pierce Creek, 1.0 mi (1.6 km) upstream from mouth, 1.0 mi (1.6 km) south of Wagonwheel Gap, and 8.8 mi (14.2 km) southeast of Creede.

DRAINAGE AREA.--90 mi^2 (230 km^2), approximately.

PERIOD OF RECORD.--June 1954 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,460 ft (2,579 m) from topographic map.

AVERAGE DISCHARGE.--21 years, 59.6 ft^3/s (1.688 m^3/s), 43,180 acre-ft/yr (53.2 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 550 ft^3/s (15.6 m^3/s) June 6 (gage height, 3.96 ft or 1.207 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Nov. 30.
Period of record: Maximum discharge, 879 ft^3/s (24.9 m^3/s) Sept. 14, 1970 (gage height, 4.52 ft or 1.378 m, from recorded range in stage), from rating curve extended above 480 ft^3/s (14 m^3/s); minimum daily, 9.6 ft^3/s (0.27 m^3/s) Nov. 15, 16, Dec. 5, 1956.
Flood in June 1927 exceeded all other observed floods at this location including those in October 1911 and June 18, 1949. Flood in October 1911 probably exceeded that of June 18, 1949, from information by local residents.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Several small diversions above station for irrigation. Lake Humphreys (capacity, 842 acre-ft or 1.04 hm^3) above station with a fixed spillway and no gates has slight effect on flow.

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

REVISIONS (WATER YEARS).--WSP 1712: 1955, 1956(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	23	15	15	16	18	19	61	211	381	81	30
2	17	23	17	16	15	19	18	59	264	381	76	29
3	18	21	19	15	15	19	17	70	309	363	70	30
4	22	18	20	15	16	19	18	99	390	340	64	34
5	21	20	20	16	16	20	19	94	451	318	61	34
6	19	20	19	15	16	20	25	68	484	314	59	31
7	18	18	17	15	16	20	30	58	473	292	58	31
8	17	18	17	15	17	20	26	54	435	292	58	32
9	16	22	16	16	18	20	23	68	415	296	56	31
10	16	21	15	15	19	19	20	103	395	292	56	31
11	17	20	16	14	18	19	20	155	304	296	54	35
12	20	20	16	14	18	19	20	197	309	276	58	44
13	20	21	15	14	18	18	20	214	376	292	70	37
14	20	21	15	15	19	19	16	239	440	280	59	37
15	19	21	14	15	18	19	18	272	478	256	56	37
16	18	20	15	15	18	19	24	309	484	232	52	30
17	18	19	16	16	18	19	28	314	456	218	49	29
18	18	20	16	16	17	19	22	300	462	194	46	28
19	18	20	16	17	17	20	22	322	386	169	42	26
20	18	15	16	16	17	21	30	340	296	163	44	26
21	19	14	17	16	17	21	44	309	280	149	52	26
22	23	15	18	15	17	21	64	292	296	138	45	25
23	24	18	18	15	16	21	72	256	340	128	42	25
24	22	17	17	15	16	20	83	225	390	118	39	26
25	21	16	16	16	16	21	124	242	425	110	35	26
26	21	16	15	16	17	22	108	280	381	101	34	26
27	22	15	15	17	17	19	70	304	381	96	32	26
28	21	15	14	17	18	17	54	296	381	90	35	25
29	23	14	15	16	---	17	46	253	363	90	32	25
30	20	13	15	16	---	17	49	214	354	108	30	24
31	21	---	15	17	---	18	---	208	---	90	30	---
TOTAL	604	554	505	481	476	600	1149	6275	11409	6863	1575	896
MEAN	19.5	18.5	16.3	15.5	17.0	19.4	38.3	202	380	221	50.8	29.9
MAX	24	23	20	17	19	22	124	340	484	381	81	44
MIN	16	13	14	14	15	17	16	54	211	90	30	24
AC-FT	1200	1100	1000	954	944	1190	2280	12450	22630	13610	3120	1780

CAL YR 1974 TOTAL 11972 MEAN 32.8 MAX 128 MIN 11 AC-FT 23750
WTR YR 1975 TOTAL 31387 MEAN 86.0 MAX 484 MIN 13 AC-FT 62260

PEAK DISCHARGE (BASE, 200 FT^3/S).--June 6 (2330) 550 ft^3/s (3.96 ft).

NOTE.--No gage-height record Nov. 24 to Apr. 9.

08219500 SOUTH FORK RIO GRANDE AT SOUTH FORK, COLO.

LOCATION.--Lat 37°39'25", long 106°38'55", in SW¼NE¼ sec.3, T.39 N., R.3 E., Rio Grande County, on left bank near U.S. Highway 160, 700 ft (210 m) downstream from Church Creek, 0.8 mi (1.3 km) southwest of village of South Fork, and 1.4 mi (2.3 km) upstream from mouth.

DRAINAGE AREA.--216 mi^2 (559 km^2).

PERIOD OF RECORD.--August 1910 to September 1922, May 1936 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 8,221.79 ft (2,506.002 m) above mean sea level. Aug. 9, 1910, to Mar. 28, 1915, nonrecording gage and Mar. 29, 1915, to Sept. 30, 1922, water-stage recorder, at bridges 1 mi (1.6 km) downstream at different datums.

AVERAGE DISCHARGE.--51 years, 210 ft^3/s (5.947 m^3/s), 152,100 acre-ft/yr (188 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,070 ft^3/s (58.6 m^3/s) June 19 (gage height, 5.57 ft or 1.698 m); minimum daily, 21 ft^3/s (0.59 m^3/s) Nov. 30.
Period of record: Maximum discharge, 8,000 ft^3/s (227 m^3/s) Oct. 5, 1911 (gage height, 9.7 ft or 2.96 m, from floodmarks, present site and datum), from rating curve extended above 1,500 ft^3/s (42 m^3/s); minimum daily, 14 ft^3/s (0.40 m^3/s) Nov. 28, 29, 1960.
Flood of Oct. 5, 1911, exceeded all other observed floods at this location since at least 1873. Flood of June 29, 1927, reached a stage about 1 ft (0.3 m) lower than that of Oct. 5, 1911, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. Transmountain diversions from Colorado River basin to drainage area above station through Treasure Pass ditch (see elsewhere in this report). Natural flow of stream affected by a few small diversions for irrigation, slight regulation by Beaver Creek Reservoir (capacity, 4,760 acre-ft or 5.87 hm^3), and several smaller storage reservoirs.

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

REVISIONS (WATER YEARS).--WSP 898: 1911(M). WSP 1312: 1912, 1944(M). WSP 1632: 1956-58(P).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	79	40	26	26	27	32	38	222	924	1040	218	91
2	67	42	30	28	26	33	37	228	1110	1030	202	65
3	32	40	33	27	26	34	36	232	1270	1000	195	58
4	36	36	34	27	27	34	39	322	1440	972	182	67
5	36	65	35	28	27	35	48	347	1580	930	167	72
6	32	64	34	27	26	36	64	275	1800	864	176	71
7	30	55	30	27	26	35	80	235	1800	775	188	70
8	31	34	30	27	28	36	72	205	1880	765	180	71
9	30	40	28	28	30	36	65	260	1690	800	154	70
10	33	34	26	26	32	35	59	431	1530	760	124	72
11	39	32	28	25	31	35	57	610	1140	730	122	77
12	41	36	28	25	31	34	56	765	1070	665	124	110
13	45	38	27	26	31	34	56	864	1260	795	169	91
14	46	36	25	27	32	35	53	978	1490	700	145	93
15	42	36	24	27	31	36	58	1130	1630	615	137	90
16	39	33	25	27	31	36	79	1240	1700	572	124	71
17	40	32	27	28	31	36	93	1300	1540	536	116	61
18	39	36	27	28	29	36	81	1320	1600	473	108	50
19	39	34	27	29	29	38	78	1330	1610	439	98	45
20	35	28	27	27	29	40	99	1240	1210	431	88	44
21	28	25	28	27	30	42	141	1180	1080	482	118	46
22	33	29	29	26	29	42	192	1180	1060	455	106	45
23	39	34	30	25	28	40	220	978	1060	387	98	45
24	41	30	29	26	29	38	262	876	1160	262	93	45
25	44	28	26	27	30	40	344	990	1280	238	88	44
26	43	28	26	28	31	44	368	1120	1190	232	91	49
27	44	25	26	29	31	38	319	1200	1130	210	90	54
28	43	24	25	29	32	36	295	1160	1120	198	104	48
29	46	22	27	27	---	36	258	960	1060	198	103	47
30	46	21	27	27	---	35	225	840	1030	364	99	46
31	52	---	27	28	---	37	---	835	---	250	96	---
TOTAL	1270	1057	871	839	820	1134	3872	24853	40444	18168	4103	1908
MEAN	41.0	35.2	28.1	27.1	29.3	36.6	129	802	1348	586	132	63.6
MAX	79	65	35	29	32	44	368	1330	1880	1040	218	110
MIN	28	21	24	25	26	32	36	205	924	198	88	44
AC-FT	2520	2100	1730	1660	1630	2250	7680	49300	80220	36040	8140	3780

CAL YR 1974 TOTAL 44216 MEAN 121 MAX 846 MIN 21 AC-FT 87700
WTR YR 1975 TOTAL 99339 MEAN 272 MAX 1880 MIN 21 AC-FT 197000

PEAK DISCHARGE (BASE, 900 FT^3/S).--June 19 (0015) 2,070 ft^3/s (5.57 ft).

NOTE.--No gage-height record Nov. 30 to Apr. 9.

08220000 RIO GRANDE NEAR DEL NORTE, COLO.

LOCATION.--Lat 37°41'22", long 106°27'38", in NW¼ sec.29, T.40 N., R.5 E., Rio Grande County, on right bank 20 ft (6 m) downstream from county highway bridge, 6.0 mi (9.7 km) west of Del Norte, and 6.8 mi (10.9 km) upstream from Pinos Creek.

DRAINAGE AREA.--1,320 mi^2 (3,419 km^2), approximately.

PERIOD OF RECORD.--June 1889 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 7,980.25 ft (2,432.380 m) above mean sea level. Prior to May 16, 1908, nonrecording gage at site 4 mi (6 km) downstream at different datum. May 16, 1908, to Nov. 8, 1910, nonrecording gages on bridge at present site and datum.

AVERAGE DISCHARGE.--86 years, 904 ft^3/s (25.60 m^3/s), 654,900 acre-ft/yr (807 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 6,350 ft^3/s (180 m^3/s) June 15 (gage height, 5.07 ft or 1.545 m); minimum daily, 100 ft^3/s (2.83 m^3/s) Nov. 30.
Period of record: Maximum discharge, 18,000 ft^3/s (510 m^3/s) Oct. 5, 1911 (gage height, 6.80 ft or 2.073 m), from rating curve extended above 12,900 ft^3/s (365 m^3/s); minimum daily, 69 ft^3/s (1.95 m^3/s) Aug. 21, 1902.
Maximum stage since at least 1873, that of Oct. 5, 1911, from information by local residents.

REMARKS.--Records good except those for winter period, which are fair. Small diversions above station for irrigation. Flow regulated by Beaver Creek Reservoir since 1910, Santa Maria Reservoir since 1912, Rio Grande Reservoir since 1913, and Continental Reservoir since 1925 (total capacity, 126,100 acre-ft or 155 hm^3), and by several smaller reservoirs. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report).

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

REVISIONS (WATER YEARS).--WSP 763: Drainage area. WSP 1312: 1889, 1901, 1913-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203	198	120	115	125	150	177	704	3400	4160	1950	514
2	203	194	145	125	120	155	171	770	3900	4300	1860	488
3	162	189	165	120	120	160	165	754	4690	4280	1760	494
4	165	168	170	120	125	160	177	1100	5530	4280	1700	527
5	180	203	175	125	125	170	226	1330	5880	4390	1650	520
6	174	212	165	120	120	175	296	1030	5630	4200	1510	488
7	171	194	140	125	120	170	341	901	4740	3820	1510	468
8	174	162	145	125	130	180	258	804	4780	3720	1490	468
9	174	189	130	130	140	180	237	822	5170	3600	1430	443
10	171	212	124	120	150	170	248	1070	5240	3400	1330	407
11	180	171	132	115	145	170	237	1550	4520	3580	1310	401
12	203	165	129	115	145	160	221	1990	4220	3230	1220	474
13	231	180	129	120	145	160	226	2220	4490	3250	1290	474
14	226	177	116	125	150	165	221	2520	5350	2860	1260	462
15	231	171	111	125	145	170	242	3320	5970	2570	1180	488
16	226	168	119	125	145	170	313	3880	5650	2520	1070	449
17	217	159	127	130	145	170	353	4090	5030	2680	992	419
18	203	162	124	130	135	170	318	3880	4450	2480	729	401
19	189	185	124	135	135	180	275	3990	4600	2240	641	377
20	185	145	121	125	135	190	335	4160	3680	2020	603	371
21	165	119	129	125	140	200	425	4070	3720	2360	641	359
22	180	140	137	120	135	200	568	4010	3680	2210	626	341
23	203	185	137	115	130	190	688	3480	3660	2100	611	330
24	203	145	120	120	135	177	737	2810	4030	2260	626	324
25	212	132	110	125	140	189	983	3060	4690	2270	618	318
26	212	134	110	130	145	212	1200	3520	4300	2210	574	318
27	212	119	110	135	145	177	1020	4030	4220	1980	547	324
28	226	111	105	135	150	162	830	4340	4240	1970	561	313
29	221	106	120	125	---	162	770	3970	4220	2020	561	308
30	221	100	120	125	---	159	649	3480	4070	2390	527	313
31	194	---	120	130	---	171	---	3420	---	2110	514	---
TOTAL	6117	4895	4029	3855	3820	5374	12907	81075	137750	91460	32891	12381
MEAN	197	163	130	124	136	173	430	2615	4592	2950	1061	413
MAX	231	212	175	135	150	212	1200	4340	5970	4390	1950	527
MIN	162	100	105	115	120	150	165	704	3400	1970	514	308
AC-FT	12130	9710	7990	7650	7580	10660	25600	160800	273200	181400	65240	24560

CAL YR 1974 TOTAL 170166 MEAN 466 MAX 2810 MIN 100 AC-FT 337500
WTR YR 1975 TOTAL 396554 MEAN 1086 MAX 5970 MIN 100 AC-FT 786600

08220500 PINOS CREEK NEAR DEL NORTE, COLO.

LOCATION.--Lat 37°35'30", long 106°26'58", in SW¼SE¼ sec.29, T.39 N., R.5 E., Rio Grande County, on left bank 90 ft (27 m) downstream from Bennett Creek and 8.0 mi (12.9 km) southwest of Del Norte.

DRAINAGE AREA.--53 mi^2 (140 km^2), approximately.

PERIOD OF RECORD.--April 1919 to September 1924, May 1936 to current year. No winter records prior to 1950 except water years 1941, 1944-47. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder and rectangular box flume. Altitude of gage is 8,480 ft (2,585 m) from topographic map. May 1, 1919, to Sept. 30, 1924, nonrecording gages at sites about 1,000 ft (300 m) downstream at different datum.

AVERAGE DISCHARGE.--31 years (1940-41, 1943-47, 1949-75), 24.3 ft^3/s (0.688 m^3/s), 17,610 acre-ft/yr (21.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 210 ft^3/s (5.95 m^3/s) June 6 (gage height, 2.16 ft or 0.658 m); minimum daily, 4.4 ft^3/s (0.12 m^3/s) Dec. 28.
Period of record: Maximum discharge not determined, occurred June 3, 1922, caused by failure of private fish-lake dam; maximum discharge determined, 720 ft^3/s (20.4 m^3/s) Aug. 3, 1936 (gage height, 4.19 ft or 1.277 m, by slope-area measurement of peak flow; minimum daily recorded, 1.8 ft^3/s (0.051 m^3/s) Sept. 26-28, 1951.
Flood of June 3, 1922, exceeded all other observed floods at this location since at least 1903, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. One small diversion above station.

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

REVISIONS (WATER YEARS).--WSP 1312: 1922(M), 1941(M). WSP 1923: 1960(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	7.5	5.0	4.5	5.6	6.4	7.4	28	114	83	29	8.3
2	5.6	7.5	5.6	4.6	5.4	6.4	6.6	28	124	80	26	8.3
3	5.6	7.5	5.8	4.5	5.4	6.6	6.6	29	147	77	24	8.7
4	9.1	8.3	6.0	4.5	5.6	6.0	7.0	41	164	74	23	9.6
5	7.5	8.3	6.0	4.7	5.6	6.4	8.0	45	175	74	23	10
6	7.1	8.3	5.8	5.0	5.4	6.8	9.6	35	188	75	22	8.3
7	6.7	8.3	5.4	5.0	5.4	6.6	11	29	185	69	21	7.9
8	6.7	7.9	5.4	5.1	5.6	6.6	9.0	27	179	71	21	10
9	6.7	7.5	5.2	5.2	5.8	6.8	8.3	34	172	72	21	12
10	6.4	7.5	5.0	5.0	6.4	6.6	7.9	54	165	74	23	10
11	6.7	7.0	5.2	4.8	6.2	6.6	7.5	83	139	74	21	14
12	7.1	7.0	5.2	4.8	5.8	6.0	7.1	103	130	68	21	24
13	7.9	7.5	5.0	5.0	5.8	6.1	7.1	110	130	69	23	18
14	7.9	7.1	5.0	5.0	6.2	6.4	7.1	118	143	62	20	18
15	6.7	6.7	4.8	5.0	6.0	6.6	8.7	131	147	56	18	15
16	6.7	6.7	5.0	5.0	6.0	6.4	12	149	151	59	17	13
17	6.7	6.7	5.2	5.2	5.6	6.4	14	143	146	58	16	12
18	6.7	6.7	5.2	5.4	5.2	6.4	11	138	147	49	16	10
19	6.4	6.0	5.2	5.4	5.4	6.6	11	153	151	45	14	10
20	6.4	6.7	5.2	5.2	5.6	6.8	14	153	126	46	15	10
21	6.4	7.5	5.4	5.2	5.8	7.2	21	151	110	50	15	10
22	7.1	7.5	5.6	4.8	5.6	7.2	28	146	100	45	13	9.6
23	7.1	6.4	5.6	5.0	5.0	6.8	31	118	99	42	12	9.6
24	6.7	6.0	5.4	5.2	5.2	6.6	35	118	99	41	11	9.6
25	6.7	5.6	5.0	5.4	5.4	7.0	45	131	95	39	10	9.1
26	6.7	5.0	4.6	5.4	5.6	8.0	53	147	90	36	10	9.1
27	7.1	5.2	4.6	5.6	5.8	7.0	44	158	86	28	10	9.1
28	7.1	5.0	4.4	5.6	6.2	6.2	35	147	85	29	12	8.3
29	7.5	4.8	4.8	5.2	---	6.2	29	127	86	31	10	8.3
30	6.7	4.5	4.5	5.4	---	6.4	28	114	87	34	9.1	8.3
31	6.0	---	4.5	5.6	---	7.0	---	113	---	30	8.7	---
TOTAL	211.3	204.2	160.6	157.3	158.6	205.1	529.9	3101	3960	1740	534.8	328.1
MEAN	6.82	6.81	5.18	5.07	5.66	6.62	17.7	100	132	56.1	17.3	10.9
MAX	9.1	8.3	6.0	5.6	6.4	8.0	53	158	188	83	29	24
MIN	5.6	4.5	4.4	4.5	5.0	6.0	6.6	27	85	28	8.7	7.9
AC-FT	419	405	319	312	315	407	1050	6150	7850	3450	1060	651

CAL YR 1974 TOTAL 5293.8 MEAN 14.5 MAX 84 MIN 4.0 AC-FT 10500
WTR YR 1975 TOTAL 11290.9 MEAN 30.9 MAX 188 MIN 4.4 AC-FT 22400

PEAK DISCHARGE (BASE, 120 FT^3/S).--June 6 (0030) 210 ft^3/s (2.16 ft).

NOTE.--No gage-height record Nov. 27 to Apr. 9.

08221500 RIO GRANDE NEAR MONTE VISTA, COLO.

LOCATION.--Lat 37°36'34", long 106°08'54", in NW¼SW¼ sec.19, T.39 N., R.8 E., Rio Grande County, on left bank 50 ft (15 m) downstream from bridge on U.S. Highway 285, 2.0 mi (3.2 km) north of Monte Vista, and 12 mi (19 km) downstream from San Francisco Creek.

DRAINAGE AREA.--1,590 mi^2 (4,120 km^2), approximately.

PERIOD OF RECORD.--May 1926 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 7,654.16 ft (2,332.988 m) above mean sea level (State Highway Department bench mark). See WSP 1712 or 1732 for history of changes prior to June 15, 1938. June 16, 1938, to Feb. 28, 1971, at site 50 ft (15 m) upstream at present datum.

AVERAGE DISCHARGE.--49 years, 327 ft^3/s (9.261 m^3/s), 236,900 acre-ft/yr (292 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,800 ft^3/s (79.3 m^3/s) June 15 (gage height, 6.43 ft or 1.960 m); minimum daily, 13 ft^3/s (0.37 m^3/s) Nov. 12.
Period of record: Maximum discharge, 18,500 ft^3/s (524 m^3/s) June 30, 1927 (gage height, 7.35 ft or 2.240 m, present datum, from floodmarks); maximum gage height, 8.00 ft (2.438 m) June 19, 1949; minimum daily discharge, 1.5 ft^3/s (0.042 m^3/s) Apr. 14, 1959.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 90,000 acres (364 km^2). Flow regulated by Beaver Creek, Santa Maria, Rio Grande, and Continental Reservoirs (total capacity, 126,100 acre-ft or 155 hm^3), and by several smaller reservoirs. Transmountain diversions to drainage area above station from Colorado River basin (see elsewhere in this report).

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

REVISIONS (WATER YEARS).--WSP 928: Drainage area. WSP 1712: 1959.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	36	125	115	130	170	204	245	1390	1500	466	371
2	49	49	145	120	130	170	185	266	1560	1470	466	363
3	65	53	155	120	130	175	185	245	1910	1340	466	351
4	70	45	165	120	130	180	198	383	2360	1220	440	383
5	76	35	170	125	135	185	226	600	2470	1290	419	399
6	70	49	170	125	130	200	266	458	2160	1150	403	371
7	68	67	150	125	125	200	319	280	1440	1010	431	359
8	68	42	135	125	130	200	270	235	1120	1020	453	347
9	70	36	130	130	145	205	259	245	1800	1230	435	355
10	78	33	125	120	150	200	252	331	2370	1140	399	331
11	80	30	135	120	150	210	259	620	2000	1360	423	319
12	91	13	130	115	150	205	259	1030	1700	1160	407	363
13	89	16	130	115	150	205	256	1200	1900	1200	471	419
14	70	28	125	120	155	210	252	1240	2350	1020	431	391
15	57	34	115	125	155	215	266	1500	2650	926	395	415
16	51	27	115	125	150	220	315	1730	2530	950	375	387
17	54	24	125	125	150	220	371	1720	2040	1060	387	335
18	51	20	130	130	140	230	351	1460	1320	884	395	323
19	45	21	130	130	140	266	308	1550	1440	780	355	301
20	48	29	125	130	145	256	335	1670	1070	731	351	301
21	53	39	125	125	150	284	294	1600	1500	890	383	298
22	53	105	130	125	140	284	149	1690	1940	736	379	270
23	57	149	140	120	135	248	192	1460	1900	630	403	256
24	53	170	125	120	145	226	167	1150	2070	680	458	248
25	53	155	115	125	150	239	280	1360	2220	700	480	242
26	53	149	110	130	150	235	566	1640	1660	650	458	232
27	46	140	110	130	150	207	520	1810	1290	494	399	232
28	42	138	110	130	160	191	304	1860	1420	423	411	226
29	35	120	115	125	---	185	248	1560	1420	419	427	216
30	38	115	115	130	---	173	207	1290	1380	675	395	213
31	34	---	115	135	---	185	---	1410	---	590	375	---
TOTAL	1807	1967	4040	3855	4000	6579	8263	33838	54380	29328	12936	9617
MEAN	58.3	65.6	130	124	143	212	275	1092	1813	946	417	321
MAX	91	170	170	135	160	284	566	1860	2650	1500	480	419
MIN	34	13	110	115	125	170	149	235	1070	419	351	213
AC-FT	3580	3900	8010	7650	7930	13050	16390	67120	107900	58170	25660	19080

CAL YR 1974 TOTAL 68068 MEAN 186 MAX 1060 MIN 13 AC-FT 135000
WTR YR 1975 TOTAL 170610 MEAN 467 MAX 2650 MIN 13 AC-FT 338400

08223000 RIO GRANDE AT ALAMOSA, COLO.

LOCATION.--Lat 37°28'53", long 105°52'46", in SE¼NE¼ sec.4, T.37 N., R.10 E., Alamosa County, on right bank 0.2 mi (0.3 km) northwest of city limits of Alamosa and 9 mi (14 km) upstream from Alamosa Creek.

DRAINAGE AREA.--1,710 mi^2 (4,430 km^2), approximately.

PERIOD OF RECORD.--May 1912 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Datum of gage is 7,532.66 ft (2,295.955 m) above mean sea level. Prior to Apr. 7, 1915, nonrecording gages and Apr. 7, 1915, to Nov. 5, 1935, water-stage recorder, at railroad and highway bridges in Alamosa 1.0 to 2.5 mi (1.6 to 4.0 km) downstream at different datums. Nov. 6, 1935, to June 30, 1942, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--63 years, 251 ft^3/s (7.108 m^3/s), 181,800 acre-ft/yr (224 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,220 ft^3/s (34.6 m^3/s) June 17 (gage height, 6.07 ft or 1.850 m); minimum daily, 20 ft^3/s (0.57 m^3/s) Oct. 4, 5.
Period of record: Maximum discharge, 14,000 ft^3/s (396 m^3/s) July 1, 1927 (gage height, 8.37 ft or 2.551 m, site and datum then in use); maximum gage height, 10.62 ft (3.237 m) June 20, 1949; minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) May 19, 1950.
Flood in October 1911 (stage, 0.2 ft or 0.061 m lower than that of July 1, 1927, from floodmarks), probably exceeded that of July 1, 1927, and is probably the greatest since at least 1884, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, groundwater withdrawals and diversions for irrigation, and return flow form irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 928: Drainage area. WSP 1312: 1936(M). WSP 1732: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	43	135	115	135	185	209	176	412	508	282	336
2	22	43	145	120	135	190	224	169	378	559	308	328
3	21	38	155	120	140	190	206	184	517	601	368	322
4	20	36	165	120	140	195	202	182	760	571	382	314
5	20	35	165	120	140	200	213	149	970	511	368	345
6	22	35	175	125	145	205	237	192	1090	541	340	348
7	24	46	165	125	135	220	272	262	934	508	336	350
8	50	62	145	125	135	220	302	217	468	455	355	328
9	43	58	130	130	150	220	270	199	298	526	370	322
10	43	52	130	125	155	225	262	194	694	637	360	320
11	35	51	130	125	155	220	258	256	959	577	348	320
12	32	51	130	120	155	230	266	256	956	667	360	326
13	32	45	130	120	155	230	268	430	808	616	365	352
14	32	40	130	120	160	218	270	547	892	646	402	388
15	31	39	120	125	160	224	260	556	1030	493	385	375
16	30	42	115	125	160	217	274	628	1170	418	352	382
17	28	42	120	125	155	224	314	700	1200	458	340	350
18	27	40	130	130	155	218	352	679	962	485	345	320
19	26	38	130	130	150	226	340	520	589	345	334	302
20	24	35	130	130	150	243	318	592	523	338	310	278
21	24	36	125	125	160	266	336	619	294	350	308	266
22	24	52	130	125	145	288	262	565	604	442	336	258
23	24	108	130	125	140	280	171	598	844	322	336	252
24	23	149	130	120	150	245	171	418	875	256	370	250
25	23	160	120	120	160	233	173	280	934	375	418	245
26	23	166	115	125	155	249	226	410	996	378	428	239
27	23	165	110	125	160	256	342	580	710	260	408	239
28	22	155	110	125	165	233	318	676	502	296	388	241
29	22	150	110	120	---	217	245	710	517	340	390	235
30	25	135	110	135	---	211	213	517	514	352	382	220
31	27	---	110	135	---	208	---	328	---	358	352	---
TOTAL	846	2155	4075	3855	4200	6986	7774	12789	22400	14169	11126	9151
MEAN	27.3	71.8	131	124	150	225	259	413	747	457	359	305
MAX	50	168	175	135	165	288	352	710	1200	667	428	388
MIN	20	35	110	115	135	185	171	149	294	256	282	220
AC-FT	1680	4270	8080	7650	8330	13860	15420	25370	44430	28100	22070	18150

CAL YR 1974 TOTAL 39105 MEAN 107 MAX 462 MIN 16 AC-FT 77560
WTR YR 1975 TOTAL 99526 MEAN 273 MAX 1200 MIN 20 AC-FT 197400

08224500 KERBER CREEK AT ASHLEY RANCH, NEAR VILLA GROVE, COLO.

LOCATION.--Lat 38°14'28", long 106°06'57", in SW¼NW¼ sec.17, T.46 N., R.8 E., Saguache County, on left bank at Ashley Ranch, 4.5 mi (7.2 km) upstream from Little Kerber Creek and 9 mi (14 km) west of Villa Grove.

DRAINAGE AREA.--38 mi^2 (98 km^2), approximately.

PERIOD OF RECORD.--June 1923 to September 1926 (published as Kerber Creek near Villa Grove), May 1936 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,830 ft (2,691 m) from topographic map. Prior to Dec. 10, 1963, at site 150 ft (46 m) upstream at datum 1.50 ft (0.457 m) higher.

AVERAGE DISCHARGE.--42 years, 12.7 ft^3/s (0.360 m^3/s), 9,200 acre-ft/yr (11.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 231 ft^3/s (6.54 m^3/s) May 18 (gage height, 1.40 ft or 0.427 m); maximum gage height, 1.73 ft or 0.527 m, Apr. 24 (backwater from ice); minimum daily discharge, 1.9 ft^3/s (0.054 m^3/s) Sept. 1.
Period of record: Maximum discharge, 407 ft^3/s (11.5 m^3/s) May 14, 1941 (gage height, 3.88 ft or 1.183 m, site and datum then in use), from rating curve extended above 140 ft^3/s (4.0 m^3/s); maximum gage height, 5.04 ft or 1.536 m (site and datum then in use) May 11, 1947 (backwater from beaver dam); minimum daily discharge, 0.20 ft^3/s (0.006 m^3/s) Sept. 3, 1950, July 30 to Aug. 2, 1963, but may have been less during periods of no gage-height record.
Maximum stage since at least 1872, that of May 14, 1941, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

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

REVISIONS (WATER YEARS).--WSP 1312: 1937-38. WSP 1512: 1943.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	3.8	2.4	2.1	2.4	2.7	3.5	10	97	49	12	1.9
2	2.2	3.8	2.6	2.2	2.4	2.7	3.5	9.5	129	52	10	2.4
3	2.2	3.5	2.8	2.1	2.4	2.8	3.5	9.5	92	52	9.6	3.5
4	2.9	3.0	2.9	2.1	2.4	2.9	4.0	20	132	47	8.9	11
5	2.6	2.6	3.0	2.2	2.4	3.0	4.5	27	126	45	8.9	6.0
6	2.6	2.6	2.9	2.2	2.4	3.1	6.0	23	109	42	8.2	3.2
7	2.6	2.6	2.7	2.2	2.4	3.2	6.5	19	146	40	7.6	3.2
8	2.4	2.6	2.7	2.3	2.5	3.4	5.0	15	139	40	8.2	4.4
9	2.4	2.7	2.6	2.4	2.6	3.5	3.5	20	129	40	8.9	7.6
10	2.6	2.8	2.5	2.3	2.7	3.6	4.0	30	109	38	9.6	8.2
11	2.6	2.8	2.4	2.2	2.6	3.5	4.5	45	89	40	9.6	8.9
12	4.4	2.8	2.4	2.2	2.6	3.5	5.5	60	89	40	16	10
13	4.1	3.0	2.4	2.3	2.6	3.4	6.0	57	89	40	26	6.0
14	4.1	3.1	2.3	2.4	2.7	3.2	6.5	67	92	33	12	4.4
15	2.9	3.1	2.2	2.4	2.6	3.3	6.5	94	89	29	9.6	4.1
16	2.9	3.1	2.2	2.4	2.6	3.3	8.0	100	92	28	9.6	3.8
17	3.2	3.1	2.3	2.5	2.6	3.4	8.5	132	94	26	8.9	2.9
18	3.2	2.9	2.4	2.5	2.6	3.3	8.0	160	86	24	7.6	3.2
19	2.9	2.9	2.4	2.5	2.5	3.6	8.0	112	75	22	6.5	4.1
20	2.9	2.8	2.4	2.5	2.5	4.1	10	109	75	21	8.2	3.8
21	2.9	2.9	2.5	2.4	2.5	4.4	15	112	75	19	16	4.4
22	4.1	2.9	2.6	2.4	2.5	4.3	20	116	62	17	12	4.8
23	4.1	2.9	2.6	2.3	2.4	3.8	25	142	57	16	11	4.8
24	3.8	2.9	2.4	2.4	2.5	3.8	27	146	57	16	9.6	4.4
25	3.5	2.9	2.1	2.5	2.5	3.8	59	89	57	16	7.0	3.8
26	3.5	3.0	2.2	2.6	2.6	4.0	72	94	59	14	5.6	3.5
27	3.5	2.8	2.2	2.6	2.6	3.8	40	80	57	13	5.6	3.5
28	3.8	2.6	2.2	2.6	2.6	3.4	22	92	57	14	6.5	3.2
29	4.4	2.3	2.2	2.5	---	3.0	13	86	57	13	4.8	3.2
30	3.5	2.1	2.2	2.5	---	3.0	11	106	54	13	3.2	3.2
31	2.4	---	2.2	2.5	---	3.5	---	103	---	11	2.4	---
TOTAL	97.4	86.9	75.9	73.3	70.7	106.3	419.5	2285.0	2670	910	289.6	141.4
MEAN	3.14	2.90	2.45	2.36	2.53	3.43	14.0	73.7	89.0	29.4	9.34	4.71
MAX	4.4	3.8	3.0	2.6	2.7	4.4	72	160	146	52	26	11
MIN	2.2	2.1	2.1	2.1	2.4	2.7	3.5	9.5	54	11	2.4	1.9
AC-FT	193	172	151	145	140	211	832	4530	5300	1800	574	280

CAL YR 1974 TOTAL 3441.5 MEAN 9.43 MAX 75 MIN 1.7 AC-FT 6830
WTR YR 1975 TOTAL 7226.0 MEAN 19.8 MAX 160 MIN 1.9 AC-FT 14330

PEAK DISCHARGE (BASE, 70 FT^3/S).--Apr. 26 (1000) 112 ft^3/s (0.99 ft); May 18 (1630) 231 ft^3/s (1.40 ft).

NOTE.--No gage-height record Dec. 27 to Apr. 24.

CLOSED BASIN IN SAN LUIS VALLEY, COLO.

08227000 SAGUACHE CREEK NEAR SAGUACHE, COLO.

LOCATION.--Lat 38°09'48", long 106°17'24", in SE¼SE¼ sec.10, T.45 N., R.6 E., Saguache County, on left bank 0.2 mi (0.3 km) downstream from Middle Creek, and 10 mi (16 km) northwest of Saguache.

DRAINAGE AREA.--595 mi^2 (1,541 km^2).

PERIOD OF RECORD.--August 1910 to September 1912, June 1914 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is about 8,030 ft (2,448 m) from topographic map. Prior to Apr. 9, 1934, at sites 0.8 mi (1.3 km) downstream at different datums. Apr. 10, 1934, to Nov. 20, 1966, at present site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--63 years, 69.3 ft^3/s (1.963 m^3/s), 50,210 acre-ft/yr (61.9 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 321 ft^3/s (9.09 m^3/s) June 11 (gage height, 3.30 ft or 1.006 m); minimum daily, 17 ft^3/s (0.48 m^3/s) Nov. 30.
Period of record: Maximum discharge, 790 ft^3/s (22.4 m^3/s) Aug. 3, 1964 (gage height, 3.85 ft or 1.173 m, present datum), from rating curve extended above 83 ft^3/s (2.4 m^3/s); maximum gage height, 3.94 ft (1.201 m) May 20, 1970; minimum daily discharge recorded, 8.2 ft^3/s (0.23 m^3/s) Dec. 22, 1950, Aug. 17, 1951.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions from Colorado River basin to drainage area above station through Tarbell ditch (see elsewhere in this report), and diversions above station for irrigation.

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

REVISIONS (WATER YEARS).--WSP 1242: 1948-49. WSP 1312: 1912, 1934(M), 1942(M). WSP 1923: 1951.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	24	20	18	22	28	31	63	170	130	107	42
2	20	28	22	19	22	29	33	62	174	130	90	42
3	20	31	23	18	22	30	31	61	195	134	78	45
4	22	27	24	18	22	30	34	77	213	137	71	52
5	26	24	25	19	22	30	41	91	232	140	68	50
6	25	22	24	20	22	32	48	78	251	140	67	44
7	25	23	23	20	22	33	52	63	294	141	66	42
8	24	28	23	20	23	34	40	65	289	140	72	41
9	23	28	22	20	24	35	33	66	283	160	72	49
10	22	27	21	20	25	36	38	75	298	162	68	57
11	24	23	21	19	26	35	44	98	298	187	67	51
12	28	26	22	19	24	35	41	126	238	158	73	50
13	33	33	21	19	24	33	44	130	203	141	119	60
14	29	33	21	19	26	28	41	130	205	147	109	60
15	25	28	20	19	26	30	47	150	220	144	89	54
16	23	28	19	19	26	32	61	172	232	143	86	48
17	23	28	20	21	25	33	62	184	238	151	83	45
18	24	27	20	21	24	32	54	192	220	136	73	45
19	26	34	21	23	24	35	39	197	213	115	65	42
20	25	24	21	22	24	40	49	202	194	109	66	41
21	26	23	22	22	24	43	57	205	180	113	77	43
22	29	24	22	21	23	42	66	197	166	104	71	45
23	29	32	21	20	23	36	79	192	156	92	68	44
24	29	25	19	21	24	36	80	186	154	86	63	43
25	26	23	18	23	24	36	87	176	154	89	57	42
26	26	23	18	23	26	33	115	181	152	89	53	39
27	26	21	19	23	26	34	124	197	145	80	52	37
28	31	19	18	24	26	33	85	211	143	78	54	36
29	31	18	18	22	---	27	77	216	140	78	51	36
30	31	17	18	22	---	29	61	197	134	105	47	36
31	23	---	18	22	---	33	---	176	---	119	44	---
TOTAL	794	771	644	636	671	1032	1694	4416	6184	3878	2226	1361
MEAN	25.6	25.7	20.8	20.5	24.0	33.3	56.5	142	206	125	71.8	45.4
MAX	33	34	25	24	26	43	124	216	298	187	119	60
MIN	20	17	18	18	22	27	31	61	134	78	44	36
AC-FT	1570	1530	1280	1260	1330	2050	3360	8760	12270	7690	4420	2700

CAL YR 1974 TOTAL 13342 MEAN 36.6 MAX 114 MIN 13 AC-FT 26460
WTR YR 1975 TOTAL 24307 MEAN 66.6 MAX 298 MIN 17 AC-FT 48210

PEAK DISCHARGE (BASE, 210 FT^3/S).--June 11 (0100) 321 ft^3/s (3.30 ft).

