

# Water Resources Data Colorado Water Year 2000

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

By R.M. Crowfoot, J.W. Unruh, R.D. Steger, and G.B. O'Neill

Water-Data Report CO-00-1

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

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## PREFACE

Volume 1 of the annual hydrologic data report of Colorado is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each state, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Colorado are contained in two volumes:

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

Volume 1 is the culmination of a concerted effort by dedicated personnel of the U. S. Geological Survey who collected, compiled, analyzed, verified, and organized the data, and who typed, edited, and assembled the report. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the following individuals contributed significantly to the collection, processing, and tabulation of the data:

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(Letter after station name designates type and frequency of published data. Daily tables: (D) discharge, (C) specific conductance, (S) sediment, (T) temperature, (E) elevation or contents, (O) dissolved oxygen, (P) pH, (R) precipitation.

Periodic tables: (c) chemical, (b) biological, (e) elevation or contents, (m) microbiological, (s) sediment, (t) temperature.)

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**VOLUME 1: MISSOURI RIVER, ARKANSAS RIVER, AND RIO GRANDE BASINS**

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By R.M. Crowfoot, J.W. Unruh, R.D. Steger, and G.B. O'Neill

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**INTRODUCTION**

The Water-Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of Colorado each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in the report series entitled "Water Resources Data - Colorado".

This report (Volume 1 of two volumes) includes records on both surface and ground water in the State, east of the Continental Divide. Specifically, it contains: (1) discharge records for 143 surface-water stations, peak discharges for 21 partial-record surface-water stations and discharge measurements only for 1 miscellaneous site; (2) stage and contents for 6 lakes and reservoirs; (3) water-quality data for 41 surface-water stations, 4 reservoirs, 14 wells, and miscellaneous surface-water-quality data for 78 gaged sites and 26 miscellaneous sites; and (4) ground-water level records for 2 sites, and meteorological data for 35 sites. Locations of lake and surface-water stations and surface-water-quality stations are shown in figure 1, locations of crest-stage partial-record stations are shown in figure 2. Three pertinent stations operated by bordering States are included in this report. The data in this report represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in Colorado.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for Colorado were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-water Supply of the United States," Parts 6B, 7, 8, and 9. For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States." Data on ground-water levels for the 1935 through 1955 water years were published annually under the title "Water Levels and Artesian Pressures in Observation Wells in the United States." For the 1956 through 1974 water years the data were published in four 5-year reports under the title "Ground-Water Levels in the United States." Water-supply papers may be purchased from the, U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 810, Box 25425, Denver, CO 80225.

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

Beginning with the 1971 water year, water data on surface-water, water quality, and ground-water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "**U.S. Geological Survey Water-Data Report CO-00-1.**" These water-data reports are for sale, in paper copy or in micro-fiche, by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

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

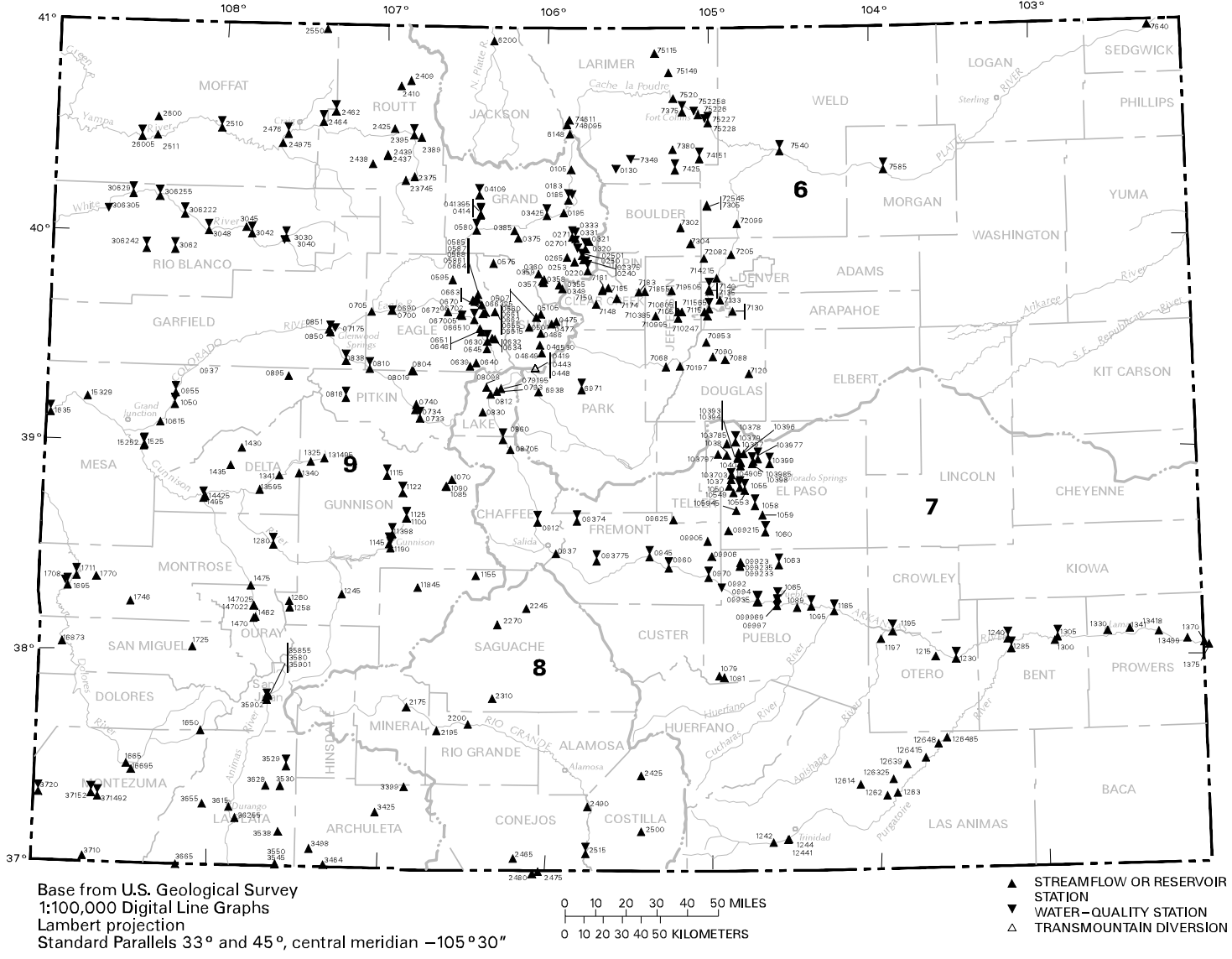


Figure 1.--Map showing locations of lake and surface-water stations and surface-water-quality stations in Colorado.



### COOPERATION

The U.S. Geological Survey and organizations in 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 supported data-collection activities through cooperative agreements with the Survey during the **2000 water year** are:

Arapahoe County Water and Wastewater Authority.  
 Arkansas River Compact Administration.  
 Centennial Water and Sanitation District.  
 Center of Colorado Water Conservancy District.  
 Cherokee Metropolitan District.  
 City and County of Denver, Board of Water Commissioners.  
 City of Aurora.  
 City of Black Hawk.  
 City of Boulder.  
 City of Broomfield.  
 City of Colorado Springs.  
 City of Creede.  
 City of Englewood.  
 City of Fort Collins.  
 City of Glendale.  
 City of Golden.  
 City of Gunnison.  
 City of Idaho Springs.  
 City of Lakewood.  
 City of Longmont.  
 City of Louisville.  
 City of Loveland.  
 City of Pueblo.  
 City of Westminster.  
 Clear Creek Board of County Commissioners.  
 Colorado City Metropolitan District.  
 Colorado Department of Public Health and Environment.  
 Colorado Department of Transportation.  
 Colorado Division of Parks and Outdoor Recreation.  
 Colorado Division of Water Resources.  
 Colorado Division of Wildlife.  
 Colorado River Water Conservation District.  
 Colorado Springs Utilities.  
 Colorado Water Conservation Board  
 Crested Butte South Metropolitan District.  
 Delta County Board of County Commissioners.  
 Dolores Water Conservancy District.  
 Eagle County Board of Commissioners.  
 Eagle River Water and Sanitation District.  
 Eagle River Watershed Council.  
 East Grand County Water-Quality Board.  
 Evergreen Metropolitan District.  
 Fountain Valley Authority.  
 Gilpin County.  
 Grand County.  
 La Plata County.  
 Lower Fountain Water-Quality Management Association.  
 Meeker Sanitation District.  
 Metro Wastewater Reclamation District.  
 Moffat County.  
 Mount Crested Butte Water and Sanitation District.  
 North Front Range Water Quality Planning Association.  
 Northern Colorado Water Conservancy District.  
 Northwest Colorado Council of Governments.  
 Park County.  
 Plum Creek Wastewater Authority.  
 Pueblo Board of Water Works.  
 Pueblo West Metropolitan District.  
 Rio Blanco County Board of County Commissioners.  
 Rio Grande Water Conservation District.  
 Southeastern Colorado Water Conservancy District.  
 Southern Ute Indian Tribe.  
 Southwestern Colorado Water Conservation District.  
 St. Charles Mesa Water District.  
 Summit County.  
 Teller - Park Soil Conservation District.  
 Town of Basalt.  
 Town of Breckenridge.  
 Town of Crested Butte.  
 Town of Hotchkiss.  
 Town of Meeker.  
 Town of Paonia.  
 Town of Rangely.  
 Town of Vail.  
 Trinchera Water Conservancy District.  
 Upper Arkansas River Water Conservancy District.  
 Upper Eagle Regional Water Authority.  
 Upper Gunnison River Water Conservancy District.  
 Upper Yampa Water Conservancy District.  
 Urban Drainage and Flood Control District.  
 Yellowjacket Water Conservancy District.

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

## SPECIAL NETWORKS AND PROGRAMS

**Hydrologic Benchmark Network** is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at <http://water.usgs.gov/hbn/>.

**National Stream-Quality Accounting Network (NASQAN)** monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations were operated in the Mississippi, Columbia, Colorado, and Rio Grande basins. From 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at <http://water.usgs.gov/nasqan/>.

**The National Atmospheric Deposition Program/National Trends Network (NADP/NTN)** provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at <http://bqs.usgs.gov/acidrain/>.

**The National Water-Quality Assessment (NAWQA) Program** of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program can be found at [http://water.usgs.gov/nawqa/nawqa\\_home.html](http://water.usgs.gov/nawqa/nawqa_home.html).

## EXPLANATION OF THE RECORDS

**The surface-water and ground-water records published in this report are for the 2000 water year that began on October 1, 1999, and ended September 30, 2000.** A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, ground-water level data, and water-quality data for surface and ground water. The locations of the stations where the surface-water data were collected are shown in figures 1 and 2. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

### Station Identification Numbers

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

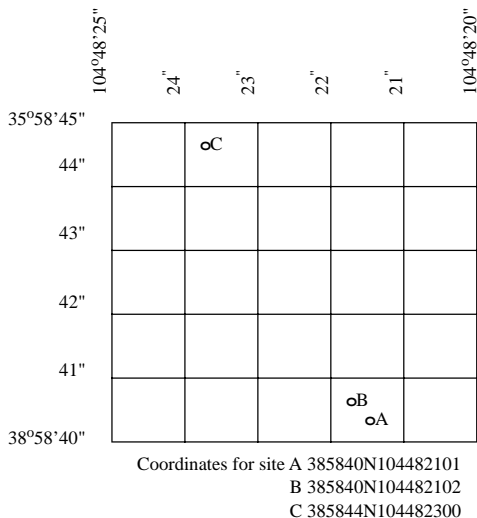
### Downstream Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 06614800, which appears just to the left of the station name, includes the two-digit Part number "06" plus the six-digit downstream-order number "614800." The Part number designates the major river basin; for example, Part "06" is the Missouri River basin.

### Latitude-Longitude System

The identification numbers for wells, springs, and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote the degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and may have no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below).



### System for numbering wells, springs, and miscellaneous sites.

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

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

The 36-mi<sup>2</sup> area described by the township and range designation is subdivided into 1-mi<sup>2</sup> areas called sections. The sections are numbered sequentially. The third number of the well location designates the section. The section, which contains 640 acres, is subdivided into quarter sections. The 160-acre area is designated by the first letter following the section: A indicates the northeast quarter, B the



northwest, C the southwest, and D the southeast. The quarter section is subdivided into quarter-quarter sections. The 40-acre area is designated in the same manner by the second letter following the section. The 10-acre area is designated in the same manner by the third letter following the section. If more than one well is located within the 10-acre tract, the wells are numbered sequentially in the order in which they were originally inventoried. If this number is necessary, it will follow the three-letter designation.

### Records of Stage and Water Discharge

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

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

### Data Collection and Computation

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

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage, with digital recorders that punch stage values on paper tapes at selected time intervals, with electronic recorders that store stage values on computer chips at selected time intervals, or with satellite data-collection platforms that transmit near real-time data at selected time intervals to office computers. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

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

### Data Presentation

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

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

#### Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

**LOCATION.**--Information on locations is obtained from the most accurate maps available. The location of the gaging station with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

**DRAINAGE AREA.**--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

**PERIOD OF RECORD.**--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that flow at it can reasonably be considered equivalent with records from the present station.

**REVISED RECORDS.**--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

**GAGE.**--The type of gage in current use, the datum of the current gage referred to sea level (see glossary), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

**REMARKS.**--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS paragraph is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station. In addition, information may be presented pertaining to average discharge data for the period of record; to extremes data for the period of record and the current year; and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

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

**EXTREMES OUTSIDE PERIOD OF RECORD.**--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

**REVISIONS.**--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office (address given on the back of the title page of this report) to determine if the published records were ever revised after the station was discontinued. Of course, if the data for a discontinued station were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

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

#### Data table of daily mean values

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second during the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

If applicable, data collected at partial-record stations follow the information for continuous-record sites. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

#### Statistics of monthly mean data

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

#### Summary statistics

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

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

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

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

ANNUAL MEAN.--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

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

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

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

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

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

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

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

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

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

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

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

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

10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

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

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

### Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of estimated record in the REMARKS paragraph of the station description.

### Accuracy of the Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true value; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for daily values less than 1 ft<sup>3</sup>/s; to the nearest tenth between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures for more than 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

### Other Records Available

The National Water Data Exchange (NAWDEX), U.S. Geological Survey, Reston, VA 22092, maintains an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables are on file in the Colorado District office. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

### Records of Surface-Water Quality

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

In March 1989 the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989.

On October 1, 1995, the Colorado District adopted a new sampling and quality-assurance protocol for sampling of surface waters (Horowitz and others, 1994). This protocol was adopted as standard operating procedure for the collection and processing of all trace-element, major-ion, nutrient, and radiochemical species in filtered, surface-water samples.

### Accuracy of the Records

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

*	Temperature:	$\pm 0.3$ degree C.
*	Specific Conductance:	$\pm 5 \mu\text{S}/\text{cm}$ or $\pm 5\%$ whichever is greater
*	pH:	$\pm 0.2$ pH units
*	Dissolved Oxygen:	$\pm 0.3 \text{ mg}/\text{L}$ or $\pm 5\%$ whichever is greater.

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

### Classification of Records

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

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

### Arrangement of Records

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

### Onsite Measurements and Sample Collection

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

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

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

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

### Water Temperature

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

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are recorded to the nearest 0.1 degree Celsius. Water temperatures measured at the time of water-discharge measurements are published in this report as supplemental water-quality for gaging stations.

### Sediment

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

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

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

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

### Laboratory Measurements

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

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

### Water-Quality Data Reporting Convention

The USGS National Water Quality Laboratory collects quality-control data on a continuing basis to evaluate selected analytical methods to determine long-term method detection levels (LT-MDL's) and laboratory reporting levels (LRL's). These values are re-evaluated each year on the basis of the most recent quality-control data and, consequently, may change from year to year.

This reporting procedure limits the occurrence of false positive error. The chance of falsely reporting a concentration greater than the LT-MDL for a sample in which the analyte is present is 1 percent or less. Application of the LRL limits the occurrence of false negative error. The chance of falsely reporting a non-detection for a sample in which the analyte is present at a concentration equal to or greater than the LRL is 1 percent or less.

Accordingly, concentrations are reported as <LRL for samples in which the analyte was either not detected or did not pass identification. Analytes that are detected at concentrations between the LT-MDL and LRL and that pass identification criteria are estimated. Estimated concentrations will be noted with a remark code of "E". These data should be used with the understanding that their uncertainty is greater than that of data reported without the "E" remark code.

### Data Presentation

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

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

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

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

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

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

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

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

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

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

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

### Remark Codes

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

#### PRINTED OUTPUT REMARK

E	Estimated laboratory analysis value
e	Estimated value
>	Actual value is known to be greater than the value shown
<	Actual value is known to be less than the value shown
K	Based on non-ideal colony count
M	Presence of material verified but not quantified

### Records of Ground-Water Quality

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

#### Data Collection and Computation

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

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

#### Data Presentation

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

### ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the World Wide Web (WWW). These data may be accessed at :

<a href="http://water.usgs.gov">http://water.usgs.gov</a>	National home page
<a href="http://co.water.usgs.gov">http://co.water.usgs.gov</a>	Colorado home page

Some water-quality, ground-water, and meteorological data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3.5 inch floppy diskette. Information about the availability of specific types of data or products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page).



## DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also table for converting English units to International System (SI) Units on the inside of the back cover.

**Acid neutralizing capacity (ANC)** is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an "unfiltered" sample (formerly reported as alkalinity).

**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, 325,851 gallons, or 1,233 cubic meters.

**Adenosine triphosphate (ATP)** is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

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

**Algal growth potential (AGP)** is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

**Alkalinity** represents the capacity of solutes in an aqueous sample to neutralize acid. Total alkalinity titrations are performed in the field (FIELD) environment on an aqueous sample, filtered through a 0.45 micrometer filter (DIS), to an inflection point near pH = 4.5, using the iterative-titration (IT) method. Alkalinity titrations in the laboratory (LAB) are performed on unfiltered samples using the fixed-endpoint (FEP) method to pH = 4.5. On occasion, for chemical or hydrologic considerations, alkalinity titrations are performed in the field environment on unfiltered, whole-water (WWR) samples and noted. Column headings in this publication containing total alkalinity results will display the location: FIELD or LAB; titration method: IT or FEP; and type of aqueous sample: DIS or WWR.

**Annual runoff** is the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

**Acre-foot (AC-FT, acre-ft)** is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters.

**Cubic foot per second per square mile [CFSM, (ft<sup>3</sup>/s)/mi<sup>2</sup>]** is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area.

**Inch (IN., in.)** as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it.

**Aroclor** is the registered trademark for a group of polychlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type and the last two digits represent the weight percent of the hydrogen substituted chlorine.

**Bacteria** are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, while others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

**Total coliform bacteria** are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warm-blooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

**Fecal coliform bacteria** are bacteria that are present in the intestine or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 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 in the intestine of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

**Enterococcus bacteria** are commonly found in the feces of humans and other warm-blooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis*, *Streptococcus feacium*, *Streptococcus avium*, and their variants.

**Escherichia coli (E. coli)** are bacteria present in the intestine and feces of warm-blooded animals. E. coli are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium. Their concentrations are expressed as number of colonies per 100 mL of sample.

**Base flow** is flow in a channel sustained by ground-water discharge in the absence of direct runoff.

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

**Benthic organisms** (invertebrates) are the group of animals inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

**Biochemical oxygen demand (BOD)** is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

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

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

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

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

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

**Biomass pigment ratio** is an indicator of the total proportion of periphyton which are autotrophic (plants). This is also called the Autotrophic Index.

**Bottom material:** See "Bed material."

**Cells/volume** refers to the number of plankton cells or natural units counted using a microscope and grid or counting cell. Results are generally reported as cells or units per milliliter.

**Cells volume (biovolume)** determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume (mm<sup>3</sup>) is determined by obtaining critical cell measurements on cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

sphere  $\frac{4}{3} \pi r^3$  cone  $\frac{1}{3} \pi r^2 h$  cylinder  $\pi r^2 h$ .

From cell volume, total algal biomass expressed as biovolume (mm<sup>3</sup>/mL) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes over all species.

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

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

**Colloid** is any substance with particles in such a fine state of subdivision dispersed in a medium (for example, water) that they do not settle out; but not in so fine a state of subdivision that they can be said to be truly dissolved.

**Color unit** is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

**Confined aquifer** is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases the water level can rise above the ground surface, yielding a flowing well.

**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.

**Continuous-record station** is a site that meets either of the following conditions:

1. Stage or streamflow are recorded at some interval on a continuous basis. The recording interval is usually 15 minutes, but may be less or more frequent.
2. Water-quality, sediment, or other hydrologic measurements are recorded at least daily.

**Control** designates a feature in the channel downstream from a gaging station that physically influences the water-surface elevation and thereby determines the stage-discharge relation at the station. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

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

**Cubic foot per second (CFS, ft<sup>3</sup>/s)** is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second, 448.8 gallons per minute, or 0.02832 cubic meters per second.

**Cubic foot per second-day (CFS-DAY, Cfs-day, [(ft<sup>3</sup>/s)/d])** 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, 1.9835 acre-feet, 646,317 gallons, or 2,447 cubic meters.

**Daily record** is a summary of streamflow, sediment, or water-quality values computed from data collected with sufficient frequency to obtain reliable estimates of daily mean values.

**Daily record station** is a site for which daily records of streamflow, sediment, or water-quality values are computed.

**Datum**, as used in this report, is an elevation above mean sea level to which all gage height readings are referenced.

**Diel** is of or pertaining to a 24-hour period of time; a regular daily cycle.

**Discharge**, or flow, is the volume of water (or more broadly, volume of fluid including solid- and dissolved-phase material), that passes a given point in a given period of time.

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

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

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

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

**Dissolved oxygen** (DO) content of water in equilibrium with air is a function of atmospheric pressure, temperature, and dissolved-solids concentration 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 offset. Photosynthesis and respiration may cause diurnal variations in dissolved-oxygen concentration in water from some streams.

**Dissolved-solids concentration** of water is determined either analytically by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During that analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to reflect the change. Alternatively, alkalinity concentration (as mg/L CaCO<sub>3</sub>) can be converted to carbonate concentration by multiplying by 0.60.

**Diversity index** is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = - \sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

where  $n_i$  is the number of individuals per taxon,  $n$  is the total number of individuals, and  $s$  is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

**Drainage area** of a site on a stream is that area, measured in a horizontal plane, that has a common outlet at the site for its surface runoff. Figures of drainage area given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

**Drainage basin** is a part of the Earth's surface that is occupied by a drainage system with a common outlet for its surface runoff (see "Drainage area").

**Dry weight** refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue.

**Flow-duration percentiles** are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

**Gage datum** is the elevation of the zero point of the reference gage from which gage height is determined as compared to sea level (see "Datum"). This elevation is established by a system of levels from known benchmarks, by approximation from topographic maps, or by geographical positioning system.

**Gage height** (G.H.) is the water-surface elevation referenced to the 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 site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained. When used in connection with a discharge record, the term is applied only to those gaging stations where a continuous record of discharge is computed.

**Gas chromatography/flame ionization detector** (GC/FID) is a laboratory analytical method used as a screening technique for semivolatiles organic compounds that are extractable from water in methylene chloride.

**Ground-water level** is the elevation of the water table or another potentiometric surface at a particular location.

**Hardness** of water is a 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 the equivalent concentration of calcium carbonate (CaCO<sub>3</sub>).

**Hydrologic benchmark 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 benchmark station may be used to separate effects of natural from human-induced changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped benchmark basin.

**Hydrologic unit** is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the U.S. Geological Survey. Each hydrologic unit is identified by an 8-digit number.

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

**Light-attenuation coefficient**, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation

$$I = I_0 e^{-\lambda L}$$

where  $I_0$  is the source light intensity,  $I$  is the light intensity at length  $L$  (in meters) from the source,  $\lambda$  is the light-attenuation coefficient, and  $e$  is the base of the natural logarithm. The light attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_0}$$

**Lipid** is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

**Macrophytes** are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that are usually arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

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

**Membrane filter** is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

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

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

**Micrograms per gram (UG/G, mg/g)** is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

**Micrograms per kilogram (UG/KG, mg/kg)** is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

**Micrograms per liter (UG/L, mg/L)** is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter.

**Microsiemens per centimeter (US/CM, mS/cm)** is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

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

**Miscellaneous site**, or miscellaneous station, is a site where streamflow, sediment, and/or water-quality data are collected once, or more often on a random or discontinuous basis.

**Most probable number (MPN)** is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined from the distribution of gas-positive cultures among multiple inoculated tubes.

**Multiple-plate samplers** are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

**Nanograms per liter (NG/L, ng/L)** is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

**National Geodetic Vertical Datum of 1929 (NGVD of 1929)** is a geodetic datum derived from a general adjustment of the first order level nets of the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place. See NOAA web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88>

**Nekton** are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

**Nephelometric turbidity unit (NTU)** is the measurement for reporting turbidity that is based on use of a standard suspension of Formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

**Open or screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

**Organic carbon (OC)** is a measure of organic matter present in aqueous solution, suspension, or bottom sediments. May be reported as dissolved organic carbon (DOC), suspended organic carbon (SOC), or total organic carbon (TOC).

**Organism** is any living entity.

**Organism count/area** refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m<sup>2</sup>), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

**Organism count/volume** refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

**Total organism count** is the total number of organisms collected and enumerated in any particular sample.

**Organochlorine compounds** are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

**Parameter Code** is a 5-digit number used in the U.S. Geological Survey computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

**Partial-record station** is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

**Particle size** is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes Law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, Sedigraph) 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).

**Particle-size classification** used in this report agrees with the recommendation 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	0.004 - 0.062	Sedimentation
Sand	0.062 - 2.0	Sedimentation/sieve
Gravel	2.0 - 64.0	Sieve

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

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

**Periodic station** is a site where stage, discharge, sediment, chemical, or other hydrologic measurements are made one or more times during a year, but at a frequency insufficient to develop a daily record.

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

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

**pH** of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

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

**Plankton** is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL of sample).

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

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

**Euglenoids** (Euglenophyta) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark.

**Fire algae** (Pyrrhophyta) are a group of algae that are free-swimming unicells characterized by a red pigment spot.

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

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

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

**Polychlorinated naphthalenes** (PCN's) are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCB's) and have been identified in commercial PCB preparations.

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

**Primary productivity** (carbon method) is expressed as milligrams of carbon per area per unit time [ $\text{mg C}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes or per volume [ $\text{mg C}/(\text{m}^3/\text{time})$ ] for phytoplankton. Carbon method defines the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

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

**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 of 35 and 37, and the natural mixture has an atomic weight of 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. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

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

**Recurrence interval**, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or non-exceedance of a specified low flow). The terms "return period" and "recurrence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day 10-year low flow (7Q10) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the non-exceedances of the 7Q10 occur less than 10 years after the previous non-exceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous non-exceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the 7Q10.

**Replicate samples** are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

**River mile** is the distance of a point on a river measured in miles from the river's mouth along the low-water channel.

**River mileage** is the linear distance along the meandering path of a stream channel determined in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council.

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

**Sea level** refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of the United States and Canada, formerly called Sea Level Datum of 1929. See: [http://www.co-ops.nos.noaa.gov/glossary/gloss\\_n.html#NGVD](http://www.co-ops.nos.noaa.gov/glossary/gloss_n.html#NGVD)

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

**Bed load** is the sediment that is transported in a stream by rolling, sliding, or skipping along or very close to the bed. In this report, bed load is considered to consist of particles in transit from the bed to an elevation equal to the top of the bed-load sampler nozzle (usually within 0.25 ft of the streambed).

**Bed-load discharge** (tons per day) is the quantity of sediment moving as bed load, reported as dry weight, that passes a cross section in a given time.

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

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

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

**Suspended-sediment discharge** (tons/day) is the quantity of sediment moving in suspension, reported as dry weight, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft<sup>3</sup>/s) x 0.0027.

**Suspended-sediment load** is a term that refers to material in suspension. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with either suspended-sediment discharge or concentration.

**Total sediment discharge** (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, reported as dry weight, that passes a cross section in a given time.

**Total sediment load** or total load is a term that refers to the total sediment (bed load plus suspended-sediment load) that is in transport. The term needs to be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It is not synonymous with total sediment discharge.

**Seven-day 10-year low flow** (7Q10, 7Q10) is the minimum flow averaged over 7 consecutive days that is expected to occur on average, once in any 10-year period. The 7Q10 has a 10-percent chance of occurring in any given year.

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

**Solute** is any substance that is dissolved in water.

**Specific conductance** is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

**Stable isotope ratio** (per MILL/MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific waters, to evaluate mixing of different waters, as an aid in determining reaction rates, and other chemical or hydrologic processes.

**Stage:** See "Gage height."

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

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

**Substrate** is the physical surface upon which an organism lives.

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

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

**Surface area** of a lake or impoundment is that area encompassed by the boundary of the lake or impoundment as shown on USGS topographic maps, or on other available maps or photographs. The computed surface areas reflect the water levels of the lakes or impoundments at the times when the information for the maps or photographs was obtained.

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

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

**Suspended, recoverable** is the amount of a given constituent that is in solution after the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

**Suspended, total** is the total amount of a given constituent in the part of a representative suspended-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

**Synoptic Studies** are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

**Taxonomy** is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexagenia
Species	Hexagenia limbata

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

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

**Tons per day** (T/DAY, tons/d) is the rate representing a mass of 1 ton of a constituent in streamflow passing a cross section in 1 day. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

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

**Total discharge** is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

**Total in bottom material** is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

**Total length** (fish) is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

**Total load** refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

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

**Turbidity** is a measurement of the collective optical properties of a water sample that cause light to be scattered and absorbed rather than transmitted in straight lines; the higher the intensity of scattered light, the higher the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU) or Formazin turbidity units (FTU) depending on the method and equipment used.



**Volatile organic compounds** (VOC's) are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOC's are manmade chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens (U.S. Environmental Protection Agency, 1996).

**Water level** is the water-surface elevation or stage of the free surface of a body of water above or below any datum (see "Gage height"), or the surface of water standing in a well, usually indicative of the position of the water table or other potentiometric surface.

**Water table** is the surface of a ground-water body at which the water is at atmospheric pressure.

**Water-table aquifer** is an unconfined aquifer within which is found the water table.

**Water year** in U.S. 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, 1999, is called the "1999 water year."

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

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

**Well** is an excavation (pit, hole, tunnel), generally cylindrical in form and often walled in, drilled, dug, driven, bored, or jetted into the ground to such a depth as to penetrate water-yielding geologic material and allow the water to flow or to be pumped to the surface.

**Wet weight** refers to the weight of animal tissue or other substance including its contained water.

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

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WATER RESOURCES DATA - COLORADO, 2000  
DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS

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

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Colorado Creek near Spicer, CO	06611000	25.8	1950-55
Grizzly Creek near Spicer, CO	06611100	118	1976-80
Buffalo Creek near Hebron, CO	06611200	56.3	1976-80
Grizzly Creek near Hebron, CO	06611300	223	1976-80
Grizzly Creek near Walden, CO	06611500	258	1904-05, 1923, 1926-47
Little Grizzly Creek near Coalmont, CO	06611700	10.1	1967-73
Little Grizzly Creek above Coalmont, CO	06611800	35.4	1976-80
Little Grizzly Creek above Hebron, CO	06611900	52.2	1976-80
Little Grizzly Creek near Hebron, CO	06612000	98.6	1904-05, 1931-45
Roaring Fork near Walden, CO	06612500	79.1	1904-05, 1923-47
North Platte River near Walden, CO	06613000	469	1904-05, 1923-47
North Fork North Platte River near Walden, CO	06614000	160	1923-28, 1936-45
South Fork Michigan River near Gould, CO	06615000	11.4	1950-58
Michigan River near Lindland, CO	06615500	60.9	1931-41
North Fork Michigan River near Gould, CO	06616000	20.5	1950-82
Michigan River at Walden, CO	06617100	182	1904-05, 1923-47
Illinois Creek near Rand, CO	06617500	70.6	1931-40
Willow Creek near Rand, CO	06618000	55.9	1931-40
Illinois Creek at Walden, CO	06618500	259	1923-47
Michigan River near Cowdrey, CO	06619000	478	1904-05, 1937-47
Canadian River near Lindland, CO	06619400	44.0	1978-83
Bush Draw near Walden, CO	06619415	4.10	1980-83
Williams Draw near Walden, CO	06619420	3.95	1979-83
Canadian River near Brownlee, CO	06619450	158	1978-83
Canadian River at Cowdrey, CO	06619500	181	1904-05, 1929-31, 1937-47
Laramie River near Glendevey, CO	06657500	101	1904-05, 1910-82
Middle Fork South Platte River above Fairplay, CO	06693980	62.2	1978-80
Middle Fork South Platte River near Hartsel, CO	06694100	250	1978-80
South Fork South Platte River above Fairplay, CO	06694400	50.3	1978-80
Fourmile Creek near Fairplay, CO	06694700	12.0	1978-80
Elevenmile Canyon Reservoir	06695500	963	1932-98
South Platte River near Lake George, CO	06696000	963	1929-98
South Platte River at Lake George, CO	06696200	1,084	1910-11, 1929
Tarryall Creek at Upper Station near Como, CO	06696980	23.7	1978-86
French Creek near Jefferson, CO	06697200	4.63	1986-90
Michigan Creek above Jefferson, CO	06697450	23.1	1978-86
Jefferson Creek near Jefferson, CO	06698000	11.8	1910-12, 1978-86
Tarryall Creek near Jefferson, CO	06698500	183	1910-11, 1912-17, 1977-81
Rock Creek near Jefferson, CO	06699000	45.5	1986-90
Tarryall Creek below Rock Creek, near Jefferson, CO	06699005	230	1983-97
Tarryall Creek near Lake George, CO	06699500	434 (revised)	1910-12, 1925-55
South Platte River above Cheesman Lake, CO	06700000	1,628	1899-1901, 1924-43
Goose Creek above Cheesman Lake, CO	06700500	86.6	1899, 1924-82
Cheesman Lake	06701000	1,752	1900-98
South Platte River below Cheesman Lake, CO	06701500	1,752	1924-98
South Platte River above North Fork at South Platte, CO	06702000	2,098	1905-12

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
North Fork South Platte River at Grant, CO	06702500	49.0	1910-17
Duck Creek near Grant, CO	06704500	7.78	1995-97
Geneva Creek at Grant, CO	06705500	74.6	1908-18 1995-97
North Fork South Platte River below Geneva Creek, at Grant, CO	06706000	127	1908-13, 1942-98
North Fork South Platte River at Pine, CO	06706500	374	1942-46
North Fork South Platte River at South Platte, CO	06707000	479	1909-10, 1913-82
South Platte River at South Platte, CO	06707500	2,579	1887-92, 1895-97, 1898-1982
South Platte River at Waterton, CO	06708000	2,621	1926-80
East Plum Creek at Castle Rock, CO	06708750	102	1985-89
Plum Creek near Louviers, CO	06709500	302	1947-90
Chatfield Lake near Littleton, CO	06709600	3,018	1975-98
South Platte River at Littleton, CO	06710000	3,069	1941-86
South Platte River at Union Avenue, at Englewood, CO	06710245	3,043	1989-95
Turkey Creek above Bear Creek Lake, near Morrison, CO	06711040	50.6	1986-89
Little Dry Creek at Greenwood Village, CO	06711545	14.4	1994-97
South Platte River at Florida Avenue, at Denver, CO	06711590	--	1981-82
Cherry Creek near Melvin, CO	06712500	360	1939-69
Cherry Creek Lake near Denver, CO	06712990	385	1960-98
South Platte River at 50th Avenue at Denver, CO	06714130	3,810	1980-81
Senac Creek at North Border Sludge Area, near Aurora, CO	06714220	7.81	1989-93
South Clear Creek above Lower Cabin Creek Reservoir, near Georgetown, CO	06714400	--	1996-97
South Clear Creek above Leavenworth Creek, near Georgetown, CO	06714600	16.0	1995-97
West Fork Clear Creek above Empire, CO	06715500	40.5	1942-46
West Fork Clear Creek near Empire, CO	06716000	58.2	1929-31
Clear Creek below Idaho Springs, CO	06718000	259	1951-55
North Clear Creek near Blackhawk, CO	06718500	52.2	1951-55
Clear Creek at Forks Creek, CO	06719000	339	1899-1912
Clear Creek near Golden, CO	06719500	399	1908-09, 1911-74
Clear Creek at Tabor Street, at Lakewood, CO	06719526	427	1981-83
Ralston Creek near Plainview, CO	06719725	36.9	1983-84
Schwartzwalder Mine Effluent near Plainview, CO	06719730	--	1983-84
Ralston Creek below Schwartzwalder Mine near Plainview, CO	06719735	38.9	1983-84
Ralston Creek above Ralston Reservoir near Golden, CO	06719740	42.7	1983-84
Clear Creek at Mouth near Derby, CO	06720000	575	1914, 1927-82
Grange Hall Creek at Grant Park at Northglenn, CO	06720330	--	1978-79
Grange Hall Creek at Northglenn, CO	06720415	3.08	1978-81
Grange Hall Creek below Northglenn, CO	06720417	--	1981-82
First Creek below Buckley Road, near Rocky Mountain Arsenal, CO	06720460	26.4	1992-94
First Creek at Highway 2, near Rocky Mountain Arsenal, CO	06720490	39.0	1992-94
Woman Creek near Plainview, CO	06720690	--	1973-74
South Platte River at Fort Lupton, CO	06721000	5,010	1906, 1929-57
North Saint Vrain Creek near Allens Park, CO	06721500	32.6	1926-30, 1987-97
North Saint Vrain Creek at Longmont Dam near Lyons, CO	06722000	106	1925-53
South Saint Vrain Creek near Ward, CO	06722500	14.4	1925-27, 1928-31, 1954-73
Middle Saint Vrain Creek near Raymond, CO	06722900	16.8	1956-58
Middle Saint Vrain Creek near Allens Park, CO	06723000	28.0	1925-30, <sup>a</sup>
South Saint Vrain Creek above Lyons, CO	06723400	81.4	1971-80
St. Vrain Creek at Lyons, CO	06724000	212	1887-1895 1895-1998
Lefthand Creek near Boulder, CO	06724500	52.0	1929-31, 1947-53, 1976-80

WATER RESOURCES DATA - COLORADO, 2000  
DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Lefthand Creek at Mouth at Longmont, CO	06725000	72.0	1927-42, 1953-55, 1976-79
Saint Vrain Creek near Longmont, CO	06725100	370	1964-68
North Boulder Creek at Silver Lake, CO	06726000	8.70	1913-32
North Boulder Creek near Nederland, CO	06726500	30.4	1929-31
Bummers Gulch near El Vado, CO	06726900	3.87	1983-95
Fourmile Creek at Orodell, CO	06727500	24.1	1947-53, 1983-95
South Boulder Creek near Rollinsville, CO	06729000	42.7	1910-18, 1945-49
South Boulder Creek at Pinecliff, CO	06729300	72.7	1979-80
Coal Creek near Plainview, CO	06730300	15.1	1959-82
Boulder Creek at Mouth near Longmont, CO	06730500	439	1927-49, 1951-55, 1978-90
St. Vrain Creek at Mouth near Platteville, CO	06731000	976	1904-06, 1915, 1927-98
Boulder Brook near Estes Park, CO	06731800	3.83	1968-70
Glacier Creek near Estes Park, CO	06732000	20.8	1941-57, 1968-70
Beaver Brook near Estes Park, CO	06732300	1.49	1968-70
Fall River at Estes Park, CO	06732500	39.8	1945-53 <sup>a</sup>
Big Thompson River at Estes Park, CO	06733000	137	1946-98
Fish Creek near Estes Park, CO	06734500	15.8	1947-55
North Fork Big Thompson River at Drake, CO	06736000	85.1	1947-55
Big Thompson River below Power House near Drake, CO	06736500	278	1917-55
Dry Creek near Pinewood, CO	06740000	7.11	1950-52
Cottonwood Creek near Pinewood, CO	06741000	14.7	1947-53
Big Thompson River near Loveland, CO	06741500	505	1947-55
Little Thompson River near Berthoud, CO	06742000	100	1929-30, 1947-61
Little Thompson River at Milliken, CO	06743500	199	1951-55
Big Thompson River at Mouth near La Salle, CO	06744000	830	1914-15, 1927-82
Cache La Poudre River above Chambers Lake Outlet, CO	06745000	89.7	1929-31
Joe Wright Creek near Cameron Pass, CO	06746100	5.05	1974-78
Cache La Poudre River near Rustic, CO	06747500	198	1956-68
Cache La Poudre River near Log Cabin, CO	06748000	234	1909-11, 1929-31
Fall Creek near Rustic, CO	06748200	3.59	1960-73
South Fork Cache La Poudre near Eggers, CO	06748500	70.6	1929-31
Little Beaver Creek near Idylwilde, CO	06748510	0.88	1960-73
Little Beaver Creek near Rustic, CO	06748530	12.3	1960-73
South Fork Cache La Poudre River near Rustic, CO	06748600	92.4	1956-79
Cache La Poudre River below Elkhorn, CO	06749000	409	1946-59
North Fork Cache La Poudre River near Livermore, CO	06751500	567	1947-65
Cache La Poudre River near Greeley, CO	06752500	1,877	1903-04, 1914-19, 1924-98
Lonetree Creek at Carr, CO	06753400	167	1993-95
Lonetree Creek near Nunn, CO	06753500	199	1951-57
Lonetree Creek near Greeley	06753990	567	1993-95
Crow Creek near Barnsville, CO	06756500	1,324	1951-57
South Platte River at Masters, CO	06756995	12,175	1976-88
South Platte River at Sublette, CO	06757000	12,170	1926-42, 1943-55
Kiowa Creek at K-79 Reservoir near Eastonville, CO	06757600	3.20	1955-65
Kiowa Creek at Elbert, CO	06758000	28.6	1955-65
West Kiowa Creek at Elbert, CO	06758100	35.9	1962-65
Kiowa Creek at Kiowa, CO	06758200	111	1955-65
Kiowa Creek at Bennett, CO	06758300	236	1960-65

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Bijou Creek near Wiggins, CO	06759000	1,314	1950-56
Bijou Creek near Fort Morgan, CO	06759100	1,500	1976-87
South Platte River at Fort Morgan, CO	06759500	14,810	1943-58
South Platte River at Cooper Bridge near Balzac, CO	06759910	16,852	1987-98
South Platte River at Balzac, CO	06760000	16,852	1916-80
South Platte River near Crook, CO	06760500	19,238	1953-58
North Fork Republican River near Wray, CO	06822000	1,019	1937-46, 1951-57, 1962-64
South Fork Republican River near Idalia, CO	06825000	1,300	1950-71, 1972-81
Landsman Creek near Hale, CO	06825500	268	1950-76, 1977-81
Bonny Reservoir near Hale, CO	06826000	1,820	1950-95
South Fork Republican River near Hale, CO	06826500	1,825	1946-48, 1951-86
Leadville Mine Drainage Tunnel at Leadville, CO	07079200	--	1990-93
East Fork Arkansas River near Leadville, CO	07079500	50.0	1890-1903, 1910-24
Saint Kevin Gulch above Temple Gulch, near Leadville, CO	07080980	1.84	1993-96
Tennessee Creek near Leadville, CO	07081000	48.0	1890-1903, 1910-24
California Gulch at Malta, CO	07081800	8.13	1991-92
Lake Fork above Sugar Loaf Reservoir, CO	07082000	23.9	1946-67
Halfmoon Creek near Leadville, CO	07083500	25.2	1911-14
Arkansas River near Malta, CO	07083700	228	1964-67, 1976-84
Arkansas River below Empire Gulch, near Malta, CO	07083710	237	1990-93
Lake Creek above Twin Lakes Reservoir, CO	07084500	75	1946-98
Arkansas River at Buena Vista, CO	07087200	611	1964-80, 1986-93
Cottonwood Creek below Hot Springs near Buena Vista, CO	07089000	65.0	1910-23, 1949-86
Chalk Creek Upper Station near Saint Elmo, CO	07090000	48.0	1913-19
Chalk Creek near Saint Elmo, CO	07090500	83.0	1910-16
Chalk Creek near Nathrop, CO	07091000	97.0	1910, 1949-56, <sup>a</sup>
Arkansas River at Salida, CO	07091500	1,218	1895-97, 1901-03, 1909-80
South Arkansas River at Poncha, CO	07092000	140	1910-18
Poncha Creek at Poncha, CO	07093000	56.0	1910-18
South Arkansas River near Salida, CO	07093500	208	1922-23, 1929-40
South Colony Creek near Westcliffe, CO	07094600	6.03	1974-78
Middle Taylor Creek near Westcliffe, CO	07094900	3.19	1974-78, 1984-85
Fourmile Creek near Canon City, CO	07096500	434	1910-11, 1949-53, 1971-97
Beaver Creek near Portland, CO	07099100	214	1971-81
Arkansas River near Portland, CO	07099200	4,280	1964-79
Little Turkey Creek near Fountain, CO	07099220	9.59	1978-88
Arkansas River near Pueblo, CO	07099500	4,686	1885-87, 1889, 1894-1975
Monument Creek at Palmer Lake, CO	07103747	25.9	1977-90
Monument Creek at Monument, CO	07103750	28.5	1976-77
West Monument Creek near Pikeview, CO	07103900	15.4	1957-70
Kettle Creek near Black Forest, CO	07103950	9.01	1976-86
Templeton Gap Floodway at Colorado Springs, CO	07104500	8.73	1951-81
B Ditch Drain near Security, CO	07105780	--	1981-88
Clover Ditch near Widefield, CO	07105820	--	1981-88

WATER RESOURCES DATA - COLORADO, 2000  
DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Little Fountain Creek above Keaton Reservoir, CO	07105920	11.0	1978-88, 1995-98
Womack Ditch near Fort Carson, CO	07105924	--	1978-91
Little Fountain Creek near Fort Carson, CO	07105928	11.8	1978-89, 1995-98
Little Fountain Creek near Fountain, CO	07105940	26.9	1978-88
Rock Creek near Fort Carson, CO	07105950	7.79	1978-98
Rock Creek near Fountain, CO	07105960	16.9	1978-88
Saint Charles River at San Isabel, CO	07107000	16.0	1936-41
Saint Charles River at Burnt Mill, CO	07107500	166	1923-34
Greenhorn Creek near Colorado City, CO	07108050	29.6	1974-79
Saint Charles River near Pueblo, CO	07108500	467	1941-53,
Saint Charles River near Vineland, CO	07108800	473	1968-74
Saint Charles River at Mouth near Pueblo, CO	07109000	475	1922-25
Sixmile Creek near Avondale, CO	07110000	45.0	1922-24, 1941-46
Chico Creek near Pueblo Chemical Depot, CO	07110400		1997-99
Chico Creek near North Avondale, CO	07110500	864	1941-46
Huerfano River at Malachite, CO	07111500	107	1923-25
Huerfano River near Badito, CO	07112000	499	1941-46, 1978-81
Huerfano River at Badito, CO	07112500	532	1912, 1923-25, 1938-41, 1946-54
Huerfano River at Huerfano, CO	07113000	717	1923-28
Huerfano River near Mustang, CO	07113500	803	1942-47
Cucharas River at Boyd Ranch near La Veta, CO	07114000	56.0	1934-82
Cucharas River near La Veta, CO	07114500	75.0	1923-34
Huerfano River below Huerfano Valley Dam near Undercliffe, CO	07116000	1,673	1939-67
Arkansas River at Nepesta, CO	07117500	9,460	1898-1902, 1904-06, 1936
Chicosa Creek near Fowler, CO	07117600	109	1968-74
Apishapa River near Aguilar, CO	07118000	126	1939-50
Apishapa River at Aguilar, CO	07118500	149	1938-39, 1978-81
Apishapa River near White Rock, CO	07119000	737	1942-47
Big Arroyo near Thatcher, CO	07120620	15.5	1983-90 <sup>a</sup>
Timpas Creek near Rocky Ford, CO	07121000	451	1922-27, 1940-50
Fort Lyon Canal near Casa, CO	07122060	--	1988-90
Fort Lyon Canal near Cornelia, CO	07122105	--	1988-90
Fort Lyon Canal near Hasty, CO	07122200	--	1968-75 1988-90
Fort Lyon Canal near Big Bend, CO	07122350	--	1988-90
Crooked Arroyo near Swink, CO	07122400	108	1968-93
Crooked Arroyo near La Junta, CO	07122500	--	1922-25
Horse Creek near Sugar City, CO	07123500	1,080	1940-47
Horse Creek near Las Animas, CO	07123675	1,403	1979-93
Middle Fork Purgatoire River at Stonewall, CO	07124050	57.1	1978-81
Molino Canyon near Weston, CO	07124100	4.23	1978-81
Sarcillo Canyon near Segundo, CO	07124120	35.3	1978-81
Mulligan Canyon near Boncarbo, CO	07124210	4.53	1978-81
Reilly Canyon at Cokedale, CO	07124220	35.1	1978-81
Long Canyon Creek near Madrid, CO	07124300	100	1972-89
Carpitos Canyon near Jansen, CO	07124350	4.57	1978-81
Purgatoire River at Trinidad, CO	07124500	795	1895-99, 1905-12, 1915-60, 1961-82
Purgatoire River near Hoehne, CO	07125000	857	1954-68
Frijole Creek near Alfalfa, CO	07125100	80.0	1957-68
San Francisco Creek near Alfalfa, CO	07125500	160	1954-68



## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Purgatoire River near Alfalfa, CO	07126000	1,320	1905-07, 1924-28, 1951-68
Van Bremer Arroyo near Thatcher, CO	07126130	80.6	1983-85
Burke Arroyo Tributary near Thatcher, CO	07126320	4.66	1983-87
Chacuaco Creek at Mouth, near Timpas, CO	07126470	424	1983-92 <sup>a</sup>
Purgatoire River at Highland Dam near Las Animas, CO	07128000	3,376	1898, 1931-55
Rule Creek near Caddoa, CO	07129500	435	1941-46
Caddoa Creek at Caddoa, CO	07131000	131	1941-46
Willow Creek near Lamar, CO	07133050	42.0	1974-77
Big Sandy Creek above Amity Canal near Korman, CO	07134000	3,396	1941-46
Two Butte Creek near Holly	07135000	817	1942-46, 1995-99 <sup>a</sup>
Arkansas River at Holly, CO	07135500	25,073	1894, 1901-02, 1907-53
Wild Horse Creek at Holly, CO	07136000	270	1922-35, 1938-50
Holly Drain near Holly, CO	07136500	--	1924-50
Rio Grande at Thirtymile Bridge near Creede, CO	08213500	163	1909-23 1925-98
North Clear Creek below Continental Reservoir, CO	08214500	51.7	1929-98
Willow Creek at Creede, CO	08216500	51.7	1951-82
Rio Grande at Wason below Creede, CO	08217000	705	1907-54
Goose Creek near Wagonwheel Gap, CO	08218000	53.6	1924-26, 1939-52
Goose Creek at Wagonwheel Gap, CO	08218500	90.0	1954-91
Pinos Creek near Del Norte, CO	08220500	53.0	1919-24, 1936-82
San Francisco Creek at upper station near Del Norte, CO	08220900	11.8	1967-69
Rio Grande near Monte Vista, CO	08221500	1,590	1926-80
Rock Creek near Monte Vista, CO	08223500	32.9	1935-55, 1966-70
San Luis Creek near Poncha Pass, CO	08224110	6.57	1979-85
San Luis Creek above Villa Grove, CO	08224113	11.2	1979-85
Raspberry Creek near Villa Grove, CO	08224200	1.78	1967-70, 1936-82
Noland Gulch Tributary Reservoir Inflow, near Villa Grove, CO	08226600	0.08	1979-89
Cotton Creek near Mineral Hot Springs, CO	08226700	13.6	1967-70
Anaconda Reservoir near Villa Grove, CO	08227300	0.17	1979-85
Tracy Pit Reservoir Inflow near Saguache, CO	08227400	0.05	1979-89
North Crestone Creek near Crestone, CO	08227500	10.7	1936-82
Cottonwood Creek near Crestone, CO	08229500	6.77	1936, 1967-70
Carnero Creek near La Garita, CO	08230500	117	1919-82
Mosca Creek near Mosca, CO	08234200	3.67	1967-70
Alamosa River above Wightman Fork near Jasper, CO	08235250	37.8	1995-99
Wightman Fork below Cropsey Creek at Summitville, CO	08235270	4.44	1995-99
Wightman Fork at mouth near Jasper, CO	08235290	16.1	1995-99
Alamosa River above Jasper, CO	08235350	58.1	1995-99
Alamosa River below Castleman Gulch near Jasper, CO	08235700	76.3	1995-99
Alamosa Creek above Terrace Reservoir, CO	08236000	107	1911-12, 1914-27, 1934-82
Alamosa Creek below Terrace Reservoir, CO	08236500	116	1909-55
La Jara Creek at Gallegos Ranch near Capulin, CO	08238000	98.0	1916-17, 1919-23, 1936-82
Yellow Warbler Reservoir Inflow near Antonito, CO	08238350	0.18	1979-89
Turkey Reservoir Inflow near Conejos, CO	08238380	0.24	1979-89
Bobolink Reservoir near Conejos, CO	08238400	0.23	1979-89
Rio Grande above Mouth of Trinchera Creek near Lasausas, CO	08240000	5,740	1936-98
Trinchera Creek above Turners Ranch near Fort Garland, CO	08240500	45.0	1923-82

WATER RESOURCES DATA - COLORADO, 2000  
DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE ONLY STATIONS (Continued)

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

Station name	Station number	Drainage area (sq mi)	Period of record (water years)
Trinchera Creek above Mountain Home Reservoir near Fort Garland, CO	08241000	61.0	1923-55
Sangre De Cristo Creek near Fort Garland, CO	08241500	190	1916, 1923-30, 1931-82
Trinchera Creek below Smith Reservoir near Blanca, CO	08243500	396	1928-82
Conejos River at Platoro, CO	08245500	44.4	1936-53
Conejos River at Counsellors Cabin near Mogote, CO	08246000	211	1943-47
San Antonio River at mouth near Manassa, CO	08248500	348	1923-82
Culebra Creek near Chama, CO	08249400	72.4	1967-70
Culebra Creek below San Luis, CO	08250500	255	1938-55
Rio Grande at CO-NM State Line	08252000	--	1953-82

a-Converted to a crest-stage partial-record station.

## DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Canadian River near Lindland, CO	06619400	44.0	Temp., S.C., Sed.	1978-83
Canadian River near Brownlee, CO	06619450	158	Temp., S.C., Sed.	1978-83
Duck Creek near Grant, CO	06704500	7.78	Temp., S.C., Sed.	1995-97
Geneva Creek at Grant, CO	06705500	74.6	Temp., S.C., Sed.	1995-97
South Platte River at Littleton, CO	06710000	3,069	Temp. S.C.	1970-86 1984-86
South Platte River at 64th Ave. at Commerce City, CO	06714215	3,884	Temp., pH, D.O.	1987
South Clear Creek above Lower Cabin Creek Reservoir near Georgetown, CO	06714400	--	Temp., S.C., Sed.	1995-97 1995, 1997
South Clear Creek above Leavenworth Creek near Georgetown, CO	06714600	16.0	Temp., S.C. Sed.	1995-97 1995
Leavenworth Creek at mouth, near Georgetown, CO	06714800	12.0	Temp., S.C. Sed.	1995-97 1995
Clear Creek at Golden, CO	06719505	400	pH, D.O., Sed. Temp., S.C.	1981 1981-95
Ralston Creek near Plainview, CO	06719725	36.9	Temp., S.C., pH, D.O.	1983-84
Schwartzwalder Mine Effluent near Plainview, CO	06719730	--	Temp., S.C., pH, D.O.	1983-84
Ralston Creek below Schwartzwalder Mine, CO	06719735	38.9	Temp., S.C., pH, D.O.	1983-84
Ralston Creek above Ralston Res. near Plainview, CO	06719740	42.7	Temp., S.C., pH, D.O.	1983-84
Cache La Poudre River at Fort Collins	06752260	1,127	Temp., S.C., pH	1987-99
Cache La Poudre River near Greeley, CO	06752500	1,877	Temp., S.C., pH, D.O.	1975
South Platte River near Kersey, CO	06754000	8,598	Temp.	1950-53
Kiowa Creek at Elbert, CO	06758000	28.6	Sed.	1957-68, 1960-62, 1964-65
West Kiowa Creek at Elbert, CO	06758100	35.9	Sed.	1962-65
Kiowa Creek at Kiowa, CO	06758200	111	Sed.	1956-65
South Platte River at Julesburg, CO (Chan. 2)	06763990	--	Temp. S.C.	1967-73 1971-73
North Fork Republican River near Wray, CO	06822000	1,019	Temp., Sed.	1962-63
East Fork Arkansas River at Highway 24 near Leadville, CO	07079300	49.9	Temp., S.C., pH	1990-96
Arkansas River near Leadville, CO	07081200	98.8	Temp., S.C., pH	1990-96
California Gulch at Malta, CO	07081800	8.13	Temp., S.C., pH	1991-92
Halfmoon Creek near Malta, CO	07083000	23.6	Temp.	1967-82
Arkansas River below Empire Gulch, near Malta, CO	07083710	237	Temp., S.C., pH	1990-93
Arkansas River at Buena Vista, CO	07087200	611	Temp., S.C.	1986-93
Arkansas River near Nathrop, CO	07091200	1,060	Temp., S.C., pH	1989-93
Arkansas River at Parkdale, CO	07094500	2,548	Temp., S.C.	1986-93
Monument Creek at Pikeview, CO	07104000	204	Sed.	1995-97
Fountain Creek at Security, CO	07105800	495	Temp., S.C., pH, D.O.	1991-98
Fountain Creek near Pinon, CO	07106300	849	Temp., S.C.	1976-79
Apishapa River at Aguilar, CO	07118500	149	Sed.	1979-81
Apishapa River near Fowler, CO	07119500	1,125	Temp., S.C.	1966-68
Big Arroyo near Thatcher, CO	07120620	15.5	Temp., S.C., Sed.	1983-90 <sup>a</sup>
Arkansas River near La Junta, CO	07122000	--	Temp., S.C.	1966-68
Horse Creek near Las Animas, CO	07123675	1,403	Temp., S.C.	1987-93
Middle Fork Purgatoire River at Stonewall, CO	07124050	52.1	Temp., S.C. Sed.	1978-81 1979-81
Molino Canyon near Weston, CO	07124100	4.23	Sed.	1979-81
Sarcillo Canyon near Segundo, CO	07124120	35.3	Sed.	1980-81
Purgatoire River at Madrid, CO	07124200	550	Temp., S.C. Sed.	1979-81 1978-81
Mulligan Canyon near Boncarbo, CO	07124210	4.53	Sed.	1979-81
Reilly Canyon at Cokedale, CO	07124220	35.1	Sed.	1979-81
Carpitos Canyon near Jansen, CO	07124350	100	Sed.	1979-81
Purgatoire River below Trinidad Lake, CO	07124410	672	Sed.	1977-82
Luning Arroyo Tributary near Model, CO	07126110	--	Temp., S.C.	1984
Van Bremer Arroyo near Thatcher, CO	07126130	80.6	Temp., S.C.	1985
Van Bremer Arroyo near Tyrone, CO	07126140	132	Temp., S.C.	1985-98
Van Bremer Arroyo near Model, CO	07126200	175	Temp., S.C.	1983-98
Purgatoire River near Thatcher, CO	07126300	1,791	Sed. Temp., S.C.	1983-92 1983-98

WATER RESOURCES DATA - COLORADO, 2000  
DISCONTINUED SURFACE-WATER-QUALITY STATIONS

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

Station name	Station number	Drainage area (sq mi)	Type of record	Period of record (water years)
Burke Arroyo Tributary near Thatcher, CO	07126320	4.66	Temp., S.C.	1983-86
			Sed.	1984-86
Taylor Arroyo below Rock Crossing near Thatcher, CO	07126325	48.4	Temp., S.C.	1983-98
Lockwood Canyon Creek near Thatcher, CO	07126390	41.4	Temp., S.C., Sed.	1989-92
Red Rock Canyon Creek at Mouth, near Thatcher, CO	07126415	48.8	Temp., S.C.	1983-90 <sup>a</sup>
Chacuaco Creek at Mouth near Timpas, CO	07126470	424	Temp., S.C., Sed.	1983-92
Bent Canyon Creek at Mouth near Timpas, CO	07126480	56.2	Temp., S.C.	1983-90 <sup>a</sup>
Purgatoire River at Rock Crossing near Timpas, CO	07126485	2,635	Temp., S.C., Sed.	1983-92
Purgatoire River at Highland Dam near Las Animas, CO	07128000	3,376	S.C.	1967-68
Purgatoire River near Las Animas, CO	07128500	3,318	Temp., S.C.	1986-96
Willow Creek at Creede, CO	08216500	35.3	Temp., S.C.	1976-77
Rio Grande at Wagonwheel Gap, CO	08217500	780	Temp., S.C.	1976-77
San Luis Creek near Poncha Pass, CO	08224110	6.57	Sed.	1981-83
San Luis Creek above Villa Grove, CO	08224113	11.2	Sed.	1981-83
Alamosa River above Wightman Fork near Jasper, CO	08235250	37.8	Temp., S.C., pH	1995-97,99
Wightman Fork at mouth near Jasper, CO	08235290	16.1	Temp., S.C., pH	1995-97,99
Alamosa River above Terrace Reservoir, CO	08236000	106	Temp., S.C., pH	1994-97
Alamosa River below Terrace Reservoir, CO	08236500	116	Temp., S.C., pH	1995-97,99
Rio Grande above Culebra Creek near Lobatos, CO	08249200	--	Temp., S.C.	1964-66

Type of record: Temp. (temperature), S.C. (specific conductance), pH (pH), D.O. (dissolved oxygen), Sed. (sediment).  
a-Converted to a crest-stage partial-record station.

## PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

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### Book 1. Collection of Water Data by Direct Measurement

#### Section D. Water Quality

- 1-D1. *Water temperature—influential factors, field measurement, and data presentation*, by H. H. Stevens, Jr., J.F. Ficke, and G. F. Smoot: USGS–TWRI book 1, chap. D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS–TWRI book 1, chap. D2. 1976. 24 pages.

### Book 2. Collection of Environmental Data

#### Section D. Surface Geophysical Methods

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A. R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS–TWRI book 2, chap. D1. 1974. 116 pages.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS–TWRI book 2, chap. D2. 1988. 86 pages.

#### Section E. Subsurface Geophysical Methods

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS–TWRI book 2, chap. E1. 1971. 126 pages.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS–TWRI book 2, chap. E2. 1990. 150 pages.

#### Section F. Drilling and Sampling Methods

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS–TWRI book 2, chap. F1. 1989. 97 pages.

### Book 3. Applications of Hydraulics

#### Section A. Surface-Water Techniques

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS–TWRI book 3, chap. A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS–TWRI book 3, chap. A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS–TWRI book 3, chap. A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS–TWRI book 3, chap. A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS–TWRI book 3, chap. A5. 1967. 29 pages.

- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS–TWRI book 3, chap. A6. 1968. 13 pages.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS–TWRI book 3, chap. A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel in streams by dye tracing*, by F.A. Kilpatrick and J.F. Wilson, Jr.: USGS–TWRI book 3, chap. A9. 1989. 27 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by the moving-boat method*, by G.F. Smoot and C.E. Novak: USGS–TWRI book 3, chap. A11. 1969. 22 pages.
- 3-A12. *Fluorometric procedures for dye tracing*, Revised, by J.F. Wilson, Jr., E.D. Cobb, and F.A. Kilpatrick: USGS–TWRI book 3, chap. A12. 1986. 34 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E.J. Kennedy: USGS–TWRI book 3, chap. A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F.A. Kilpatrick and V.R. Schneider: USGS–TWRI book 3, chap. A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS–TWRI book 3, chap. A15. 1984. 48 pages.
- 3-A16. *Measurement of discharge using tracers*, by F.A. Kilpatrick and E.D. Cobb: USGS–TWRI book 3, chap. A16. 1985. 52 pages.
- 3-A17. *Acoustic velocity meter systems*, by Antonius Laenen: USGS–TWRI book 3, chap. A17. 1985. 38 pages.
- 3-A18. *Determination of stream reaeration coefficients by use of tracers*, by F.A. Kilpatrick, R.E. Rathbun, Nobuhiro Yotsukura, G.W. Parker, and L.L. DeLong: USGS–TWRI book 3, chap. A18. 1989. 52 pages.
- 3-A19. *Levels at streamflow gaging stations*, by E.J. Kennedy: USGS–TWRI book 3, chap. A19. 1990. 31 pages.
- 3-A20. *Simulation of soluble waste transport and buildup in surface waters using tracers*, by F.A. Kilpatrick: USGS–TWRI book 3, chap. A20. 1993. 38 pages.
- 3-A21. *Stream-gaging cableways*, by C. Russell Wagner: USGS–TWRI book 3, chap. A21. 1995. 56 pages.

### **Section B. Ground-Water Techniques**

- 3-B1. *Aquifer-test design, observation, and data analysis*, by R.W. Stallman: USGS–TWRI book 3, chap. B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G.D. Bennett: USGS–TWRI book 3, chap. B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J.E. Reed: USGS–TWRI book 3, chap. B3. 1980. 106 pages.
- 3-B4. *Regression modeling of ground-water flow*, by R.L. Cooley and R.L. Naff: USGS–TWRI book 3, chap. B4. 1990. 232 pages.
- 3-B4. *Supplement 1. Regression modeling of ground-water flow --Modifications to the computer code for nonlinear regression solution of steady-state ground-water flow problems*, by R.L. Cooley: USGS–TWRI book 3, chap. B4. 1993. 8 pages.
- 3-B5. *Definition of boundary and initial conditions in the analysis of saturated ground-water flow systems—An introduction*, by O.L. Franke, T.E. Reilly, and G.D. Bennett: USGS–TWRI book 3, chap. B5. 1987. 15 pages.
- 3-B6. *The principle of superposition and its application in ground-water hydraulics*, by T.E. Reilly, O.L. Franke, and G.D. Bennett: USGS–TWRI book 3, chap. B6. 1987. 28 pages.
- 3-B7. *Analytical solutions for one-, two-, and three-dimensional solute transport in ground-water systems with uniform flow*, by E.J. Wexler: USGS–TWRI book 3, chap. B7. 1992. 190 pages.

**Section C. Sedimentation and Erosion Techniques**

- 3-C1. *Fluvial sediment concepts*, by H.P. Guy: USGS–TWRI book 3, chap. C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*, by H.P. Guy and V.W. Norman: USGS–TWRI book 3, chap. C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS–TWRI book 3, chap. C3. 1972. 66 pages.

**Book 4. Hydrologic Analysis and Interpretation****Section A. Statistical Analysis**

- 4-A1. *Some statistical tools in hydrology*, by H.C. Riggs: USGS–TWRI book 4, chap. A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H.C. Riggs: USGS–TWRI book 4, chap. A2. 1968. 15 pages.

**Section B. Surface Water**

- 4-B1. *Low-flow investigations*, by H.C. Riggs: USGS–TWRI book 4, chap. B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H.C. Riggs and C.H. Hardison: USGS–TWRI book 4, chap. B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H.C. Riggs: USGS–TWRI book 4, chap. B3. 1973. 15 pages.

**Section D. Interrelated Phases of the Hydrologic Cycle**

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

**Book 5. Laboratory Analysis****Section A. Water Analysis**

- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments*, by M.J. Fishman and L.C. Friedman, editors: USGS–TWRI book 5, chap. A1. 1989. 545 pages.
- 5-A2. *Determination of minor elements in water by emission spectroscopy*, by P.R. Barnett and E.C. Mallory, Jr.: USGS–TWRI book 5, chap. A2. 1971. 31 pages.
- 5-A3. *Methods for the determination of organic substances in water and fluvial sediments*, edited by R.L. Wershaw, M.J. Fishman, R.R. Grabbe, and L.E. Lowe: USGS–TWRI book 5, chap. A3. 1987. 80 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by L.J. Britton and P.E. Greeson, editors: USGS–TWRI book 5, chap. A4. 1989. 363 pages.
- 5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L.L. Thatcher, V.J. Janzer, and K.W. Edwards: USGS–TWRI book 5, chap. A5. 1977. 95 pages.
- 5-A6. *Quality assurance practices for the chemical and biological analyses of water and fluvial sediments*, by L.C. Friedman and D.E. Erdmann: USGS–TWRI book 5, chap. A6. 1982. 181 pages.

**Section C. Sediment Analysis**

- 5-C1. *Laboratory theory and methods for sediment analysis*, by H.P. Guy: USGS–TWRI book 5, chap. C1. 1969. 58 pages.

**Book 6. Modeling Techniques****Section A. Ground Water**

- 6-A1. *A modular three-dimensional finite-difference ground-water flow model*, by M.G. McDonald and A.W. Harbaugh: USGS–TWRI book 6, chap. A1. 1988. 586 pages.
- 6-A2. *Documentation of a computer program to simulate aquifer-system compaction using the modular finite-difference ground-water flow model*, by S.A. Leake and D.E. Prudic: USGS–TWRI book 6, chap. A2. 1991. 68 pages.
- 6-A3. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 1: Model Description and User's Manual*, by L.J. Torak: USGS–TWRI book 6, chap. A3. 1993. 136 pages.

- 6-A4. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 2: Derivation of finite-element equations and comparisons with analytical solutions*, by R.L. Cooley: USGS–TWRI book 6, chap. A4. 1992. 108 pages.
- 6-A5. *A modular finite-element model (MODFE) for areal and axisymmetric ground-water-flow problems, Part 3: Design philosophy and programming details*, by L.J. Torak: USGS–TWRI book 6, chap. A5, 1993. 243 pages.
- 6-A6. *A coupled surface-water and ground-water flow model (MODBRANCH) for simulation of stream-aquifer interaction*, by Eric D. Swain and Eliezer J. Wexler. 1996. 125 pages.

### **Book 7. Automated Data Processing and Computations**

#### **Section C. Computer Programs**

- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P.C. Trescott, G.F. Pinder, and S.P. Larson: USGS–TWRI book 7, chap. C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L.F. Konikow and J.D. Bredehoeft: USGS–TWRI book 7, chap. C2. 1978. 90 pages.
- 7-C3. *A model for simulation of flow in singular and interconnected channels*, by R.W. Schaffranek, R.A. Baltzer, and D.E. Goldberg: USGS–TWRI book 7, chap. C3. 1981. 110 pages.

### **Book 8. Instrumentation**

#### **Section A. Instruments for Measurement of Water Level**

- 8-A1. *Methods of measuring water levels in deep wells*, by M.S. Garber and F.C. Koopman: USGS–TWRI book 8, chap. A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers*, by J.D. Craig: USGS–TWRI book 8, chap. A2. 1983. 57 pages.

#### **Section B. Instruments for Measurement of Discharge**

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

### **Book 9. Handbooks for Water-Resources Investigations**

#### **Section A. National Field Manual for the Collection of Water-Quality Data**

- 9-A1. *National Field Manual for the Collection of Water-Quality Data: Preparations for Water Sampling*, by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A1. 1998. 47 p.
- 9-A2. *National Field Manual for the Collection of Water-Quality Data: Selection of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A2. 1998. 94 p.
- 9-A3. *National Field Manual for the Collection of Water-Quality Data: Cleaning of Equipment for Water Sampling*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A3. 1998. 75 p.
- 9-A4. *National Field Manual for the Collection of Water-Quality Data: Collection of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A4. 1999. 156 p.
- 9-A5. *National Field Manual for the Collection of Water-Quality Data: Processing of Water Samples*, edited by F.D. Wilde, D.B. Radtke, Jacob Gibs, and R.T. Iwatsubo: USGS–TWRI book 9, chap. A5. 1999. 149 p.
- 9-A6. *National Field Manual for the Collection of Water-Quality Data: Field Measurements*, edited by F.D. Wilde and D.B. Radtke: USGS–TWRI book 9, chap. A6. 1998. Variously paginated.
- 9-A7. *National Field Manual for the Collection of Water-Quality Data: Biological Indicators*, edited by D.N. Myers and F.D. Wilde: USGS–TWRI book 9, chap. A7. 1997 and 1999. Variously paginated.
- 9-A8. *National Field Manual for the Collection of Water-Quality Data: Bottom-material samples*, by D.B. Radtke: USGS–TWRI book 9, chap. A8. 1998. 48 pages.
- 9-A9. *National Field Manual for the Collection of Water-Quality Data: Safety in Field Activities*, by S.L. Lane and R.G. Fay: USGS–TWRI book 9, chap. A9. 1998. 60 pages.



HYDROLOGIC-DATA STATION RECORDS  
PLATTE RIVER BASIN

39

06614800 MICHIGAN RIVER NEAR CAMERON PASS, CO

LOCATION.--Lat 40°29'46", long 105°51'52", in S<sup>1</sup>/<sub>2</sub> sec.12, T.6 N., R.76 W. (unsurveyed), Jackson County, Hydrologic Unit 10180001, on right bank 500 ft upstream from Michigan ditch, 2.2 mi southeast of Cameron Pass, 8 mi east of Gould, and 27 mi southeast of Walden.

DRAINAGE AREA.--1.53 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder. Elevation of gage is 10,390 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	.48	.35	e.34	e.34	.32	.36	.99	31	7.7	1.3	2.1
2	1.1	e.48	e.34	e.34	e.34	.32	.34	1.5	26	7.5	1.3	1.9
3	.97	e.46	e.34	e.34	e.34	.32	.34	2.4	27	7.3	1.3	1.7
4	.92	.45	e.34	e.34	e.34	.32	.35	3.3	27	6.8	1.3	1.6
5	.87	.44	e.34	e.34	e.34	.32	.31	4.4	28	6.4	1.3	1.8
6	.92	.43	e.34	e.34	e.34	.30	.30	4.5	26	6.3	1.2	1.7
7	.94	e.42	e.34	e.34	e.34	.31	.30	4.6	24	5.9	1.1	1.5
8	.87	.42	e.34	e.34	e.34	.31	.30	4.2	23	5.7	1.1	1.5
9	.80	.42	e.34	e.34	e.34	.32	.30	3.2	24	5.8	1.0	1.4
10	.79	.42	e.34	e.34	e.34	.32	.30	3.8	21	5.6	.98	1.2
11	.75	e.45	e.34	e.34	e.34	.32	.31	4.3	18	5.3	.97	1.1
12	.68	e.45	e.34	e.34	e.34	.33	.34	3.4	16	4.8	.95	1.1
13	.66	e.45	e.34	e.34	e.34	.35	.34	3.2	15	4.4	.93	1.0
14	.64	e.45	e.34	e.34	e.34	.33	.35	3.7	13	4.0	.94	.97
15	.62	e.43	e.34	e.34	e.34	.32	.36	4.8	14	4.1	.93	.92
16	.62	e.39	e.34	e.34	e.34	.33	.36	6.3	11	4.3	1.2	.89
17	e.62	.34	e.34	e.34	e.34	.34	.38	6.0	9.5	5.6	1.7	.87
18	e.62	e.34	e.34	e.34	e.34	.34	.44	4.6	9.0	5.1	1.6	.85
19	e.61	e.34	e.34	e.34	e.34	.34	.45	4.2	11	3.9	1.4	.84
20	.61	e.34	e.34	e.34	e.34	.34	.45	4.1	11	3.2	1.4	1.0
21	.60	e.34	e.34	e.34	e.34	.33	.48	4.3	9.5	2.7	1.3	1.6
22	.59	e.34	e.34	e.34	.34	.33	.51	5.8	9.8	2.5	1.7	3.0
23	.57	e.34	e.34	e.34	.34	.34	.51	11	9.9	2.3	1.8	2.5
24	.56	e.34	e.34	e.34	.34	.34	.48	15	10	2.1	1.6	2.2
25	.55	e.34	e.34	e.34	.32	.34	.48	14	9.7	2.0	2.4	2.1
26	.51	e.34	e.34	e.34	.32	.34	.48	13	8.7	1.9	4.1	2.0
27	.48	e.34	e.34	e.34	.32	.34	.59	12	8.3	1.9	3.0	2.0
28	.48	e.34	e.34	e.34	.33	.34	.94	17	7.9	1.8	2.5	2.1
29	e.48	.34	e.34	e.34	.32	.34	1.2	28	7.9	1.7	2.3	2.3
30	e.48	.34	e.34	e.34	---	.34	1.2	32	7.9	1.6	2.2	2.4
31	.48	---	e.34	e.34	---	.34	---	33	---	1.5	2.0	---
TOTAL	21.49	11.80	10.55	10.54	9.77	10.22	13.85	262.59	474.1	131.7	48.80	48.14
MEAN	.69	.39	.34	.34	.34	.33	.46	8.47	15.8	4.25	1.57	1.60
MAX	1.1	.48	.35	.34	.34	.35	1.2	33	31	7.7	4.1	3.0
MIN	.48	.34	.34	.34	.32	.30	.30	.99	7.9	1.5	.93	.84
AC-FT	43	23	21	21	19	20	27	521	940	261	97	95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2000, BY WATER YEAR (WY)

	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	.92	.57	.43	.36	.32	.33	.41	3.91	16.6	9.17	2.83	1.45															
MAX	2.25	1.11	.88	.57	.55	.86	.80	9.50	27.1	24.8	6.83	4.82															
(WY)	1998	1996	1996	1988	1986	1986	1994	1974	1990	1995	1983	1997															
MIN	.32	.20	.25	.17	.16	.17	.22	.70	10.9	2.06	1.20	.49															
(WY)	1980	1979	1979	1991	1977	1974	1982	1995	1992	1994	1988	1988															

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1974 - 2000

ANNUAL TOTAL		1022.76				1053.55																						
ANNUAL MEAN		2.80				2.88																						
HIGHEST ANNUAL MEAN																												
LOWEST ANNUAL MEAN																												
HIGHEST DAILY MEAN				30	Jun 23		33	May 31		69	Jul 14	1995																
LOWEST DAILY MEAN				.27	Mar 29		.30	Mar 6		.08	Nov 16	1989																
ANNUAL SEVEN-DAY MINIMUM				.28	Mar 24		.30	Apr 5		.14	Jan 9	1979																
INSTANTANEOUS PEAK FLOW							46	May 30		a,b115	Jul 12	1995																
INSTANTANEOUS PEAK STAGE							3.58	May 30		b,c3.69	Jul 12	1995																
ANNUAL RUNOFF (AC-FT)				2030			2090			2260																		
10 PERCENT EXCEEDS				9.7			8.0			9.9																		
50 PERCENT EXCEEDS				.56			.51			.61																		
90 PERCENT EXCEEDS				.32			.34			.26																		

e Estimated.

a From rating curve extended above 82 ft<sup>3</sup>/s.

b Also occurred Jul 13, 1995.

c Maximum gage height, 3.70 ft, Jun 20, 1997.

## PLATTE RIVER BASIN

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'15", long 106°20'16", in NE<sup>1</sup>/<sub>4</sub> SW<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub> sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 1,000 ft downstream from bridge on State Highway 125, 0.7 mi upstream from Camp Creek, 4.2 mi northwest of Northgate, and 4.4 mi south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi<sup>2</sup>.

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.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft above 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 0.7 mi downstream at datum 3.36 ft lower. Aug. 22, 1961, to Sept. 18, 1984, at site 650 ft upstream at same datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Diversions for irrigation of about 130,000 acres of hay meadows upstream from station. Transbasin diversions upstream from station to Cache la Poudre River basin. National Weather Service data collection platform with satellite telemetry at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	102	91	e200	e130	e88	e120	e420	1200	2030	333	100	84
2	99	97	e190	e120	e96	e120	e440	1070	1880	296	96	81
3	93	102	171	e110	e90	e130	e420	975	1630	281	95	68
4	94	112	170	e100	e86	e140	e400	1010	1410	279	95	63
5	93	113	e180	e96	e86	e150	384	1090	1260	263	95	64
6	90	106	e190	e90	e88	e160	578	1150	1120	252	87	59
7	89	106	e180	e88	e90	e170	695	1240	985	241	84	57
8	93	102	e160	e92	e90	e170	611	1290	938	235	79	54
9	97	102	e140	e92	e92	e160	703	1260	910	233	79	50
10	93	106	e130	e88	e92	e160	800	1120	926	255	72	50
11	91	103	e130	e92	e90	e150	791	964	889	292	74	49
12	89	100	e130	e90	e88	e150	751	950	767	243	76	48
13	88	93	e140	e88	e88	e160	741	869	644	220	75	48
14	88	105	e140	e88	e88	e160	809	679	637	208	77	48
15	84	110	e130	e90	e90	e160	884	513	598	194	75	48
16	83	117	e130	e92	e90	e150	865	405	565	195	75	48
17	82	140	e140	e90	e88	e150	798	405	582	196	76	48
18	82	127	e140	e88	e86	e160	805	523	572	211	78	48
19	89	134	e130	e92	e86	e170	811	686	538	213	79	48
20	93	130	e120	e88	e90	e180	730	685	720	199	76	50
21	96	143	e120	e86	e94	e170	694	675	876	190	68	50
22	97	135	e110	e82	e100	e170	725	623	699	173	64	74
23	98	e130	e110	e80	e100	e180	860	564	556	155	65	173
24	94	e110	e110	e80	e110	e210	994	653	484	145	75	241
25	90	e100	e120	e82	e110	e240	1000	1070	442	129	70	204
26	89	e110	e120	e86	e100	e260	863	1410	478	123	76	164
27	86	e130	e120	e84	e100	e320	797	1700	563	121	117	136
28	92	e160	e130	e84	e110	e390	856	1820	564	148	104	123
29	92	e190	e140	e80	e120	e430	1000	1750	485	132	90	115
30	89	e200	e130	e78	---	e440	1150	1800	393	119	82	107
31	92	---	e130	e80	---	e420	---	1990	---	108	81	---
TOTAL	2827	3604	4381	2806	2726	6300	22375	32139	25141	6382	2535	2500
MEAN	91.2	120	141	90.5	94.0	203	746	1037	838	206	81.8	83.3
MAX	102	200	200	130	120	440	1150	1990	2030	333	117	241
MIN	82	91	110	78	86	120	384	405	393	108	64	48
AC-FT	5610	7150	8690	5570	5410	12500	44380	63750	49870	12660	5030	4960

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1904 - 2000, BY WATER YEAR (WY)

	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915
MEAN	162	154	104	84.1	89.3	177	756	1145	1483	642	266	150
MAX	538	366	215	177	199	722	2444	3649	3296	2367	763	712
(WY)	1962	1962	1998	1984	1986	1986	1962	1984	1983	1957	1983	1997
MIN	31.7	54.2	33.9	27.5	35.7	47.8	131	212	89.4	26.7	38.5	23.8
(WY)	1935	1935	1977	1977	1933	1964	1981	1981	1934	1934	1934	1934

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	FOR 1904 - 2000
ANNUAL TOTAL	138774	113716	
ANNUAL MEAN	380	311	436
HIGHEST ANNUAL MEAN			878
LOWEST ANNUAL MEAN			117
HIGHEST DAILY MEAN	1940	Jun 18	6450
LOWEST DAILY MEAN	82	Oct 17	19
ANNUAL SEVEN-DAY MINIMUM	85	Oct 12	20
INSTANTANEOUS PEAK FLOW		2090	6720
INSTANTANEOUS PEAK STAGE		4.91	a6.24
ANNUAL RUNOFF (AC-FT)	275300	225600	315800
10 PERCENT EXCEEDS	875	871	1220
50 PERCENT EXCEEDS	170	130	163
90 PERCENT EXCEEDS	97	78	70

e Estimated.

a Maximum gage height, 9.65 ft, Apr 25, 1980, backwater from ice jam.

PLATTE RIVER BASIN

06693800 MOSQUITO CREEK NEAR ALMA, CO

LOCATION.--Lat 39°16'12", long 106°03'02", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.13, T.9 S., R.78 W., Park County, Hydrologic Unit 10190001, on left bank 0.1 mi upstream from confluence with Middle Fork South Platte River, and 1.2 mi south of Alma.

DRAINAGE AREA.--16.2 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 10,220 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by minor diversions for irrigation, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	e8.2	e7.9	e5.0	e4.3	e4.5	e4.1	12	86	37	13	18
2	12	e8.2	e7.4	e5.0	e4.3	e4.5	e4.1	17	80	38	13	15
3	11	e8.3	e6.8	e5.0	e4.2	e4.5	e4.1	22	79	41	12	14
4	11	e8.2	e6.8	e5.0	e4.3	e4.5	e4.2	26	73	35	13	13
5	11	e8.2	e6.6	e5.0	e4.3	e4.5	e4.4	38	72	32	12	12
6	11	e8.2	e6.4	e5.0	e4.3	e4.5	e4.6	47	71	30	12	13
7	13	e8.1	e6.4	e5.0	e4.3	e4.5	e4.4	49	72	30	11	15
8	13	e7.7	e6.4	e5.0	e4.3	e4.5	e5.1	46	69	34	11	13
9	13	e7.3	e6.4	e5.0	e4.5	e4.5	e6.3	33	66	37	10	14
10	11	e7.3	e6.0	e5.0	e4.5	e4.5	e6.1	31	59	35	10	12
11	11	e7.3	e5.6	e5.0	e4.5	e4.5	5.3	37	52	31	9.9	11
12	10	e7.4	e5.6	e5.0	e4.5	e4.5	5.9	33	49	29	10	11
13	10	e7.6	e5.6	e5.0	e4.5	e4.5	6.6	26	46	28	11	10
14	9.8	e7.6	e5.6	e5.2	e4.5	e4.4	6.7	25	41	28	10	10
15	9.5	e7.5	e5.6	e5.2	e4.5	e4.3	6.1	25	46	26	10	10
16	9.4	e7.5	e5.4	e5.4	e4.5	e4.3	6.3	29	47	32	10	9.8
17	e9.5	e7.0	e5.4	e5.2	e4.5	e4.3	7.5	34	43	44	13	9.6
18	e9.8	e7.2	e5.4	e5.2	e4.5	e4.3	8.0	26	38	39	14	9.6
19	10	e7.3	e5.4	e5.2	e4.5	e4.3	6.9	24	45	31	12	9.4
20	e9.6	e7.4	e5.4	e5.2	e4.5	e4.3	7.7	25	51	26	12	9.5
21	e9.6	e7.4	e5.4	e5.2	e4.5	e4.2	7.7	27	41	23	12	12
22	9.3	e7.4	e5.4	e5.2	e4.8	e4.2	7.2	41	40	21	13	18
23	8.9	e7.4	e5.2	e5.2	e4.6	e4.1	7.3	76	38	20	14	13
24	8.7	e7.4	e5.0	e5.1	e4.6	e4.1	7.1	109	38	19	13	13
25	8.5	e7.4	e5.0	e5.0	e4.5	e4.1	7.1	91	39	18	13	12
26	8.3	e7.4	e5.0	e5.0	e4.5	e4.1	8.7	66	44	18	15	12
27	8.2	e7.4	e5.0	e5.0	e4.4	e4.1	12	49	44	18	17	11
28	8.2	e7.4	e5.0	e4.9	e4.4	e4.1	13	66	40	17	14	11
29	8.1	e7.9	e5.0	e4.8	e4.5	e4.1	13	107	38	16	23	11
30	e8.2	e8.2	e5.0	e4.6	---	e4.1	12	111	36	16	21	11
31	e8.2	---	e5.0	e4.4	---	e4.1	---	97	---	14	20	---
TOTAL	310.8	228.8	178.1	156.0	129.1	134.0	209.5	1445	1583	863	403.9	362.9
MEAN	10.0	7.63	5.75	5.03	4.45	4.32	6.98	46.6	52.8	27.8	13.0	12.1
MAX	13	8.3	7.9	5.4	4.8	4.5	13	111	86	44	23	18
MIN	8.1	7.0	5.0	4.4	4.2	4.1	4.1	12	36	14	9.9	9.4
AC-FT	616	454	353	309	256	266	416	2870	3140	1710	801	720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000
MEAN	9.98	7.62	5.09	4.48	4.22	4.38	6.16	38.7	84.3	47.5	23.2	13.9
MAX	10.0	7.63	5.75	5.03	4.45	4.44	6.98	46.6	116	67.1	33.3	15.8
(WY)	2000	2000	2000	2000	2000	1999	2000	2000	1999	1999	1999	1999
MIN	9.94	7.61	4.43	3.93	3.98	4.32	5.33	30.8	52.8	27.8	13.0	12.1
(WY)	1999	1999	1999	1999	1999	2000	1999	1999	2000	2000	2000	2000

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1999 - 2000

ANNUAL TOTAL	9264.9	6004.1		
ANNUAL MEAN	25.4	16.4		
HIGHEST ANNUAL MEAN			20.8	
LOWEST ANNUAL MEAN			25.3	1999
HIGHEST DAILY MEAN	161	Jun 24	16.4	2000
LOWEST DAILY MEAN	e3.8	Jan 31	161	Jun 24 1999
ANNUAL SEVEN-DAY MINIMUM	e3.9	Jan 25	e4.1	Mar 23
INSTANTANEOUS PEAK FLOW			e3.8	Jan 31 1999
INSTANTANEOUS PEAK STAGE			e4.1	Mar 23 1999
ANNUAL RUNOFF (AC-FT)	18380	11910	155	May 29
10 PERCENT EXCEEDS	81	41	6.04	May 29
50 PERCENT EXCEEDS	8.0		6.34	Jun 23 1999
90 PERCENT EXCEEDS	4.0		15090	
			57	
			8.3	
			4.1	

e Estimated.

## PLATTE RIVER BASIN

06697100 TARRYALL CREEK BELOW PARK GULCH NEAR COMO, CO

LOCATION.--Lat 39°16'54", long 105°47'13", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.9, T.9 S., R.75 W., Park County, Hydrologic Unit 10190001, on left bank 300 ft downstream from confluence with Park Gulch, and 6.5 mi southeast of Como.

DRAINAGE AREA.--76.1 mi<sup>2</sup>, of which 3.2 mi<sup>2</sup> is noncontributing.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,260 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Boreas Pass ditch, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	e9.2	e7.2	e5.0	e4.0	e4.4	e6.0	21	43	23	8.8	9.3
2	11	e9.0	e7.2	e4.9	e3.9	e4.4	e6.0	20	44	23	9.3	7.9
3	11	e9.2	e7.0	e4.9	e4.0	e4.4	e7.0	23	44	23	8.6	7.2
4	11	e9.2	e7.0	e4.9	e4.0	e4.4	e8.0	26	42	21	10	7.0
5	11	e9.2	e6.8	e4.9	e4.0	e4.4	e9.0	29	41	19	8.5	6.7
6	11	e9.2	e6.6	e4.7	e4.0	e4.4	e11	30	39	17	7.8	6.3
7	14	e9.0	e6.6	e4.8	e4.0	e4.4	e9.0	21	37	16	6.2	6.4
8	18	e8.8	e6.4	e4.8	e4.0	e4.4	e10	26	35	18	5.2	6.3
9	17	e8.4	e6.0	e4.7	e4.2	e4.4	e11	29	34	18	4.7	6.0
10	13	e8.4	e5.6	e4.7	e4.0	e4.4	e12	23	32	17	4.2	5.2
11	12	e8.2	e5.4	e4.8	e4.0	e4.4	e17	22	31	16	4.3	4.7
12	11	e8.2	e5.4	e4.8	e4.0	e4.4	20	18	29	15	5.0	4.4
13	11	e8.2	e5.4	e4.8	e4.0	e4.4	23	15	23	15	6.6	3.9
14	11	e8.0	e5.4	e4.8	e4.0	e4.4	22	13	20	15	6.7	3.5
15	10	e8.0	e5.3	e4.9	e4.0	e4.6	20	12	20	15	5.5	3.4
16	10	e8.0	e5.2	e5.2	e4.0	e4.3	16	12	26	18	7.7	3.2
17	e10	e8.0	e5.2	e5.4	e4.0	e4.3	18	22	35	32	7.6	3.3
18	e11	e7.8	e5.2	e5.4	e4.0	e4.3	20	27	27	18	14	3.3
19	12	e7.8	e5.2	e5.4	e4.0	e4.3	16	29	22	13	10	2.8
20	12	e7.8	e5.2	e5.3	e4.0	e4.6	15	27	37	13	7.0	3.6
21	11	e7.6	e5.1	e5.2	e4.0	e4.4	16	23	33	14	8.4	4.5
22	10	e7.6	e5.0	e5.2	e4.3	e4.5	16	22	30	13	9.1	7.9
23	9.7	e7.6	e4.8	e5.0	e4.4	e4.5	21	22	21	12	8.6	6.7
24	9.5	e7.6	e4.9	e4.8	e4.4	e4.6	36	27	18	11	6.7	8.3
25	9.2	e7.6	e4.8	e4.9	e4.3	e4.8	22	36	16	11	6.9	7.4
26	9.2	e7.4	e4.8	e4.8	e4.3	e5.0	20	33	20	11	9.4	7.0
27	8.9	e7.4	e4.8	e4.8	e4.3	e5.2	21	32	28	12	9.6	6.3
28	8.7	e7.4	e4.9	e4.5	e4.3	e7.0	23	28	12	13	8.6	5.8
29	9.0	e7.4	e4.9	e4.3	e4.3	e9.0	23	32	9.1	11	11	5.8
30	e9.2	e7.3	e4.9	e4.1	---	e11	24	39	14	9.5	12	5.6
31	e9.4	---	e4.9	e4.0	---	e7.0	---	42	---	9.9	10	---
TOTAL	342.8	244.5	173.1	150.7	118.7	155.0	498.0	781	862.1	492.4	248.0	169.7
MEAN	11.1	8.15	5.58	4.86	4.09	5.00	16.6	25.2	28.7	15.9	8.00	5.66
MAX	18	9.2	7.2	5.4	4.4	11	36	42	44	32	14	9.3
MIN	8.7	7.3	4.8	4.0	3.9	4.3	6.0	12	9.1	9.5	4.2	2.8
AC-FT	680	485	343	299	235	307	988	1550	1710	977	492	337

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2000, BY WATER YEAR (WY)

	1997	1998	1999	2000
MEAN	11.0	9.27	5.40	4.23
MAX	12.0	11.6	5.60	4.86
(WY)	1999	1999	2000	2000
MIN	9.83	8.04	5.03	3.55
(WY)	1998	1998	1998	1998

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1997 - 2000
ANNUAL TOTAL	9618.9	4236.0	
ANNUAL MEAN	26.4	11.6	17.0
HIGHEST ANNUAL MEAN			26.7
LOWEST ANNUAL MEAN			11.6
HIGHEST DAILY MEAN	136	Jun 25	163
LOWEST DAILY MEAN	e3.8	Feb 13	2.8
ANNUAL SEVEN-DAY MINIMUM	e3.9	Feb 7	3.3
INSTANTANEOUS PEAK FLOW			48
INSTANTANEOUS PEAK STAGE			4.39
ANNUAL RUNOFF (AC-FT)	19080	8400	12300
10 PERCENT EXCEEDS	78	26	44
50 PERCENT EXCEEDS	9.2	8.0	11
90 PERCENT EXCEEDS	4.1	4.3	4.0

e Estimated.

06697100 TARRYALL CREEK BELOW PARK GULCH NEAR COMO, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1997 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
DEC 14...	0945	5.4	212	7.8	.1	8.6	110	35.8	5.95	3.4	.1
MAR 23...	1020	4.6	290	7.9	.2	8.1	130	38.0	9.20	10.8	.4
APR 26...	0930	18	453	8.4	3.5	8.5	180	47.0	15.8	22.6	.7
MAY 24...	0905	26	212	8.3	9.6	8.0	96	29.1	5.68	4.2	.2
JUN 13...	1030	24	215	8.2	13.1	7.9	100	32.6	5.68	3.0	.1
JUL 25...	1105	12	205	8.3	14.5	8.2	100	32.8	5.31	2.9	.1
SEP 07...	1710	7.0	228	8.6	18.5	8.1	110	33.5	5.71	3.6	.2

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3 CO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED PER AC-FT) (70303)
DEC 14...	.8	89	--	74	16.6	.6	<.1	8.8	125	116	.17
MAR 23...	1.5	124	--	102	39.9	1.9	.1	9.1	187	172	.25
APR 26...	2.1	137	7	124	81.2	4.0	.3	10.0	303	258	.41
MAY 24...	.9	122	--	100	14.6	.8	<.1	8.4	134	124	.18
JUN 13...	.8	140	--	115	8.9	.3	<.1	9.3	137	130	.19
JUL 25...	.7	--	--	--	11.1	.5	<.1	8.7	127	--	--
SEP 07...	1.0	118	4	103	14.1	.7	<.1	8.5	142	129	.19

DATE	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
DEC 14...	1.82	<.010	<.050	<.020	.12	E.10	E.007	<.004	.014	1.4	2.1
MAR 23...	2.32	<.010	<.050	<.020	.17	.13	.009	E.003	<.010	4.6	2.7
APR 26...	15.1	<.010	<.050	<.020	.50	.39	.024	.013	.014	7.9	7.0
MAY 24...	9.41	<.010	<.050	<.020	.31	.18	.030	E.005	<.010	5.3	3.3
JUN 13...	8.88	<.010	<.050	<.020	.32	.22	.028	.006	<.010	4.8	3.8
JUL 25...	--	<.010	<.050	<.020	.17	.12	.014	E.003	<.010	3.0	2.0
SEP 07...	2.67	<.010	<.050	<.020	.16	.12	.012	E.004	<.010	2.4	2.1

PLATTE RIVER BASIN

06697100 TARRYALL CREEK BELOW PARK GULCH NEAR COMO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
DEC 14...	<1	<1	<2.0	84	<1	<1.0	<.8	<1	<1	<10	<1
MAR 23...	1	<1	<2.0	83	<1	<1.0	<1.0	<1	<1	70	<1
APR 26...	3	<1	<2.0	68	<1	<1.0	<.8	<1	1	70	<1
MAY 24...	13	<1	<2.0	60	<1	<1.0	1.1	<1	1	40	<1
JUN 13...	10	<1	<2.0	60	<1	<1.0	<.8	<1	<1	70	<1
JUL 25...	1	<1	<2.0	80	<1	<1.0	<.8	<1	1	50	<1
SEP 07...	1	<1	<2.0	89	<1	<1.0	<.8	<1	1	60	<1

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
DEC 14...	16	<1	<1	<2.4	<1	1	<1	8	.12	53
MAR 23...	21	1	<1	<2.4	<1	2	2	7	.09	90
APR 26...	20	1	<1	<2.4	<1	2	3	9	.45	84
MAY 24...	14	1	1	<2.4	<1	4	1	26	1.8	82
JUN 13...	14	<1	2	<2.4	<1	3	1	21	1.4	81
JUL 25...	12	1	<1	<2.4	<1	<1	<1	7	.23	73
SEP 07...	16	1	<1	<2.4	<1	1	<1	4	.08	93

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 07...	1350	14	212	4.4	MAY 25...	1432	39	226	14.5
NOV 30...	1515	7.1	233	.2	JUL 31...	1150	11	204	14.5
JAN 14...	1130	4.8	225	.0	SEP 07...	0915	7.0	228	9.5
FEB 28...	1235	4.3	209	.1					

PLATTE RIVER BASIN

392144105132401 SPRING CREEK RAIN GAGE AT LONG SCRAGGY RANCH, CO

PRECIPITATION RECORDS

LOCATION.--Lat 39°21'44", long 105°13'24", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.9, T.8 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank of Spring Creek along road to Long Scraggy Ranch, 0.2 mi from Spring Creek Road, and 3.0 mi southeast of the community of Buffalo Creek.