CLOSED BASIN IN SAN LUIS VALLEY, COLO.

08227500 NORTH CRESTONE CREEK NEAR CRESTONE, COLO.

LOCATION.--Lat 38°00'49", long 105°41'32", Saguache County, on right bank in canyon, 1.5 mi (2.4 km) northeast of Crestone and 3.2 mi (5.1 km) upstream from South Crestone Creek.

DRAINAGE AREA.--10.7 mi^2 (27.7 km^2).

PERIOD OF RECORD.--May 1936 to current year (no winter records prior to 1948).

GAGE.--Water-stage recorder. Altitude of gage is 8,360 ft (2,548 m) from topographic map.

AVERAGE DISCHARGE.--28 years (1947-75), 11.1 ft^3/s (0.314 m^3/s), 8,040 acre-ft/yr (9.91 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 88 ft^3/s (2.49 m^3/s) June 7 (gage height, 2.02 ft or 0.616 m); maximum gage height, 2.06 ft (0.628 m) June 3; minimum daily discharge, 1.5 ft^3/s (0.042 m^3/s) Dec. 31.
Period of record: Maximum discharge, 735 ft^3/s (20.8 m^3/s) Aug. 6, 1936 (gage height, 4.33 ft or 1.320 m), from rating curve extended above 160 ft^3/s (4.5 m^3/s) on basis of slope-area measurement of peak flow; minimum daily recorded, 0.4 ft^3/s (0.011 m^3/s) Apr. 3, 1945.
Flood of October 1911 is the greatest probably since at least 1884. Stage and discharge of the flood of Aug. 6, 1936, are the greatest since October 1911, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	5.1	3.0	2.0	2.5	2.2	2.4	5.1	34	60	15	5.4
2	5.1	4.8	3.0	2.0	2.5	2.2	2.4	4.8	46	59	14	5.1
3	5.4	4.8	3.5	2.0	2.5	2.2	2.4	4.8	63	58	13	5.4
4	6.0	4.5	3.5	2.0	2.5	2.2	2.6	8.0	74	56	12	6.4
5	5.7	4.5	4.0	2.0	2.5	2.2	2.8	11	78	55	12	7.2
6	5.4	4.8	4.0	2.0	2.0	2.2	3.0	8.8	82	54	11	6.0
7	4.8	4.8	3.5	2.0	2.0	2.2	3.0	7.6	84	52	11	5.7
8	4.8	4.8	3.0	2.5	2.0	2.4	2.6	6.4	80	55	11	5.4
9	4.8	4.2	2.5	2.5	2.0	2.4	2.0	8.0	78	55	11	5.4
10	4.5	4.2	3.0	2.0	2.0	2.4	2.0	14	76	56	11	5.1
11	4.5	4.2	3.0	2.0	2.5	2.4	2.2	22	70	56	10	6.0
12	4.5	4.5	3.0	2.0	2.5	2.4	2.6	28	65	52	12	7.6
13	4.8	4.2	3.0	2.0	2.5	2.4	2.8	27	60	54	15	8.8
14	4.8	4.2	3.0	2.0	2.5	2.4	3.0	31	62	55	14	8.8
15	4.5	4.2	3.0	2.0	2.5	2.4	3.0	45	63	50	12	8.4
16	4.5	4.2	3.0	2.0	2.5	2.4	3.6	54	65	49	11	8.0
17	4.2	4.2	3.0	2.5	2.0	2.4	3.9	62	67	49	10	7.2
18	4.2	4.2	3.0	2.5	2.0	2.4	3.6	62	65	44	9.2	6.8
19	4.2	3.9	3.0	2.5	2.0	2.4	3.6	56	63	36	8.4	6.4
20	4.2	3.5	3.0	2.0	2.0	2.4	3.9	51	59	34	8.4	6.0
21	4.2	3.0	3.5	2.0	2.0	2.4	4.2	52	56	32	11	6.0
22	4.5	3.0	3.5	2.0	2.0	2.4	5.4	44	52	31	10	5.7
23	4.8	3.3	3.5	2.0	2.0	2.2	6.4	34	59	28	9.6	5.1
24	4.5	3.0	3.0	2.0	2.0	2.2	6.8	29	66	26	8.8	5.1
25	4.5	3.0	2.5	2.5	2.0	2.2	11	38	67	25	8.0	4.8
26	4.2	3.0	2.5	2.5	2.0	2.2	13	45	65	22	7.6	4.8
27	4.2	3.0	2.5	2.5	2.0	2.4	9.6	49	65	22	7.2	4.5
28	4.8	3.0	2.5	2.5	2.0	2.4	7.6	51	63	21	6.8	4.2
29	4.8	3.0	2.0	2.5	---	2.4	6.4	45	63	20	6.4	4.2
30	5.1	3.0	2.0	2.5	---	2.4	5.4	38	62	19	6.0	3.9
31	5.4	---	1.5	2.5	---	2.4	---	35	---	18	5.7	---
TOTAL	147.3	118.1	92.0	68.0	61.5	72.2	133.2	976.5	1952	1303	318.1	179.4
MEAN	4.75	3.94	2.97	2.19	2.20	2.33	4.44	31.5	65.1	42.0	10.3	5.98
MAX	6.0	5.1	4.0	2.5	2.5	2.4	13	62	84	60	15	8.8
MIN	4.2	3.0	1.5	2.0	2.0	2.2	2.0	4.8	34	18	5.7	3.9
AC-FT	292	234	182	135	122	143	264	1940	3870	2580	631	356

CAL YR 1974 TOTAL 2480.4 MEAN 6.80 MAX 36 MIN 1.5 AC-FT 4920
WTR YR 1975 TOTAL 5421.3 MEAN 14.9 MAX 84 MIN 1.5 AC-FT 10750

PEAK DISCHARGE (BASE, 60 FT^3/S).--May 17 (2300) 69 ft^3/s (2.00 ft); June 7 (1700) 88 ft^3/s (2.02 ft).

NOTE.--No gage-height record Dec. 6 to Mar. 10.

CLOSED BASIN IN SAN LUIS VALLEY, COLO.

08230500 CARNERO CREEK NEAR LA GARITA, COLO.

LOCATION.--Lat 37°51'35", long 106°19'08", in SW¼NE¼ sec.28, T.42 N., R.6 E., (projected), Saguache County, on left bank 4.5 mi (7.2 km) northwest of La Garita and 6.6 mi (10.6 km) downstream from North Fork.

DRAINAGE AREA.--117 mi^2 (303 km^2).

PERIOD OF RECORD.--April 1919 to current year. No winter records prior to water year 1945 except water years 1926, 1941. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,150 ft (2,484 m) from topographic map. Prior to Aug. 6, 1925, nonrecording gage or water-stage recorder at site 300 ft (91 m) downstream at different datum. Aug. 6, 1925, to Apr. 20, 1929, nonrecording gage or water-stage recorder at present site at datum 1.00 ft (0.305 m) higher. Apr. 21, 1929, to Nov. 20, 1966, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--33 years (1925-26, 1940-41, 1944-75), 11.2 ft^3/s (0.317 m^3/s), 8,110 acre-ft/yr (10.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 161 ft^3/s (4.56 m^3/s) Apr. 26 (gage height, 2.63 ft or 0.802 m); maximum gage height, 3.68 ft (1.122 m) Apr. 6 (backwater from ice); minimum daily discharge, 0.80 ft^3/s (0.023 m^3/s) Dec. 28.
Period of record: Maximum discharge, 1,600 ft^3/s (45.3 m^3/s) July 21, 1945 (gage height, 6.75 ft or 2.057 m, present datum), from rating curve extended above 160 ft^3/s (4.5 m^3/s); no flow for several days during summer months in 1951, 1955-56, 1963.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation.

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

REVISIONS (WATER YEARS).--WSP 1312: 1935(monthly figures only).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	3.0	1.4	1.0	1.5	2.6	4.1	26	47	18	14	4.2
2	1.4	3.4	1.8	1.0	1.5	2.7	4.1	25	45	17	13	4.5
3	1.6	3.6	2.0	1.0	1.5	2.7	4.1	29	43	16	11	5.8
4	2.0	3.0	2.0	1.0	1.5	2.7	4.5	38	43	17	10	7.6
5	2.5	3.0	2.0	1.2	1.5	2.7	5.2	41	43	16	9.4	7.0
6	2.5	3.2	2.0	1.2	1.5	3.0	6.0	30	43	16	9.7	5.8
7	2.0	3.6	1.6	1.2	1.5	3.0	6.4	25	43	16	10	5.0
8	2.2	3.6	1.4	1.2	1.8	3.0	5.2	26	47	19	11	5.8
9	2.2	3.8	1.2	1.2	1.8	3.0	4.2	34	43	28	12	7.6
10	2.2	2.8	1.2	1.2	2.0	3.0	4.2	39	45	28	14	7.6
11	2.2	3.4	1.2	1.0	2.0	2.8	4.5	54	47	25	11	8.8
12	3.4	3.0	1.4	1.0	2.0	2.8	4.0	69	45	19	13	7.9
13	4.8	3.2	1.4	1.0	2.0	2.8	4.0	58	40	19	23	13
14	3.4	2.0	1.4	1.0	2.1	3.0	4.8	67	38	18	16	14
15	3.2	2.0	1.4	1.0	2.2	3.1	7.0	76	36	21	13	8.8
16	2.6	2.5	1.4	1.2	2.2	3.2	14	78	35	25	12	7.0
17	2.6	2.5	1.4	1.5	2.2	3.5	16	85	36	38	13	6.2
18	2.5	2.8	1.4	1.5	2.0	3.8	10	88	38	25	11	6.0
19	2.5	2.2	1.4	1.5	2.0	4.1	10	91	40	19	9.1	5.2
20	2.5	2.0	1.4	1.5	2.0	4.4	14	92	35	22	8.5	5.0
21	2.6	2.0	1.4	1.5	2.0	4.6	21	86	31	21	10	6.0
22	3.0	2.0	1.4	1.5	2.0	4.5	28	80	30	19	10	6.2
23	3.4	2.0	1.2	1.5	2.0	4.3	32	75	26	16	8.8	6.0
24	3.6	1.9	1.0	1.5	2.2	4.1	51	69	26	14	7.6	5.2
25	3.2	1.8	1.0	1.8	2.2	4.1	71	66	25	17	6.8	5.0
26	3.0	1.4	1.0	1.8	2.2	4.4	84	64	23	18	6.2	4.8
27	3.0	1.3	.90	1.8	2.2	4.2	66	64	23	14	6.0	4.5
28	3.2	1.4	.80	1.8	2.4	4.0	43	65	20	13	6.8	4.5
29	3.8	1.4	1.0	1.5	---	3.9	33	64	19	14	5.8	4.0
30	4.2	1.2	1.0	1.5	---	4.0	28	58	18	18	5.2	4.0
31	3.2	---	1.0	1.5	---	4.2	---	53	---	17	4.8	---
TOTAL	85.8	75.0	42.10	41.1	54.0	108.2	593.3	1815	1073	603	321.7	193.0
MEAN	2.77	2.50	1.36	1.33	1.93	3.49	19.8	58.5	35.8	19.5	10.4	6.43
MAX	4.8	3.8	2.0	1.8	2.4	4.6	84	92	47	38	23	14
MIN	1.3	1.2	.80	1.0	1.5	2.6	4.0	25	18	13	4.8	4.0
AC-FT	170	149	84	82	107	215	1180	3600	2130	1200	638	383

CAL YR 1974 TOTAL 1369.15 MEAN 3.75 MAX 17 MIN .30 AC-FT 2720
WTR YR 1975 TOTAL 5005.20 MEAN 13.7 MAX 92 MIN .80 AC-FT 9930

PEAK DISCHARGE (BASE, 110 FT^3/S).--Apr. 26 (2100) 161 ft^3/s (2.63 ft).

NOTE.--No gage-height record Dec. 7 to Mar. 25.

CLOSED BASIN IN SAN LUIS VALLEY, COLO.

08231000 LA GARITA CREEK NEAR LA GARITA, COLO.

LOCATION.--Lat 37°48'48", long 106°19'04", in NW¼SE¼ sec.9, T.41 N., R.6 E., Saguache County, on right bank 4.5 mi (7.2 km) downstream from Little La Garita Creek and 4.5 mi (7.2 km) southwest of La Garita.

DRAINAGE AREA.--61 mi ^{2} (160 km^2), approximately.

PERIOD OF RECORD.--April 1919 to current year. No winter records prior to water year 1948 except water years 1926, 1941, 1945-46. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,030 ft (2,448 m) from topographic map. Apr. 1, 1919, to June 23, 1927, nonrecording gages and June 24, 1927, to Nov. 13, 1935, water-stage recorder, at sites within 0.2 mi (0.3 km) downstream at different datums. Nov. 14, 1935, to Nov. 16, 1966, water-stage recorder at present site at datum 1.00 ft (0.305 m) higher.

AVERAGE DISCHARGE.--32 years (1925-26, 1940-41, 1944-46, 1947-75), 13.0 ft^3/s (0.368 m^3/s), 9,420 acre-ft/yr (11.6 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 135 ft^3/s (3.82 m^3/s) May 14 (gage height, 2.47 ft or 0.753 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Nov. 20.
Period of record: Maximum discharge, 530 ft^3/s (15.0 m^3/s) July 9, 1957 (gage height, 4.00 ft or 1.219 m, present datum), from rating curve extended above 140 ft^3/s (4.0 m^3/s); minimum daily recorded, 0.2 ft^3/s (0.006 m^3/s) Sept. 28, 29, 1956.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation.

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

REVISIONS (WATER YEARS).--WSP 1312: 1946(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	3.8	2.3	2.3	2.7	3.5	4.8	13	49	22	19	6.5
2	3.0	4.2	2.5	2.3	2.7	3.5	4.8	12	52	22	17	6.5
3	2.9	4.2	2.7	2.3	2.7	3.5	4.8	17	63	21	15	6.8
4	3.3	3.5	2.9	2.3	2.7	3.5	5.2	26	73	22	13	9.4
5	3.5	3.2	3.0	2.4	2.7	3.6	6.0	28	73	21	12	8.0
6	3.2	3.2	3.0	2.4	2.7	3.7	7.0	18	78	21	12	7.2
7	3.2	3.2	3.0	2.4	2.7	3.7	7.6	15	71	20	13	6.8
8	3.2	3.0	3.0	2.4	2.8	3.7	6.0	13	69	23	12	6.8
9	3.2	3.8	2.9	2.4	2.8	3.7	5.2	21	67	35	13	8.4
10	3.2	3.2	2.7	2.4	2.9	3.7	5.2	25	69	34	14	7.6
11	3.5	2.9	2.7	2.4	2.9	3.8	5.4	39	69	36	13	7.2
12	4.6	3.0	2.7	2.4	2.8	3.7	5.1	49	62	23	13	8.0
13	4.6	3.0	2.7	2.4	2.8	3.5	4.8	44	46	36	37	12
14	4.4	3.3	2.7	2.4	3.0	3.6	4.8	51	49	24	22	11
15	3.9	3.0	2.6	2.4	3.0	3.7	6.2	73	48	27	16	8.4
16	3.8	2.9	2.6	2.5	3.0	3.8	9.4	69	51	29	14	7.6
17	3.8	2.6	2.6	2.6	3.0	4.0	10	76	49	40	16	6.8
18	3.8	2.8	2.6	2.7	3.0	4.3	7.2	69	44	26	13	6.8
19	3.8	2.5	2.6	2.7	3.0	4.6	7.2	78	48	22	11	6.2
20	3.8	2.0	2.6	2.7	3.0	4.9	9.8	89	41	27	11	6.2
21	3.8	2.4	2.6	2.7	3.0	5.2	14	76	35	26	15	6.8
22	4.2	2.8	2.6	2.7	3.0	5.0	17	62	32	24	13	6.5
23	4.6	2.9	2.5	2.6	3.0	4.8	17	58	30	19	10	6.2
24	4.4	2.3	2.4	2.5	3.0	4.6	21	51	28	17	9.8	5.9
25	4.2	2.5	2.3	2.5	3.0	4.6	35	71	29	19	8.8	5.6
26	4.0	2.4	2.3	2.7	3.2	5.0	52	76	27	21	8.4	5.6
27	4.0	2.2	2.3	2.7	3.5	5.0	40	78	26	13	8.0	5.6
28	4.4	2.4	2.3	2.7	3.5	4.8	26	87	26	16	8.4	5.1
29	4.6	2.4	2.3	2.7	---	4.6	17	73	24	15	8.0	5.1
30	4.0	2.2	2.3	2.7	---	4.7	14	62	23	22	7.2	5.1
31	2.9	---	2.3	2.7	---	4.9	---	56	---	21	6.8	---
TOTAL	116.8	87.8	80.6	78.0	82.1	129.2	379.5	1575	1451	744	409.4	211.7
MEAN	3.77	2.93	2.60	2.52	2.93	4.17	12.7	50.8	48.4	24.0	13.2	7.06
MAX	4.6	4.2	3.0	2.7	3.5	5.2	52	89	78	40	37	12
MIN	2.9	2.0	2.3	2.3	2.7	3.5	4.8	12	23	13	6.8	5.1
AC-FT	232	174	160	155	163	256	753	3120	2880	1480	812	420

CAL YR 1974 TOTAL 1808.8 MEAN 4.96 MAX 22 MIN 1.9 AC-FT 3590
WTR YR 1975 TOTAL 5345.1 MEAN 14.6 MAX 89 MIN 2.0 AC-FT 10600

PEAK DISCHARGE (BASE, 80 FT^3/S).--May 14 (2230) 135 ft^3/s (2.47 ft).

NOTE.--No gage-height record Dec. 9 to Mar. 25.

08236000 ALAMOSA CREEK ABOVE TERRACE RESERVOIR, COLO.

LOCATION.--Lat 37°22'29", long 106°20'03", in NW¼NE¼ sec.17, T.36 N., R.6 E., Conejos County, on left bank 0.8 mi (1.3 km) upstream from high-water line of Terrace Reservoir at elevation 8,568 ft (2,611.5 m), 3.0 mi (4.8 km) downstream from French Creek, and 15 mi (24 km) northwest of Capulin.

DRAINAGE AREA.--107 mi^2 (277 km^2).

PERIOD OF RECORD.--September 1911 to September 1912 (published as Rio Alamosa near Monte Vista), May to June 1914, April 1915 to September 1927, October 1934 to current year. No winter records water years 1919-23. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft (2,621 m) from topographic map. See WSP 1712 or 1732 for history of changes prior to Oct. 1, 1927.

AVERAGE DISCHARGE.--49 years (1911-12, 1915-18, 1923-27, 1934-75), 113 ft^3/s (3.200 m^3/s), 81,870 acre-ft/yr (100 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,330 ft^3/s (37.7 m^3/s) June 5 (gage height, 3.39 ft or 1.033 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Nov. 29, 30.
Period of record: Maximum discharge, 5,200 ft^3/s (147 m^3/s) Oct. 9, 1911 (gage height, 11.0 ft or 3.353 m, site and datum then in use, from floodmark), from rating curve extended above 1,000 ft^3/s (28 m^3/s) on basis of computation of peak flow over dam about 8 mi (13 km) upstream; minimum not determined.
Maximum stage since at least 1854, that of Oct. 5, 1911, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

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

REVISIONS (WATER YEARS).--WSP 898: 1911(M). WSP 1312: 1935(M), 1944(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	19	12	12	13	16	17	87	469	554	136	27
2	12	19	13	12	13	16	15	91	655	514	124	26
3	12	18	15	11	13	17	17	97	824	463	112	27
4	19	14	16	11	13	17	19	138	890	463	102	32
5	21	15	16	12	13	17	25	163	1010	494	93	32
6	19	19	16	12	12	18	31	124	1060	451	89	27
7	19	18	15	12	13	17	33	97	990	427	83	25
8	18	18	14	12	13	17	28	87	920	415	80	29
9	17	16	13	13	13	17	23	112	815	427	74	41
10	16	15	13	12	14	16	21	184	779	421	76	32
11	18	18	13	12	13	16	22	296	540	463	70	36
12	21	25	13	11	13	15	22	382	534	433	74	76
13	22	23	13	11	13	15	21	404	670	488	80	59
14	25	15	12	12	14	15	20	463	833	415	76	59
15	20	15	12	12	14	16	23	554	900	376	67	56
16	18	14	12	12	13	16	26	662	900	355	64	45
17	17	21	13	12	13	16	32	685	851	315	58	39
18	17	19	13	13	12	15	28	618	762	274	53	36
19	16	17	13	13	12	16	25	640	640	237	50	34
20	17	15	13	12	13	16	34	662	514	229	49	32
21	16	16	14	12	13	17	45	603	488	296	56	32
22	18	16	15	12	13	16	66	618	451	222	50	31
23	19	16	14	12	12	16	83	445	475	194	46	30
24	19	14	13	12	13	16	97	388	582	175	43	30
25	19	14	12	13	14	17	140	501	648	163	39	29
26	19	15	12	14	14	17	163	618	582	155	38	28
27	19	13	12	14	15	17	128	702	575	135	36	27
28	19	11	12	13	15	15	97	640	561	126	38	26
29	20	10	12	13	---	16	87	475	508	138	35	26
30	16	10	12	13	---	17	80	366	508	225	31	26
31	17	---	12	14	---	18	---	366	---	158	28	---
TOTAL	558	488	410	381	369	506	1468	12268	20934	10201	2052	1055
MEAN	18.0	16.3	13.2	12.3	13.2	16.3	48.9	396	698	329	66.2	35.2
MAX	25	25	16	14	15	18	163	702	1060	554	138	76
MIN	12	10	12	11	12	15	15	87	451	126	28	25
AC-FT	1110	968	813	756	732	1000	2910	24330	41520	20230	4070	2090

CAL YR 1974 TOTAL 22846 MEAN 62.6 MAX 526 MIN 10 AC-FT 45320
WTR YR 1975 TOTAL 50690 MEAN 139 MAX 1060 MIN 10 AC-FT 100500

PEAK DISCHARGE (BASE, 670 FT^3/S).--June 5 (2300) 1,330 ft^3/s (3.39 ft).

NOTE.--No gage-height record Dec. 11 to Mar. 17.

08238000 LA JARA CREEK AT GALLEGOS RANCH, NEAR CAPULIN, COLO.

LOCATION.--Lat 37°12'32", long 106°11'16", in NE¼ sec.10, T.34 N., R.7 E., Conejos County, on left bank 2.7 mi (4.3 km) downstream fron Canyon Del Rancho, 7 mi (11 km) southwest of Capulin, and 16.5 mi (26.5 km) downstream from La Jara Reservoir.

DRAINAGE AREA.--98 mi^2 (250 km^2), approximately.

PERIOD OF RECORD.--April 1916 to November 1917, April 1919 to November 1923, May 1936 to current year. No winter records prior to 1950 except water year 1944. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,130 ft (2,478 m) from topographic map. Apr. 1, 1916, to Nov. 30, 1917, and Apr. 1, 1919, to Nov. 30, 1923, near present site at different datum.

AVERAGE DISCHARGE.--27 years (1943-44, 1949-75), 15.7 ft^3/s (0.445 m^3/s), 11,370 acre-ft/yr (14.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 217 ft^3/s (6.15 m^3/s) May 11 (gage height, 3.97 ft or 1.210 m); maximum gage height, 3.97 ft (1.210 m) Apr. 25, May 11; minimum daily discharge, 4.5 ft^3/s (0.13 m^3/s) Dec. 31.
Period of record: Maximum discharge, 653 ft^3/s (18.5 m^3/s) Apr. 22, 1919 (gage height, 3.22 ft or 0.981 m, site and datum then in use), Apr. 15, 1937 (gage height, 5.94 ft or 1.811 m); maximum gage height, 6.12 ft or 1.865 m) Aug. 11, 1961; minimum daily discharge recorded, 2.2 ft^3/s (0.062 m^3/s) Nov. 6, 1951.

REMARKS.--Records good except those for winter period, which are poor. Small diversions above station for irrigation. Flow regulated by La Jara Reservoir (capacity, 14,040 acre-ft or 17.3 hm^3).

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

REVISIONS (WATER YEARS).--WSP 1242: Drainage area. WSP 1732: 1952.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	7.5	6.0	5.0	6.5	7.5	9.0	64	38	17	14	8.5
2	7.5	7.8	6.0	5.0	6.5	7.5	9.0	78	36	18	14	8.5
3	7.5	8.0	6.5	5.0	6.5	7.5	10	91	36	18	13	9.0
4	8.2	7.2	6.5	5.0	6.5	7.5	11	118	34	15	13	11
5	7.8	7.8	7.0	5.5	6.5	7.5	12	135	34	14	13	11
6	7.8	8.8	7.0	5.5	6.0	8.0	14	78	37	15	14	9.2
7	7.8	8.8	6.5	5.5	6.0	8.0	14	58	36	14	14	9.0
8	7.8	7.8	6.5	5.5	6.5	8.0	12	64	36	14	14	9.2
9	7.2	8.2	6.0	5.5	6.5	8.0	11	102	35	15	16	10
10	7.2	7.8	6.0	5.5	6.5	8.0	11	122	40	16	15	9.2
11	7.5	7.0	6.0	5.0	6.5	7.5	11	145	40	18	14	9.2
12	8.8	7.2	6.0	5.0	6.5	7.5	9.8	144	33	22	17	13
13	8.8	8.0	6.0	5.5	6.5	7.5	9.2	140	26	17	20	9.8
14	8.2	8.0	6.0	5.5	6.5	7.5	9.5	141	22	15	16	9.5
15	7.8	8.0	6.0	5.5	6.5	7.5	11	144	21	14	15	9.0
16	7.0	7.5	6.0	5.5	6.5	8.0	15	131	20	16	14	8.8
17	7.0	7.5	6.0	6.0	6.0	8.0	20	134	19	16	14	8.5
18	7.0	7.5	6.0	6.0	6.0	8.5	18	122	19	14	13	8.2
19	7.0	7.0	6.0	6.0	6.0	8.5	16	121	26	10	13	8.2
20	7.0	6.0	6.0	6.0	6.0	8.5	27	126	24	8.5	13	8.2
21	7.0	6.0	6.5	5.5	6.0	8.5	43	102	19	8.8	13	8.5
22	7.2	6.0	6.5	5.5	5.5	8.0	68	98	17	9.0	12	8.2
23	7.5	6.0	6.0	5.5	5.5	8.0	75	72	17	8.2	11	8.2
24	7.2	6.0	5.5	6.0	6.0	8.0	80	63	21	8.0	11	7.5
25	7.2	6.0	5.0	6.5	6.0	8.5	121	70	21	11	11	7.0
26	7.2	6.0	5.5	7.0	6.5	8.5	126	65	18	13	11	7.0
27	7.2	6.0	6.0	7.5	6.5	8.0	83	60	18	13	9.2	7.0
28	7.2	6.0	6.0	7.5	7.0	7.5	40	54	18	13	8.8	7.0
29	7.5	5.5	5.5	7.0	---	8.0	51	53	17	15	8.5	7.0
30	7.8	5.5	5.0	7.0	---	8.5	50	49	17	15	8.5	7.0
31	7.5	---	4.5	7.0	---	9.0	---	40	---	15	8.5	---
TOTAL	232.9	212.4	186.0	181.0	176.0	247.0	996.5	2984	795	435.5	401.5	261.4
MEAN	7.51	7.08	6.00	5.84	6.29	7.97	33.2	96.3	26.5	14.0	13.0	8.71
MAX	8.8	8.8	7.0	7.5	7.0	9.0	126	145	40	22	20	13
MIN	7.0	5.5	4.5	5.0	5.5	7.5	9.0	40	17	8.0	8.5	7.0
AC-FT	462	421	369	359	349	490	1980	5920	1580	864	796	518

CAL YR 1974 TOTAL 3597.1 MEAN 9.86 MAX 43 MIN 4.5 AC-FT 7130
WTR YR 1975 TOTAL 7109.2 MEAN 19.5 MAX 145 MIN 4.5 AC-FT 14100

NOTE.--No gage-height record Dec. 8 to Apr. 4.

08240000 RIO GRANDE ABOVE MOUTH OF TRINCHERA CREEK, NEAR LASAUSES, COLO.

LOCATION.--Lat 37°18'58", long 105°44'32", in sec.35, T.36 N., R.11 E., Conejos County, on right bank 0.2 mi (0.3 km) upstream from Trinchera Creek, 3.2 mi (5.1 km) north of Lasauses, and 13 mi (21 km) southeast of Alamosa.

DRAINAGE AREA.--5,740 mi^2 (14,900 km^2), approximately (includes 2,940 mi^2 or 7,610 km^2 in closed basin in northern part of San Luis Valley, Colo.).

PERIOD OF RECORD.--May 1936 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,500 ft (2,286 m) estimated from nearby level lines.

AVERAGE DISCHARGE.--39 years, 242 ft^3/s (6.853 m^3/s), 175,300 acre-ft/yr (216 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,470 ft^3/s (41.6 m^3/s) June 18 (gage height, 5.99 ft or 1.826 m); minimum daily, 14 ft^3/s (0.40 m^3/s) Oct. 1-4.
Period of record: Maximum discharge, 5,470 ft^3/s (155 m^3/s) June 21, 1949 (gage height, 9.50 ft or 2.896 m), from rating curve extended above 3,600 ft^3/s (100 m^3/s); minimum daily, 0.4 ft^3/s (0.011 m^3/s July 4, 1940.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, groundwater withdrawals and diversions for irrigation, and return flow from irrigated areas.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	50	130	110	150	205	263	218	420	674	370	358
2	14	56	130	115	150	220	256	197	495	682	325	348
3	14	60	145	115	155	230	258	197	465	734	355	345
4	14	57	155	115	160	215	248	203	600	770	395	350
5	21	55	160	115	160	230	246	207	852	718	398	360
6	23	56	165	120	160	280	253	179	1040	706	378	375
7	24	67	170	120	160	302	280	258	1160	744	360	370
8	26	71	140	125	160	312	320	280	960	702	358	370
9	44	68	135	120	160	355	338	239	537	666	375	362
10	52	68	130	125	160	362	318	216	507	802	388	355
11	51	64	135	135	165	390	308	218	990	883	372	350
12	57	60	135	125	165	358	310	298	1300	852	372	362
13	64	60	130	120	165	362	310	298	1300	906	368	370
14	60	58	130	120	170	325	312	471	1220	874	400	398
15	60	54	135	120	170	292	310	550	1270	865	412	412
16	62	54	130	125	170	298	312	575	1380	718	398	405
17	59	58	125	125	170	285	322	654	1440	610	362	400
18	55	59	125	125	170	288	362	706	1440	662	358	380
19	52	58	130	125	170	288	388	674	1160	626	355	358
20	49	65	130	125	170	298	375	558	842	507	340	330
21	50	85	130	125	175	318	362	614	730	495	330	305
22	47	80	135	125	155	342	385	638	558	519	330	292
23	45	94	130	125	150	355	270	592	834	534	355	292
24	46	126	125	125	160	308	222	592	1040	402	350	278
25	43	164	120	125	175	322	220	429	1060	380	395	275
26	43	175	110	125	175	305	214	378	1130	480	426	263
27	44	171	110	115	175	308	305	489	1200	435	432	258
28	45	184	110	115	185	280	405	618	878	342	418	256
29	46	130	105	110	---	302	308	739	698	385	402	258
30	47	125	105	125	---	270	253	762	686	392	392	246
31	48	---	110	140	---	272	---	554	---	405	382	---
TOTAL	1319	2532	4055	3780	4610	9277	9033	13601	28192	19470	11668	10081
MEAN	42.5	84.4	131	122	165	299	301	439	940	628	376	336
MAX	64	184	170	140	185	390	405	762	1440	906	432	412
MIN	14	50	105	110	150	205	214	179	420	342	325	246
AC-FT	2620	5020	8040	7500	9140	18400	17920	26980	55920	38620	23140	20000

CAL YR 1974 TOTAL 42361 MEAN 116 MAX 537 MIN 10 AC-FT 84020
WTR YR 1975 TOTAL 117618 MEAN 322 MAX 1440 MIN 14 AC-FT 233300

08240500 TRINCHERA CREEK ABOVE TURNERS RANCH, NEAR FORT GARLAND, COLO.

LOCATION.--Lat 37°22'29", long 105°17'40", Costilla County, in Sangre de Cristo Grant, on right bank 0.9 mi (1.4 km) downstream from North Fork, 1.0 mi (1.6 km) upstream from Turners Ranch and 8.3 mi (13.4 km) southeast of Fort Garland.

DRAINAGE AREA.--45 mi^2 (120 km^2), approximately.

PERIOD OF RECORD.--April 1923 to current year. No winter records prior to 1935 except water year 1928. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,520 ft (2,597 m) from topographic map. Prior to Apr. 12, 1929, at site 200 ft (60 m) upstream at different datum.

AVERAGE DISCHARGE.--42 years (1927-28, 1934-75), 22.7 ft^3/s (0.643 m^3/s), 16,450 acre-ft/yr (20.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 103 ft^3/s (2.29 m^3/s) June 10 (gage height, 2.29 ft or 0.698 m); minimum daily, 4.5 ft^3/s (0.13 m^3/s) Dec. 31.
Period of record: Maximum discharge, 689 ft^3/s (19.5 m^3/s) May 27, 1942 (gage height, 3.32 ft or 1.012 m), from rating curve extended above 240 ft^3/s (6.8 m^3/s); maximum gage height, 3.73 ft (1.137 m) May 10, 1947; minimum daily discharge recorded, 3.0 ft^3/s (0.085 m^3/s) Oct. 3, 1942.
Outstanding floods occurred in 1886 and in October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subsequent floods, from information by local residents.

REMARKS.--Records good except those for winter period, which are fair. No regulation or diversion above station.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.8	6.8	6.5	5.0	6.0	7.0	7.5	18	62	53	19	11
2	6.8	7.2	6.5	5.5	6.0	7.0	7.5	17	64	52	18	10
3	6.8	7.2	7.0	5.5	6.0	7.0	7.5	18	70	49	18	13
4	7.6	6.5	7.0	5.5	6.0	7.0	8.5	24	80	47	18	16
5	7.2	6.5	7.5	6.0	5.5	7.0	8.5	28	88	44	16	14
6	6.8	6.2	7.0	6.0	5.5	6.5	8.5	26	95	42	16	13
7	7.2	6.5	7.0	6.5	5.5	6.5	8.5	24	97	40	16	12
8	7.2	5.9	6.5	7.0	6.0	6.5	8.0	24	100	44	16	12
9	7.2	7.6	6.5	6.0	6.5	6.5	8.0	26	98	46	20	13
10	7.2	7.6	6.5	5.0	6.5	6.5	8.0	31	101	41	17	12
11	7.9	6.5	7.0	5.0	6.0	6.5	8.6	41	95	39	16	12
12	8.2	6.5	7.0	5.0	6.0	6.5	8.6	50	87	38	18	15
13	8.2	7.6	7.0	5.0	6.5	6.0	8.2	52	80	35	18	14
14	8.2	6.8	7.0	5.0	6.5	6.0	8.6	53	79	35	17	14
15	7.9	6.5	6.5	5.0	6.5	6.0	9.0	59	81	34	15	13
16	7.6	6.2	6.5	5.0	6.5	6.0	11	65	83	33	14	13
17	7.6	5.9	6.5	5.0	6.0	6.0	12	68	84	32	14	12
18	7.6	6.5	6.5	5.5	6.0	6.0	11	69	83	30	14	12
19	7.6	5.3	6.0	5.5	6.5	6.5	11	72	86	29	13	12
20	7.6	5.6	5.5	5.5	6.5	7.0	12	65	80	31	14	12
21	7.9	7.9	6.0	5.0	6.0	7.0	14	79	79	30	20	12
22	8.2	7.6	6.5	5.0	5.5	7.0	18	83	75	28	16	12
23	7.9	7.0	6.0	5.5	5.5	6.5	19	79	69	26	14	12
24	7.6	7.0	5.5	6.0	6.0	6.5	22	71	66	24	13	12
25	7.6	7.5	6.0	6.5	6.0	6.5	29	67	65	24	13	12
26	7.6	7.0	6.0	7.0	6.5	6.5	32	69	63	23	12	11
27	8.2	7.0	6.0	7.0	6.5	6.0	29	71	61	22	12	11
28	8.2	6.5	5.5	6.5	6.5	5.5	23	72	58	21	12	10
29	8.2	6.0	5.5	6.5	---	6.0	20	71	56	22	12	10
30	8.6	6.0	5.0	6.5	---	6.5	24	68	54	21	12	9.6
31	6.8	---	4.5	6.5	---	7.0	---	65	---	20	11	---
TOTAL	236.0	200.9	196.0	177.5	171.0	201.0	410.5	1625	2339	1055	474	366.6
MEAN	7.61	6.70	6.32	5.73	6.11	6.48	13.7	52.4	78.0	34.0	15.3	12.2
MAX	8.6	7.9	7.5	7.0	6.5	7.0	32	83	101	53	20	16
MIN	6.8	5.3	4.5	5.0	5.5	5.5	7.5	17	54	20	11	9.6
AC-FT	468	398	389	352	339	399	814	3220	4640	2090	940	727

CAL YR 1974 TOTAL 4259.3 MEAN 11.7 MAX 34 MIN 4.5 AC-FT 8450
WTR YR 1975 TOTAL 7452.5 MEAN 20.4 MAX 101 MIN 4.5 AC-FT 14780

PEAK DISCHARGE (BASE, 50 FT^3/S).--June 10 (1830) 103 ft^3/s (2.29 ft).

NOTE.--No gage-height record Dec. 5 to Apr. 8.

08241500 SANGRE DE CRISTO CREEK NEAR FORT GARLAND, COLO.

LOCATION.--Lat 37°25'30", long 105°24'52", Costilla County, in Sangre de Cristo Grant, on left bank at road bridge, 2,200 ft (670 m) upstream from Garland Canal, 1.0 mi (1.6 km) east of Fort Garland, and 6.3 mi (10.1 km) upstream from Ute Creek.

DRAINAGE AREA.--190 mi^2 (490 km^2), approximately.

PERIOD OF RECORD.--March to October 1916, May 1923 to September 1930, October 1931 to current year. No winter records prior to 1946 except water year 1941. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 7,900 ft (2,408 m) from topographic map. Mar. 15 to Oct. 9, 1916, nonrecording gage and Cippoletti weir at site 1,400 ft (430 m) downstream at different datum. May 7, 1923, to Feb. 29, 1964, water-stage recorder at site 1.0 mi (1.6 km) upstream at different datum.

AVERAGE DISCHARGE.--31 years (1940-41, 1945-75), 18.7 ft^3/s (0.530 m^3/s), 13,550 acre-ft/yr (16.7 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 169 ft^3/s (4.79 m^3/s) Apr. 26 (gage height, 2.48 ft or 0.756 m); minimum daily, 1.0 ft^3/s (0.028 m^3/s) Oct. 1-5, Sept. 2.
Period of record: Maximum discharge, 1,520 ft^3/s (43.0 m^3/s) Aug. 31, 1936 (gage height, 6.10 ft or 1.859 m, site and datum then in use), from rating curve extended above 280 ft^3/s (7.9 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 7.82 ft or 2.384 m (site and datum then in use) June 4, 1957; no flow at times in many years.
Outstanding floods occurred in 1886 and in October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subsequent floods, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. Diversion above station by Sangre de Cristo-Trinchera canal for irrigation below station. Diversion above station from West Indian Creek to Mountain Home Reservoir on Trinchera Creek.