PERIOD OF RECORD.--April 1997 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage, with wind shields, with satellite telemetry. Elevation of gage is 7,280 ft above sea level, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily rainfall, 1.75 inches, May 25, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily rainfall, 1.59 inches, July 16.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.01	.00	.00	---	.01
2	---	---	---	---	---	---	---	.00	.00	.13	.00	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.01	.00
4	---	---	---	---	---	---	---	.00	.00	.00	.05	.10
5	---	---	---	---	---	---	.00	.00	.00	.00	.02	.12
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	.00	.69	.00	.04	.00	.18
9	---	---	---	---	---	---	.00	.00	.00	.11	.00	.00
10	---	---	---	---	---	---	.05	.00	.00	.01	.00	.00
11	---	---	---	---	---	---	.01	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.14	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.19	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.01	.00
15	---	---	---	---	---	---	.02	.00	.00	.00	.00	.00
16	---	---	---	---	---	---	.08	.00	.01	1.59	.09	.00
17	---	---	---	---	---	---	.00	.05	.08	.78	.44	.32
18	---	---	---	---	---	---	.00	.12	.00	.00	.13	.00
19	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	---	---	---	---	---	---	.00	.01	.03	.00	.02	.16
21	---	---	---	---	---	---	.00	.00	.00	.00	.02	.19
22	---	---	---	---	---	---	.76	.00	.00	.00	.30	.02
23	---	---	---	---	---	---	.06	.00	.00	---	.02	.03
24	---	---	---	---	---	---	.00	.07	.06	---	.03	.18
25	---	---	---	---	---	---	.00	.02	.26	---	.16	.18
26	---	---	---	---	---	---	.00	.00	.40	---	.09	.00
27	---	---	---	---	---	---	.00	.00	.00	---	.00	.00
28	---	---	---	---	---	---	.01	.00	.00	---	.10	.00
29	---	---	---	---	---	---	.23	.00	.07	---	.12	.00
30	---	---	---	---	---	---	.30	.00	.00	---	.01	.00
31	---	---	---	---	---	---	---	.00	---	---	.51	---
TOTAL	---	---	---	---	---	---	---	0.97	0.91	---	---	1.49

## PLATTE RIVER BASIN

06701970 SPRING CREEK ABOVE MOUTH NEAR SOUTH PLATTE, CO

LOCATION.--Lat 39°23'37", long 105°11'01", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.35, T.7 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on right bank 0.9 mi upstream from mouth and 1.3 mi southwest of the community of South Platte.

DRAINAGE AREA.--9.79 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1997 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,320 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. No diversion or regulation upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 6,380 ft<sup>3</sup>/s, Aug. 31, 1997, gage height, 13.45 ft, from slope-area measurement of peak flow; minimum daily, 0.64 ft<sup>3</sup>/s, Oct. 30, 1997.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 164 ft<sup>3</sup>/s at 2055 July 16, gage height, 5.32 ft; minimum daily, 0.89 ft<sup>3</sup>/s, June 20.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	---	---	---	---	---	2.5	1.7	1.3	1.1	1.1	1.0
2	1.7	---	---	---	---	---	2.1	1.8	1.3	1.1	1.1	1.0
3	2.0	---	---	---	---	---	1.8	1.9	1.3	1.2	1.1	.95
4	1.9	---	---	---	---	---	2.2	1.9	1.2	1.2	1.0	.99
5	1.3	---	---	---	---	---	2.1	1.4	1.2	1.2	1.1	1.0
6	1.2	---	---	---	---	---	2.0	1.5	1.2	1.2	1.1	.99
7	1.4	---	---	---	---	---	1.9	1.5	1.1	1.2	1.1	.95
8	1.5	---	---	---	---	---	1.8	1.8	1.1	1.2	1.0	.96
9	1.6	---	---	---	---	---	2.0	1.7	1.1	1.3	.98	.99
10	1.6	---	---	---	---	---	1.5	1.7	1.0	1.3	.92	.95
11	1.2	---	---	---	---	---	1.6	1.4	1.0	1.2	.89	.95
12	1.5	---	---	---	---	---	2.0	1.3	1.0	1.3	.90	.99
13	1.5	---	---	---	---	---	2.0	1.4	1.0	1.3	.90	1.0
14	1.8	---	---	---	---	---	2.0	1.5	1.1	1.2	1.1	1.0
15	1.5	---	---	---	---	---	2.0	1.5	1.1	1.2	1.0	.99
16	1.4	---	---	---	---	---	1.7	1.1	1.2	3.8	1.0	.98
17	1.5	---	---	---	---	---	1.7	1.2	1.2	3.8	1.1	.99
18	1.4	---	---	---	---	---	1.7	1.3	1.1	3.2	1.3	1.0
19	e1.4	---	---	---	---	---	2.0	1.3	.93	2.8	1.2	.99
20	1.9	---	---	---	---	---	2.5	1.3	.89	2.7	1.2	1.1
21	1.8	---	---	---	---	---	2.1	e1.3	.89	2.6	1.3	1.1
22	1.4	---	---	---	---	---	2.1	e1.3	.96	2.5	1.3	1.2
23	1.9	---	---	---	---	---	2.1	e1.3	1.0	2.1	1.2	1.2
24	e1.6	---	---	---	---	---	1.6	e1.3	1.0	1.5	1.1	1.2
25	e1.3	---	---	---	---	---	1.6	e1.2	.99	1.4	1.0	1.2
26	1.1	---	---	---	---	---	2.1	e1.2	1.2	1.4	1.0	1.2
27	1.0	---	---	---	---	---	2.0	e1.3	1.2	1.3	1.1	1.2
28	1.2	---	---	---	---	---	1.9	e1.3	1.1	1.3	1.0	1.2
29	1.2	---	---	---	---	1.8	2.0	e1.3	1.1	1.3	1.1	1.2
30	1.3	---	---	---	---	2.1	2.0	e1.3	1.1	1.2	1.0	1.3
31	1.5	---	---	---	---	e2.2	---	1.2	---	1.2	.97	---
TOTAL	46.4	---	---	---	---	---	58.6	44.2	32.86	52.3	33.16	31.77
MEAN	1.50	---	---	---	---	---	1.95	1.43	1.10	1.69	1.07	1.06
MAX	2.0	---	---	---	---	---	2.5	1.9	1.3	3.8	1.3	1.3
MIN	1.0	---	---	---	---	---	1.5	1.1	.89	1.1	.89	.95
AC-FT	92	---	---	---	---	---	116	88	65	104	66	63

e Estimated.



PLATTE RIVER BASIN

06701970 SPRING CREEK ABOVE MOUTH NEAR SOUTH PLATTE, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April 1997 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage (no wind shields used) with satellite telemetry.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily rainfall, 2.38 inches, July 16, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily rainfall, 2.38 inches, July 16.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	---	.00	.00	.03	.00	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	---	.00	.00	.00	.15	.02
5	---	---	---	---	---	---	.00	.00	.00	.00	.05	.16
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.01
7	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	.05	.48	.00	.01	.00	.10
9	---	---	---	---	---	---	.00	.00	.00	.12	.00	.00
10	---	---	---	---	---	---	.01	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.00	.00	.00	.00	.02	.00
12	---	---	---	---	---	---	.00	.00	.00	.53	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.18	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	---	---	---	---	---	---	.08	.00	.00	.00	.00	.00
16	---	---	---	---	---	---	.00	.00	.00	2.38	.10	.00
17	---	---	---	---	---	---	.00	.10	.06	.16	.55	.00
18	---	---	---	---	---	---	.00	.11	.00	.00	.08	.00
19	---	---	---	---	---	---	.00	.01	.00	.00	.01	.00
20	---	---	---	---	---	---	.00	.02	.01	.00	.40	.16
21	---	---	---	---	---	---	.00	---	.00	.00	.09	.16
22	---	---	---	---	---	---	.30	---	.00	.00	.06	.01
23	---	---	---	---	---	---	.03	---	.00	.00	.00	.02
24	---	---	---	---	---	---	.00	---	.00	.00	.00	.26
25	---	---	---	---	---	---	.00	---	.14	.00	.06	.00
26	---	---	---	---	---	---	.00	---	.18	.00	.23	.00
27	---	---	---	---	---	---	.00	---	.01	.00	.02	.00
28	---	---	---	---	---	---	.01	---	.00	.00	.32	.00
29	---	---	---	---	---	---	.21	---	.02	.00	.10	.00
30	---	---	---	---	---	---	.32	---	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.04	---	.00	.33	---
TOTAL	---	---	---	---	---	---	---	---	0.42	3.23	2.75	0.90

## PLATTE RIVER BASIN

392133105184401 BUFFALO CREEK RAIN GAGE AT MORRISON CREEK, CO

## PRECIPITATION RECORDS

LOCATION.--Lat 39°21'33", long 105°18'44", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.11, T.8 S., R.71 W., Jefferson County, Hydrologic Unit 10190002, on left bank of Buffalo Creek near confluence with Morrison Creek, and 3.0 mi southwest of the community of Buffalo Creek.

PERIOD OF RECORD.--April 1997 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage, (with wind shields), with satellite telemetry. Elevation of gage is 7,120 ft above sea level, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily rainfall, 1.67 inches, June 6, 1997.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily rainfall, 1.11 inches, July 17.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	---	.00	.00	.00	.02	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	.30	.07
5	---	---	---	---	---	---	.00	.00	.00	.00	.24	.03
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	.00	.21	.00	.00	.00	.02
9	---	---	---	---	---	---	.00	.00	.00	.03	.00	.00
10	---	---	---	---	---	---	.05	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.40	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.10	.00
14	---	---	---	---	---	---	.04	.00	.00	.00	.01	.00
15	---	---	---	---	---	---	.08	.00	.00	.00	.00	.00
16	---	---	---	---	---	---	.00	.00	.00	.43	.11	.00
17	---	---	---	---	---	---	.00	.07	.05	1.11	.39	.00
18	---	---	---	---	---	---	.00	.08	.00	.00	.09	.00
19	---	---	---	---	---	---	.00	.01	.00	.00	.00	.01
20	---	---	---	---	---	---	.00	.00	.03	.00	.06	.06
21	---	---	---	---	---	---	.00	.00	.00	.00	.07	.08
22	---	---	---	---	---	---	.92	.00	.00	.00	.35	.01
23	---	---	---	---	---	---	.04	.00	.00	.00	.01	.04
24	---	---	---	---	---	---	.00	.12	.02	.00	.47	.11
25	---	---	---	---	---	---	.00	.01	.28	.00	.03	.02
26	---	---	---	---	---	---	.00	.00	.05	.00	.26	.00
27	---	---	---	---	---	---	.00	.00	.02	.00	.04	.00
28	---	---	---	---	---	---	.00	.00	.00	.04	.15	.00
29	---	---	---	---	---	---	.20	.00	.00	.00	.10	.00
30	---	---	---	---	---	---	.06	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.55	---
TOTAL	---	---	---	---	---	---	---	0.50	0.45	2.01	3.35	0.45

06706800 BUFFALO CREEK AT MOUTH AT BUFFALO CREEK, CO

LOCATION.--Lat 39°23'27", long 105°16'15", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.31, T.7 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank 0.2 mi downstream from State Highway 67, 0.5 mi upstream from mouth, and in the community of Buffalo Creek.

DRAINAGE AREA.--47.4 mi<sup>2</sup> (revised).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1997 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,630 ft (revised) above sea level, from topographic map.

REMARKS.-- No estimated daily discharges. Records fair. Flow is slightly regulated by Wellington Lake 7.2 mi upstream. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 3,400 ft<sup>3</sup>/s, at July 31, 1998, gage height, 10.80 ft, from high water marks; minimum daily, 3.9 ft<sup>3</sup>/s, Mar. 31, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 24 ft<sup>3</sup>/s, at 1400 July 15, gage height, 3.97 ft; minimum daily, 4.0 ft<sup>3</sup>/s, Sept. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	
1	12	9.2	---	---	---	---	7.9	13	9.5	9.2	20	6.2	
2	11	9.1	---	---	---	---	8.1	13	9.4	9.3	21	5.3	
3	11	9.1	---	---	---	---	8.3	13	9.2	12	21	4.8	
4	11	9.1	---	---	---	---	8.4	13	9.0	19	21	5.3	
5	10	9.1	---	---	---	---	8.6	14	9.0	19	20	6.6	
6	9.9	9.1	---	---	---	---	8.7	14	8.8	19	19	6.3	
7	10	9.1	---	---	---	---	9.0	14	8.7	20	19	6.0	
8	11	9.1	---	---	---	---	9.1	15	8.4	20	19	5.9	
9	10	9.1	---	---	---	---	9.2	14	8.3	20	18	6.0	
10	10	11	---	---	---	---	9.6	14	8.2	20	18	5.7	
11	9.7	9.2	---	---	---	---	9.7	14	8.0	19	17	5.4	
12	9.3	9.1	---	---	---	---	9.8	14	7.9	20	17	5.1	
13	9.2	9.1	---	---	---	---	10	14	7.7	20	16	4.9	
14	9.2	9.1	---	---	---	---	10	14	7.6	20	16	4.7	
15	9.3	9.0	---	---	---	---	11	14	7.4	20	16	4.5	
16	9.3	9.0	---	---	---	---	11	14	7.3	21	16	4.4	
17	9.4	9.0	---	---	---	---	11	14	7.2	20	16	4.3	
18	9.5	9.0	---	---	---	---	11	13	7.0	10	17	4.1	
19	9.4	9.1	---	---	---	---	11	13	6.8	12	15	4.0	
20	9.2	9.0	---	---	---	---	11	13	6.7	17	5.6	4.7	
21	9.2	9.0	---	---	---	---	11	12	6.5	17	4.7	5.1	
22	9.2	9.1	---	---	---	---	11	12	6.5	17	4.8	5.2	
23	9.2	9.1	---	---	---	---	12	11	6.7	17	5.3	5.3	
24	9.2	9.1	---	---	---	---	12	11	7.1	17	5.0	5.7	
25	9.2	9.1	---	---	---	---	12	11	7.5	18	4.5	5.3	
26	9.2	9.3	---	---	---	---	12	10	8.0	18	4.7	5.4	
27	9.2	9.0	---	---	---	---	6.9	12	8.4	18	5.9	5.0	
28	9.2	8.9	---	---	---	---	7.1	12	8.8	19	4.6	4.8	
29	9.2	8.9	---	---	---	---	7.3	12	9.8	19	6.5	4.6	
30	9.2	8.9	---	---	---	---	7.5	13	9.8	9.1	19	5.6	4.5
31	9.2	---	---	---	---	---	7.7	---	9.5	---	20	5.4	---
TOTAL	300.6	274.0	---	---	---	---	311.4	390.1	239.8	545.5	404.6	155.1	
MEAN	9.70	9.13	---	---	---	---	10.4	12.6	7.99	17.6	13.1	5.17	
MAX	12	11	---	---	---	---	13	15	9.5	21	21	6.6	
MIN	9.2	8.9	---	---	---	---	7.9	9.5	6.5	9.2	4.5	4.0	
AC-FT	596	543	---	---	---	---	618	774	476	1080	803	308	

## PLATTE RIVER BASIN

06706800 BUFFALO CREEK AT MOUTH AT BUFFALO CREEK , CO--Continued

## PRECIPITATION RECORDS

PERIOD OF RECORD.--June 1997 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage (no wind shields used) with satellite telemetry.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily rainfall, 1.63 inches, May 25, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily rainfall, 1.17 inches, July 16.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	.33	.00
5	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	.00	.42	.00	.00	.00	.00
9	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.65	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	---	---	---	---	---	---	.00	.00	.00	1.17	.00	.00
17	---	---	---	---	---	---	.00	.00	.00	.62	.66	.00
18	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
21	---	---	---	---	---	---	.00	.00	.00	.00	.00	.21
22	---	---	---	---	---	---	.49	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	.00	.00	.00	.00	.00	.21
25	---	---	---	---	---	---	.00	.00	.29	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.19	.00	.37	.00
27	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.00	.20	.21	.00
29	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
30	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.72	---
TOTAL	---	---	---	---	---	---	---	0.42	0.48	2.64	2.29	0.42

PLATTE RIVER BASIN

06708800 EAST PLUM CREEK BELOW HASKINS GULCH NEAR CASTLE ROCK, CO

LOCATION.--Lat 39°25'28", long 104°54'27", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.20, T.7 S., R.67 W., Douglas County, Hydrologic Unit 10190002, on right bank at the Plum Creek Wastewater Treatment Plant, 0.1 mi southeast of Happy Canyon Road, 3.0 mi east of Sedalia, and 3.6 mi northwest of Castle Rock.

DRAINAGE AREA.--117 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1999 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,940 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records poor. Diversions upstream from station for irrigation. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	11	11	13	6.5	8.9	23	29	15	6.4	1.3	31
2	11	10	10	7.7	8.7	9.4	28	26	16	6.4	1.1	17
3	9.5	10	12	8.1	12	10	31	25	20	5.0	3.9	13
4	9.5	13	11	7.6	12	9.4	31	25	15	4.6	2.3	11
5	8.9	9.0	10	12	9.0	9.6	38	26	16	4.6	1.7	9.3
6	9.9	11	14	10	9.1	10	36	26	13	3.9	1.5	7.8
7	10	12	17	10	8.4	11	33	25	14	3.4	1.4	7.0
8	8.7	9.7	17	9.4	9.7	14	32	30	13	3.2	1.3	6.3
9	12	13	12	8.8	10	12	32	29	13	3.3	1.1	6.3
10	9.7	12	17	7.1	8.9	10	30	26	12	3.3	.94	5.8
11	9.8	11	15	9.2	8.5	10	32	23	12	3.1	.86	4.9
12	7.8	11	12	13	8.9	10	33	27	12	5.1	.89	5.2
13	8.9	9.0	12	9.4	8.4	11	35	26	9.4	6.8	9.2	4.9
14	8.0	11	10	11	9.0	9.4	35	26	9.2	7.2	6.2	4.9
15	11	8.3	8.8	11	9.7	11	36	26	7.6	7.8	1.9	5.2
16	13	9.9	9.3	10	8.1	16	35	24	6.7	8.5	2.0	3.9
17	14	9.7	14	9.7	8.4	13	34	31	8.2	19	5.6	3.3
18	11	9.5	12	13	8.6	14	31	32	6.8	9.9	6.0	3.1
19	14	11	9.9	16	9.1	15	33	26	5.6	7.4	8.1	2.9
20	16	13	9.8	14	9.2	18	29	27	4.9	3.3	7.4	5.8
21	14	14	7.0	13	9.5	18	30	24	4.8	2.4	7.6	5.0
22	14	15	5.8	9.7	8.7	15	30	21	3.9	2.3	6.9	5.7
23	14	13	7.2	11	12	17	30	19	3.2	2.0	4.5	6.6
24	12	10	8.0	8.9	9.5	22	27	18	3.5	1.8	3.3	8.3
25	12	14	7.6	9.9	10	22	28	22	3.4	1.8	3.3	6.0
26	11	12	7.7	8.0	7.9	22	26	23	7.3	1.7	9.4	5.3
27	9.8	13	7.9	7.9	6.7	22	27	19	7.3	1.6	5.8	4.5
28	10	14	11	10	7.9	19	27	20	7.3	1.4	4.3	4.4
29	10	13	10	7.6	7.9	24	29	21	6.6	1.9	12	4.3
30	9.7	12	6.1	6.7	---	26	41	17	5.4	1.7	6.6	4.5
31	11	---	7.6	7.2	---	26	---	15	---	1.4	30	---
TOTAL	342.2	344.1	329.7	309.9	262.3	464.7	942	754	282.1	142.2	158.39	213.2
MEAN	11.0	11.5	10.6	10.0	9.04	15.0	31.4	24.3	9.40	4.59	5.11	7.11
MAX	16	15	17	16	12	26	41	32	20	19	30	31
MIN	7.8	8.3	5.8	6.7	6.5	8.9	23	15	3.2	1.4	.86	2.9
AC-FT	679	683	654	615	520	922	1870	1500	560	282	314	423

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000
MEAN	11.0	11.5	10.6	10.0	9.04	15.0	31.4	66.9	35.3	13.1	17.1	10.8
MAX	11.0	11.5	10.6	10.0	9.04	15.0	31.4	109	61.2	21.6	29.0	14.6
(WY)	2000	2000	2000	2000	2000	2000	2000	1999	1999	1999	1999	1999
MIN	11.0	11.5	10.6	10.0	9.04	15.0	31.4	24.3	9.40	4.59	5.11	7.11
(WY)	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1999 - 2000

ANNUAL TOTAL		4544.79	
ANNUAL MEAN		12.4	12.4
HIGHEST ANNUAL MEAN			12.4
LOWEST ANNUAL MEAN			12.4
HIGHEST DAILY MEAN	410	Apr 30	410
LOWEST DAILY MEAN	1.7	Sep 26	.86
ANNUAL SEVEN-DAY MINIMUM	6.4	Sep 23	1.1
INSTANTANEOUS PEAK FLOW			181
INSTANTANEOUS PEAK STAGE			6.42
ANNUAL RUNOFF (AC-FT)		9010	9000
10 PERCENT EXCEEDS	86		27
50 PERCENT EXCEEDS	17		10
90 PERCENT EXCEEDS	8.9		3.4



06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO

LOCATION.--Lat 39°30'27", long 105°01'26", on line between sec.20 and sec.29, T.6 S., R.68 W., Douglas County, Hydrologic Unit 10190002, on left bank, on downstream side of bridge on Titan Road, 2.4 mi north of Louviers.

DRAINAGE AREA.--315 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR CO-86-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,520 ft above sea level, from topographic map. Prior to July 10, 1996, at same site, but different datum.

REMARKS.--Records poor. Diversions upstream from station for irrigation. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e17	16	19	21	e22	18	49	84	26	8.1	e.20	82
2	e9.4	18	18	18	e22	19	60	80	23	6.8	e.20	45
3	e15	19	e19	21	e22	23	65	74	22	4.8	e.10	34
4	e18	21	e21	e16	e21	21	58	82	22	2.6	.00	28
5	e14	19	23	e22	e21	25	56	71	20	e.20	.00	21
6	e15	18	e24	20	e20	26	50	79	15	e.20	.00	17
7	e12	19	26	22	20	23	62	76	14	e.20	.00	14
8	e14	20	e23	26	20	24	75	67	13	e.20	.00	13
9	15	19	e17	23	e20	19	76	73	13	e.20	.00	9.6
10	14	18	e13	22	e19	16	70	71	12	e.20	.00	7.4
11	14	17	e17	22	e19	16	65	63	12	e.20	.00	6.6
12	14	16	e19	22	e19	18	63	64	11	e.20	.00	4.8
13	15	16	e24	19	19	19	64	61	9.6	e.20	.00	3.7
14	15	17	e23	21	20	22	70	67	9.4	e.20	e.30	2.5
15	15	17	e16	25	22	24	63	62	8.0	e.20	.00	.69
16	20	18	e26	23	19	38	74	59	7.4	e.20	.00	.00
17	26	18	e21	e23	21	24	65	56	12	12	.00	.00
18	21	16	e20	e23	20	21	68	64	11	15	e4.0	.00
19	17	16	e16	e23	17	21	69	60	9.6	8.8	e13	.00
20	15	17	e19	e23	e18	24	69	57	7.7	6.0	e13	.78
21	13	18	e20	e23	e20	40	69	57	6.2	3.1	e14	3.3
22	12	21	e19	e23	21	43	76	55	4.1	.41	e14	4.0
23	10	20	24	e23	23	35	72	49	e3.6	e.20	e12	7.0
24	10	20	21	e23	25	32	69	46	e3.1	e.20	e8.0	22
25	11	23	18	e23	25	32	70	43	e4.6	e.20	e4.0	28
26	11	25	23	e23	19	28	65	51	e10	e.20	e15	19
27	12	24	e18	23	21	28	67	46	e14	e.20	e19	13
28	12	21	e22	e23	18	32	68	40	12	e.20	e10	12
29	13	20	e22	e23	17	37	68	39	8.3	e.20	e23	12
30	15	21	e19	e23	---	43	92	33	e6.7	e.20	e15	12
31	15	---	e20	e22	---	61	---	28	---	e.20	e10	---
TOTAL	449.4	568	630	687	590	852	2007	1857	350.3	71.81	174.80	422.37
MEAN	14.5	18.9	20.3	22.2	20.3	27.5	66.9	59.9	11.7	2.32	5.64	14.1
MAX	26	25	26	26	25	61	92	84	26	15	23	82
MIN	9.4	16	13	16	17	16	49	28	3.1	.20	.00	.00
AC-FT	891	1130	1250	1360	1170	1690	3980	3680	695	142	347	838

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2000, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	12.6	17.4	15.0	14.5	17.1	26.9	74.5	173	50.8	17.3	17.5	6.73				
MAX	71.8	75.9	44.3	32.1	42.7	62.1	184	779	135	66.5	63.4	31.1				
(WY)	1985	1985	1985	1988	1988	1988	1988	1984	1984	1995	1984	1984				
MIN	.000	2.15	4.40	4.86	5.14	6.55	18.9	10.4	5.89	.002	.000	.000				
(WY)	1995	1995	1996	1991	1990	1995	1996	1989	1990	1993	1993	1990				

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1984 - 2000
ANNUAL TOTAL	27422.4	8659.68	
ANNUAL MEAN	75.1	23.7	32.9
HIGHEST ANNUAL MEAN			73.6
LOWEST ANNUAL MEAN			7.84
HIGHEST DAILY MEAN	1430	Apr 30	1770
LOWEST DAILY MEAN	3.0	Sep 17	a.00
ANNUAL SEVEN-DAY MINIMUM	8.4	Sep 12	.00
INSTANTANEOUS PEAK FLOW			152
INSTANTANEOUS PEAK STAGE			c7.85
ANNUAL RUNOFF (AC-FT)	54390	17180	23840
10 PERCENT EXCEEDS	193	63	73
50 PERCENT EXCEEDS	20	19	15
90 PERCENT EXCEEDS	13	.20	.00

e Estimated.  
a No flow many days, most years.  
b From rating curve extended above 450 ft<sup>3</sup>/s.  
c Maximum gage height, 8.13 ft, Dec 10, backwater from ice.  
d Maximum gage height, 10.63 ft, Jun 28, 1995, datum then in use.

## PLATTE RIVER BASIN

06710247 SOUTH PLATTE RIVER BELOW UNION AVENUE, AT ENGLEWOOD, CO

LOCATION.--Lat 39°37'57", long 105°00'52", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.9, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on right bank 100 ft downstream from Englewood Water Treatment Plant, 200 ft downstream from Union Avenue bridge in Englewood, and 7.7 mi downstream from Chatfield Dam.

DRAINAGE AREA.--3,043 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1996 to current year.

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 5,290 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Chatfield Reservoir (station 06709600) 7.7 mi upstream. Diversions for municipal use by City of Englewood 100 ft upstream from gage. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	38	69	81	41	46	151	373	232	201	102	53
2	63	61	69	82	41	45	177	384	241	202	145	43
3	67	81	78	81	40	46	168	240	267	171	90	40
4	63	84	92	83	41	46	162	275	267	185	73	38
5	61	80	90	72	43	46	160	374	265	216	92	37
6	64	80	86	60	44	44	137	350	269	186	92	26
7	59	80	77	50	49	51	127	359	270	138	101	21
8	40	81	66	44	65	54	128	437	291	139	88	23
9	38	86	67	43	61	50	129	229	334	140	40	21
10	34	87	69	45	67	52	128	284	369	156	25	17
11	37	84	70	51	66	58	131	360	367	198	24	19
12	38	75	70	58	67	58	131	254	337	175	56	20
13	35	51	69	56	68	58	127	212	278	155	89	16
14	29	50	66	54	67	57	114	205	218	210	62	20
15	31	55	56	56	66	70	118	227	191	201	50	20
16	57	76	56	56	64	135	117	250	194	170	57	16
17	55	74	56	56	65	134	119	343	209	671	349	18
18	47	71	58	56	73	89	130	291	107	390	214	23
19	84	72	55	63	61	85	126	73	149	141	186	24
20	75	72	53	69	58	83	120	90	272	148	146	90
21	67	72	52	70	59	99	91	143	150	161	62	45
22	55	118	52	71	60	83	97	198	279	135	43	50
23	55	117	56	71	62	81	100	231	259	142	47	72
24	56	77	54	71	58	80	93	234	202	118	73	90
25	52	76	54	74	56	80	92	249	203	99	141	51
26	37	79	54	72	57	80	84	233	243	84	255	55
27	33	77	55	83	57	81	136	230	307	68	91	49
28	31	75	70	72	57	82	278	229	354	43	241	46
29	35	76	86	65	56	120	324	227	185	71	193	73
30	36	74	86	66	---	110	402	224	143	109	51	136
31	33	---	79	60	---	172	---	235	---	95	54	---
TOTAL	1536	2279	2070	1991	1669	2375	4397	8043	7452	5318	3332	1252
MEAN	49.5	76.0	66.8	64.2	57.6	76.6	147	259	248	172	107	41.7
MAX	84	118	92	83	73	172	402	437	369	671	349	136
MIN	29	38	52	43	40	44	84	73	107	43	24	16
AC-FT	3050	4520	4110	3950	3310	4710	8720	15950	14780	10550	6610	2480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1996 - 2000, BY WATER YEAR (WY)

	1996	1997	1998	1999	2000	1996	1997	1998	1999	2000		
MEAN	68.3	61.3	45.4	43.1	47.7	63.3	184	458	508	347	306	74.7
MAX	111	83.5	76.4	73.6	66.6	112	403	932	1222	550	485	96.0
(WY)	1999	1998	1998	1998	1998	1998	1998	1998	1999	1999	1999	1998
MIN	30.5	28.5	14.7	12.7	20.0	27.1	89.8	158	205	172	107	41.7
(WY)	1997	1999	1999	1997	1999	1996	1997	1996	1996	2000	1996	2000

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1996 - 2000	
ANNUAL TOTAL	108201.4		41714			
ANNUAL MEAN	296		114		207	
HIGHEST ANNUAL MEAN					293	
LOWEST ANNUAL MEAN					114	
HIGHEST DAILY MEAN	1940	Jun 18	671	Jul 17	1940	Jun 18 1999
LOWEST DAILY MEAN	9.4	Feb 24	16	Sep 13	3.3	Apr 24 1996
ANNUAL SEVEN-DAY MINIMUM	12	Jan 9	18	Sep 10	8.7	Mar 5 1996
INSTANTANEOUS PEAK FLOW			1820		2150	
INSTANTANEOUS PEAK STAGE			13.88		14.19	
ANNUAL RUNOFF (AC-FT)	214600		82740		149600	
10 PERCENT EXCEEDS	1030		249		515	
50 PERCENT EXCEEDS	72		76		79	
90 PERCENT EXCEEDS	19		41		16	



06710385 BEAR CREEK ABOVE EVERGREEN, CO

LOCATION.--Lat 39°37'58", long 105°19'59", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.9, T.5 S., R.71 W., Jefferson County, Hydrologic Unit 10190002, on right bank 0.6 mi upstream from Evergreen Lake dam at Evergreen.

DRAINAGE AREA.--104 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,076 ft above sea level, from topographic map. Prior to May 1, 1986, at site 200 ft downstream at present datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by small diversions for irrigation. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	26	e16	e14	e13	e15	e17	46	39	e23	e19	e34
2	33	20	e16	e14	e14	e15	e19	48	39	e23	e20	e27
3	32	27	e15	e13	e15	e13	e22	53	36	e25	e20	e24
4	31	24	e14	e14	e14	e15	e24	57	35	e25	e27	e23
5	31	24	e15	e15	e14	e15	30	60	35	e21	e23	e21
6	31	24	e15	e15	e15	e16	29	61	e31	e18	e19	e19
7	38	23	e16	e15	e17	e16	27	57	e27	e16	e18	e18
8	39	24	e15	e16	e17	e17	24	60	e27	e16	e17	e20
9	37	24	e13	e15	e19	e16	26	53	e29	e18	e16	e19
10	35	22	e12	e13	e18	e14	28	51	e30	e24	e15	e18
11	33	23	e12	e15	e17	e15	25	51	e33	e20	e15	e19
12	31	22	e13	e16	e16	e15	26	47	e30	e19	e16	e18
13	30	21	e13	e15	e16	e17	27	41	e27	e28	e19	e18
14	30	22	e13	e14	e16	e17	28	42	e26	e22	e18	e16
15	29	22	e11	e15	e17	e18	30	40	e26	e19	e16	e17
16	30	21	e12	e16	e16	e16	27	40	e26	e20	e16	e17
17	26	22	e11	e17	e16	e17	29	42	e34	e109	e18	e17
18	33	21	e11	e16	e15	e17	33	41	e36	e60	e28	e16
19	30	e14	e12	e16	e14	e15	32	40	e29	e41	e24	e17
20	31	e15	e13	e15	e15	e18	27	44	e33	e36	e18	e26
21	30	e15	e12	e15	e16	e17	30	42	e30	e34	e17	e30
22	29	e16	e11	e14	e16	e16	35	42	e26	e31	e19	e38
23	29	e11	e12	e13	e15	e16	41	45	e25	e33	e25	e36
24	28	e12	e12	e14	e16	e18	39	44	e25	e29	e27	e41
25	28	e13	e13	e15	e15	e17	36	47	e27	e27	e28	e41
26	27	e14	e14	e14	e14	e18	37	45	e37	e29	e27	e45
27	27	e15	e15	e14	e15	e17	40	40	e45	e37	e39	e44
28	26	e14	e15	e13	e15	e18	46	38	e38	e42	e34	e33
29	27	e15	e16	e13	e14	e18	46	42	e32	e46	e46	e23
30	24	e16	e16	e14	---	e17	58	42	e27	e46	e43	e17
31	26	---	e15	e13	---	e17	---	41	---	e38	e31	---
TOTAL	946	582	419	451	450	506	938	1442	940	975	718	752
MEAN	30.5	19.4	13.5	14.5	15.5	16.3	31.3	46.5	31.3	31.5	23.2	25.1
MAX	39	27	16	17	19	18	58	61	45	109	46	45
MIN	24	11	11	13	13	13	17	38	25	16	15	16
AC-FT	1880	1150	831	895	893	1000	1860	2860	1860	1930	1420	1490

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2000, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	29.5	24.0	16.9	14.1	13.1	16.4	37.3	101	109	61.8	54.6	35.0				
MAX	85.1	56.2	32.8	19.6	18.2	26.7	89.7	238	280	134	129	54.2				
(WY)	1985	1985	1985	1998	1996	1992	1987	1998	1995	1995	1999	1997				
MIN	16.0	9.65	8.67	9.00	8.68	9.57	13.9	44.1	31.3	27.5	20.1	17.2				
(WY)	1995	1993	1995	1995	1994	1995	1991	1993	2000	1994	1994	1994				

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1985 - 2000

ANNUAL TOTAL	23156.9	9119		
ANNUAL MEAN	63.4	24.9	42.8	
HIGHEST ANNUAL MEAN			70.5	1998
LOWEST ANNUAL MEAN			22.5	1993
HIGHEST DAILY MEAN	417	May 26	421	Jun 18 1995
LOWEST DAILY MEAN	e9.9	Apr 2	e11	Nov 23
ANNUAL SEVEN-DAY MINIMUM	e10	Feb 17	e12	Dec 15
INSTANTANEOUS PEAK FLOW			e,a171	Jul 17
INSTANTANEOUS PEAK STAGE			3.66	Jul 17
ANNUAL RUNOFF (AC-FT)	45930	18090	31040	
10 PERCENT EXCEEDS	167	41	94	
50 PERCENT EXCEEDS	27	22	26	
90 PERCENT EXCEEDS	12	14	12	

e Estimated.  
a Peak for year occurred during period of estimated record.

## PLATTE RIVER BASIN

06710500 BEAR CREEK AT MORRISON, CO

LOCATION.--Lat 39°39'11", long 105°11'43", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.35, T.4 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank at Morrison, 180 ft upstream from bridge on State Highway 8, and 0.2 mi upstream from Mount Vernon Creek.

DRAINAGE AREA.--164 mi<sup>2</sup>.

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. Water-quality data available, October 1976 to September 1981.

REVISED RECORDS.--WSP 976: 1942. WSP 1310: 1888, 1890-91, 1898, 1935(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,780.43 ft above 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 downstream at present datum.

REMARKS.--Records good except for period Dec. 4 to Feb. 26, which are fair, and estimated daily discharges, which are poor. Small diversions for irrigation of about 1,000 acres upstream from station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	34	23	e21	e16	18	26	55	35	18	12	41
2	38	25	24	e20	e18	21	26	57	34	18	12	32
3	37	33	21	e20	e20	17	25	59	33	18	13	27
4	35	29	e18	e20	e20	20	37	61	30	18	17	26
5	35	32	e15	e20	e20	22	48	66	32	15	19	17
6	35	28	e20	e20	e20	20	53	67	29	14	15	20
7	37	29	22	e20	e20	22	47	61	26	13	12	18
8	48	30	22	e20	20	19	42	67	24	13	11	19
9	42	30	e18	e20	20	17	44	64	25	14	11	17
10	39	26	e20	e20	19	16	43	58	24	18	10	16
11	39	29	e22	e20	18	15	42	54	26	20	9.8	14
12	38	25	e21	e20	e18	17	42	52	26	16	10	14
13	36	25	24	e20	e18	17	41	43	24	21	14	13
14	36	24	e23	e19	19	17	43	44	21	18	15	13
15	34	25	e23	19	22	19	44	41	21	16	12	13
16	38	24	e23	20	20	15	42	40	19	14	12	13
17	31	25	23	21	20	22	43	42	29	80	16	12
18	e39	28	21	20	18	22	46	42	31	60	33	12
19	39	17	22	22	e18	17	45	41	24	37	27	13
20	39	22	e20	21	20	25	40	40	22	30	17	17
21	40	28	e17	21	21	18	41	39	23	25	14	23
22	39	24	e16	19	23	19	45	37	19	21	15	23
23	38	e16	e18	e18	21	22	59	38	18	19	18	24
24	36	e19	20	e18	21	25	52	38	18	17	19	28
25	36	e30	21	e17	20	26	47	42	19	16	20	25
26	35	36	20	e17	e14	24	47	41	28	15	19	25
27	35	34	20	e17	20	24	48	38	39	17	28	22
28	32	26	20	e15	21	26	53	36	34	16	29	19
29	35	25	21	e15	21	25	54	36	29	16	35	19
30	30	24	21	e15	---	24	72	38	22	14	40	19
31	31	---	e21	e16	---	23	---	37	---	13	35	---
TOTAL	1141	802	640	591	566	634	1337	1474	784	660	569.8	594
MEAN	36.8	26.7	20.6	19.1	19.5	20.5	44.6	47.5	26.1	21.3	18.4	19.8
MAX	48	36	24	22	23	26	72	67	39	80	40	41
MIN	30	16	15	15	14	15	25	36	18	13	9.8	12
AC-FT	2260	1590	1270	1170	1120	1260	2650	2920	1560	1310	1130	1180

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1900 - 2000, BY WATER YEAR (WY)

	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	31.3	23.7	17.1	13.9	14.4	20.3	53.8	149	138	72.5	64.7	43.8																																																																																									
MAX	115	86.7	57.0	34.0	36.0	48.3	296	525	551	249	307	371																																																																																									
(WY)	1985	1924	1924	1924	1924	1960	1942	1973	1949	1949	1923	1938																																																																																									
MIN	9.52	9.59	7.31	5.19	4.00	4.00	13.1	12.4	11.5	5.72	6.58	5.41																																																																																									
(WY)	1935	1957	1940	1950	1933	1933	1982	1963	1954	1963	1978	1978																																																																																									

## SUMMARY STATISTICS

FOR 1999 CALENDAR YEAR

FOR 2000 WATER YEAR

WATER YEARS 1900 - 2000

ANNUAL TOTAL	27786.2	9792.8	
ANNUAL MEAN	76.1	26.8	53.1
HIGHEST ANNUAL MEAN			125
LOWEST ANNUAL MEAN			14.6
HIGHEST DAILY MEAN	658	May 28	1410
LOWEST DAILY MEAN	6.3	Apr 11	a.80
ANNUAL SEVEN-DAY MINIMUM	12	Feb 17	3.0
INSTANTANEOUS PEAK FLOW			122
INSTANTANEOUS PEAK STAGE			4.96
ANNUAL RUNOFF (AC-FT)	55110	19420	38490
10 PERCENT EXCEEDS	187	42	120
50 PERCENT EXCEEDS	36	22	26
90 PERCENT EXCEEDS	14	15	11

e Estimated.

a Result of freezeup.

06710605 BEAR CREEK ABOVE BEAR CREEK LAKE NEAR MORRISON, CO

LOCATION.--Lat 39°39'08", long 105°10'23", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.1, T.5 S. R.70 W., Jefferson County, Hydrologic Unit 10190002, on right bank, 0.9 mi downstream from Strain Gulch, 1.0 mi east of Morrison, and 1.1 mi downstream from Mt. Vernon Creek.

DRAINAGE AREA.--176 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage 5,645 ft above sea level, from topographic map. Prior to Apr. 21, 1989, at datum 3.37 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions to Harriman Canal, and Ward Canal, 0.7 mi upstream from gage. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	22	27	25	e24	18	5.2	45	12	6.8	3.9	27
2	30	16	28	25	26	22	5.8	43	10	5.9	4.0	15
3	29	22	27	e25	24	18	6.4	38	8.8	5.3	4.7	11
4	27	21	e26	e26	23	21	11	42	7.5	6.3	9.1	9.5
5	26	23	e27	e27	22	22	30	44	7.9	6.5	10	7.7
6	25	21	28	e27	22	16	30	46	7.0	6.0	7.4	7.9
7	27	22	27	e27	21	12	23	43	6.6	5.6	4.6	8.1
8	39	23	e27	e26	22	10	21	48	5.2	5.4	3.4	9.1
9	33	23	e29	e26	21	7.8	24	50	2.3	5.8	3.1	9.0
10	30	20	e28	22	21	6.8	24	45	.88	7.7	2.8	7.4
11	27	22	e28	25	20	6.2	22	39	2.0	9.4	2.9	7.4
12	25	20	26	26	20	8.2	18	33	4.0	6.3	3.1	7.9
13	24	20	28	23	20	8.2	16	25	4.8	11	6.4	7.3
14	23	20	25	23	20	7.9	17	26	4.0	8.4	8.3	6.8
15	21	20	e24	22	23	9.8	18	24	3.7	6.3	4.5	6.6
16	26	20	27	23	21	5.5	17	22	3.1	5.5	3.4	5.5
17	21	22	28	24	21	12	18	31	8.9	62	8.0	5.1
18	23	25	27	23	21	13	21	32	12	44	25	5.2
19	15	16	e24	25	21	7.8	22	27	5.6	18	17	5.6
20	17	20	e20	25	19	15	20	27	3.5	11	7.6	12
21	17	26	e20	24	22	9.1	18	24	7.8	11	5.9	13
22	15	25	e19	23	23	9.3	19	21	7.5	9.8	7.9	8.5
23	14	e22	e20	20	21	12	36	23	6.4	8.3	11	9.3
24	12	e22	21	20	22	15	31	23	8.4	8.3	13	12
25	12	e27	23	21	20	15	23	26	11	7.9	14	9.0
26	18	36	23	21	15	13	23	26	16	7.0	12	9.4
27	21	36	24	23	21	11	23	20	17	8.1	19	7.7
28	19	28	25	e22	22	12	28	20	11	8.0	17	5.7
29	20	28	25	e23	21	8.6	30	23	9.4	8.5	19	7.7
30	18	28	25	e23	---	5.5	56	23	8.8	6.2	25	12
31	20	---	24	e23	---	4.1	---	20	---	4.8	20	---
TOTAL	706	696	780	738	619	361.8	656.4	979	223.08	331.1	303.0	275.4
MEAN	22.8	23.2	25.2	23.8	21.3	11.7	21.9	31.6	7.44	10.7	9.77	9.18
MAX	39	36	29	27	26	22	56	50	17	62	25	27
MIN	12	16	19	20	15	4.1	5.2	20	.88	4.8	2.8	5.1
AC-FT	1400	1380	1550	1460	1230	718	1300	1940	442	657	601	546

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2000, BY WATER YEAR (WY)

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	17.4	18.0	19.0	17.1	16.3	19.5	52.4	134	120	46.7	38.7	21.5			
MAX	38.8	44.9	33.8	32.3	25.1	47.0	191	382	512	216	127	58.7			
(WY)	1998	1998	1998	1998	1998	1998	1998	1998	1995	1995	1999	1997			
MIN	4.34	.38	9.50	1.69	.23	1.26	2.83	6.95	7.44	5.23	2.80	4.17			
(WY)	1990	1990	1995	1995	1995	1995	1989	1989	2000	1989	1989	1989			

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1986 - 2000
ANNUAL TOTAL	26451.84	6668.78	
ANNUAL MEAN	72.5	18.2	44.3
HIGHEST ANNUAL MEAN			96.1
LOWEST ANNUAL MEAN			10.4
HIGHEST DAILY MEAN	647	May 26	684
LOWEST DAILY MEAN	.73	Mar 18	.10
ANNUAL SEVEN-DAY MINIMUM	1.3	Mar 16	3.1
INSTANTANEOUS PEAK FLOW			98
INSTANTANEOUS PEAK STAGE			4.73
ANNUAL RUNOFF (AC-FT)	52470	13230	32120
10 PERCENT EXCEEDS	193	28	98
50 PERCENT EXCEEDS	27	20	20
90 PERCENT EXCEEDS	6.6	5.8	4.2

e Estimated.

## 06710995 TURKEY CREEK AT MOUTH OF CANYON NEAR MORRISON, CO

LOCATION.--Lat 39°37'13", long 105°11'41", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.14, T.5 S., R.70 W., Jefferson County, Hydrologic Unit 10190002, on left bank 0.45 mi above county road 48, and 2.7 mi south of Morrison.

DRAINAGE AREA.--47.4 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1998 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,050 ft above sea level, from topographic map.

REMARKS.--Records poor. Natural flow of stream affected by several diversions for irrigation, upstream of station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.2	1.1	1.3	e1.4	1.7	2.9	e17	e1.7	.05	.00	2.0
2	2.4	.46	1.3	1.4	e1.3	3.0	2.3	e11	1.5	.03	.00	1.1
3	2.2	.59	.49	1.4	e1.4	2.1	2.6	e13	1.4	.01	.00	.60
4	1.8	.75	e.61	1.3	1.4	3.4	14	e10	1.4	.03	.00	.25
5	1.9	.65	e.72	1.4	1.2	4.7	68	e10	1.4	.00	.00	.11
6	2.9	.59	e.70	1.3	1.2	4.9	66	e9.5	1.4	.00	.00	.09
7	3.9	.61	e.82	1.2	1.2	7.0	28	e8.8	1.1	.00	.00	.08
8	3.3	.81	e.80	1.3	1.2	4.8	19	e8.0	.70	.00	.00	.07
9	3.1	.93	e.89	1.4	1.4	2.8	18	e17	.38	.00	.00	.07
10	3.2	.95	e1.0	1.4	1.4	1.1	13	e12	.05	.00	.00	.07
11	3.6	1.3	1.2	1.5	1.3	1.4	28	e11	.05	.00	.00	.05
12	4.1	.68	1.1	1.7	1.2	1.9	18	e9.5	.17	.00	.00	.04
13	3.8	.53	1.3	1.7	1.2	1.6	26	e8.2	.06	.00	.02	.03
14	2.5	.53	1.2	1.5	.95	2.7	19	e7.8	.07	.00	.00	.02
15	.47	.58	1.0	1.5	.93	1.6	e11	e7.4	.06	.00	.00	.00
16	.36	.61	1.2	1.8	.77	.53	e12	e7.1	.06	.00	.00	.00
17	.52	.89	1.4	2.3	.67	1.7	e14	e6.8	.09	1.4	.00	.00
18	.92	.97	1.3	2.7	.71	2.2	e13	e10	.09	1.9	3.9	.00
19	.89	.47	1.3	3.0	.61	2.7	e10	e8.6	.07	.55	3.0	.00
20	1.6	.71	1.2	3.3	.69	1.9	e12	e7.7	.05	.24	.75	.02
21	1.6	.64	1.0	3.3	.63	1.1	e14	e6.6	.04	.00	.28	.01
22	1.1	.41	1.1	2.4	.63	2.0	e10	e5.6	.03	.00	.12	.03
23	.69	.78	1.2	2.1	.52	7.5	e25	e5.0	.02	.00	.11	.04
24	.84	1.9	1.2	2.3	.46	11	e15	e3.0	.01	.04	.09	.07
25	.51	2.7	1.2	1.8	.35	13	e17	e3.4	.02	.03	.01	.09
26	.49	1.7	1.2	1.8	.43	17	e17	e3.4	.14	.00	.00	.10
27	.53	1.4	1.3	1.6	.27	19	e15	e3.2	.91	.00	.02	.07
28	1.1	1.2	1.4	1.6	.61	19	e13	e2.7	1.1	.00	.04	.06
29	2.3	1.2	1.4	e1.6	.76	24	e14	e2.4	.10	.00	2.9	.06
30	1.0	1.5	1.4	e1.6	---	5.8	e25	e2.1	.08	.00	1.8	.06
31	1.0	---	1.3	e1.5	---	.88	---	e1.9	---	.00	1.2	---
TOTAL	56.32	28.24	34.33	56.0	26.79	174.01	561.8	239.7	14.25	4.28	14.24	5.19
MEAN	1.82	.94	1.11	1.81	.92	5.61	18.7	7.73	.47	.14	.46	.17
MAX	4.1	2.7	1.4	3.3	1.4	24	68	17	1.7	1.9	3.9	2.0
MIN	.36	.41	.49	1.2	.27	.53	2.3	1.9	.01	.00	.00	.00
AC-FT	112	56	68	111	53	345	1110	475	28	8.5	28	10

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2000, BY WATER YEAR (WY)

	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
MEAN	1.12	2.70	1.10	1.49	1.42	3.45	45.9	54.3	10.2	1.22	5.77	.98
MAX	1.82	4.45	1.11	1.81	1.93	5.61	101	80.4	17.6	1.78	12.1	2.25
(WY)	2000	1999	2000	2000	1999	2000	1998	1998	1999	1998	1999	1999
MIN	.43	.94	1.10	1.18	.92	1.29	17.5	7.73	.47	.14	.46	.17
(WY)	1999	2000	1999	1999	2000	1999	1999	2000	2000	2000	2000	2000

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1998 - 2000	
ANNUAL TOTAL	4120.45		1215.15			
ANNUAL MEAN	11.3		3.32		7.38	
HIGHEST ANNUAL MEAN					11.5	
LOWEST ANNUAL MEAN					3.32	
HIGHEST DAILY MEAN	177	May 1	68	Apr 5	177	May 1 1999
LOWEST DAILY MEAN	.18	Sep 29	.00	Jul 5	.00	Jul 5 2000
ANNUAL SEVEN-DAY MINIMUM	.58	Sep 13	.00	Jul 5	.00	Jul 5 2000
INSTANTANEOUS PEAK FLOW			218	Apr 5	248	May 25 1999
INSTANTANEOUS PEAK STAGE			5.65	Apr 5	6.16	May 25 1999
ANNUAL RUNOFF (AC-FT)	8170		2410		5350	
10 PERCENT EXCEEDS	29		11		36	
50 PERCENT EXCEEDS	1.4		1.2		1.5	
90 PERCENT EXCEEDS	.59		.00		.06	

e Estimated.