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

REVISIONS (WATER YEARS).--WSP 1312: 1935(M), 1950(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	7.4	4.4	4.4	6.0	8.8	15	51	60	23	8.3	1.2
2	1.0	7.4	5.1	4.5	6.0	9.6	13	58	57	22	10	1.0
3	1.0	8.8	5.1	4.5	6.0	9.6	12	60	56	22	8.3	1.2
4	1.0	8.3	4.0	4.5	5.5	9.6	16	70	58	23	7.4	3.4
5	1.0	7.0	5.1	4.5	5.5	11	23	85	61	25	6.5	5.8
6	1.2	7.4	5.4	4.5	5.5	14	28	80	60	22	5.8	5.4
7	1.5	7.0	4.0	4.8	5.5	12	32	69	59	20	5.1	4.0
8	1.8	6.5	4.4	5.0	5.5	13	23	70	56	22	4.8	3.7
9	2.0	7.4	4.0	5.0	6.0	13	24	68	54	40	6.2	3.4
10	2.2	7.4	4.0	4.5	8.0	13	25	72	58	31	7.0	3.7
11	2.2	6.5	4.4	4.5	10	11	24	84	61	26	6.2	3.4
12	2.5	6.2	4.4	4.5	10	9.2	22	102	58	25	5.8	5.4
13	3.7	6.5	4.4	4.5	10	11	21	113	48	23	7.0	7.0
14	4.0	7.0	4.0	4.5	10	8.8	20	113	43	20	7.8	7.8
15	4.4	7.0	4.0	4.5	10	11	20	114	40	20	6.5	7.8
16	4.4	6.5	4.0	4.8	9.0	8.8	30	121	40	20	5.4	6.5
17	4.4	5.8	4.0	5.0	7.0	11	44	129	38	19	5.1	5.4
18	4.4	5.8	4.0	5.0	5.5	9.6	43	129	34	17	4.4	4.8
19	4.4	6.5	4.0	5.0	6.0	11	34	128	35	16	3.7	4.0
20	4.0	5.1	4.4	5.0	6.5	14	40	124	33	16	3.4	4.0
21	4.0	4.4	4.4	5.0	7.0	20	48	114	32	16	8.3	4.4
22	4.8	4.4	4.4	5.0	6.5	16	56	107	30	16	9.6	5.4
23	5.1	6.2	4.4	5.0	6.0	16	70	104	28	18	7.0	5.4
24	5.1	5.1	4.4	5.0	6.5	14	70	90	28	19	4.8	5.1
25	5.1	4.4	4.8	5.5	7.0	13	86	76	31	18	3.4	4.8
26	4.8	4.4	4.0	5.5	7.0	18	132	70	30	14	2.8	4.8
27	6.5	4.4	4.0	6.0	7.4	15	121	67	28	12	3.0	4.4
28	8.3	3.7	4.8	6.0	7.0	12	79	65	27	12	2.5	4.4
29	7.8	4.4	4.8	6.5	---	14	74	67	25	11	2.2	4.4
30	10	4.4	4.4	6.5	---	14	56	68	24	11	2.0	4.4
31	9.2	---	4.4	6.5	---	14	---	67	---	9.6	1.5	---
TOTAL	122.8	183.3	135.9	156.0	197.9	385.0	1301	2735	1292	608.6	171.8	136.4
MEAN	3.96	6.11	4.38	5.03	7.07	12.4	43.4	88.2	43.1	19.6	5.54	4.55
MAX	10	8.8	5.4	6.5	10	20	132	129	61	40	10	7.8
MIN	1.0	3.7	4.0	4.4	5.5	8.8	12	51	24	9.6	1.5	1.0
AC-FT	244	364	270	309	393	764	2580	5420	2560	1210	341	271

CAL YR 1974 TOTAL 4231.92 MEAN 11.6 MAX 50 MIN .38 AC-FT 8390
WTR YR 1975 TOTAL 7425.70 MEAN 20.3 MAX 132 MIN 1.0 AC-FT 14730

NOTE.--No gage-height record Jan. 2 to Feb. 26.

08242500 UTE CREEK NEAR FORT GARLAND, COLO.

LOCATION.--Lat 37°26'50", long 105°25'30", Costilla County, in Sangre de Cristo Grant, on left bank 2,300 ft (700 m) upstream from Newton ditch, 1.4 mi (2.3 km) north of Fort Garland, and 5.7 mi (9.2 km) upstream from mouth.

DRAINAGE AREA.--32 mi^2 (83 km^2), approximately.

PERIOD OF RECORD.--March to October 1916, May 1923 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,045 ft (2,452 m) from topographic map. Mar. 18 to Oct. 9, 1916, nonrecording gage and Cippoletti weir at different datum.

AVERAGE DISCHARGE.--52 years, 20.2 ft^3/s (0.572 m^3/s), 14,630 acre-ft/yr (18.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 131 ft^3/s (3.71 m^3/s) May 17 (gage height, 2.77 ft or 0.844 m); minimum daily, 2.1 ft^3/s (0.059 m^3/s) Dec. 31, Jan. 1.
Period of record: Maximum daily discharge, 630 ft^3/s (17.8 m^3/s) May 15, 1941; no flow July 28-31, Sept. 6-29, 1956.
Outstanding floods occurred in 1886 and in October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subsequent floods, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. A few diversions above station for irrigation.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	7.0	4.3	2.1	3.2	4.7	6.0	22	71	75	23	9.0
2	3.8	7.3	4.4	2.3	3.1	4.8	6.0	23	71	74	21	8.4
3	3.8	7.3	4.5	2.2	3.2	4.5	7.0	26	78	75	19	8.7
4	5.2	6.6	4.7	2.4	3.3	4.5	10	34	86	73	18	12
5	4.7	5.7	3.7	2.6	3.0	5.0	11	39	89	66	16	20
6	4.1	6.1	3.7	2.6	2.9	4.7	12	29	108	63	16	15
7	4.3	6.1	3.3	2.8	3.1	4.8	11	29	111	62	16	13
8	4.3	5.9	3.4	3.0	3.4	5.4	11	36	106	70	16	12
9	3.8	7.0	3.5	2.7	3.7	4.8	14	39	99	89	18	13
10	3.8	6.6	3.5	2.7	3.5	4.8	14	48	91	74	18	12
11	4.1	6.1	3.6	2.7	3.2	4.5	15	66	80	67	17	12
12	4.3	5.9	3.6	2.8	3.2	4.6	15	80	68	63	18	18
13	4.7	5.9	3.8	3.0	3.7	4.8	15	74	67	57	24	21
14	4.8	5.7	3.5	2.9	3.8	5.2	17	68	78	60	18	28
15	4.7	5.4	3.2	3.1	3.7	5.4	20	86	83	68	16	22
16	4.5	5.4	3.2	3.1	3.7	5.0	24	99	95	57	15	18
17	4.5	5.0	3.3	3.3	3.3	5.5	21	117	97	55	16	16
18	4.3	5.4	3.2	3.4	3.5	6.0	20	113	108	46	15	14
19	4.3	5.2	2.9	3.3	3.6	7.0	24	111	101	43	14	13
20	4.3	4.3	2.9	3.1	3.6	7.5	24	106	78	37	14	12
21	4.5	6.1	3.2	2.9	3.4	7.3	27	104	80	37	25	13
22	5.9	5.9	3.5	2.8	3.2	6.1	29	97	74	37	22	12
23	6.6	5.7	2.9	3.0	3.5	4.5	30	85	78	35	20	11
24	5.9	4.3	2.6	3.3	3.7	5.0	30	77	86	32	17	9.9
25	5.9	5.4	2.7	3.7	4.0	5.5	34	75	95	31	15	9.6
26	6.1	5.3	2.8	3.9	4.1	6.0	42	74	89	26	14	9.3
27	7.5	4.8	2.6	4.0	4.4	5.5	38	73	86	26	12	9.0
28	7.5	4.5	2.3	3.2	4.5	5.0	25	73	83	25	13	8.7
29	7.3	4.5	2.3	3.4	---	5.5	24	74	78	25	12	8.7
30	7.3	4.0	2.2	3.6	---	6.0	20	74	75	25	10	8.7
31	6.6	---	2.1	3.3	---	6.5	---	72	---	24	9.6	---
TOTAL	157.4	170.4	101.4	93.2	98.5	166.4	596.0	2123	2589	1597	517.6	397.0
MEAN	5.08	5.68	3.27	3.01	3.52	5.37	19.9	68.5	86.3	51.5	16.7	13.2
MAX	7.5	7.3	4.7	4.0	4.5	7.5	42	117	111	89	25	28
MIN	3.8	4.0	2.1	2.1	2.9	4.5	6.0	22	67	24	9.6	8.4
AC-FT	312	338	201	185	195	330	1180	4210	5140	3170	1030	787

CAL YR 1974 TOTAL 3098.86 MEAN 8.49 MAX 38 MIN .02 AC-FT 6150
WTR YR 1975 TOTAL 8606.90 MEAN 23.6 MAX 117 MIN 2.1 AC-FT 17070

PEAK DISCHARGE (BASE, 100 FT^3/S).--May 17 (0830) 131 ft^3/s (2.77 ft).

NOTE.--No gage-height record Nov. 28 to Mar. 19, Mar. 24 to Apr. 26.

08243500 TRINCHERA CREEK BELOW SMITH RESERVOIR, NEAR BLANCA, COLO.

LOCATION.--Lat 37°23'10", long 105°33'02", in sec.4, T.31 S., R.73 W. (unsurveyed), Costilla County, on right bank 150 ft (46 m) downstream from bridge, 0.6 mi (1.0 km) downstream from Smith Reservoir, and 4.0 mi (6.4 km) southwest of Blanca.

DRAINAGE AREA.--396 mi^2 (1,026 km^2).

PERIOD OF RECORD.--October 1928 to current year. No winter records prior to 1944 except water years 1931, 1934-36, 1938. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 7,700 ft (2,347 m), estimated from nearby U.S. Coast and Geodetic Survey level lines. Prior to Oct. 12, 1964, at site 200 ft (61 m) downstream. Prior to Apr. 19, 1943, at datum 1.00 ft (0.305 m) higher, and at present datum thereafter.

AVERAGE DISCHARGE.--37 years (1930-31, 1933-36, 1937-38, 1943-75), 10.5 ft^3/s (0.297 m^3/s), 7,610 acre-ft/yr (9.38 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 40 ft^3/s (1.13 m^3/s) Mar. 27 (gage height, 2.63 ft or 0.802 m); minimum daily, 0.15 ft^3/s (0.004 m^3/s) Dec. 7, 9-12.
Period of record: Maximum daily discharge, 1,340 ft^3/s (37.9 m^3/s) May 11, 1942; no flow Sept. 13, 14, 16, 17, 1957.
Outstanding floods occurred in 1886 and October 1911. The flood in 1886 probably exceeded that in October 1911 and the flood in October 1911 probably exceeded all subsequent floods, from information by local residents.

REMARKS.--Records good. Diversions above station for irrigation. Flow regulated by Smith Reservoir (capacity, 5,335 acre-ft or 6.58 hm^3).

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

REVISIONS (WATER YEARS).--WSP 1512: 1937, 1950(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.80	.35	.80	1.0	1.0	3.6	31	18	21	4.2	5.5
2	1.0	.80	.35	.80	1.0	1.0	11	30	18	21	5.5	5.5
3	1.0	.80	.35	.80	1.0	1.0	17	30	18	21	6.6	4.8
4	1.0	.80	.35	.80	1.0	1.0	18	30	18	21	6.6	4.8
5	1.0	.80	.50	.80	1.0	1.0	19	30	18	18	6.6	4.8
6	1.0	.80	.50	.80	1.0	1.0	19	30	18	18	6.6	4.8
7	1.0	.70	.15	.80	.80	1.0	18	31	18	18	6.6	4.8
8	1.0	.65	.25	.80	1.0	1.0	19	33	18	18	6.6	4.4
9	1.0	.65	.15	.80	1.0	1.0	24	34	18	19	6.6	4.2
10	1.0	.65	.15	.80	1.0	1.0	25	33	18	18	7.4	4.2
11	.80	.65	.15	.80	1.2	1.0	24	32	18	16	7.4	4.2
12	.80	.65	.15	.80	1.4	1.0	24	31	18	16	7.4	3.9
13	.80	.50	.65	.80	1.2	.80	24	30	18	16	7.4	3.9
14	.80	.35	1.0	.80	1.2	.80	24	30	18	16	7.4	3.9
15	.80	.35	.80	.80	1.2	.80	24	26	19	16	7.4	3.9
16	.80	.35	.80	.80	1.2	.80	24	23	19	16	6.2	3.9
17	.80	.35	.80	.80	1.2	.80	24	23	19	17	6.2	3.9
18	.80	.35	1.0	.80	1.2	.65	24	20	19	17	6.2	3.9
19	.80	.35	1.0	.80	1.2	.65	24	20	18	17	6.2	3.9
20	.80	.35	1.0	.80	1.2	.65	24	20	18	17	6.2	3.9
21	.80	.35	1.0	.80	1.2	.65	24	20	18	17	6.2	3.9
22	.80	.35	1.0	.80	1.2	.65	23	20	18	17	6.2	3.9
23	.80	.35	1.0	.80	1.0	.60	23	20	18	17	6.2	3.6
24	.80	.50	1.0	.80	1.0	.50	26	20	18	16	6.2	5.2
25	.80	.50	1.0	.80	1.0	.50	28	20	19	16	6.2	7.0
26	.80	.50	1.0	.80	1.0	.50	28	19	19	16	6.2	7.0
27	.80	.50	1.0	.80	1.0	2.0	28	21	19	16	6.2	7.0
28	.80	.50	1.0	.80	1.0	1.4	28	22	19	16	6.2	7.0
29	.80	.35	1.0	.80	---	1.6	28	19	21	8.5	5.5	7.0
30	.80	.35	1.0	1.0	---	2.5	30	17	21	3.9	5.5	7.0
31	.80	---	1.0	1.0	---	2.8	---	18	---	3.9	5.5	---
TOTAL	26.80	15.95	21.45	25.20	30.40	31.65	679.6	783	554	504.3	197.4	145.7
MEAN	.86	.53	.69	.81	1.09	1.02	22.7	25.3	18.5	16.3	6.37	4.86
MAX	1.0	.80	1.0	1.0	1.4	2.8	30	34	21	21	7.4	7.0
MIN	.80	.35	.15	.80	.80	.50	3.6	17	18	3.9	4.2	3.6
AC-FT	53	32	43	50	60	63	1350	1550	1100	1000	392	289

CAL YR 1974 TOTAL 2281.00 MEAN 6.25 MAX 36 MIN .15 AC-FT 4520
WTR YR 1975 TOTAL 3015.45 MEAN 8.26 MAX 34 MIN .15 AC-FT 5980

08244500 PLATORO RESERVOIR AT PLATORO, COLO.

LOCATION.--Lat 37°21'07", long 106°32'38", Conejos County, on right bank in valvehouse, 400 ft (120 m) downstream from Platoro Dam on Conejos River and 0.7 mi (1.1 km) west of Platoro.

DRAINAGE AREA.--40 mi^2 (104 km^2), approximately.

PERIOD OF RECORD.--November 1951 to current year.

GAGE.--Nonrecording gage. Datum of gage is 9,911.5 ft (3,021.03 m) above mean sea level (Bureau of Reclamation bench mark). Gage readings have been reduced to elevations above mean sea level. Prior to June 9, 1955, nonrecording gage at present site and datum. June 9, 1955, to Sept. 30, 1959, water-stage recorder in gate chamber at dam for elevations above 9,921.0 ft (3,023.92 m) at same datum.

EXTREMES (AT 0800).--Current year: Maximum contents, 36,910 acre-ft (45.5 hm^3) July 21 (elevation, 10,008.0 ft or 3,050.44 m); minimum contents, 18,500 acre-ft (22.8 hm^3) Oct. 1-13 (elevation, 9,980.0 ft or 3,041.90 m). Period of record: Maximum contents, 61,420 acre-ft (75.7 hm^3) June 9, 11, 1958 (elevation, 10,035.5 ft or 3,058.82 m); no contents for long periods in 1952-56.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes. Dam completed Dec. 9, 1951; storage began Nov. 7, 1951. Capacity of reservoir (based on revised capacity table put in use Jan. 1, 1975), 59,570 acre-ft (73.4 hm^3) between elevations 9,911.5 ft or 3,021.03 m (sill of trashrack at outlet) and 10,034.0 ft or 3,058.36 m (crest of spillway). No dead storage. Reservoir is used for irrigation and flood control. Figures given are usable contents.

COOPERATION.--Records furnished by Bureau of Reclamation.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	ELEVATION (FEET)	CONTENTS (ACRE-FEET)	CHANGE IN CONTENTS (ACRE-FEET)
Sept. 30	9,980.0	18,500	-
Oct. 31	9,980.3	18,700	+200
Nov. 30	(a)	-	-
Dec. 31	-	-	-
CAL YR 1974	-	-	-
Jan. 31	-	-	-
Feb. 28	-	-	-
Mar. 31	-	-	-
Apr. 30	9,980.4	18,570	-
May 31	9,980.7	18,730	+160
June 30	10,007.5	36,530	+17,800
July 31	10,007.6	36,600	+70
Aug. 31	10,007.6	36,600	0
Sept. 30	10,007.6	36,600	0
WTR YR 1975	-	-	(b)+18,250

a Operation of reservoir suspended for winter on Nov. 2; resumed on May 1.
b Computed on basis of revised area-capacity table placed in use Jan. 1, 1975.

08245000 CONEJOS RIVER BELOW PLATORO RESERVOIR, COLO.

LOCATION.--Lat 37°21'18", long 106°32'37", Conejos County, on left bank 1,100 ft (340 m) downstream from valve-house for Platoro Reservoir and 0.7 mi (1.1 km) northwest of Platoro.

DRAINAGE AREA.--40 mi^2 (100 km^2), approximately.

PERIOD OF RECORD.--May 1952 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 9,866.60 ft (3,007.340 m) above mean sea level (levels by Bureau of Reclamation).

AVERAGE DISCHARGE.--23 years, 87.7 ft^3/s (2.484 m^3/s), 63,540 acre-ft/yr (78.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 840 ft^3/s (23.8 m^3/s) June 27 (gage height, 3.67 ft or 1.119 m); minimum daily, 6.2 ft^3/s (0.18 m^3/s) Sept. 30.
Period of record: Maximum discharge, 1,160 ft^3/s (32.9 m^3/s) Nov. 1, 1957 (gage height, 4.02 ft or 1.225 m); maximum gage height, 4.29 ft (1.308 m) June 15, 1958; no flow Oct. 16-20, 1955.
Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

REMARKS.--Records good except those for period of no gage-height record, which are fair. No diversion above station. Flow completely regulated by Platoro Reservoir (see sta. 08244500).

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.8	10	10	10	10	10	10	20	312	730	82	21
2	7.8	10	10	10	10	10	10	20	410	795	74	21
3	7.8	10	10	10	10	10	10	73	462	765	78	21
4	7.8	10	10	10	10	10	10	218	172	627	110	21
5	7.8	10	10	10	10	10	10	142	67	340	133	22
6	7.8	10	10	10	10	10	10	66	41	498	133	23
7	7.8	10	10	10	10	10	10	55	14	579	82	23
8	7.8	10	10	10	10	10	10	49	76	526	27	23
9	7.8	10	10	10	10	10	10	86	197	434	27	23
10	7.8	10	10	10	10	10	10	110	221	482	27	23
11	7.8	10	10	10	10	10	10	114	290	628	37	23
12	7.8	10	10	10	10	10	10	251	414	610	59	41
13	8.3	10	10	10	10	10	10	319	538	534	81	69
14	8.3	10	10	10	10	10	10	347	554	538	81	114
15	9.2	10	10	10	10	10	10	389	132	454	81	61
16	9.2	10	10	10	10	10	10	434	86	312	60	23
17	9.6	10	10	10	10	10	10	446	86	414	50	38
18	9.2	10	10	10	10	10	10	458	182	438	30	52
19	9.2	10	10	10	10	10	10	364	233	253	21	52
20	9.2	10	10	10	10	10	10	348	414	133	21	52
21	9.2	10	10	10	10	10	10	400	422	316	21	52
22	9.6	10	10	10	10	10	10	354	326	299	21	40
23	9.6	10	10	10	10	10	10	326	506	191	21	29
24	9.6	10	10	10	10	10	10	206	620	233	21	24
25	9.6	10	10	10	10	10	16	242	562	242	21	21
26	9.6	10	10	10	10	10	20	458	642	173	21	16
27	9.6	10	10	10	10	10	19	410	815	123	21	12
28	9.6	10	10	10	10	10	19	344	770	123	21	12
29	9.6	10	10	10	---	10	19	364	700	128	21	8.8
30	9.6	10	10	10	---	10	20	248	670	254	21	6.2
31	9.6	---	10	10	---	10	---	118	---	219	21	---
TOTAL	271.0	300	310	310	280	310	353	7779	10934	12391	1525	967.0
MEAN	8.74	10.0	10.0	10.0	10.0	10.0	11.8	251	364	400	49.2	32.2
MAX	9.6	10	10	10	10	10	20	458	815	795	133	114
MIN	7.8	10	10	10	10	10	10	20	14	123	21	6.2
AC-FT	538	595	615	615	555	615	700	15430	21690	24580	3020	1920

CAL YR 1974 TOTAL 31010.3 MEAN 85.0 MAX 830 MIN 5.1 AC-FT 61510
WTR YR 1975 TOTAL 35730.0 MEAN 97.9 MAX 815 MIN 6.2 AC-FT 70870

NOTE.--No gage-height record Nov. 6 to May 2.

08246500 CONEJOS RIVER NEAR MOGOTE, COLO.

LOCATION.--Lat 37°03'14", long 106°11'13", in SE¼SE¼ sec.34, T.33 N., R.7 E., Conejos County, on right bank 25 ft (8 m) upstream from bridge on State Highway 174, 0.4 mi (0.6 km) downstream from Fox Creek, 5.3 mi (8.5 km) west of Mogote, and 10 mi (16 km) west of Antonito.

DRAINAGE AREA.--282 mi^2 (730 km^2).

PERIOD OF RECORD.--April 1903 to October 1905, October 1911 to current year. Monthly discharge only for some periods, published in WSP 1312. Records for March 1900 at site 5.5 mi (8.8 km) upstream and May 1905 to September 1911 (some missing periods most years) at site 3.2 mi (5.1 km) upstream not equivalent to present site owing to inflow.

GAGE.--Water-stage recorder. Datum of gage is 8,271.54 ft (2,521.156 m) above mean sea level (State Highway Department bench mark). Apr. 17, 1903, to Oct. 31, 1905, nonrecording gage 500 ft (150 m) downstream at different datum. Oct. 5, 1911, to early 1915, nonrecording gage at present site and datum.

AVERAGE DISCHARGE.--66 years, 335 ft^3/s (9.487 m^3/s), 242,700 acre-ft/yr (299 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,320 ft^3/s (65.7 m^3/s) June 14 (gage height, 4.60 ft or 1.402 m); minimum daily, 31 ft^3/s (0.88 m^3/s) Nov. 30.
Period of record: Maximum discharge, 9,000 ft^3/s (255 m^3/s) Oct. 5, 1911 (gage height, 8.50 ft or 2.591 m, from floodmarks, present site and datum), from rating curve extended above 3,100 ft^3/s (88 m^3/s); minimum daily determined, 10 ft^3/s (0.28 m^3/s) July 18, 1904.
Maximum stage since at least 1854, that of Oct. 5, 1911, from information by local residents.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 500 acres (2.02 km^2) of hay meadows above station. Some regulation by Platoro Reservoir (see sta. 08244500).

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

REVISIONS (WATER YEARS).--WSP 898: 1911(M). WSP 1312: 1903-5, 1913. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	60	38	36	49	56	64	246	1030	1640	384	72
2	45	62	45	37	49	58	53	264	1470	1770	296	72
3	44	62	46	36	49	60	60	299	1910	1670	282	79
4	57	55	47	36	48	60	70	460	2030	1570	274	88
5	60	57	48	37	45	62	82	597	1880	1180	285	106
6	53	59	48	38	41	64	98	380	1910	1180	282	91
7	51	57	45	40	42	60	106	302	1900	1250	274	86
8	50	57	42	41	42	55	88	278	1700	1260	212	84
9	50	64	38	43	42	57	77	332	1820	1340	187	103
10	50	60	39	42	43	59	75	484	1860	1250	187	98
11	55	50	41	41	42	53	82	710	1340	1400	177	91
12	59	55	40	40	42	57	77	905	1320	1420	190	154
13	64	60	38	41	45	55	75	1060	1610	1420	260	154
14	66	57	38	42	49	57	72	1220	2120	1230	246	184
15	60	57	38	43	49	59	77	1440	1960	1230	222	204
16	53	55	37	43	49	59	93	1510	1780	955	204	134
17	51	50	39	44	47	59	131	1730	1770	965	177	109
18	50	57	40	45	45	57	128	1740	1730	945	164	111
19	50	55	39	46	46	60	106	1760	1780	835	136	116
20	50	42	38	45	47	66	142	1650	1420	597	125	114
21	51	46	41	44	46	60	194	1630	1530	790	139	116
22	57	45	43	43	45	62	257	1620	1270	830	142	116
23	62	45	40	44	44	60	324	1320	1370	592	122	101
24	60	40	38	46	46	59	360	1140	1690	552	109	93
25	59	45	35	47	48	68	456	1200	1880	624	98	88
26	57	46	38	49	50	70	507	1610	1690	525	96	84
27	55	36	38	51	52	53	380	1960	1900	448	91	79
28	59	35	37	50	54	57	264	1590	1900	404	91	70
29	59	33	37	49	---	60	236	1360	1750	404	86	66
30	60	31	36	50	---	70	215	1110	1610	502	84	66
31	59	---	36	51	---	68	---	900	---	570	77	---
TOTAL	1701	1533	1243	1340	1296	1860	4949	32807	50930	31348	5699	3129
MEAN	54.9	51.1	40.1	43.2	46.3	60.0	165	1058	1698	1011	184	104
MAX	66	64	48	51	54	70	507	1960	2120	1770	384	204
MIN	44	31	35	36	41	53	53	246	1030	404	77	66
AC-FT	3370	3040	2470	2660	2570	3690	9820	65070	101000	62180	11300	6210

CAL YR 1974 TOTAL 81173 MEAN 222 MAX 1590 MIN 31 AC-FT 161000
WTR YR 1975 TOTAL 137835 MEAN 378 MAX 2120 MIN 31 AC-FT 273400

08247500 SAN ANTONIO RIVER AT ORTIZ, COLO.

LOCATION.--Lat 36°59'35", long 106°02'17", in NE¼SE¼ sec.24, T.32 N., R.8 E., Rio Arriba County, New Mexico, on left bank 800 ft (240 m) south of New Mexico-Colorado State line, 0.4 mi (0.6 km) southeast of Ortiz, and 0.4 mi (0.6 km) upstream from Los Pinos River.

DRAINAGE AREA.--110 mi^2 (280 km^2), approximately.

PERIOD OF RECORD.--April 1919 to October 1920, October 1924 to current year (no winter records prior to 1941). Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 7,970 ft (2,429 m) from topographic map. Prior to Apr. 7, 1926, nonrecording gage at various locations near present site at different datums. Apr. 7, 1926, to June 24, 1954, water-stage recorder at site 200 ft (61 m) downstream at present datum.

AVERAGE DISCHARGE.--35 years (1940-75), 25.0 ft^3/s (0.708 m^3/s), 18,110 acre-ft/yr (22.3 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 796 ft^3/s (22.5 m^3/s) Apr. 25 (gage height, 4.43 ft or 1.350 m); no flow Oct. 1-8.
Period of record: Maximum discharge, 1,750 ft^3/s (49.6 m^3/s) Apr. 15, 1937 (gage height, 5.38 ft or 1.640 m), from rating curve extended above 1,100 ft^3/s (31 m^3/s); no flow at times in most years. Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

REMARKS.--Records good except those for winter period, which are fair. A few small diversions above station for irrigation.

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

REVISIONS (WATER YEARS).--WSP 1732: 1951. WSP 1923: 1927 (monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	3.6	1.6	.60	3.0	3.6	5.5	113	98	2.4	2.4	.30
2	0	3.6	1.8	.80	2.9	3.7	5.0	141	93	2.6	2.0	.15
3	0	4.2	2.0	.70	2.9	3.8	6.0	218	90	3.2	1.6	.10
4	0	4.0	2.1	.70	2.9	3.8	7.0	268	82	5.2	1.3	1.7
5	0	3.6	2.2	.80	2.9	4.0	9.0	248	72	4.0	1.0	10
6	0	3.8	2.3	.80	2.8	4.1	11	133	64	3.2	.80	5.5
7	0	3.6	2.0	.90	3.0	3.9	13	92	58	2.6	.70	3.6
8	0	3.8	1.6	.90	3.0	3.7	12	119	51	2.0	.60	8.9
9	.74	4.5	1.2	1.0	3.0	3.8	11	205	47	1.8	22	10
10	1.6	4.2	1.4	.90	3.0	4.0	10	278	47	8.1	9.1	3.8
11	1.8	4.2	1.5	.80	3.0	3.8	9.7	350	45	17	4.0	2.6
12	3.2	3.2	1.4	1.0	3.1	4.0	9.7	407	36	21	3.5	3.2
13	4.8	4.0	1.2	1.2	3.2	3.9	9.0	428	30	15	15	3.6
14	4.0	3.6	1.2	1.4	3.4	4.1	9.5	462	26	9.7	8.4	3.4
15	3.4	3.6	1.2	1.4	3.4	4.2	12	560	22	10	4.8	3.0
16	2.8	3.6	1.0	1.6	3.4	4.2	32	553	20	15	3.2	2.4
17	2.4	3.4	1.1	1.8	3.3	4.2	56	570	17	14	2.4	2.0
18	2.2	3.4	1.1	2.0	3.2	4.1	47	514	16	13	1.8	1.6
19	2.0	3.6	.90	2.2	3.2	4.3	42	486	19	8.2	1.4	1.3
20	1.8	2.6	.80	2.2	3.3	4.5	59	443	16	7.2	1.2	1.0
21	2.0	2.8	1.0	2.1	3.2	4.3	113	389	13	54	1.3	1.2
22	2.2	3.0	1.1	2.1	3.1	4.4	233	356	11	15	3.3	1.3
23	3.0	4.0	1.0	2.3	3.0	4.3	246	210	9.7	9.3	4.5	2.0
24	3.2	3.6	.90	2.5	3.1	4.2	281	160	7.5	7.5	2.4	1.8
25	3.0	3.6	.70	2.8	3.2	4.8	414	195	6.4	5.8	1.3	1.6
26	2.8	3.6	.90	3.0	3.3	4.9	408	200	5.8	4.8	.80	1.6
27	2.6	3.0	.80	3.2	3.4	4.0	232	180	4.2	4.0	.50	1.6
28	2.8	3.0	.80	3.0	3.5	4.5	100	164	3.4	3.2	.40	1.6
29	3.0	2.8	.70	2.8	---	5.0	100	140	3.2	3.2	.20	1.4
30	3.8	1.4	.60	3.0	---	5.5	82	113	2.6	3.4	.30	1.3
31	4.2	---	.50	3.0	---	6.0	---	100	---	3.4	.40	---
TOTAL	63.34	105.0	38.60	53.50	87.7	131.6	2584.4	8795	1015.8	278.8	102.60	83.55
MEAN	2.04	3.50	1.25	1.73	3.13	4.25	86.1	284	33.9	8.99	3.31	2.79
MAX	4.8	4.5	2.3	3.2	3.5	6.0	414	570	98	54	22	10
MIN	0	1.4	.50	.60	2.8	3.6	5.0	92	2.6	1.8	.20	.10

CAL YR 1974 TOTAL 3915.67 MEAN 10.7 MAX 172 MIN 0
WTR YR 1975 TOTAL 13339.89 MEAN 36.5 MAX 570 MIN 0

PEAK DISCHARGE (BASE, 330 FT^3/S)

DATE	TIME	G.H.	DISCHARGE	DATE	TIME	G.H.	DISCHARGE
4-25	2115	4.43	796	5-17	0230	4.39	776
5- 5	0030	3.39	425				

NOTE.--No gage-height record Nov. 30 to Mar. 10.

08248000 LOS PINOS RIVER NEAR ORTIZ, COLO.

LOCATION.--Lat 36°58'56", long 106°04'23", on line between secs.26 and 27, T.32 N., R.8 E., Rio Arriba County, New Mexico, on left bank 0.9 mi (1.4 km) south of New Mexico-Colorado State line, 2.1 mi (3.4 km) southwest of Ortiz, and 2.9 mi (4.7 km) upstream from mouth.

DRAINAGE AREA.--167 km² (433 km²).

PERIOD OF RECORD.--January 1915 to December 1920, October 1924 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 8,040 ft (2,451 m) from topographic map. Prior to Apr. 15, 1955, at site 350 ft (110 m) upstream at datum 2.52 ft (0.768 m) higher.

AVERAGE DISCHARGE.--56 years, 121 ft³/s (3.427 m³/s), 87,660 acre-ft/yr (108 hm³/yr).

EXTREMES.--Current year: Maximum discharge, 2,020 ft³/s (57.2 m³/s) May 19 (gage height, 5.87 ft or 1.789 m); minimum daily, 10 ft³/s (0.28 m³/s) Dec. 16.
Period of record: Maximum discharge, 3,160 ft³/s (89.5 m³/s) May 12, 1941 (gage height, 5.77 ft or 1.759 m, site and datum then in use), from rating curve extended above 1,600 ft³/s (45 m³/s); minimum observed, 4.0 ft³/s (0.11 m³/s) Dec. 17, 1945 (discharge measurement), but may have been less during periods of no gage-height record.
Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

REMARKS.--Records good except those for winter period, which are fair. Diversions above station for irrigation.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	16	14	12	14	17	23	149	662	255	47	18
2	12	18	15	12	14	18	20	190	765	255	43	18
3	11	16	16	12	14	18	22	258	830	262	38	18
4	14	15	16	12	14	18	25	317	820	235	37	29
5	16	15	17	13	14	19	29	326	815	220	35	26
6	15	15	17	13	13	20	35	248	800	210	34	22
7	14	16	15	14	14	19	40	212	760	190	33	20
8	14	14	13	14	14	17	37	228	708	182	30	20
9	14	18	11	15	14	18	34	326	712	245	34	20
10	14	16	11	14	14	18	33	452	690	260	37	20
11	16	14	12	13	14	16	33	618	518	252	38	20
12	18	14	12	13	15	18	33	765	490	238	35	29
13	19	16	11	14	16	17	29	830	514	222	43	33
14	18	15	11	14	17	17	30	952	534	190	35	26
15	18	17	11	14	17	18	39	1210	550	165	31	23
16	16	16	10	14	17	18	65	1220	554	163	29	25
17	15	14	11	14	16	18	80	1370	550	163	27	20
18	15	16	11	15	15	17	69	1430	522	137	25	19
19	15	18	11	15	15	18	56	1440	631	124	24	19
20	14	13	11	15	16	19	68	1380	470	147	24	18
21	15	13	12	15	16	18	92	1260	438	163	28	20
22	16	13	13	14	15	18	135	1240	396	115	32	20
23	18	13	13	14	14	18	157	800	368	97	28	18
24	18	14	12	14	15	18	195	708	359	87	24	18
25	18	15	11	15	15	20	255	921	368	80	21	18
26	16	14	12	15	16	21	265	1020	341	72	20	17
27	15	13	12	16	16	17	202	1070	311	64	20	17
28	16	13	12	15	17	19	143	909	296	59	20	16
29	17	14	12	14	---	21	131	662	272	55	20	16
30	18	14	12	15	---	23	122	530	260	54	19	16
31	18	---	12	15	---	25	---	546	---	53	18	---
TOTAL	485	448	389	434	421	576	2497	23587	16304	5014	929	619
MEAN	15.6	14.9	12.5	14.0	15.0	18.6	83.2	761	543	162	30.0	20.6
MAX	19	18	17	16	17	25	265	1440	830	262	47	33
MIN	11	13	10	12	13	16	20	149	260	53	18	16

CAL YR 1974 TOTAL 24500 MEAN 67.1 MAX 644 MIN 10
WTR YR 1975 TOTAL 51703 MEAN 142 MAX 1440 MIN 10

PEAK DISCHARGE (BASE, 900 FT³/S).--May 19 (0015) 2,020 ft³/s (5.87 ft); May 27 (0030) 1,560 ft³/s (5.35 ft).

NOTE.--No gage-height record Dec. 27 to Feb. 20.

08248500 SAN ANTONIO RIVER AT MOUTH, NEAR MANASSA, COLO.

LOCATION.--Lat 37°10'37", long 105°52'39", in SE¼NE¼ sec.21, T.34 N., R.10 E., Conejos County, on right bank 0.3 mi (0.5 km) downstream from bridge on State Highway 142, 2.2 mi (3.5 km) upstream from mouth, and 3.3 mi (5.3 km) east of Manassa.

DRAINAGE AREA.--348 mi^2 (901 km^2).

PERIOD OF RECORD.--April 1923 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder. Altitude of gage is 7,650 ft (2,332 m) from topographic map. Prior to Apr. 23, 1936, at former bridge site 200 ft (60 m) upstream at same datum.

AVERAGE DISCHARGE.--52 years, 79.5 ft^3/s (2.251 m^3/s), 57,600 acre-ft/yr (71.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,310 ft^3/s (37.1 m^3/s) May 17 (gage height, 6.24 ft or 1.902 m); no flow Oct. 1 to Nov. 28, Nov. 30 to Dec. 2.
Period of record: Maximum discharge, 2,620 ft^3/s (74.2 m^3/s) May 14, 1941 (gage height, 6.26 ft or 1.908 m), from rating curve extended above 2,200 ft^3/s (62 m^3/s); maximum gage height, 6.42 ft (1.957 m) May 6, 1952; no flow at times in most years.
Maximum stage since at least 1854 occurred Oct. 5, 1911, from information by local residents.

REMARKS.--Records good except those for winter period, which are poor. Natural flow of stream affected by diversions to Cove Lake Reservoir (capacity, 9,700 acre-ft or 12.0 hm^3) and diversions for irrigation above station.