06711500 BEAR CREEK AT MOUTH, AT SHERIDAN, CO

LOCATION.--Lat 39°39'08", long 105°01'57", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.5, T.5 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, 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 upstream from mouth, and 2.1 mi west of city hall in Englewood.

DRAINAGE AREA.--260 mi<sup>2</sup>.

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.

REVISED RECORDS.--WSP 1730: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,295 ft above sea level, 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 ft higher.

REMARKS.--No estimated daily discharges. Records good except for Jan. 4,7, and May 23 to June 13, which are fair. Flow regulated by Bear Creek Lake since July 1979. Storage and diversions upstream from station for irrigation of about 12,000 acres.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	14	56	32	26	26	25	82	22	11	4.8	41
2	43	18	12	32	29	27	34	68	19	8.3	6.1	35
3	38	14	25	34	31	28	33	57	17	7.1	6.4	29
4	65	12	35	34	32	26	26	58	13	6.2	6.4	19
5	70	9.3	34	32	31	28	40	55	14	5.5	7.2	18
6	12	11	33	31	31	28	58	57	13	5.5	8.4	16
7	13	13	37	28	30	25	51	59	10	6.4	7.9	14
8	35	23	37	30	30	22	40	87	7.6	6.3	7.5	12
9	42	28	32	32	31	18	39	93	7.7	6.8	7.6	9.3
10	41	32	28	31	30	15	42	71	5.9	6.6	6.0	8.8
11	45	32	31	32	30	14	38	57	4.5	7.2	6.8	8.6
12	43	33	31	32	27	13	33	51	5.1	7.1	5.6	8.1
13	57	32	32	31	29	14	29	49	5.3	5.6	6.4	7.6
14	135	31	32	30	28	12	27	43	5.1	6.9	5.7	7.9
15	153	31	30	31	29	16	30	41	5.1	5.8	6.9	8.6
16	130	30	32	31	29	27	35	35	6.2	35	7.9	7.9
17	117	30	35	33	29	21	29	55	15	87	16	7.5
18	66	31	34	33	30	21	36	74	14	76	14	7.0
19	26	32	33	33	27	18	39	54	15	41	15	10
20	23	27	30	35	27	19	39	54	12	24	18	23
21	21	33	31	34	29	23	31	46	9.8	18	19	12
22	20	43	31	31	31	20	32	40	9.2	14	18	17
23	19	35	32	30	30	18	47	32	8.7	11	11	28
24	19	28	33	28	29	20	53	34	7.9	8.5	9.4	32
25	18	28	32	30	27	22	45	43	8.3	7.1	9.2	22
26	16	39	31	32	21	21	41	41	22	6.9	12	22
27	9.8	45	30	38	21	20	40	35	26	6.6	17	20
28	10	42	30	33	26	20	42	29	24	6.9	25	18
29	12	40	31	28	27	26	50	24	20	6.9	39	17
30	12	72	32	24	---	19	103	25	15	6.9	33	15
31	12	---	32	24	---	33	---	25	---	6.0	44	---
TOTAL	1365.8	888.3	994	969	827	660	1207	1574	367.4	464.1	407.2	501.3
MEAN	44.1	29.6	32.1	31.3	28.5	21.3	40.2	50.8	12.2	15.0	13.1	16.7
MAX	153	72	56	38	32	33	103	93	26	87	44	41
MIN	9.8	9.3	12	24	21	12	25	24	4.5	5.5	4.8	7.0
AC-FT	2710	1760	1970	1920	1640	1310	2390	3120	729	921	808	994

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1927 - 2000, BY WATER YEAR (WY)

	24.0	23.8	22.0	20.0	19.5	22.4	54.5	155	106	38.0	39.8	25.3
MEAN	24.0	23.8	22.0	20.0	19.5	22.4	54.5	155	106	38.0	39.8	25.3
MAX	151	99.8	61.3	46.3	43.5	94.4	394	859	630	238	255	256
(WY)	1985	1985	1985	1970	1942	1960	1942	1973	1949	1983	1984	1938
MIN	1.52	3.53	8.21	3.85	5.09	5.35	3.33	1.16	1.67	1.77	3.05	1.82
(WY)	1955	1955	1951	1945	1945	1935	1935	1963	1966	1963	1954	1956

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1927 - 2000	
ANNUAL TOTAL	33664.3		10225.1			
ANNUAL MEAN	92.2		27.9		46.3	
HIGHEST ANNUAL MEAN					157	
LOWEST ANNUAL MEAN					6.53	
HIGHEST DAILY MEAN	629		May 28		4020	
LOWEST DAILY MEAN	5.5		Apr 11		.00	
ANNUAL SEVEN-DAY MINIMUM	7.1		Mar 20		.33	
INSTANTANEOUS PEAK FLOW			515		Jul 16	
INSTANTANEOUS PEAK STAGE			4.40		Jul 16	
ANNUAL RUNOFF (AC-FT)	66770		20280		33570	
10 PERCENT EXCEEDS	236		45		99	
50 PERCENT EXCEEDS	36		28		17	
90 PERCENT EXCEEDS	12		7.1		6.0	

a Present datum, from floodmarks, from rating curve extended above 3400 ft<sup>3</sup>/s.

## PLATTE RIVER BASIN

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO

LOCATION.--Lat 39°39'54", long 105°00'13", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.33, T.4 S., R.68 W., Arapahoe County, Hydrologic Unit 10190002, on right bank, 0.3 mi downstream from Dartmouth Ave bridge at Englewood, and 1.4 mi downstream from Bear Creek.

DRAINAGE AREA.--3,387 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,250 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. 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 Dam since May 29, 1975 (station 06709600), and Bear Creek Dam since July 1979.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	61	133	120	76	85	204	507	323	209	109	115
2	120	86	93	121	81	85	252	500	336	215	154	92
3	117	105	114	125	84	89	240	317	365	177	105	83
4	135	106	145	122	83	84	213	344	367	189	99	68
5	148	100	133	114	83	86	227	454	371	228	105	67
6	93	104	125	101	83	85	229	434	369	203	105	56
7	89	102	120	91	86	89	207	439	374	149	112	46
8	90	112	110	87	101	96	188	637	400	151	105	43
9	95	123	106	88	102	82	182	364	444	151	60	43
10	92	127	103	88	104	81	189	347	462	170	41	37
11	97	126	105	93	103	84	190	443	432	225	36	37
12	95	120	104	99	101	85	189	327	376	210	66	39
13	105	92	104	98	103	86	189	266	303	191	108	35
14	168	90	103	95	102	82	181	252	224	235	80	37
15	189	92	95	97	103	105	221	264	183	243	64	40
16	210	113	96	98	101	197	222	282	194	225	78	37
17	195	112	98	98	103	171	213	456	239	1070	525	35
18	132	114	97	99	118	128	240	459	119	554	432	39
19	133	114	96	105	104	110	250	136	148	185	237	44
20	117	110	94	112	95	113	252	149	296	174	176	159
21	104	117	94	112	96	139	204	193	146	186	93	69
22	89	191	95	109	98	117	225	238	295	149	75	84
23	88	171	98	108	106	106	253	266	275	156	70	124
24	89	120	96	107	95	105	249	280	201	133	90	160
25	87	115	95	112	93	107	233	334	204	114	142	86
26	70	128	95	115	90	106	216	298	287	101	293	86
27	56	133	96	135	89	106	257	282	340	88	118	75
28	55	126	107	116	92	106	420	277	410	60	296	71
29	59	124	122	102	93	163	463	282	200	81	302	86
30	59	147	126	98	---	148	690	295	146	121	98	153
31	56	---	118	94	---	265	---	318	---	107	131	---
TOTAL	3355	3481	3316	3259	2768	3491	7488	10440	8829	6450	4505	2146
MEAN	108	116	107	105	95.4	113	250	337	294	208	145	71.5
MAX	210	191	145	135	118	265	690	637	462	1070	525	160
MIN	55	61	93	87	76	81	181	136	119	60	36	35
AC-FT	6650	6900	6580	6460	5490	6920	14850	20710	17510	12790	8940	4260

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2000, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
MEAN	157	164	98.4	82.6	86.7	133	382	882	785	563	437	160	
MAX	1050	733	268	216	166	261	1074	2576	2479	2337	1574	724	
(WY)	1985	1985	1985	1985	1985	1983	1984	1987	1995	1995	1984	1984	
MIN	44.8	39.3	48.9	45.4	35.5	51.7	123	209	243	79.0	98.8	43.7	
(WY)	1993	1990	1995	1991	1991	1991	1991	1989	1990	1994	1994	1992	

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1983 - 2000
ANNUAL TOTAL	158482	59528	
ANNUAL MEAN	434	163	304
HIGHEST ANNUAL MEAN			692
LOWEST ANNUAL MEAN			124
HIGHEST DAILY MEAN	3020	May 29	4010
LOWEST DAILY MEAN	44	Feb 20	20
ANNUAL SEVEN-DAY MINIMUM	46	Feb 19	37
INSTANTANEOUS PEAK FLOW		2330	Aug 17
INSTANTANEOUS PEAK STAGE		4.14	Aug 17
ANNUAL RUNOFF (AC-FT)	314300	118100	220400
10 PERCENT EXCEEDS	1430	317	781
50 PERCENT EXCEEDS	117	114	140
90 PERCENT EXCEEDS	56	79	51

a From rating curve extended above 3800 ft<sup>3</sup>/s.

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1985 to current year.  
 pH: March 1985 to current year.  
 WATER TEMPERATURE: March 1985 to current year.  
 DISSOLVED OXYGEN: March 1985 to current year.

INSTRUMENTATION.--Water-quality monitor since March 1985.

REMARKS.--Water temperature record is fair. Specific conductance record is fair. pH record is fair. Dissolved oxygen record is fair. Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1410 microsiemens, Feb. 18, 2000; minimum, 139 microsiemens, Aug. 17, 2000.  
 pH: Maximum, 10.4 units, Aug. 27, 1997; minimum, 6.4 units, Oct. 18, 1989.  
 WATER TEMPERATURE: Maximum, 29.0°C, Aug. 17, 1986, July 30, 1987; minimum, 0.0°C, freezing point on many days during winter months.  
 DISSOLVED OXYGEN: Maximum, 19.0 mg/L, Feb. 7 and 9, 1995; minimum, 3.4 mg/L, Jul. 31, 1987.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1410 microsiemens, Feb. 18; minimum, 139 microsiemens, Aug. 17.  
 pH: Maximum, 9.2 units, May 31; minimum, 7.3 units, June 17.  
 WATER TEMPERATURE: Maximum, 26.4°C, Aug. 10, 11; minimum, 0.0°C, Jan 4, 6.  
 DISSOLVED OXYGEN: Maximum, 16.4 mg/L, Jan. 23; minimum, 4.2 mg/L, Aug. 11.

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.0	---	---	16.2	7.5	10.7	11.9	8.8	10.2	13.0	9.5	10.5
2	14.1	6.2	9.5	14.9	8.6	10.6	12.6	8.7	10.0	13.3	9.4	10.7
3	14.5	6.3	9.9	14.6	8.5	10.5	11.9	8.7	10.2	12.8	9.7	11.0
4	14.1	6.9	10.0	14.9	8.2	10.6	12.1	9.7	10.6	13.0	9.9	11.3
5	14.3	6.6	10.3	16.0	8.2	11.3	12.4	9.9	10.8	13.2	9.8	11.0
6	15.4	5.5	9.7	15.0	8.2	10.9	12.4	9.6	10.5	13.5	10.2	11.4
7	12.5	5.5	8.7	15.2	8.0	10.3	12.9	9.6	10.6	13.6	9.9	11.2
8	16.1	6.8	10.8	14.3	7.1	9.9	---	---	---	13.3	9.5	10.8
9	14.9	7.1	10.4	13.6	7.9	9.8	---	---	---	13.1	9.5	10.7
10	14.3	6.7	9.9	13.5	8.2	10.0	---	---	---	12.9	9.5	10.6
11	14.5	6.1	9.4	12.8	8.3	9.8	---	---	---	13.5	9.6	10.9
12	13.9	5.6	9.0	13.6	8.4	10.3	---	---	---	13.6	9.5	10.8
13	12.5	5.1	8.0	14.0	8.3	10.3	---	---	---	13.7	9.9	11.2
14	10.0	5.2	7.8	13.7	8.3	10.2	---	---	---	13.9	10.1	11.4
15	10.1	7.6	8.3	13.5	8.3	10.1	---	---	---	14.2	9.8	11.2
16	10.0	7.7	8.8	13.2	8.3	10.0	---	---	---	14.5	9.8	11.2
17	10.9	8.6	9.6	13.3	8.1	9.8	---	---	---	14.4	9.7	11.3
18	10.0	8.4	9.0	12.9	8.0	9.8	14.1	10.2	11.4	14.1	9.6	11.0
19	11.6	8.2	9.4	13.2	9.0	10.5	13.6	10.1	11.5	14.9	9.7	11.3
20	12.1	8.0	9.4	12.8	8.5	10.1	14.2	10.7	11.6	14.9	9.9	11.4
21	12.8	7.7	9.5	13.0	8.4	10.0	13.0	10.5	11.3	14.5	9.9	11.3
22	13.1	7.5	9.8	11.8	9.2	10.6	13.8	10.6	11.7	15.4	9.8	11.4
23	13.8	8.3	10.2	13.4	9.8	11.2	13.5	10.2	11.3	16.4	10.2	11.9
24	15.2	8.3	10.4	13.8	10.4	11.6	13.8	10.2	11.3	15.4	10.1	11.8
25	15.7	8.0	10.8	13.3	10.0	11.4	13.9	10.1	11.3	14.1	9.9	11.4
26	16.0	7.9	10.7	13.1	9.1	10.5	13.9	10.1	11.3	14.0	10.4	11.5
27	---	---	---	13.1	9.2	10.4	13.8	10.1	11.2	13.9	10.5	11.4
28	15.8	7.3	10.4	13.1	9.4	10.6	13.7	9.8	11.2	14.6	10.2	11.7
29	14.3	7.1	9.8	13.1	9.4	10.6	13.0	9.7	10.9	14.0	10.1	11.5
30	15.7	8.1	10.8	12.7	9.2	10.2	13.4	9.7	11.0	14.1	10.7	11.7
31	15.5	7.9	10.6	---	---	---	13.7	9.6	11.0	14.3	10.4	11.6
MONTH	16.1	5.1	9.7	16.2	7.1	10.4	14.2	8.7	11.0	16.4	9.4	11.2





PLATTE RIVER BASIN

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.6	7.7	8.1	8.6	8.0	8.3	8.5	7.8	8.1	8.7	7.7	8.1
2	8.5	7.7	8.1	8.6	7.9	8.3	8.6	7.7	8.1	8.7	7.7	8.2
3	8.7	7.7	8.2	8.9	8.0	8.4	8.2	7.7	7.9	8.6	7.7	8.1
4	8.6	7.7	8.2	8.9	8.0	8.4	8.5	7.7	8.0	8.5	7.7	8.0
5	8.7	7.7	8.2	8.8	7.9	8.4	8.3	7.7	8.0	8.5	7.7	8.1
6	8.6	7.7	8.2	9.0	8.0	8.6	8.7	7.7	8.1	8.4	7.7	8.0
7	8.4	7.7	8.0	9.0	8.0	8.5	8.4	7.7	8.0	8.7	7.7	8.0
8	8.4	7.7	8.0	9.0	7.9	8.4	8.2	7.7	7.9	8.2	7.7	8.0
9	8.4	7.7	8.1	8.9	7.9	8.4	8.3	7.6	7.9	8.2	7.7	8.0
10	8.4	7.7	8.1	8.9	7.9	8.3	8.3	7.6	7.9	8.6	7.7	8.1
11	8.5	7.7	8.2	8.6	7.9	8.2	8.4	7.6	8.0	8.4	7.7	8.1
12	8.6	7.7	8.2	8.8	7.7	8.2	8.4	7.6	8.0	8.5	7.7	8.1
13	8.6	7.7	8.2	8.5	7.7	8.1	8.3	7.6	7.9	8.6	7.7	8.1
14	8.4	7.7	8.1	8.4	7.8	8.1	8.4	7.7	8.0	8.6	7.7	8.1
15	8.2	7.7	8.0	8.3	7.8	8.1	8.3	7.6	7.9	8.7	7.8	8.2
16	8.2	7.9	8.0	8.6	7.8	8.2	8.3	7.6	8.0	8.8	7.8	8.2
17	8.3	7.8	8.0	8.5	7.6	8.1	8.3	7.7	8.0	8.8	7.8	8.3
18	8.1	7.8	7.9	8.7	7.6	8.1	8.4	7.7	8.0	8.8	7.8	8.3
19	8.6	7.9	8.2	8.6	7.7	8.1	8.3	7.7	8.0	8.9	7.8	8.4
20	8.7	7.8	8.2	8.6	7.7	8.1	8.2	7.7	8.0	8.9	7.8	8.3
21	8.7	7.8	8.2	8.5	7.6	8.0	8.1	7.7	7.9	8.9	7.8	8.3
22	8.7	7.7	8.2	8.1	7.7	7.9	8.2	7.7	8.0	8.9	7.8	8.3
23	8.8	7.8	8.3	8.8	7.8	8.2	8.3	7.7	8.0	8.9	7.8	8.3
24	8.7	7.8	8.3	8.6	7.8	8.2	8.3	7.7	8.0	9.0	7.7	8.3
25	8.7	7.8	8.3	8.5	7.9	8.2	8.3	7.7	8.0	8.9	7.7	8.3
26	8.6	7.8	8.2	8.7	7.9	8.2	8.3	7.7	8.0	8.6	7.8	8.2
27	8.6	7.8	8.2	8.6	7.8	8.1	8.4	7.7	8.0	8.6	7.8	8.1
28	8.6	7.9	8.3	8.6	7.7	8.1	8.6	7.7	8.1	8.7	7.8	8.2
29	8.5	7.9	8.2	8.6	7.7	8.1	8.6	7.7	8.1	8.5	7.6	8.0
30	8.6	7.9	8.3	8.6	7.7	8.1	8.6	7.7	8.1	8.5	7.5	8.0
31	8.6	7.9	8.3	---	---	---	8.7	7.7	8.1	8.5	7.5	7.9
MONTH	8.8	7.7	8.2	9.0	7.6	8.2	8.7	7.6	8.0	9.0	7.5	8.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	7.4	7.8	8.7	7.7	8.3	8.8	7.6	8.1	8.5	7.7	8.2
2	8.1	7.5	7.9	8.4	7.7	8.1	8.3	7.6	7.9	8.6	7.8	8.2
3	8.2	7.6	7.9	8.6	7.7	8.2	8.6	7.6	8.0	8.7	7.6	8.1
4	8.2	7.6	7.9	8.6	7.7	8.2	8.8	7.7	8.2	8.7	7.6	8.1
5	8.2	7.6	7.9	8.5	7.7	8.2	8.8	7.7	8.2	8.7	7.6	8.1
6	8.3	7.6	8.0	8.5	7.7	8.1	8.6	7.6	8.1	8.6	7.7	8.1
7	8.4	7.5	8.0	8.3	7.7	8.1	8.7	7.5	8.0	8.7	7.6	8.0
8	8.7	7.5	8.1	8.6	7.8	8.2	8.8	7.5	8.1	7.9	7.6	7.7
9	8.5	7.5	8.0	8.2	7.5	7.9	8.7	7.4	8.1	8.4	7.6	8.0
10	8.7	7.5	8.1	8.4	7.5	8.0	8.7	7.4	8.1	8.5	7.6	7.9
11	8.6	7.7	8.1	8.5	7.6	8.1	8.9	7.5	8.2	8.4	7.7	7.9
12	8.7	7.7	8.1	8.5	7.5	8.0	8.9	7.5	8.2	8.6	7.7	8.1
13	8.7	7.7	8.2	8.6	7.5	8.0	8.9	7.5	8.2	8.6	7.6	8.1
14	8.7	7.6	8.2	8.6	7.5	8.1	8.8	7.5	8.1	8.5	7.6	8.0
15	8.8	7.6	8.2	8.2	7.5	7.8	8.3	7.5	7.9	8.6	7.6	8.0
16	8.7	7.6	8.2	8.3	7.5	7.8	8.9	7.5	8.2	8.8	7.7	8.2
17	8.2	7.6	7.9	8.7	7.6	8.1	8.9	7.4	8.2	7.9	7.7	7.8
18	8.5	7.6	8.0	8.5	7.7	8.1	8.9	7.5	8.2	7.9	7.6	7.7
19	8.6	7.6	8.0	8.5	7.7	8.0	8.7	7.5	8.1	8.3	7.5	7.9
20	8.6	7.6	8.1	8.1	7.6	7.8	9.0	7.5	8.3	8.4	7.5	7.9
21	8.6	7.6	8.2	8.3	7.6	7.9	8.9	7.5	8.2	8.6	7.5	7.9
22	8.6	7.6	8.2	8.5	7.6	7.9	8.5	7.5	7.9	8.8	7.6	8.1
23	8.8	7.7	8.2	8.7	7.7	8.2	8.7	7.5	8.1	8.9	7.6	8.2
24	8.8	7.7	8.3	8.7	7.7	8.2	9.0	7.5	8.2	8.7	7.7	8.1
25	8.8	7.7	8.3	8.7	7.7	8.2	8.9	7.5	8.3	8.6	7.6	8.0
26	8.7	7.8	8.3	8.6	7.6	8.1	8.9	7.5	8.2	8.8	7.6	8.2
27	8.8	7.7	8.3	8.7	7.6	8.1	9.0	7.5	8.2	9.0	7.6	8.3
28	8.9	7.7	8.3	8.6	7.6	8.1	8.7	7.6	8.1	9.1	7.6	8.3
29	8.8	7.7	8.3	8.4	7.6	7.9	8.8	7.7	8.1	9.1	7.6	8.3
30	---	---	---	8.1	7.6	7.8	8.2	7.8	7.9	9.1	7.6	8.3
31	---	---	---	8.2	7.6	7.8	---	---	---	9.2	7.6	8.4
MONTH	8.9	7.4	8.1	8.7	7.5	8.0	9.0	7.4	8.1	9.2	7.5	8.1

## PLATTE RIVER BASIN

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	9.1	7.6	8.4	8.7	7.7	8.2	---	---	---	8.4	7.7	8.0
2	8.9	7.6	8.2	8.7	7.7	8.2	---	---	---	8.4	7.7	8.0
3	9.1	7.6	8.3	8.7	7.7	8.1	---	---	---	8.2	7.7	8.0
4	8.8	7.6	8.1	8.9	7.6	8.2	8.6	7.5	8.0	8.2	7.6	8.0
5	9.1	7.6	8.2	8.8	7.7	8.2	8.8	7.5	8.1	8.2	7.7	8.0
6	8.9	7.5	8.2	8.9	7.7	8.3	8.9	7.5	8.2	8.1	7.6	7.9
7	9.1	7.5	8.2	8.8	7.6	8.2	8.8	7.5	8.1	8.2	7.6	7.9
8	9.0	7.5	8.1	8.8	7.7	8.2	8.9	7.4	8.1	8.2	7.6	7.9
9	8.8	7.5	8.0	8.9	7.6	8.2	8.3	7.4	7.9	8.2	7.7	7.9
10	8.9	7.6	8.1	8.8	7.7	8.2	8.2	7.5	7.9	8.2	7.6	7.9
11	8.7	7.6	8.0	8.9	7.7	8.2	8.2	7.6	7.8	8.3	7.6	7.9
12	8.9	7.6	8.1	8.5	7.7	8.0	8.3	7.7	8.0	8.3	7.6	7.9
13	8.9	7.6	8.2	8.9	7.7	8.2	8.6	7.6	8.0	8.5	7.6	7.9
14	9.0	7.5	8.3	8.9	7.7	8.2	8.2	7.4	7.8	8.4	7.6	7.9
15	9.0	7.5	8.2	8.8	7.8	8.2	8.1	7.6	7.8	8.4	7.6	7.9
16	8.2	7.5	7.8	8.8	7.7	8.1	7.9	7.6	7.8	8.4	7.6	7.9
17	8.5	7.3	7.8	8.0	7.6	7.9	8.1	7.6	7.8	8.3	7.6	7.9
18	8.7	7.5	8.0	8.4	7.9	8.1	8.0	7.6	7.8	8.3	7.6	7.9
19	8.9	7.6	7.9	---	---	---	8.3	7.8	8.0	8.4	7.7	8.0
20	9.0	7.7	8.3	8.4	7.6	7.9	8.2	7.8	7.9	8.0	7.8	7.9
21	9.0	7.7	8.3	8.8	7.6	8.0	8.0	7.7	7.8	8.1	7.7	7.9
22	8.9	7.6	8.1	8.2	7.4	7.8	8.0	7.7	7.8	7.9	7.7	7.8
23	9.0	7.9	8.4	8.3	7.4	7.8	7.9	7.6	7.8	8.1	7.7	7.9
24	9.0	7.8	8.3	8.3	7.4	7.8	8.2	7.7	7.9	8.0	7.7	7.8
25	8.8	7.8	8.2	---	---	---	8.6	7.7	8.0	8.1	7.7	7.9
26	8.1	7.8	7.9	---	---	---	8.6	7.8	8.1	8.3	7.8	8.0
27	8.8	7.8	8.1	---	---	---	8.6	7.7	7.9	8.2	7.7	8.0
28	8.4	7.8	8.1	---	---	---	8.7	7.8	8.1	8.3	7.7	8.0
29	8.8	7.7	8.2	---	---	---	8.5	7.8	8.1	8.7	7.7	8.0
30	8.7	7.6	8.1	---	---	---	8.3	7.7	8.0	8.7	7.8	8.2
31	---	---	---	---	---	---	8.5	7.7	8.1	---	---	---
MONTH	9.1	7.3	8.1	8.9	7.4	8.1	8.9	7.4	8.0	8.7	7.6	7.9
YEAR	9.2	7.3	8.1									

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	616	525	562	919	835	879	692	541	604	605	525	573
2	601	512	556	860	644	772	762	657	730	638	545	596
3	666	513	564	709	585	643	858	724	797	878	577	695
4	633	403	536	694	584	633	1110	825	960	787	602	695
5	684	412	512	654	604	641	1090	743	852	722	607	672
6	771	582	678	686	610	651	909	668	786	689	604	648
7	722	655	693	702	610	665	859	700	774	727	619	678
8	741	601	675	739	580	642	927	733	828	721	652	692
9	686	598	635	659	535	591	815	673	743	725	659	694
10	659	593	630	611	522	570	744	613	677	739	649	696
11	647	575	619	609	521	567	674	570	634	705	638	675
12	674	551	626	616	528	564	662	574	625	679	597	645
13	675	487	603	704	596	670	661	575	623	674	602	638
14	537	370	452	725	660	696	647	588	621	1220	564	636
15	481	367	427	715	652	690	683	584	632	657	572	626
16	641	433	502	673	539	603	676	607	650	667	584	629
17	567	457	479	593	535	571	680	607	653	694	580	625
18	765	479	596	619	535	574	677	607	651	648	561	613
19	785	592	666	583	528	561	695	612	662	629	536	594
20	654	599	635	596	530	569	699	621	667	608	528	572
21	668	600	633	593	514	561	705	631	674	599	533	566
22	728	629	692	747	509	632	1220	620	847	605	531	569
23	756	654	716	582	480	518	1070	752	834	639	521	575
24	756	668	719	666	555	611	849	666	773	610	513	571
25	772	668	728	664	581	633	756	640	707	601	505	562
26	844	704	773	655	576	620	718	636	681	642	537	583
27	912	806	861	665	559	615	714	627	678	858	639	783
28	918	832	878	623	561	602	681	538	630	845	559	649
29	921	835	888	640	572	615	601	510	567	650	563	604
30	930	859	901	649	504	581	581	508	552	652	567	607
31	932	836	891	---	---	---	594	522	568	692	570	625
MONTH	932	367	656	919	480	625	1220	508	699	1220	505	632



## PLATTE RIVER BASIN

06711565 SOUTH PLATTE RIVER AT ENGLEWOOD, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.5	11.3	13.4	10.7	8.2	9.3	7.3	4.6	5.9	4.9	2.8	4.0
2	14.6	10.6	12.6	9.7	5.4	8.0	7.7	5.5	6.6	4.6	2.8	3.8
3	14.4	10.7	12.6	11.1	7.5	9.1	6.3	2.6	4.0	3.2	1.3	2.3
4	15.1	10.0	12.4	11.3	7.4	9.4	5.5	2.5	3.8	2.8	.0	1.4
5	15.5	10.6	13.0	11.1	7.7	9.5	4.4	1.4	3.0	3.6	1.6	2.5
6	15.7	12.3	14.1	11.3	7.3	9.4	6.3	2.6	4.4	2.4	.0	1.2
7	14.6	11.8	13.6	11.3	7.7	9.6	5.0	3.0	4.0	3.1	.1	1.7
8	14.9	10.0	12.4	11.6	8.5	10.1	4.0	2.7	3.5	4.3	1.5	2.8
9	16.0	10.8	13.5	11.5	8.5	10.0	3.5	.8	2.3	3.7	1.5	2.5
10	16.1	11.6	13.8	10.6	7.2	9.1	3.7	1.6	2.7	4.7	.9	2.7
11	16.4	11.5	14.0	9.5	8.0	8.8	4.7	2.3	3.3	5.3	1.4	3.5
12	15.4	11.6	13.6	10.3	6.4	8.4	4.3	1.9	3.1	5.6	2.9	4.2
13	15.3	11.3	13.4	9.8	6.4	8.4	4.4	2.5	3.3	4.5	1.9	3.3
14	15.4	11.1	13.0	9.9	6.5	8.6	3.5	.8	2.3	4.4	1.5	3.1
15	12.1	11.0	11.4	10.0	6.5	8.6	2.9	.2	1.6	5.5	2.1	3.8
16	11.0	7.1	9.1	10.1	6.8	8.6	5.4	2.1	3.7	5.3	3.1	4.1
17	11.2	6.5	8.6	10.6	7.2	8.9	4.9	3.4	4.4	5.8	3.0	4.5
18	9.5	8.0	8.5	9.3	6.9	8.4	4.4	2.0	3.3	6.3	3.6	4.9
19	11.7	7.2	9.2	8.4	4.9	6.8	3.3	1.6	2.5	6.5	3.2	4.9
20	12.3	8.0	10.2	9.1	6.2	7.7	2.6	.8	1.7	5.5	2.4	4.1
21	12.9	8.7	10.8	8.3	5.7	7.1	2.4	1.2	1.8	5.6	2.6	4.2
22	13.1	8.9	11.1	5.7	4.1	4.5	2.8	.1	1.4	5.4	2.6	4.0
23	13.4	8.8	11.0	6.4	4.1	5.2	4.4	2.0	3.2	4.9	2.1	3.4
24	12.5	8.8	10.9	5.2	2.5	4.1	4.5	1.7	3.2	5.1	1.7	3.5
25	12.4	8.7	10.9	5.8	3.0	4.3	4.6	2.1	3.4	4.3	3.0	3.7
26	12.8	8.6	10.8	8.8	5.2	6.7	4.3	1.9	3.3	3.8	2.1	3.0
27	13.0	9.2	11.0	7.8	5.3	6.5	4.6	2.1	3.4	4.2	2.5	3.2
28	11.9	8.4	10.4	7.8	4.5	6.2	5.5	2.5	4.0	4.5	1.9	3.1
29	11.1	8.9	10.2	7.6	4.8	6.4	5.1	2.1	3.8	3.8	1.0	2.4
30	10.7	6.8	8.8	7.0	5.2	6.1	4.6	1.9	3.5	3.6	.2	2.0
31	11.8	7.4	9.7	---	---	---	4.8	1.8	3.5	4.0	.6	2.3
MONTH	16.4	6.5	11.5	11.6	2.5	7.8	7.7	.1	3.4	6.5	.0	3.2
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.8	.6	2.7	9.1	5.5	7.6	11.7	4.4	7.8	---	10.4	---
2	5.3	1.9	3.8	8.1	6.3	6.9	8.4	4.7	6.7	17.9	---	---
3	6.2	2.6	4.5	9.8	4.6	7.4	11.0	3.7	6.9	19.6	11.7	15.3
4	6.0	2.4	4.2	11.0	5.6	8.6	14.5	5.8	9.9	20.7	12.2	15.7
5	5.8	2.8	4.4	10.8	6.3	8.8	15.1	7.1	11.1	20.0	12.7	15.8
6	7.1	2.9	5.2	9.7	5.7	8.0	14.7	8.1	11.6	18.7	13.1	15.6
7	7.6	3.5	5.6	9.4	6.5	8.1	12.8	7.4	10.2	18.5	13.6	15.4
8	7.3	3.7	5.5	9.4	5.9	7.9	14.8	6.2	10.6	14.4	11.9	13.3
9	5.9	4.1	5.1	8.0	5.1	6.3	13.8	7.8	11.3	18.8	11.3	14.6
10	6.0	3.5	5.0	7.8	3.9	6.1	12.6	8.5	11.0	19.3	12.4	15.5
11	5.1	3.3	4.2	9.6	4.4	7.1	15.0	8.2	11.5	16.1	13.0	14.4
12	4.5	2.0	3.3	10.1	6.6	8.2	15.3	8.5	12.1	16.6	11.8	13.8
13	6.6	3.3	4.9	10.8	5.4	8.1	15.3	9.6	12.6	18.2	10.2	13.9
14	7.5	3.0	5.3	10.2	6.2	8.5	14.1	9.8	12.2	17.2	11.6	14.6
15	8.0	4.6	6.4	9.1	1.9	5.6	12.3	7.9	9.1	19.5	11.9	15.5
16	7.1	3.4	5.5	9.4	1.9	5.3	15.3	7.3	10.9	20.7	12.6	16.1
17	6.0	1.7	3.8	10.1	4.2	7.1	16.7	9.3	13.2	15.3	9.8	12.7
18	5.7	1.3	3.2	8.0	5.6	6.7	15.2	9.9	13.0	12.5	9.5	11.0
19	6.5	1.6	4.2	9.9	4.0	7.1	12.5	8.7	10.2	18.6	10.9	14.5
20	6.5	2.7	4.7	8.7	3.5	5.7	16.3	7.9	11.9	19.2	13.5	16.1
21	8.7	3.9	6.4	8.6	3.0	5.4	15.9	10.2	13.4	20.0	12.6	16.4
22	7.7	5.0	6.6	7.5	4.6	6.2	14.6	10.9	12.3	19.4	13.0	16.2
23	9.7	5.4	7.6	12.0	5.2	8.6	13.8	10.3	12.0	20.3	13.4	16.7
24	8.7	5.4	7.3	12.3	6.7	9.7	16.1	10.4	13.0	19.0	14.0	16.3
25	7.3	5.0	6.1	11.5	6.9	9.5	16.7	9.5	13.2	18.0	13.9	16.1
26	7.1	3.1	5.3	11.2	7.7	9.5	15.4	10.8	13.4	17.7	13.4	15.5
27	9.1	4.2	6.8	13.5	7.2	10.5	18.2	11.6	14.6	21.0	12.9	16.6
28	9.6	5.8	7.8	12.1	8.5	10.5	15.9	10.8	13.1	20.9	13.6	16.9
29	10.0	6.2	8.2	13.7	8.1	10.8	17.3	11.6	13.8	21.3	14.6	17.7
30	---	---	---	10.9	4.9	7.2	12.6	10.6	11.5	21.4	14.7	17.8
31	---	---	---	6.3	3.6	4.9	---	---	---	22.6	15.2	18.6
MONTH	10.0	.6	5.3	13.7	1.9	7.7	18.2	3.7	11.5	22.6	9.5	15.5





PLATTE RIVER BASIN

393109104464500 CHERRY CREEK NEAR PARKER, CO

LOCATION.--Lat 39°31'09", long 104°46'45", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.21, T.6 S., R.67 W., Douglas County, Hydrologic Unit 10190003, on right bank 200 ft upstream from Main Street, 1,100 ft downstream from mouth of Sulphur Gulch, and 0.8 mi west of City of Parker.

DRAINAGE AREA.--Not determined.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,805 ft above sea level, from topographic map.

REMARKS.--Records fair except for discharges above 200 ft<sup>3</sup>/s, and estimated discharges, which are poor. Several diversions upstream from station for irrigation. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.2	11	11	20	16	18	26	22	7.9	3.2	4.8	13
2	9.8	11	12	19	21	19	30	20	7.8	3.2	4.0	6.9
3	10	11	11	17	22	19	32	18	8.0	3.2	3.9	3.9
4	9.7	12	11	13	21	20	33	14	7.6	3.3	4.0	4.2
5	9.1	12	6.3	19	21	20	43	11	6.7	3.2	3.9	4.3
6	9.1	11	12	12	23	19	47	11	5.9	2.0	5.5	4.7
7	9.3	11	14	14	22	19	42	11	5.3	1.5	5.6	4.9
8	8.7	10	14	20	23	25	37	13	4.9	1.5	5.2	4.9
9	8.8	9.6	10	19	25	22	34	17	4.6	2.8	5.0	5.4
10	8.6	9.4	14	20	23	21	32	18	4.5	3.3	5.0	5.3
11	8.9	9.9	15	21	23	20	31	17	4.4	3.3	4.9	5.5
12	9.6	9.7	14	23	23	19	30	13	4.2	2.2	4.9	5.6
13	8.3	9.4	18	20	23	19	29	11	3.8	1.7	4.9	5.5
14	8.3	9.6	16	20	22	19	26	11	3.6	1.7	4.8	5.5
15	8.1	8.9	11	21	22	19	27	11	3.5	1.7	4.4	5.5
16	9.1	8.5	17	22	23	22	26	9.6	3.4	e1.7	3.0	5.4
17	9.9	8.9	20	24	19	22	25	40	3.6	e5.1	8.2	5.3
18	9.8	9.3	19	26	20	27	24	38	3.5	3.5	7.1	6.0
19	11	8.7	17	30	18	24	21	28	3.3	3.5	1.6	5.6
20	11	9.0	15	30	19	24	19	22	3.2	3.8	.99	5.6
21	12	9.2	13	28	19	25	17	21	3.2	2.4	e1.9	4.7
22	11	11	14	27	22	23	16	17	3.1	2.0	e1.0	5.6
23	10	9.9	17	24	25	27	17	16	3.1	2.2	e.71	6.8
24	10	7.1	17	23	24	32	17	15	3.2	4.1	.78	7.1
25	10	6.4	17	26	23	31	17	17	3.3	5.2	1.9	5.4
26	10	9.0	16	24	22	29	15	17	3.2	5.6	2.4	5.5
27	9.9	10	18	23	19	25	12	17	3.1	4.5	2.3	5.2
28	10	9.9	19	21	19	22	11	16	3.1	3.7	4.4	5.3
29	10	11	19	15	18	23	13	14	3.0	3.8	8.4	5.2
30	11	12	18	15	---	20	24	13	3.0	4.0	2.7	5.3
31	11	---	18	16	---	25	---	11	---	5.5	2.8	---
TOTAL	301.2	295.4	463.3	652	620	699	773	529.6	131.0	98.4	120.98	169.1
MEAN	9.72	9.85	14.9	21.0	21.4	22.5	25.8	17.1	4.37	3.17	3.90	5.64
MAX	12	12	20	30	25	32	47	40	8.0	5.6	8.4	13
MIN	8.1	6.4	6.3	12	16	18	11	9.6	3.0	1.5	.71	3.9
AC-FT	597	586	919	1290	1230	1390	1530	1050	260	195	240	335

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	3.56	5.11	5.88	7.89	11.6	17.7	20.2	20.8	13.1	7.33	8.75	3.62
MAX	9.72	9.85	14.9	21.0	21.4	42.8	47.4	87.9	47.5	18.3	29.1	10.3
(WY)	2000	2000	2000	2000	2000	1992	1998	1999	1999	1998	1998	1999
MIN	1.26	.79	.76	1.51	1.74	3.82	8.15	4.15	1.87	1.04	.58	.73
(WY)	1992	1995	1995	1995	1995	1995	1997	1997	1994	1994	1994	1994

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1992 - 2000

ANNUAL TOTAL	8324.2	4852.98	
ANNUAL MEAN	22.8	13.3	10.5
HIGHEST ANNUAL MEAN			21.8
LOWEST ANNUAL MEAN			5.03
HIGHEST DAILY MEAN	e348	May 1	e348
LOWEST DAILY MEAN	6.3	Dec 5	.43
ANNUAL SEVEN-DAY MINIMUM	7.7	Mar 26	1.3
INSTANTANEOUS PEAK FLOW			160
INSTANTANEOUS PEAK STAGE			5.57
ANNUAL RUNOFF (AC-FT)	16510	9630	7570
10 PERCENT EXCEEDS	42	25	23
50 PERCENT EXCEEDS	12	11	6.0
90 PERCENT EXCEEDS	9.0	3.2	1.3

e Estimated.  
a From slope-area measurement of peak flow.  
b From floodmark.





06713300 CHERRY CREEK AT GLENDALE, CO

LOCATION.--Lat 39°42'22", long 104°56'13", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.18, T.4 S., R.67 W., Denver County, Hydrologic Unit 10190003, on left bank 900 ft upstream from Colorado Boulevard, on Cherry Creek South Drive and Ash Court, in the City of Glendale, and 6 mi downstream from Cherry Creek Reservoir.

DRAINAGE AREA.--404 mi<sup>2</sup>.

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

REVISED RECORDS.--WDR CO-96-1: 1995 (M).

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 5,320 ft above sea level, from topographic map. From Feb. 24 to Aug. 2, 2000, at site 0.5 mi upstream at different datum.

REMARKS.--Records fair except for periods Oct. 1 to Feb. 23, Aug. 2 to Sept. 30, and those above 350 ft<sup>3</sup>/s, which are poor. Flow regulated by Cherry Creek Lake (see station 06712990). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	34	27	29	33	55	98	25	23	19	20	39
2	13	34	27	29	35	58	113	e23	24	10	e18	21
3	12	34	31	29	34	55	93	e23	30	8.9	16	21
4	12	34	35	28	34	55	76	e19	36	8.5	12	26
5	11	34	29	28	34	53	71	e19	29	8.4	11	22
6	11	34	29	28	34	56	73	e19	24	8.4	10	23
7	9.7	34	29	29	34	59	93	e19	21	8.1	9.7	25
8	9.3	34	29	29	37	40	115	e64	23	8.5	9.1	22
9	8.9	34	28	29	42	31	115	25	22	8.5	8.7	15
10	8.8	33	28	29	42	30	116	e19	19	16	9.0	14
11	8.7	33	27	30	42	28	86	20	25	e9.0	8.7	14
12	8.5	33	27	24	42	27	26	20	25	e15	8.1	14
13	8.4	33	27	15	42	27	25	21	18	e9.3	9.4	13
14	8.3	33	27	28	42	27	25	27	18	e45	9.4	11
15	7.8	32	28	28	42	42	32	30	19	17	7.5	11
16	27	29	28	28	42	70	30	29	27	e46	9.3	10
17	32	28	28	28	41	56	26	e188	39	e317	157	10
18	30	28	28	29	45	48	27	109	14	20	84	10
19	43	27	27	29	42	45	27	31	58	e8.1	16	12
20	39	27	27	29	40	52	27	39	23	e13	10	71
21	38	28	27	31	41	64	28	39	11	30	9.0	15
22	37	47	28	30	46	50	38	37	10	31	9.6	13
23	36	30	28	30	e56	46	29	46	9.6	32	14	37
24	35	28	28	31	e42	46	29	60	9.5	32	8.5	38
25	35	28	28	29	46	46	29	130	12	27	15	14
26	35	29	28	33	53	48	25	99	32	16	32	11
27	35	27	28	41	53	48	21	127	15	17	23	19
28	34	27	28	37	53	49	17	109	14	17	48	23
29	35	27	28	34	55	62	23	107	12	19	74	25
30	34	27	29	34	---	74	84	89	21	19	31	22
31	34	---	29	33	---	119	---	28	---	19	57	---
TOTAL	709.4	940	875	918	1224	1566	1617	1640	663.1	862.7	764.0	621
MEAN	22.9	31.3	28.2	29.6	42.2	50.5	53.9	52.9	22.1	27.8	24.6	20.7
MAX	43	47	35	41	56	119	116	188	58	317	157	71
MIN	7.8	27	27	15	33	27	17	19	9.5	8.1	7.5	10
AC-FT	1410	1860	1740	1820	2430	3110	3210	3250	1320	1710	1520	1230

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2000, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	14.8	14.0	11.8	14.0	19.5	30.6	44.4	46.3	39.6	27.9	30.5	20.3				
MAX	38.0	33.8	29.8	45.7	53.2	75.2	104	147	101	55.9	72.0	43.0				
(WY)	1986	1998	1988	1985	1988	1985	1998	1999	1999	1995	1998	1995				
MIN	4.65	4.42	1.94	3.01	3.46	4.41	9.81	16.2	13.7	5.71	8.41	3.90				
(WY)	1995	1995	1995	1995	1990	1995	1991	1993	1990	1994	1986	1994				

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1985 - 2000	
ANNUAL TOTAL	17862.4		12400.2			
ANNUAL MEAN	48.9		33.9		25.6	
HIGHEST ANNUAL MEAN					46.8	
LOWEST ANNUAL MEAN					10.9	
HIGHEST DAILY MEAN	389	Apr 30	e317	Jul 17	461	May 17 1995
LOWEST DAILY MEAN	7.8	Oct 15	7.5	Aug 15	1.1	Apr 1 1991
ANNUAL SEVEN-DAY MINIMUM	8.5	Oct 9	8.5	Jul 3	1.6	Sep 29 1993
INSTANTANEOUS PEAK FLOW			a,b1840	Jul 17	1970	Jul 20 1986
INSTANTANEOUS PEAK STAGE			b,c6.30	Jul 17	d6.74	Jul 20 1986
ANNUAL RUNOFF (AC-FT)	35430		24600		18520	
10 PERCENT EXCEEDS	117		56		62	
50 PERCENT EXCEEDS	28		28		14	
90 PERCENT EXCEEDS	13		10		4.3	

e Estimated.  
a From rating curve extended above 350 ft<sup>3</sup>/s.  
b At site and datum then in use.  
c Maximum gage height, 7.13 ft, Aug 17, present site and datum.  
d Maximum gage height, 9.36 ft, Jul 28, 1997.

## PLATTE RIVER BASIN

06713500 CHERRY CREEK AT DENVER, CO

LOCATION (REVISED).--Lat 39°44'33", long 104°59'58", in SE<sup>1</sup>/<sub>4</sub> sec.33, T.3 S., R.68 W., Denver County, Hydrologic Unit 10190003, on left bank 100 ft downstream from Champa Street Bridge in Denver, and 1.1 mi upstream from mouth.

DRAINAGE AREA.--409 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1942 to September 1969, February 1980 to September 1983, and annual maximums 1984, 1985. April 1986 to current year. Water-quality data available, April 1993 to July 1995.

REVISED RECORDS.--WSP 1710: Drainage area. WDR CO-82-1: 1982 (M).