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

REVISIONS (WATER YEARS).--WSP 1312: 1936(M). WSP 1732: 1957.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	.50	5.0	12	33	96	552	165	1.8	4.2
2		0	0	.50	5.0	13	27	143	623	175	1.3	3.9
3		0	.04	.50	5.5	14	26	280	707	232	1.2	3.6
4		0	.50	1.0	5.5	14	32	322	701	206	.92	6.5
5		0	1.0	1.0	5.5	14	36	349	671	179	.86	13
6		0	2.6	1.0	5.5	15	39	241	671	164	.70	15
7		0	3.0	1.0	5.5	15	44	167	665	138	.60	13
8		0	3.0	1.0	5.5	15	43	172	623	120	2.2	12
9		0	2.5	1.5	6.0	16	37	254	602	126	1.7	16
10		0	2.5	1.5	6.0	16	37	408	612	161	5.5	16
11		0	2.5	1.5	6.0	17	19	562	568	205	5.0	14
12		0	2.5	1.5	6.0	17	15	790	468	202	11	15
13		0	2.0	1.5	6.0	17	14	934	444	178	19	22
14		0	2.0	2.0	6.0	18	13	1040	444	156	25	24
15		0	2.0	2.0	6.5	18	19	1160	454	137	24	21
16		0	2.0	2.0	6.5	18	22	1240	452	136	22	18
17		0	1.5	2.0	6.5	20	48	1250	436	137	22	18
18		0	1.5	2.0	6.5	21	57	1250	380	132	21	14
19		0	1.5	2.5	6.5	22	57	1250	408	104	18	11
20		0	1.5	2.5	6.5	23	53	1250	394	91	16	11
21		0	1.5	2.5	7.0	24	68	1200	355	136	18	11
22		0	1.0	2.5	7.0	26	123	1180	322	114	20	11
23		0	1.0	2.5	8.0	28	274	1060	295	100	21	12
24		0	1.0	2.5	8.0	30	283	752	282	83	18	12
25		0	1.0	3.0	9.0	35	390	798	265	56	14	7.5
26		0	1.0	3.0	9.0	41	505	952	217	47	11	6.0
27		0	.50	3.5	10	30	319	1000	185	45	9.5	7.0
28		0	.50	3.5	11	20	133	1010	164	31	8.0	7.0
29		.01	.50	4.0	---	20	114	776	133	12	7.5	6.5
30		0	.50	4.0	---	25	78	600	143	11	7.0	7.0
31		---	.50	4.5	---	25	---	518	---	3.4	5.5	---
TOTAL	0	.01	43.14	64.50	187.0	639	2958	23004	13236	3782.4	339.28	358.2
MEAN	0	.0003	1.39	2.08	6.68	20.6	98.6	742	441	122	10.9	11.9
MAX	0	.01	3.0	4.5	11	41	505	1250	707	232	25	24
MIN	0	0	0	.50	5.0	12	13	96	133	3.4	.60	3.6
AC-FT	0	.02	86	128	371	1270	5870	45630	26250	7500	673	710

CAL YR 1974 TOTAL 10530.59 MEAN 28.9 MAX 350 MIN 0 AC-FT 20890
WTR YR 1975 TOTAL 44611.53 MEAN 122 MAX 1250 MIN 0 AC-FT 88490

PEAK DISCHARGE (BASE, 500 FT^3/S).--Apr. 26 (0600) 734 ft^3/s (5.05 ft); May 17 (1900) 1,310 ft^3/s (6.24 ft).

NOTE.--No gage-height record Dec. 7 to Mar. 15.

08249000 CONEJOS RIVER NEAR LASAUSES, COLO.

LOCATION.--Lat 37°18'01", long 105°44'47", in SW¼SW¼ sec.2, and SE¼NE¼ sec.10 (two channels), T.35 N., R.11 E., Conejos County, on left bank of main channel 125 ft (38 m) downstream from bridge on State Highway 158 and on left bank of secondary channel 230 ft (70 m) upstream from bridge on State Highway 158, 1.0 mi (1.6 km) upstream from mouth, 2.1 mi (3.4 km) north of Lasauses, and 13 mi (21 km) southeast of Alamosa.

DRAINAGE AREA.--887 mi^2 (2,297 km^2).

PERIOD OF RECORD.--March 1921 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to Oct. 1, 1966, published as "near La Sauses."

GAGE.--Two water-stage recorders. Datum of gage on main (north) channel is 7,495.02 ft (2,284.482 m), and on secondary (south) channel is 7,496.89 ft (2,285.052 m), above mean sea level (levels by Bureau of Reclamation). Main channel: See WSP 1732 for history of changes prior to Oct. 1, 1937. South channel: Prior to Oct. 23, 1934, at bridge 230 ft (70 m) downstream at datum 0.56 ft (0.171 m) lower; Oct. 23, 1934, to May 3, 1936, at site 250 ft (76 m) downstream, and May 4, 1936, to Oct. 13, 1965, at site 280 ft (85 m) downstream, at datum 1.00 (0.305 m) lower.

AVERAGE DISCHARGE.--54 years, 182 ft^3/s (5.154 m^3/s), 131,900 acre-ft/yr (163 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 1,500 ft^3/s (42.5 m^3/s) May 18; minimum daily, 0.11 ft^3/s (0.003 m^3/s) Oct. 1.
Period of record: Maximum discharge, 3,890 ft^3/s (110 m^3/s) May 15, 1941; no flow at times some years. Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 75,000 acres (304 km^2) above station.

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

REVISIONS (WATER YEARS).--WSP 1312: 1934(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	9.7	29	33	61	77	112	80	869	733	251	41
2	.20	24	32	35	63	80	109	114	960	755	159	36
3	.33	24	29	34	70	85	101	255	1040	822	142	34
4	.48	22	36	34	68	84	108	363	983	788	120	44
5	.78	22	43	37	66	86	122	454	801	731	115	64
6	.67	22	48	37	64	97	140	305	740	609	111	77
7	.86	24	36	39	68	98	162	170	765	653	93	68
8	1.6	24	35	43	64	110	170	184	820	591	80	62
9	1.6	26	35	48	62	113	158	202	756	578	60	62
10	1.7	23	35	46	64	110	147	324	794	626	58	79
11	1.8	21	33	44	64	112	120	386	867	701	108	74
12	2.3	22	35	46	64	98	99	562	818	829	113	74
13	2.8	23	35	48	66	95	81	748	813	845	146	122
14	3.5	24	37	48	68	89	71	901	902	822	193	140
15	2.7	24	34	48	71	101	67	1100	980	738	140	159
16	1.6	25	36	49	71	95	69	1320	906	693	124	162
17	1.5	27	34	50	77	104	77	1390	815	568	128	112
18	1.6	25	34	52	78	98	97	1450	730	560	118	88
19	1.6	26	34	53	76	103	104	1420	747	460	108	84
20	1.1	27	30	51	75	110	76	1390	754	317	90	84
21	1.2	26	34	50	71	126	78	1280	758	381	86	84
22	1.5	29	30	49	68	126	114	1160	758	460	79	86
23	1.6	27	34	51	66	132	256	1150	639	406	90	84
24	1.7	26	32	53	70	107	296	854	658	334	111	77
25	1.7	29	31	56	72	112	383	743	679	296	100	68
26	1.9	29	34	58	72	134	534	932	556	326	90	60
27	2.5	32	34	62	73	128	438	1190	469	255	70	52
28	2.5	35	33	65	73	115	219	1240	532	197	58	49
29	2.5	29	33	63	---	112	135	1130	502	197	56	46
30	2.7	28	32	64	---	104	99	913	537	215	52	44
31	2.8	---	32	63	---	120	---	846	---	271	46	---
TOTAL	51.43	754.7	1059	1509	1925	3261	4742	24556	22948	16757	3295	2316
MEAN	1.66	25.2	34.2	48.7	68.8	105	158	792	765	541	106	77.2
MAX	3.5	35	48	65	78	134	534	1450	1040	845	251	162
MIN	.11	9.7	29	33	61	77	67	80	469	197	46	34
AC-FT	102	1500	2100	2990	3820	6470	9410	48710	45520	33240	6540	4590

CAL YR 1974 TOTAL 16466.89 MEAN 45.1 MAX 300 MIN 0 AC-FT 32660
WTR YR 1975 TOTAL 83174.13 MEAN 228 MAX 1450 MIN .11 AC-FT 165000

08250000 CULEBRA CREEK AT SAN LUIS, COLO.

LOCATION.--Lat 37°11'02", long 105°25'31", Costilla County, in Beaubien Grant, on left bank at bridge, 1.0 mi (1.6 km) south of San Luis and 1.0 mi (1.6 km) upstream from Rito Seco.

DRAINAGE AREA.--220 mi^2 (570 km^2).

PERIOD OF RECORD.--April 1927 to current year. Monthly discharge only for some periods, published in WSP 1312. Records for January 1910 to December 1911, published as Culebra River at San Luis in WSP 288 and 308, have been found to be unreliable and should not be used.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,000 ft (2,438 m) from topographic map. Prior to May 23, 1931, water-stage recorder at present site at different datum.

AVERAGE DISCHARGE.--48 years, 47.0 ft^3/s (1.331 m^3/s), 34,050 acre-ft/yr (42.0 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 198 ft^3/s (5.61 m^3/s) June 10 (gage height, 2.22 ft or 0.677 m); minimum daily, 8.8 ft^3/s (0.25 m^3/s) Oct. 1, 2, Dec. 13-17, 19-21, 23-26.
Period of record: Maximum discharge, 654 ft^3/s (18.5 m^3/s) July 1, 1947 (gage height, 5.09 ft or 1.551 m), from rating curve extended above 300 ft^3/s (8.5 m^3/s); minimum daily, 4.6 ft^3/s (0.13 m^3/s) Oct. 31, 1950.

REMARKS.--Records good. Diversions above station for irrigation. Flow regulated by Sanchez Reservoir on Ventero Creek (capacity, 103,000 acre-ft or 127 hm^3).

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

REVISIONS (WATER YEARS).--WSP 1312: 1940. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	12	10	9.2	10	15	14	11	43	61	84	35
2	8.8	13	11	9.6	9.6	18	14	11	57	63	83	35
3	9.2	12	11	9.6	10	16	14	11	84	58	86	47
4	10	12	11	9.2	10	13	15	11	61	62	99	64
5	9.6	12	11	9.2	10	14	14	11	69	68	117	34
6	9.6	12	11	9.2	9.6	14	14	16	120	67	115	32
7	10	12	10	9.2	10	14	12	15	139	62	110	27
8	10	12	10	9.2	10	14	12	14	154	94	116	24
9	10	12	10	9.6	10	14	14	14	178	56	120	30
10	11	12	10	9.6	11	14	14	12	182	60	108	30
11	12	12	10	9.6	11	14	13	15	146	61	108	29
12	12	11	9.2	9.2	11	14	12	24	129	42	108	30
13	12	11	8.8	9.2	11	13	13	30	147	40	108	31
14	11	11	8.8	9.6	12	13	13	28	157	39	121	28
15	12	11	8.8	9.6	11	14	12	30	121	41	103	27
16	11	11	8.8	9.6	11	14	12	32	138	41	81	23
17	11	11	8.8	9.6	11	15	14	29	138	38	77	18
18	11	11	9.2	9.6	12	14	12	28	133	34	74	17
19	10	11	8.8	9.6	12	16	11	35	114	35	71	16
20	10	10	8.8	9.2	12	21	12	40	91	34	74	16
21	10	10	8.8	9.2	12	19	12	47	97	41	93	20
22	12	10	9.2	9.2	12	16	12	61	96	57	78	27
23	12	11	8.8	9.2	12	14	14	61	95	66	57	27
24	12	11	8.8	9.6	12	14	12	54	84	96	38	25
25	12	10	8.8	10	13	16	11	49	64	98	41	23
26	11	10	8.8	9.6	12	16	16	66	67	100	40	22
27	13	10	9.6	10	12	14	12	51	65	98	38	18
28	12	10	9.6	9.6	14	14	11	56	63	93	38	16
29	12	11	9.6	10	---	14	11	54	61	92	36	16
30	15	10	9.6	11	---	15	11	49	62	90	36	15
31	14	---	9.2	11	---	16	---	48	---	90	35	---
TOTAL	344.0	334	295.8	296.8	313.2	462	383	1013	3155	1977	2493	802
MEAN	11.1	11.1	9.54	9.57	11.2	14.9	12.8	32.7	105	63.8	80.4	26.7
MAX	15	13	11	11	14	21	16	66	182	100	121	64
MIN	8.8	10	8.8	9.2	9.6	13	11	11	43	34	35	15
AC-FT	682	662	587	589	621	916	760	2010	6260	3920	4940	1590

CAL YR 1974 TOTAL 11843.2 MEAN 32.4 MAX 114 MIN 8.8 AC-FT 23490
WTR YR 1975 TOTAL 11868.8 MEAN 32.5 MAX 182 MIN 8.8 AC-FT 23540

08251500 RIO GRANDE NEAR LOBATOS, COLO.

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, on right bank at highway bridge, 6 mi (10 km) north of Colorado-New Mexico State line, 7 mi (11 km) downstream from Culebra Creek, 10 mi (16 km) east of Lobatos, and 14 mi (23 km) east of Antonito.

DRAINAGE AREA.--7,700 mi^2 (19,900 km^2), approximately (includes 2,940 mi^2 or 7,610 km^2 in closed basin in northern part of San Luis Valley, Colo.).

PERIOD OF RECORD.--June 1889 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-4.

GAGE.--Water-stage recorder. Datum of gage is 7,427.63 ft (2,263.942 m) above mean sea level. Prior to Nov. 8, 1910, non-recording gages at same site and datum.

AVERAGE DISCHARGE.--76 years, 589 ft^3/s (16.68 m^3/s), 426,700 acre-ft/yr (527 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,490 ft^3/s (70.5 m^3/s) June 18 (gage height, 4.17 ft or 1.271 m); minimum daily, 15 ft^3/s (0.42 m^3/s) Oct. 1.
Period of record: Maximum discharge observed, 13,200 ft^3/s (374 m^3/s) June 8, 1905 (gage height, 9.1 ft or 2.77 m), from rating curve extended above 8,000 ft^3/s (230 m^3/s; no flow at times in 1950-51, 1956. Maximum stage since at least 1828, that of June 8, 1905.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Water-quality records for the current year are published in Section 2 of this report.

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

REVISIONS (WATER YEARS).--WSP 210: Drainage area. WSP 1312: 1907 (monthly runoff).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	58	170	145	220	280	370	320	1290	1350	685	390
2	16	69	160	150	225	300	365	286	1370	1430	538	370
3	16	92	160	150	240	315	360	335	1440	1540	496	375
4	16	90	170	150	245	300	345	478	1560	1620	514	375
5	17	82	195	155	245	315	360	568	1610	1530	520	395
6	23	80	210	155	235	375	380	608	1740	1350	502	420
7	29	80	210	160	235	380	430	425	1900	1380	472	430
8	32	92	160	165	235	390	484	445	1910	1340	440	420
9	34	98	170	170	235	455	514	430	1470	1260	440	425
10	53	98	160	170	235	440	484	460	1200	1340	435	410
11	60	95	170	175	235	490	466	538	1650	1540	472	420
12	62	90	175	175	240	450	435	699	2080	1620	490	410
13	67	90	170	175	245	435	415	925	2220	1680	520	450
14	73	90	170	170	250	430	405	1240	2140	1670	562	502
15	67	90	170	170	250	395	395	1550	2260	1610	587	556
16	67	82	170	170	255	390	390	1840	2380	1530	538	562
17	69	85	160	175	255	385	405	1970	2390	1300	508	538
18	65	98	160	175	250	380	445	2140	2400	1250	466	484
19	58	95	165	175	260	380	484	2150	2140	1230	450	435
20	56	85	160	175	260	390	472	2000	1750	979	435	415
21	51	110	165	175	255	420	430	1920	1530	840	410	380
22	51	125	165	175	220	450	450	1820	1430	961	395	365
23	50	120	160	175	210	472	478	1820	1370	1040	405	360
24	50	142	155	180	255	440	514	1610	1640	840	430	350
25	50	160	155	185	265	420	526	1240	1750	705	440	330
26	51	190	140	185	260	410	615	1220	1740	760	484	315
27	51	165	140	175	260	430	808	1580	1670	768	496	302
28	53	140	145	170	270	450	664	1860	1550	636	472	294
29	58	100	140	165	---	390	508	1930	1210	574	445	294
30	60	110	140	180	---	380	390	1780	1180	622	430	286
31	60	---	140	210	---	370	---	1530	---	643	420	---
TOTAL	1480	3101	5080	5280	6845	12307	13787	37717	51970	36938	14897	12058
MEAN	47.7	103	164	170	244	397	460	1217	1732	1192	481	402
MAX	73	190	210	210	270	490	808	2150	2400	1680	685	562
MIN	15	58	140	145	210	280	345	286	1180	574	395	286
AC-FT	2940	6150	10080	10470	13580	24410	27350	74810	103100	73270	29550	23920

CAL YR 1974 TOTAL 61262 MEAN 168 MAX 760 MIN 12 AC-FT 121500
WTR YR 1975 TOTAL 201460 MEAN 552 MAX 2400 MIN 15 AC-FT 399600

08252000 RIO GRANDE AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 37°00'03", long 105°43'19", Costilla County, in Sangre de Cristo Grant, on left bank 0.6 mi (1.0 km) upstream from Colorado-New Mexico State line, 1.7 mi (2.7 km) upstream from Costilla Creek, and 5.5 mi (8.8 km) west of Jarosa.

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

GAGE.--Water-stage recorder. Altitude of gage is 7,390 ft (2,252 m) from topographic map.

AVERAGE DISCHARGE.--22 years, 330 ft^3/s (9.346 m^3/s), 239,100 acre-ft/yr (295 hm^3/yr).

EXTREMES.--Current year: Maximum discharge, 2,520 ft^3/s (71.4 m^3/s) June 18 (gage height, 5.68 ft or 1.731 m); minimum daily, 14 ft^3/s (0.40 m^3/s) Oct. 1.
Period of record: Maximum discharge, 4,150 ft^3/s (118 m^3/s) May 29, 1958 (gage height, 7.07 ft or 2.155 m); no flow at times in 1956.
Flood of June 8, 1905 (daily discharge, 13,100 ft^3/s or 371 m^3/s at station near Lobatos 5.8 mi or 9.3 km upstream), was probably the greatest since at least 1828.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

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

REVISIONS (WATER YEARS).--WSP 1732: 1954(M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	55	150	145	215	275	391	330	1240	1250	707	404
2	15	64	165	145	220	295	391	289	1270	1350	579	381
3	16	90	160	150	235	310	385	317	1360	1400	501	375
4	16	95	165	150	245	310	375	445	1460	1530	512	394
5	16	88	190	155	245	315	385	523	1520	1440	523	394
6	18	86	205	155	240	370	398	587	1640	1290	512	411
7	25	84	210	160	235	390	442	414	1830	1280	484	431
8	31	97	180	160	235	405	498	421	1880	1280	448	421
9	33	108	165	170	235	470	527	418	1530	1190	445	435
10	41	106	165	170	235	456	512	431	1220	1240	445	414
11	59	103	165	175	235	494	487	512	1590	1440	462	425
12	61	99	170	175	240	484	456	607	2090	1550	487	414
13	63	97	175	175	240	448	442	840	2260	1610	508	431
14	68	97	170	175	245	452	428	1090	2190	1610	539	480
15	66	92	170	170	250	411	411	1390	2270	1550	571	519
16	64	88	170	170	250	401	391	1670	2400	1450	531	535
17	66	88	165	175	255	401	394	1840	2390	1240	504	523
18	64	92	160	175	255	398	445	1970	2440	1140	470	473
19	59	95	160	175	255	398	484	2000	2240	1170	456	435
20	55	86	165	175	260	401	490	1900	1830	938	442	411
21	54	90	160	175	260	418	445	1790	1560	790	418	385
22	54	118	165	175	230	442	448	1730	1470	880	404	368
23	54	120	165	175	215	484	487	1700	1360	974	404	362
24	52	128	160	180	240	452	512	1530	1620	835	431	359
25	52	157	155	180	260	414	512	1220	1730	694	438	340
26	50	175	145	185	265	421	595	1120	1740	720	476	330
27	52	170	140	180	260	445	752	1410	1650	775	487	314
28	54	160	140	175	265	414	671	1710	1560	653	470	302
29	54	108	145	170	---	408	539	1820	1210	563	445	302
30	59	105	140	175	---	408	404	1680	1110	611	431	298
31	55	---	140	205	---	385	---	1470	---	635	421	---
TOTAL	1440	3141	5080	5275	6820	12575	14097	35174	51660	35078	14951	12066
MEAN	46.5	105	164	170	244	406	470	1135	1722	1132	482	402
MAX	68	175	210	205	265	494	752	2000	2440	1610	707	535
MIN	14	55	140	145	215	275	375	289	1110	563	404	298
AC-FT	2860	6230	10080	10460	13530	24940	27960	69770	102500	69580	29660	23930

CAL YR 1974 TOTAL 61961 MEAN 170 MAX 780 MIN 12 AC-FT 122900
WTR YR 1975 TOTAL 197357 MEAN 541 MAX 2440 MIN 14 AC-FT 391500

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO

There are 24 tunnels or ditches, all of which are equipped with water-stage recorders and Parshall flumes or sharp-crested weirs. Records furnished by Colorado Division of Water Resources. The locations of these diversions are given in the following list.

09010000 Grand River ditch diverts water from tributaries of Colorado River to La Poudre Pass Creek (tributary to Cache la Poudre River) in NW¼ sec.21, T.6 N., R.75 W., in Platte River basin. Two collection ditches beginning at headgates located in sec.28, T.5 N., R.76 W., and sec.29, T.6 N., R.75 W., intercept all tributaries upstream on each side of the Colorado River and converge at La Poudre Pass.
REVISIONS (WATER YEARS).--WSP 1313: 1912-27.

09012000 Eureka ditch diverts water from tributaries of Tonahutu Creek between headgate in sec.7, T.4 N., R.74 W., and Sprague Pass, in Colorado River basin, to Spruce Creek (tributary to Big Thompson River) in sec.16, T.4 N., R.74 W., in Platte River basin.
REVISIONS (WATER YEARS).--WSP 1313: 1949.

09013000 Alva B. Adams tunnel diverts water from Grand Lake and Shadow Mountain Lake in NW¼ sec.9, T.3 N., R.75 W., in Colorado River basin, to Lake Estes (Big Thompson River) in sec.30, T.5 N., R.72 W., in Platte River basin. For daily discharge, see elsewhere in this report.

09021500 Berthoud Pass ditch diverts water from tributaries of Fraser River between headgate in sec.33, T.2 S., R.75 W., and Berthoud Pass, in Colorado River basin, to Hoop Creek (tributary to West Fork Clear Creek) in sec.10, T.3 S., R.75 W., in Platte River basin.

09022500 Moffat water tunnel diverts water from tributaries of Williams Fork (via August P. Gumlick and Vasquez tunnels, beginning in 1959) between headgates (in secs.20 and 29, T.3 S., R.76 W.) and west portal of August P. Gumlick tunnel (in sec.28, T.3 S., R.76 W.) and from the main stem and tributaries of Fraser River between headgates (in sec.8, T.2 S., R.76 W., and sec.24, T.1 S., R.75 W.) and west portal of Moffat tunnel (in sec.11, T.2 S., R.75 W.), in Colorado River basin, to South Boulder Creek, in sec.2, T.2 S., R.74 W., in Platte River basin. (See sta. 09036000 for diversions by August P. Gumlick tunnel.)

09042000 Hoosier Pass tunnel diverts water from tributaries of Blue River in Colorado River basin to Montgomery Reservoir (Middle Fork South Platte River) in sec.14, T.8 S., R.78 W., in Platte River basin; this water is again diverted to South Catamount Creek (tributary to Catamount Creek) in SE¼ sec.14, T.13 S., R.69 W., in the Arkansas River basin. Collection conduits extending from the right bank of Crystal Creek (tributary to Spruce Creek) in sec.14, T.7 S., R.78 W., right bank of Spruce Creek in sec.23, T.7 S., R.78 W., right bank of McCullough Gulch in sec.26, T.7 S., R.78 W., right bank of Monte Cristo Creek in SW¼NE¼ sec.2, T.8 S., R.78 W., left bank of Bemrose Creek in SW¼SW¼ sec.6, T.8 S., R.77 W., and intercepting intermediate tributaries, transport diversions to north portal of the tunnel.

09046000 Boreas Pass ditch diverts water from tributaries of Blue River between headgate in sec.26, T.7 S., R.77 W., and Boreas Pass, in Colorado River basin, to Tarryall Creek in sec.26, T.7 S., R.77 W., in Platte River basin.
REVISIONS (WATER YEARS).--WSP 1733: 1958.

09047300 Vidler tunnel diverts water from tributaries of Peru Creek (tributary to Snake River) in sec.9, T.5 S., R.75 W., in Blue River basin, to Leavenworth Creek (tributary to South Clear Creek) in sec.10, T.5 S., R.75 W., in Platte River basin.

09050590 Harold D. Roberts tunnel diverts water from Dillon Reservoir (Blue River) in sec.18, T.5 S., R.77 W., in Blue River basin, to North Fork South Platte River (tributary to South Platte River) in SW¼SW¼ sec.4, 1.7 S., R.74 W., in PLatte River basin. Figures include a small amount of ground-water inflow between Dillon Reservoir and east portal of tunnel.

09061500 Columbine ditch diverts water from tributaries of Eagle River in sec.5, T.8 S., R.79 W., in Colorado River basin to Chalk Creek (tributary to East Fork Arkansas River) in NW¼ sec.9, T.8 S., R.79 W., in Arkansas River basin.

09062000 Ewing ditch diverts water from Piney Creek in sec.11, T.8 S., R.80 W., in Eagle River basin, to Thayer Gulch (tributary to Tennessee Creek) in sec.11, T.8 S., R.80 W., in Arkansas River basin.

TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO--Continued

09062500 Wurtz ditch diverts water from tributaries of Eagle River between headgate in sec.32, T.7 S., R.80 W., and Tennessee Pass, in Colorado River basin, to West Tennessee Creek (tributary to Tennessee Creek) in sec.17, T.8 S., R.80 W., in Arkansas River basin.

09063700 Homestake tunnel diverts water from Homestake Lake (Middle Fork Homestake Creek), in sec.17, T.8 S., R.81 W., in Eagle River basin, to Lake Fork in sec.9, T.9 S., R.81 W., in Arkansas River basin. Water is imported to Homestake Lake from tributaries of Homestake Creek by collection conduits that extend from right bank of French Creek in sec.28, T.7 S., R.81 W., and left bank of East Fork Homestake Creek in sec.9, T.8 S., R.81 W., and intercept intermediate tributaries.

09073000 Twin Lakes tunnel diverts water from tributaries of Roaring Fork River between headgates (in sec.21, T.11 S., R.83 W., and sec.2, T.11 S., R.83 W.), and west portal of Twin Lakes tunnel (in sec.24, T.11 S., R.83 W.), in Colorado River basin, to North Fork Lake Creek in sec.22, T.11 S., R.82 W., in Arkansas River basin.

09077160 Charles H. Boustead Tunnel diverts water from the main stem and tributaries of Fryingpan River (tributary to Roaring Fork River), in Colorado River basin, to Lake Fork in sec.10, T.9 S., R.81 W., in Arkansas River basin. Water is transported to west portal of tunnel (at lat 39°14'44", long 106°31'47"), by a series of collection conduits extending between headgates on right bank of Sawyer Creek at lat 39°15'58", long 106°38'19", and right bank of Fryingpan River at lat 39°14'40", long 106°31'49", and intercepting intermediate tributaries.

09077500 Busk-Ivanhoe tunnel diverts water from Ivanhoe Lake (Ivanhoe Creek), tributary to Fryingpan River in sec.13, T.9 S., R.82 W., in Roaring Fork River basin, to Busk Creek (tributary to Lake Fork) in sec.20, T.9 S., R.81 W., in Arkansas River basin.

09115000 Larkspur ditch diverts water from tributaries of Tomichi Creek between headgates (in sec.11, T.48 N., R.6 E., and sec.1, T.47 N., R.6 E.), and Marshall Pass, in Gunnison River basin, to Poncha Creek (tributary to South Arkansas River) in SE¼ sec.24, T.48 N., R.6 E., in Arkansas River basin.

09118200 Tarbell ditch diverts water from Lake Fork Cochetopa Creek (tributary to Cochetopa Creek), in NW¼ sec.18, T.43 N., R.2 E., in Gunnison River basin, to Lake Fork Saguache Creek (tributary to Middle Fork Saguache Creek) in NE¼ sec.18, T.43 N., R.2 E., in Rio Grande basin. All records available prior to October 1960 published in WSP 1733.
REVISIONS (WATER YEARS).--WSP 1733: 1949-51.

09121000 Tabor ditch diverts water from tributaries of Cebolla Creek in secs.29 and 36, T.43 N., R.3 W., in Gunnison River basin, to Big Spring Creek (tributary to North Clear Creek) in sec.35, T.43 N., R.3 W., in Rio Grande basin.

09341000 Treasure Pass diversion ditch diverts water from tributaries of Wolf Creek between headgates (in sec.31, T.38 N., R.2 E., and sec.6, T.37 N., R.3 E.), and Wolf Creek Pass, in San Juan River basin, to tributary of South Fork Rio Grande in sec.31, T.38 N., R.2 E., in Rio Grande basin.

09347000 Don La Font ditches 1 and 2 divert water from tributaries of Piedra River between headgates in NW¼ sec.4, T.38 N., R.1 W., and SW¼ sec.33, T.39 N., R.1 W.), and Piedra Pass, in San Juan River basin, to South River in sec.4, T.38 N., R.1 W., in Rio Grande basin.

09348000 Williams Creek-Squaw Pass ditch diverts water from Williams Creek (tributary to Piedra River) in sec.13, T.39 N., R.3 W., in San Juan River basin, to Squaw Creek in sec.10, T.39 N., R.3 W., in Rio Grande basin.

09351000 Pine River-Weminuche Pass ditch diverts water from North Fork Los Pinos River (tributary to Los Pinos River) in sec.4, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

09351500 Weminuche Pass ditch diverts water from left bank of Rincon la Vaca Creek (tributary to Los Pinos River) in sec.5, T.39 N., R.4 W., in San Juan River basin, to Weminuche Creek in sec.33, T.40 N., R.4 W., in Rio Grande basin.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

Diversion	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
TO PLATTE RIVER BASIN													
09010000 Grand River ditch...	0	0	0	0	0	0	0	248	7,140	11,900	2,310	235	21,830
09012000 Eureka ditch.....	0	0	0	0	0	0	0	0	0	0	0	0	0
09013000 Alva B. Adams tunnel	26,380	17,470	24,580	28,090	23,430	22,660	15,640	25,750	4,380	6,740	23,560	20,580	239,300
09021500 Berthoud Pass ditch.	0	0	0	0	0	0	0	0	0	308	94	0	402
09022500 Moffat water tunnel.	1,830	1,130	904	630	445	416	516	5,530	26,240	12,330	5,670	2,940	58,580
09046000 Boreas Pass ditch...	0	0	0	0	0	0	0	0	26	0	9.8	3.7	39
09047300 Vidler tunnel.....	0	0	0	0	0	0	0	0	0	12	0	0	12
09050590 Harold D. Roberts tunnel.....	2,630	2,340	2,990	3,000	2,850	2,080	4,400	9,810	611	4,410	9,970	2,180	47,260
Total.....	30,840	20,940	28,470	31,720	26,720	25,160	20,560	41,340	38,400	35,700	41,610	25,940	367,400
TO ARKANSAS RIVER BASIN													
09042000 Hoosier Pass tunnel.	0	0	0	0	0	0	0	430	3,200	1,990	1,300	1,540	8,460
09061500 Columbine ditch.....	0	0	0	0	0	0	0	89	980	822	99	9.5	2,000
09062000 Ewing ditch.....	0	0	0	0	0	0	0	125	505	329	114	65	1,140
09062500 Wurtz ditch.....	0	0	0	0	0	0	0	274	1,930	1,010	164	51	3,430
09063700 Homestake tunnel....	0	0	0	0	0	0	7,370	14,270	7,640	8,050	12,670	9,870	59,870
09073000 Twin Lakes tunnel...	143	277	141	113	104	132	124	3,390	21,260	20,030	3,320	492	49,540
09077160 Charles H. Boustead Tunnel.....	0	0	0	0	0	0	0	2,760	16,960	16,180	968	0	36,870
09077500 Busk-Ivanhoe tunnel.	55	0	0	0	0	0	0	322	2,940	3,430	257	97	7,100
09115000 Larkspur ditch.....	0	0	0	0	0	0	0	0	94	110	67	57	328
Total.....	198	277	141	113	104	132	7,490	21,660	55,510	51,950	18,960	12,180	168,720
TO RIO GRANDE BASIN													
09118200 Tarbell ditch.....	0	0	0	0	0	0	0	0	0	423	197	72	692
09121000 Tabor ditch.....	0	0	0	0	0	0	0	16	598	237	82	21	955
09341000 Treasure Pass diversion ditch.....	0	0	0	0	0	0	0	.5	219	230	15	0	465
09347000 Don La Font ditches No. 1 and 2.....	0	0	0	0	0	0	0	0	46	350	32	0	428
09348000 Williams Creek-Squaw Pass ditch.....	0	0	0	0	0	0	0	0	0	161	62	0	223
09351000 Pine River-Weminuche Pass ditch.....	0	0	0	0	0	0	0	0	13	110	0	0	123
09351500 Weminuche Pass ditch	0	0	0	0	0	0	0	0	205	1,340	0	0	1,550
Total.....	0	0	0	0	0	0	0	16.5	1,080	2,850	388	93	4,440
Grand Total.....	31,040	21,220	28,610	31,830	26,820	25,290	28,050	63,020	94,990	90,500	60,960	38,210	540,600

NOTE: Due to method of computing water year figures and rounding procedures, totals do not agree.

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 storm precipitation and related runoff from storm-runoff partial-record stations. 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 YEARS 1974-75

Station no.	Station name	Location	Drainage area (sq mi)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		ARKANSAS RIVER BASIN				
07093980	Lake Creek near Hillside, Colo.	Lat 38°15'49", long 105°39'41", Custer County, in Lake Creek Campground 400 ft (120 m) below road bridge, 0.5 mi (0.8 km) downstream from confluence of North Lake Creek and South Lake Creek, and 2.7 mi (4.3 km) west of Hillside.	9.07	1974-75	6-21-74	9.10
					7-31-74	3.75
					9-16-74	3.06
					10-16-74	2.14
					11-15-74	2.04
					12-18-74	2.11
					4-18-75	1.44
					5-21-75	1.78
					6-13-75	10.9
					7-10-75	19.9
					8- 6-75	13.1
					9- 9-75	7.60
07094530	Grape Creek near Bradford, Colo.	Lat 37°57'03", long 105°27'03", Custer County, at unnamed ditch headgate 250 ft (76 m) downstream from road crossing, 1.0 mi (1.6 km) upstream from Crystal Falls Creek, and 7.9 mi (12.7 km) northwest of Bradford.	6.72	1974-75	6-20-74	1.33
					7-31-74	.45
					9-16-74	.32
					10-16-74	.38
					11-15-74	.47
					12-18-74	.55
					4-28-75	3.85
					5-20-75	18.8
					6-13-75	16.6
					7-10-75	5.71
					8- 6-75	1.66
					9- 9-75	1.29
07094700	Antelope Creek near Rosita, Colo.	Lat 38°01'18", long 105°21'43", Custer County, at downstream end of culvert 50 ft (15 m) downstream from Lapin Creek, and 5.5 mi (8.8 km) south of Rosita.	35.3	1974-75	6-20-74	.52
					7-31-74	<.01
					9-16-74	0
					10-16-74	0
					11-15-74	0
					12-18-74	0
					4-17-75	9.44
					5-20-75	.99
					6-13-75	1.60
					7-10-75	.78
					8- 6-75	.16
					9- 9-75	.03
07094800	Venable Creek near Westcliffe, Colo.	Lat 38°05'02", long 105°33'52", Custer County, at Rainbow Trail footbridge crossing 500 ft (150 m) north of Abbotts Lodge, and 6.5 mi (10.5 km) southwest of Westcliffe.	2.55	1974-75	6-21-74	4.27
					7-31-74	2.05
					9-16-74	.83
					10-16-74	.48
					11-15-74	.23
					5-21-75	7.32
					6-13-75	8.01
					7-10-75	17.0
					8- 6-75	5.00
					9- 9-75	1.58

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. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1975

Station number	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		PLATTE RIVER BASIN					
06710200	Big Dry Creek tributary at Littleton, Colo.	Lat 39°35'46", long 104°57'06", in SE¼SW¼ sec.24, T.5 S., R.68 W., Arapahoe County, 500 ft (150 m) upstream from S. Clayton St., 1 mi (2 km) east of Littleton.	a1.0	1969-75	8-13-75	12.79	258
06710250	South Platte River tary at Englewood, Colo.	Lat 39°38'05", long 104°59'39", in SW¼NE¼ sec.10, T.5 S., R.68 W., Arapahoe County, at culvert at intersection of Fox and Stanford Sts., in Englewood.	1.00	1971-73, 1975	7-24-75	13.06	243
06711450	Bear Creek tributary at Denver, Colo.	Lat 39°39'14", long 105°02'46", in SE¼SW¼ sec.31, T.4 S., R.68 W., Denver County, at culvert at W. Hampden Ave. (U.S. Highway 285), 400 ft (120 m) upstream from mouth, 1,800 ft (550 m) east of S. Sheridan Blvd. in Denver.	a.2	1971-75	8-13-75	10.60	3.8
06711580	Harvard Gulch tributary at Englewood, Colo.	Lat 39°39'34", long 104°58'16", in NE¼SW¼ sec.35, T.4 S., R.68 W., Arapahoe County, 400 ft (120 m) south of E. Dartmouth Ave., 470 ft (140 m) east of S. Downing St. in Englewood.	b.98	1971-75	7-24-75	12.79	178
06711600	Sanderson Gulch tributary at Lakewood, Colo.	Lat 39°41'19", long 105°04'54", in NE¼SW¼ sec.23, T.4 S., R.69 W., Jefferson County, 300 ft (91 m) upstream from S. Wadsworth Blvd., 300 ft (91 m) south of W. Florida Ave. in Lakewood.	b.42	1969-75	4-18-75	12.71	86
06711650	Lakewood Gulch tributary at Lakewood, Colo.	Lat 39°42'17", long 105°06'33", in SE¼NE¼ sec.16, T.4 S., R.69 W., Jefferson County, at culvert at S. Kipling St. and W. Exposition Ave., in Lakewood.	a.3	1971-75	7-20-75	11.18	25
06711700	Dry Gulch at Lakewood, Colo.	Lat 39°44'29", long 105°06'43", in SE¼SE¼ sec.33, T.3 S., R.69 W., Jefferson County, 800 ft (240 m) upstream from storm drain at Kipling St., 500 ft (150 m) east of intersection of Miller St. and W. 15th Pl. in Lakewood.	b.58	1971-75	7-20-75	15.45	196
06714210	South Platte River tributary at Denver, Colo.	Lat 39°47'18", long 104°56'32", in NE¼SE¼ sec.13, T.3 S., R.68 W., Denver County, 350 ft (110 m) north of intersection of Jackson St. and E. 50th Ave., 3,000 ft (910 m) northwest of intersection of Interstate Highway 70 and Colorado Blvd. in Denver.	a.5	1971-75	5-22-75	15.76	94
06714230	Toll Gate Creek tributary at Aurora, Colo.	Lat 39°44'10", long 104°48'39", in SE¼NE¼ sec.6, T.4 S., R.66 W., Arapahoe County, 180 ft (55 m) downstream from intersection of 13th Ave. and Granby St. in Aurora.	b.47	1970-75	8-14-75	14.46	184

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1975--Continued

Station number	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		PLATTE RIVER BASIN--Continued					
06714240	Sand Creek tributary at Aurora, Colo.	Lat 39°45'41", long 104°49'36", in NW¼SW¼ sec.30, T.3 S., R.66 W., Adams County, at culvert at Interstate Highway 225, 300 ft (91 m) west of intersection of E. 32nd Ave. and Zion St. in Aurora.	a0.3	1971-75	5-29-75	10.71	20
06714300	Concourse D Storm Drain at Stapleton Airport, at Denver, Colo.	Lat 39°46'08", long 104°53'12", in NE¼NE¼ sec.28, T.3 S., R.67 W., Denver County, in storm sewer 125 ft (38 m) south of Stapleton Airport Firehouse, at Denver.	.12	1970-75	6-23-75	13.90	126
06714310	Sand Creek tributary at Denver, Colo.	Lat 39°47'07", long 104°50'31", in SW¼SW¼ sec.13, T.3 S., R.67 W., Denver County, in median of Andrews Drive Parkway, 50 ft (15 m) downstream from Troy St. in Denver.	b.30	1971-75	8-13-75	11.17	53
06719530	Apex Gulch at Golden, Colo.	Lat 39°43'03", long 105°12'27", in NW¼SE¼ sec.10, T.4 S., R.70 W., Jefferson County, on right bank at bridge on county road, 1,700 ft (518 m) northeast of Heritage Square, 1.1 mi (1.8 km) southwest of intersection of U.S. Highways 6 and 40 in Golden.	a1.5	1974-75	7-20-75	10.49	55
06719540	Lena Gulch tributary at Golden, Colo.	Lat 39°43'30", long 105°10'38", in NE¼NW¼ sec.12, T.4 S., R.70 W., Jefferson County, at culvert on 6th Ave. service road 0.4 mi (0.6 km) west of entrance to Jefferson County Fairgrounds and 0.7 mi (1.1 km) west of Indiana St., in Golden.	--	1975	7-16-75	12.83	(†)
06719630	Lena Gulch at Lakewood, Colo.	Lat 39°44'28", long 105°08'45", in SW¼SW¼ sec.32, T.3 S., R.69 W., Jefferson County, on right bank at culvert on Alkire St., 1,600 ft (488 m) from Youngfield St. and 2,600 ft (792 m) southwest of intersection of W. 20th Ave. and Youngfield St. in Lakewood.	a9.0	1974-75	7-20-75	14.41	641
06719750	Ralston Creek tributary at Arvada, Colo.	Lat 39°48'53", long 105°08'15", in SE¼SW¼ sec.5, T.3 S., R.69 W., Jefferson County, at culvert at Ward Rd., 600 ft (180 m) north of Ralston Rd. in Arvada.	a.6	1970-75	7-23-75	10.61	12
06719760	Van Bibber Creek at Arvada, Colo.	Lat 39°47'54", long 105°08'20", in SE¼SW¼ sec.8, T.3 S., R.69 W., Jefferson County, 300 ft (91 m) downstream from culvert at Ward Rd., 1,300 ft (400 m) south of W. 58th Ave. in Arvada.	b.71	1970-75	7-16-75	11.13	40
06719770	Clear Creek tributary at Arvada, Colo.	Lat 39°49'20", long 105°03'11", in SE¼NE¼ sec.1, T.3 S., R.69 W., Jefferson County, at culvert at Sheridan Blvd., 100 ft (30 m) north of W. 69th Ave. in Arvada.	b1.18	1970-75	7-16-75	13.04	237
06719880	Clear Creek tributary No. 1 at Westminster, Colo.	Lat 39°49'54", long 105°00'24", in NE¼SW¼ sec.33, T.2 S., R.68 W., Adams County, at culvert at entrance ramp from Pecos St. to westbound U.S. Highway 36 in Westminster.	b.83	1971-75	7-14-75	15.17	237
06719960	Clear Creek tributary No. 2 at Westminster, Colo.	Lat 39°49'50", long 104°58'59", in NW¼SE¼ sec.34, T.2 S., R.68 W., Adams County, on west side of Interstate Highway 25 right-of-way, 500 ft (150 m) north of W. 73d Ave. in Westminster.	b.41	1971-75	7- 8-75	10.91	65

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1975--Continued

Station number	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		PLATTE RIVER BASIN--Continued					
06720100	Tuck Drain at Northglenn, Colo.	Lat 39°52'35", long 104°59'16", in NE¼SW¼ sec.15, T.2 S., R.68 W., Adams County, 145 ft (44 m) downstream from intersection of Belford and Melody Sts. in Northglenn.	a0.07	1968-75	7-16-75	12.04	49
06720200	South Platte River tributary No. 2 at Northglenn, Colo.	Lat 39°51'57", long 105°00'27", in SE¼NW¼ sec.21, T.2 S., R.68 W., Adams County, at culvert at Holiday Terrace 50 ft (15 m) south of Holiday Parkway, in Holiday Hills Trailer Park in Northglenn.	b.53	1968-75	6- 8-75	17.22	(†)
06720300	Hillcrest Drain at Northglenn, Colo.	Lat 39°52'57", long 104°59'36", in NW¼NW¼ sec.15, T.2 S., R.68 W., Adams County, 180 ft (55 m) upstream from Tuck lateral at Northglenn High School.	.28	1968-75	7-16-75	11.95	107
06720400	Kennedy Drive Drain at Northglenn, Colo.	Lat 39°53'26", long 104°59'12", in NE¼SW¼ sec.10, T.2 S., R.68 W., Adams County, below culvert at Interstate Highway 25, 0.3 mi (0.5 km) north of 104th Ave. in Northglenn.	.10	1968-71, 1973-75	7-16-75	c16.16	125
06720800	Big Dry Creek tributary at Westminster, Colo.	Lat 39°52'03", long 105°02'12", in NE¼NE¼ sec.19, T.2 S., R.68 W., Adams County, at culvert at intersection of W. 94th Ave. and Newton St. in Westminster.	a.4	1972-75	7-16-75	12.40	64
06728200	Skunk Creek at Boulder, Colo.	Lat 39°59'28", long 105°16'07", in NE¼SW¼ sec.6, T.1 S., R.70 W., Boulder County, 900 ft (270 m) northeast of Kohler Reservoir, 2,000 ft (610 m) upstream from Anderson Extension Ditch crossing in Boulder.	a.7	1970-75	8-13-75	10.84	23
06728300	Twomile Canyon at Boulder, Colo.	Lat 40°02'59", long 105°18'16", in NE¼SE¼ sec.14, T.1 N., R.71 W., Boulder County, at culvert at Linden Dr. 1 mi (2 km) northwest of intersection of 4th St. and Kalmia Ave. in Boulder.	a.8	1970-75	4-19-75	10.04	15
06728350	Goose Creek at Boulder, Colo.	Lat 40°01'35", long 105°16'19", in NW¼NE¼ sec.30, T.1 N., R.70 W., Boulder County, 30 ft (9 m) downstream from 19th St., 150 ft (46 m) south of Balsam Ave. in Boulder.	b.64	1971-75	6- 7-75	12.12	102
06728400	Boulder Creek tributary at Boulder, Colo.	Lat 39°58'48", long 105°14'41", in SE¼NE¼ sec.8, T.1 S., R.70 W., Boulder County, at culvert at State Highway 93 (Broadway), 2,400 ft (730 m) southeast of intersection of Broadway and Table Mesa Drive in Boulder.	b.08	1970-75	5-29-75	10.30	13
06730450	Rock Creek tributary at Broomfield, Colo.	Lat 39°54'52", long 105°06'51", in SW¼SE¼ sec.33, T.1 S., R.69 W., Boulder County, at culvert at State Highway 128 (W. 120th Ave.), 5,000 ft (1,520 m) west of Wadsworth Blvd. in Broomfield.	a.2	1971-75	5-29-75	10.24	.9
06753800	Owl Creek tributary near Rockport, Colo.	Lat 40°55'07", long 104°46'01", in SW¼ sec.15, T.11 N., R.66 W., Weld County, 1,300 ft (400 m) upstream from county road bridge, 2 mi (3 km) east of Rockport.	4.56	1969-75	8-12-75	12.27	718

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1975--Continued

Station number	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		PLATTE RIVER BASIN--Continued					
06756200	Geary Creek tributary near Rockport, Colo.	Lat 40°58'00", long 104°33'50", in NE¼ sec.32, T.12 N., R.64 W., Weld County, 0.4 mi (0.6 km) upstream from mouth, 13 mi (21 km) northeast of Rockport.	5.70	1969-75	7-22-75	10.04	66
06758150	Kiowa Creek tributary near Elbert, Colo.	Lat 39°12'06", long 104°30'14", in NW¼NE¼ sec.12, T.10 S., R.64 W., Elbert County, at culvert on county road, 2.2 mi (3.5 km) southeast of Elbert.	b.62	1970-75	7- 9-75	c12.90	110
06758250	Kiowa Creek tributary near Bennett, Colo.	Lat 39°36'47", long 104°27'01", in NW¼SW¼ sec.16, T.5 S., R.63 W., Arapahoe County, 3,500 ft (1,070 m) downstream from bridge on county road, 10 mi (16 km) south of Bennett.	6.41	1970-75	8-29-75	10.01	38
06758400	Goose Creek near Hoyt, Colo.	Lat 40°02'10", long 104°13'06", in NE¼SW¼ sec.21, T.1 N., R.61 W., Weld County, 500 ft (150 m) upstream from bridge on county road, 7.7 mi (12.4 km) west of Hoyt.	3.75	1969-75	8-13-75	14.78	284
06758700	Middle Bijou Creek tributary near Deer Trail, Colo.	Lat 39°29'33", long 104°09'46", in SE¼SE¼ sec.25, T.6 S., R.61 W., Elbert County, 300 ft (91 m) downstream from gas line crossing, 10.4 mi (16.7 km) southwest of Deer Trail.	2.27	1970-75	1975	(d)	<28
06759700	Sand Creek tributary near Lindon, Colo.	Lat 39°43'54", long 103°21'18", in NE¼ sec.6, T.4 S., R.53 W., Washington County, 0.5 mi (0.8 km) upstream from bridge on U.S. Highway 36, 3 mi (5 km) east of Lindon.	b2.35	1969-75	6-22-75	11.65	127
06759900	Antelope Draw near Union, Colo.	(Relocated) Lat 40°25'57", long 103°36'15", in NW¼NE¼ sec.2, T.5 N., R.56 W., Morgan County, 0.5 mi (0.8 km) upstream from bridge on State Highway 71, 6.5 mi (10.5 km) northwest of Union. Prior to Jan. 15, 1975, at site 0.3 mi (0.5 km) downstream.	b1.45	1969-75	1975	(d)	<12
06760200	Igo Creek tributary near Keota, Colo.	Lat 40°47'24", long 103°57'18", in SW¼SW¼ sec.34, T.10 N., R.59 W., Weld County, 0.3 mi (0.5 km) upstream from bridge on county road, 8.5 mi (13.7 km) northeast of Keota.	b1.38	1969-75	1975	(d)	<5.0
06760300	Darby Creek near Buchanan, Colo.	Lat 40°52'48", long 103°19'12", in SW¼ sec.32, T.11 N., R.53 W., Logan County, 1.2 mi (1.9 km) north of section road, 8.8 mi (14.2 km) northwest of Buchanan.	7.39	1969-75	7- 8-75	12.27	362
06760430	Spring Canyon Creek near Peetz, Colo.	Lat 40°58'12", long 103°00'34", in NW¼SE¼ sec.36, T.12 N., R.51 W., Logan County, 500 ft (150 m) downstream from access road to windmill, 5 mi (8 km) east of Peetz.	e22.3	1969-75	7- 8-75	13.26	448

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1975--Continued

Station number	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		KANSAS RIVER BASIN					
06821300	North Fork Arikaree River tributary near Shaw, Colo.	Lat 39°31'12", long 103°26'35", in NE¼ sec.21, T.6 S., R.54 W., Lincoln County, 800 ft (240 m) upstream from section road, 5 mi (8 km) southwest of Shaw.	5.72	1969-75	5-12-75	10.18	69
06821400	North Fork Black Wolf Creek near Vernon, Colo.	Lat 39°54'24", long 102°16'08", in SW¼SE¼ sec.2, T.2 S., R.44 W., Yuma County, 50 ft (15 m) downstream from unnamed tributary, 4 mi (6 km) southeast of Vernon.	f17.1	1969-75	7-11-75	13.92	816
06822600	Patent Creek near St. Petersburg, Colo.	Lat 40°29'50", long 102°46'30", in SW¼ sec.7, T.6 N., R.48 W., Logan County, 0.2 mi (0.3 km) downstream from fence line, 4.5 mi (7.2 km) southeast of St. Petersburg.	b2.79	1969-75	7- 8-75	10.25	6.2
06825000	South Fork Republican River near Idalia, Colo.	Lat 39°36'59", long 102°14'32", in SE¼SW¼ sec.13, T.5 S., R.44 W., Yuma County, 0.7 mi (1.1 km) east of U.S. Highway 385 and 6.5 mi (10.5 km) southeast of Idalia.	a1,300	1950-71‡, 1972-75	5-27-75	10.25	m3,000
06825100	Landsman Creek tributary near Stratton, Colo.	Lat 39°06'43", long 102°40'25", in NE¼NE¼ sec.9, T.11 S., R.47 W., Kit Carson County, 800 ft (240 m) upstream from county road, 14 mi (23 km) southwest of Stratton.	b5.41	1972-75	6-21-75	11.02	34
06826900	Sand Creek near Hale, Colo.	Lat 39°41'50", long 102°10'37", in SW¼NW¼ sec.22, T.4 S., R.43 W., Yuma County, 1,000 ft (300 m) downstream from bridge, 5 mi (8 km) northwest of Hale.	g17.8	1969-75	5-28-75	b19.20	4,350
06834200	Spring Creek tributary near Amherst, Colo.	Lat 40°45'09", long 102°16'12", in Sedgwick County, 800 ft (240 m) upstream from road and 7.5 mi (12.1 km) northwest of Amherst.	h47.8	1969-75	6- 7-75	11.82	103
06857500	Big Timber Creek tributary near Arapahoe, Colo.	Lat 38°59'18", long 102°16'50", (revised), in NE¼ sec.24, T.12 S., R.44 W., Cheyenne County, 800 ft (240 m) upstream from unnamed tributary, 11.5 mi (18.5 km) northwest of Arapahoe.	7.84	1969-75	6-23-75	11.63	241
		ARKANSAS RIVER BASIN					
07099250	Soda Creek near Livesey, Colo.	Lat 38°11'46", long 104°50'44", in SW¼NW¼ sec.25, T.21 S., R.67 W., Pueblo County, 500 ft (150 m) south of Red Creek Rd., 6.6 mi (10.6 km) southwest of Livesey.	8.35	1970-75	7-21-75	b13.18	800
07107600	St. Charles River tributary near Goodpasture, Colo.	Lat 38°04'05", long 104°46'33", in NE¼NE¼ sec.9, T.23 S., R.66 W., Pueblo County, 600 ft (180 m) upstream from bridge on Burnt Mill Rd., 8 mi (13 km) southeast of Goodpasture.	2.87	1970-75	7-25-75	c12.90	740
07112700	Butte Creek near Delcarbon, Colo.	Lat 37°42'24", long 104°51'58", in SE¼SE¼ sec.10, T.27 S., R.67 W., Huerfano County, 1,200 ft (370 m) downstream from culvert at State Highway 69, 7.0 mi (11.3 km) northwest of Walsenburg.	3.20	1970-75	7-20-75	c14.52	1,390

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1975--Continued

Station number	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		ARKANSAS RIVER BASIN--Continued					
07120600	Timpas Creek tributary near Thatcher, Colo.	Lat 37°34'18", long 104°06'10", in NE¼ sec.34, T.28 S., R.60 W., Las Animas County, 150 ft (46 m) downstream from county road, 1.5 mi (2.4 km) north of Thatcher.	bj6.98	1970-75	7-30-75	c11.55	202
07123700	Mustang Creek near Karvel, Colo.	Lat 38°33'54", long 103°31'18", in SW¼ sec.13, T.17 S., R.55 W., Lincoln County, 0.3 mi (0.5 km) upstream from bridge on county road, 12 mi (19 km) south of Karvel.	b4.74	1969-75	6-17-75	10.22	31
07124700	Gray Creek near Engleville, Colo.	Lat 37°09'36", long 104°25'38", in NW¼ sec.23, T.33 S., R.63 W., Las Animas County, 1,000 ft (300 m) downstream from bridge on county road, 2.8 mi (4.5 km) northeast of Engleville.	4.95	1970-75	1975	(d)	<50
07125050	Tingley Canyon Creek near Ludlow, Colo.	Lat 37°16'48", long 104°32'04", in SW¼SW¼ sec.2, T.32 S., R.64 W., Las Animas County, 400 ft (120 m) upstream from county road crossing, 4.5 mi (7.2 km) southeast of Ludlow.	6.49	1970-75	8-19-75	c11.74	272
07126400	Red Rock Canyon Creek near Bloom, Colo.	Lat 37°33'24", long 103°50'20", in SE¼SE¼ sec.36, T.28 S., R.58 W., Las Animas County, 1,000 ft (300 m) upstream from county road crossing, 11 mi (18 km) southeast of Bloom.	bk3.62	1970-75	8-14-75	10.20	8
07126450	Tobe Arroyo near Tobe, Colo.	Lat 37°11'43", long 103°36'33", in sec.5, T.33 S., R.55 W., Las Animas County, 550 ft (170 m) upstream from county road, 1.6 mi (2.6 km) south of Tobe.	8.45	1970-75	6-21-75	c10.78	76
07129100	Rule Creek near Ninaview, Colo.	Lat 37°33'57", long 103°10'26", in sec.31, T.28 S., R.51 W., Las Animas County, 100 ft (30 m) downstream from farm access road, 1.3 mi (2.1 km) south of county road, 6.7 mi (10.8 km) southeast of Ninaview.	7.69	1970-75	1975	(d)	<39
07129200	Muddy Creek tributary near Ninaview, Colo.	Lat 37°35'56", long 103°19'48", in SE¼SE¼ sec.15, T.28 S., R.53 W., Las Animas County, 0.2 mi (0.3 km) upstream from bridge on county road, 5.8 mi (9.3 km) southwest of Ninaview.	b2.73	1970-75	1975	(d)	<32
07133200	Clay Creek tributary near Deora, Colo.	Lat 37°43'27", long 102°44'24", in NW¼ sec.6, T.27 S., R.47 W., Prowers County, 1,000 ft (300 m) upstream from mouth, 13 mi (21 km) northeast of Deora.	1.60	1969-75	1975	(d)	<15
07134300	Wolf Creek near Carlton, Colo.	Lat 37°52'30", long 102°28'54", in NW¼NW¼ sec.21, T.25 S., R.45 W., Prowers County, 0.3 mi (0.5 km) upstream from road to windmill, 15 mi (24 km) southwest of Carlton.	15.7	1969-75	7-20-75	c15.55	2,090

ANNUAL MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS DURING WATER YEAR 1975--Continued

Station number	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		ARKANSAS RIVER BASIN--Continued					
07135800	Wild Horse Creek tributary near Hartman, Colo.	Lat 38°15'45", long 102°09'42", in NE¼ sec.5, T.21 S., R.42 W., Prowers County, 0.2 mi (0.3 km) upstream from bridge on county road, 10.5 mi (16.9 km) northeast of Hartman.	7.35	1969-75	7-31-75	c15.22	967
07138520	Little Bear Creek tributary near Lycan, Colo.	Lat 37°37'48", long 102°07'30", in SW¼ sec.2, T.28 S., R.42 W., Baca County, 1,100 ft (340 m) downstream from bridge on State Highway 89, 5 mi (8 km) north of Lycan.	b16.6	1969-75	5-28-75	12.99	526
07153450	Longs Canyon Creek near Tobe, Colo.	Lat 37°05'24", long 103°41'09", in SW¼ sec.10, T.34 S., R.56 W., Las Animas County, 1,500 ft (460 m) upstream from bridge on county road, 10 mi (16 km) southwest of Tobe.	b5.16	1970-75	8-26-75	11.14	28
07154800	Cimarron River tributary near Edler, Colo.	Lat 37°05'10", long 102°45'38", in NE¼ sec.13, T.34 S., R.48 W., Baca County, at culvert at county road, 6.3 mi (10.1 km) south of Edler.	b3.11	1970-75	8- 2-75	c15.53	163

* Also a low-flow partial-record station.
† Discharge not determined.
‡ Operated as a continuous-record gaging station.
a Approximately.
b Revised.
c From floodmarks.
d Peak stage did not reach bottom of gage.
e of which 12.3 mi^2 are probably noncontributing.
f of which 9.18 mi^2 are probably noncontributing.
g of which 5.53 mi^2 are probably noncontributing.
h of which 29.3 mi^2 are probably noncontributing.
j of which 1.91 mi^2 are probably noncontributing.
k of which 0.22 mi^2 are probably noncontributing.
m Estimated.
n Not determined.

PLATTE RIVER BASIN

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, COLO.

LOCATION.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, at gaging station, 350 ft (110 m) downstream from bridge on State Highway 125, 0.8 mi (1.3 km) upstream from Camp Creek, 4.2 mi (6.8 km) northwest of Northgate, and 4.4 mi (7.1 km) south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi² (3,706 km²).

PERIOD OF RECORD.--Chemical analyses: October 1965 to current year.
Water temperatures: October 1965 to September 1966, June 1971 to November 1972.
Sediment records: October 1971 to September 1974.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT.										
01...	1140	79	8.2	31	10	14	1.9	150	0	123
15...	1435	146	9.7	30	9.2	14	2.3	140	0	115
NOV.										
12...	1545	112	11	35	9.2	16	2.6	160	0	131
JAN.										
07...	1600	70	14	36	7.7	15	1.9	150	0	123
28...	1030	70	13	40	5.4	14	2.3	150	0	123
FEB.										
19...	1120	70	10	32	12	12	2.1	150	0	123
MAR.										
20...	0915	110	13	33	8.6	15	3.0	140	0	115
MAY										
07...	1330	580	9.5	26	8.2	18	3.0	120	0	98
28...	1535	903	8.8	22	6.4	13	3.0	100	0	82
JUNE										
17...	1600	1740	9.2	26	9.4	12	3.5	120	0	98
JULY										
21...	1030	1270	9.8	25	7.8	12	1.4	130	0	107
AUG.										
15...	0900	468	8.6	25	6.3	12	1.9	110	0	90
SEP.										
15...	0915	157	7.5	24	6.5	13	1.2	120	0	98

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT.										
01...	21	1.8	.4	.02	.00	163	35.2	.22	120	0
15...	29	1.8	.4	.05	.01	164	64.6	.22	110	0
NOV.										
12...	26	7.3	.4	.00	.01	185	55.9	.25	130	0
JAN.										
07...	26	3.6	.5	.07	.02	180	34.0	.24	120	0
28...	21	5.4	.5	.09	.01	174	32.9	.24	120	0
FEB.										
19...	21	5.4	.4	.05	.01	170	32.1	.23	130	7
MAR.										
20...	26	5.5	.4	.05	.03	172	51.1	.23	120	5
MAY										
07...	35	3.6	.3	.09	.02	162	254	.22	99	1
28...	25	1.8	.3	.09	.04	133	324	.18	81	0
JUNE										
17...	24	3.6	.4	.09	.04	148	695	.20	100	2
JULY										
21...	16	3.6	.4	.07	.01	137	470	.19	94	0
AUG.										
15...	20	3.6	.4	.02	.04	133	168	.18	89	0
SEP.										
15...	19	.7	.4	.02	.01	130	55.1	.18	87	0

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.									
01...	.6	295	8.0	7.0	2	9.3	86	10	2.2
15...	.6	275	8.0	7.5	2	9.9	88	13	5.1
NOV.									
12...	.6	311	8.1	.5	3	10.0	85	--	--
JAN.									
07...	.6	299	7.4	.0	2	6.7	88	--	--
28...	.6	285	7.4	.0	2	7.2	83	--	--
FEB.									
19...	.5	266	7.4	.0	1	7.2	81	--	--
MAR.									
20...	.6	290	8.0	.0	1	7.9	85	--	--
MAY									
07...	.8	261	7.9	4.0	10	10.6	810	--	--
28...	.6	222	7.8	8.0	20	9.9	41	--	--
JUNE									
17...	.5	231	7.0	11.5	10	7.9	8340	--	--
JULY									
21...	.5	233	7.9	17.0	60	7.5	180	--	--
AUG.									
15...	.6	223	--	13.0	4	8.1	240	--	--
SEP.									
15...	.6	232	8.0	9.0	1	8.4	52	--	--

06710000 SOUTH PLATTE RIVER AT LITTLETON, COLO.

LOCATION.--Lat 39°37'08", long 105°01'07", in NE¼ sec.17, T.5 S., R.68 W., Arapahoe County, temperature recorder at gaging station, on left bank 200 ft (61 m) downstream from Crestline Avenue Bridge at Littleton and 3.1 mi (5.0 km) upstream from Bear Creek.

DRAINAGE AREA.--3,069 mi^2 (7,949 km^2).

PERIOD OF RECORD.--Water temperatures: April 1970 to current year.

EXTREMES.--Current year:
Water temperatures: Maximum, 25.5°C Aug. 24, 31; minimum, 1.0°C several days in December, January and February.
Period of record:
Water temperatures: Maximum, 25.5°C July 17, 20, 1974, Aug. 24, 31, 1975; minimum, freezing point on many days during winter months.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	18.0	13.5	10.5	7.5	4.0	3.5	1.5	1.0	---	---	7.5	4.0
2	19.0	13.0	8.5	8.0	4.0	3.5	3.0	1.0	---	---	8.5	6.0
3	17.5	13.5	8.0	6.0	4.0	3.5	2.0	1.0	1.0	0.0	8.0	6.5
4	17.5	14.5	8.0	4.0	4.0	2.5	2.5	1.0	1.0	0.5	7.5	5.0
5	16.5	15.5	8.5	5.0	4.0	3.0	2.5	1.0	1.0	1.0	8.0	5.5
6	16.5	15.0	8.5	5.0	4.0	2.0	4.5	1.0	1.0	0.0	7.5	7.0
7	16.0	12.5	8.5	5.0	2.5	1.5	4.0	1.5	1.5	0.5	7.0	6.0
8	15.0	13.0	8.5	4.5	3.0	0.5	2.5	1.0	1.5	1.0	7.0	5.5
9	16.0	15.0	8.5	6.0	3.0	0.0	3.0	1.5	1.0	0.5	7.0	6.0
10	16.5	14.5	8.5	5.5	3.5	0.5	1.5	1.0	2.5	1.0	6.0	5.0
11	16.5	15.5	7.5	4.0	2.5	0.5	2.5	1.5	2.5	1.0	5.5	5.0
12	15.5	13.5	7.5	4.5	3.0	0.0	3.0	1.0	3.5	1.5	6.5	4.5
13	16.0	11.5	6.0	4.0	2.5	0.0	1.0	1.0	4.0	2.5	7.5	5.0
14	14.5	12.0	6.5	2.5	3.0	0.5	3.0	1.5	4.0	3.0	8.0	5.5
15	15.0	12.0	7.0	4.5	3.0	0.5	3.5	2.0	4.0	3.5	8.0	6.5
16	15.0	12.5	8.0	4.5	3.0	0.5	4.5	2.5	4.0	3.5	9.0	5.0
17	16.0	13.5	8.0	4.5	3.5	0.5	4.5	2.5	4.0	4.0	8.5	6.5
18	15.5	13.5	8.5	5.5	3.0	1.0	5.0	2.5	4.0	3.5	8.5	6.5
19	15.5	14.0	7.0	4.0	2.0	0.0	3.5	3.0	4.0	3.5	11.0	7.0
20	16.0	14.0	6.5	3.5	1.5	0.0	3.5	2.0	4.5	3.5	12.0	8.5
21	15.5	12.5	8.0	4.0	3.0	2.0	3.5	2.0	4.0	2.0	11.5	9.5
22	13.0	12.0	7.0	5.5	2.5	1.0	3.5	2.0	4.0	3.0	10.5	8.5
23	13.0	11.0	6.5	5.0	1.0	0.5	3.0	2.5	4.0	3.0	10.0	6.5
24	12.0	11.0	6.5	3.5	1.0	0.5	---	---	4.5	3.0	8.0	5.0
25	13.0	11.0	6.5	4.0	1.0	0.5	---	---	5.0	3.0	8.0	6.5
26	14.0	11.0	5.5	4.0	1.0	0.5	---	---	6.0	3.5	9.0	6.5
27	15.0	10.5	5.0	4.0	1.5	0.5	---	---	4.5	3.0	7.0	6.0
28	13.5	10.5	4.5	4.0	2.5	0.5	---	---	5.0	3.5	7.0	4.0
29	12.5	10.0	4.0	3.5	2.5	0.5	---	---	---	---	7.5	4.5
30	11.5	10.0	4.0	2.0	2.5	1.0	---	---	---	---	9.0	4.5
31	9.0	7.0	---	---	2.5	1.0	---	---	---	---	8.5	6.0
MONTH	19.0	7.0	10.5	2.0	4.0	0.0	---	---	6.0	0.0	12.0	4.0

06710000 SOUTH PLATTE RIVER AT LITTLETON, COLO.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	6.5	5.0	15.0	10.5	20.0	13.0	24.5	17.0	23.5	19.5	24.5	19.5
2	8.5	4.5	13.0	10.5	21.5	14.5	23.0	17.0	24.0	20.0	22.5	19.0
3	10.5	5.5	15.0	9.5	22.5	16.0	22.5	18.5	25.0	20.0	23.0	19.0
4	10.5	7.0	14.0	11.5	21.5	17.0	22.0	19.0	25.0	19.0	23.0	19.5
5	11.5	8.5	15.5	12.0	22.0	17.5	22.0	17.5	24.5	19.5	24.0	18.0
6	12.0	9.5	13.5	10.5	23.5	19.0	22.0	17.5	24.0	19.5	24.5	18.0
7	11.0	9.0	12.5	10.0	22.0	17.5	22.5	19.0	24.5	19.5	24.0	18.0
8	9.0	7.5	14.5	10.0	21.5	17.5	21.5	17.5	24.5	20.0	23.5	18.0
9	10.5	7.0	16.5	10.0	19.0	16.0	21.5	18.0	24.0	19.5	23.5	18.5
10	10.0	8.5	17.5	11.5	16.0	13.0	21.5	18.0	22.5	19.5	23.0	19.0
11	9.0	7.5	18.5	12.5	21.5	11.5	23.5	18.5	23.5	19.0	20.5	18.5
12	9.0	7.5	16.0	12.0	20.0	12.5	23.5	17.5	21.0	20.5	19.0	18.5
13	11.0	8.0	16.0	11.0	20.0	13.5	24.0	17.5	22.0	19.0	20.5	17.5
14	12.0	9.0	19.5	13.0	19.0	15.0	24.5	17.5	21.5	20.0	20.5	17.5
15	13.5	9.5	19.5	14.0	22.5	16.5	22.5	19.5	22.5	19.5	20.5	17.0
16	14.0	10.5	19.0	13.5	19.5	16.0	23.0	20.0	21.5	19.5	20.5	18.0
17	13.5	11.0	18.5	14.0	20.0	15.0	22.0	19.5	21.0	19.5	21.0	18.0
18	13.0	9.5	19.0	14.5	20.0	16.0	21.0	19.5	22.5	20.0	21.0	16.5
19	16.0	9.0	20.0	14.0	22.0	15.0	21.0	19.0	21.0	20.0	20.5	16.5
20	17.0	11.0	17.0	13.0	23.0	15.0	20.5	18.5	21.5	19.5	19.0	15.5
21	17.5	11.0	13.0	12.5	20.5	16.0	21.5	18.5	22.0	20.0	19.5	15.5
22	18.5	11.5	12.5	11.5	21.5	15.5	21.5	18.5	23.0	20.0	19.5	14.5
23	18.0	11.0	14.0	11.0	22.5	16.0	21.0	18.5	24.0	19.5	19.5	14.5
24	19.0	12.0	18.0	11.0	23.5	16.0	21.5	18.5	25.5	18.5	20.0	14.0
25	19.0	12.5	19.0	12.5	22.5	17.0	21.0	19.0	25.0	18.0	20.0	14.0
26	17.5	12.0	21.0	12.0	24.0	16.5	21.5	19.0	24.5	18.5	18.5	14.0
27	15.0	12.0	19.0	14.0	25.0	17.0	22.0	18.5	23.5	19.5	18.5	13.5
28	15.0	11.0	16.0	11.5	23.0	18.0	21.5	19.0	24.5	20.0	18.0	13.0
29	15.0	10.5	11.5	9.5	22.5	18.0	22.5	19.0	25.0	19.0	17.0	13.0
30	15.0	10.0	19.5	10.0	23.5	18.5	22.5	19.5	25.0	18.0	14.5	12.5
31	---	---	18.0	13.0	---	---	23.5	19.5	25.5	18.0	---	---
MONTH	19.0	4.5	21.0	9.5	25.0	11.5	24.5	17.0	25.5	18.0	24.5	12.5

06722000 NORTH ST. VRAIN CREEK AT LONGMONT DAM, NEAR LYONS, COLO.

LOCATION.--Lat 40°13'30", long 105°21'00", in NE¼SW¼ sec.16, T.3 N., R.71 W., Boulder County, on right bank 0.7 mi (1.1 km) upstream from Longmont Dam and 4.2 mi (6.8 km) west of Lyons.

DRAINAGE AREA.--106 mi² (275 km²).

PERIOD OF RECORD.--Chemical analyses: October 1971 to current year.

REMARKS.--Records of discharge are estimated values.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
07...	1405	E15	5.7	160	10	3.2	.7	2.3	.4
NOV.									
12...	1300	E20	5.9	60	0	3.7	1.3	1.8	.8
DEC.									
04...	1110	E15	5.9	60	0	5.0	.6	1.1	.4
JAN.									
14...	1020	E20	6.2	100	0	2.8	.8	1.6	.3
FEB.									
25...	1100	E20	6.1	60	10	5.3	.8	1.5	.9
MAR.									
21...	1320	E20	6.2	60	0	5.6	.4	1.8	1.0
APR.									
17...	1340	E25	6.6	60	0	3.2	1.8	3.6	.7
MAY									
08...	1110	E35	7.8	90	10	3.5	.9	2.4	.5
JUNE									
18...	1200	E70	8.1	140	0	3.5	.5	2.6	.4
JULY									
15...	1100	E65	6.1	60	10	2.4	.6	1.2	.3
AUG.									
06...	1320	E40	5.4	100	20	3.1	.5	2.6	.5
SEP.									
18...	1410	E40	4.7	80	20	2.9	.2	1.8	.4

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO, PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
07...	12	0	10	2.8	.8	.1	.08	.02	22
NOV.									
12...	12	0	10	3.2	.1	.1	.08	.00	23
DEC.									
04...	12	0	10	2.6	.7	.1	.03	.01	23
JAN.									
14...	11	0	9	2.1	.7	.1	.06	.02	20
FEB.									
25...	14	0	11	5.0	1.6	.1	.05	.00	28
MAR.									
21...	11	0	9	9.7	.9	.1	.07	.01	32
APR.									
17...	13	0	11	2.8	.3	.2	.45	.08	28
MAY									
08...	13	0	11	3.5	1.0	.1	.05	.02	27
JUNE									
18...	12	0	10	3.9	1.1	.1	.01	.00	26
JULY									
15...	6	0	5	3.0	.7	.3	.04	.00	18
AUG.									
06...	10	0	8	3.2	.1	.2	.06	.00	21
SEP.									
18...	9	0	7	3.0	.5	.1	.05	.00	18

06722000 NORTH ST. VRAIN CREEK AT LONGMONT DAM, NEAR LYONS, COLO.--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
07...	.93	.03	11	1	.3	26	7.1	12.5	8.6
NOV.									
12...	1.24	.03	15	5	.2	23	6.8	8.0	9.4
DEC.									
04...	.93	.03	15	5	.1	23	6.8	4.5	9.8
JAN.									
14...	1.08	.03	10	1	.2	<50	7.1	1.0	11.2
FEB.									
25...	1.57	.04	17	6	.2	<50	7.8	1.5	11.1
MAR.									
21...	1.73	.04	16	7	.2	<50	6.8	3.0	10.0
APR.									
17...	1.89	.04	15	5	.4	<50	7.4	5.0	9.9
MAY									
08...	2.55	.04	12	2	.3	<50	7.1	6.0	10.2
JUNE									
18...	4.91	.04	11	1	.3	<50	6.9	8.0	9.4
JULY									
15...	3.16	.02	8	4	.2	23	6.9	11.0	8.8
AUG.									
06...	2.27	.03	10	2	.4	21	6.8	13.5	8.2
SEP.									
18...	1.94	.02	8	1	.3	20	7.6	13.0	7.9

06723400 SOUTH ST. VRAIN CREEK ABOVE LYONS, COLO.

LOCATION.--Lat 40°13'02", long 105°16'26", in NE¼NW¼ sec.19, T.3 N., R.70 W., Boulder County, at bridge on county road 250 ft (76 m) south of State Highway 7 and 0.2 mi (0.3 km) southwest of Lyons.

DRAINAGE AREA.--81.4 mi^2 (210.8 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1971 to current year.

REMARKS.--Records of discharge are estimated values.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
07...	1500	E4.0	7.1	50	0	7.7	1.2	3.0	.7
NOV.									
11...	1205	E2.0	7.6	50	10	8.6	2.0	4.4	1.0
DEC.									
04...	1035	E2.0	8.1	40	0	8.3	2.0	4.1	.9
JAN.									
14...	0940	E8.0	9.5	30	0	8.7	2.2	3.7	1.0
FEB.									
25...	1025	E4.0	8.9	30	0	9.6	2.3	3.8	.6
MAR.									
21...	1400	E8.0	7.9	40	0	8.9	1.8	3.7	.8
APR.									
17...	1420	E15	9.5	100	0	11	2.6	5.5	1.1
MAY									
08...	1040	E20	10	50	10	6.7	1.7	3.3	.6
JUNE									
18...	1100	E65	7.0	120	0	4.8	1.1	2.2	.5
JULY									
15...	1020	E60	3.9	80	10	4.5	.8	1.2	.3
AUG.									
06...	1405	E30	4.9	50	20	5.8	.9	2.3	.4
SEP.									
18...	1440	E20	5.8	20	10	7.6	1.0	1.8	.5

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
07...	33	0	27	5.5	1.0	.1	.07	.00	43
NOV.									
11...	33	0	27	6.2	1.4	.4	.80	.00	51
DEC.									
04...	31	0	25	6.1	1.4	.1	.18	.01	47
JAN.									
14...	35	0	29	6.8	1.7	.2	.25	.03	52
FEB.									
25...	37	0	30	5.4	1.3	.2	.15	.01	51
MAR.									
21...	31	0	25	5.6	1.8	.2	.12	.01	47
APR.									
17...	31	0	25	12	3.0	.2	.27	.03	62
MAY									
08...	24	0	20	6.6	1.4	.2	.03	.00	43
JUNE									
18...	14	0	11	4.3	1.1	.1	.03	.00	28
JULY									
15...	11	0	9	2.3	.5	.2	.03	.00	19
AUG.									
06...	30	0	25	2.7	1.0	.1	.11	.00	33
SEP.									
18...	29	0	24	3.1	.5	.1	.03	.00	35

06723400 SOUTH ST. VRAIN CREEK ABOVE LYONS, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
07...	.46	.06	24	0	.3	64	7.2	15.0	8.6
NOV.									
11...	.28	.07	30	3	.4	68	7.1	5.0	10.4
DEC.									
04...	.25	.06	29	4	.3	69	6.9	.0	11.6
JAN.									
14...	1.12	.07	31	2	.3	80	6.9	.0	12.0
FEB.									
25...	.55	.07	33	3	.3	80	7.4	.0	12.1
MAR.									
21...	1.02	.06	30	4	.3	75	6.6	6.0	9.7
APR.									
17...	2.51	.08	38	13	.4	85	7.4	9.0	9.8
MAY									
08...	2.32	.06	24	4	.3	65	7.5	6.0	10.5
JUNE									
18...	4.91	.04	17	5	.2	<50	6.9	8.5	9.6
JULY									
15...	3.08	.03	15	6	.1	26	6.9	13.0	8.3
AUG.									
06...	2.59	.04	18	0	.2	41	6.6	20.0	7.3
SEP.									
18...	1.89	.05	23	0	.2	50	7.6	15.0	7.9

06724600 LEFT HAND CREEK AT ALTONA, COLO.

LOCATION.--Lat 40°07'57", long 105°17'24", in SW¼SE¼ sec.13, T.2 N., R.71 W., Boulder County, on left bank beside State Highway 160, 0.5 mi (0.8 km) west of intersection of State Highway 160 and U.S. Highway 36 in Altona.