GAGE (REVISED).--Water-stage recorder. Elevation of gage is 5,180 ft above sea level, from topographic map. See WSP 1730 for history of changes prior to July 16, 1951. Prior to Mar. 1, 1995, at site 0.6 mi downstream, on downstream side of Wazee Street Bridge, at different datum. Mar. 1, 1995 to May 11, 1998, at site 0.4 mi downstream, 300 ft upstream from Market Street Bridge, at different datum.

REMARKS.--Records fair except for flows above 230 cfs and estimated daily discharges, which are poor. Several diversions upstream from station for irrigation of about 1,900 acres. Floodflow regulated by Cherry Creek Reservoir 11 mi upstream, capacity, 95,960 acre-ft. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 26, 1885, reached a discharge of 20,000 ft<sup>3</sup>/s, by float measurement. Flood of May 19 and 20, 1864, reached a somewhat higher stage. Flood of Aug. 3, 1933, reached a discharge of about 15,000 ft<sup>3</sup>/s, as determined by rise of South Platte River at Denver.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	43	36	37	36	58	84	59	34	32	23	60
2	19	42	35	37	38	62	98	33	35	21	24	34
3	19	42	48	38	38	58	79	31	40	21	27	32
4	19	42	49	35	37	57	60	28	48	19	26	36
5	19	42	37	35	37	57	59	28	43	20	25	31
6	20	41	37	33	37	57	65	28	40	20	24	36
7	18	41	35	35	38	61	73	28	30	21	23	38
8	17	42	36	35	40	45	92	81	30	20	21	37
9	18	41	33	35	45	35	93	56	30	21	21	26
10	19	40	32	37	46	32	94	33	27	28	22	23
11	18	40	32	40	45	31	82	26	30	22	22	21
12	18	41	32	37	44	31	45	25	33	28	20	19
13	19	40	32	25	45	31	44	25	26	25	18	20
14	19	40	32	39	45	32	44	30	25	36	20	20
15	18	39	33	39	46	51	55	37	28	41	19	18
16	42	35	34	38	45	84	49	37	36	109	26	16
17	28	35	34	38	46	59	47	166	58	304	e170	16
18	25	34	34	38	56	50	46	116	23	37	e100	17
19	40	34	33	37	48	44	46	44	56	25	e50	18
20	37	34	32	36	45	49	47	51	34	28	e18	98
21	39	35	33	37	46	65	49	51	22	42	e17	31
22	41	70	33	37	54	48	55	46	21	41	18	25
23	41	38	34	36	56	45	54	55	24	42	22	59
24	41	34	34	36	45	43	50	72	21	37	16	61
25	42	35	34	34	49	43	48	125	22	33	23	26
26	41	39	34	42	56	44	42	93	57	23	42	20
27	43	35	34	52	56	45	41	115	28	23	38	26
28	46	34	35	40	57	45	34	105	31	25	64	32
29	46	35	35	37	58	69	46	100	24	26	78	33
30	41	36	35	36	---	71	112	91	29	24	46	30
31	43	---	36	36	---	111	---	43	---	24	81	---
TOTAL	916	1179	1083	1147	1334	1613	1833	1858	985	1218	1144	959
MEAN	29.5	39.3	34.9	37.0	46.0	52.0	61.1	59.9	32.8	39.3	36.9	32.0
MAX	46	70	49	52	58	111	112	166	58	304	170	98
MIN	17	34	32	25	36	31	34	25	21	19	16	16
AC-FT	1820	2340	2150	2280	2650	3200	3640	3690	1950	2420	2270	1900

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1942 - 2000, BY WATER YEAR (WY)

MEAN	15.0	13.0	10.9	10.9	16.3	25.1	30.5	39.1	31.6	26.1	39.7	18.3
MAX	37.2	47.1	54.4	37.0	73.8	179	119	156	118	161	236	64.9
(WY)	1998	1998	1988	2000	1948	1948	1983	1999	1944	1983	1945	1965
MIN	3.66	3.61	3.39	3.17	4.18	3.25	3.28	6.10	3.17	3.74	4.05	4.03
(WY)	1949	1955	1956	1956	1952	1955	1955	1966	1946	1948	1948	1948

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1942 - 2000	
ANNUAL TOTAL	20770		15269			
ANNUAL MEAN	56.9		41.7		23.1	
HIGHEST ANNUAL MEAN					70.7	
LOWEST ANNUAL MEAN					6.00	
HIGHEST DAILY MEAN	508		Apr 30		1350	
LOWEST DAILY MEAN	17		Oct 8		a,40	
ANNUAL SEVEN-DAY MINIMUM	18		Oct 7		.93	
INSTANTANEOUS PEAK FLOW			1310		Jul 17	
INSTANTANEOUS PEAK STAGE			7.63		Jul 17	
ANNUAL RUNOFF (AC-FT)	41200		30290		16720	
10 PERCENT EXCEEDS	119		61		46	
50 PERCENT EXCEEDS	35		37		11	
90 PERCENT EXCEEDS	21		21		4.4	

e Estimated.

a Also occurred Jun 17-18, 1948.

b Site and datum then in use.

c Maximum gage height, 11.98 ft, Jun 28, 1997, site and datum then in use.

06714000 SOUTH PLATTE RIVER AT DENVER, CO

LOCATION.--Lat 39°45'35", long 105°00'10", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.28, T.3 S., R.68 W., Denver County, Hydrologic Unit 10190003, on right bank 90 ft upstream from Nineteenth Street Bridge in Denver, and 0.4 mi downstream from Cherry Creek.

DRAINAGE AREA.--3,861 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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. Statistical summary computed for 1976 to current year.

REVISED RECORDS.--WSP 1310: 1934(M). WSP 1730: 1957(M). WDR CO-86-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,157.64 ft above sea level, adjustment of 1960. 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 of present site at various datums. Aug. 29, 1931 to June 28, 1965, water-stage recorder at site 70 ft downstream at datum 3.66 ft lower. June 29, 1965 to Mar. 18, 1966, water-stage recorder at site 70 ft downstream at present datum.

REMARKS.--Records good except for flows above 750 ft<sup>3</sup>/s, and estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 79,000 acres 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, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP			
1	217	152	230	202	165	181	350	596	349	276	172	264			
2	217	163	176	207	172	181	433	597	353	284	218	186			
3	213	190	232	217	174	187	378	419	374	245	180	176			
4	218	189	276	211	170	182	302	415	381	245	164	162			
5	256	185	239	200	172	181	307	530	373	286	173	150			
6	182	188	221	182	169	180	323	525	354	274	173	150			
7	183	186	211	170	171	184	313	511	334	214	184	141			
8	171	195	202	165	190	184	310	898	343	222	177	141			
9	179	204	191	166	194	156	301	583	391	222	131	130			
10	178	210	185	167	195	149	300	434	423	239	103	122			
11	179	214	184	179	198	149	289	562	419	295	104	108			
12	172	213	183	184	197	152	258	439	411	274	122	108			
13	175	183	184	167	198	154	255	376	352	270	148	103			
14	234	180	179	179	194	147	239	358	286	300	174	95			
15	273	179	168	181	193	204	292	372	244	344	132	101			
16	356	197	169	185	192	368	281	396	281	584	142	103			
17	325	198	174	184	196	288	259	806	399	1880	1010	98			
18	246	193	172	184	242	e190	273	763	212	705	799	99			
19	248	193	169	188	210	e154	276	283	209	286	366	106			
20	221	188	166	196	189	e184	279	298	380	267	285	445			
21	208	196	167	198	194	e263	234	327	199	294	186	178			
22	186	360	170	197	204	212	253	343	338	245	161	193			
23	186	281	173	195	210	186	272	382	330	256	154	299			
24	185	215	174	195	186	180	260	398	262	224	158	379			
25	185	205	168	196	188	185	255	502	261	198	185	198			
26	165	223	168	234	191	185	245	435	462	178	415	176			
27	153	219	170	267	188	185	251	431	385	158	213	168			
28	153	217	180	221	201	178	418	412	494	132	417	164			
29	154	212	200	198	184	299	485	403	282	138	536	170			
30	155	228	208	194	---	263	943	393	216	190	213	261			
31	157	---	194	192	---	490	---	360	---	175	321	---			
TOTAL	6330	6156	5883	6001	5527	6381	9634	14547	10097	9900	7916	5174			
MEAN	204	205	190	194	191	206	321	469	337	319	255	172			
MAX	356	360	276	267	242	490	943	898	494	1880	1010	445			
MIN	153	152	166	165	165	147	234	283	199	132	103	95			
AC-FT	12560	12210	11670	11900	10960	12660	19110	28850	20030	19640	15700	10260			
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2000, BY WATER YEAR (WY)															
MEAN	204	195	143	130	145	195	443	941	855	596	498	235			
MAX	1184	809	366	282	273	420	1377	2970	2759	2546	1774	911			
(WY)	1985	1985	1985	1985	1984	1983	1984	1980	1983	1995	1984	1984			
MIN	66.8	94.4	84.1	64.9	80.7	94.9	99.1	218	164	139	177	76.5			
(WY)	1978	1976	1978	1979	1977	1978	1982	1978	1981	1994	1981	1977			
SUMMARY STATISTICS															
				FOR 1999 CALENDAR YEAR				FOR 2000 WATER YEAR				WATER YEARS 1976 - 2000			
ANNUAL TOTAL				202690			93546								
ANNUAL MEAN				555			256								
HIGHEST ANNUAL MEAN										a383					
LOWEST ANNUAL MEAN										961					
HIGHEST DAILY MEAN				3060			May 29			1880 Jul 17					
LOWEST DAILY MEAN				112			Feb 26			95 Sep 14					
ANNUAL SEVEN-DAY MINIMUM				117			Feb 20			101 Sep 13					
INSTANTANEOUS PEAK FLOW										5410 Aug 17					
INSTANTANEOUS PEAK STAGE										8.31 Aug 17					
ANNUAL RUNOFF (AC-FT)				402000			185500			277300					
10 PERCENT EXCEEDS				1620			411			788					
50 PERCENT EXCEEDS				212			202			193					
90 PERCENT EXCEEDS				132			156			88					

e Estimated.

a Average discharge for 79 years (water years 1896-1974), 344 ft<sup>3</sup>/s; 249200 acre-ft/yr, prior to completion of Chatfield Dam.

b Maximum daily discharge for period of record, 12000 ft<sup>3</sup>/s, Jun 17, 1965.

c Minimum daily discharge for period of record, 8.8 ft<sup>3</sup>/s, Mar 25, 1951.

d Maximum discharge and stage for period of record, 40300 ft<sup>3</sup>/s, Jun 17, 1965, gage height, 18.66 ft, from floodmarks, present datum, from rating curve extended above 2700 ft<sup>3</sup>/s, on basis of contracted-opening measurement of peak flow.

## PLATTE RIVER BASIN

06714000 SOUTH PLATTE RIVER AT DENVER, CO--Continued  
(National Water-Quality Assessment Program station)

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to September 1995, May 1997 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count; M, presence of material verified but not quantified.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- PER ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
OCT													
05...	1115	259	569	8.4	12.9	10.0	170	51.0	11.0	48.3	2	3.4	
NOV													
01...	1105	136	919	8.4	10.4	11.1	270	80.7	17.7	85.7	2	6.6	
DEC													
07...	1045	196	823	8.1	5.0	8.4	240	70.6	16.0	76.0	2	5.4	
JAN													
03...	1345	223	1280	8.3	4.1	11.7	240	64.6	18.3	145	4	5.1	
FEB													
03...	1105	157	832	8.2	6.5	11.3	240	72.0	15.5	75.8	2	5.7	
MAR													
02...	1015	170	824	8.2	7.8	9.4	240	69.8	15.6	70.3	2	5.9	
APR													
05...	0950	287	696	8.3	11.5	8.5	210	63.2	13.5	57.3	2	4.4	
MAY													
02...	1005	607	526	8.2	12.7	8.7	160	45.8	10.4	34.8	1	3.1	
JUN													
05...	1115	364	540	8.5	18.0	9.3	170	50.1	10.8	42.2	1	3.6	
JUL													
05...	0945	273	544	8.3	19.4	8.3	150	44.7	9.86	40.6	1	3.5	
AUG													
01...	1020	159	720	8.3	22.0	8.0	190	54.7	12.7	63.5	2	5.3	
SEP													
05...	1040	136	876	8.3	21.2	8.2	240	71.8	15.4	78.3	2	6.3	
DATE		BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
OCT													
05...	101	23	123	99.2	38.8	.7	10.6	372	348	.51	260	.038	
NOV													
01...	142	24	158	171	68.3	.9	10.7	597	564	.81	219	.151	
DEC													
07...	128	--	106	145	77.7	.8	9.8	535	485	.73	283	.074	
JAN													
03...	154	--	128	123	247	.7	7.4	381	701	.52	229	.069	
FEB													
03...	148	--	121	149	69.7	.8	9.0	534	499	.73	226	.081	
MAR													
02...	171	--	140	151	65.9	.8	8.1	537	499	.73	246	.087	
APR													
05...	145	--	119	120	54.7	.9	5.7	428	405	.58	332	.046	
MAY													
02...	113	--	93	71.6	34.8	.9	4.5	290	267	.39	475	.014	
JUN													
05...	142	3	121	88.6	36.1	.9	6.8	330	320	.45	324	.036	
JUL													
05...	112	4	98	89.7	36.2	.7	5.6	324	300	.44	239	.055	
AUG													
01...	92	36	135	129	55.3	1.0	4.8	450	426	.61	193	.104	
SEP													
05...	198	--	162	165	62.1	.9	11.8	557	532	.76	205	.070	

PLATTE RIVER BASIN

06714000 SOUTH PLATTE RIVER AT DENVER, CO--Continued  
(National Water-Quality Assessment Program station)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 05...	2.60	.063	.38	.57	.45	.278	.215	.211	4.2	.3	30	31
NOV 01...	5.94	.150	.49	.99	.64	.667	.595	.532	5.8	.5	30	54
DEC 07...	4.47	.226	.55	.86	.78	.471	.438	.369	5.2	.8	30	64
JAN 03...	3.05	.251	.60	1.2	.85	.419	.302	.272	5.9	1.3	20	70
FEB 03...	6.18	.280	.51	1.2	.79	.558	.442	.348	5.3	.5	40	87
MAR 02...	5.82	.243	.71	1.4	.95	.549	.442	.377	5.3	1.0	40	65
APR 05...	2.98	.099	.26	.81	.36	.344	.195	.217	5.3	1.1	10	62
MAY 02...	1.13	.062	.32	.54	.38	.225	.122	.077	4.4	1.2	E10	42
JUN 05...	1.79	<.020	--	.55	.38	.236	.183	.166	4.1	.9	E10	12
JUL 05...	2.12	.033	.34	.62	.38	.333	.232	.217	5.2	.6	E10	37
AUG 01...	3.79	.117	.48	.85	.60	.527	.464	.394	7.9	.5	40	80
SEP 05...	4.87	.093	.67	.93	.76	.663	.556	.510	5.0	.7	30	78

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 05...	1115	259	12.9	9	6.3	89
NOV 01...	1105	136	10.4	4	1.5	85
DEC 07...	1045	196	5.0	9	4.8	93
JAN 03...	1345	223	4.1	21	13	98
FEB 03...	1105	157	6.5	10	4.2	75
MAR 02...	1015	170	7.8	18	8.3	95
APR 05...	0950	287	11.5	23	18	96
MAY 02...	1005	607	12.7	53	87	84
JUN 05...	1115	364	18.0	11	11	96
JUL 05...	0945	273	19.4	20	15	95
AUG 01...	1020	159	22.0	7	3.0	88
SEP 05...	1040	136	21.2	17	6.2	95

06714215 SOUTH PLATTE RIVER AT 64TH AVENUE, AT COMMERCE CITY, CO

LOCATION.--Lat 39°48'44", long 104°57'28", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.12, T.3 S., R.68 W., Adams County, Hydrologic Unit 10190003, on left bank 300 ft southeast of intersection of York Street and East 64th Avenue, and 1,900 ft upstream from mouth of Sand Creek at northwest corner of Metro Denver Sewage Disposal plant at Commerce City.

DRAINAGE AREA.--3,884 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1982 to current year.

REVISED RECORDS.--WDR CO-86-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Elevation of gage is 5,105 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. 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. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	e167	9.8	e222	205	33	399	107	15	365	85	35
2	212	e179	11	e228	215	33	477	28	20	420	138	13
3	207	e209	32	e239	134	33	488	23	19	296	106	13
4	203	e208	19	e232	47	34	189	22	18	268	85	12
5	252	e204	11	e220	36	37	99	108	20	346	89	12
6	161	e207	16	e200	34	36	123	110	22	334	95	13
7	169	e205	13	e187	34	36	104	84	15	239	102	11
8	154	e214	11	e182	35	38	113	501	12	249	102	11
9	170	e224	8.3	e183	33	35	108	189	29	252	46	11
10	168	e231	7.8	e184	34	34	93	22	78	288	22	11
11	171	e235	6.6	e197	34	33	74	35	69	426	17	10
12	166	e234	7.3	e202	33	34	42	20	60	378	24	9.3
13	157	e201	9.8	e184	33	35	40	19	31	408	37	9.4
14	226	e198	e10	e197	33	35	37	19	165	413	77	11
15	280	e197	e11	e199	33	77	70	22	132	579	33	12
16	366	e217	e11	e204	31	244	48	30	201	776	65	12
17	364	e218	e11	e202	32	178	34	516	378	2020	1260	12
18	e277	e212	e11	e202	34	100	32	772	152	367	778	13
19	e278	e212	e11	e207	30	63	33	179	131	105	92	27
20	e248	209	e11	e216	28	199	33	18	458	163	21	504
21	e233	215	e97	e218	30	333	31	16	127	205	84	67
22	e206	e265	e187	e217	35	276	31	16	297	151	149	12
23	e206	28	e190	e214	160	260	32	16	358	184	e142	126
24	e205	6.1	e191	e214	163	251	26	16	252	150	e145	203
25	e205	7.6	e185	e216	34	270	25	29	255	123	e175	13
26	e183	10	e185	e257	33	198	24	17	504	101	e416	8.3
27	e170	9.5	e187	e294	34	55	24	15	394	73	e204	7.9
28	e170	10	e198	e243	33	43	24	15	344	49	e424	7.7
29	e171	10	e220	e218	33	125	61	16	211	52	e330	7.6
30	e170	10	e229	e213	---	44	514	18	205	112	19	25
31	e173	---	e213	e211	---	415	---	19	---	87	114	---
TOTAL	6533	4752.2	2320.6	6602	1683	3617	3428	3017	4972	9979	5476	1239.2
MEAN	211	158	74.9	213	58.0	117	114	97.3	166	322	177	41.3
MAX	366	265	229	294	215	415	514	772	504	2020	1260	504
MIN	154	6.1	6.6	182	28	33	24	15	12	49	17	7.6
AC-FT	12960	9430	4600	13100	3340	7170	6800	5980	9860	19790	10860	2460

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2000, BY WATER YEAR (WY)

	MEAN	117	104	72.0	100	70.3	119	321	749	585	475	397	133
MAX	1286	927	199	235	325	305	1335	2675	2560	2130	1410	755	
(WY)	1985	1985	1986	1984	1984	1984	1984	1987	1995	1995	1984	1984	
MIN	10.0	9.00	8.79	11.2	8.58	6.81	21.0	33.2	47.3	42.5	125	20.1	
(WY)	1989	1989	1991	1995	1982	1995	1991	1997	1990	1994	1994	1992	

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1982 - 2000
ANNUAL TOTAL	145564.2	53619.0	
ANNUAL MEAN	399	146	280
HIGHEST ANNUAL MEAN			825
LOWEST ANNUAL MEAN			50.5
HIGHEST DAILY MEAN	2690	May 29	4110
LOWEST DAILY MEAN	6.1	Nov 24	2.1
ANNUAL SEVEN-DAY MINIMUM	8.7	Dec 8	3.7
INSTANTANEOUS PEAK FLOW		6590	14300
INSTANTANEOUS PEAK STAGE		6.54	8.09
ANNUAL RUNOFF (AC-FT)	288700	106400	202500
10 PERCENT EXCEEDS	1340	296	666
50 PERCENT EXCEEDS	181	106	81
90 PERCENT EXCEEDS	15	12	9.3

e Estimated.

394839104570300 SAND CREEK AT MOUTH NEAR COMMERCE CITY, CO

LOCATION.--Lat 39°48'39", long 104°57'03", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.12, T.3 S., R.68 W., Adams County, Hydrologic Unit 10190003, on left bank 800 ft upstream from mouth (revised) and 50 ft upstream (revised) from confluence of Burlington Ditch and Sand Creek, in northeast corner of Metro Wastewater Plant.

DRAINAGE AREA.--191 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1992 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,120 ft above sea level, from topographic map. Prior to Mar. 1, 2000, at site 400 ft downstream at different datum. Supplementary recorder on Burlington Ditch return flows, 50 ft downstream from gage.

REMARKS.--Records fair, except for May 17 to June 19 and estimated daily discharges, which are poor. Records include return flows from Burlington ditch. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	22	18	14	15	18	e149	e74	26	83	83	90
2	42	22	17	14	16	26	e138	36	27	72	49	39
3	45	22	32	15	36	32	e150	35	47	71	68	28
4	40	22	32	15	17	21	e49	e80	70	70	82	24
5	47	22	28	14	17	18	33	e104	60	70	83	22
6	50	21	22	13	17	18	30	e76	40	57	84	21
7	44	20	22	13	17	23	50	e76	37	52	83	20
8	36	20	22	13	17	46	66	e132	37	77	82	20
9	34	20	20	12	17	23	55	97	56	76	80	21
10	34	19	18	13	19	18	47	37	63	83	76	19
11	34	19	18	13	21	17	38	36	68	101	77	17
12	33	19	16	17	21	17	24	31	72	115	79	17
13	33	19	17	15	20	17	21	32	82	113	80	16
14	33	19	16	16	19	17	20	30	62	87	87	17
15	33	18	15	17	21	34	29	24	69	113	81	15
16	52	18	16	18	20	106	34	25	88	148	190	15
17	69	18	17	17	22	60	e30	291	134	469	545	15
18	48	18	16	17	35	51	21	274	82	91	187	15
19	33	22	15	18	34	31	21	69	71	73	55	15
20	26	23	15	17	28	e51	26	70	76	100	40	127
21	24	23	16	18	25	e81	23	87	69	110	132	35
22	24	60	18	17	24	e56	26	83	72	90	e92	32
23	24	29	17	16	34	e36	36	58	70	84	21	68
24	24	20	16	16	19	e28	35	e64	71	81	18	109
25	24	19	16	16	17	e23	29	238	76	82	21	40
26	23	21	15	20	17	e21	e40	163	125	82	27	24
27	22	18	15	40	16	20	e104	107	104	60	25	19
28	23	18	15	31	17	20	e78	84	102	72	24	17
29	24	17	15	21	17	37	e57	68	92	81	124	18
30	23	17	15	18	---	54	e203	68	91	85	67	19
31	23	---	14	16	---	e228	---	32	---	85	---	---
TOTAL	1073	645	564	530	615	1248	1662	2681	2139	3033	2809	954
MEAN	34.6	21.5	18.2	17.1	21.2	40.3	55.4	86.5	71.3	97.8	90.6	31.8
MAX	69	60	32	40	36	228	203	291	134	469	545	127
MIN	22	17	14	12	15	17	20	24	26	52	18	15
AC-FT	2130	1280	1120	1050	1220	2480	3300	5320	4240	6020	5570	1890

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	40.7	26.6	21.2	18.2	27.1	39.3	60.9	76.4	82.0
MAX	107	49.0	35.5	27.7	102	124	168	124	137
(WY)	1998	1998	1998	1997	1997	1999	1995	1995	1997
MIN	17.8	16.8	13.3	12.9	14.6	13.6	25.2	46.1	33.9
(WY)	1993	1995	1995	1995	1995	1995	1996	1993	1996

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1992 - 2000
ANNUAL TOTAL	24089.4	17953	
ANNUAL MEAN	66.0	49.1	58.6
HIGHEST ANNUAL MEAN			99.9
LOWEST ANNUAL MEAN			35.5
HIGHEST DAILY MEAN	839	Apr 30	545 Aug 17
LOWEST DAILY MEAN	9.6	Feb 20	12 Jan 9
ANNUAL SEVEN-DAY MINIMUM	12	Feb 17	13 Jan 5
INSTANTANEOUS PEAK FLOW		2060	Aug 17
INSTANTANEOUS PEAK STAGE		6.27	Aug 17
ANNUAL RUNOFF (AC-FT)	47780	35610	42460
10 PERCENT EXCEEDS	130	91	126
50 PERCENT EXCEEDS	33	30	33
90 PERCENT EXCEEDS	14	16	14

e Estimated.

a From rating curve extended above 500 ft<sup>3</sup>/s.

b Maximum gage height, 13.18 ft, Jul 31, 1999, backwater from construction, site and datum then in use.

## PLATTE RIVER BASIN

06714800 LEAVENWORTH CREEK AT MOUTH NEAR GEORGETOWN, CO

LOCATION.--Lat 39°41'14", long 105°41'59", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.20, T.4 S., R.74 W., Clear Creek County, Hydrologic Unit 10190004, on left bank 400 ft upstream from confluence of South Clear Creek, 0.3 mi south of Georgetown Reservoir, and 1.3 mi south of Georgetown.

DRAINAGE AREA.--12.0 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,280 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Vidler tunnel (transmountain diversion) imports water from Peru Creek. There is seasonal diversion into Green Lake. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	e5.2	e3.7	e3.6	e2.9	e2.6	e2.9	8.0	e72	29	12	13
2	9.8	e5.0	e3.7	e3.7	e3.2	e2.7	e2.9	10	e68	28	12	12
3	9.5	e5.2	e3.7	e3.5	e3.0	e2.7	e3.0	14	e66	27	12	11
4	9.2	e5.4	e3.6	e3.6	e2.8	e2.8	e2.9	17	e68	26	11	11
5	9.1	e5.0	e3.5	e4.2	e2.7	e2.9	e3.0	21	e60	25	9.6	11
6	8.7	e4.5	e3.8	e3.4	e2.8	e2.9	e3.4	25	53	25	9.2	10
7	9.3	e4.8	e3.6	e3.7	e2.7	e2.9	e3.1	27	51	24	8.8	10
8	10	e4.7	e3.4	e4.1	e2.7	e2.8	e2.9	23	50	24	8.4	9.9
9	10	e4.5	e3.3	e3.8	e2.8	e2.7	e2.8	20	47	25	8.3	9.7
10	9.5	e4.3	e3.9	e4.0	e2.5	e2.7	e3.5	24	41	24	8.1	9.0
11	8.8	e4.5	e3.7	e3.1	e2.7	e2.7	e3.3	28	37	23	7.9	7.8
12	8.2	e4.5	e3.5	e3.1	e2.9	e2.9	e3.4	23	34	24	8.0	7.3
13	7.9	e4.0	e3.7	e3.1	e2.7	e2.7	e3.4	20	33	22	8.3	7.2
14	7.7	e4.0	e3.6	e3.1	e2.7	e2.8	4.0	19	33	22	8.9	7.1
15	7.5	e3.8	e4.5	e3.1	e2.7	e2.9	4.0	20	31	23	8.2	6.9
16	7.0	e4.2	e4.3	e3.0	e2.7	e2.8	3.7	24	30	27	8.1	6.8
17	e8.4	e4.4	e4.2	e2.9	e2.8	e2.9	4.1	23	30	33	8.5	6.7
18	e8.2	e4.0	e4.2	e2.8	e2.9	e2.8	4.7	19	27	24	11	6.7
19	e8.0	e3.8	e4.1	e2.8	e2.7	e2.7	4.5	19	30	21	9.1	6.6
20	e7.8	e4.1	e4.0	e2.6	e2.9	e2.8	4.2	20	38	19	8.5	7.1
21	e7.4	e3.9	e4.0	e2.6	e2.8	e2.7	4.6	23	28	19	8.3	8.6
22	e7.2	e3.7	e3.8	e2.7	e2.8	e2.7	4.9	29	27	18	8.4	11
23	e6.8	e3.4	e4.0	e2.8	e2.8	e2.8	4.7	37	27	17	9.3	7.5
24	e6.4	e4.0	e4.1	e2.9	e2.7	e2.9	4.4	45	26	17	9.6	7.6
25	e6.2	e4.4	e4.0	e3.0	e2.6	e2.9	4.4	50	26	16	11	7.4
26	e6.0	e4.6	e4.1	e3.2	e2.7	e2.9	5.0	44	28	16	10	7.4
27	e6.0	e4.0	e4.0	e3.1	e2.8	e2.9	6.9	41	32	16	9.6	7.1
28	e5.8	e3.8	e4.0	e2.8	e2.8	e2.9	8.5	46	31	15	9.2	6.8
29	e5.4	e3.7	e3.9	e2.6	e2.8	e3.0	9.1	59	30	14	12	6.8
30	e5.0	e3.8	e3.8	e2.3	---	e2.9	8.8	67	30	13	14	6.9
31	e5.4	---	e3.8	e2.5	---	e2.8	---	e80	---	12	14	---
TOTAL	242.1	129.2	119.5	97.7	80.6	87.1	131.0	925.0	1184	668	301.3	253.9
MEAN	7.81	4.31	3.85	3.15	2.78	2.81	4.37	29.8	39.5	21.5	9.72	8.46
MAX	10	5.4	4.5	4.2	3.2	3.0	9.1	80	72	33	14	13
MIN	5.0	3.4	3.3	2.3	2.5	2.6	2.8	8.0	26	12	7.9	6.6
AC-FT	480	256	237	194	160	173	260	1830	2350	1320	598	504

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2000, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000
MEAN	6.38	3.93	2.78	2.20	1.99	1.96
MAX	7.81	4.35	3.85	3.15	2.78	2.81
(WY)	2000	1996	2000	2000	2000	2000
MIN	5.11	3.28	2.08	1.62	1.35	1.42
(WY)	1997	1995	1995	1995	1995	1995

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1995 - 2000
ANNUAL TOTAL	5994.0	4219.4	
ANNUAL MEAN	16.4	11.5	14.6
HIGHEST ANNUAL MEAN			17.7
LOWEST ANNUAL MEAN			11.5
HIGHEST DAILY MEAN	90	Jun 18	125
LOWEST DAILY MEAN	e1.7	Feb 12	a1.2
ANNUAL SEVEN-DAY MINIMUM	e2.0	Feb 7	e2.7
INSTANTANEOUS PEAK FLOW			92
INSTANTANEOUS PEAK STAGE			4.63
ANNUAL RUNOFF (AC-FT)	11890	8370	10560
10 PERCENT EXCEEDS	52	28	44
50 PERCENT EXCEEDS	4.5	6.0	4.5
90 PERCENT EXCEEDS	2.1	2.8	1.8

e Estimated.

a Also occurred Mar 13, 1995.

b Maximum gage height, 5.69 ft, Jun 17, 1995.



394308105413800 CLEAR CREEK ABOVE GEORGETOWN LAKE NEAR GEORGETOWN, CO

LOCATION.--Lat 39°43'08", long 105°41'38", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.8, T.4 S., R.74 W., Clear Creek County, Hydrologic Unit 10190004, on left bank 300 ft upstream from Georgetown Lake, and 1.0 mi north of Georgetown.

DRAINAGE AREA.--80.0 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1997 to September 1999. October 1999 to September 2000 (seasonal records only).

GAGE.--Water-stage recorder. Elevation of gage is 8,460 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 726 ft<sup>3</sup>/s, July 28, 1999, gage height, 5.78 ft; minimum daily, 9.0 ft<sup>3</sup>/s (estimated), Feb. 5, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 513 ft<sup>3</sup>/s at 2100 hrs May 29, gage height, 5.08 ft; minimum daily, 19 ft<sup>3</sup>/s (estimated), Apr. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	40	---	---	---	---	e20	66	378	190	80	81
2	58	34	---	---	---	---	e19	83	358	187	79	76
3	56	35	---	---	---	---	e19	107	372	184	80	69
4	54	37	---	---	---	---	e20	129	380	171	79	63
5	56	36	---	---	---	---	e21	154	371	158	73	62
6	57	35	---	---	---	---	e22	174	366	153	73	64
7	63	35	---	---	---	---	e21	184	359	147	68	61
8	61	34	---	---	---	---	e20	165	352	152	64	58
9	62	34	---	---	---	---	e22	141	340	164	62	60
10	60	32	---	---	---	---	e28	147	312	163	61	54
11	55	33	---	---	---	---	e32	174	282	152	61	49
12	58	32	---	---	---	---	e38	156	272	146	59	47
13	60	31	---	---	---	---	e41	137	255	139	59	46
14	56	30	---	---	---	---	44	131	241	137	59	45
15	55	30	---	---	---	---	42	134	247	134	62	44
16	47	29	---	---	---	---	37	151	242	148	61	43
17	46	31	---	---	---	---	40	152	224	200	64	42
18	50	27	---	---	---	---	47	131	210	164	84	43
19	48	20	---	---	---	---	42	127	231	144	70	42
20	48	e22	---	---	---	---	44	129	252	128	63	47
21	48	e21	---	---	---	---	47	132	215	119	62	62
22	48	e22	---	---	---	---	45	159	211	117	61	78
23	45	e21	---	---	---	---	52	223	204	111	59	62
24	46	e20	---	---	---	---	47	283	201	104	59	82
25	43	e21	---	---	---	---	45	285	202	102	77	53
26	44	e23	---	---	---	---	49	250	214	96	72	53
27	42	e22	---	---	---	---	59	218	213	94	69	48
28	42	e22	---	---	---	---	72	250	197	93	64	45
29	43	e23	---	---	---	---	76	361	192	88	94	46
30	40	e22	---	---	---	---	74	414	188	84	80	46
31	42	---	---	---	---	---	---	407	---	82	80	---
TOTAL	1591	854	---	---	---	---	1185	5754	8081	4251	2138	1671
MEAN	51.3	28.5	---	---	---	---	39.5	186	269	137	69.0	55.7
MAX	63	40	---	---	---	---	76	414	380	200	94	82
MIN	40	20	---	---	---	---	19	66	188	82	59	42
AC-FT	3160	1690	---	---	---	---	2350	11410	16030	8430	4240	3310

e Estimated.

394359105411900 CLEAR CREEK BELOW GEORGETOWN LAKE NEAR GEORGETOWN, CO

LOCATION.--Lat 39°43'59", long 105°41'19", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.5, T.4 S., R.74 W., Clear Creek County, Hydrologic Unit 10190004, on left bank 30 ft upstream from spillway on Georgetown Lake, and 2.0 mi north of Georgetown.

DRAINAGE AREA.--82.4 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1997 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 8,450 ft above sea level, from topographic map.

REMARKS.--Records fair. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	36	25	22	19	18	20	61	346	185	82	80
2	52	e31	26	24	18	18	20	75	329	183	80	74
3	51	30	25	23	18	18	19	99	336	182	79	69
4	50	e30	26	e23	19	20	e20	120	343	169	82	64
5	51	31	25	23	19	e20	e20	142	341	155	73	61
6	53	31	e25	22	18	e20	e23	163	334	149	74	65
7	58	31	e25	22	19	20	e21	173	330	144	69	62
8	55	32	26	e22	19	e19	e21	160	325	146	66	61
9	55	32	24	e22	19	19	25	132	316	160	64	60
10	54	30	27	e22	19	18	28	133	294	161	64	55
11	51	31	25	22	e19	e18	e27	163	268	149	64	51
12	50	31	25	21	e19	19	e28	150	260	144	63	50
13	52	29	28	21	19	18	35	126	247	137	61	49
14	48	30	25	21	20	e19	e38	121	231	133	61	49
15	45	29	e25	21	20	e19	40	124	234	132	62	48
16	41	28	25	24	19	20	e31	139	233	140	64	47
17	35	30	25	22	19	20	e36	149	214	200	64	47
18	43	e24	25	23	e19	20	e43	122	201	165	85	47
19	41	21	24	e22	17	e19	e34	116	219	144	70	44
20	40	23	24	22	18	19	38	121	243	127	64	49
21	40	22	23	22	19	19	43	123	207	119	64	59
22	40	23	23	23	19	19	45	147	204	115	61	76
23	39	21	22	21	19	19	46	204	198	111	60	61
24	40	20	23	22	19	19	e45	267	192	104	59	77
25	38	e23	23	22	e19	20	39	270	195	101	74	53
26	39	e27	22	20	e19	20	e43	239	203	97	71	51
27	37	27	23	19	19	20	55	207	207	94	70	46
28	36	26	23	17	19	22	69	230	191	93	64	44
29	37	26	24	22	19	21	73	327	186	88	92	43
30	32	27	24	22	---	21	76	376	183	85	80	45
31	36	---	25	23	---	19	---	372	---	83	78	---
TOTAL	1390	832	760	677	547	600	1101	5351	7610	4195	2164	1687
MEAN	44.8	27.7	24.5	21.8	18.9	19.4	36.7	173	254	135	69.8	56.2
MAX	58	36	28	24	20	22	76	376	346	200	92	80
MIN	32	20	22	17	17	18	19	61	183	83	59	43
AC-FT	2760	1650	1510	1340	1080	1190	2180	10610	15090	8320	4290	3350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2000, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
MEAN	38.9	26.9	21.4	17.3	15.7	16.9	26.2	125	281	204	128	63.3
MAX	44.8	28.2	24.5	21.8	18.9	19.4	36.7	173	368	279	215	82.0
(WY)	2000	1999	2000	2000	2000	2000	2000	2000	1999	1999	1999	1999
MIN	33.2	24.8	18.3	13.5	12.9	15.6	19.3	92.6	220	135	69.8	56.2
(WY)	1998	1998	1998	1999	1999	1998	1998	1999	1998	2000	2000	2000

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1997 - 2000

	1999 CALENDAR YEAR	2000 WATER YEAR	1997 - 2000
ANNUAL TOTAL	36606.4	26914	
ANNUAL MEAN	100	73.5	81.1
HIGHEST ANNUAL MEAN			99.5
LOWEST ANNUAL MEAN			70.4
HIGHEST DAILY MEAN	513	376	513
LOWEST DAILY MEAN	8.2	17	8.2
ANNUAL SEVEN-DAY MINIMUM	9.2	19	9.2
INSTANTANEOUS PEAK FLOW		441	604
INSTANTANEOUS PEAK STAGE		4.32	4.58
ANNUAL RUNOFF (AC-FT)	72610	53380	58780
10 PERCENT EXCEEDS	307	193	231
50 PERCENT EXCEEDS	32	40	39
90 PERCENT EXCEEDS	13	19	15

e Estimated.

06715000 CLEAR CREEK ABOVE WEST FORK CLEAR CREEK NEAR EMPIRE, CO

LOCATION.--Lat 39°45'07", long 105°39'41", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.34, T.3 S., R.74 W., Clear Creek County, Hydrologic Unit 10190004, on left bank, 1.1 mi west of exit 232 on I-70, 1.3 mi southeast of Empire, and 2.1 mi west of Lawson.

DRAINAGE AREA.--86.1 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,280 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	41	e35	e26	e19	e19	e24	67	367	195	75	78
2	56	36	e35	e25	e22	e21	e24	78	347	192	72	73
3	54	37	e37	e24	e21	e21	e23	99	350	192	73	67
4	52	38	e35	e26	e20	e22	e23	119	357	177	76	62
5	52	36	e33	e28	e20	e23	e24	147	352	161	67	57
6	53	e32	e35	e25	e21	e23	e25	175	345	152	68	62
7	60	e31	e36	e27	e20	e23	e26	188	344	144	64	59
8	56	e33	e35	e29	e20	e22	24	177	339	144	61	57
9	57	e32	e34	e27	e21	e23	28	140	329	166	58	58
10	54	e31	e37	e28	e19	e22	31	133	309	168	58	53
11	50	e31	e38	e24	e20	e22	30	176	280	151	57	48
12	47	e30	e36	e23	e22	e24	30	168	269	146	56	46
13	51	e29	e37	e23	e20	e23	37	132	256	131	55	44
14	51	e28	e33	e23	e19	e24	41	122	238	125	56	44
15	48	e31	e37	e22	e18	e24	42	122	243	124	57	44
16	46	e32	e40	e21	e18	e24	36	141	244	136	59	42
17	38	e31	e37	e21	e19	e25	37	164	228	216	58	42
18	49	e30	e36	e20	e20	e24	46	125	210	175	81	42
19	46	24	e35	e19	e18	e26	43	116	226	146	67	40
20	45	29	e35	e18	e21	e25	42	119	260	119	59	45
21	45	28	e30	e17	e20	e25	46	120	223	110	60	56
22	44	29	e31	e19	e19	e26	50	146	219	106	58	77
23	43	25	e30	e20	e18	e27	50	210	214	102	57	62
24	43	e30	e29	e20	e19	e25	49	277	207	95	54	78
25	41	e30	e28	e20	e18	e25	44	285	209	93	69	54
26	42	29	e29	e21	e19	e26	47	256	218	89	68	54
27	40	30	e29	e20	e20	e26	56	224	226	86	68	47
28	40	29	e29	e19	e20	e26	71	240	207	86	61	45
29	43	28	e28	e18	e20	e26	74	335	198	81	87	43
30	37	29	e27	e16	---	e25	79	395	194	78	78	45
31	41	---	e27	e17	---	e25	---	390	---	76	77	---
TOTAL	1480	929	1033	686	571	742	1202	5586	8008	4162	2014	1624
MEAN	47.7	31.0	33.3	22.1	19.7	23.9	40.1	180	267	134	65.0	54.1
MAX	60	41	40	29	22	27	79	395	367	216	87	78
MIN	37	24	27	16	18	19	23	67	194	76	54	40
AC-FT	2940	1840	2050	1360	1130	1470	2380	11080	15880	8260	3990	3220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2000, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
MEAN	41.2	27.4	23.2	18.6	16.5	18.5	28.8	131	376	274	135	66.7
MAX	47.7	32.1	33.3	25.2	20.6	23.9	40.1	189	497	555	212	87.4
(WY)	2000	1999	2000	1999	1999	2000	2000	1996	1995	1995	1999	1999
MIN	27.9	19.3	15.4	12.8	11.2	11.7	20.2	48.6	223	134	65.0	50.2
(WY)	1995	1995	1995	1995	1997	1997	1995	1995	1998	2000	2000	1996

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1995 - 2000
ANNUAL TOTAL	37788	28037	
ANNUAL MEAN	104	76.6	96.7
HIGHEST ANNUAL MEAN			126
LOWEST ANNUAL MEAN			74.5
HIGHEST DAILY MEAN	472	395	886
LOWEST DAILY MEAN	e12	e16	e8.5
ANNUAL SEVEN-DAY MINIMUM	e14	e19	9.1
INSTANTANEOUS PEAK FLOW		470	1030
INSTANTANEOUS PEAK STAGE		5.35	6.63
ANNUAL RUNOFF (AC-FT)	74950	55610	70030
10 PERCENT EXCEEDS	297	208	263
50 PERCENT EXCEEDS	41	43	36
90 PERCENT EXCEEDS	21	20	16

e Estimated.

394634105465800 HOOP CREEK AT MOUTH NEAR BERTHOUD FALLS, CO

LOCATION.--Lat 39°46'34", long 105°46'58", T.3 S., R.75 W. (unsurveyed), Clear Creek County, Hydrologic Unit 10190004, on left bank 10 ft downstream from U.S. Highway 40 culvert, 300 ft upstream from mouth, and 1.0 mi east of Berthoud Falls.

DRAINAGE AREA.--2.50 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1997 to September 2000 (seasonal records only, discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 9,595 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by minor transmountain diversion from Colorado River basin through Berthoud Pass ditch (see elsewhere in this report).

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily discharge, 61 ft<sup>3</sup>/s, June 22, 1997 during period of estimated record. Maximum recorded discharge, 73 ft<sup>3</sup>/s, June 27, 1997, gage height, 1.52 ft; minimum daily, 0.40 ft<sup>3</sup>/s (estimated), Apr. 17, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 23 ft<sup>3</sup>/s at 1645 June 1, gage height, 1.74 ft; minimum daily discharge, 0.70 ft<sup>3</sup>/s, Apr. 7.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e.72	2.5	20	5.5	2.0	1.5
2	---	---	---	---	---	---	e.72	2.5	20	5.4	1.9	1.4
3	---	---	---	---	---	---	e.72	3.5	20	5.2	2.0	1.4
4	---	---	---	---	---	---	e.74	5.5	19	5.0	1.9	1.3
5	---	---	---	---	---	---	e.76	7.3	19	4.8	1.8	1.5
6	---	---	---	---	---	---	e.80	8.8	18	4.4	1.7	1.4
7	---	---	---	---	---	---	.70	10	18	4.2	1.7	1.3
8	---	---	---	---	---	---	.87	10	17	4.2	1.8	1.4
9	---	---	---	---	---	---	1.0	9.5	16	4.3	1.7	1.3
10	---	---	---	---	---	---	1.1	9.5	15	4.0	1.6	1.2
11	---	---	---	---	---	---	1.0	9.9	14	3.8	1.7	1.2
12	---	---	---	---	---	---	1.1	9.0	13	3.7	1.6	1.2
13	---	---	---	---	---	---	1.3	8.4	13	3.6	1.6	1.2
14	---	---	---	---	---	---	1.5	8.6	12	3.4	1.6	1.3
15	---	---	---	---	---	---	1.4	8.4	11	3.7	1.6	1.3
16	---	---	---	---	---	---	1.4	9.0	9.8	3.8	1.6	1.2
17	---	---	---	---	---	---	1.6	8.9	9.1	3.7	1.9	1.1
18	---	---	---	---	---	---	1.7	8.5	8.7	3.2	1.8	1.2
19	---	---	---	---	---	---	1.7	8.5	8.8	3.0	1.6	1.1
20	---	---	---	---	---	---	1.5	8.0	8.9	2.9	1.5	1.4
21	---	---	---	---	---	---	1.8	7.8	7.4	2.8	1.5	2.1
22	---	---	---	---	---	---	2.1	8.6	7.1	2.7	1.4	1.7
23	---	---	---	---	---	---	2.0	11	6.8	2.6	1.4	1.3
24	---	---	---	---	---	---	1.8	14	6.5	2.6	1.4	1.8
25	---	---	---	---	---	---	2.5	16	6.4	2.5	1.4	1.5
26	---	---	---	---	---	---	2.1	16	7.8	2.5	1.6	1.3
27	---	---	---	---	---	---	2.5	15	6.8	2.5	1.4	1.3
28	---	---	---	---	---	---	3.1	16	6.0	2.3	2.3	1.2
29	---	---	---	---	---	---	3.5	17	5.7	2.2	3.0	1.2
30	---	---	---	---	---	---	2.7	19	5.6	2.2	1.6	1.2
31	---	---	---	---	---	---	---	19	---	2.0	1.5	---
TOTAL	---	---	---	---	---	---	46.43	315.7	356.4	108.7	53.1	40.5
MEAN	---	---	---	---	---	---	1.55	10.2	11.9	3.51	1.71	1.35
MAX	---	---	---	---	---	---	3.5	19	20	5.5	3.0	2.1
MIN	---	---	---	---	---	---	.70	2.5	5.6	2.0	1.4	1.1
AC-FT	---	---	---	---	---	---	92	626	707	216	105	80

e Estimated.





PLATTE RIVER BASIN

394634105465800 HOOP CREEK AT MOUTH NEAR BERTHOUD FALLS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
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	---	---	---	---	---	---	---	---	---	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	---	---	---	3.8	.0	1.3
2	---	---	---	---	---	---	---	---	---	4.6	.9	2.2
3	---	---	---	---	---	---	---	---	---	4.3	1.3	2.4
4	---	---	---	---	---	---	---	---	---	4.5	1.5	2.6
5	---	---	---	---	---	---	---	---	---	5.8	1.5	2.6
6	---	---	---	---	---	---	---	---	---	5.5	1.3	2.6
7	---	---	---	---	---	---	2.4	.0	.7	5.0	1.7	2.7
8	---	---	---	---	---	---	2.6	.0	.7	2.2	.6	1.5
9	---	---	---	---	---	---	3.2	.5	1.1	4.8	.5	2.1
10	---	---	---	---	---	---	2.1	.2	.8	6.7	2.1	3.4
11	---	---	---	---	---	---	2.0	.0	.8	6.0	.5	2.8
12	---	---	---	---	---	---	3.4	.0	1.1	1.2	.0	.2
13	---	---	---	---	---	---	3.3	.6	1.4	3.6	.0	1.2
14	---	---	---	---	---	---	3.5	.6	1.4	4.8	.8	2.2
15	---	---	---	---	---	---	1.8	.0	.4	5.1	1.9	3.0
16	---	---	---	---	---	---	3.2	.0	1.1	6.9	1.6	3.2
17	---	---	---	---	---	---	4.3	.5	1.6	2.2	.1	1.0
18	---	---	---	---	---	---	3.5	.0	1.2	2.2	.7	1.3
19	---	---	---	---	---	---	.0	.0	.0	5.5	1.0	2.6
20	---	---	---	---	---	---	2.7	.0	.9	5.5	1.8	3.0
21	---	---	---	---	---	---	3.6	.2	1.3	6.7	1.7	3.5
22	---	---	---	---	---	---	2.1	.0	.6	7.2	2.6	4.2
23	---	---	---	---	---	---	2.0	.0	.7	8.2	3.1	4.4
24	---	---	---	---	---	---	2.5	.0	.8	5.6	2.6	3.7
25	---	---	---	---	---	---	2.9	.0	.9	6.2	2.5	3.6
26	---	---	---	---	---	---	3.9	.6	1.8	4.2	2.1	3.0
27	---	---	---	---	---	---	4.8	.7	2.1	6.9	1.9	3.6
28	---	---	---	---	---	---	3.9	.9	2.0	8.2	2.9	4.5
29	---	---	---	---	---	---	4.0	1.1	2.0	7.3	2.8	4.3
30	---	---	---	---	---	---	1.7	.2	.7	7.8	3.0	4.6
31	---	---	---	---	---	---	---	---	---	7.8	2.8	4.4
MONTH	---	---	---	---	---	---	4.8	.0	1.1	8.2	.0	2.8





06716100 WEST FORK CLEAR CREEK ABOVE MOUTH NEAR EMPIRE, CO

LOCATION.--Lat 39°45'32", long 105°39'34", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.27, T.3 S., R.74 W., Clear Creek County, Hydrologic Unit 10190004, on left bank, 60 ft downstream from frontage road bridge and 1.2 mi east of Empire.

DRAINAGE AREA.--57.6 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 8,235 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transbasin diversions. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	35	e21	e24	e22	e17	19	71	434	202	62	57
2	47	32	e22	e25	e23	e18	19	77	442	195	61	52
3	47	33	e23	e20	e22	e18	19	98	402	188	64	52
4	46	32	e24	e17	e21	e18	21	122	405	176	67	48
5	45	32	e25	e26	e20	e19	23	155	403	165	56	48
6	47	32	e24	e23	e21	e19	24	187	397	157	54	53
7	52	31	e21	e25	e20	e19	23	201	400	148	56	50
8	50	31	e22	e27	e20	e17	23	201	402	146	53	50
9	48	30	e24	e25	e21	e18	26	180	399	150	53	50
10	47	30	e23	e28	e18	e18	28	172	401	161	52	46
11	44	30	e22	e24	e19	e17	26	188	380	134	52	45
12	43	e27	e24	e24	e22	e18	27	182	362	135	52	42
13	42	e28	e22	e24	e21	e17	30	162	354	127	51	41
14	41	e27	e20	e24	e20	e16	33	156	323	123	48	41
15	41	e26	e21	e24	e20	e18	34	151	311	125	46	40
16	40	e27	e23	e23	e20	e17	32	158	309	135	45	40
17	39	e27	e25	e23	e21	e16	33	173	288	148	48	39
18	41	e25	e23	e22	e22	e18	36	156	265	134	58	38
19	41	e23	e22	e21	e19	e17	37	148	277	125	51	39
20	39	e27	e20	e20	e21	e19	36	144	306	118	47	46
21	39	e25	e20	e19	e20	e18	38	137	254	111	44	49
22	38	e27	e18	e21	e20	e17	41	154	244	107	42	64
23	38	e26	e20	e23	e20	e18	42	209	238	102	40	49
24	38	e21	e21	e23	e19	e18	43	273	227	93	41	49
25	36	e25	e24	e25	e18	e18	41	299	233	80	42	47
26	35	e29	e25	e26	e19	e18	43	301	260	78	45	47
27	36	e26	e24	e24	e19	e18	49	288	253	77	45	45
28	35	e24	e25	e23	e18	19	61	298	229	74	43	41
29	35	e23	e23	e22	e18	19	71	355	216	71	81	41
30	34	e23	e24	e19	---	19	78	375	208	68	51	42
31	36	---	e25	e20	---	17	---	395	---	65	50	---
TOTAL	1287	834	700	714	584	553	1056	6166	9622	3918	1600	1391
MEAN	41.5	27.8	22.6	23.0	20.1	17.8	35.2	199	321	126	51.6	46.4
MAX	52	35	25	28	23	19	78	395	442	202	81	64
MIN	34	21	18	17	18	16	19	71	208	65	40	38
AC-FT	2550	1650	1390	1420	1160	1100	2090	12230	19090	7770	3170	2760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2000, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
MEAN	31.7	24.0	19.2	16.9	14.6	15.3	23.4	128	361	225	102	48.5
MAX	41.5	29.0	26.1	23.5	20.1	19.3	35.2	199	504	395	199	66.5
(WY)	2000	1996	1999	1999	2000	1999	2000	2000	1997	1995	1999	1999
MIN	22.0	15.9	10.4	9.92	11.1	12.7	15.3	47.2	207	126	51.6	37.2
(WY)	1995	1995	1995	1995	1995	1998	1995	1995	1998	2000	2000	1996

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1995 - 2000
ANNUAL TOTAL	35223	28425	
ANNUAL MEAN	96.5	77.7	84.4
HIGHEST ANNUAL MEAN			96.2
LOWEST ANNUAL MEAN			60.9
HIGHEST DAILY MEAN	456	442	720
LOWEST DAILY MEAN	e13	e16	e9.5
ANNUAL SEVEN-DAY MINIMUM	15	e17	9.6
INSTANTANEOUS PEAK FLOW		521	774
INSTANTANEOUS PEAK STAGE		5.82	6.67
ANNUAL RUNOFF (AC-FT)	69860	56380	61120
10 PERCENT EXCEEDS	294	219	259
50 PERCENT EXCEEDS	35	38	29
90 PERCENT EXCEEDS	20	19	13

e Estimated.



## 06717400 CHICAGO CREEK BELOW DEVILS CANYON, NEAR IDAHO SPRINGS, CO

LOCATION.--Lat 39°42'59", long 105°34'15", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.9, T.4 S., R.73 W., Clear Creek County, Hydrologic Unit 10190004, on left bank, 50 ft upstream from Highway 103 bridge, 5.6 mi upstream from intersection of I-70 and Colorado Highway 103, and 3.2 mi southwest of Idaho Springs.

DRAINAGE AREA.--43.7 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to September 1999. October 1999 to September 2000 (seasonal records only). Records for May 14, 1996 (when gage was located 700 ft upstream) to April 10, 1998, may not be equivalent to other records because gage was moved upstream of inflow from Devils Canyon.

GAGE.--Water-stage recorder. Elevation of gage is 8,040 ft above sea level, from topographic map. Prior to May 14, 1996, at site 150 ft downstream at different datum. May 14, 1996 to Apr. 10, 1998, at site 700 ft upstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 175 ft<sup>3</sup>/s, June 8, 1997, gage height, 6.51 ft; minimum daily, 1.0 ft<sup>3</sup>/s (estimated), Feb. 11, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 69 ft<sup>3</sup>/s at 2400 hrs July 16, gage height, 5.28 ft; minimum daily, 1.2 ft<sup>3</sup>/s (estimated), Dec. 1.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	3.2	1.2	---	---	---	e3.0	17	29	8.5	8.7	27
2	12	e3.5	1.2	---	---	---	e4.0	19	27	8.7	8.7	18
3	12	3.4	1.3	---	---	---	e5.0	22	27	8.8	10	17
4	11	3.3	1.3	---	---	---	e7.0	31	26	7.4	9.5	16
5	9.5	3.0	1.4	---	---	---	9.3	43	26	7.2	8.9	15
6	9.3	2.4	e1.9	---	---	---	10	45	24	9.0	8.5	15
7	16	2.3	e1.9	---	---	---	9.9	45	24	9.1	7.8	14
8	15	2.4	e1.8	---	---	---	9.0	44	23	9.5	8.4	13
9	17	2.4	e1.8	---	---	---	8.9	39	25	9.7	7.3	13
10	15	2.3	e1.9	---	---	---	8.8	40	27	14	7.4	12
11	14	2.3	e1.8	---	---	---	8.1	44	26	10	6.3	11
12	14	2.2	e1.7	---	---	---	8.8	40	24	9.4	7.5	11
13	12	2.0	e1.8	---	---	---	10	34	23	11	6.9	11
14	8.9	2.1	e1.7	---	---	---	11	33	22	9.8	6.8	10
15	9.2	2.0	e1.8	---	---	---	11	32	20	8.3	7.4	10
16	9.4	2.2	e2.1	---	---	---	8.9	31	19	15	8.3	9.7
17	8.9	2.7	e2.0	---	---	---	11	29	20	38	8.3	9.6
18	9.9	e2.5	e1.7	---	---	---	12	19	18	16	11	10
19	9.7	2.3	e1.6	---	---	---	11	19	17	19	6.1	10
20	9.6	2.0	e1.5	---	---	---	10	19	21	40	8.6	12
21	7.5	2.0	e1.5	---	---	---	11	19	16	37	5.9	12
22	7.6	e2.2	e1.5	---	---	---	12	22	15	34	5.2	15
23	6.8	e2.4	e1.5	---	---	---	13	28	14	30	6.2	12
24	5.2	e2.6	e1.6	---	---	---	12	34	14	23	4.9	13
25	5.0	2.9	e1.5	---	---	---	12	33	14	9.5	7.8	12
26	4.7	2.2	e1.5	---	---	---	13	29	14	10	12	12
27	4.3	1.8	e1.4	---	---	---	16	26	13	11	16	12
28	4.0	1.6	e1.4	---	---	---	17	27	11	11	7.9	11
29	3.9	1.4	e1.4	---	---	---	18	32	9.4	10	14	11
30	3.6	1.3	e1.5	---	---	---	19	31	8.6	9.0	15	11
31	3.6	---	e1.4	---	---	---	---	30	---	8.5	22	---
TOTAL	292.6	70.9	49.6	---	---	---	319.7	956	597.0	461.4	279.3	385.3
MEAN	9.44	2.36	1.60	---	---	---	10.7	30.8	19.9	14.9	9.01	12.8
MAX	17	3.5	2.1	---	---	---	19	45	29	40	22	27
MIN	3.6	1.3	1.2	---	---	---	3.0	17	8.6	7.2	4.9	9.6
AC-FT	580	141	98	---	---	---	634	1900	1180	915	554	764

e Estimated.

PLATTE RIVER BASIN

06718300 CLEAR CREEK ABOVE JOHNSON GULCH NEAR IDAHO SPRINGS, CO

LOCATION.--Lat 39°44'47", long 105°26'08", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.34, T.3 S., R.72 W., Clear Creek County, Hydrologic Unit 10190004, on left bank 150 ft downstream from I-70 exit 243 bridge over Clear Creek, and 2 mi east of Idaho Springs.

DRAINAGE AREA.--267 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 7,210 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	152	102	e67	e45	e50	55	61	197	861	378	184	169
2	151	91	e70	e35	e65	57	62	216	821	369	179	149
3	148	93	e71	e30	e62	56	63	284	794	362	171	141
4	145	93	e72	e26	e60	57	63	342	795	340	181	135
5	143	90	e72	e45	e60	60	72	430	797	313	162	130
6	146	88	e73	e35	e58	60	76	496	774	299	159	139
7	158	88	e70	e42	e56	60	74	523	772	290	156	141
8	139	90	e68	e50	e54	57	69	509	761	283	148	141
9	139	88	e60	e50	e52	58	76	426	740	308	144	141
10	132	86	e64	e60	e50	55	83	394	693	335	142	139
11	129	92	e64	e61	e54	55	80	467	632	292	141	130
12	121	90	e66	e60	e56	59	79	450	594	286	145	117
13	124	88	e72	e58	e52	56	89	373	580	276	149	e116
14	127	87	e64	e56	e50	57	97	350	524	262	146	e115
15	119	88	e68	e54	e50	59	105	344	524	264	145	114
16	119	85	e70	e52	e48	60	96	360	527	297	149	109
17	101	88	e68	e50	e52	61	97	412	499	426	155	109
18	126	92	e66	e47	e54	58	112	348	448	338	188	106
19	138	67	e64	e46	e53	56	113	322	473	297	166	106
20	132	84	e62	e45	e56	61	105	328	554	287	150	122
21	125	82	e60	e44	e55	57	112	316	454	269	150	127
22	123	83	e58	e45	e54	58	133	356	432	257	144	159
23	115	70	e56	e45	e52	60	133	480	425	249	144	134
24	113	64	e60	e46	e51	59	132	653	406	232	139	144
25	107	e72	e60	e48	56	60	119	701	417	211	155	125
26	107	e76	e56	e50	54	61	127	671	451	220	156	126
27	104	e76	e58	e45	59	61	145	593	478	214	160	119
28	102	e74	e50	e43	58	64	183	602	423	213	146	111
29	101	e72	e45	e42	56	64	206	770	396	204	190	108
30	95	e68	e44	e40	---	62	233	883	383	193	167	112
31	102	---	e44	e45	---	60	---	910	---	188	165	---
TOTAL	3883	2507	1942	1440	1587	1823	3195	14506	17428	8752	4876	3834
MEAN	125	83.6	62.6	46.5	54.7	58.8	106	468	581	282	157	128
MAX	158	102	73	61	65	64	233	910	861	426	190	169
MIN	95	64	44	26	48	55	61	197	383	188	139	106
AC-FT	7700	4970	3850	2860	3150	3620	6340	28770	34570	17360	9670	7600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2000, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	
MEAN	109	70.1	54.5	44.4	42.1	48.7	76.8	378	973	661	325	167
MAX	126	83.6	62.6	54.6	54.7	58.8	106	549	1325	1398	526	213
(WY)	1999	2000	2000	1996	2000	2000	2000	1996	1995	1999	1999	1999
MIN	65.0	49.6	43.2	34.1	30.5	43.1	49.9	221	581	282	157	128
(WY)	1995	1995	1995	1995	1995	1995	1995	1995	2000	2000	2000	2000

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1995 - 2000
ANNUAL TOTAL	94899	65773	
ANNUAL MEAN	260	180	246
HIGHEST ANNUAL MEAN			326
LOWEST ANNUAL MEAN			180
HIGHEST DAILY MEAN	1200	910	2080
LOWEST DAILY MEAN	e42	e26	e26
ANNUAL SEVEN-DAY MINIMUM	e45	e37	27
INSTANTANEOUS PEAK FLOW		1070	2250
INSTANTANEOUS PEAK STAGE		6.64	a7.46
ANNUAL RUNOFF (AC-FT)	188200	130500	178500
10 PERCENT EXCEEDS	756	449	678
50 PERCENT EXCEEDS	102	110	94
90 PERCENT EXCEEDS	50	52	42

e Estimated.

a Maximum gage height, 8.23 ft, Jun 17, 1995.

06718550 NORTH CLEAR CREEK ABOVE MOUTH NEAR BLACKHAWK, CO

LOCATION.--Lat 39°44'56", long 105°23'57", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.36, T.3 S., R.72 W., Clear Creek County, Hydrologic Unit 10190004, on left bank 150 ft upstream from intersection of Hwy 6 and Hwy 119 bridge over North Clear Creek, 0.2 mi above mouth, and 6.5 mi southeast of Blackhawk.

DRAINAGE AREA.--59.4 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1994 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 6,910 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	11	e6.4	e6.4	e3.5	7.2	9.8	43	60	13	5.0	7.8
2	13	9.1	e6.4	e5.0	e4.0	7.2	9.3	48	55	13	4.8	5.9
3	13	11	e6.2	e4.5	e4.2	7.1	11	50	52	13	4.8	5.2
4	12	10	e6.2	e5.0	e3.8	7.6	11	56	49	12	e3.9	4.9
5	13	10	e6.8	e6.0	e4.0	8.1	15	65	46	11	e1.8	4.7
6	12	9.8	e7.2	e5.4	e4.2	7.8	16	71	43	10	e.15	4.3
7	16	9.5	e7.4	e5.8	e4.4	8.3	14	73	40	9.7	e.00	4.1
8	16	9.8	e6.4	e6.6	e4.7	7.4	13	74	38	9.4	e.00	4.1
9	15	9.5	e6.8	e6.0	e5.0	7.6	14	72	36	9.6	e.00	4.3
10	14	9.0	e7.0	e6.2	e4.8	7.7	16	69	33	13	e.00	4.1
11	13	9.4	e6.8	e6.4	e5.2	8.2	14	66	31	9.6	e.00	3.9
12	12	8.6	e7.0	e6.2	e5.6	7.3	14	63	28	8.9	e.00	3.9
13	12	e8.0	e6.6	e6.0	e5.4	7.7	14	59	27	9.3	e.03	3.7
14	12	e7.8	e6.4	e5.6	e5.8	7.3	16	56	25	8.5	e.53	e2.6
15	11	e7.6	e6.0	e5.4	e6.0	8.3	17	51	23	8.1	e.01	e.26
16	12	e7.4	e6.8	e5.2	e5.8	10	16	50	23	9.8	e3.9	e.07
17	10	e7.0	e7.4	e5.0	e6.2	9.8	17	51	25	25	11	e.10
18	12	e7.8	e6.6	e4.5	e6.4	8.0	19	50	22	11	14	e.07
19	13	e6.0	e6.2	e4.3	e6.2	9.9	20	53	21	9.0	8.5	e.07
20	13	e7.0	e6.0	e4.1	e6.8	8.8	19	51	26	8.2	5.4	4.9
21	12	e6.8	e5.8	e4.0	e6.6	8.7	20	46	20	7.4	4.8	5.0
22	12	e7.0	e5.6	e4.1	e6.2	8.1	24	47	18	6.9	4.6	7.6
23	12	e6.0	e6.0	e4.2	e5.8	8.4	28	50	17	6.9	4.2	6.0
24	12	e5.6	e6.2	e4.4	e6.5	9.4	26	57	17	6.5	4.0	7.0
25	11	e6.6	e6.4	e4.6	7.4	9.1	24	65	16	6.2	4.0	6.1
26	11	e8.0	e6.4	e4.7	10	9.4	25	65	21	5.9	4.8	6.1
27	11	e7.4	e6.4	e4.0	8.3	9.7	30	64	21	5.8	5.5	5.7
28	11	e7.0	e6.0	e3.3	7.5	10	35	62	17	6.1	5.0	5.3
29	11	e6.6	e5.8	e3.2	7.6	9.9	39	64	15	5.7	8.8	5.1
30	10	e6.4	e5.8	e3.0	---	9.6	45	63	14	5.4	7.4	5.6
31	10	---	e6.0	e3.5	---	8.6	---	64	---	5.1	8.0	---
TOTAL	380	242.7	199.0	152.6	167.9	262.2	591.1	1818	879	289.0	124.92	128.47
MEAN	12.3	8.09	6.42	4.92	5.79	8.46	19.7	58.6	29.3	9.32	4.03	4.28
MAX	16	11	7.4	6.6	10	10	45	74	60	25	14	7.8
MIN	10	5.6	5.6	3.0	3.5	7.1	9.3	43	14	5.1	.00	.07
AC-FT	754	481	395	303	333	520	1170	3610	1740	573	248	255

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2000, BY WATER YEAR (WY)

	1995	1996	1997	1998	1999	2000
MEAN	6.34	4.87	3.74	3.19	3.33	5.62
MAX	12.3	8.09	6.42	4.92	5.79	8.46
(WY)	2000	2000	2000	2000	2000	1998
MIN	3.08	2.68	1.68	1.30	1.38	2.21
(WY)	1995	1995	1995	1995	1995	1995

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1995 - 2000
ANNUAL TOTAL	10374.3	5234.89	
ANNUAL MEAN	28.4	14.3	23.2
HIGHEST ANNUAL MEAN			35.6
LOWEST ANNUAL MEAN			14.3
HIGHEST DAILY MEAN	166	May 29	415
LOWEST DAILY MEAN	e3.5	Jan 8	e.00
ANNUAL SEVEN-DAY MINIMUM	e3.6	Jan 7	e.00
INSTANTANEOUS PEAK FLOW		84	May 8
INSTANTANEOUS PEAK STAGE		4.70	May 8
ANNUAL RUNOFF (AC-FT)	20580	10380	16830
10 PERCENT EXCEEDS	92	44	71
50 PERCENT EXCEEDS	11	7.9	6.8
90 PERCENT EXCEEDS	4.9	4.1	2.4

e Estimated.

a From rating curve extended above 300 ft<sup>3</sup>/s.

## 06719505 CLEAR CREEK AT GOLDEN, CO

LOCATION.--Lat 39°45'11", long 105°14'05", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.33, T.3 S., R.70 W., Jefferson County, Hydrologic Unit 10190004, on left bank 100 ft downstream from U.S. Highway 6 bridge at west edge of Golden, 0.7 mi downstream from headgate of Church ditch, and 13.3 mi downstream from North Clear Creek.

DRAINAGE AREA.--400 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1974 to current year. Records for station at site 0.8 mi upstream (October 1908 to December 1909, June 1911 to September 1974) are not equivalent due to diversions by Church ditch. Water-quality data available, November 1977 to August 1995. Sediment data available, April to September 1981, and April 1993 to August 1995.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,695 ft above sea level, from topographic map. Prior to Sept. 12, 1980, at site 80 ft downstream. Prior to Jan. 22, 1987, at datum 2.00 ft higher, at both sites.

REMARKS.--Records good except for estimated daily discharges, 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 upstream from station. Diversion by Welch ditch 1.4 mi upstream from station and by Church Ditch 0.7 mi upstream from station for irrigation of about 5,200 acres downstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	121	87	e83	e75	59	64	228	872	380	170	196
2	130	105	87	e83	e80	62	76	241	834	372	183	174
3	127	110	99	e84	e87	60	71	282	806	364	168	160
4	124	111	103	e82	81	60	77	332	808	341	190	153
5	120	105	106	e81	79	64	88	409	801	315	169	142
6	117	105	90	e81	76	64	97	470	779	299	156	148
7	138	103	90	e82	71	65	95	500	770	291	153	144
8	148	105	98	e81	67	62	85	511	757	277	148	136
9	139	104	e95	e82	65	62	90	439	744	305	140	148
10	127	96	e94	e81	63	57	101	392	713	339	140	137
11	123	101	e93	e83	63	55	e110	440	662	292	140	129
12	112	101	e92	e88	64	64	e112	438	620	276	143	125
13	112	97	e91	e85	60	59	e114	377	597	274	152	121
14	114	95	e90	e84	64	61	e117	360	534	252	146	117
15	105	96	e87	e85	64	66	e119	351	530	248	140	116
16	113	95	e88	e86	61	63	e121	353	538	262	151	109
17	95	96	e89	e85	64	71	e123	403	525	479	164	108
18	120	100	e90	e80	68	67	125	367	473	392	222	106
19	128	75	e89	e75	68	59	132	343	473	313	183	106
20	124	95	e88	e70	72	71	123	347	558	278	155	128
21	132	90	e87	e65	67	62	129	329	463	254	155	137
22	134	100	e86	e67	64	64	146	348	436	236	144	182
23	129	79	e84	e67	62	65	166	436	428	225	145	151
24	124	72	e85	e66	63	66	160	608	408	204	137	161
25	121	91	e85	e68	60	66	146	681	418	172	154	142
26	117	114	e83	e62	51	65	148	663	446	180	157	136
27	115	104	e84	e57	67	67	164	592	498	178	172	123
28	117	97	e84	e53	65	71	201	583	435	177	155	117
29	118	91	e86	e51	61	71	221	742	397	170	208	112
30	112	90	e85	e48	---	70	262	866	383	156	193	114
31	118	---	e84	e57	---	72	---	900	---	151	183	---
TOTAL	3785	2944	2779	2302	1952	1990	3783	14331	17706	8452	5016	4078
MEAN	122	98.1	89.6	74.3	67.3	64.2	126	462	590	273	162	136
MAX	148	121	106	88	87	72	262	900	872	479	222	196
MIN	95	72	83	48	51	55	64	228	383	151	137	106
AC-FT	7510	5840	5510	4570	3870	3950	7500	28430	35120	16760	9950	8090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2000, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	86.1	63.4	50.4	44.4	43.1	44.5	75.8	324	793	473	219	129														
MAX	192	115	89.6	74.3	67.3	64.2	126	655	1522	1203	535	231														
(WY)	1985	1985	2000	2000	2000	2000	2000	1984	1995	1995	1999	1984														
MIN	54.3	39.2	33.5	29.3	25.9	31.2	39.0	123	382	161	100	78.8														
(WY)	1982	1982	1990	1995	1995	1976	1982	1981	1977	1977	1977	1977														

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1975 - 2000	
ANNUAL TOTAL	93839		69118			
ANNUAL MEAN	257		189		196	
HIGHEST ANNUAL MEAN					321	
LOWEST ANNUAL MEAN					109	
HIGHEST DAILY MEAN	1110		900		2300	
LOWEST DAILY MEAN	41		e48		18	
ANNUAL SEVEN-DAY MINIMUM	47		e57		24	
INSTANTANEOUS PEAK FLOW			983		2370	
INSTANTANEOUS PEAK STAGE			7.03		a6.44	
ANNUAL RUNOFF (AC-FT)	186100		137100		141900	
10 PERCENT EXCEEDS	747		439		550	
50 PERCENT EXCEEDS	114		117		80	
90 PERCENT EXCEEDS	54		64		37	

e Estimated.

a Maximum gage height, 8.10 ft, Jun 21, 1995.

06720500 SOUTH PLATTE RIVER AT HENDERSON, CO

LOCATION.--Lat 39°55'19", long 104°52'04", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.34, T.1 S., R.67 W., Adams County, Hydrologic Unit 10190003, on right bank 500 ft upstream from bridge on State Highway 22, and 0.2 mi northwest of Henderson.

DRAINAGE AREA.--4,713 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1926 to current year. Prior to October 1933, monthly discharge only, published in WSP 1310. Statistical summary computed for 1976 to current year. Water-quality data available, July 1955 to September 1957, June 1962 to September 1973, and April 1988 to September 1995.

REVISED RECORDS.--WSP 1310: 1934-36(M). WSP 1730: Drainage area. WDR C0-88-1: 1986.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4999.12 ft above 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 upstream at datum 5.00 ft higher. May 11 to Oct. 2, 1969, nonrecording gage at site 500 ft downstream at datum 3.00 ft higher. Oct. 3, 1969 to Jan. 15, 1986, at present site, at datum 3.00 ft higher.

REMARKS.--Records good except for flows above 657 ft<sup>3</sup>/s, and Mar. 30 and Sept. 17, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals, diversions for irrigation of about 253,000 acres, and return flow from irrigated areas.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	531	558	258	556	487	331	855	460	535	589	329	381
2	517	568	243	550	484	336	763	226	445	615	331	241
3	536	598	281	582	493	375	874	186	398	572	329	273
4	509	603	305	567	374	344	467	224	401	534	336	268
5	545	606	285	550	359	349	333	332	415	505	352	257
6	456	598	279	527	358	351	333	372	382	477	323	227
7	449	596	267	508	351	359	323	365	458	432	330	226
8	434	595	273	513	345	368	335	884	439	436	323	207
9	418	591	274	508	346	323	303	920	420	427	297	195
10	415	598	256	520	360	306	292	433	502	490	276	187
11	417	603	252	502	364	300	277	421	485	545	266	176
12	452	593	238	508	373	290	239	405	452	497	260	170
13	415	573	240	496	364	285	217	358	382	567	282	174
14	453	556	246	490	364	276	208	392	428	491	314	176
15	533	550	225	490	364	336	242	350	388	598	283	171
16	652	519	222	496	361	655	303	314	503	518	356	172
17	873	509	246	520	362	549	234	938	921	4090	1400	e173
18	674	515	236	514	386	437	221	1970	531	1010	2090	180
19	678	510	239	509	383	341	260	796	456	413	456	185
20	612	520	228	520	359	414	251	466	788	465	274	703
21	577	541	417	527	355	619	234	453	512	467	245	323
22	569	848	507	530	359	560	242	432	504	430	294	267
23	532	527	551	515	476	457	315	465	529	436	299	328
24	528	339	568	512	515	433	302	576	514	423	287	680
25	523	277	531	504	376	432	259	852	573	404	304	361
26	500	273	526	552	365	403	233	761	1030	374	498	304
27	477	278	568	722	348	273	272	434	939	335	417	298
28	466	263	585	649	365	250	262	334	689	313	472	289
29	476	264	605	544	348	343	287	368	481	305	785	279
30	495	261	606	517	---	e289	968	526	441	323	507	315
31	504	---	579	506	---	826	---	566	---	332	277	---

TOTAL	16216	15230	11136	16504	11144	12210	10704	16579	15941	18413	13592	8186
MEAN	523	508	359	532	384	394	357	535	531	594	438	273
MAX	873	848	606	722	515	826	968	1970	1030	4090	2090	703
MIN	415	261	222	490	345	250	208	186	382	305	245	170
AC-FT	32160	30210	22090	32740	22100	24220	21230	32880	31620	36520	26960	16240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2000, BY WATER YEAR (WY)

MEAN	359	340	308	332	320	361	542	1135	1296	835	669	388
MAX	1835	1268	554	592	642	842	1732	3923	4796	3204	2074	1141
(WY)	1985	1985	1984	1984	1984	1983	1983	1980	1995	1995	1984	1984
MIN	144	173	177	155	156	118	140	324	334	269	279	157
(WY)	1978	1978	1976	1977	1977	1982	1982	1986	1981	1994	1977	1977

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1976 - 2000
ANNUAL TOTAL	319708	165855	
ANNUAL MEAN	876	453	a575
HIGHEST ANNUAL MEAN			1379
LOWEST ANNUAL MEAN			252
HIGHEST DAILY MEAN	5490	Aug 5	4090 Jul 17
LOWEST DAILY MEAN	104	Mar 28	170 Sep 12
ANNUAL SEVEN-DAY MINIMUM	120	Mar 24	173 Sep 11
INSTANTANEOUS PEAK FLOW		8460	Jul 17
INSTANTANEOUS PEAK STAGE		8.58	Jul 17
ANNUAL RUNOFF (AC-FT)	634100	329000	f7.58 Jun 27 1983
10 PERCENT EXCEEDS	2600	606	1090
50 PERCENT EXCEEDS	515	420	350
90 PERCENT EXCEEDS	221	246	182

e Estimated.

a Average discharge for 48 years (water years 1927-74), 366 ft<sup>3</sup>/s; 265200 acre-ft/yr, prior to completion of Chatfield Dam.

b Maximum daily discharge for period of record, 13200 ft<sup>3</sup>/s, May 7, 1973.

c Minimum daily discharge for period of record, 4.4 ft<sup>3</sup>/s, Apr 1, 1950.

d Maximum discharge and stage for period of record, 33000 ft<sup>3</sup>/s, May 6, 1973, gage height, 11.67 ft, from rating curve extended above 7200 ft<sup>3</sup>/s, partly on basis of flow-over-road measurement of peak flow; maximum gage height, 12.93 ft, Jun 17, 1965, site and datum then in use.

f Maximum gage height for statistical period, 9.91 ft, May 17, 1995.

## PLATTE RIVER BASIN

06720820 BIG DRY CREEK AT WESTMINSTER, CO

LOCATION.--Lat 39°54'20", long 105°02'04", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.6, T.2 S., R.68 W., Adams County, Hydrologic Unit 10190003, on left bank 0.75 mi upstream from bridge on 120th Ave., and 5.2 mi downstream from outlet of Standley Lake.

DRAINAGE AREA.--43.8 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1987 to September 1995, November 1996 to current year.

REVISED RECORDS.--WDR CO-91-1: Drainage area.

GAGE.--Water-stage recorder and concrete and steel v-notched control. Elevation of gage is 5,215 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow affected by storage diversions, ground-water withdrawals and diversions for irrigation and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	2.1	2.1	1.8	2.9	1.5	12	6.2	60	61	34	8.8
2	14	1.7	2.7	1.8	3.3	1.8	14	4.8	59	67	31	6.1
3	14	1.9	10	2.1	3.6	1.7	13	3.9	68	73	20	22
4	13	2.1	11	2.2	4.8	1.4	6.2	2.8	71	79	18	5.2
5	13	1.7	5.6	2.1	3.9	1.2	4.1	2.6	74	73	8.4	2.4
6	15	1.4	4.1	2.5	2.2	1.3	2.8	3.1	78	31	7.9	12
7	21	1.6	5.3	2.1	2.2	1.1	2.0	2.8	80	30	7.8	21
8	19	1.7	5.2	1.9	3.3	1.7	1.8	22	81	30	6.9	8.3
9	18	1.7	4.0	1.7	1.9	1.4	2.0	28	73	30	13	2.6
10	18	2.4	3.7	1.7	1.8	.95	1.8	85	47	29	15	2.0
11	19	1.8	3.1	2.1	1.7	1.0	1.1	90	34	30	21	2.2
12	15	1.6	2.7	1.8	1.7	.86	1.6	98	31	31	23	1.6
13	15	1.6	2.7	1.8	1.7	.86	1.3	118	18	29	23	2.0
14	11	1.6	2.8	1.8	1.6	1.1	1.4	134	17	29	20	2.0
15	11	1.4	2.0	1.7	1.1	3.7	3.8	134	29	29	18	1.9
16	23	1.3	1.7	1.6	1.5	24	3.5	127	61	38	36	2.7
17	20	1.6	2.0	1.5	2.1	13	1.5	158	79	199	73	3.1
18	18	1.8	2.0	.98	5.4	10	.75	138	69	49	62	3.0
19	18	1.5	1.9	1.4	3.5	8.1	1.2	93	68	25	26	2.9
20	14	1.8	1.5	1.9	2.0	8.1	22	90	71	22	20	35
21	14	2.2	2.1	1.7	2.1	13	24	84	62	27	18	9.6
22	10	16	2.2	1.5	1.6	8.7	26	82	79	23	15	17
23	4.0	6.9	2.1	1.4	2.7	6.7	28	82	84	26	22	31
24	2.8	2.9	1.9	1.4	2.3	5.4	5.6	76	96	30	24	35
25	2.5	2.5	1.8	1.8	1.9	3.1	1.9	56	117	33	25	13
26	2.2	6.6	1.8	3.4	1.1	2.5	2.0	44	170	34	29	7.8
27	2.4	3.4	1.8	9.2	1.0	2.4	2.1	49	136	34	47	4.8
28	3.2	2.5	1.8	4.5	1.1	2.4	1.7	57	103	34	57	3.6
29	2.1	2.3	1.7	3.5	.92	8.0	4.0	59	83	35	73	3.0
30	2.1	1.6	1.6	3.1	---	5.5	20	66	73	35	72	2.7
31	2.4	---	1.5	7.0	---	21	---	62	---	35	14	---
TOTAL	371.7	81.2	96.4	74.98	66.92	163.47	213.15	2058.2	2171	1330	880.0	274.3
MEAN	12.0	2.71	3.11	2.42	2.31	5.27	7.11	66.4	72.4	42.9	28.4	9.14
MAX	23	16	11	9.2	5.4	24	28	158	170	199	73	35
MIN	2.1	1.3	1.5	.98	.92	.86	.75	2.6	17	22	6.9	1.6
AC-FT	737	161	191	149	133	324	423	4080	4310	2640	1750	544

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	5.10	2.79	1.81	1.62	1.99	5.05	11.4	30.9	51.2	39.2	34.0	20.6		
MAX	12.0	4.54	3.71	3.16	3.85	16.2	34.8	66.4	82.4	79.8	49.6	47.9		
(WY)	2000	1988	1998	1994	1993	1992	1998	2000	1999	1995	1999	1999		
MIN	1.55	1.33	.88	.76	1.00	1.30	1.52	9.98	13.0	19.5	24.0	6.27		
(WY)	1989	1989	1999	1995	1988	1989	1989	1989	1989	1990	1992	1987		

## SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1987 - 2000

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1987 - 2000
ANNUAL TOTAL	9507.70	7781.32	
ANNUAL MEAN	26.0	21.3	17.5
HIGHEST ANNUAL MEAN			25.2
LOWEST ANNUAL MEAN			7.72
HIGHEST DAILY MEAN	179	199	199
LOWEST DAILY MEAN	.73	.75	.16
ANNUAL SEVEN-DAY MINIMUM	.88	1.1	.37
INSTANTANEOUS PEAK FLOW		469	651
INSTANTANEOUS PEAK STAGE		4.77	a5.52
ANNUAL RUNOFF (AC-FT)	18860	15430	12700
10 PERCENT EXCEEDS	84	72	52
50 PERCENT EXCEEDS	11	5.4	3.9
90 PERCENT EXCEEDS	1.0	1.6	1.2

a Maximum gage height, 6.08 ft, Aug 4, 1997.



06720990 BIG DRY CREEK AT MOUTH NEAR FORT LUPTON, CO

LOCATION.--Lat 40°04'09", long 104°49'52", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.12, T.1 N., R.67 W., Weld County, Hydrologic Unit 10190003, on left bank 1.0 mi west of State Highway 85, 1.1 mi south of State Highway 52, and 25 mi northeast of Denver.

DRAINAGE AREA.--107 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 4,900 ft above sea level, from topographic map.

REMARKS.--Records poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	32	12	e24	e26	e23	122	32	34	29	20	29
2	42	30	12	e24	e26	e24	92	13	32	26	20	20
3	43	28	12	e25	e26	23	122	14	30	21	19	15
4	45	28	17	e25	e25	24	94	12	26	17	17	16
5	44	28	17	e25	e25	44	64	17	20	14	16	15
6	42	28	14	e25	e25	36	43	17	19	14	16	13
7	47	28	13	e25	e24	32	32	21	16	16	15	12
8	54	28	14	e26	e23	28	25	28	17	15	14	16
9	51	27	16	e26	e23	34	22	55	14	15	13	16
10	50	27	21	e26	e23	34	21	33	20	24	12	13
11	50	27	26	e25	e23	34	14	34	23	42	11	11
12	49	27	27	e25	e23	34	12	40	22	28	9.9	9.9
13	42	27	27	e25	e24	35	13	29	19	33	9.8	9.1
14	41	24	26	e25	e24	30	9.4	34	21	41	11	8.3
15	40	25	28	e25	e24	23	15	40	17	44	12	7.7
16	44	25	24	e25	e24	32	31	36	13	42	11	7.5
17	65	24	24	e25	e24	72	38	63	23	135	17	7.3
18	58	25	25	e24	e24	45	27	251	42	165	100	7.2
19	58	26	25	e24	e24	37	16	110	29	47	61	6.5
20	54	26	26	e25	e24	43	8.1	54	27	30	32	51
21	50	26	25	e24	e24	45	12	46	24	36	18	35
22	48	35	26	e24	e23	49	12	35	19	36	18	18
23	40	49	25	e24	e23	45	34	28	20	31	20	27
24	36	35	e23	e24	e23	34	39	48	22	28	19	98
25	35	30	e24	e24	e23	28	21	75	30	26	20	66
26	33	31	e24	e25	e24	26	10	84	96	24	21	30
27	32	34	e24	e25	e23	24	7.3	60	175	25	25	23
28	32	29	e24	e26	e23	19	10	49	102	22	33	19
29	32	21	e24	e26	e23	34	18	39	58	19	38	16
30	31	14	e24	e26	---	42	64	33	34	17	112	15
31	31	---	e24	e26	---	70	---	34	---	16	68	---
TOTAL	1363	844	673	773	693	1103	1047.8	1464	1044	1078	828.7	637.5
MEAN	44.0	28.1	21.7	24.9	23.9	35.6	34.9	47.2	34.8	34.8	26.7	21.2
MAX	65	49	28	26	26	72	122	251	175	165	112	98
MIN	31	14	12	24	23	19	7.3	12	13	14	9.8	6.5
AC-FT	2700	1670	1330	1530	1370	2190	2080	2900	2070	2140	1640	1260

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	40.9	28.6	23.1	22.7	22.2	32.6	55.1	54.8	55.7	47.7	46.4	47.9
MAX	64.3	35.6	35.2	32.1	33.6	50.1	79.1	85.5	117	111	75.1	67.0
(WY)	1995	1998	1998	1998	1998	1992	1999	1994	1995	1995	1997	1993
MIN	30.2	21.8	19.6	14.0	12.0	18.4	34.9	26.4	34.8	27.3	26.7	21.2
(WY)	1992	1997	1994	1995	1995	1993	2000	1993	2000	1999	2000	2000

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1992 - 2000
ANNUAL TOTAL	15322.8	11549.0	
ANNUAL MEAN	42.0	31.6	39.9
HIGHEST ANNUAL MEAN			53.2
LOWEST ANNUAL MEAN			31.6
HIGHEST DAILY MEAN	442	251	454
LOWEST DAILY MEAN	5.8	6.5	.32
ANNUAL SEVEN-DAY MINIMUM	8.7	7.7	3.6
INSTANTANEOUS PEAK FLOW		299	541
INSTANTANEOUS PEAK STAGE		7.52	9.04
ANNUAL RUNOFF (AC-FT)	30390	22910	28880
10 PERCENT EXCEEDS	74	50	72
50 PERCENT EXCEEDS	28	25	29
90 PERCENT EXCEEDS	14	14	16

e Estimated.

PLATTE RIVER BASIN

06725450 ST. VRAIN CREEK BELOW LONGMONT, CO

LOCATION.--Lat 40°09'30", long 105°00'48", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.9, T.2 N., R.68 W., Weld County, Hydrologic Unit 10190005, on right bank (revised) 1,750 ft upstream from mouth of Boulder Creek, 1.8 mi downstream from Spring Gulch, and 4.7 mi southeast of Longmont.

DRAINAGE AREA.--424 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1976 to September 1982, August 1984 to current year. Water-quality data available, October 1976 to February 1981.

GAGE.--Water-stage recorder. Elevation of gage is 4,852 ft, above sea level, from topographic map. Prior to Aug. 15, 1984, at site 150 ft downstream at same datum. Aug. 15, 1984 to Oct. 1, 1997 at site 70 ft downstream at same datum. Oct. 2, 1997 to Apr. 18, 2000 at site 100 ft upstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs, diversions for irrigation, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	122	98	80	e60	54	40	57	74	356	175	168	86
2	116	76	64	e59	56	41	64	59	250	168	172	77
3	112	75	76	e61	61	42	61	78	183	163	172	73
4	109	73	93	e68	59	40	53	64	181	161	178	83
5	108	71	79	e65	58	40	49	87	192	150	172	84
6	100	69	79	e60	60	40	54	109	183	142	165	77
7	102	69	65	e58	57	41	55	74	158	126	168	67
8	102	68	e59	e58	57	40	53	112	137	121	167	70
9	101	68	e60	e58	e58	40	48	189	136	120	169	68
10	95	66	e61	e59	e58	39	50	110	112	121	159	62
11	95	67	e60	e60	e59	39	54	103	103	108	168	66
12	91	68	e60	e59	64	38	57	148	118	98	168	69
13	84	66	e59	e60	69	39	48	102	121	114	174	65
14	84	64	e58	e61	72	39	45	90	119	135	153	60
15	75	64	e59	66	69	51	54	80	124	121	154	57
16	96	65	e58	64	63	55	66	67	145	125	155	57
17	89	63	e57	63	64	48	72	111	186	248	188	57
18	90	61	e58	63	69	43	e61	145	157	223	153	60
19	95	60	e58	63	66	42	50	112	143	184	102	61
20	89	59	e59	60	55	42	48	97	185	174	115	118
21	95	59	e60	56	54	44	49	111	160	161	109	88
22	116	76	e61	53	55	43	49	99	132	148	107	90
23	118	70	e63	50	51	44	57	89	128	126	93	110
24	116	63	e62	52	48	44	50	108	119	137	88	147
25	115	60	e62	56	48	43	45	195	140	179	90	112
26	112	70	e61	51	46	42	46	310	180	183	91	100
27	112	67	e60	58	46	e40	58	303	196	181	89	86
28	109	62	e61	51	48	41	57	234	187	184	93	81
29	108	64	e62	50	44	43	48	215	176	170	94	71
30	111	70	e63	48	---	51	75	387	160	163	92	62
31	106	---	e60	53	---	68	---	424	---	163	89	---
TOTAL	3173	2031	1977	1803	1668	1342	1633	4486	4867	4772	4255	2364
MEAN	102	67.7	63.8	58.2	57.5	43.3	54.4	145	162	154	137	78.8
MAX	122	98	93	68	72	68	75	424	356	248	188	147
MIN	75	59	57	48	44	38	45	59	103	98	88	57
AC-FT	6290	4030	3920	3580	3310	2660	3240	8900	9650	9470	8440	4690

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2000, BY WATER YEAR (WY)

	70.8	59.0	50.9	45.3	44.5	48.8	89.6	253	381	179	149	103
MEAN	70.8	59.0	50.9	45.3	44.5	48.8	89.6	253	381	179	149	103
MAX	159	126	91.5	92.8	94.0	111	275	1155	1227	485	246	152
(WY)	1985	1985	1985	1980	1980	1980	1998	1980	1995	1995	1999	1982
MIN	45.5	34.5	30.8	25.7	27.9	28.9	27.5	35.8	63.3	100	88.9	53.7
(WY)	1990	1979	1979	1978	1978	1982	1982	1977	1981	1981	1977	1977

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1977 - 2000	
ANNUAL TOTAL	68508		34371			
ANNUAL MEAN	188		93.9		123	
HIGHEST ANNUAL MEAN					257	
LOWEST ANNUAL MEAN					54.8	
HIGHEST DAILY MEAN	2470	Apr 30	424	May 31	2580	May 30 1995
LOWEST DAILY MEAN	31	Feb 6	38	Mar 12	20	Dec 28 1990
ANNUAL SEVEN-DAY MINIMUM	32	Feb 17	39	Mar 8	22	Dec 26 1990
INSTANTANEOUS PEAK FLOW			462		3600	
INSTANTANEOUS PEAK STAGE			4.07		6.87	
ANNUAL RUNOFF (AC-FT)	135900		68170		88990	
10 PERCENT EXCEEDS	516		169		214	
50 PERCENT EXCEEDS	95		70		68	
90 PERCENT EXCEEDS	33		48		35	

e Estimated.

06730200 BOULDER CREEK AT NORTH 75TH STREET NEAR BOULDER, CO

LOCATION.--Lat 40°03'06", long 105°10'42", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.13, T.1 N., R.70 W., Boulder County, Hydrologic Unit 10190005, on left bank, 50 ft upstream from bridge on North 75th Street, 0.2 mi downstream from Boulder feeder ditch, and 6 mi northeast of Boulder.

DRAINAGE AREA.--304 mi<sup>2</sup>.

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

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Elevation of gage is 5,106 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow is partially regulated by Barker Reservoir, and affected by Boulder feeder ditch, Boulder sewage treatment plant, and Public Service power plant. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	98	65	68	51	51	66	138	344	112	233	96
2	70	75	69	53	53	52	56	114	446	113	239	97
3	65	94	70	56	54	60	57	114	436	117	235	89
4	64	73	62	54	53	54	51	167	387	111	232	89
5	60	84	60	54	52	53	58	139	345	106	238	89
6	63	82	69	45	51	52	46	160	279	97	235	78
7	66	87	65	49	51	44	42	184	302	94	229	75
8	67	92	64	50	51	35	39	239	199	112	225	84
9	55	73	62	48	51	37	38	216	241	153	221	106
10	47	63	64	47	52	34	41	242	216	221	219	94
11	48	66	61	47	51	36	40	229	182	234	201	92
12	52	59	61	50	49	35	41	215	172	220	174	85
13	47	60	61	51	49	35	49	180	163	220	185	93
14	48	62	57	50	50	41	56	189	134	207	192	87
15	50	59	59	48	53	53	80	182	149	197	173	73
16	73	61	54	48	52	57	94	184	153	254	172	64
17	66	60	54	51	58	51	85	206	168	410	185	58
18	69	59	57	53	56	43	69	192	134	226	202	54
19	69	54	53	58	50	45	66	163	118	211	199	63
20	70	62	55	56	48	49	69	157	210	145	177	126
21	65	64	57	54	51	47	67	141	166	104	144	89
22	65	75	64	52	51	45	69	136	136	72	144	109
23	64	76	61	50	55	45	80	130	132	71	135	102
24	66	64	63	51	56	42	69	133	123	90	142	96
25	61	60	58	55	54	42	70	139	128	99	137	81
26	65	90	62	57	46	40	83	139	192	108	137	63
27	63	73	66	59	50	40	95	130	238	136	142	58
28	63	69	61	51	54	45	110	127	187	144	142	59
29	70	70	68	50	54	47	128	134	130	176	160	57
30	69	67	66	46	---	62	166	159	115	202	137	54
31	75	---	40	49	---	80	75	182	---	215	104	---
TOTAL	1951	2131	1888	1610	1506	1452	2080	5160	6325	4977	5690	2460
MEAN	62.9	71.0	60.9	51.9	51.9	46.8	69.3	166	211	161	184	82.0
MAX	76	98	70	68	58	80	166	242	446	410	239	126
MIN	47	54	40	45	46	34	38	114	115	71	104	54
AC-FT	3870	4230	3740	3190	2990	2880	4130	10230	12550	9870	11290	4880

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	49.2	55.7	52.0	49.4	47.9	52.8	90.6	194	308	220	143	75.9		
MAX	77.8	81.7	74.9	68.3	61.3	90.6	236	465	868	492	235	111		
(WY)	1997	1998	1989	1987	1996	1998	1998	1995	1995	1995	1999	1995		
MIN	31.5	37.7	36.1	37.6	34.3	31.2	37.4	114	127	154	95.5	50.8		
(WY)	1987	1993	1988	1988	1992	1989	1989	1991	1992	1988	1991	1992		

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1987 - 2000	
ANNUAL TOTAL	45664		37230			
ANNUAL MEAN	125		102		112	
HIGHEST ANNUAL MEAN					198	
LOWEST ANNUAL MEAN					85.5	
HIGHEST DAILY MEAN	1030	Aug 5	446	Jun 2	1450	Jun 13 1997
LOWEST DAILY MEAN	26	Mar 21	34	Mar 10	20	Dec 26 1987
ANNUAL SEVEN-DAY MINIMUM	28	Mar 17	36	Mar 8	23	Dec 23 1987
INSTANTANEOUS PEAK FLOW			1180		1950	
INSTANTANEOUS PEAK STAGE			7.00		7.85	
ANNUAL RUNOFF (AC-FT)	90570		73850		80970	
10 PERCENT EXCEEDS	284		206		225	
50 PERCENT EXCEEDS	66		69		64	
90 PERCENT EXCEEDS	38		48		37	

PLATTE RIVER BASIN

06730400 COAL CREEK NEAR LOUISVILLE, CO

LOCATION.--Lat 39°58'34", long 105°07'00", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.9, T.1 S., R.69 W., Boulder County, Hydrologic Unit 10190005, on left bank on upstream side of County road 62 bridge, and 1.1 mi northeast of Louisville.