DRAINAGE AREA.--59.0 mi^2 (152.8 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1971 to current year.

REMARKS.--Records of discharge are estimated values.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
07...	1530	E2.0	7.9	200	0	8.6	2.2	2.9	.8
NOV.									
11...	1120	E1.0	17	30	40	16	4.0	6.7	.9
DEC.									
04...	0950	E1.0	10	20	0	20	5.1	2.5	1.3
JAN.									
14...	0850	E1.0	12	20	0	20	5.3	6.6	1.5
FEB.									
25...	0940	E1.0	10	20	20	20	5.5	7.0	1.2
MAR.									
21...	1435	E4.0	9.8	10	10	20	5.2	6.5	1.4
APR.									
17...	1450	E6.0	11	50	20	19	5.6	6.6	1.5
MAY									
08...	0945	E5.0	11	40	30	14	4.1	3.8	1.0
JUNE									
18...	1015	E40	8.2	120	20	8.3	2.0	2.6	.6
JULY									
15...	0935	E35	4.7	80	10	5.0	1.5	3.3	.5
AUG.									
06...	1435	E15	5.2	40	20	5.8	1.3	2.1	.5
SEP.									
19...	0900	E5.0	5.5	60	10	7.5	1.4	2.6	.6

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
07...	26	0	21	17	.7	.4	.00	.01	54
NOV.									
11...	37	0	30	34	1.4	.2	.18	.01	99
DEC.									
04...	32	0	26	47	1.4	1.2	.13	.01	105
JAN.									
14...	41	0	34	46	1.8	.8	.22	.02	115
FEB.									
25...	36	0	30	53	1.3	1.0	.18	.01	118
MAR.									
21...	32	0	26	54	1.4	1.2	.11	.01	116
APR.									
17...	42	0	34	47	2.2	.9	.22	.00	116
MAY									
08...	34	0	28	27	1.4	.6	.08	.02	80
JUNE									
18...	16	0	13	11	.8	.4	.23	.00	43
JULY									
15...	10	0	8	6.8	1.2	.3	.28	.00	30
AUG.									
06...	23	0	19	9.9	1.0	.4	.01	.00	38
SEP.									
19...	19	0	16	15	.8	.4	.03	.00	43

06724600 LEFT HAND CREEK AT ALTONA, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
07...	.29	.07	31	10	.2	83	7.0	12.0	9.0
NOV.									
11...	.26	.13	56	26	.4	142	7.2	1.0	10.6
DEC.									
04...	.28	.14	71	45	.1	180	6.8	.0	10.8
JAN.									
14...	.31	.16	72	38	.3	180	6.5	.0	11.3
FEB.									
25...	.32	.16	73	43	.4	180	7.8	.0	11.7
MAR.									
21...	1.25	.16	71	45	.3	200	6.7	7.0	9.3
APR.									
17...	1.88	.16	71	36	.3	180	7.5	9.0	9.7
MAY									
08...	1.08	.11	52	24	.2	130	7.0	5.0	10.2
JUNE									
18...	4.64	.06	29	16	.2	<50	6.9	8.0	9.4
JULY									
15...	2.84	.04	19	10	.3	33	6.2	13.0	8.4
AUG.									
06...	1.50	.05	20	1	.2	55	6.5	18.5	7.4
SEP.									
19...	2.90	.06	25	9	.2	75	7.4	8.0	8.7

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, COLO.

LOCATION.--Lat 40°15'29", long 104°52'45", in SE¼NW¼ sec.3, T.3 N., R.67 W., Weld County, at gaging station, on right bank 140 ft (43 m) downstream from bridge on county road, 1.3 mi (2.1 km) upstream from mouth, and 4.2 mi (6.8 km) northwest of Platteville.

DRAINAGE AREA.--976 mi^2 (2,528 km^2).

PERIOD OF RECORD.--Chemical analyses: February 1955 to August 1956, September 1965 to September 1968, October 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
07...	0935	155	9.6	50	110	110	64	120	5.1
NOV.									
11...	1330	169	8.6	30	110	100	62	110	4.0
DEC.									
05...	1050	155	6.3	10	70	92	63	100	4.9
JAN.									
16...	1320	155	5.3	140	110	85	58	92	4.6
FEB.									
27...	1320	161	6.7	30	150	80	61	95	4.3
MAR.									
18...	0900	104	5.8	40	190	110	84	140	5.0
APR.									
17...	0925	97	3.2	90	210	130	91	160	5.5
MAY									
09...	0930	91	5.2	40	200	95	63	120	5.0
JUNE									
18...	1355	1290	7.7	410	40	27	15	23	1.7
JULY									
15...	1225	362	9.8	50	50	92	63	99	5.4
AUG.									
08...	0925	251	8.8	60	40	110	88	130	5.0
SEP.									
19...	1000	183	5.6	30	30	87	53	93	4.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
07...	310	0	254	460	33	1.2	3.0	.23	970
NOV.									
11...	292	0	239	420	24	.8	2.7	.10	886
DEC.									
05...	286	0	235	410	25	.7	2.0	.07	852
JAN.									
16...	241	0	198	390	24	.4	.01	.02	778
FEB.									
27...	252	0	207	400	26	.8	3.9	.44	817
MAR.									
18...	308	0	253	550	34	1.0	4.4	.11	1100
APR.									
17...	323	0	265	690	34	1.2	.09	.00	1270
MAY									
09...	278	0	228	450	35	.9	2.6	.19	923
JUNE									
18...	83	0	68	88	5.9	.4	.61	.08	213
JULY									
15...	244	0	200	440	23	.9	2.1	.17	863
AUG.									
08...	269	0	221	620	25	1.0	2.7	.11	1130
SEP.									
19...	264	0	217	420	17	.9	1.9	.14	820

06731000 ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
07...	406	1.32	540	290	2.3	1440	7.7	8.0	10.0
NOV.									
11...	404	1.20	510	270	2.1	1370	8.3	7.5	9.9
DEC.									
05...	357	1.16	490	260	2.0	1280	7.4	2.0	10.1
JAN.									
16...	326	1.06	450	250	1.9	1000	6.9	.0	9.8
FEB.									
27...	355	1.11	450	240	1.9	1100	7.7	7.0	9.4
MAR.									
18...	309	1.50	620	370	2.4	1450	7.5	3.0	9.2
APR.									
17...	333	1.73	700	430	2.6	1700	7.5	10.0	9.4
MAY									
09...	227	1.26	500	270	2.3	1250	7.8	10.5	9.4
JUNE									
18...	742	.29	130	61	.9	360	7.6	14.5	7.5
JULY									
15...	843	1.17	490	290	1.9	1150	7.3	23.0	6.5
AUG.									
08...	766	1.54	640	420	2.2	1500	7.2	19.0	7.1
SEP.									
19...	576	1.12	440	220	1.9	1150	8.0	13.0	6.8

06733000 - BIG THOMPSON RIVER AT ESTES PARK, CO. (LAT 40 22 42 LONG 105 30 48)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
JAN.								
14...	1220	11	.20	.07	.10	.17	.37	.05
MAY								
08...	1245	71	.08	.00	.23	.23	.31	.02

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)
JAN.							
14...	60	7.0	.0	9.6	2	.1	0
MAY							
08...	<50	7.1	4.0	10.0	5	--	0

06734900 OLYMPUS TUNNEL AT LAKE ESTES, COLO.

LOCATION.--Lat 40°22'30", long 105°29'13", in SE¼NW¼ sec.29, T.5 N., R.72 W., Larimer County, at tunnel entrance at south end of Olympus Dam on Lake Estes, 1.9 mi (3.0 km) east of Estes Park.

PERIOD OF RECORD.--Chemical analyses: September 1970 to current year.

REMARKS.--Tunnel is part of Colorado-Big Thompson project. Field data collected prior to the 1974 water year available in the district office.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT. 08...	1030	E500	55	7.4	9.5	8.0	87	<1
NOV. 12...	1005	E500	55	7.7	4.0	9.8	816	<1
DEC. 04...	1220	E450	55	6.3	3.0	8.9	89	<1
JAN. 14...	1315	E450	60	7.2	1.0	9.6	85	<1
FEB. 25...	1400	E500	55	7.4	1.5	9.2	<1	<1
MAR. 21...	1055	E450	70	7.7	3.0	9.4	81	<1
APR. 19...	1540	E450	60	7.4	5.0	9.4	82	81
MAY 08...	1200	E500	65	7.3	4.0	9.7	81	<1
JUNE 19...	1110	E500	<50	--	9.0	8.6	25	89
JULY 16...	1040	E500	<50	7.2	13.0	7.2	260	41
AUG. 28...	1230	E500	<50	7.9	15.0	7.4	31	82
SEP. 18...	1130	E500	<50	7.6	13.0	6.8	320	814

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
SEP. 18...	1130	E500	4.2	50	0	5.8	1.0	1.6	.7

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	DISSOLVED NITRITE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)
SEP. 18...	20	0	16	2.5	.8	.2	.06	.00	.00

DATE	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	TOTAL PHYTOPLANKTON (CELLS PER ML)
SEP. 18...	.05	.00	29	27	.04	19	2	.2	4500

06736700 BIG THOMPSON RIVER ABOVE DILLE TUNNEL, NEAR DRAKE, COLO.

LOCATION.--Lat 40°25'06", long 105°14'36", in NE¼NW¼ sec.9, T.5 N., R.70 W., Larimer County, 100 ft (30 m) upstream from diversion dam at entrance to Dille Tunnel and 5.2 mi (8.4 km) east of Drake.

DRAINAGE AREA.--304 mi^2 (787 km^2).

PERIOD OF RECORD.--Chemical analyses: September 1970 to current year.

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

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT.								
08...	1105	E60	<50	7.6	8.0	9.1	28	86
NOV.								
12...	0910	E50	60	6.8	.0	11.9	27	81
DEC.								
04...	1410	E40	<50	6.8	.0	11.4	53	31
JAN.								
14...	1400	E20	60	7.0	.0	10.1	45	<1
FEB.								
25...	1440	E25	55	7.5	.0	11.4	81	<1
MAR.								
21...	1000	E25	60	7.2	3.0	10.8	83	82
APR.								
19...	1400	E65	65	7.1	9.5	9.1	83	<1
MAY								
08...	1415	E65	<50	7.3	6.5	9.8	85	81
JUNE								
19...	1010	E400	<50	6.2	9.0	9.0	270	24
JULY								
16...	1000	E125	<50	6.5	14.0	8.1	420	817
AUG.								
28...	1140	E60	<50	7.3	16.5	7.2	110	810
SEP.								
18...	1040	E60	<50	7.5	12.5	8.4	100	82

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, COLO.

LOCATION.--Lat 40°36'00", long 105°10'06", in NW¼SW¼ sec.6, T.7 N., R.69 W., Larimer County, on tributaries of Cache la Poudre River, 4.8 mi (7.7 km) west of city hall in Fort Collins.

PERIOD OF RECORD.--Chemical analyses: September 1969 to current year.

REMARKS.--Samples collected from surface, middle, and bottom depths in middle of reservoir at Soldier Canyon Dam. Reservoir storage represents usable contents.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DEPTH (FT)	RESERVOIR STORAGE (AC-FT)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.								
18...	1130	2.0	52360	.00	.08	.09	.24	54
18...	1135	35	52360	.01	.06	.06	.02	55
18...	1140	70	52360	.00	.18	.07	.01	53
NOV.								
16...	1345	2.0	55880	.01	.09	.03	1.7	54
16...	1350	40	55880	.00	.13	.04	.08	51
16...	1355	80	55880	.01	.09	.04	.06	48
DEC.								
18...	1315	2.0	67430	.00	.13	.03	.07	55
18...	1320	50	67430	.00	.13	.04	.06	54
18...	1325	100	67430	.00	.12	.02	.07	53
APR.								
26...	1430	2.0	21050	.01	.07	.00	.02	51
MAY								
14...	1035	2.0	131800	.01	.03	.00	.00	49
14...	1040	55	131800	.01	.06	.00	.00	47
14...	1045	110	131800	.01	.04	.01	.01	49
JUNE								
28...	1315	2.0	136200	.00	.07	.01	.08	46
28...	1320	40	136200	.00	.09	.06	.03	52
28...	1325	110	136200	.00	.10	.02	.03	47
JULY								
23...	1245	2.0	130600	.01	.04	.04	.44	42
23...	1250	40	130600	.01	.10	.03	.06	44
23...	1255	100	130600	.00	.25	.03	.03	51
AUG.								
16...	1245	2.0	101900	.01	.09	.00	.02	53
16...	1250	50	101900	.00	.11	.00	.00	50
16...	1255	90	101900	.01	.12	.00	.00	54
SEP.								
20...	1445	2.0	76520	.00	.08	.00	.03	50
20...	1450	50	76520	.00	.13	.00	.03	48
20...	1455	90	76520	.00	.14	.00	.09	47

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)
OCT.								
18...	.07	85	7.0	13.0	56	9.0	39	<1
18...	.07	85	7.1	12.5	--	9.2	63	<1
18...	.07	85	7.1	8.0	--	7.4	76	<1
NOV.								
16...	.07	83	6.8	7.0	38	--	86	81
16...	.07	78	6.6	7.0	--	--	89	<1
16...	.07	73	6.7	6.0	--	--	815	82
DEC.								
18...	.07	90	7.0	4.0	38	10.4	82	<1
18...	.07	90	6.6	4.0	--	10.4	81	<1
18...	.07	90	6.7	4.0	--	10.2	83	<1
APR.								
26...	.07	105	6.4	10.0	--	10.0	84	<1
MAY								
14...	.07	72	7.7	11.5	59	10.2	<1	<1
14...	.06	70	7.7	10.5	--	10.0	<1	<1
14...	.07	72	7.5	10.5	--	9.6	<1	<1
JUNE								
28...	.06	70	6.0	18.0	98	8.0	81	<1
28...	.07	70	5.8	8.0	--	8.4	86	<1
28...	.06	78	5.8	5.5	--	8.7	82	<1
JULY								
23...	.06	78	6.8	21.0	89	7.2	49	<1
23...	.06	75	6.4	8.0	--	7.6	22	<1
23...	.07	76	6.4	6.0	--	8.0	83	<1
AUG.								
16...	.07	68	6.1	20.0	28	7.0	200	<1
16...	.07	67	6.1	11.0	--	6.8	130	<1
16...	.07	69	6.1	8.0	--	7.4	840	<1
SEP.								
20...	.07	78	7.0	17.5	36	7.0	83	<1
20...	.07	75	6.8	13.0	--	5.0	82	<1
20...	.06	82	6.7	8.0	--	7.2	82	<1

06742500 CARTER LAKE NEAR BERTHOUD, COLO.

LOCATION.--Lat 40°19'28", long 105°12'41", in SE¼ sec.10, T.4 N., R.70 W., Larimer County, on Dry Creek 7.0 mi (11.3 km) west of Berthoud and 8.9 mi (14.3 km) upstream from mouth.

PERIOD OF RECORD.--Chemical analyses: February 1970 to current year.

REMARKS.--Samples collected at surface, middle, and bottom depths near center of reservoir. Reservoir storage represents usable contents.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DEPTH (FT)	RESERVOIR STORAGE (AC-FT)	DISSOLVED NITRITE (N) (MG/L)	DISSOLVED NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.								
18...	1450	2.0	55380	.00	.01	.11	.02	56
18...	1455	45	55380	.00	.03	.06	.00	48
18...	1500	90	55380	.00	.04	.27	.12	49
NOV.								
16...	1015	2.0	67800	.00	.04	.03	1.3	49
16...	1020	40	67800	.00	.05	.03	.18	47
16...	1025	90	67800	.00	.03	.03	.06	47
DEC.								
18...	0930	2.0	77730	.00	.07	.03	.09	47
18...	0935	50	77730	.00	.07	.04	.07	48
18...	0940	100	77730	.01	.07	.05	.47	48
APR.								
26...	0935	2.0	111300	.01	.05	.00	.04	54
26...	0940	50	111300	.01	.07	.00	.04	48
26...	0945	100	111300	.01	.07	.00	.03	50
MAY								
14...	1410	1.5	110200	.00	.02	.00	.00	47
14...	1415	60	110200	.00	.04	.01	.00	53
14...	1420	120	110200	.00	.07	.02	.00	50
JUNE								
28...	0915	2.0	110000	.01	.15	.03	.29	54
28...	0920	40	110000	.00	.05	.03	.03	48
28...	0925	110	110000	.00	.06	.04	.04	49
JULY								
23...	0915	2.0	101400	.00	.01	.03	.23	54
23...	0920	40	101400	.00	.05	.04	.03	49
23...	0925	100	101400	.00	.08	.03	.03	48
AUG.								
16...	0920	2.0	77420	.00	.04	.00	.21	53
16...	0925	40	77420	.01	.06	.00	.00	51
16...	0930	90	77420	.01	.09	--	.00	48
SEP.								
20...	1015	2.0	54650	.00	.01	.00	.10	53
20...	1020	30	54650	.00	.00	.00	.04	52
20...	1025	60	54650	.01	.11	.00	.01	57

06742500 CARTER LAKE NEAR BERTHOUD, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TRANS-PAR-ENCY (SECCHI DISK) (IN)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)
OCT.								
18...	.08	100	7.7	13.0	85	8.4	B1	<1
18...	.07	85	7.4	11.5	--	8.4	B1	<1
18...	.07	105	7.5	10.5	--	7.4	B7	<1
NOV.								
16...	.07	81	6.6	8.0	91	--	B1	<1
16...	.06	77	6.4	8.0	--	--	B2	<1
16...	.06	75	6.5	8.0	--	--	B3	<1
DEC.								
18...	.06	94	6.8	4.0	79	9.6	B1	<1
18...	.07	90	6.8	4.0	--	9.4	B3	<1
18...	.07	90	6.8	4.0	--	9.3	<1	<1
APR.								
26...	.07	90	6.8	4.0	86	11.3	<1	<1
26...	.07	90	6.6	3.5	--	11.4	<1	<1
26...	.07	90	6.4	3.0	--	11.4	<1	<1
MAY								
14...	.06	80	8.4	10.0	79	10.3	B1	<1
14...	.07	80	8.0	10.0	--	10.6	<1	<1
14...	.07	80	7.9	9.5	--	10.0	<1	<1
JUNE								
28...	.07	98	6.5	16.0	98	8.3	B6	<1
28...	.07	94	6.5	7.0	--	9.0	B3	<1
28...	.07	88	6.7	5.0	--	9.2	B2	<1
JULY								
23...	.07	99	6.6	20.0	89	7.6	B13	<1
23...	.07	99	6.3	8.0	--	8.6	26	<1
23...	.07	90	6.4	5.0	--	8.7	B3	<1
AUG.								
16...	.07	80	5.8	19.0	57	7.2	160	<1
16...	.07	78	5.7	8.5	--	7.4	45	<1
16...	.07	79	5.6	5.5	--	8.1	53	<1
SEP.								
20...	.07	105	6.8	16.0	67	7.2	<1	<1
20...	.07	104	6.8	15.0	--	7.2	B2	<1
20...	.08	90	7.0	8.0	--	7.8	B1	<1

06744000 BIG THOMPSON RIVER AT MOUTH, NEAR LASALLE, COLO.

LOCATION.--Lat 40°21'00", long 104°47'04", in SW¼SE¼ sec.33, T.5 N., R.66 W., Weld County, at gaging station, on left bank just southeast of gage on Evans Town ditch, 0.7 mi (1.1 km) upstream from highway bridge, 1.6 mi (2.6 km) upstream from mouth, and 4.2 mi (6.8 km) west of LaSalle.

DRAINAGE AREA.--828 mi^2 (2,145 km^2).

PERIOD OF RECORD.--Chemical analyses: August 1954 to July 1956, October 1967 to September 1968, October 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
07...	1030	50	9.2	30	90	180	120	160	5.5
NOV.									
11...	1415	87	8.8	40	90	180	120	150	4.0
DEC.									
05...	0950	77	9.4	20	50	180	120	160	7.3
JAN.									
16...	1235	61	10	90	100	180	120	160	8.6
FEB.									
27...	1415	61	8.4	10	110	180	130	160	7.3
MAR.									
18...	0945	56	8.5	30	70	200	140	170	5.9
APR.									
17...	1020	61	7.8	60	80	190	130	160	5.3
MAY									
09...	1025	63	7.7	40	90	110	72	110	4.3
JUNE									
18...	1355	784	7.5	190	20	28	15	20	1.4
JULY									
15...	1310	112	9.3	140	80	150	110	150	6.2
AUG.									
08...	1020	182	7.9	90	290	120	84	110	4.1
SEP.									
19...	1035	208	7.0	80	20	89	49	71	2.9

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
07...	361	0	296	900	20	1.0	2.4	.19	1590
NOV.									
11...	372	0	305	850	20	.9	2.9	.24	1530
DEC.									
05...	398	0	326	900	22	1.0	2.8	.30	1610
JAN.									
16...	392	0	322	900	20	.5	.30	.13	1590
FEB.									
27...	380	0	312	980	22	1.0	4.2	.78	1700
MAR.									
18...	384	0	315	1000	25	1.1	3.4	.38	1760
APR.									
17...	360	0	295	1000	22	.8	2.1	.55	1700
MAY									
09...	236	0	194	570	17	.7	1.6	.18	1020
JUNE									
18...	70	0	57	100	3.5	.3	.31	.03	212
JULY									
15...	265	0	217	840	24	.9	1.8	.12	1430
AUG.									
08...	219	0	180	620	17	.8	1.6	.10	1080
SEP.									
19...	190	0	156	410	9.4	.9	1.4	.11	740

06744000 BIG THOMPSON RIVER AT MOUTH, NEAR LASALLE, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
07...	215	2.16	940	640	2.3	2060	7.5	8.0	10.0
NOV.									
11...	359	2.08	940	640	2.1	2080	7.6	7.0	9.6
DEC.									
05...	335	2.19	940	610	2.3	2140	7.3	1.5	10.1
JAN.									
16...	262	2.16	940	620	2.3	1750	7.3	3.0	10.2
FEB.									
27...	280	2.31	980	670	2.2	1900	7.6	6.5	10.2
MAR.									
18...	266	2.39	1100	760	2.3	1800	7.8	4.0	10.1
APR.									
17...	280	2.31	1000	710	2.2	2000	7.9	12.0	9.8
MAY									
09...	174	1.39	570	380	2.0	1400	8.1	12.0	8.5
JUNE									
18...	449	.29	130	74	.8	360	7.7	14.0	7.5
JULY									
15...	432	1.94	830	610	2.3	1910	7.6	24.0	6.6
AUG.									
08...	531	1.47	650	470	1.9	1450	7.3	19.0	7.0
SEP.									
19...	416	1.01	420	270	1.5	1000	8.0	13.0	7.1

06747500 CACHE LA POUDRE RIVER NEAR RUSTIC, COLO.

LOCATION.--Lat 40°41'59", long 105°39'51", in NE¼SE¼ sec.34, T.9 N., R.74 W., Larimer County, on left bank 100 ft (30 m) south of State Highway 14, 1.9 mi (3.1 km) downstream from discontinued gaging station, 4.3 mi (6.9 km) west of Rustic, 10.4 mi (16.7 km) downstream from outlet of Larimer-Poudre Tunnel, and 32 mi (52 km) west of Fort Collins.

DRAINAGE AREA.--199 mi^2 (515 km^2), at gaging station.

PERIOD OF RECORD.--Chemical analyses: October 1971 to September 1975 (discontinued).

REMARKS.--Records of discharge are estimated values.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
27...	1245	E30	11	150	20	6.4	1.9	2.7	1.0
NOV.									
27...	1500	E15	12	50	0	8.1	2.9	3.5	1.1
DEC.									
14...	1530	E15	13	30	0	8.9	2.5	4.6	1.3
JAN.									
18...	1430	E15	13	40	10	8.3	2.3	3.2	1.1
FEB.									
22...	1400	E20	12	40	10	8.0	2.4	3.9	1.4
MAR.									
19...	1430	E20	11	40	10	8.0	2.3	3.8	1.4
APR.									
24...	1530	E25	9.0	40	0	8.0	2.0	3.7	1.1
MAY									
10...	1345	E75	8.9	80	10	7.1	1.7	3.2	1.1
JUNE									
27...	1345	E1100	7.7	90	0	6.2	1.1	1.8	.5
JULY									
16...	1400	E1000	6.3	70	0	5.1	1.0	1.2	.5
AUG.									
29...	1415	E100	8.0	30	0	4.5	.9	1.6	.6

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
27...	30	0	25	3.2	1.3	.1	.03	.01	43
NOV.									
27...	38	0	31	3.6	1.3	.1	.10	.01	52
DEC.									
14...	41	0	34	4.5	1.7	.1	.10	.00	57
JAN.									
18...	43	0	35	3.6	.5	.1	.08	.02	54
FEB.									
22...	43	0	35	3.2	1.3	.2	.07	.00	54
MAR.									
19...	42	0	34	3.8	1.9	.2	.07	.05	54
APR.									
24...	37	0	30	2.5	.6	.1	.01	.02	45
MAY									
10...	35	0	29	4.5	1.6	.1	.01	.02	46
JUNE									
27...	15	0	12	5.3	1.1	.1	.02	.00	31
JULY									
16...	22	0	18	3.0	1.1	.1	.05	.00	29
AUG.									
29...	21	0	17	2.6	.7	.1	.02	.00	29

06747500 CACHE LA POUDRE RIVER NEAR RUSTIC, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
27...	3.48	.06	24	0	.2	59	7.0	5.0	--
NOV.									
27...	2.11	.07	32	1	.3	76	7.1	1.0	10.6
DEC.									
14...	2.31	.08	33	0	.4	80	6.8	.0	9.8
JAN.									
18...	2.19	.07	30	0	.3	100	6.8	.0	12.8
FEB.									
22...	2.92	.07	30	0	.3	95	6.5	1.0	11.0
MAR.									
19...	2.92	.07	29	0	.3	90	6.6	5.0	9.6
APR.									
24...	3.04	.06	28	0	.3	80	7.0	11.0	8.5
MAY									
10...	9.32	.06	25	0	.3	88	6.8	9.0	8.7
JUNE									
27...	92.1	.04	20	8	.2	44	7.3	8.0	9.0
JULY									
16...	78.3	.04	17	0	.1	39	7.1	11.0	9.0
AUG.									
29...	7.83	.04	15	0	.2	50	6.9	15.0	7.9

06752000 CACHE LA POUDRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS, COLO.

LOCATION.--Lat 40°39'52", long 105°13'26", in NW¼ sec.15, T.8 N., R.70 W., Larimer County, at gaging station, on left bank at mouth of canyon, 0.5 mi (0.8 km) downstream from headgate of Poudre Valley Canal, 1.2 mi (1.9 km) upstream from Lewstone Creek, and 9.3 mi (15.0 km) northwest of courthouse in Fort Collins.

DRAINAGE AREA.--1,055 mi^2 (2,732 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1971 to current year.
Sediment records: June 1962 to October 1965.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
27...	1100	90	11	80	20	16	4.4	4.7	1.1
NOV.									
27...	1300	27	10	40	0	17	3.7	5.9	1.0
DEC.									
14...	1400	20	11	10	0	20	5.4	6.9	1.3
JAN.									
18...	1220	15	12	10	20	31	7.9	8.8	1.5
FEB.									
22...	1215	12	11	40	0	9.5	2.4	4.3	1.3
MAR.									
19...	1445	30	10	10	10	20	5.2	6.6	1.6
APR.									
24...	1350	50	9.2	20	10	9.2	2.2	5.1	1.1
MAY									
10...	1215	248	9.6	30	20	30	7.6	8.9	1.5
JUNE									
27...	1215	1670	8.1	120	0	7.0	1.1	2.5	.6
JULY									
16...	1215	1290	6.8	70	0	4.4	.6	1.7	.5
AUG.									
29...	1245	252	11	60	50	15	2.9	3.9	.8
SEP.									
21...	1115	96	7.6	150	0	6.3	1.6	2.0	1.0

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
27...	67	0	55	4.6	1.9	.3	.00	.01	77
NOV.									
27...	77	0	63	5.3	2.3	.3	.05	.01	84
DEC.									
14...	90	0	74	6.3	3.1	.2	.09	.00	99
JAN.									
18...	146	0	120	7.6	3.9	.6	.12	.01	146
FEB.									
22...	46	0	38	4.5	1.3	.2	.14	.00	58
MAR.									
19...	92	0	75	7.6	3.5	.5	.09	.05	101
APR.									
24...	50	0	41	4.0	1.9	.2	.04	.01	58
MAY									
10...	133	0	109	9.3	6.0	.7	.02	.01	139
JUNE									
27...	24	0	20	3.3	.9	.2	.01	.00	36
JULY									
16...	17	0	14	3.0	1.2	.2	.04	.00	27
AUG.									
29...	62	0	51	3.8	1.4	.3	.02	.01	70
SEP.									
21...	27	0	22	3.6	.8	.3	.01	.00	37

06752000 CACHE LA POUDRE RIVER AT MOUTH OF CANYON, NEAR FORT COLLINS, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
27...	18.7	.10	58	3	.3	124	6.9	8.0	--
NOV.									
27...	6.12	.11	58	0	.3	140	6.8	1.5	12.0
DEC.									
14...	5.35	.13	72	0	.4	167	6.8	1.0	10.7
JAN.									
18...	5.91	.20	110	0	.4	285	6.5	.0	13.0
FEB.									
22...	1.88	.08	34	0	.3	115	6.5	.5	11.8
MAR.									
19...	8.18	.14	71	0	.3	180	6.3	11.0	8.7
APR.									
24...	7.83	.08	32	0	.4	100	6.5	14.0	8.6
MAY									
10...	93.1	.19	110	0	.4	235	6.6	10.5	9.2
JUNE									
27...	162	.05	22	2	.2	60	7.0	11.0	9.4
JULY									
16...	94.0	.04	13	0	.2	50	7.1	14.0	7.6
AUG.									
29...	47.6	.10	49	0	.2	120	6.7	16.0	7.9
SEP.									
21...	9.59	.05	22	0	.2	60	7.7	11.0	--

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, COLO.

LOCATION.--Lat 40°37'17", long 105°04'08", in NE¼SW¼ sec.12, T.7 N., R.69 W., Larimer County, at gaging station, 150 ft (46 m) downstream from bridge on Lincoln Ave. and 2,200 ft (670 m) east of intersection of College Ave. (U.S. Highway 287) and Mountain Ave., in Fort Collins.

DRAINAGE AREA.--1,127 mi^2 (2,919 km^2).

PERIOD OF RECORD.--Chemical analyses: April to September 1975.

WATER QUALITY DATA, APRIL TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
APR.											
27...	1300	4.6	6.5	20	100	71	23	23	3.3	206	0
MAY											
10...	1545	12	6.8	90	200	60	20	24	3.9	213	0
JUNE											
27...	1045	685	5.8	100	10	7.7	1.4	2.7	.7	28	0
JULY											
16...	1100	147	7.3	70	10	9.0	2.3	2.8	.7	33	0
AUG.											
29...	1115	13	6.4	30	10	30	7.7	8.8	1.6	104	0
SEP.											
21...	1230	3.1	6.8	30	20	51	15	18	2.8	193	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)
APR.											
27...	169	100	10	.4	.35	.00	.35	.35	.05	--	.01
MAY											
10...	175	88	11	.5	.23	--	--	--	--	--	.01
JUNE											
27...	23	4.7	1.1	.4	.04	.00	.34	.34	.01	--	.01
JULY											
16...	27	7.3	1.6	.1	.03	.00	.28	.28	.06	--	.00
AUG.											
29...	85	31	3.4	.3	.14	.00	.21	.21	.00	.01	.00
SEP.											
21...	158	70	9.0	.4	.36	.00	.34	.34	.03	--	.00

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)
APR.										
27...	340	4.22	.46	270	100	.6	640	6.1	11.0	10.4
MAY										
10...	321	10.4	.44	230	57	.7	520	6.5	18.0	9.4
JUNE										
27...	39	72.1	.05	25	2	.2	70	6.8	12.0	9.1
JULY										
16...	48	19.1	.07	32	5	.2	64	6.6	16.0	8.6
AUG.										
29...	141	4.95	.19	110	21	.4	260	6.4	14.0	11.1
SEP.										
21...	270	2.26	.37	190	31	.6	455	7.8	13.5	12.6

06752260 CACHE LA POUDRE RIVER AT FORT COLLINS, COLO.--Continued

WATER-QUALITY DATA, APRIL 1975 TO SEPTEMBER 1975

DATE	TIME	DIS-SOLVED OXYGEN (MG/L)
SEP.		
20...	1800	10.9
20...	1900	9.9
20...	2000	8.8
20...	2100	7.7
20...	2200	7.1
20...	2300	6.9
20...	2400	6.7
21...	0100	6.7
21...	0200	6.7
21...	0300	6.7
21...	0400	6.7
21...	0500	6.7
21...	0600	6.7
21...	0700	6.9
21...	0800	7.1
21...	0900	7.8
21...	1000	8.8
21...	1100	9.9
21...	1200	10.8
21...	1230	12.6
21...	1300	12.2
21...	1400	12.9
21...	1500	13.2
21...	1600	13.3
21...	1700	13.2
21...	1800	12.5
21...	1900	11.4

06752500 CACHE LA POUDRE RIVER NEAR GREELEY, COLO.

LOCATION.--Lat 40°25'04", long 104°38'22", in NW¼ sec.11, T.5 N., R.65 W., Weld County, at gaging station, on right bank 25 ft (8 m) downstream from highway bridge, 2.9 mi (4.7 km) east of courthouse in Greeley, and 3.0 mi (4.8 km) upstream from mouth.

DRAINAGE AREA.--1,877 mi^2 (4,861 km^2).

PERIOD OF RECORD.--Chemical analyses: November 1951 to September 1952, August 1954 to August 1956, December 1963 to September 1966, October 1967 to September 1968, October 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
07...	1120	92	14	70	290	170	84	130	7.8
NOV.									
11...	1535	148	12	30	180	170	70	110	5.0
DEC.									
05...	0825	157	--	20	160	160	81	110	6.6
JAN.									
16...	1140	143	16	60	150	140	64	100	6.9
FEB.									
27...	1115	113	11	20	200	160	79	110	7.4
MAR.									
18...	1120	109	9.0	50	120	180	94	130	6.6
APR.									
17...	1100	87	6.8	40	170	170	88	140	6.2
MAY									
09...	1100	43	9.8	90	330	180	81	130	7.1
JUNE									
18...	1530	459	9.4	150	30	48	24	30	2.3
JULY									
15...	1405	94	13	10	100	120	71	90	6.9
AUG.									
08...	1215	42	13	80	270	170	82	110	8.1
SEP.									
19...	1130	72	13	20	150	170	88	120	7.3

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
07...	354	0	290	700	39	.9	6.3	.88	1350
NOV.									
11...	340	0	279	580	33	.7	5.4	.98	1180
DEC.									
05...	326	0	267	600	34	.2	.95	.08	--
JAN.									
16...	316	0	259	490	36	--	.62	.06	1010
FEB.									
27...	330	0	271	590	39	.9	6.1	1.7	1190
MAR.									
18...	336	0	276	750	38	1.1	5.0	1.0	1400
APR.									
17...	312	0	256	750	48	.7	3.8	.73	1380
MAY									
09...	356	0	292	630	41	.8	4.5	.75	1280
JUNE									
18...	108	0	89	160	10	.4	1.4	.16	344
JULY									
15...	262	0	215	500	26	.6	4.2	.51	977
AUG.									
08...	336	0	276	610	39	.7	4.5	.28	1220
SEP.									
19...	341	0	280	710	40	.8	4.7	.29	1340

06752500 CACHE LA POUDRE RIVER NEAR GREELEY, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
07...	335	1.84	770	480	2.0	1820	7.8	11.0	9.7
NOV.									
11...	472	1.60	710	430	1.8	1680	7.7	9.0	9.8
DEC.									
05...	492	1.58	730	460	1.8	1670	7.1	3.5	9.8
JAN.									
16...	390	1.37	610	350	1.8	1300	7.0	4.0	11.6
FEB.									
27...	363	1.62	720	450	1.8	1400	7.8	7.0	10.0
MAR.									
18...	412	1.90	840	560	2.0	1750	7.8	7.0	11.0
APR.									
17...	324	1.88	790	530	2.2	1700	7.8	13.0	11.2
MAY									
09...	149	1.74	780	490	2.0	1700	8.0	13.0	10.2
JUNE									
18...	426	.47	220	130	.9	540	6.5	16.0	7.7
JULY									
15...	248	1.33	590	380	1.6	1350	7.5	25.0	6.2
AUG.									
08...	138	1.66	760	490	1.7	1600	7.2	21.0	10.0
SEP.									
19...	260	1.82	790	510	1.9	1750	7.9	15.0	7.8

06758500 SOUTH PLATTE RIVER NEAR WELDONA, COLO.

LOCATION.--Lat 40°19'19", long 103°55'17", in SW¼SW¼ sec.7, T.4 N., R.58 W., Morgan County, at gaging station, on left bank 400 ft (120 m) downstream from bridge on State Highway 144, 2.8 mi (4.5 km) southeast of Weldona, and 4.2 mi (6.8 km) upstream from Bijou Creek.

DRAINAGE AREA.--13,245 mi^2 (34,305 km^2).