DRAINAGE AREA.--27.3 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1997 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,280 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions for irrigation, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	5.5	4.5	2.6	2.3	2.6	5.6	3.9	7.7	2.6	1.3	2.8
2	4.3	5.0	4.2	2.6	2.5	2.1	7.0	3.7	7.3	2.1	1.2	2.1
3	4.2	2.9	5.6	2.8	2.4	2.2	5.9	3.9	6.7	2.1	1.4	1.5
4	3.9	2.5	3.8	2.4	2.2	2.6	5.4	3.9	6.7	2.1	1.3	1.6
5	2.7	2.4	3.0	2.6	2.2	2.6	6.5	2.2	7.2	2.3	2.2	1.8
6	2.4	2.3	3.3	2.0	2.3	2.1	6.8	1.9	9.8	2.5	2.8	1.9
7	3.2	2.3	3.5	2.0	2.2	2.0	6.5	5.9	11	2.0	2.4	1.8
8	2.8	2.6	3.7	2.4	2.0	2.0	5.0	7.8	11	2.0	1.0	2.8
9	2.6	2.6	3.1	2.3	2.0	1.8	3.3	5.5	10	1.2	1.0	2.8
10	2.4	2.5	3.0	2.0	1.8	2.4	3.0	5.4	5.0	1.1	1.2	2.3
11	2.4	2.6	3.1	2.4	2.2	2.3	2.6	4.7	2.7	1.1	.67	2.5
12	2.5	2.5	2.9	2.5	2.1	2.4	2.4	2.9	2.2	1.0	.50	2.8
13	2.4	2.5	3.3	2.2	2.2	2.4	2.5	2.3	2.9	.99	.49	3.0
14	2.1	2.4	3.0	2.1	2.3	2.3	2.4	1.7	2.9	1.0	.35	3.1
15	1.9	2.4	2.4	2.4	2.1	3.0	3.1	1.8	2.2	.91	.37	3.3
16	5.5	2.3	3.1	2.4	2.2	6.0	4.3	1.9	.89	12	.87	3.3
17	3.5	2.0	3.2	2.3	2.1	3.5	4.0	2.2	.92	9.7	.97	3.8
18	4.5	2.6	3.0	2.2	3.3	3.3	3.1	1.6	.62	2.0	.63	4.1
19	4.4	3.1	2.7	2.3	2.6	3.5	2.6	.85	.48	1.6	.30	4.2
20	3.5	3.6	2.9	2.2	2.7	3.2	3.4	.93	.35	1.4	.22	10
21	3.5	3.7	3.2	2.5	2.9	4.2	3.3	.88	.35	1.3	.21	1.7
22	3.5	5.9	2.9	2.5	2.7	3.6	3.7	e3.7	.38	1.6	.21	2.7
23	3.5	4.9	3.2	2.4	3.0	3.8	4.4	e3.1	.52	2.2	.23	4.8
24	3.5	4.0	2.9	2.3	3.2	3.8	4.1	2.9	1.0	2.0	.31	6.0
25	3.4	3.9	3.0	2.4	2.8	4.0	3.4	6.5	4.5	1.9	.38	3.5
26	3.4	5.3	3.0	2.5	2.5	3.8	3.0	6.8	7.4	1.8	.46	2.9
27	3.3	4.6	3.1	4.2	2.3	3.8	2.3	6.9	2.8	1.7	1.8	2.5
28	2.9	4.6	3.1	3.0	2.9	3.8	2.0	7.6	2.1	1.7	2.2	2.5
29	3.1	4.5	3.0	2.7	2.8	6.0	3.8	8.5	3.8	1.8	1.6	2.4
30	4.8	4.5	2.7	2.4	---	5.3	7.7	8.4	4.0	1.6	1.9	2.4
31	5.4	---	2.6	2.2	---	7.4	---	8.3	---	1.4	1.9	---
TOTAL	105.8	102.5	100.0	75.8	70.8	103.8	123.1	128.56	125.41	70.70	32.37	92.9
MEAN	3.41	3.42	3.23	2.45	2.44	3.35	4.10	4.15	4.18	2.28	1.04	3.10
MAX	5.5	5.9	5.6	4.2	3.3	7.4	7.7	8.5	11	12	2.8	10
MIN	1.9	2.0	2.4	2.0	1.8	1.8	2.0	.85	.35	.91	.21	1.5
AC-FT	210	203	198	150	140	206	244	255	249	140	64	184

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2000, BY WATER YEAR (WY)

	1997	1998	1999	2000	1997	1998	1999	2000
MEAN	3.09	2.81	2.64	2.15	2.10	3.75	20.3	20.8
MAX	3.85	3.42	3.23	2.45	2.44	6.17	36.1	34.9
(WY)	1998	2000	2000	2000	2000	1998	1999	1999
MIN	2.01	1.84	2.05	1.63	1.62	1.73	4.10	4.15
(WY)	1999	1999	1999	1999	1999	2000	2000	2000

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1997 - 2000	
ANNUAL TOTAL	3223.2		1131.74			
ANNUAL MEAN	8.83		3.09		6.62	
HIGHEST ANNUAL MEAN					8.48	
LOWEST ANNUAL MEAN					3.09	
HIGHEST DAILY MEAN	277	Apr 30	12	Jul 16	277	Apr 30 1999
LOWEST DAILY MEAN	1.2	Jan 17	.21	Aug 21	.21	Aug 21 2000
ANNUAL SEVEN-DAY MINIMUM	1.3	Jan 25	.27	Aug 19	.27	Aug 19 2000
INSTANTANEOUS PEAK FLOW			130	Jul 16	a643	Apr 30 1999
INSTANTANEOUS PEAK STAGE			2.30	Jul 16	3.42	Apr 30 1999
ANNUAL RUNOFF (AC-FT)	6390		2240		4790	
10 PERCENT EXCEEDS	20		5.5		13	
50 PERCENT EXCEEDS	3.1		2.6		2.6	
90 PERCENT EXCEEDS	1.5		1.2		1.4	

e Estimated.

a From rating curve extended above 150 ft<sup>3</sup>/s.



PLATTE RIVER BASIN

402231105291900 LAKE ESTES NEAR DAM NEAR ESTES PARK, CO

WATER-QUALITY RECORDS

LOCATION.--Lat. 40°22'31", long 105°29'19", in SE<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub> sec.29, T.5 N, R.72 W., Larimer County, Hydrologic Unit 14010001, 1 mi southeast of Estes Park.

PERIOD OF RECORD.--May 1998 to current year.

REMARKS.--Samples were collected near-surface and near-bottom near Olympus Dam.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD WATER UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	TRANS-PAR-ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	HARD-NESS TOTAL (MG/L CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
MAY														
31...	0945	.10	21	7.5	10.5	7.8								
31...	0946	5.00	22	7.4	9.6	7.8								
31...	0947	10.0	23	7.4	9.4	7.8								
31...	0948	15.0	21	7.4	8.6	8.0								
31...	0949	20.0	21	7.4	8.5	7.9								
31...	0950	25.0	22	7.4	8.4	7.8								
31...	0951	30.0	19	7.4	7.7	8.0								
31...	0952	37.0	18	7.4	7.6	8.0								
AUG														
11...	0930	.10	43	7.8	17.8	6.4								
11...	0931	5.00	43	7.8	17.8	6.4								
11...	0932	10.0	43	7.8	17.5	6.2								
11...	0933	15.0	42	7.7	17.4	6.0								
11...	0934	20.0	42	7.7	17.2	6.0								
11...	0935	25.0	41	7.6	17.0	5.9								
11...	0936	30.0	40	7.5	16.2	5.0								
11...	0937	34.0	39	7.3	15.0	2.7								
SEP														
08...	0930	.10	43	7.5	15.3	7.4								
08...	0931	5.00	43	7.5	15.3	7.4								
08...	0932	10.0	43	7.5	15.2	7.3								
08...	0933	15.0	43	7.5	15.2	7.3								
08...	0934	20.0	43	7.4	15.1	7.0								
08...	0935	25.0	43	7.4	15.1	6.9								
08...	0936	30.0	43	7.4	14.9	6.3								
08...	0937	34.0	43	7.3	14.8	6.0								

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD WATER UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	HARD-NESS TOTAL (MG/L CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
MAY												
31...	1000	21	7.5	10.5	75.0	7.8	84	9	2.64	.58	1.1	.2
31...	1015	18	7.4	7.6	--	8.0	--	8	2.37	.54	1.0	.2
AUG												
11...	0945	43	7.8	17.8	119	6.4	K12	18	5.47	1.04	1.8	.2
11...	1000	39	7.3	15.0	--	2.7	--	18	5.34	1.02	1.8	.2
SEP												
08...	0945	43	7.5	15.3	96.0	7.4	K15	19	5.72	1.12	1.8	.2
08...	1000	43	7.3	14.8	--	6.0	--	19	5.70	1.11	1.8	.2

DATE	TIME	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB DIS-SOLVED (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
MAY													
31...	.4	10	1.4	.4	<.1	4.4	23	17	.03	<.010	.091	<.020	
31...	.5	8	1.3	.3	<.1	4.1	22	16	.03	<.010	.081	<.020	
AUG													
11...	.5	20	2.0	.4	.1	4.5	31	28	.04	<.001	.006	.002	
11...	.6	19	2.0	.5	.1	4.5	34	28	.05	<.001	.014	.033	
SEP													
08...	.7	21	2.2	.5	.1	4.9	41	30	.06	.001	.023	.015	
08...	.6	21	2.2	.5	.1	5.0	40	30	.05	.002	.027	.050	

PLATTE RIVER BASIN

402231105291900 LAKE ESTES NEAR DAM NEAR ESTES PARK, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN, AM- MONIA + ORGANIC	PHOS- PHORUS	PHOS- PHORUS DIS- SOLVED	PHOS- PHORUS ORTHO, DIS- SOLVED	CHLOR-A PHYTO- PLANK- TON CHROMO FLUOROM	CHLOR-B PHYTO- PLANK- TON CHROMO FLUOROM	CARBON, ORGANIC	BARIUM, DIS- SOLVED	BERYL- LIUM, DIS- SOLVED	BORON, DIS- SOLVED	CADMIUM DIS- SOLVED	CHRO- MIUM, DIS- SOLVED
	(MG/L AS N) (00625)	(MG/L AS P) (00665)	(MG/L AS P) (00666)	(MG/L AS P) (00671)	(UG/L) (70953)	(UG/L) (70954)	(MG/L AS C) (00680)	(UG/L AS BA) (01005)	(UG/L AS BE) (01010)	(UG/L AS B) (01020)	(UG/L AS CD) (01025)	(UG/L AS CR) (01030)
MAY												
31...	.22	.016	E.004	<.010	.9	<.1	4.8	4	<2	<16	<.1	<14.0
31...	.24	.019	E.004	<.010	--	--	5.3	4	<2	<16	<.1	<14.0
AUG												
11...	.25	.010	<.006	<.001	9.7	<.1	3.4	6	<2	<16	<.1	<.8
11...	.25	.017	<.006	.003	--	--	3.5	6	<2	<16	<.1	<.8
SEP												
08...	.26	.015	<.006	<.001	3.3	E.1	3.9	6	<2	<16	<.1	<.8
08...	.30	.021	E.005	.001	--	--	3.8	7	<2	<16	<.1	<.8
DATE	COBALT, DIS- SOLVED	COPPER, DIS- SOLVED	IRON, DIS- SOLVED	LEAD, DIS- SOLVED	LITHIUM DIS- SOLVED	MANGA- NESE, DIS- SOLVED	MOLYB- DENUM, DIS- SOLVED	NICKEL, DIS- SOLVED	SILVER, DIS- SOLVED	STRON- TIUM, DIS- SOLVED	VANA- DIUM, DIS- SOLVED	ZINC, DIS- SOLVED
	(UG/L AS CO) (01035)	(UG/L AS CU) (01040)	(UG/L AS FE) (01046)	(UG/L AS PB) (01049)	(UG/L AS LI) (01130)	(UG/L AS MN) (01056)	(UG/L AS MO) (01060)	(UG/L AS NI) (01065)	(UG/L AS AG) (01075)	(UG/L AS SR) (01080)	(UG/L AS V) (01085)	(UG/L AS ZN) (01090)
MAY												
31...	<13	<10	60	<100	<3.9	6	<34	<40	<1	14.5	<10	<20
31...	<13	<10	90	<100	<3.9	7	<34	<40	<1	12.8	<10	<20
AUG												
11...	<1	6	30	<1	2.8	2	6	2	<1	--	14	1
11...	<1	<1	40	<1	.7	<1	<1	<1	<1	28.1	<1	<1
SEP												
08...	<1	<1	30	<1	.8	<1	<1	<1	<1	34.6	<1	1
08...	<1	<1	70	<1	.8	5	<1	<1	<1	34.3	<1	1

PLATTE RIVER BASIN

06734900 OLYMPUS TUNNEL AT LAKE ESTES, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°22'30", long 105°29'13", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.29, T.5 N., R.72 W., Larimer County, Hydrologic Unit 10190006, at tunnel entrance at south end of Olympus Dam on Lake Estes, 1.9 mi east of Estes Park.

PERIOD OF RECORD.--September 1970 to present.

REMARKS.--Tunnel is part of Colorado-Big Thompson project. Field data collected prior to 1974 water year available in district office. Records of discharge are estimated values. Note:-- The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L) AS CACO3 (00900)	CALCIUM DIS-SOLVED (MG/L) AS CA (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG (00925)	SODIUM, DIS-SOLVED (MG/L) AS NA (00930)	SODIUM AD-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L) AS K (00935)
JAN 10...	0930	421	45	8.4	.0	11.9	21	6.20	1.23	1.9	.2	.6
MAY 08...	0930	506	32	7.7	6.5	8.7	13	3.95	.85	1.5	.2	.6

DATE	TIME	ANC UNFLTRD TIT 4.5 LAB (MG/L) AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL (00940)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	SILICA, DIS-SOLVED (MG/L) AS SIO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L) AS N (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)
JAN 10...	22	2.0	.5	<.1	5.6	41	31	.06	46.6	<.010	<.050	.035	
MAY 08...	14	2.0	.7	<.1	5.3	35	24	.05	47.8	<.010	.065	<.020	

DATE	TIME	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L) AS N (00625)	PHOS-PHORUS TOTAL (MG/L) AS P (00665)	PHOS-PHORUS DIS-SOLVED (MG/L) AS P (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L) AS P (00671)	BARIUM, DIS-SOLVED (MG/L) AS BA (01005)	BERYL-LIUM, DIS-SOLVED (MG/L) AS BE (01010)	BORON, DIS-SOLVED (MG/L) AS B (01020)	CADMIUM, DIS-SOLVED (MG/L) AS CD (01025)	CHRO-MIUM, DIS-SOLVED (MG/L) AS CR (01030)	COBALT, DIS-SOLVED (MG/L) AS CO (01035)	COPPER, DIS-SOLVED (MG/L) AS CU (01040)
JAN 10...		.21	<.050	<.050	<.010	6	<2	<16	<8.0	<14.0	<13	<10
MAY 08...		.26	<.050	<.050	<.010	5	<2	<16	<8.0	<14.0	<13	<10

DATE	TIME	IRON, DIS-SOLVED (UG/L) AS FE (01046)	LEAD, DIS-SOLVED (UG/L) AS PB (01049)	LITHIUM DIS-SOLVED (UG/L) AS LI (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L) AS MO (01060)	NICKEL, DIS-SOLVED (UG/L) AS NI (01065)	SILVER, DIS-SOLVED (UG/L) AS AG (01075)	STRON-TIUM, DIS-SOLVED (UG/L) AS SR (01080)	VANA-DIUM, DIS-SOLVED (UG/L) AS V (01085)	ZINC, DIS-SOLVED (UG/L) AS ZN (01090)
JAN 10...	20	<100	<3.9	8	E2	<34	<40	<7	35.1	<10	<20	
MAY 08...	80	<100	<3.9	11	9	E18	<40	<7	20.9	<10	<20	

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
AUG 30...	0900	553	43	16.0	SEP 12...	1400	555	47	14.5



06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO

LOCATION.--Lat 40°36'00", long 105°10'06", in NW 1/4 SW 1/4 sec.6, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on right bank near abutment of Horsetooth Dam on tributaries to Cache la Poudre River, 4.8 mi west of city hall in Fort Collins.

RESERVOIR ELEVATIONS AND CONTENTS RECORDS

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 10 days. Datum of gage is 5,430.00 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earth and rockfill dike and dams closing openings in subsequent valleys between hogbacks; storage began Jan. 10, 1951; dams completed July 21, 1949. Usable capacity, 143,500 acre-ft above elevations 5,320 ft, invert of channel from Spring Canyon Dam, 5,310 ft, invert of channel from Dixon Canyon Dam, 5,270 ft, trashrack sill of outlet at Soldier Canyon Dam, and below maximum water-surface elevation, 5,430 ft, 6 ft below crest of Satanka Dike. Dead storage, 7,003 acre ft. Figures given represent usable contents. Water is diverted from Colorado River basin through Alva B. Adams tunnel for supplemental irrigation supply to Cache la Poudre River. Water-quality sampling at two sites in reservoir.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 148,400 acre-ft, June 26-27, 1995, elevation, 5,429.36 ft; minimum observed, 9 acre-ft, Nov. 16-30, 1977, elevation, 5,270.25 ft; no storage prior to Apr. 18, 1951.

EXTREMES (AT 0800) FOR CURRENT YEAR.--Maximum contents, observed, 116,600 acre-ft, Mar. 4, 5, elevation, 5,412.70 ft; minimum, observed, 17,500 acre-ft, Sept. 30, elevation, 5,335.25 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	5,412.87	116,900	-
Oct. 31 . . . . .	5,404.72	102,700	-14,200
Nov. 30 . . . . .	5,403.74	101,100	-1,600
Dec. 31 . . . . .	5,408.10	108,500	+7,400
CAL YR 1999 . . . . .	-	-	+35,920
Jan. 31 . . . . .	5,407.80	108,000	-500
Feb. 29 . . . . .	5,412.25	115,800	+7,800
Mar. 31 . . . . .	5,412.08	115,500	-300
Apr. 30 . . . . .	5,401.10	96,700	-18,800
May 31 . . . . .	5,393.04	83,900	-12,800
June 30 . . . . .	5,390.97	80,800	-3,100
July 31 . . . . .	5,376.69	60,500	-20,300
Aug. 31 . . . . .	5,342.97	23,500	-37,000
Sept. 30 . . . . .	5,335.25	17,500	-6,000
WTR YR 2000 . . . . .	-	-	-99,400

PLATTE RIVER BASIN

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Samples collected at various depths near north end of reservoir near Soldier Canyon Dam.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM-PLING DEPTH (FEET) (00003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT										
20...	0915	.10	59	8.1	12.9	7.5				
20...	0916	5.00	59	8.1	12.9	7.5				
20...	0917	10.0	59	8.1	12.9	7.5				
20...	0918	15.0	59	8.1	12.9	7.5				
20...	0919	20.0	59	8.1	12.9	7.5				
20...	0920	25.0	59	8.0	12.9	7.5				
20...	0921	30.0	59	8.0	12.9	7.5				
20...	0922	40.0	59	8.0	12.9	7.5				
20...	0923	50.0	59	8.0	12.9	7.4				
20...	0924	60.0	61	8.0	11.7	5.0				
20...	0925	70.0	62	7.8	10.9	4.6				
20...	0926	80.0	62	7.8	10.4	4.6				
MAY										
04...	0915	.10	64	7.8	12.7	9.1				
04...	0916	5.00	64	7.8	12.1	9.2				
04...	0917	10.0	64	7.8	11.8	9.2				
04...	0918	15.0	64	7.8	11.6	9.3				
04...	0919	20.0	64	7.8	11.2	9.3				
04...	0920	25.0	63	7.8	9.8	9.3				
04...	0921	30.0	62	7.8	8.6	9.3				
04...	0922	40.0	62	7.8	7.8	9.3				
04...	0923	50.0	62	7.8	7.7	9.3				
04...	0924	60.0	62	7.8	7.6	9.2				
04...	0925	70.0	62	7.8	7.5	9.2				
04...	0926	80.0	61	7.8	7.2	9.3				
04...	0927	90.0	61	7.7	6.9	9.2				
04...	0928	100	61	7.7	6.7	9.2				
04...	0929	110	61	7.7	6.6	9.1				
04...	0930	120	61	7.7	6.4	9.1				
04...	0931	130	61	7.6	6.4	9.0				
04...	0932	135	61	7.6	6.4	9.0				
AUG										
17...	0905	.10	66	7.4	22.7	6.4				
17...	0906	5.00	66	7.5	22.1	6.4				
17...	0907	10.0	66	7.5	22.1	6.4				
17...	0908	15.0	66	7.5	22.1	6.3				
17...	0909	20.0	66	7.4	22.1	6.2				
17...	0910	25.0	65	7.4	21.8	5.7				
17...	0911	30.0	65	7.4	21.3	5.3				
17...	0912	40.0	63	7.3	19.8	4.7				
17...	0913	50.0	62	7.3	18.2	4.6				
17...	0914	60.0	60	7.2	15.5	4.7				
17...	0915	70.0	58	7.2	13.9	4.9				
17...	0916	80.0	59	7.2	12.8	4.9				
17...	0917	90.0	60	7.2	12.3	4.6				
17...	0918	100	60	7.1	12.3	4.6				

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	TRANS-PAR-ENCY (SECCHI DISK) (IN) (00077)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT										
20...	0940	59	8.1	12.9	154	7.5	<1	25	7.95	1.32
20...	0955	62	7.8	10.4	--	4.6	--	26	8.20	1.41
MAY										
04...	0940	64	7.8	12.7	96.0	9.1	<1	28	8.68	1.46
04...	0955	61	7.6	6.4	--	9.0	--	27	8.42	1.43
AUG										
17...	0930	66	7.4	22.7	44.0	6.4	<1	29	9.05	1.48
17...	0945	60	7.1	12.3	--	4.6	--	27	8.28	1.46

06737500 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE, DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)
	OCT 20...	2.4	.2	.6	26	3.5	1.3	.1	2.7	41
OCT 20...	2.5	.2	.6	26	3.6	1.3	.1	4.7	49	39
MAY 04...	2.4	.2	.6	28	4.0	1.5	.1	3.2	42	39
MAY 04...	2.4	.2	.6	27	3.3	1.3	.1	3.6	44	38
AUG 17...	2.3	.2	.8	29	3.1	.9	.1	2.5	43	38
AUG 17...	2.2	.2	.6	27	2.6	1.0	.7	4.1	43	38

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOROPHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOROPHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)
	OCT 20...	.06	<.010	<.050	<.020	.18	<.050	<.050	<.010	1.1
OCT 20...	.07	<.010	.139	<.020	.19	<.050	<.050	.013	--	--
MAY 04...	.06	<.010	.070	<.020	.15	<.008	<.006	<.010	1.0	E.1
MAY 04...	.06	<.010	.092	<.020	.70	E.004	.014	<.010	--	--
AUG 17...	.06	.001	.018	.017	.23	.018	E.004	.001	1.8	.1
AUG 17...	.06	.001	.176	.002	.17	.021	.009	.007	--	--

DATE	CARBON, ORGANIC TOTAL (MG/L AS BA) (00680)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
	OCT 20...	4.4	18	<2	E7	<.1	<14.0	<13	<10	E10
OCT 20...	4.7	17	<2	<16	<.1	<14.0	<13	<10	20	<100
MAY 04...	4.0	19	<2	E10	<.1	<14.0	<13	<10	E10	<100
MAY 04...	3.5	18	<2	E7	<.1	<14.0	<13	<10	10	<100
AUG 17...	3.7	24	<2	<16	<.1	E.5	<1	2	E10	<1
AUG 17...	3.9	19	<2	<16	<.1	E.7	<1	3	10	<1

DATE	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
	OCT 20...	<3.9	E2	E1	<34	<40	<1	32.1	<10
OCT 20...	<3.9	5	E1	<34	<40	<1	34.1	<10	E11
MAY 04...	<3.9	4	3	<34	<40	<1	35.5	<10	<20
MAY 04...	E2.0	E2	E1	<34	<40	<1	34.9	<10	<20
AUG 17...	1.1	20	3	<1	<1	<1	36.6	<1	2
AUG 17...	1.1	51	28	<1	<1	<1	35.1	<1	<1



PLATTE RIVER BASIN

403147105083800 HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)
OCT										
20...	2.5	.2	.6	26	3.4	1.4	.1	2.7	42	36
20...	2.5	.2	.7	28	4.1	1.4	.1	5.2	48	42
MAY										
04...	2.4	.2	.6	28	3.6	1.8	.1	3.3	44	39
04...	2.4	.2	.6	28	3.3	1.3	.1	3.6	40	38
AUG										
17...	2.4	.2	.6	40	4.3	.9	.1	2.6	47	47
17...	2.5	.2	.7	30	2.8	1.2	.1	4.4	47	42

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOROPHYTOPLANKTON CHROMO FLUOROM (UG/L) (70953)	CHLOROPHYTOPLANKTON CHROMO FLUOROM (UG/L) (70954)
OCT										
20...	.06	<.010	<.050	<.020	.20	<.050	<.050	<.010	1.2	<.1
20...	.07	<.010	.202	<.020	.22	.052	E.039	.018	--	--
MAY										
04...	.06	<.010	.055	<.020	.16	E.006	<.006	<.010	1.8	E.1
04...	.05	<.010	.083	<.020	.15	E.004	E.003	<.010	--	--
AUG										
17...	.06	.001	.011	.011	.24	.025	E.003	.003	2.5	<.1
17...	.06	.001	.216	.007	.19	.029	.014	.011	--	--

DATE	CARBON, ORGANIC TOTAL (MG/L AS CA) (00680)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT										
20...	4.6	19	<2	E10	<.1	<14.0	<13	<10	10	<100
20...	4.3	16	<2	<16	<.1	<14.0	<13	<10	30	<100
MAY										
04...	3.5	19	<2	E9	<.1	<14.0	<13	<10	10	<100
04...	3.6	18	<2	E8	<.1	<14.0	<13	<10	10	<100
AUG										
17...	4.0	29	<2	<16	<.1	E.4	<1	2	10	<1
17...	3.7	22	<2	<16	<.1	E.6	<1	3	10	<1

DATE	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT									
20...	<3.9	4	2	<34	<40	<1	32.5	<10	<20
20...	<3.9	39	6	<34	<40	<1	37.5	<10	<20
MAY									
04...	<3.9	6	3	<34	<40	<1	35.8	<10	<20
04...	E2.0	3	E1	<34	<40	<1	35.0	<10	<20
AUG									
17...	1.0	75	46	<1	<1	<1	41.8	<1	<1
17...	1.2	43	21	<1	<1	<1	39.4	<1	<1

## 06738000 BIG THOMPSON RIVER AT MOUTH OF CANYON, NEAR DRAKE, CO

LOCATION.--Lat 40°25'18", long 105°13'34", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.3, T.5 N., R.70 W., Larimer County, Hydrologic Unit 10190006, on right bank at mouth of canyon, 400 ft upstream from Handy Ditch diversion dam, and 6.0 mi east of Drake.

DRAINAGE AREA.--305 mi<sup>2</sup>.

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.

REVISED RECORDS.--WSP 1310: 1891, 1927. WSP 1730: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Datum of gage is 5,305.47 ft above sea level (levels by U.S. Bureau of Reclamation). Oct. 1, 1949 to Sept. 18, 1977, at present site, datum 8.00 ft lower, Sept. 19, 1977 to July 27, 1980, at present site, datum 7.37 ft, lower. See WSP 1710 or 1730 for history of changes prior to Oct. 1, 1949.

REMARKS.--Records good except for non-estimated days in Dec., Jan., and also Apr. 15, June 24, Aug. 16, Sept. 28, which are fair, and for estimated daily discharges, which are poor. Diversions upstream from station for irrigation. Diversions from Colorado River basin to Big Thompson River basin upstream from station through Alva B. Adams tunnel began Aug. 10, 1947; 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 the Big Thompson River has also been diverted through Olympus tunnel since May 17, 1955, and Dille tunnel since Apr. 20, 1959, and may be returned to the river just downstream from this station.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,200 ft<sup>3</sup>/s, July 31, 1976, gage height, 19.86 ft. from floodmarks, from slope-area measurements of peak flow; no flow at times in 1976 (all flow above station diverted through Olympus and Dille tunnels after flood of July 31, 1976), 1979-80 (all flow above station diverted through Dille tunnel).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 532 ft<sup>3</sup>/s at 0615 May 30, gage height, 3.63 ft; minimum daily, 26 ft<sup>3</sup>/s, Nov. 24.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	104	55	41	41	e39	38	42	79	366	71	86	179
2	98	46	42	40	e37	40	42	67	295	69	86	157
3	98	45	42	37	e36	37	40	51	215	68	88	158
4	95	42	39	37	e38	39	43	100	162	68	84	138
5	93	44	e32	38	e39	39	43	163	158	57	87	124
6	93	42	e42	e38	e39	39	41	271	156	49	82	122
7	95	41	40	e37	e39	39	46	462	138	54	81	115
8	87	42	e40	e37	e38	39	41	478	115	61	83	105
9	67	42	e27	e38	e39	39	44	460	99	57	85	111
10	58	40	38	e37	e39	36	45	403	92	68	79	111
11	54	43	41	e37	e38	36	45	384	125	75	78	102
12	53	41	e39	e36	e39	39	45	156	109	85	77	92
13	50	40	e43	e36	e39	38	44	117	162	89	78	92
14	50	48	39	e36	e39	39	50	140	173	88	79	83
15	47	49	30	e39	40	e39	51	103	139	86	85	82
16	47	44	36	e42	42	37	62	182	167	93	99	78
17	43	40	48	e38	38	41	69	181	201	88	110	104
18	51	40	44	e38	37	40	70	202	187	89	120	120
19	56	39	39	e36	36	39	92	190	144	84	122	84
20	44	39	e37	e38	36	43	97	215	116	85	134	77
21	47	41	41	e37	37	38	99	208	271	88	99	83
22	47	43	e39	e35	36	40	103	212	192	89	96	95
23	56	29	42	e35	36	39	173	266	72	88	101	135
24	56	26	40	e35	37	39	195	158	65	82	101	163
25	57	42	40	e36	36	41	118	238	67	84	106	272
26	55	59	40	e36	36	41	62	241	77	86	110	249
27	71	48	42	e36	37	47	52	247	87	82	136	157
28	68	44	42	e36	37	40	51	347	73	78	145	140
29	61	42	41	e36	37	35	54	323	65	78	141	140
30	55	41	41	e36	---	38	55	336	59	84	145	139
31	54	---	42	e38	---	43	---	387	---	85	175	---
TOTAL	2010	1277	1229	1152	1096	1217	2014	7367	4347	2408	3178	3807
MEAN	64.8	42.6	39.6	37.2	37.8	39.3	67.1	238	145	77.7	103	127
MAX	104	59	48	42	42	47	195	478	366	93	175	272
MIN	43	26	27	35	36	35	40	51	59	49	77	77
AC-FT	3990	2530	2440	2280	2170	2410	3990	14610	8620	4780	6300	7550
CAL YR 1999	TOTAL 35820	MEAN 98.1	MAX 1670	MIN 26	AC-FT 71050							
WTR YR 2000	TOTAL 31102	MEAN 85.0	MAX 478	MIN 26	AC-FT 61690							

e Estimated.

06741510 BIG THOMPSON RIVER AT LOVELAND, CO

LOCATION.--Lat 40°22'43", long 105°03'38", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.24, T.5 N., R.69 W., Larimer County, Hydrologic Unit 10190006, on right bank 690 ft downstream from county road bridge C-13, 1.7 mi south of sugar refinery in Loveland, and 1.9 mi downstream from Farmers Ditch diversion.

DRAINAGE AREA.--535 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1979 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,906 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e15	12	16	30	27	28	6.3	42	55	53	28	89
2	e15	21	16	31	32	28	6.9	46	57	52	33	95
3	e14	21	15	29	43	28	6.6	46	67	44	36	89
4	e13	20	14	28	33	28	6.6	79	88	49	33	74
5	e12	19	14	24	33	27	6.7	91	91	60	27	62
6	e12	19	13	28	33	28	6.5	76	76	60	32	66
7	e11	19	36	29	33	25	6.1	112	84	55	34	63
8	e12	19	39	32	34	13	6.1	158	93	60	37	59
9	e11	20	30	26	31	11	6.0	143	87	52	38	48
10	e10	20	22	25	29	10	5.8	94	83	52	35	40
11	e9.0	18	30	28	30	8.8	5.7	107	80	54	28	39
12	e6.0	18	27	29	32	9.0	5.7	87	66	60	25	47
13	5.9	18	28	29	32	8.8	5.7	69	62	60	20	46
14	5.9	18	34	28	30	8.5	5.7	74	47	61	22	48
15	6.0	18	26	29	30	12	5.8	70	41	53	30	58
16	13	18	24	30	28	14	5.5	73	56	69	41	57
17	6.3	17	34	35	31	13	6.7	95	76	76	67	54
18	5.6	15	37	32	30	12	7.4	149	60	52	73	53
19	5.8	21	32	34	30	11	18	95	47	43	66	68
20	4.8	19	27	36	31	12	18	31	52	47	53	91
21	6.9	15	33	35	35	14	18	e3.5	80	54	69	83
22	7.6	19	35	37	34	12	19	e3.7	87	53	65	89
23	6.9	17	33	31	32	11	17	47	63	50	57	101
24	6.5	16	31	32	28	12	27	102	61	45	42	174
25	6.7	15	31	40	27	12	55	111	68	44	42	189
26	13	17	30	36	24	12	48	81	79	46	51	114
27	25	17	32	35	26	27	34	75	79	43	78	35
28	21	16	33	25	32	34	30	71	53	36	89	11
29	11	16	31	23	29	14	31	65	45	34	81	12
30	11	17	32	24	---	6.3	33	95	45	24	85	25
31	9.1	---	30	23	---	7.2	---	86	---	19	81	---
TOTAL	318.0	535	865	933	899	496.6	459.8	2477.2	2028	1560	1498	2079
MEAN	10.3	17.8	27.9	30.1	31.0	16.0	15.3	79.9	67.6	50.3	48.3	69.3
MAX	25	21	39	40	43	34	55	158	93	76	89	189
MIN	4.8	12	13	23	24	6.3	5.5	3.5	41	19	20	11
AC-FT	631	1060	1720	1850	1780	985	912	4910	4020	3090	2970	4120

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	29.5	22.3	13.6	17.8	17.6	13.3	46.8	237	307	121	75.6	37.4											
MAX	111	95.8	51.9	95.5	129	61.4	292	2078	1493	418	153	83.9											
(WY)	1998	1985	1998	1998	1998	1998	1980	1980	1983	1995	1981	1982											
MIN	6.15	3.96	2.86	2.55	2.42	2.19	4.49	4.07	25.0	29.9	29.0	16.6											
(WY)	1988	1982	1993	1994	1993	1996	1981	1981	1982	1987	1997	1990											

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1979 - 2000

ANNUAL TOTAL	34393.8	14148.6																					
ANNUAL MEAN	94.2	38.7								78.5													
HIGHEST ANNUAL MEAN										321		1980											
LOWEST ANNUAL MEAN										28.4		1990											
HIGHEST DAILY MEAN	e3700	Apr 30					189	Sep 25		4240		May 1 1980											
LOWEST DAILY MEAN	3.3	Apr 5					e3.5	May 21		.80		May 11 1981											
ANNUAL SEVEN-DAY MINIMUM	3.5	Mar 31					5.7	Apr 10		.89		May 10 1981											
INSTANTANEOUS PEAK FLOW							339	Sep 25		6970		Apr 30 1980											
INSTANTANEOUS PEAK STAGE							2.79	Sep 25		a,b10.10		Apr 30 1980											
ANNUAL RUNOFF (AC-FT)	68220	28060								56850													
10 PERCENT EXCEEDS	192	80								139													
50 PERCENT EXCEEDS	22	31								20													
90 PERCENT EXCEEDS	4.6	8.7								3.4													

e Estimated.  
a From high-water mark.  
b Maximum gage height, 10.48 ft, Apr 30, 1999.

PLATTE RIVER BASIN

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to current year.

REMARKS.--Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARDS) (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L) (00900)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SODIUM, DIS-SOLVED (MG/L) (00930)	SODIUM AD-SORP-TION RATIO (00931)
OCT 12...	0930	6.2	1290	8.1	12.5	7.6	590	141	56.6	--	--
NOV 08...	1015	20	1030	8.2	8.0	10.0	490	134	38.4	--	--
DEC 06...	1100	12	1040	8.4	3.0	11.3	520	142	40.7	--	--
JAN 10...	1215	19	666	8.5	1.0	13.0	300	81.2	23.2	23.6	.6
FEB 07...	0930	30	472	8.5	1.5	12.1	220	60.4	16.0	--	--
MAR 06...	1130	28	517	8.1	8.0	10.2	230	63.0	17.2	--	--
APR 10...	1245	5.9	1070	8.0	13.5	10.9	470	118	43.4	--	--
MAY 08...	1245	188	264	8.5	10.0	9.1	99	22.3	10.6	--	--
JUN 05...	0845	111	318	8.5	12.5	12.1	120	26.0	13.0	--	--
JUL 10...	0915	48	464	8.1	20.0	7.7	190	46.9	17.4	17.0	.5
AUG 07...	1110	32	461	8.2	21.0	9.1	180	43.0	17.4	--	--
SEP 18...	0915	58	206	8.0	16.0	8.4	80	22.0	6.12	--	--

DATE	ANC UNFLTRD TIT 4.5 LAB (MG/L) AS CACO3 (90410)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	CHLO-RIDE, DIS-SOLVED (MG/L) AS CL (00940)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	SILICA, DIS-SOLVED (MG/L) AS SIO2 (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L) AS N (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)	PHOS-PHORUS DIS-SOLVED (MG/L) AS P (00666)
OCT 12...	178	--	--	--	--	--	<.010	.383	<.020	<.050
NOV 08...	179	--	--	--	--	--	<.010	.538	<.020	<.050
DEC 06...	189	--	--	--	--	--	<.010	.789	.021	<.050
JAN 10...	123	223	8.6	.3	8.1	480	<.010	.635	<.020	<.050
FEB 07...	90	--	--	--	--	--	<.010	.349	<.020	<.050
MAR 06...	98	--	--	--	--	--	<.010	.304	.041	<.050
APR 10...	156	--	--	--	--	--	<.010	.306	.029	<.050
MAY 08...	36	--	--	--	--	--	<.010	.116	.021	<.050
JUN 05...	36	--	--	--	--	--	<.010	.111	.024	<.050
JUL 10...	76	146	4.6	.2	4.3	305	<.010	.112	<.020	<.050
AUG 07...	75	--	--	--	--	--	<.010	.065	<.020	<.050
SEP 18...	43	--	--	--	--	--	<.010	.067	<.020	<.050



PLATTE RIVER BASIN

06741510 BIG THOMPSON RIVER AT LOVELAND, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)
OCT 12...	<.010	--	--	<.1	--	--	--	1	E1	170
NOV 08...	<.010	--	--	<.1	--	--	--	E1	1	110
DEC 06...	<.010	--	--	<.1	--	--	--	E1	E1	90
JAN 10...	<.010	<15	<2.0	<.1	<.1	<1	<.8	1	E1	80
FEB 07...	<.010	--	--	--	--	--	--	--	E1	80
MAR 06...	<.010	--	--	<.1	--	--	--	E1	E1	110
APR 10...	.012	--	--	<.1	--	--	--	E1	E1	150
MAY 08...	<.010	--	--	<.1	--	--	--	5	E1	2070
JUN 05...	<.010	--	--	<.1	--	--	--	2	E1	430
JUL 10...	<.010	<15	<2.0	<.1	<.1	<1	<.8	2	<1	590
AUG 07...	<.010	--	--	E.1	--	--	--	3	1	490
SEP 18...	<.010	--	--	<.1	--	--	--	3	2	150

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 12...	<1	--	--	--	--	--	--	<1	<1	--
NOV 08...	<1	--	--	--	--	--	--	<1	<1	--
DEC 06...	<1	--	--	--	--	--	--	<1	<1	--
JAN 10...	<1	<1	17	<.3	<.2	<1	4.7	<1	<1	<20
FEB 07...	--	--	--	--	--	--	--	<1	<1	--
MAR 06...	<1	--	--	--	--	--	--	<1	<1	--
APR 10...	<1	--	--	--	--	--	--	<1	<1	--
MAY 08...	3	--	--	--	--	--	--	<1	<1	--
JUN 05...	<1	--	--	--	--	--	--	<1	<1	--
JUL 10...	E1	<1	41	<.3	<.2	<1	E1.7	<1	<1	<20
AUG 07...	<1	--	--	--	--	--	--	<1	<1	--
SEP 18...	<1	--	--	--	--	--	--	<1	<1	--

PLATTE RIVER BASIN

06742500 CARTER LAKE NEAR BERTHOUD, CO

LOCATION.--Lat 40°19'28", long 105°12'41", in SE<sup>1</sup>/<sub>4</sub> sec.10, T.4 N., R.70 W., Larimer County, Hydrologic Unit 10190006, in hoist house 293 ft from right abutment of Carter Lake Dam on Dry Creek, 7.0 mi west of Berthoud, and 8.9 mi upstream from mouth. Water-quality sampling site near center of reservoir.

RESERVOIR ELEVATIONS AND CONTENTS RECORDS

PERIOD OF RECORD.--March 1954 to current year.

GAGE.--Nonrecording gage read at irregular intervals from 1 to 13 days. Datum of gage is 5,763.00 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by an earth and rockfill dam and dikes enlarging the natural basin of Carter Lake. Storage began in February 1954. Usable capacity, 113,500 acre-ft between elevations 5,618.00 ft, trashrack sill at outlet, and 5,763.00 ft, maximum water surface, 6 ft below crest of dam. Dead storage, 3,306 acre-ft. Figures given represent usable contents. 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 and St. Vrain and Boulder Creek basins. Water above elevation 5,620 ft 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.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 109,100 acre-ft, Apr. 27-29, 1971, elevation, 5,759.12 ft; minimum observed since appreciable storage was attained, 960 acre-ft, Oct. 25, 1954, elevation, 5,621.40 ft.

EXTREMES (AT 0800) FOR CURRENT YEAR.--Maximum contents, 105,400 acre-ft, Apr. 12, elevation, 5,755.94 ft; minimum contents, 48,700 acre-ft, Sept. 30, elevation, 5,699.82 ft.

MONTHEND ELEVATION AND CONTENTS AT 0800, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30 . . . . .	5,723.51	70,920	-
Oct. 31 . . . . .	5,716.85	64,400	-6,520
Nov. 30 . . . . .	5,714.54	62,180	-2,220
Dec. 31 . . . . .	5,721.79	69,220	+7,040
CAL YR 1999 . . . . .	-	-	+13,770
Jan. 31 . . . . .	5,739.35	87,240	+18,020
Feb. 29 . . . . .	5,742.43	90,530	+3,290
Mar. 31 . . . . .	5,753.96	103,200	+12,670
Apr. 30 . . . . .	5,750.46	99,300	-3,900
May 31 . . . . .	5,733.63	81,200	-18,100
June 30 . . . . .	5,735.63	83,300	+2,100
July 31 . . . . .	5,729.88	77,400	-5,900
Aug. 31 . . . . .	5,712.68	60,400	-17,000
Sept. 30 . . . . .	5,699.82	48,700	-11,700
WTR YR 2000 . . . . .	-	-	-22,220

06742500 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Samples were collected near surface and near bottom, near southeast end of reservoir.

Note: The following remarks may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM-PLING DEPTH (FEET) (000003)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (000095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	TRANS-PAR-ENCY (SECCHI DISK) (IN) (00077)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	HARD-NESS TOTAL (MG/L AS CaCO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS Ca) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS Mg) (00925)
OCT											
20...	1256	.10	65	8.2	12.4	8.1					
20...	1257	5.00	64	8.2	12.0	8.2					
20...	1258	10.0	64	8.2	11.8	8.2					
20...	1259	15.0	64	8.2	11.8	8.2					
20...	1300	20.0	64	8.2	11.8	8.2					
20...	1302	25.0	64	8.2	11.8	8.2					
20...	1303	30.0	64	8.2	11.8	8.2					
20...	1304	40.0	64	8.2	11.7	8.2					
20...	1305	50.0	63	8.1	11.4	7.6					
20...	1306	60.0	55	7.9	10.0	5.0					
20...	1307	70.0	54	7.8	9.7	5.0					
20...	1308	80.0	55	7.8	9.4	4.9					
20...	1309	90.0	55	7.7	9.0	4.4					
20...	1310	100	56	7.6	8.7	3.8					
20...	1311	110	56	7.6	8.6	3.5					
20...	1312	115	56	7.6	8.6	3.5					
MAY											
04...	1240	.10	60	8.0	13.2	9.7					
04...	1241	5.00	60	8.1	12.2	9.5					
04...	1242	10.0	59	8.2	10.3	10.0					
04...	1243	15.0	59	8.3	9.3	10.2					
04...	1244	20.0	59	8.3	8.3	10.4					
04...	1245	25.0	58	8.3	7.7	10.2					
04...	1246	30.0	58	8.2	7.4	10.0					
04...	1247	40.0	58	8.1	7.0	9.7					
04...	1248	50.0	58	8.0	6.6	9.6					
04...	1249	60.0	58	7.9	6.4	9.5					
04...	1250	70.0	58	7.9	6.1	9.4					
04...	1251	80.0	58	7.8	6.0	9.4					
04...	1252	90.0	58	7.8	5.8	9.3					
04...	1253	100	58	7.8	5.8	9.3					
AUG											
17...	1245	.10	69	7.8	22.0	7.1					
17...	1246	5.00	69	7.9	21.9	7.1					
17...	1247	10.0	69	7.9	21.7	7.1					
17...	1248	15.0	69	7.9	21.6	7.1					
17...	1249	20.0	53	7.8	17.6	6.7					
17...	1250	25.0	48	7.7	15.6	6.4					
17...	1251	30.0	47	7.6	15.1	6.2					
17...	1252	40.0	46	7.5	14.9	6.3					
17...	1253	50.0	46	7.4	14.7	6.3					
17...	1254	60.0	46	7.4	14.6	6.3					
17...	1255	70.0	46	7.3	14.5	6.1					
17...	1256	80.0	45	7.3	14.3	6.2					
17...	1257	90.0	45	7.2	14.1	6.1					
17...	1258	100	46	7.2	13.3	5.7					
17...	1259	110	48	7.1	11.5	4.6					

PLATTE RIVER BASIN

06742500 CARTER LAKE NEAR BERTHOUD, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD LAB (MG/L AS CAC03) (90410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)
OCT										
20...	2.1	.2	.8	31	2.8	.9	.1	2.9	43	39
20...	2.0	.2	.6	26	2.5	.9	.1	4.8	41	36
MAY										
04...	2.0	.2	.6	28	2.6	1.0	.1	3.9	43	37
04...	2.0	.2	.6	28	2.5	.8	.1	4.2	42	37
AUG										
17...	2.0	.2	.6	33	2.2	.7	.1	2.5	43	40
17...	1.6	.2	.6	22	1.9	.6	.1	4.0	36	30

DATE	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	NITROGEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITROGEN, AMMONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CHLOROPHYTTON, CHROMO FLUOROM (UG/L) (70953)	CHLOROPHYTTON, CHROMO FLUOROM (UG/L) (70954)
OCT										
20...	.06	<.010	<.050	<.020	.22	<.050	<.050	<.010	1.6	<.1
20...	.06	<.010	<.050	<.020	.17	E.031	<.050	<.010	--	--
MAY										
04...	.06	<.010	<.050	<.020	.13	<.008	<.006	<.010	2.3	E.1
04...	.06	<.010	<.050	.021	.18	<.008	E.003	<.010	--	--
AUG										
17...	.06	<.001	<.005	.004	.24	.009	<.006	<.001	1.5	<.1
17...	.05	<.001	.045	.029	.20	.010	E.003	.004	--	--

DATE	CARBON, ORGANIC TOTAL (MG/L AS BA) (00680)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYLLIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
OCT										
20...	4.2	23	<2	<16	<.1	<14.0	<13	<10	<10	<100
20...	4.1	16	<2	E8	<.1	<14.0	<13	<10	<10	<100
MAY										
04...	3.4	18	<2	<16	<.1	<14.0	<13	<10	<10	<100
04...	3.3	18	<2	<16	<.1	<14.0	<13	<10	<10	<100
AUG										
17...	3.6	29	<2	<16	<.1	<.8	<1	1	<10	<1
17...	3.3	14	<2	<16	<.1	<.8	<1	2	E10	<1

DATE	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRONTIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT									
20...	<3.9	E2	<2	<34	<40	<1	36.2	<10	<20
20...	<3.9	5	<2	<34	<40	<1	32.3	<10	<20
MAY									
04...	<3.9	5	E1	<34	<40	<1	35.3	<10	<20
04...	E2.0	5	E1	<34	<40	<1	35.1	<10	<20
AUG									
17...	.8	3	<1	<1	<1	<1	38.6	<1	<1
17...	.7	10	5	<1	<1	<1	29.6	<1	<1

06746095 JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°32'24", long 105°52'56", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.26, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 150 ft downstream from unnamed tributary and Colorado Highway 14 culvert crossing, 1.5 mi northeast of Cameron Pass, 1.5 mi southwest of Joe Wright Dam, and 8 mi east of Gould.