PERIOD OF RECORD.--Chemical analyses: October 1967 to September 1968, October 1971 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
16...	0900	583	16	20	30	160	60	140	9.0
NOV.									
05...	1300	480	17	20	20	160	68	160	8.1
DEC.									
10...	1200	316	17	10	40	150	84	160	7.8
JAN.									
16...	0800	700	11	80	50	140	54	140	8.0
FEB.									
27...	0900	387	16	30	40	160	69	160	7.8
MAR.									
18...	1245	112	17	10	40	190	80	180	7.5
APR.									
23...	1000	191	13	40	50	160	73	170	7.9
MAY									
21...	1020	320	15	20	40	190	67	180	7.6
JUNE									
30...	0920	153	17	30	80	150	62	140	7.2
JULY									
30...	1500	252	21	30	50	200	73	180	9.9
AUG.									
27...	1255	372	19	100	30	170	82	180	9.8
SEP.									
29...	1305	758	13	30	10	140	79	160	7.5

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
16...	308	0	253	570	64	1.1	3.8	.24	1190
NOV.									
05...	328	0	269	600	65	1.0	4.5	.32	1260
DEC.									
10...	334	0	274	550	63	1.0	4.8	.30	1220
JAN.									
16...	305	0	250	520	66	--	--	--	1090
FEB.									
27...	330	0	271	630	73	1.0	5.0	.81	1300
MAR.									
18...	340	0	279	780	76	1.0	4.0	.21	1520
APR.									
23...	306	0	251	630	77	1.1	3.8	.29	1300
MAY									
21...	355	0	291	730	75	1.0	4.0	.19	1460
JUNE									
30...	278	0	228	590	57	.9	3.1	.17	1180
JULY									
30...	340	0	279	720	72	1.7	4.0	.14	1460
AUG.									
27...	318	0	261	780	68	1.1	4.0	.11	1480
SEP.									
29...	294	0	241	640	65	1.1	3.3	.18	1270

06758500 SOUTH PLATTE RIVER NEAR WELDONA, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
16...	1870	1.62	650	400	2.4	1710	7.7	9.0	9.1
NOV.									
05...	1630	1.71	680	410	2.7	1790	7.6	8.5	10.2
DEC.									
10...	1040	1.66	720	450	2.6	1830	7.3	2.0	10.2
JAN.									
16...	2060	1.48	570	320	2.5	1450	7.7	.0	11.3
FEB.									
27...	1360	1.77	680	410	2.7	1500	7.2	3.5	10.6
MAR.									
18...	460	2.07	800	530	2.8	1900	7.9	11.0	9.6
APR.									
23...	670	1.77	700	450	2.8	1700	7.6	14.0	10.2
MAY									
21...	1260	1.99	750	460	2.9	1500	8.2	10.0	9.4
JUNE									
30...	487	1.60	630	400	2.4	1450	7.4	19.0	7.0
JULY									
30...	993	1.99	800	520	2.8	1700	--	27.0	9.8
AUG.									
27...	1490	2.01	760	500	2.8	1900	8.1	23.5	9.2
SEP.									
29...	2600	1.73	680	430	2.7	1450	8.3	15.0	9.2

06764000 SOUTH PLATTE RIVER AT JULESBURG, COLO.
(Irrigation network station)
(National stream-quality accounting network station)

LOCATION.--Lat 40°58'46", long 102°15'15", in NW¼NE¼ and SE¼NE¼ (two channels) sec.33, T.12 N., R.44 W., Sedgwick County, at gaging station, at bridge on U.S. Highway 385, 0.9 mi (1.4 km) southeast of Julesburg, 3.0 mi (4.8 km) upstream from Colorado-Nebraska State line, and 8 mi (13 km) downstream from Lodgepole Creek.

DRAINAGE AREA.--23,138 mi² (59,927 km²).

PERIOD OF RECORD.--Chemical analyses: October 1945 to current year.
Water temperatures: October 1945 to current year.

EXTREMES.--Current year:
Specific conductance: Maximum daily, 2,180 micromhos Apr. 23; minimum daily, 873 micromhos June 23.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.											
15...	1500	155	24	--	--	--	--	200	63	200	18
NOV.											
06...	0815	90	27	--	--	--	--	220	50	200	16
DEC.											
11...	0810	306	25	1000	60	100	70	210	65	210	16
JAN.											
15...	1230	350	25	--	--	--	--	210	65	190	14
FEB.											
26...	1310	498	20	--	--	--	--	180	59	170	13
MAR.											
19...	1030	119	25	680	10	70	40	210	61	190	18
APR.											
23...	1700	272	22	--	--	--	--	200	63	190	16
MAY											
21...	1450	207	19	--	--	--	--	190	65	180	15
JUNE											
30...	1245	527	17	2500	40	170	10	150	49	130	11
JULY											
30...	0750	42	26	--	--	--	--	210	62	180	20
AUG.											
26...	1530	44	26	--	--	--	--	190	57	180	18
SEP.											
30...	1000	171	20	2100	50	210	10	190	72	190	16

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)
OCT.											
15...	292	0	239	790	85	.7	1.4	.77	2.2	.11	1620
NOV.											
06...	285	0	234	770	84	.6	1.9	.75	2.7	.08	1650
DEC.											
11...	324	0	266	800	90	.8	2.2	1.2	3.4	.21	1720
JAN.											
15...	328	0	269	790	92	.7	2.6	.41	3.0	.16	1680
FEB.											
26...	299	0	245	670	71	.8	2.7	6.1	8.8	1.2	1440
MAR.											
19...	308	0	253	790	88	.9	2.2	.38	2.6	.18	1630
APR.											
23...	304	0	249	760	87	.7	1.9	.57	2.5	.21	1630
MAY											
21...	273	0	224	730	84	.7	.50	1.0	1.5	.14	1580
JUNE											
30...	233	0	191	550	58	.8	.53	1.4	1.9	.29	1150
JULY											
30...	306	0	251	740	91	.7	.38	.57	.95	.02	1550
AUG.											
26...	262	0	215	720	83	.6	.72	.47	1.2	.04	1520
SEP.											
30...	265	0	217	840	84	.8	.56	2.3	2.9	.23	1600

06764000 SOUTH PLATTE RIVER AT JULESBURG, COLO.--Continued

EXTREMES.--Current year.--Continued.
Water temperatures: Maximum, 35.0°C July 23; minimum, freezing point on many days during November to March.
Period of record:
Specific conductance: Maximum daily, 3,270 micromhos Jan. 12, 1971; minimum daily, 348 micromhos Aug. 15, 1968.
Water temperatures (1946-49, 1950-75): Maximum, 35.0°C July 23, 1975; minimum, freezing point on many days during winter period.

REMARKS.--Specific conductance and temperature data recorded on channel no. 2 (06763990).

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
OCT.											
15...	1530	678	2.20	1700	14	760	520	3.2	1800	7.8	14.0
NOV.											
06...	1510	401	2.24	1700	10	760	530	3.2	2090	7.8	4.0
DEC.											
11...	1580	1420	2.34	--	--	790	520	3.2	2140	7.3	.0
JAN.											
15...	1550	1590	2.28	--	--	790	520	2.9	1800	7.1	.0
FEB.											
26...	1330	1940	1.96	--	--	690	450	2.8	1600	7.8	.0
MAR.											
19...	1530	524	2.22	1700	29	780	520	3.0	1700	--	6.5
APR.											
23...	1490	1200	2.22	--	--	760	510	3.0	1900	--	18.0
MAY											
21...	1420	883	2.15	--	--	740	520	2.9	1500	8.8	14.0
JUNE											
30...	1080	1640	1.56	1200	140	580	390	2.4	1400	7.9	26.0
JULY											
30...	1480	176	2.11	--	--	780	530	2.8	1850	7.6	20.0
AUG.											
26...	1400	181	2.07	--	--	710	490	2.9	1450	8.3	28.0
SEP.											
30...	1540	739	2.18	--	--	770	550	3.0	2000	7.8	13.0

DATE	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT.										
15...	2	9.8	3700	2800	<5	885	--	81	34	47
NOV.										
06...	1	10.5	1200	110	<5	875	--	47	11	16
DEC.										
11...	10	11.6	6100	100	835	120	12	190	157	33
JAN.										
15...	4	11.1	2100	870	<5	870	--	--	--	--
FEB.										
26...	200	11.7	55000	8600	8140	8800	--	102	137	88
MAR.										
19...	10	10.6	2100	815	<5	830	1.8	--	--	--
APR.										
23...	15	7.9	3000	8240	120	100	--	--	--	--
MAY										
21...	23	9.9	34000	880	720	580	--	--	--	47
JUNE										
30...	39	7.6	77000	8160	855	150	8.5	--	--	78
JULY										
30...	2	7.9	9700	180	830	200	--	--	--	--
AUG.										
26...	2	9.2	9500	840	810	150	--	--	--	--
SEP.										
30...	25	9.2	140000	2800	540	640	11	187	86	86

06764000 SOUTH PLATTE RIVER AT JULESBURG, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	UNCORRECTED PERIPHYTON CHLOROPHYLL B MG/SQ M	UNCORRECTED PERIPHYTON CHLOROPHYLL A MG/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)
DEC.												
11...	0810	--	--	--	--	3	2	30	1	10	<10	50
MAR.												
19...	1030	--	--	--	--	0	1	<10	0	40	10	<50
JUNE												
30...	1245	--	--	--	--	3	4	<10	1	0	0	<50
SEP.												
30...	1000	37.0	200	290	340	8	4	10	1	30	20	<50

DATE	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
DEC.											
11...	0	40	1	<100	2	<.1	<.1	2	2	110	30
MAR.											
19...	0	<10	1	<100	2	.6	.6	5	5	40	30
JUNE											
30...	0	10	3	<100	3	.2	.2	4	4	40	20
SEP.											
30...	0	10	3	<100	5	--	.0	4	4	20	10

DATE	TIME	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (RADON METHOD) (PC/L)	DISSOLVED NATURAL URANIUM (U) (UG/L)
OCT.									
15...	1500	100	1.1	42	13	33	11	.07	53
NOV.									
06...	0815	110	.6	27	19	23	17	.07	44
MAR.									
19...	1030	150	2.0	33	17	29	14	.07	51
JUNE									
30...	1245	83	12	21	14	17	11	.07	32

06764000 SOUTH PLATTE RIVER AT JULESBURG, COLO.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1810	1780	1880	1580	1660	1570	1650	1900	1520	1300	1700	1510
2	1820	1780	1830	1590	1660	1570	1620	1840	1260	1400	1770	1520
3	1820	1780	1780	1570	1630	1570	1580	1810	1210	1500	1820	1530
4	1810	1790	1770	1590	1580	1560	1560	1770	1340	1550	1840	1540
5	1810	1800	1750	1590	1560	1570	1770	1810	1440	1600	1850	1550
6	1800	1810	1730	1580	1640	1600	1820	1780	1480	1650	1850	1560
7	1810	1790	1710	1580	1680	1630	1820	1740	1450	1700	1850	1570
8	1820	1790	1740	1560	1620	1630	1850	1710	1390	1730	1850	1580
9	1810	1780	1750	1580	1720	1660	1910	1680	1400	1740	1850	1590
10	1810	1780	1760	1620	1690	1610	1910	1640	1450	1770	1850	1600
11	1810	1790	1710	1750	1640	1670	1920	1650	1470	1780	1850	1610
12	1810	1800	1750	1840	1600	1650	1950	1670	1450	1800	1830	1620
13	1820	1800	1760	1840	1530	1670	1980	1530	1240	1820	1820	1630
14	1830	1800	1760	1850	1460	1620	1990	1800	1030	1830	1790	1640
15	1830	1790	1510	1780	1480	1610	2010	1860	962	1840	1750	1650
16	1810	1790	1710	1740	1510	1600	2030	1720	1020	1850	1700	1670
17	1810	1790	1730	1670	1490	1640	2050	1660	1070	1850	1620	1690
18	1810	1800	1760	1640	1530	1670	2060	1600	1030	1850	1500	1720
19	1810	1800	1740	1610	1530	1680	2100	1360	1020	1850	1300	1750
20	1820	1810	1700	1590	1550	1710	2110	1490	961	1850	1340	1760
21	1820	1860	1730	1580	1550	1700	2140	1490	945	1850	1360	1780
22	1800	1830	1780	1580	1590	1710	2150	1540	908	1850	1380	1810
23	1810	1820	1670	1610	1580	1750	2160	1440	887	1850	1400	1820
24	1790	1810	1410	1640	1560	1780	2140	1610	915	1850	1420	1840
25	1800	1820	1530	1600	1500	1800	2110	1650	942	1850	1440	1870
26	1800	1830	1560	1580	1520	1780	2080	1640	981	1850	1450	1890
27	1800	1830	1560	1560	1570	1810	1930	1610	1060	1850	1460	1910
28	1800	1830	1530	1570	1580	1820	1780	1520	1140	1850	1470	1940
29	1790	1820	1530	1580	---	1830	1790	1290	1240	1850	1480	1980
30	1790	1820	1540	1610	---	1630	1920	1380	1280	1850	1490	2000
31	1790	---	1570	1640	---	1430	---	1400	---	1600	1500	---
MEAN	1810	1800	1690	1640	1580	1660	1930	1630	1180	1750	1630	1700

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.5	9.5	-1.0	0.0	0.0	6.5	0.5	18.0	16.5	22.5	23.0	24.5
2	12.0	8.0	-0.5	0.0	0.0	4.0	1.0	18.5	18.5	22.0	23.0	23.0
3	14.5	7.0	0.0	0.0	0.0	2.5	2.5	18.5	21.0	21.5	24.5	22.0
4	15.0	7.5	0.0	0.0	0.0	5.0	4.5	18.0	21.0	22.0	24.0	22.5
5	12.5	7.0	0.5	0.0	0.0	7.0	10.0	17.5	21.0	22.5	24.0	22.5
6	11.5	10.5	2.0	0.0	0.0	4.0	13.0	15.0	22.0	23.5	24.5	23.0
7	11.5	6.5	0.5	0.0	0.0	3.0	12.5	15.5	21.5	23.5	25.5	22.5
8	12.5	6.5	0.0	0.0	0.0	2.0	9.5	16.0	21.0	22.5	25.0	21.0
9	13.5	7.5	0.0	0.0	0.0	0.5	10.5	17.0	18.0	22.0	25.0	23.0
10	15.0	6.0	0.5	0.0	0.0	0.5	10.0	16.0	16.0	21.5	24.0	24.5
11	14.5	5.0	0.0	0.0	0.0	0.5	9.5	15.5	16.5	21.0	24.5	20.0
12	11.5	4.0	0.5	0.0	0.0	2.0	10.0	14.0	18.5	21.0	24.5	17.5
13	13.0	4.0	0.0	0.0	0.0	4.0	9.5	14.0	19.5	22.0	19.5	18.0
14	11.5	2.5	0.0	0.0	0.0	4.5	11.5	18.5	19.5	21.5	20.5	17.5
15	10.0	4.0	0.0	0.0	0.0	4.5	15.0	19.5	19.5	22.5	24.0	19.0
16	12.0	5.5	0.0	0.0	0.0	5.0	17.0	20.0	19.0	22.0	25.0	20.5
17	13.0	5.0	0.5	0.0	0.0	5.5	18.0	20.5	16.5	23.5	26.0	20.5
18	13.0	5.5	1.5	0.0	0.0	5.0	14.0	21.0	15.5	22.5	27.0	19.0
19	13.0	5.5	1.5	0.0	0.0	3.0	15.0	20.5	18.5	23.0	27.0	16.5
20	12.5	4.0	0.5	0.0	0.0	8.5	17.5	16.5	20.5	23.5	28.0	15.0
21	13.5	3.5	0.5	0.0	-0.5	6.5	19.0	14.0	19.5	23.5	28.5	13.5
22	11.0	4.5	1.0	0.0	-0.5	6.0	20.5	15.0	19.0	22.0	29.0	13.0
23	11.5	4.0	0.0	0.0	0.0	3.0	21.0	15.5	20.0	22.5	28.0	14.0
24	14.0	2.0	0.0	0.0	0.0	2.0	21.0	18.0	21.0	22.5	26.0	14.5
25	11.5	3.0	0.0	0.0	0.0	2.0	21.0	17.5	22.0	22.5	24.5	13.5
26	12.0	3.5	0.0	0.0	1.0	0.0	20.0	18.0	20.5	23.0	21.0	13.5
27	13.0	1.5	0.0	0.0	2.5	-0.5	19.5	18.0	21.0	22.5	28.5	14.5
28	12.0	0.5	0.0	0.0	4.5	-0.5	16.0	15.5	22.5	22.5	26.0	13.5
29	13.0	-0.5	0.0	0.0	---	0.0	14.5	12.5	23.0	23.0	26.0	13.0
30	11.5	-1.0	0.0	0.0	---	0.0	15.0	14.5	21.0	22.5	25.5	11.5
31	9.0	---	0.0	0.0	---	0.5	---	16.5	---	22.0	26.0	---
MEAN	12.5	4.5	0.5	0.0	0.5	3.0	13.5	17.0	19.5	22.5	25.0	18.0

ARKANSAS RIVER BASIN

07083000 HALFMOON CREEK NEAR MALTA, COLO.
(Hydrologic bench-mark station)

LOCATION.--Lat 39°10'20", long 106°23'19", in SE¼SE¼ sec.13, T.10 S., R.81 W., Lake County, at gaging station, 1.4 mi (2.3 km) upstream from culvert, 3.3 mi (5.3 km) upstream from mouth, and 4.3 mi (6.9 km) southwest of Malta.

DRAINAGE AREA.--23.6 mi^2 (61.1 km^2).

PERIOD OF RECORD.--Chemical analyses: November 1966 to current year.
Water temperatures: May 1967 to current year.

EXTREMES.--Current year:
Water temperatures: Maximum, 12°C July 13, 23, Aug. 7; minimum, freezing point on many days during November to June.
Period of record;
Water temperatures: Maximum, 17°C July 28, 1969, Aug. 13, 1972, Aug. 17, 1974; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT.											
01...	1345	6.4	5.7	--	90	0	10	4.2	1.4	.8	46
NOV.											
06...	1330	9.9	6.3	--	50	0	10	3.9	1.5	.6	49
DEC.											
10...	1445	2.9	6.7	--	50	10	14	4.2	2.7	.7	50
JAN.											
08...	1115	3.5	6.9	--	40	0	11	4.1	2.3	.6	52
FEB.											
04...	1145	2.9	1.2	--	0	0	11	4.3	1.7	.9	53
MAR.											
04...	1430	3.3	6.9	--	40	0	11	4.1	1.8	.8	53
APR.											
02...	1330	2.4	7.1	--	40	0	12	4.4	1.9	.8	54
MAY											
07...	1130	4.4	5.9	--	90	10	12	4.3	2.0	1.0	51
28...	1440	45	4.0	--	80	10	7.1	2.5	.9	.6	33
JUNE											
24...	1155	112	3.2	540	40	10	6.2	1.8	.9	.4	19
JULY											
23...	1105	93	3.4	--	20	0	6.4	2.2	.8	.5	23
AUG.											
19...	1245	30	4.2	--	40	0	7.7	2.3	1.4	.4	32
SEP.											
17...	1400	15	4.5	--	50	10	11	3.4	1.0	.7	41

07083000 HALFMOON CREEK NEAR MALTA, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	NON-CARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT.											
01...	4	.1	87	7.4	8.0	8.2	<1	<1	25	--	--
NOV.											
06...	1	.1	92	--	.0	9.8	B1	<1	B1	--	--
DEC.											
10...	11	.2	100	7.5	.0	10.0	<1	<1	B2	--	--
JAN.											
08...	2	.2	48	--	.0	--	<1	B1	B1	--	--
FEB.											
04...	2	.1	100	7.8	.0	10.4	<1	<1	B2	--	--
MAR.											
04...	1	.1	100	7.7	.0	--	--	--	B3	--	--
APR.											
02...	4	.1	107	--	.0	--	<1	<1	B1	--	--
MAY											
07...	6	.1	102	--	.0	--	<1	<1	<1	--	--
28...	1	.1	62	7.1	4.0	9.9	<1	<1	B1	3	.36
JUNE											
24...	7	.1	50	6.9	6.0	8.5	B1	--	<1	20	6.0
JULY											
23...	6	.1	50	7.0	7.0	8.8	<1	<1	<1	--	--
AUG.											
19...	2	.1	62	7.2	11.5	7.7	<1	<1	B2	29	2.3
SEP.											
17...	8	.1	75	8.2	11.0	7.7	<1	<1	B1	--	--

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)	HARDNESS (CA,MG) (MG/L)
OCT.											
01...	0	38	6.4	.8	.1	.08	.00	53	.92	.07	42
NOV.											
06...	--	40	7.4	1.1	.1	.10	.01	56	1.50	.08	41
DEC.											
10...	0	41	5.3	.8	.1	.13	.06	60	.47	.08	52
JAN.											
08...	--	43	7.9	.1	.1	.20	.01	60	.57	.08	44
FEB.											
04...	0	43	6.4	.3	.1	.05	.00	52	.41	.07	45
MAR.											
04...	0	43	7.1	1.0	.1	.14	.01	60	.53	.08	44
APR.											
02...	--	44	6.5	1.6	.3	.13	.01	62	.40	.08	48
MAY											
07...	--	42	6.5	.9	.1	.10	.01	58	.69	.08	48
28...	0	27	4.1	.8	.1	.05	.01	37	4.50	.05	28
JUNE											
24...	0	16	4.5	.1	.1	.07	.00	27	8.16	.04	23
JULY											
23...	0	19	2.0	.9	.1	.06	.00	28	7.03	.04	25
AUG.											
19...	0	26	4.9	1.0	.1	.08	.01	38	3.08	.05	29
SEP.											
17...	0	34	4.2	.6	.1	.08	.00	46	1.86	.06	41

DATE	TIME	CYANIDE (CN) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JUNE												
24...	1155	.00	0	0	<10	0	10	<100	.0	0	<10	30

07083000 HALFMOON CREEK NEAR MALTA, COLO.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	2.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	11.0	2.0	2.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	10.0	3.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	11.5	5.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	7.0	4.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	8.5	4.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	10.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	10.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	10.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	9.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	5.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	8.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	8.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	6.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	8.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	9.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	9.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	8.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	9.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
21	6.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0
22	5.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	5.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	6.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	7.5	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	5.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	5.5	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	4.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
30	3.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	0.0	0.0
31	1.0	1.0	---	---	0.0	0.0	0.0	0.0	---	---	0.0	0.0
MONTH	11.5	1.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	0.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	0.0	0.0	3.0	0.0	10.5	1.5	9.0	2.5	11.5	5.0	10.5	1.5
2	0.0	0.0	2.5	0.0	9.5	1.5	7.0	2.5	11.0	4.0	8.5	4.0
3	0.0	0.0	4.5	0.0	10.0	1.5	8.0	2.5	11.0	4.0	7.0	2.0
4	0.0	0.0	4.5	0.5	10.0	1.0	7.0	2.5	11.5	4.0	7.0	3.0
5	0.0	0.0	3.0	0.5	9.5	1.0	7.0	3.0	10.5	4.0	10.0	1.0
6	0.5	0.0	3.5	0.0	9.0	1.0	8.5	3.0	9.5	4.0	10.0	1.0
7	0.5	0.0	1.5	0.0	6.5	1.0	8.0	3.0	12.0	4.0	8.5	1.0
8	0.0	0.0	5.0	0.0	5.0	2.0	7.5	3.5	11.5	4.5	7.0	2.5
9	0.0	0.0	6.0	0.0	7.0	1.5	7.0	3.5	10.0	4.5	7.0	2.5
10	0.0	0.0	6.0	1.0	4.0	0.0	8.0	4.0	9.0	4.0	8.0	2.5
11	0.0	0.0	6.0	0.5	9.0	0.5	10.5	4.0	8.0	4.0	6.5	2.0
12	0.0	0.0	5.0	1.0	8.0	1.0	10.5	4.0	8.0	4.0	5.0	3.0
13	0.5	0.0	6.5	0.5	10.0	2.0	12.0	3.5	7.0	4.5	5.5	3.0
14	0.5	0.0	8.0	0.0	9.5	2.5	8.5	4.0	7.0	3.0	6.0	2.5
15	0.5	0.0	8.0	0.0	9.0	2.0	9.0	4.0	9.5	2.5	6.5	1.5
16	1.0	0.0	6.0	0.0	6.5	2.0	7.5	4.0	8.0	2.5	9.5	1.0
17	1.0	0.0	6.0	0.0	5.0	2.0	8.5	4.0	10.0	3.0	9.5	2.5
18	0.5	0.0	7.5	0.0	5.0	2.0	10.0	3.5	9.0	3.0	9.5	2.5
19	1.0	0.0	8.5	0.5	7.0	1.0	8.0	4.0	10.0	2.5	7.5	0.5
20	2.0	0.0	8.0	0.5	5.5	1.0	8.5	4.5	7.0	5.0	7.5	0.0
21	1.5	0.0	8.0	0.5	9.0	1.0	9.0	4.5	10.5	4.5	8.0	0.5
22	2.0	0.0	6.0	0.5	10.0	2.0	11.5	4.0	10.0	3.0	8.5	0.0
23	2.0	0.0	8.5	0.0	9.5	2.0	12.0	4.0	10.5	2.0	8.0	0.5
24	3.0	0.0	10.0	0.5	10.0	2.0	11.0	5.5	10.0	2.0	10.0	2.0
25	3.0	0.0	8.5	0.5	8.0	2.0	9.5	5.0	10.0	1.5	10.0	2.0
26	2.0	0.0	9.5	0.5	9.0	1.0	11.5	5.0	10.0	1.5	8.5	2.0
27	1.5	0.0	8.0	0.5	9.0	2.0	12.0	5.0	8.0	3.0	10.0	2.5
28	1.0	0.0	4.0	2.0	8.5	2.0	9.0	5.0	10.0	2.0	10.0	1.5
29	1.0	0.0	4.0	0.5	8.5	2.0	8.0	5.0	10.0	1.0	9.5	2.0
30	2.0	0.0	9.0	0.5	9.0	2.0	9.0	6.0	10.5	1.0	9.0	2.5
31	---	---	5.5	2.0	---	---	8.0	4.5	11.0	1.0	---	---
MONTH	3.0	0.0	10.0	0.0	10.5	0.0	12.0	2.5	12.0	1.0	10.5	0.0

07096000 ARKANSAS RIVER AT CANON CITY, COLO.

LOCATION.--Lat 38°26'02", long 105°15'24", in SE¼SE¼ sec.31, T.18 S., R.70 W., Fremont County, at gaging station, on right bank 800 ft (240 m) upstream from Sand Creek, 0.7 mi (1.1 km) downstream from Grape Creek, and 0.7 mi (1.1 km) upstream from First Street Bridge in Canon City.

DRAINAGE AREA.--3,117 mi^2 (8,073 km^2).

PERIOD OF RECORD.--Chemical analyses: November 1963 to September 1965, January 1966 to September 1968, October 1970 to current year.
Sediment records: October 1970 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
03...	1445	184	12	20	30	40	22	13	3.3
NOV.									
08...	0915	249	13	20	0	41	8.7	12	1.9
DEC.									
13...	0940	267	14	10	20	41	9.6	13	2.0
JAN.									
11...	1220	220	15	10	50	43	9.8	15	2.1
FEB.									
06...	1040	263	--	10	10	41	9.4	13	2.2
MAR.									
07...	1110	298	12	20	10	42	10	14	2.8
APR.									
04...	1225	259	11	20	20	40	10	15	2.6
MAY									
09...	1300	642	6.5	10	20	24	4.5	6.5	1.3
JUNE									
25...	1140	2210	7.8	60	20	22	4.0	4.8	1.1
JULY									
19...	1500	2520	8.4	30	20	23	5.3	5.5	1.2
AUG.									
22...	0955	1050	8.1	30	0	27	5.6	6.8	1.4
SEP.									
19...	1105	492	9.6	30	10	29	7.7	9.1	1.7

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
03...	142	2	120	38	7.8	.6	.06	.01	209
NOV.									
08...	149	0	122	29	6.7	.6	.14	.02	187
DEC.									
13...	151	0	124	31	6.3	.6	.30	.03	193
JAN.									
11...	157	0	129	44	8.2	.6	.36	.04	217
FEB.									
06...	144	0	118	36	8.6	--	.08	.00	--
MAR.									
07...	154	0	126	35	12	.5	.14	.03	205
APR.									
04...	159	0	130	33	10	.5	.05	.01	201
MAY									
09...	74	0	61	26	5.1	.3	.01	.02	111
JUNE									
25...	73	0	60	20	1.8	.3	.07	.01	98
JULY									
19...	87	--	71	16	1.9	.3	.06	.00	105
AUG.									
22...	97	0	80	21	2.3	.3	.03	.01	121
SEP.									
19...	106	0	87	22	4.4	.4	.09	.01	137

07096000 ARKANSAS RIVER AT CANON CITY, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
03...	104	.28	190	71	.4	317	7.5	14.0	8.5
NOV.									
08...	126	.25	140	18	.4	315	8.3	4.0	11.0
DEC.									
13...	139	.26	140	16	.5	320	7.5	.0	12.0
JAN.									
11...	129	.30	150	21	.5	330	8.2	.0	--
FEB.									
06...	130	.25	140	22	.5	300	8.2	.0	12.2
MAR.									
07...	165	.28	150	20	.5	305	8.4	5.0	--
APR.									
04...	141	.27	140	10	.6	330	8.4	9.5	--
MAY									
09...	192	.15	78	18	.3	200	6.8	12.0	8.9
JUNE									
25...	585	.13	71	12	.2	170	6.6	16.0	8.4
JULY									
19...	714	.14	79	8	.3	170	--	19.5	7.9
AUG.									
22...	343	.16	90	11	.3	200	7.5	17.0	8.4
SEP.									
19...	182	.19	100	17	.4	235	8.4	14.0	8.9

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	TOTAL SED. FALL DIAM. % FINER THAN .002 MM	TOTAL SED. FALL DIAM. % FINER THAN .004 MM	TOTAL SED. FALL DIAM. % FINER THAN .062 MM	TOTAL SED. FALL DIAM. % FINER THAN .125 MM	TOTAL SED. FALL DIAM. % FINER THAN .250 MM	TOTAL SED. FALL DIAM. % FINER THAN .500 MM	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.											
03...	1445	184	14.0	--	--	--	--	--	--	81	40
21...	1455	--	13.0	--	--	--	--	--	--	7	--
NOV.											
08...	0915	249	4.0	--	--	--	--	--	--	10	6.7
DEC.											
13...	0940	267	.0	--	--	--	--	--	--	16	12
31...	1311	E270	.0	--	--	--	--	--	--	20	--
JAN.											
11...	1220	220	.0	--	--	--	--	--	--	20	12
FEB.											
06...	1040	263	.0	--	--	--	--	--	--	10	7.1
18...	1505	E240	2.0	--	--	--	--	--	--	29	--
MAR.											
05...	1325	--	.5	--	--	--	--	--	--	4	--
07...	1110	298	5.0	--	--	--	--	--	--	26	21
19...	1624	E240	10.0	--	--	--	--	--	--	14	--
APR.											
04...	1225	259	9.5	--	--	--	--	--	--	12	8.4
18...	1400	1000	7.0	12	17	55	60	82	95	532	1440
MAY											
09...	1300	642	12.0	--	--	--	--	--	--	34	59
22...	1045	--	--	--	--	--	--	--	--	195	--
JUNE											
25...	1140	2210	16.0	--	--	--	--	--	--	278	1660
JULY											
08...	1232	3600	--	--	--	--	--	--	--	286	2780
19...	1500	2520	19.5	7	9	30	49	76	96	266	1810
AUG.											
11...	1327	1260	19.5	--	--	--	--	--	--	61	208
22...	0955	1050	17.0	--	--	--	--	--	--	76	215
SEP.											
08...	1235	E450	18.5	--	--	--	--	--	--	15	--

07099200 ARKANSAS RIVER NEAR PORTLAND, COLO.

LOCATION.--Lat 38°20'14", long 104°56'18", in NW¼SW¼ sec.6, T.20 S., R.67 W., Pueblo County, at gaging station, 1.4 mi (2.3 km) downstream from Willow Spring Creek and 5.4 mi (8.7 km) southeast of Portland.

DRAINAGE AREA.--4,280 mi² (11,085 km²).

PERIOD OF RECORD.--Chemical analyses: October 1964 to current year.
Sediment records: October 1964 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	DIS-CHARGE (CFS)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)
OCT.									
04...	1330	183	9.8	20	40	75	11	12	2.2
NOV.									
08...	1245	310	12	20	50	68	19	29	2.8
DEC.									
13...	1410	250	9.6	10	80	71	23	30	2.8
JAN.									
11...	1440	150	14	20	120	96	32	42	3.2
FEB.									
06...	1247	196	13	10	60	68	23	30	2.9
MAR.									
07...	1255	256	11	40	70	64	21	27	3.4
APR.									
04...	0955	247	9.2	10	70	68	25	32	3.7
MAY									
09...	1010	505	7.2	30	30	41	12	17	2.0
JUNE									
25...	1215	2090	7.7	70	20	23	6.3	6.6	1.2
JULY									
19...	1120	2320	8.7	40	0	26	6.7	8.0	1.4
AUG.									
22...	1630	1020	--	40	10	39	9.1	13	1.7
SEP.									
19...	1600	480	10	10	20	49	15	19	2.2

DATE	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)
OCT.									
04...	164	2	138	170	9.4	.7	.08	.01	373
NOV.									
08...	174	5	151	140	9.4	.6	.23	.05	373
DEC.									
13...	180	0	148	150	9.0	.4	.45	.03	387
JAN.									
11...	198	0	162	290	13	.6	.77	.06	592
FEB.									
06...	173	--	142	170	11	.7	.60	.07	405
MAR.									
07...	177	0	145	130	14	.6	.33	.05	360
APR.									
04...	184	0	151	180	12	.9	.27	.04	423
MAY									
09...	102	0	84	95	7.3	.3	.13	.00	233
JUNE									
25...	73	0	60	32	2.0	.3	.13	.01	116
JULY									
19...	78	--	64	34	2.5	.3	.09	.00	127
AUG.									
22...	103	0	84	67	3.3	--	--	--	--
SEP.									
19...	120	5	107	110	5.9	.4	.14	.03	276

07099200 ARKANSAS RIVER NEAR PORTLAND, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
04...	184	.51	230	95	.3	638	8.4	16.0	13.0
NOV.									
08...	312	.51	250	97	.8	605	8.5	7.5	13.2
DEC.									
13...	261	.53	270	120	.8	610	8.4	2.0	13.1
JAN.									
11...	240	.81	370	210	.9	750	8.2	.0	--
FEB.									
06...	214	.55	260	120	.8	570	--	.5	10.8
MAR.									
07...	249	.49	250	100	.7	500	7.9	7.0	--
APR.									
04...	282	.58	270	120	.8	600	8.3	7.0	--
MAY									
09...	318	.32	150	68	.6	360	7.5	10.5	10.3
JUNE									
25...	655	.16	83	24	.3	185	6.9	16.0	9.3
JULY									
19...	796	.17	93	29	.4	205	--	20.0	7.8
AUG.									
22...	--	--	130	50	.5	320	8.2	23.0	7.9
SEP.									
19...	358	.38	180	77	.6	405	8.8	18.5	9.2

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	TOTAL SED. FALL DIAM. % FINER THAN .002 MM	TOTAL SED. FALL DIAM. % FINER THAN .004 MM	TOTAL SED. FALL DIAM. % FINER THAN .062 MM	TOTAL SED. FALL DIAM. % FINER THAN .125 MM	TOTAL SED. FALL DIAM. % FINER THAN .250 MM	TOTAL SED. FALL DIAM. % FINER THAN .500 MM	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT.											
04...	1330	--	16.0	--	--	--	--	--	--	24	12
21...	1245	--	14.5	--	--	--	--	--	--	14	--
24...	1245	--	--	--	--	--	--	--	--	14	--
NOV.											
08...	1245	--	7.5	--	--	--	--	--	--	28	23
DEC.											
13...	1410	--	2.0	--	--	--	--	--	--	15	10
31...	1106	E270	.0	--	--	--	--	--	--	38	--
JAN.											
11...	1440	--	.0	--	--	--	--	--	--	10	4.0
FEB.											
06...	1247	--	.5	--	--	--	--	--	--	22	12
18...	1243	220	4.0	--	--	--	--	--	--	11	6.5
MAR.											
07...	1255	--	7.0	--	--	--	--	--	--	117	81
19...	1115	215	8.5	--	--	--	--	--	--	17	9.9
APR.											
04...	0955	--	7.0	--	--	--	--	--	--	17	11
18...	1100	E725	8.0	28	30	65	83	99	100	992	--
MAY											
09...	1010	--	10.5	--	--	--	--	--	--	146	199
22...	1357	--	--	--	--	--	--	--	--	579	--
JUNE											
26...	1107	2740	16.0	13	14	54	74	90	98	624	4620
JULY											
08...	0933	3550	7.0	16	17	46	60	77	95	383	3670
19...	1120	--	20.0	8	11	38	54	77	93	384	2410
AUG.											
11...	1055	1140	21.0	--	--	--	--	--	--	181	557
22...	1630	--	23.0	--	--	--	--	--	--	142	391
SEP.											
08...	1417	421	22.5	--	--	--	--	--	--	39	44
19...	1600	--	18.5	--	--	--	--	--	--	84	109

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, COLO.
(Irrigation network station)

LOCATION.--Lat 38°05'02", long 102°55'10", in NW¼NW¼ sec.4, T.23 S., R.49 W., Bent County, at gaging station, 1.1 mi (1.8 km) upstream from Caddoa Creek, 1.7 mi (2.7 km) downstream from John Martin Dam, and 2.9 mi (4.7 km) southeast of Hasty.

DRAINAGE AREA.--18,917 mi^2 (48,995 km^2), of which 785 mi^2 (2,033 km^2) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: August 1942 to August 1943, October 1945 to July 1949, January 1951 to current year.
Water temperatures: January 1951 to current year.

EXTREMES.--Current year:
Specific conductance: Maximum daily, 4,200 micromhos May 22; minimum daily, 575 micromhos July 13.
Water temperatures: Maximum, 25°C July 19, 20; minimum, 0°C Dec. 2, 3, 9, 10.
Period of record:
Specific conductance: Maximum daily, 5,180 micromhos Apr. 21, 1955; minimum daily, 476 micromhos June 18, 1965.
Water temperatures: Maximum, 29°C Aug. 6, 1951; minimum, freezing point on many days during winter months.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)
OCT.									
18...	1030	13	12	20	290	360	160	420	7.5
DEC.									
12...	1025	28	13	60	460	350	150	380	6.6
FEB.									
07...	1700	2.0	9.4	10	2000	330	180	450	8.8
MAR.									
31...	1630	13	8.5	10	310	290	140	380	8.1
MAY									
21...	1550	17	6.2	10	270	360	150	480	6.2
JULY									
02...	1400	452	10	30	0	73	24	50	3.8
SEP.									
11...	1050	17	8.6	10	60	310	130	380	6.9

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
OCT.									
18...	298	0	244	1900	120	1.0	.95	.01	3130
DEC.									
12...	366	0	300	1700	130	1.0	1.6	.03	2920
FEB.									
07...	417	0	342	1900	130	.9	.66	.03	3220
MAR.									
31...	275	0	226	1600	120	.9	.68	--	2690
MAY									
21...	274	0	225	2100	130	1.1	.42	.01	3370
JULY									
02...	125	0	103	240	18	.6	1.0	.06	486
SEP.									
11...	239	0	196	1700	110	1.0	.31	.00	2770

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	SODIUM AD-SORP-TION RATIO	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)
OCT.									
18...	110	4.26	1600	1400	4.6	3850	7.8	13.0	8.7
DEC.									
12...	221	3.97	1500	1200	4.3	4000	7.9	1.5	14.2
FEB.									
07...	17.8	4.38	1600	1200	5.0	3800	8.5	6.5	10.1
MAR.									
31...	94.4	3.66	1300	1100	4.6	3800	8.8	4.0	12.8
MAY									
21...	155	4.58	1500	1300	5.4	4500	8.6	--	13.2
JULY									
02...	593	.66	280	180	1.3	747	8.5	25.0	8.5
SEP.									
11...	127	3.77	1300	1100	4.6	3200	8.0	18.5	12.9

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2000	1900	---	---	---	---	---	4000	1500	---	850	3000
2	2000	1800	1300	2000	---	---	---	4000	1100	---	1050	3000
3	2000	---	1300	2000	1700	1500	950	4000	1050	---	1100	3100
4	2000	1700	1700	---	1500	1300	900	4000	1250	725	1000	3000
5	2000	1650	1700	---	1500	1200	1000	3750	1500	650	900	3000
6	2000	1700	1700	2000	1500	1100	1000	4200	1750	650	1150	3000
7	2000	1800	---	2000	1500	900	950	4200	2000	600	1000	3000
8	1900	1650	---	2000	---	---	950	4000	2100	650	1100	3400
9	1900	---	1250	2000	---	---	950	4000	950	650	---	3400
10	2000	---	1200	2000	1400	1000	900	3500	850	650	---	3400
11	2000	1700	---	---	1300	1000	900	4000	750	650	3200	3400
12	2000	1750	---	---	1300	900	900	4000	850	600	---	3150
13	1700	1800	---	1900	1300	950	950	4000	900	575	---	2900
14	1700	1700	---	1900	1350	950	950	4000	1000	650	2200	3000
15	1800	1700	---	1900	---	---	850	4000	1050	850	2200	2500
16	1800	---	2000	1500	---	---	4000	4000	750	650	2250	2400
17	1800	---	2100	1700	---	1000	4000	4000	800	700	1100	2800
18	1850	2100	2100	---	1200	1000	4000	4000	750	650	---	3100
19	1850	1900	2100	---	1200	900	4000	4100	800	750	---	3000
20	1850	1900	2000	1600	1300	1000	3500	4000	700	675	---	3200
21	1900	1700	---	1600	1300	---	4000	4500	775	650	---	3200
22	1800	1600	---	1600	---	---	2800	4200	775	700	---	3200
23	1800	---	1800	1700	---	900	2200	4000	650	750	---	3100
24	1700	---	1800	1650	1500	850	3500	4000	800	900	---	3100
25	1700	1630	---	---	1500	950	3700	4100	900	800	---	3400
26	1700	1750	2000	---	1500	900	4000	2500	1000	900	---	3500
27	1700	1600	2000	1700	1500	900	4000	1750	800	1000	---	3300
28	1800	---	---	2000	1500	800	3500	2000	---	950	---	2600
29	1800	1600	---	1750	---	700	4000	2500	---	850	2600	2400
30	1900	---	1800	1750	---	---	4000	3000	---	900	2650	2300
31	1800	---	1800	2000	---	---	---	3500	---	900	2950	---
MEAN	1860	---	---	---	---	---	2410	3740	1040	737	---	3030

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, COLO.--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
(ONCE-DAILY)

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.0	8.0	---	---	---	---	1.0	11.0	16.0	23.0	24.0	20.0
2	11.0	8.0	0.0	2.0	---	---	0.0	12.0	17.0	23.0	25.0	19.0
3	12.0	---	0.0	7.0	6.0	5.0	1.0	12.0	19.0	22.0	23.0	19.0
4	14.0	6.0	1.0	---	7.0	3.0	3.0	13.0	20.0	23.0	24.0	21.0
5	13.0	5.0	1.0	---	3.0	3.0	5.0	13.0	20.0	24.0	24.0	19.0
6	12.0	6.0	4.0	7.0	3.0	6.0	5.0	10.0	21.0	24.0	24.0	17.0
7	12.0	7.0	---	5.0	4.0	3.0	8.0	9.0	20.0	23.0	24.0	18.0
8	10.0	7.0	---	4.0	---	---	5.0	11.0	19.0	24.0	24.0	18.0
9	11.0	---	0.0	6.0	---	---	7.0	14.0	20.0	24.0	23.0	19.0
10	12.0	---	0.0	5.0	6.0	3.0	8.0	15.0	17.0	24.0	23.0	19.0
11	14.0	7.0	2.0	---	5.0	3.0	8.0	15.0	14.0	24.0	22.0	18.0
12	13.0	4.0	1.0	---	5.0	1.0	6.0	15.0	16.0	23.0	23.0	14.0
13	10.0	7.0	1.0	6.0	6.0	2.0	6.0	12.0	19.0	22.0	22.0	12.0
14	11.0	4.0	---	6.0	7.0	2.0	5.0	12.0	21.0	22.0	20.0	12.0
15	8.0	4.0	---	4.0	---	---	9.0	15.0	20.0	24.0	21.0	16.0
16	10.0	---	2.0	6.0	---	---	11.0	16.0	21.0	23.0	22.0	17.0
17	11.0	---	2.0	4.0	---	4.0	12.0	16.0	20.0	24.0	22.0	17.0
18	12.0	4.0	2.0	---	4.0	4.0	10.0	18.0	20.0	24.0	23.0	16.0
19	11.0	7.0	2.0	---	4.0	5.0	7.0	16.0	20.0	25.0	23.0	15.0
20	11.0	4.0	2.0	4.0	5.0	7.0	11.0	15.0	21.0	25.0	24.0	15.0
21	12.0	4.0	---	5.0	7.0	---	11.0	14.0	20.0	24.0	23.0	15.0
22	12.0	5.0	---	4.0	---	---	13.0	15.0	20.0	24.0	22.0	11.0
23	12.0	---	1.0	3.0	---	6.0	13.0	14.0	20.0	24.0	23.0	11.0
24	10.0	---	1.0	6.0	10.0	3.0	13.0	14.0	20.0	23.0	24.0	12.0
25	11.0	3.0	---	---	10.0	3.0	15.0	15.0	23.0	22.0	20.0	12.0
26	9.0	4.0	2.0	---	5.0	3.0	13.0	15.0	20.0	22.0	19.0	12.0
27	11.0	2.0	2.0	7.0	4.0	1.0	13.0	16.0	21.0	23.0	22.0	13.0
28	10.0	---	---	4.0	5.0	0.0	14.0	15.0	21.0	23.0	20.0	12.0
29	10.0	1.0	---	4.0	---	1.0	11.0	14.0	23.0	24.0	19.0	11.0
30	11.0	---	1.0	4.0	---	1.0	10.0	12.0	23.0	24.0	20.0	13.0
31	9.0	---	1.0	3.0	---	3.0	---	15.0	---	24.0	19.0	---
MEAN	11.0	---	---	---	---	---	8.5	14.0	19.5	23.5	22.5	15.5

07137500 ARKANSAS RIVER NEAR COOLIDGE, KANS.

LOCATION.--Lat 38°01'34", long 104°00'41", in NE¼NW¼ sec.26, T.23 S., R.43 W., Hamilton County, at gaging station, at bridge, 1 mi (2 km) south of Coolidge and 1.9 mi (3.1 km) downstream from Colorado-Kansas State line.

DRAINAGE AREA.--25,410 mi² (65,812 km²), of which 1,708 mi² (4,424 km²) is probably noncontributing.

PERIOD OF RECORD.--Chemical analyses: November 1963 to September 1968, October 1969 to September 1973, April to September 1975.
Water temperatures: October 1964 to September 1968.

WATER QUALITY DATA, APRIL TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
APR.												
01...	1200	22	13	1500	10	160	110	400	190	620	13	300
MAY												
21...	1100	7.2	8.8	--	--	--	--	400	130	560	11	255
JULY												
01...	1000	212	14	--	--	--	--	240	110	310	11	231
AUG.												
13...	1000	44	16	650	0	50	30	370	190	560	14	298
SEP.												
10...	1220	10	16	--	--	--	--	370	180	580	15	246

DATE	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED SOLIDS (TONS PER AC-FT)
APR.												
01...	0	2400	190	.8	2.1	.43	2.5	.04	4440	3970	264	6.04
MAY												
21...	0	2300	180	.7	1.7	.47	2.2	.02	4240	3720	82.4	5.77
JULY												
01...	0	1300	89	.7	1.1	1.1	2.2	.43	2310	2190	1320	3.14
AUG.												
13...	--	2300	170	.7	2.6	.94	3.5	.04	4060	3770	482	5.52
SEP.												
10...	0	2300	180	.7	1.5	.76	2.3	.02	4150	3760	112	5.64

07137500 ARKANSAS RIVER NEAR COOLIDGE, KANS.--Continued

WATER-QUALITY DATA, WATER YEAR APRIL TO SEPTEMBER 1975

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	UNCORRECTED PERIPHYTON CHLOROPHYLL B MG/SQ M	UNCORRECTED PERIPHYTON CHLOROPHYLL A MG/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M
APR.												
01...	1800	1500	4100	8.6	1.5	28	12.4	3400	--	--	--	--
MAY												
21...	1500	1300	5200	8.6	28.5	14	8.8	2800	--	--	--	--
JULY												
01...	1100	860	3000	7.8	24.0	150	7.3	3800	--	--	--	--
AUG.												
13...	1700	1500	4500	--	20.0	21	8.4	13000	--	--	--	--
SEP.												
10...	1700	1500	4400	8.2	27.0	1	10.5	84000	.400	1.00	.400	2.20

DATE	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DISSOLVED COBALT (CO) (UG/L)
APR.												
01...	--	--	--	5.4	0	0	20	0	10	10	<50	0
MAY												
21...	B20	B10	340	--	--	--	--	--	--	--	--	--
JULY												
01...	--	B700	--	--	--	--	--	--	--	--	--	--
AUG.												
13...	--	--	1300	8.6	0	1	20	0	10	10	100	0
SEP.												
10...	B95	B60	B110	--	--	--	--	--	--	--	--	--

DATE	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR.												
01...	30	1	<100	0	.2	.0	21	21	70	30	278	17
MAY												
21...	--	--	--	--	--	--	--	--	--	--	123	2.4
JULY												
01...	--	--	--	--	--	--	--	--	--	--	700	401
AUG.												
13...	20	3	100	0	.0	.0	25	25	20	10	792	94
SEP.												
10...	--	--	--	--	--	--	--	--	--	--	46	1.2

RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, COLO.

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, at gaging station, at highway bridge, 6 mi (10 km) north of Colorado-New Mexico State line, 7 mi (11 km) downstream from Culebra Creek, 10 mi (16 km) east of Lobatos, and 14 mi (23 km) east of Antonito.

DRAINAGE AREA.--7,700 mi² (19,900 km²), approximately (includes 2,940 mi² or 7,610 km² in closed basin in northern part of San Luis Valley, Colo.).

PERIOD OF RECORD.--Chemical analyses: September 1969 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
MAR.												
20...	0930	390	23	950	60	120	40	28	5.5	17	3.6	100
APR.												
23...	1100	526	23	--	--	--	--	23	3.9	14	3.1	86
MAY												
27...	1130	1680	19	--	--	--	--	15	2.7	10	3.1	55
JUNE												
28...	1200	1550	18	1300	100	190	0	23	4.5	17	3.2	66
AUG.												
01...	0945	717	20	--	--	--	--	21	4.2	14	2.9	73
29...	1200	435	22	--	--	--	--	22	4.3	13	2.8	78
SEP.												
30...	1345	286	24	490	20	90	30	25	4.8	17	3.5	93

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER DAY)
MAR.												
20...	0	82	40	5.3	.3	.02	.20	.22	.07	186	172	196
APR.												
23...	0	71	33	4.4	.2	.00	.49	.49	.19	156	147	222
MAY												
27...	0	45	23	2.3	.2	.02	.82	.84	.18	113	102	513
JUNE												
28...	--	54	53	4.4	.2	.02	.43	.45	.11	154	156	644
AUG.												
01...	0	60	33	3.3	.3	--	--	--	--	143	135	277
29...	0	64	32	2.8	.3	.10	.43	.53	.12	141	138	166
SEP.												
30...	3	81	40	4.0	.3	.01	.47	.48	.11	176	168	136

DATE	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	SODIUM ADSORPTION RATIO	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)
MAR.											
20...	.25	--	--	93	11	.8	285	8.2	6.5	5	11.7
APR.											
23...	.21	--	--	74	3	.7	232	8.3	11.0	15	8.9
MAY											
27...	.15	--	--	49	4	.6	150	8.2	13.0	28	--
JUNE											
28...	.21	--	--	76	22	.8	250	--	18.0	14	7.8
AUG.											
01...	.19	--	--	70	10	.7	225	8.2	20.0	16	6.7
29...	.19	--	--	73	9	.7	225	8.8	18.0	13	10.1
SEP.											
30...	.24	160	9	82	1	.8	250	9.0	17.5	4	11.8

08251500 RIO GRANDE RIVER NEAR LOBATOS, COLO.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975

DATE	TOTAL PHYTOPLANKTON (CELLS PER ML)	UNCORRECTED PERIPHYTON CHLOROPHYLL B MG/SQ M	UNCORRECTED PERIPHYTON CHLOROPHYLL A MG/SQ M	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	STREPTOCOCCI (COLONIES PER 100 ML)	TOTAL ORGANIC CARBON (C) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
MAR.											
20...	--	--	--	--	--	<5	B3	B12	2.8	--	--
APR.											
23...	9600	--	--	--	--	B30	B15	130	--	61	87
MAY											
27...	5800	--	--	--	--	--	83	200	--	861	3910
JUNE											
28...	3300	.600	1.10	2.10	2.20	--	--	--	7.1	38	159
AUG.											
01...	9100	.800	8.80	16.0	21.0	B20	B17	B17	--	45	87
29...	5000	--	--	--	--	B10	87	B13	--	222	261
SEP.											
30...	4800	1.30	59.0	34.0	42.0	--	B8	B8	3.4	8	6.2

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DISSOLVED COBALT (CD) (UG/L)
MAR.									
20...	0930	2	2	<10	0	25	0	<50	0
JUNE									
28...	1200	7	4	<10	0	0	0	<50	0
SEP.									
30...	1345	3	2	0	0	10	10	<50	1

DATE	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)
MAR.									
20...	<10	0	<100	0	.1	.1	1	0	40
JUNE									
28...	10	2	<100	0	.0	.0	0	0	50
SEP.									
30...	10	1	<100	3	1.7	1.0	0	0	10

DATE	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (RADON METHOD) (PC/L)	DISSOLVED URANIUM (DIRECT FLUOROMETRIC) (PC/L)
MAR.									
20...	20	--	--	--	--	--	--	--	--
JUNE									
28...	0	--	--	--	--	--	--	--	--
SEP.									
30...	10	2.6	<.4	4.3	.9	3.4	.8	.01	.8

ADAMS COUNTY

395727N1040717.1. SC1-60-17DCC. Carl Sanden. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 87 ft (26.5 m). MP, 1.30 ft (0.4 m) above lsd. Altitude of land surface, 4,830.8 ft (1,472.4 m) above msl. Records available: 1942-75.

Highest water level, 25.09 ft (7.6 m) below lsd, Nov. 19, 1942; lowest water level, 46.6 ft (14.2 m) below lsd, Mar. 12, 1973.

Jan. 16, 1975 46.37

395643N1041833.2. SC 1-62-22DCA. Charles B. Nordloh. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 82 ft (25.0 m). MP, 0.80 ft (0.2 m) below lsd. Altitude of land surface, 4,994 ft (1,522.2 m) above msl. Records available: 1946-75.

Highest water level, 44.21 ft (13.5 m) below lsd, Nov. 25, 1949; lowest water level, 61.9 ft (18.9 m) below lsd, Mar. 12, 1973.

Jan. 16, 1975 55.58

ALAMOSA COUNTY

372210N1055554.1. NA36- 9-13AAA. U.S. Geological Survey. Jetted observation water-table well in basin-fill deposits. Diameter, 3 in (0.08 m). Depth, 10 ft (3.0 m). MP, 2.30 ft (0.7 m) above lsd. Altitude of land surface, 7,558.1 ft (2,303.7 m) above msl. Records available: 1949-64, 1966-75.

Highest water level, 0.07 ft (0.02 m) below lsd, May 5, 1968; lowest water level, 6.17 ft (1.9 m) below lsd, Jan. 6, 1964.

Jan. 13, 1975 6.00

373512N1060212.1. NA39- 9-31CCC. U.S. Geological Survey. Jetted observation water-table well in basin-fill deposits. Diameter, 3 in (0.08 m). Depth, 10.0 ft (3.0 m). MP, 1.70 ft (0.5 m) above lsd. Altitude of land surface, 7,567.4 ft (2,306.5 m) above msl. Records available: 1948-64, 1966-75.

Highest water level, 1.42 ft (0.4 m) below lsd, June 26, 1962; lowest water level, 5.78 ft (1.8 m) below lsd, Jan. 27, 1969.

Jan. 13, 1975 4.76

BACA COUNTY

373058N1021515.1. SC29-43-15CCC. James Thompson. Drilled observation artesian well in Cheyenne Sandstone Member of Purgatoire Formation. Diameter, 1.2 in (0.4 m). Depth, 343 ft or 104.5 m (reported). MP, 1.40 ft (0.4 m) above msl. Altitude of land surface, 3,913 ft (1,192.7 m) above msl. Records available: 1955-75.

Highest water level, 48.60 ft (14.8 m) below lsd, Jan. 16, 1975; lowest water level, 67.00 ft (20.4 m) below lsd, Nov. 11, 1966.

Jan. 16, 1975 48.60

ELBERT COUNTY

391717N1034750.1. SC 9-57- 8ABB. J. C. Mattson. Drilled observation water-table well in alluvium. Diameter, 6 in (0.2 m). Depth, 28 ft (8.5 m). MP, 0.20 ft (0.06 m) above lsd. Altitude of land surface, 5,475 ft (1,668.8 m) above msl. Records available: 1945-75.

Highest water level, 5.00 ft (1.5 m) below lsd, July 2, 1947; lowest water level, 7.78 ft (2.4 m) below lsd, Mar. 14, 1972.

Jan. 10, 1975 7.17

EL PASO COUNTY

390442N1041850.1. SC11-62-22ADC. Anthony Eurich. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 44 ft (13.4 m). MP, 0.80 ft (0.2 m) above lsd. Altitude of land surface, 6,364.8 ft (1,940.0 m) above msl. Records available: 1945-75.

Highest water level, 5.49 ft (1.7 m) below lsd, Aug. 9, 1947; lowest water level, 8.48 ft (2.6 m) below lsd, July 11, 1952.

Jan. 6, 1975 6.57

KIT CARSON COUNTY

391106N1020310.1. SC10-42-12DCD. U.S. Government. Drilled observation water-table well in Ogallala Formation. Diameter, 1¼ in (31.8 mm). Depth, 273 ft (83.2 m). MP, 3.30 ft (1.0 m) above lsd. Altitude of land surface, 3,997.7 ft (1,218.5 m) above msl. Records available: 1955-75.

Highest water level, 101.67 ft (31.0 m) below lsd, Aug. 12, 1955; lowest water level, 116.51 ft (35.5 m) below lsd, Jan. 8, 1975.

Jan. 8, 1975 116.51

390610N1021112.1. SC11-43-12CCC. Floyd Powell. Drilled irrigation water-table well in Ogallala Formation. Diameter, 18 in (0.5 m). Depth, 233 ft (71.0 m). MP, 0.70 ft (0.2 m) above lsd. Altitude of land surface, 4,104.0 ft (1,250.9 m) above msl. Records available: 1950-75.

Highest water level, 78.83 ft (24.0 m) below lsd, May 28, 1952; lowest water level, 98.04 ft (29.9 m) below lsd, Jan. 10, 1975.

Jan. 10, 1975 98.04

LARIMER COUNTY

402426N1050130.1. SB 5-68-17AAB. George Peak. Drilled irrigation water-table well in alluvium. Diameter, 48 in (1.2 m). Depth, 24 ft (7.3 m). MP, 1.0 ft (0.3 m) above lsd. Altitude of land surface, 4,948 ft (1,508.1 m) above msl. Records available: 1941-75.

Highest water level, 5.43 ft (1.7 m) below lsd, Oct. 27, 1947; lowest water level, 14.45 ft (4.4 m) below lsd, Apr. 20, 1949.

Mar. 13, 1975 12.2 (measured by outside agency)

403333N1045850.1. SC 7-68-23CBB1. W. A. Scott. Drilled observation water-table well in alluvium. Diameter, 48 in (1.2 m). Depth, 52 ft (15.8 m). MP, 2.70 ft (0.8 m) above lsd. Altitude of land surface, 4,902 ft (1,494.1 m) above msl. Records available: 1941-75.

Highest water level, 6.1 ft (1.8 m) below lsd, Nov. 6, 1957; lowest water level, 10.5 ft (3.2 m) below lsd, Mar. 15, 1975.

Mar. 15, 1975 10.5 (measured by outside agency).

404517N1050142.1. SB 9-68-17BAA. Harlan Seaworth. Drilled irrigation water-table well in alluvium. Diameter, 20 in (0.5 m). Depth, 92 ft (28.0 m). MP, 0.40 ft (0.1 m) above lsd. Altitude of land surface, 5,329 ft (1,624.3 m) above msl. Records available: 1939-75.

Highest water level, 29.02 ft (8.8 m) below lsd, Apr. 3, 1959; lowest water level, 64.45 ft (19.6 m) below lsd, Nov. 9, 1956.

Jan. 22, 1975 38.18

LOGAN COUNTY

404256N1030628.1. SB 9-51-31BBB. Frank Manuello. Drilled irrigation water-table well in alluvium. Diameter unknown. Depth, 106 ft (32.3 m). MP, 1.0 ft (0.3 m) above lsd. Altitude of land surface, 3,865 ft (1,178.0 m) above msl. Records available: 1947-75.

Highest water level, 2.89 ft (0.9 m) below lsd, Oct. 6, 1947; lowest water level, 7.16 ft (2.2 m) below lsd, Jan. 10, 1975.

Jan. 10, 1975 7.16

405209N1024817.1. SB10-49- 2CBC. G. E. Henery. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 32 ft (9.8 m). MP, 1.50 ft (0.5 m) above lsd. Altitude of land surface, 3,711 ft (1,131.1 m) above msl. Records available: 1947-75.

Highest water level, 3.95 ft (1.2 m) below lsd, Apr. 7, 1958; lowest water level, 9.03 ft (2.8 m) below lsd, Nov. 6, 1964.

Jan. 10, 1975 6.40

MORGAN COUNTY

401452N1034802.1. SB 3-57- 6DCC. City of Fort Morgan. Dug and drilled observation water-table well in alluvium. Diameter, 12 in (0.3 m). Depth, 180 ft (54.8 m). MP, 5.0 ft (1.5 m) bel lsd. Altitude of land surface, 4,325.6 ft (1,318.4 m) above msl. Records available: 1940-75.

Highest water level, 39.88 ft (12.2 m) below lsd, Jan. 20-21, 1955; lowest water level, 56.76 ft (17.3 m) below lsd, Sept. 5, 1965.

Jan. 9, 1975 50.91

401358N1035045.1. SB 3-58-11BCC. Alex Stark. Drilled irrigation water-table well in alluvium. Diameter, 16 in (0.4 m). Depth, 145 ft (44.2 m). MP, 0.8 ft (0.2 m) above lsd. Altitude of land surface, 4,366.2 ft (1,330.8 m) above msl. Records available: 1939-65, 1967, 1970-75.

Highest water level, 51.85 ft (15.8 m) below lsd, Nov. 19, 1942; lowest water level, 69.87 ft (21.3 m) below lsd, Nov. 5, 1964.

Jan. 8, 1975 62.70

401214N1040534.1. SC 3-60-22CCC. B. A. Holden. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 120 ft (36.6 m). MP, 0.20 ft (0.1 m) above lsd. Altitude of land surface, 4,568.4 ft (1,392.4 m) above msl. Records available: 1936-75.

Highest water level, 49.44 ft (15.1 m) below lsd, Apr. 11, 1938; lowest water level, 87.06 ft (26.5 m) below lsd, Jan. 16, 1975.

Jan. 16, 1975 87.06

401915N1033211.1. SB 4-55- 9DCC. Rudolph and Schooley. Drilled irrigation water-table well in alluvium. Diameter, 14 in (0.3 m). Depth, 88 ft (26.8 m). MP, 2.0 ft (0.6 m) above lsd. Altitude of land surface, 4,175.2 ft (1,272.6 m) above msl. Records available: 1930, 1932-75.

Highest water level, 14.75 ft (4.5 m) below lsd, Oct. 19, 1949; lowest water level, 25.76 ft (7.8 m) below lsd, Mar. 11, 1969.

Jan. 7, 1975 21.70

402113N1035803.1. SB 5-59-34CAD. G. Williams. Dug domestic and stock water-table well in alluvium. Diameter, 36 in (0.9 m). Depth, 20 ft (6.1 m). MP, 2.20 ft (0.7 m) above lsd. Altitude of land surface, 4,362 ft (1,329.5 m) above msl. Records available: 1947-75.

Highest water level, 7.16 ft (2.2 m) below lsd, Sept. 9, 1948; lowest water level, 16.43 ft (5.0 m) below lsd, Apr. 7, 1956.

Jan. 9, 1975 13.57

OTERO COUNTY

380706N1035342.1. SC22-58-21DAA. C. Meyer. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 56 ft (17.1 m). MP, 1.90 ft (0.6 m) above lsd. Altitude of land surface, 4,282 ft (1,305.2 m) above msl. Records available: 1928-31, 1933-75.

Highest water level, 25.54 ft (7.8 m) below lsd, Mar. 28, 1955; lowest water level, 36.58 ft (11.1 m) below lsd, Nov. 11, 1964.

Jan. 17, 1975 35.52

380334N1034347.1. SC23-57-12DAD. American Crystal Sugar Co. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 27 ft (8.2 m). MP, 2.00 ft (0.6 m) above lsd. Altitude of land surface, 4,186 ft (1,275.9 m) above msl. Records available: 1944-75.

Highest water level, 8.87 ft (2.7 m) below lsd, Dec. 4, 1946; lowest water level, 15.78 ft (4.8 m) below lsd, Nov. 27, 1956.

Jan. 14, 1975 14.45

PHILLIPS COUNTY

403206N1020706.1. SB 7-43-35ABB. Harold Gerhardt. Drilled irrigation water-table well in Ogallala Formation. Diameter, 18 in (0.5 m). Depth, 200 ft (61.0 m). MP, hole in pump base, 0.70 ft (0.2 m) above lsd. Altitude of land surface, 3,598.8 ft (1,096.9 m) above msl. Records available: 1950-75.

Highest water level, 37.27 ft (11.4 m) below lsd, Mar. 27, 1963; lowest water level, 48.71 ft (14.8 m) below lsd, Jan. 8, 1975.

Jan. 8, 1975 48.71

PROWERS COUNTY

380532N1023116.1. SC22-45-31CBB. U.S. Geological Survey. Driven observation water-table well in alluvium. Diameter, 1¼ in (31.8 mm). Depth, 11 ft (3.4 m). MP, top of casing, 3.5 ft (1.1 m) above lsd. Altitude of land surface, 3,567 ft (1,087.2 m) above msl. Records available: 1950-75.

Highest water level, 0.10 ft (0.03 m) below lsd, Aug. 24, 1967; lowest water level, 6.00 ft (1.8 m) below lsd, May 3, 1965.

Jan. 14, 1975 4.84

PUEBLO COUNTY

381340N1042056.1. SC21-62-9CCC. Susie C. Potestio. Drilled irrigation water-table well in alluvium. Diameter, 15 in (0.4 m). Depth, 28 ft (8.5 m). MP bottom of pump base, 1.1 ft (0.3 m) above lsd. Altitude of land surface, 4,567 ft (1,392.0 m) above msl. Records available: 1929, 1934-75.

Highest water level, 13.90 ft (4.2 m) below lsd, Nov. 16, 1965; lowest water level, 20.28 ft (6.2 m) below lsd, Nov. 11, 1964.

Jan. 30, 1975 17.94

381443N1043207.1. SC21-64- 3DBD. Joseph Thomas. Drilled irrigation water-table well in alluvium. Diameter, 15 in (0.4 m). Depth, 35 ft (10.7 m). MP, top of wooden cover, 2.10 ft (0.6 m) above lsd. Altitude of land surface, 4,679 ft (1,426.2 m) above msl. Records available: 1934-75.

Highest water level, 12.20 ft (3.7 m) below lsd, Nov. 11, 1942; lowest water level, 23.50 ft (7.2 m) below lsd, Mar. 13, 1974.

Jan. 28, 1975 21.75

380817N1040434.1. SC22-60-13BBC. C. J. Sindig. Drilled irrigation water-table well in alluvium. Diameter, 4 ft (1.2 m). Depth, 39 ft (11.9 m). MP, top of concrete floor, 1.0 ft (0.3 m) above lsd. Altitude of land surface, 4,375 ft (1,333.5 m) above msl. Records available: 1952-75.

Highest water level, 28.70 ft (8.7 m) below lsd, Nov. 29, 1969; lowest water level, 36.16 ft (11.0 m) below lsd, Nov. 28, 1956.

Jan. 15, 1975 31.41

SEDGWICK COUNTY

404741N1020305.1. SB10-42-32DDD. U.S. Geological Survey. Drilled observation water-table well in Ogallala Formation. Diameter, 1¼ in (31.8 mm). Depth, 207 ft (63.1 m). MP, top of casing, 2.80 ft (0.8 m) above lsd. Altitude of land surface, 3,609.2 ft (1,100.1 m) above msl. Records available: 1952-75.

Highest water level, 176.34 ft (53.7 m) below lsd, Jan. 16, 1969; lowest water level, 180.83 ft (55.1 m) below lsd, Aug. 27, 1952.

Jan. 13, 1975 178.97

405805N1022351.1. SB11-45- 5BBA. F. J. Hilderman. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 52 ft (15.8 m). MP, hole in west side of pump base, 0.50 ft (0.2 m) above lsd. Altitude of land surface, 3,540 ft (1,079.0 m) above msl. Records available: 1947-75.

Highest water level, 11.23 ft (3.4 m) below lsd, Oct. 7, 1949; lowest water level, 20.70 ft (6.3 m) below lsd, Jan. 6, 1975.

Jan. 6, 1975 20.70

405435N1023643.1. SB11-47-28BBB. James Jankovsky. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 52 ft (15.8 m). MP, top of casing, 0.50 ft (0.2 m) above lsd. Altitude of land surface, 3,624 ft (1,104.6 m) above msl. Records available: 1948-75.

Highest water level, 2.51 ft (0.8 m) below lsd, June 24, 1948; lowest water level, 5.61 ft (1.7 m) below lsd, Oct. 17, 1954.

Jan. 8, 1975 3.75

WASHINGTON COUNTY

395706N1035259.1. SC 1-55-21BCB. A. Blake. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 41 ft (12.5 m). MP, 1.50 ft (0.5 m) above lsd. Altitude of land surface, 4,487.3 ft (1,367.7 m) above msl. Records available: 1947-67, 1970-75.

Highest water level, 11.83 ft (3.6 m) below lsd, Dec. 9, 1947; lowest water level, 16.95 ft (5.2 m) below lsd, Oct. 20, 1960.

Jan. 16, 1975 15.99

394038N1024818.1. SC 4-49-25ADD. Cecil Williams. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 17 ft (5.2 m). MP, top of casing, 0.20 ft (0.1 m) above lsd. Altitude of land surface, 4,350 ft (1,325.9 m) above msl. Records available: 1950-69, 1971-72, 1975.

Highest water level, 7.42 ft (2.3 m) below lsd, Aug. 6, 1951; lowest water level, 14.50 ft (4.4 m) below lsd, Jan. 1, 1972.

Jan. 14, 1975 14.11

393902N1025618.1. SC 5-50- 2AAB. Lloyd McIrwin. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 54 ft (16.5 m). MP, top of casing, 2.00 ft (0.6 m) above lsd. Altitude of land surface, 4,514.6 ft (1,376.1 m) above msl. Records available: 1950-67, 1969-75.

Highest water level, 16.44 ft (5.0 m) below lsd, Nov. 8, 1962; lowest water level, 22.65 ft (6.9 m) below lsd, July 23, 1954.

Jan. 14, 1975 19.90

WELD COUNTY

400306N1041547.1. SB 1-62-13ADD. C. M. Roark. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 76 ft (23.2 m). MP, hole in pump base, 3.00 ft (0.9 m) above lsd. Altitude of land surface, 4,824.1 ft (1,470.1 m) above msl. Records available: 1947-75.

Highest water level, 18.29 ft (5.6 m) below lsd, Oct. 16, 1952; lowest water level, 47.7 ft (14.5 m) below lsd, Mar. 23, 1972.

Mar. 14, 1975 43.3 (measured by outside agency).

400427N1042448.1. SB 1-63- 2CCC. D. Trupp. Drilled irrigation water-table well in alluvium. Diameter, 20 in (0.4 m). Depth, 96 ft (29.3 m). MP, top of casing, 0.30 ft (0.1 m) above lsd. Altitude of land surface, 4,822 ft (1,469.7 m) above msl. Records available: 1944-56, 1958-75.

Highest water level, 51.70 ft (15.8 m) below lsd, May 1, 1950; lowest water level, 75.90 ft (23.1 m) below lsd, Nov. 13, 1959.

Mar. 19, 1975 58.8 (measured by outside agency).

400055N1043703.1. SB 1-65-25CCD1. Fred Haffner, Sr. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 69 ft (21.0 m). MP, bottom of pump base, 0.60 ft (0.2 m) above lsd. Altitude of land surface, 5,044 ft (1,537.4 m) above msl. Records available: 1940-75.

Highest water level, 30.29 ft (9.2 m) below lsd, Apr. 12, 1950; lowest water level, 43.19 ft (13.2 m) below lsd, Nov. 25, 1964.

Mar. 13, 1975 39.8 (measured by outside agency).

400129N1044838.1. SB 1-66-30ADA. G. J. Mancini. Dug irrigation water-table well in alluvium. Diameter, 8 ft (2.4 m). Depth, 31 ft (9.4 m). MP, top of plank cover, 1.15 ft (0.4 m) above lsd. Altitude of land surface, 4,953 ft (1,509.6 m) above msl. Records available: 1929-75.

Highest water level, 10.29 ft (3.1 m) below lsd, Oct. 12, 1933; lowest water level, 20.64 ft (6.3 m) below lsd, Mar. 23, 1972.

Jan. 5, 1975 18.98

401727N1041330.1. SB 4-61-28BBB. K. Mori. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 100 ft (30.5 m). MP, vent in pump base, 0.80 ft (0.2 m) above lsd. Altitude of land surface, 4,482 ft (1,366.1 m) above msl. Records available: 1947-75.

Highest water level, 21.60 ft (6.6 m) below lsd, Oct. 9, 1947; lowest water level, 34.28 ft (10.4 m) below lsd, Apr. 20, 1961.

Jan. 7, 1975 30.77

401912N1043137.1. SB 4-64-10DDD. T. E. Dwyer. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 60 ft (18.3 m). MP, top of casing, 0.60 ft (0.2 m) above lsd. Altitude of land surface, 4,635 ft (1,412.7 m) above msl. Records available: 1940-75.

Highest water level, 6.43 ft (2.0 m) below lsd, Nov. 9, 1949; lowest water level, 23.64 ft (7.2 m) below lsd, Nov. 13, 1956.

Jan. 9, 1975 11.09

402753N1042809.1. SB 6-63-29BBB. H. L. Wells. Drilled irrigation water-table well in alluvium. Diameter, 4 ft (1.2 m). Depth, 37 ft (11.3 m). MP, top of casing, 1.80 ft (0.5 m) above lsd. Altitude of land surface, 4,655 ft (1,418.8 m) above msl. Records available: 1932-75.

Highest water level, 7.19 ft (2.2 m) below lsd, Aug. 11, 1932; lowest water level, 22.85 ft (7.0 m) below lsd, Nov. 12, 1956.

Mar. 16, 1975 8.8 (measured by outside agency)

WELD COUNTY--Continued

402930N1044143.1. SB 6-65-17BBC. H. W. Farr. Drilled irrigation water-table well in alluvium. Diameter, 18 in (0.5 m). Depth, 65 ft (19.8 m). MP, top of pump base, 0.80 ft (0.2 m) above lsd. Altitude of land surface, 4,761.9 ft (1,451.4 m) above msl. Records available: 1932-75.

Highest water level, 21.22 ft (6.5 m) below lsd, Aug. 1, 1932; lowest water level, 41.36 ft (12.6 m) below lsd, Nov. 12, 1956.

Mar. 16, 1975 25.0 (measured by outside agency)

403032N1045102.1. SB 6-67-12BBB. Fred Felte. Drilled irrigation water-table well in alluvium. Diameter, 24 in (0.6 m). Depth, 22 ft (6.7 m). MP, top of casing, 0.50 ft (0.2 m) above lsd. Altitude of land surface, 4,859 ft (1,481.0 m) above msl. Records available: 1941-75.

Highest water level, 5.45 ft (1.7 m) below lsd, Mar. 21, 1962; lowest water level, 13.30 ft (4.1 m) below lsd, Nov. 12, 1956.

Mar. 16, 1975 9.5 (measured by outside agency)

403454N1044036.1. SB 7-65-16BBB. K. Akahoshi. Drilled irrigation water-table well in alluvium. Diameter, 4 ft (1.2 m). Depth, 18 ft (5.5 m). MP, top of casing, 2.70 ft (0.8 m) above lsd. Altitude of land surface, 4,875.1 ft (1,485.9 m) above msl. Records available: 1942-48, 1950-75.

Highest water level, 4.09 ft (1.2 m) below lsd, Oct. 28, 1959; lowest water level, 7.42 ft (2.3 m) below lsd, Apr. 29, 1946.

Mar. 16, 1975 5.6 (measured by outside agency).

403914N1044518.1. SB 8-66-22AAA. Troy Jones. Dug irrigation water-table well in alluvium. Diameter, 12 ft (3.6 m). Depth, 31 ft (9.4 m). MP, top of curb, 2.10 ft (0.6 m) above lsd. Altitude of land surface, 5,073.7 ft (1,546.5 m) above msl. Records available: 1929-75.

Highest water level, 16.20 ft (4.9 m) below lsd, Jan. 8, 1947; lowest water level, 22.68 ft (6.9 m) below lsd, Nov. 22, 1954.

Mar. 16, 1975 Pumping (measured by outside agency)

YUMA COUNTY

401059N1020642.1. SB 3-42-31BDD. U.S. Geological Survey. Drilled observation water-table well in Ogallala Formation. Diameter, 1¼ in (31.8 mm). Depth, 92 ft (28 m). MP, top of pipe, 0.50 ft (0.2 m) above lsd. Altitude of land surface, 3,615.8 ft (1,102.1 m) above msl. Records available: 1952-75.

Highest water level, 21.25 ft (6.5 m) below lsd, Aug. 14, 1952; lowest water level, 37.52 ft (11.4 m) below lsd, Jan. 21, 1975.

Jan. 21, 1975 37.52

U.S. GOVERNMENT PRINTING OFFICE 1976 - 777-373/2 Reg 8

CALENDAR FOR WATER YEAR 1975

1974

OCTOBER

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

NOVEMBER

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

DECEMBER

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

1975

JANUARY

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

FEBRUARY

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	

MARCH

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

APRIL

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

MAY

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

JUNE

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

JULY

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

AUGUST

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

SEPTEMBER

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

U.S. DEPARTMENT OF THE INTERIOR
Geological Survey, Mail Stop 415
Box 25046, Denver Federal Center
Denver CO 80225

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF THE INTERIOR
INT 413