DRAINAGE AREA.--3.01 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,990 ft above sea level, from topographic map. Prior to Aug. 7, 1989, at datum 3.40 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	e2.4	e1.1	e.94	e.86	e.78	e.71	e2.5	125	23	9.1	9.1
2	4.0	e2.4	e1.1	e.94	e.86	e.78	e.67	e3.3	106	22	8.8	8.7
3	3.8	e2.3	e1.1	e.93	e.86	e.78	e.67	e4.5	104	21	8.8	8.3
4	3.5	e2.2	e1.1	e.92	e.85	e.78	e.66	e8.0	106	21	8.6	8.0
5	3.5	e2.1	e1.1	e.92	e.85	e.76	e.66	e11	118	21	8.4	8.1
6	3.6	e2.0	e1.1	e.92	e.84	e.73	e.60	e12	119	19	7.9	7.8
7	3.6	e1.8	e1.1	e.92	e.84	e.74	e.60	e12	118	20	7.6	7.2
8	3.4	e1.8	e1.1	e.92	e.84	e.75	e.58	e9.6	115	23	7.2	7.3
9	3.1	e1.8	e1.1	e.92	e.84	e.76	e.60	e8.2	116	23	7.0	6.9
10	3.1	e1.8	e1.1	e.91	e.84	e.76	e.60	e9.6	107	23	6.8	6.5
11	2.8	e1.9	e1.1	e.91	e.84	e.76	e.64	e11	95	21	6.7	6.1
12	e2.8	e1.9	e1.1	e.91	e.84	e.77	e.68	9.4	85	20	6.5	5.8
13	e2.7	e1.9	e1.1	e.91	e.83	e.78	e.68	9.0	82	20	6.2	5.7
14	e2.7	e1.9	e1.1	e.91	e.83	e.74	e.70	7.7	72	19	6.1	5.4
15	e2.7	e1.8	e1.1	e.91	e.82	e.71	e.73	8.1	69	18	6.0	5.0
16	e2.7	e1.6	e1.1	e.91	e.82	e.72	e.74	12	63	19	7.6	4.6
17	e2.7	e1.3	e1.0	e.90	e.82	e.73	e.84	11	57	24	7.7	4.5
18	e2.7	e1.2	e1.0	e.90	e.82	e.73	e.93	9.4	47	21	7.4	4.2
19	e2.7	e1.1	e1.0	e.90	e.81	e.73	e.95	8.2	51	18	6.9	4.2
20	e2.7	e1.1	e1.0	e.90	e.81	e.73	e.97	8.9	53	17	7.4	5.0
21	e2.7	e1.2	e1.0	e.90	e.80	e.67	e1.1	10	46	16	6.7	7.1
22	e2.7	e1.2	e1.0	e.89	e.80	e.66	e1.2	16	45	15	7.3	14
23	e2.6	e1.2	e1.0	e.89	e.80	e.66	e1.2	33	45	14	7.7	8.6
24	2.6	e1.2	e1.0	e.88	e.79	e.66	e1.1	33	39	13	7.2	7.9
25	2.6	e1.1	e1.0	e.88	e.79	e.66	e1.1	37	30	12	11	8.3
26	2.2	e1.1	e.99	e.88	e.78	e.67	e1.1	41	28	12	14	8.4
27	2.2	e1.1	e.98	e.88	e.78	e.67	e1.4	37	26	12	10	8.1
28	2.5	e1.1	e.97	e.88	e.78	e.67	e2.0	48	24	11	9.7	8.0
29	2.4	e1.1	e.97	e.87	e.78	e.67	e2.9	70	24	11	9.7	8.5
30	e2.4	e1.1	e.96	e.87	---	e.67	e2.8	85	23	10	9.6	8.5
31	e2.4	---	e.96	e.86	---	e.67	---	111	---	9.6	9.1	---
TOTAL	90.4	47.7	32.43	27.98	23.82	22.35	30.11	696.4	2138	548.6	250.7	215.8
MEAN	2.92	1.59	1.05	.90	.82	.72	1.00	22.5	71.3	17.7	8.09	7.19
MAX	4.3	2.4	1.1	.94	.86	.78	2.9	111	125	24	14	14
MIN	2.2	1.1	.96	.86	.78	.66	.58	2.5	23	9.6	6.0	4.2
AC-FT	179	95	64	55	47	44	60	1380	4240	1090	497	428

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	3.01	1.53	1.02	.85	.73	.72	1.11	14.0	53.6	27.9	8.74	4.49											
MAX	10.5	3.51	2.50	2.39	1.79	1.50	3.39	34.6	88.5	90.8	21.5	17.3											
(WY)	1998	1998	1998	1998	1998	1994	1994	1994	1988	1995	1995	1997											
MIN	.54	.36	.28	.25	.20	.20	.39	3.58	25.5	6.75	1.88	1.06											
(WY)	1981	1979	1981	1981	1979	1979	1979	1982	1989	1989	1985	1980											

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1979 - 2000

ANNUAL TOTAL	3867.57	4124.29		
ANNUAL MEAN	10.6	11.3	9.81	
HIGHEST ANNUAL MEAN			16.9	1995
LOWEST ANNUAL MEAN			5.40	1981
HIGHEST DAILY MEAN	85	Jun 29	150	Jul 11 1995
LOWEST DAILY MEAN	.74	Sep 17	e.58	Apr 8
ANNUAL SEVEN-DAY MINIMUM	.82	Sep 12	e.61	Apr 5
INSTANTANEOUS PEAK FLOW			160	May 31
INSTANTANEOUS PEAK STAGE			5.67	May 31
ANNUAL RUNOFF (AC-FT)	7670	8180	7110	
10 PERCENT EXCEEDS	44	25	31	
50 PERCENT EXCEEDS	1.7	2.4	1.6	
90 PERCENT EXCEEDS	1.0	.75	.48	

e Estimated.

a Also occurred Jan 31 to Apr 4, 1979, and Feb 9 to Apr 9, 1981.

b Maximum gage height, 10.64 ft, May 15, 1993, present datum, backwater from ice.

06746110 JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO

LOCATION.--Lat 40°33'43", long 105°51'48", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.24, T.7 N., R.76 W., Larimer County, Hydrologic Unit 10190007, on left bank 500 ft downstream from unnamed tributary, 2,000 ft downstream from Joe Wright Dam, and 3 mi southwest of Chambers Lake.

DRAINAGE AREA.--6.90 mi<sup>2</sup>.

PERIOD OF RECORD.--June 1978 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 9,710 ft above sea level, from topographic map. Prior to Aug. 7, 1989, at datum 0.50 ft higher.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by Joe Wright Reservoir, 2000 ft upstream. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	2.3	e2.1	e1.9	e1.7	1.9	2.1	e4.4	29	28	7.6	79
2	2.3	2.2	e2.1	e1.9	e1.8	1.9	2.1	e5.0	96	28	8.0	76
3	2.3	2.3	e2.1	e1.9	e1.8	1.9	2.1	e5.6	106	28	11	66
4	2.3	2.3	e2.1	e1.9	e1.8	1.9	2.2	e6.4	64	25	12	49
5	2.3	2.3	e2.1	e1.9	e1.8	2.0	2.4	e7.1	73	23	12	51
6	2.2	2.3	e2.1	e1.9	e1.9	1.9	2.5	e7.2	89	21	12	54
7	1.9	2.3	e2.1	e1.9	e1.9	1.9	2.5	e7.4	89	21	7.9	49
8	2.1	2.3	e2.0	e1.9	e1.9	1.9	2.5	e6.3	e86	21	5.7	50
9	2.1	2.3	e2.0	e1.9	e1.9	e1.9	2.5	e5.6	e84	21	5.7	49
10	2.1	2.3	e2.0	e1.9	e1.9	e1.9	e2.5	e6.2	e78	22	5.7	47
11	2.1	2.3	e2.0	e1.9	e1.9	e1.9	e2.5	e7.0	e64	22	5.7	42
12	2.1	2.3	e2.0	e1.9	e1.9	e1.9	e2.6	e5.7	e35	22	8.8	39
13	2.1	2.2	e2.0	e1.9	e1.9	e1.9	e2.6	5.3	e50	23	7.7	39
14	2.1	2.3	e2.0	e1.9	e1.9	e1.9	e2.7	5.5	e74	23	5.7	40
15	2.1	2.1	e2.0	e1.9	e1.9	e1.9	e2.7	6.0	e101	23	5.7	43
16	2.1	2.2	e2.0	e1.9	e1.9	e1.9	e2.7	7.4	e98	21	6.2	48
17	2.1	2.1	e2.0	e1.9	e1.9	e1.9	e2.8	6.8	e94	21	8.2	53
18	2.1	2.1	e2.0	e1.9	e1.9	e1.9	e2.9	6.0	75	23	11	55
19	2.1	e2.1	e2.0	e1.9	e1.9	e1.9	e2.9	6.3	57	22	12	57
20	2.3	e2.1	e2.0	e1.9	e1.9	e1.9	e2.9	6.6	59	20	12	55
21	2.3	e2.1	e2.0	e1.9	e1.9	e2.0	e3.0	7.3	62	20	12	35
22	2.3	e2.1	e2.0	e1.9	e1.9	e2.0	e3.1	8.9	60	20	11	7.1
23	2.3	e2.1	e2.0	e1.9	e1.9	e2.0	e3.2	12	61	20	9.7	5.7
24	2.3	e2.1	e2.0	e1.9	e1.9	e2.1	e3.0	11	65	20	40	5.7
25	2.3	e2.1	e2.0	e1.9	e1.9	2.1	e3.0	13	62	19	60	7.1
26	2.3	e2.1	e2.0	e1.9	e1.9	2.1	e3.0	13	48	18	55	10
27	2.3	e2.1	e2.0	e1.8	e1.9	2.1	e3.3	12	37	7.1	53	10
28	2.3	e2.1	e2.0	e1.8	e1.9	2.1	e3.5	14	33	3.4	61	10
29	2.3	e2.1	e2.0	e1.8	e1.9	2.1	e3.7	15	30	4.9	79	10
30	2.3	e2.1	e2.0	e1.8	---	2.1	e3.7	15	29	4.9	84	10
31	2.3	---	e1.9	e1.8	---	2.1	---	16	---	5.4	84	---
TOTAL	69.3	65.7	62.6	58.4	54.5	60.9	83.2	261.0	1988	600.7	719.3	1151.6
MEAN	2.24	2.19	2.02	1.88	1.88	1.96	2.77	8.42	66.3	19.4	23.2	38.4
MAX	3.2	2.3	2.1	1.9	1.9	2.1	3.7	16	106	28	84	79
MIN	1.9	2.1	1.9	1.8	1.7	1.9	2.1	4.4	29	3.4	5.7	5.7
AC-FT	137	130	124	116	108	121	165	518	3940	1190	1430	2280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000		
MEAN	4.37	1.23	.87	.78	.73	.75	.91	12.8	62.5	38.7	31.2	31.0												
MAX (WY)	20.8	3.01	2.17	2.10	2.13	2.50	2.90	48.0	100	90.8	84.7	61.8												
MIN (WY)	.54	.34	.21	.24	.22	.23	.29	1.21	12.6	2.49	6.44	1.13												

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1979 - 2000

ANNUAL TOTAL	6160.9	5175.2																						
ANNUAL MEAN	16.9	14.1																						
HIGHEST ANNUAL MEAN																								
LOWEST ANNUAL MEAN																								
HIGHEST DAILY MEAN				151	Jun 18		106	Jun 3		245	Jul 1	1993												
LOWEST DAILY MEAN				e1.8	Jan 3		e1.7	Feb 1		.17	Apr 3	1991												
ANNUAL SEVEN-DAY MINIMUM				e1.8	Jan 27		e1.8	Jan 27		.18	Mar 31	1991												
INSTANTANEOUS PEAK FLOW							130	Jun 2		284	Aug 18	1991												
INSTANTANEOUS PEAK STAGE							2.13	Jun 2		a2.71	Aug 18	1991												
ANNUAL RUNOFF (AC-FT)	12220	10270								11230														
10 PERCENT EXCEEDS	58	53								57														
50 PERCENT EXCEEDS	2.3	2.3								1.9														
90 PERCENT EXCEEDS	1.9	1.9								.35														

e Estimated.  
a Maximum gage height, 2.78 ft, Jul 10, 1997.

06751150 NORTH FORK CACHE LA POUDE RIVER BELOW HALLIGAN RESERVOIR NEAR VIRGINIA DALE, CO

LOCATION.--Lat 40°52'42", long 105°20'15", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.34, T.11 N., R.71 W., Larimer County, Hydrologic Unit 10190007, on left bank 500 ft downstream from Halligan Dam, 4.0 mi west of Highway 287, and 5.0 mi south of Virginia Dale.

DRAINAGE AREA.--355 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1998 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,310 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow affected by transbasin diversions, storage reservoirs, and irrigation. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	5.6	6.4	33	43	35	62	127	146	60	65	42
2	91	5.6	6.4	32	43	35	76	126	145	60	64	45
3	90	5.5	6.0	31	43	34	78	133	145	59	64	45
4	75	5.6	5.3	31	43	33	88	136	144	59	63	44
5	59	5.3	5.3	33	43	33	93	136	143	58	63	44
6	53	5.3	5.4	30	43	33	94	135	141	57	63	44
7	37	5.3	5.4	29	43	33	94	135	131	57	63	43
8	17	5.3	5.6	30	38	33	95	134	126	55	62	38
9	12	5.3	5.5	29	35	34	85	134	106	55	61	35
10	12	5.3	5.6	30	35	33	78	135	98	54	60	34
11	12	5.3	5.6	30	36	33	78	136	97	53	60	32
12	12	5.3	5.6	31	35	33	78	135	95	51	60	32
13	12	5.6	5.3	31	35	34	78	142	94	51	50	31
14	8.8	5.6	5.2	32	35	33	78	143	93	51	36	31
15	7.3	5.6	5.3	34	35	33	78	143	92	50	30	30
16	7.3	5.6	5.3	34	35	33	77	143	92	49	31	25
17	7.3	5.6	5.3	39	35	34	77	149	92	49	29	17
18	6.7	5.6	5.3	45	36	33	77	151	92	49	24	12
19	6.2	5.6	5.3	46	35	33	59	151	91	49	23	9.0
20	5.7	5.9	5.3	44	35	33	53	151	90	53	23	7.3
21	5.6	6.0	5.3	44	35	33	52	152	90	62	22	6.3
22	5.6	6.1	5.3	44	35	35	52	153	86	62	22	5.6
23	5.6	6.0	5.3	44	35	36	52	153	84	65	21	5.6
24	5.8	5.9	5.3	44	35	36	69	153	83	66	21	5.5
25	5.8	5.9	5.6	44	35	36	76	154	83	66	27	5.6
26	5.8	6.1	14	43	35	36	76	155	83	65	29	5.6
27	5.4	6.4	29	44	35	36	93	155	82	65	29	5.6
28	5.3	6.4	34	43	35	38	120	150	68	65	31	5.6
29	5.3	6.4	34	43	35	49	129	148	62	65	35	5.6
30	5.3	6.4	36	44	---	57	128	147	60	65	34	5.6
31	5.4	---	33	43	---	56	---	147	---	64	34	---
TOTAL	685.2	171.4	317.2	1154	1076	1116	2423	4442	3034	1789	1299	696.9
MEAN	22.1	5.71	10.2	37.2	37.1	36.0	80.8	143	101	57.7	41.9	23.2
MAX	93	6.4	36	46	43	57	129	155	146	66	65	45
MIN	5.3	5.3	5.2	29	35	33	52	126	60	49	21	5.5
AC-FT	1360	340	629	2290	2130	2210	4810	8810	6020	3550	2580	1380

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2000, BY WATER YEAR (WY)

	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
MEAN	12.9	4.84	14.1	35.6	41.6	58.3	92.7	348	220	97.6	90.0	70.5
MAX	22.1	5.71	17.9	37.2	46.3	80.7	131	641	369	129	120	105
(WY)	2000	2000	1999	2000	1999	1999	1998	1999	1999	1999	1999	1999
MIN	3.69	3.97	10.2	34.0	37.1	36.0	66.6	143	101	57.7	41.9	23.2
(WY)	1999	1999	2000	1999	2000	2000	1999	2000	2000	2000	2000	2000

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1998 - 2000	
ANNUAL TOTAL	49797.8		18203.7			
ANNUAL MEAN	136		49.7		92.5	
HIGHEST ANNUAL MEAN					135	
LOWEST ANNUAL MEAN					49.7	
HIGHEST DAILY MEAN	1500	May 1	155	May 26	1500	May 1 1999
LOWEST DAILY MEAN	5.2	Dec 14	5.2	Dec 14	1.3	Sep 29 1998
ANNUAL SEVEN-DAY MINIMUM	5.3	Dec 13	5.3	Dec 13	1.5	Sep 29 1998
INSTANTANEOUS PEAK FLOW			156	May 25	1840	Apr 30 1999
INSTANTANEOUS PEAK STAGE			3.27	May 25	6.47	Apr 30 1999
ANNUAL RUNOFF (AC-FT)	98770		36110		67010	
10 PERCENT EXCEEDS	460		130		219	
50 PERCENT EXCEEDS	59		36		60	
90 PERCENT EXCEEDS	5.6		5.6		5.3	

PLATTE RIVER BASIN

06751490 NORTH FORK CACHE LA POUDE RIVER AT LIVERMORE, CO

LOCATION.--Lat 40°47'15", long 105°15'06", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.32, T.10 N., R.70 W., Larimer County, Hydrologic Unit 10190007, on left bank 30 ft downstream from bridge on Colorado State Highway 200, 2.0 mi west of Livermore, and 2.9 mi downstream from Stonewall Creek.

DRAINAGE AREA.--539 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1986 to current year. May 1929 to September 1931, May 1947 to September 1965 (published as "near Livermore", station 06751500); records are not considered equivalent. Water-quality data available, November 1986 to September 1999.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,715 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow affected by transbasin diversions, storage reservoirs, and irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	15	16	e49	e50	43	76	10	12	11	5.9	5.2
2	14	16	17	e45	49	44	91	9.3	15	11	7.0	5.1
3	14	16	16	e43	49	44	53	7.4	14	10	7.8	5.0
4	14	16	15	e44	e49	41	16	11	13	9.9	7.5	4.7
5	13	16	15	e44	e53	42	16	14	13	10	7.3	5.0
6	13	16	16	e45	50	42	16	12	13	10	6.1	5.1
7	13	16	15	e45	50	43	15	12	12	11	6.4	4.8
8	14	17	16	e45	48	43	15	12	12	10	5.9	5.0
9	14	17	15	e41	41	44	14	15	13	11	5.2	4.6
10	13	17	18	e43	e43	43	13	15	14	9.9	5.2	5.0
11	13	17	16	e42	e46	42	13	18	17	8.2	5.8	4.8
12	15	17	16	38	e48	43	13	17	15	6.7	6.4	4.6
13	23	17	17	e40	45	43	13	20	10	7.0	7.3	4.2
14	23	17	17	e42	44	43	13	23	9.5	6.7	6.6	4.0
15	21	17	18	37	46	45	13	23	9.6	5.9	6.2	4.0
16	24	17	15	36	44	45	14	22	11	5.7	7.5	3.7
17	22	17	15	e38	46	45	13	31	14	6.0	7.1	3.6
18	23	17	16	e44	46	45	15	35	13	7.2	7.1	3.3
19	23	17	18	e48	e46	44	14	34	13	8.0	6.0	3.7
20	22	18	17	e47	e46	45	14	32	14	7.4	5.1	5.7
21	21	18	13	e47	45	45	12	32	13	6.1	5.1	4.6
22	20	20	13	e47	45	45	8.5	33	13	7.3	5.2	7.3
23	20	17	13	e54	45	47	8.5	34	12	8.0	4.8	6.9
24	19	19	13	e54	45	47	8.8	33	12	8.0	4.5	8.1
25	19	18	15	50	45	48	8.3	25	12	8.6	4.4	7.5
26	19	19	16	50	44	49	7.3	24	14	8.0	5.3	7.5
27	19	19	28	52	44	49	7.0	22	14	7.0	5.5	11
28	19	17	34	e50	44	49	7.4	20	13	6.7	5.0	11
29	18	16	e48	e50	43	57	8.5	16	13	5.8	4.9	11
30	18	17	e46	e47	---	69	10	13	12	5.7	5.5	10
31	17	---	e50	e50	---	75	---	13	---	5.2	5.4	---
TOTAL	554	513	613	1407	1339	1449	546.3	637.7	385.1	249.0	185.0	176.0
MEAN	17.9	17.1	19.8	45.4	46.2	46.7	18.2	20.6	12.8	8.03	5.97	5.87
MAX	24	20	50	54	53	75	91	35	17	11	7.8	11
MIN	13	15	13	36	41	41	7.0	7.4	9.5	5.2	4.4	3.3
AC-FT	1100	1020	1220	2790	2660	2870	1080	1260	764	494	367	349

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2000, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	12.5	17.5	12.0	14.3	17.9	21.6	67.8	185	214	30.0	18.3	10.5		
MAX	41.0	98.8	34.3	46.2	48.2	55.5	244	904	857	133	52.5	23.6		
(WY)	1998	1998	1998	1999	1996	1990	1990	1999	1995	1995	1991	1997		
MIN	4.85	6.62	3.58	3.60	5.00	6.35	4.57	10.3	12.8	5.23	4.24	4.48		
(WY)	1989	1988	1988	1988	1995	1995	1995	1989	2000	1989	1988	1987		

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1987 - 2000

ANNUAL TOTAL	51510.4	8054.1	
ANNUAL MEAN	141	22.0	
HIGHEST ANNUAL MEAN		141	1999
LOWEST ANNUAL MEAN		8.06	1989
HIGHEST DAILY MEAN	2760	May 1	2760 May 1 1999
LOWEST DAILY MEAN	7.2	Apr 19	a2.6 Sep 2 1988
ANNUAL SEVEN-DAY MINIMUM	7.6	Apr 14	3.8 Sep 13 2.9 Sep 1 1988
INSTANTANEOUS PEAK FLOW		98	Apr 2 5430 Jun 1 1991
INSTANTANEOUS PEAK STAGE		7.97	Apr 2 17.53 Jun 1 1991
ANNUAL RUNOFF (AC-FT)	102200	15980	37530
10 PERCENT EXCEEDS	561	47	100
50 PERCENT EXCEEDS	23	16	12
90 PERCENT EXCEEDS	11	5.7	5.2

e Estimated.  
a Also occurred Sep 3, 1988 and Apr 27, 1989.





PLATTE RIVER BASIN

06752258 CACHE LA POUDE RIVER AT SHIELDS STREET, AT FORT COLLINS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°36'11", long 105°05'43", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.3, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, at Shields Street bridge, 0.8 mi downstream from Larimer-Weld Canal, and 1.0 mi northwest of Fort Collins.

PERIOD OF RECORD.--October 1979 to current year.

REMARKS.--Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	ANC UNFLTRD LAB (MG/L AS CAC03) (90410)
OCT 13...	1000	12	249	8.5	11.5	9.0	110	30.4	7.35	--	--	97
NOV 09...	0930	47	313	8.4	8.5	10.3	140	41.3	9.48	--	--	113
DEC 07...	1045	40	363	8.4	4.0	11.8	190	55.3	12.4	9.4	.3	137
JAN 11...	1030	57	304	8.5	.0	13.4	130	38.5	8.95	--	--	119
FEB 08...	1015	88	261	8.9	3.0	12.2	120	35.4	8.14	--	--	104
MAR 07...	1010	75	241	8.0	7.0	10.8	110	31.7	7.00	--	--	93
APR 11...	1015	34	247	8.3	10.0	10.8	110	31.7	7.14	--	--	93
MAY 09...	1030	356	54	7.6	7.5	9.8	23	6.49	1.58	--	--	21
JUN 06...	1115	350	43	7.9	14.0	11.1	18	5.28	1.15	--	--	18
JUL 11...	1050	225	97	8.1	19.0	7.9	41	12.0	2.72	2.9	.2	35
AUG 08...	1000	61	94	8.1	17.0	8.4	39	11.6	2.39	--	--	38
SEP 19...	1130	14	384	8.2	18.0	8.0	180	52.6	11.8	--	--	130

DATE	SULFATE DIS-SOLVED (MG/L AS S04) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (MG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
OCT 13...	--	--	--	--	--	<.010	.112	<.020	<.050	<.010	--	--
NOV 09...	--	--	--	--	--	<.010	.117	<.020	<.050	<.010	--	--
DEC 07...	53.0	4.8	.5	9.6	228	<.010	.248	<.020	<.050	<.010	<15	E1.0
JAN 11...	--	--	--	--	--	<.010	.160	<.020	<.050	<.010	--	--
FEB 08...	--	--	--	--	--	<.010	.120	<.020	<.050	<.010	--	--
MAR 07...	--	--	--	--	--	<.010	.086	<.020	<.050	<.010	--	--
APR 11...	--	--	--	--	--	<.010	<.005	<.020	<.050	<.010	--	--
MAY 09...	--	--	--	--	--	<.010	.024	<.020	<.050	<.010	--	--
JUN 06...	--	--	--	--	--	<.010	.017	<.020	<.050	<.010	--	--
JUL 11...	11.1	1.5	.1	4.8	62	<.010	.049	<.020	<.050	<.010	E9	<2.0
AUG 08...	--	--	--	--	--	<.010	.091	<.020	<.050	<.010	--	--
SEP 19...	--	--	--	--	--	<.010	.114	<.020	<.050	<.010	--	--

PLATTE RIVER BASIN

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06752258 CACHE LA POUFRE RIVER AT SHIELDS STREET, AT FORT COLLINS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 13...	--	--	E1	230	--	--	--	--	--	--	<1	--
NOV 09...	--	--	E1	70	--	--	--	--	--	--	<1	--
DEC 07...	<.1	<.8	E1	110	--	<1	20	<.2	<1	<2.4	<1	<20
JAN 11...	--	--	<1	60	--	--	--	--	--	--	<1	--
FEB 08...	--	--	E1	70	--	--	--	--	--	--	<1	--
MAR 07...	--	--	<1	80	--	--	--	--	--	--	<1	--
APR 11...	--	--	E1	100	--	--	--	--	--	--	<1	--
MAY 09...	--	--	E1	310	--	--	--	--	--	--	<1	--
JUN 06...	--	--	E1	390	--	--	--	--	--	--	<1	--
JUL 11...	<.1	<.8	E1	160	--	<1	14	<.2	<1	<2.4	<1	E14
AUG 08...	--	--	2	--	10	--	--	--	--	--	<1	--
SEP 19...	--	--	1	--	50	--	--	--	--	--	<1	--

PLATTE RIVER BASIN

06752260 CACHE LA POUFRE RIVER AT FORT COLLINS, CO

LOCATION.--Lat 40°35'21", long 105°04'09", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.12, T.7 N., R.69 W., Larimer County, Hydrologic Unit 10190007, on left bank 100 ft upstream from Lincoln Street Bridge in Fort Collins.

DRAINAGE AREA.--1,127 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,940 ft above sea level, from topographic map. Prior to May 22, 1987, at site 300 ft downstream, at different datum. May 22, 1987 to Nov. 10, 1988 at site 4,300 ft upstream, at different datum. Nov. 10, 1988 to Oct. 16, 1996, at site 100 ft upstream, at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions upstream from station for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	89	59	59	77	e1.2	16	266	271	177	15	84
2	93	106	57	54	81	e1.2	22	397	101	134	e14	23
3	102	88	59	56	92	e1.2	35	356	59	124	48	66
4	76	89	54	50	95	e1.2	12	464	102	132	15	27
5	18	89	42	51	92	1.7	12	448	128	88	13	45
6	8.3	76	35	51	93	2.4	11	441	238	96	26	107
7	5.3	59	44	51	92	3.9	10	347	313	92	24	67
8	7.3	53	53	52	91	2.6	2.8	401	404	96	30	80
9	17	50	47	49	87	1.9	e1.2	248	567	109	31	82
10	24	50	43	44	72	1.9	e2.6	250	620	126	32	93
11	29	49	54	48	75	e1.2	4.6	405	383	111	70	86
12	37	49	51	49	71	e1.2	4.9	385	138	81	125	74
13	66	46	52	60	77	5.9	4.5	376	131	66	90	50
14	74	40	52	76	70	e3.1	3.4	405	244	33	84	11
15	62	39	38	80	66	e4.1	6.1	395	149	21	134	9.1
16	81	47	40	86	83	6.6	10	384	234	29	172	e6.7
17	89	50	45	81	81	2.3	8.5	566	219	51	178	9.7
18	93	55	45	79	82	e1.2	8.5	261	137	53	154	11
19	79	57	50	55	82	e1.2	44	4.9	22	24	104	15
20	78	37	44	50	83	1.5	11	3.4	140	17	133	21
21	79	42	52	47	90	4.5	e1.2	e2.6	110	26	135	22
22	82	55	46	43	92	1.8	26	e20	36	42	134	34
23	81	55	51	39	90	2.0	134	e29	58	58	92	76
24	81	38	50	32	86	1.6	91	e209	47	38	110	16
25	78	31	42	41	84	3.3	73	56	61	20	140	10
26	82	47	46	44	80	3.1	88	121	69	18	126	8.6
27	84	80	33	69	85	3.7	98	48	95	37	218	8.5
28	76	78	22	83	53	4.8	113	135	89	37	189	7.2
29	82	65	19	85	1.2	1.6	166	217	66	28	164	6.7
30	88	57	35	82	---	3.9	192	e187	144	17	160	7.4
31	84	---	63	85	---	8.4	---	216	---	e9.6	159	---
TOTAL	2028.9	1766	1423	1831	2303.2	86.2	1212.3	8043.9	5375	1990.6	3119	1163.9
MEAN	65.4	58.9	45.9	59.1	79.4	2.78	40.4	259	179	64.2	101	38.8
MAX	102	106	63	86	95	8.4	192	566	620	177	218	107
MIN	5.3	31	19	32	1.2	1.2	1.2	2.6	22	9.6	13	6.7
AC-FT	4020	3500	2820	3630	4570	171	2400	15960	10660	3950	6190	2310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2000, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	28.2	31.5	25.8	32.7	34.4	35.6	110	467	944	246	76.1	37.0															
MAX	182	183	97.3	123	135	136	652	2720	4771	1450	301	207															
(WY)	1998	1998	1985	1984	1984	1980	1983	1980	1983	1983	1997	1997															
MIN	2.45	1.79	1.91	2.29	1.30	1.91	.37	14.9	158	39.2	12.8	4.79															
(WY)	1978	1978	1978	1978	1987	1988	1988	1976	1989	1988	1988	1987															

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1975 - 2000	
ANNUAL TOTAL	121582.5		30343.0			
ANNUAL MEAN	333		82.9		175	
HIGHEST ANNUAL MEAN					779	
LOWEST ANNUAL MEAN					41.8	
HIGHEST DAILY MEAN	5730		May 1		6080	
LOWEST DAILY MEAN	4.6		Apr 18		a.00	
ANNUAL SEVEN-DAY MINIMUM	7.2		Apr 15		.00	
INSTANTANEOUS PEAK FLOW			785		May 6	
INSTANTANEOUS PEAK STAGE			4.62		May 6	
ANNUAL RUNOFF (AC-FT)	241200		60190		126500	
10 PERCENT EXCEEDS	1260		177		368	
50 PERCENT EXCEEDS	69		56		28	
90 PERCENT EXCEEDS	26		4.6		2.9	

e Estimated.

a Also occurred Aug 19, Sep 4, 18-19, 1987, and many days in 1988.

06752260 CACHE LA POUDDRE RIVER AT FORT COLLINS, CO--Continued

WATER-QUALITY RECORDS

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

REMARKS.--Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER FIELD (STAND-ARD WATER UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CAC03) (90410)	
DATE		SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
OCT 14...	0850	79	221	8.3	10.0	9.2	95	27.0	6.62	--	--	88	
NOV 09...	0815	48	331	8.4	8.0	10.2	150	42.5	10.2	--	--	63	
DEC 07...	0900	39	357	8.6	1.5	13.4	170	48.7	11.2	10.5	.4	130	
JAN 11...	0910	38	335	8.6	.0	14.3	150	42.0	10.2	--	--	129	
FEB 08...	0845	88	276	7.7	1.5	11.8	130	37.5	8.82	--	--	39	
MAR 07...	0845	3.9	370	7.9	7.0	10.5	160	44.5	11.4	--	--	136	
APR 11...	0845	6.1	313	8.3	9.5	10.2	130	36.3	8.75	--	--	108	
MAY 09...	0845	289	58	8.3	7.0	9.3	24	6.81	1.67	--	--	25	
JUN 06...	0915	294	49	8.0	13.5	12.7	20	5.89	1.32	--	--	20	
JUL 11...	0900	99	110	7.7	18.0	6.9	45	12.9	3.10	3.4	.2	39	
AUG 08...	0830	35	133	7.8	16.5	7.7	55	15.9	3.71	--	--	53	
SEP 19...	0910	10	410	8.0	18.0	7.6	180	50.4	12.4	--	--	135	
OCT 14...	--	--	--	--	--	<.010	.109	<.020	<.050	<.010	--	--	
NOV 09...	--	--	--	--	--	<.010	.161	<.020	<.050	<.010	--	--	
DEC 07...	53.2	6.1	.4	8.6	226	<.010	.244	<.020	<.050	<.010	<15	<2.0	
JAN 11...	--	--	--	--	--	<.010	.222	<.020	<.050	<.010	--	--	
FEB 08...	--	--	--	--	--	<.010	.162	<.020	<.050	<.010	--	--	
MAR 07...	--	--	--	--	--	<.010	.421	.020	<.050	<.010	--	--	
APR 11...	--	--	--	--	--	<.010	.244	.035	<.050	.023	--	--	
MAY 09...	--	--	--	--	--	<.010	.032	<.020	<.050	<.010	--	--	
JUN 06...	--	--	--	--	--	<.010	.022	<.020	<.050	<.010	--	--	
JUL 11...	12.7	2.1	.2	4.9	71	<.010	.061	<.020	<.050	<.010	<15	<2.0	
AUG 08...	--	--	--	--	--	<.010	.134	<.020	<.050	<.010	--	--	
SEP 19...	--	--	--	--	--	<.010	.221	<.020	<.050	<.010	--	--	

## PLATTE RIVER BASIN

06752260 CACHE LA POUVRE RIVER AT FORT COLLINS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 14...	--	--	1	170	--	--	--	--	--	--	<1	--
NOV 09...	--	--	E1	80	--	--	--	--	--	--	<1	--
DEC 07...	<.1	<.8	E1	270	--	<1	25	<.2	<1	<2.4	<1	<20
JAN 11...	--	--	2	70	--	--	--	--	--	--	<1	--
FEB 08...	--	--	<1	70	--	--	--	--	--	--	<1	--
MAR 07...	--	--	E1	170	--	--	--	--	--	--	<1	--
APR 11...	--	--	1	930	--	--	--	--	--	--	<1	--
MAY 09...	--	--	E1	340	--	--	--	--	--	--	<1	--
JUN 06...	--	--	<1	470	--	--	--	--	--	--	<1	--
JUL 11...	<.1	<.8	<1	190	--	<1	19	<.2	<1	<2.4	<1	<20
AUG 08...	--	--	2	--	20	--	--	--	--	--	<1	--
SEP 19...	--	--	2	--	50	--	--	--	--	--	<1	--

06752270 CACHE LA POUFRE RIVER BELOW FORT COLLINS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 40°34'01", long 105°01'36", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.20, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, 1.4 mi west of Interstate 25 on Prospect Street in Fort Collins.

DRAINAGE AREA.--1,240 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1978 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CAC03) (90410)	
DATE		SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
OCT 12...	1230	22	782	8.7	15.0	11.7	340	90.4	27.3	--	--	192	
NOV 08...	1230	73	435	9.2	10.0	12.7	200	54.7	14.5	--	--	134	
DEC 06...	1315	42	507	8.8	4.0	13.5	230	64.5	16.7	--	--	145	
DEC 06...	1330	42	--	8.7	4.0	13.2	230	65.1	16.8	--	--	148	
JAN 10...	1410	49	454	8.9	2.0	16.6	200	55.7	15.0	17.0	.5	149	
FEB 07...	1215	69	346	9.0	4.0	13.8	170	46.9	11.7	--	--	122	
MAR 06...	1345	10	824	8.5	11.5	13.3	370	99.1	28.9	--	--	212	
APR 10...	1445	15	919	8.6	14.0	14.4	400	107	33.0	--	--	207	
MAY 08...	1445	500	72	8.4	8.5	9.7	30	8.51	2.10	--	--	26	
JUN 05...	1130	208	114	8.1	14.0	10.7	45	12.7	3.18	--	--	35	
JUL 10...	1130	119	166	8.5	20.0	8.7	69	19.5	4.89	5.4	.3	48	
AUG 07...	1345	23	668	8.6	23.5	10.9	290	81.0	21.7	--	--	139	
SEP 18...	1150	17	653	8.3	18.0	9.1	290	79.9	21.3	--	--	153	
OCT 12...	--	--	--	--	--	.032	2.62	.023	.332	.324	--	--	
NOV 08...	--	--	--	--	--	<.010	.744	<.020	.108	.087	--	--	
DEC 06...	--	--	--	--	--	.085	1.11	.021	.126	.122	--	--	
DEC 06...	--	--	--	--	--	.083	.579	<.020	.142	.131	--	--	
JAN 10...	81.6	9.8	.6	9.1	305	.058	.776	<.020	.060	.055	<15	<2.0	
FEB 07...	--	--	--	--	--	<.010	.450	<.020	E.037	.039	--	--	
MAR 06...	--	--	--	--	--	.054	2.62	.090	.395	.346	--	--	
APR 10...	--	--	--	--	--	.044	2.10	.023	.212	.185	--	--	
MAY 08...	--	--	--	--	--	<.010	.120	<.020	<.050	<.010	--	--	
JUN 05...	--	--	--	--	--	<.010	.195	.025	<.050	.024	--	--	
JUL 10...	26.4	3.0	.2	5.1	104	.012	.213	.020	E.037	.037	E11	<2.0	
AUG 07...	--	--	--	--	--	.018	.781	.021	.139	.105	--	--	
SEP 18...	--	--	--	--	--	.034	2.27	.020	.371	.329	--	--	

## PLATTE RIVER BASIN

06752270 CACHE LA POUFRE RIVER BELOW FORT COLLINS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 12...	--	--	1	160	--	--	--	--	--	--	<1	--
NOV 08...	--	--	1	110	--	--	--	--	--	--	<1	--
DEC 06...	--	--	E1	110	--	--	--	--	--	--	<1	--
DEC 06...	--	--	E1	110	--	--	--	--	--	--	<1	--
JAN 10...	<.1	<.8	E1	90	--	<1	18	<.2	<1	<2.4	<1	<20
FEB 07...	--	--	<1	80	--	--	--	--	--	--	<1	--
MAR 06...	--	--	2	230	--	--	--	--	--	--	<1	--
APR 10...	--	--	E1	300	--	--	--	--	--	--	<1	--
MAY 08...	--	--	E1	690	--	--	--	--	--	--	<1	--
JUN 05...	--	--	<1	420	--	--	--	--	--	--	<1	--
JUL 10...	<.1	<.8	E1	170	--	<1	15	<.2	<1	<2.4	<1	<20
AUG 07...	--	--	2	--	20	--	--	--	--	--	<1	--
SEP 18...	--	--	2	--	30	--	--	--	--	--	<1	--



06752280 CACHE LA POUFRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO

LOCATION.--Lat 40 33'07", long 105 00'39", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.28, T.7 N., R.68 W., Larimer County, Hydrologic Unit 10190007, on left bank 4,000 ft upstream from Box Elder Creek, 2.0 mi upstream from Interstate Highway 25 bridge, and 3.8 mi southeast of intersection of College Avenue and Prospect Street in Fort Collins.

DRAINAGE AREA.--1,245 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,860 ft above sea level, from topographic map. Prior to March 24, 1994, at site 1,900 ft downstream at different datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, diversion for municipal supply, diversions upstream from station for irrigation, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	112	78	71	101	8.8	9.5	161	213	126	6.3	76
2	66	131	73	67	95	8.9	9.7	334	69	85	7.2	13
3	72	113	78	69	108	9.0	9.6	267	28	72	33	39
4	62	115	71	74	112	9.0	9.5	359	67	73	16	7.3
5	16	114	61	67	110	9.0	8.5	359	77	43	6.8	20
6	7.2	104	53	82	111	8.8	8.2	359	159	45	7.3	75
7	4.8	84	61	78	96	9.1	7.9	281	223	38	5.8	41
8	4.5	76	69	64	91	8.3	8.0	296	306	44	8.2	49
9	4.5	71	66	64	92	8.2	7.7	197	427	50	7.3	53
10	4.5	72	61	56	73	8.3	7.7	165	528	71	7.9	56
11	8.7	61	70	61	78	7.9	7.0	298	328	65	31	50
12	14	51	66	59	54	7.9	4.5	290	97	39	78	36
13	18	50	66	65	38	8.3	4.1	279	76	24	76	20
14	83	45	79	82	34	8.2	4.2	302	166	11	56	5.8
15	75	42	95	85	21	9.3	4.3	292	98	8.4	107	5.4
16	118	50	52	89	33	10	6.2	285	144	9.3	139	3.5
17	114	65	57	96	32	10	7.4	465	193	23	139	2.1
18	129	76	56	98	33	10	6.9	288	103	23	133	2.6
19	115	79	63	69	31	9.7	7.8	8.9	6.7	11	75	2.1
20	115	64	62	64	34	9.6	18	4.9	65	8.9	93	11
21	113	58	66	63	35	9.7	6.8	5.1	67	8.9	111	6.0
22	117	80	69	59	39	9.3	12	11	13	10	111	11
23	115	84	66	55	38	10	82	18	12	14	60	42
24	117	67	63	49	36	9.3	62	145	12	11	77	13
25	114	57	57	54	34	9.4	48	49	14	9.0	111	6.8
26	115	60	58	57	30	9.0	51	82	26	7.7	97	4.9
27	116	99	52	78	32	8.8	66	38	50	8.9	167	4.3
28	109	101	38	98	34	8.9	76	94	46	11	162	4.2
29	109	86	35	103	8.9	8.8	117	167	29	10	134	3.6
30	111	76	41	103	---	9.0	153	167	70	7.8	128	2.8
31	112	---	72	108	---	9.6	---	157	---	7.3	130	---
TOTAL	2341.2	2343	1954	2287	1663.9	280.1	830.5	6223.9	3712.7	975.2	2320.8	666.4
MEAN	75.5	78.1	63.0	73.8	57.4	9.04	27.7	201	124	31.5	74.9	22.2
MAX	129	131	95	108	112	10	153	465	528	126	167	76
MIN	4.5	42	35	49	8.9	7.9	4.1	4.9	6.7	7.3	5.8	2.1
AC-FT	4640	4650	3880	4540	3300	556	1650	12350	7360	1930	4600	1320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2000, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	23.5	34.8	29.0	30.1	29.3	32.1	116	462	924	213	53.7	32.2									
MAX	162	179	114	139	156	159	633	2729	4430	1288	278	182									
(WY)	1998	1998	1998	1984	1984	1980	1980	1983	1983	1983	1997	1997									
MIN	3.55	4.45	3.99	3.39	3.76	4.38	3.45	8.66	85.8	5.94	4.27	3.61									
(WY)	1992	1991	1991	1995	1992	1991	1991	1982	1989	1987	1987	1988									

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	FOR 1980 - 2000
ANNUAL TOTAL	113045.9	25598.7	
ANNUAL MEAN	310	69.9	
HIGHEST ANNUAL MEAN			700 1983
LOWEST ANNUAL MEAN			19.4 1989
HIGHEST DAILY MEAN	5750	May 1	5750 May 1 1999
LOWEST DAILY MEAN	2.7	Apr 13	1.0 Oct 14 1989
ANNUAL SEVEN-DAY MINIMUM	3.3	Apr 15	2.3 Apr 9 1995
INSTANTANEOUS PEAK FLOW		673	May 17 a7200 May 1 1999
INSTANTANEOUS PEAK STAGE		6.02	May 17 b11.13 May 1 1999
ANNUAL RUNOFF (AC-FT)	224200	50780	
10 PERCENT EXCEEDS	1180	139	314
50 PERCENT EXCEEDS	62	57	12
90 PERCENT EXCEEDS	13	7.3	4.1

a From slope-area measurement of peak flow.  
b From highwater marks.

PLATTE RIVER BASIN

06752280 CACHE LA POUFRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value, K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CAC03) (90410)	
DATE		SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
OCT 12...	1415	14	1040	8.6	17.0	10.7	470	123	39.5	--	--	193	
NOV 08...	1405	78	527	9.0	12.0	12.9	240	65.0	18.3	--	--	138	
DEC 06...	1450	48	648	8.7	4.5	13.2	300	80.5	23.2	25.9	.7	156	
JAN 10...	1520	56	565	8.7	2.0	15.7	250	67.4	19.5	--	--	153	
FEB 07...	1315	73	415	9.0	5.0	13.7	190	53.7	14.1	--	--	126	
MAR 06...	1445	8.6	1170	8.6	13.0	12.6	540	141	45.9	--	--	204	
APR 10...	1545	6.8	1370	8.6	14.0	12.8	630	162	55.6	--	--	198	
MAY 08...	1600	502	90	7.7	9.0	9.3	37	10.4	2.70	--	--	28	
JUN 05...	1330	117	187	8.2	17.5	10.2	73	19.8	5.63	--	--	43	
JUL 10...	1330	62	285	8.6	22.0	8.8	110	29.8	9.05	10.2	.4	56	
AUG 07...	1500	3.9	1260	8.4	27.5	11.3	570	147	50.5	--	--	162	
SEP 18...	1315	2.9	1370	8.1	21.5	10.7	660	164	60.1	--	--	165	
OCT 12...	--	--	--	--	--	.037	1.93	.029	.178	.181	--	--	
NOV 08...	--	--	--	--	--	<.010	.580	<.020	.076	.057	--	--	
DEC 06...	177	12.3	.6	8.3	445	.103	1.28	.022	.128	.109	<15	E1.1	
JAN 10...	--	--	--	--	--	.043	.753	<.020	E.038	.033	--	--	
FEB 07...	--	--	--	--	--	<.010	.348	<.020	<.050	.019	--	--	
MAR 06...	--	--	--	--	--	.069	2.35	.139	.318	.267	--	--	
APR 10...	--	--	--	--	--	.037	1.45	.054	.075	.067	--	--	
MAY 08...	--	--	--	--	--	<.010	.125	<.020	<.050	.012	--	--	
JUN 05...	--	--	--	--	--	<.010	.218	.028	E.031	.026	--	--	
JUL 10...	73.5	3.7	.2	5.4	180	.011	.201	.021	E.035	.031	E11	<2.0	
AUG 07...	--	--	--	--	--	.023	.490	.038	E.030	.012	--	--	
SEP 18...	--	--	--	--	--	.027	.820	.047	E.040	.030	--	--	

PLATTE RIVER BASIN

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06752280 CACHE LA POUFRE RIVER ABOVE BOX ELDER CREEK NEAR TIMNATH, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 12...	--	--	1	170	--	--	--	--	--	--	<1	--
NOV 08...	--	--	E1	110	--	--	--	--	--	--	<1	--
DEC 06...	<.1	<.8	E1	110	--	<1	19	<.2	<1	E2.2	<1	<20
JAN 10...	--	--	E1	110	--	--	--	--	--	--	<1	--
FEB 07...	--	--	<1	80	--	--	--	--	--	--	<1	--
MAR 06...	--	--	2	310	--	--	--	--	--	--	<1	--
APR 10...	--	--	E1	310	--	--	--	--	--	--	<1	--
MAY 08...	--	--	E1	710	--	--	--	--	--	--	<1	--
JUN 05...	--	--	E1	470	--	--	--	--	--	--	<1	--
JUL 10...	<.1	<.8	E1	270	--	<1	22	<.2	<1	<2.4	<1	E10
AUG 07...	--	--	3	--	20	--	--	--	--	--	<1	--
SEP 18...	--	--	2	--	20	--	--	--	--	--	<1	--

## PLATTE RIVER BASIN

06754000 SOUTH PLATTE RIVER NEAR KERSEY, CO

LOCATION.--Lat 40°24'44", long 104°33'46", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.9, T.5 N., R.64W., Weld County, Hydrologic Unit 10190003, on downstream side of bridge on State Highway 37, 1.9 mi north of railroad in Kersey, and 2.5 mi downstream from Cache la Poudre River.

DRAINAGE AREA.--9,598 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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" 1901-03. Statistical summary computed for 1976 to current year.

REVISED RECORDS.--WSP 1310: 1902, 1906, 1935(M). WSP 1730: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,575.77 ft above sea level. See WSP 1710 or 1730 for history of changes prior to July 3, 1935.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 888,000 acres, and return flow from irrigated areas.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1490	1250	1200	e1320	1120	845	947	e800	1200	237	175	461
2	1390	1290	1190	e1270	1110	828	1220	e500	1110	220	168	483
3	1370	1300	1150	e1300	1120	835	1110	405	892	213	193	418
4	1350	1320	1170	e1350	1160	872	1230	e230	779	191	209	412
5	1310	1310	1220	e1360	1080	851	943	e190	723	174	281	403
6	1300	1320	1200	e1340	1060	843	752	e180	696	174	239	391
7	1260	1310	e1170	e1280	1070	844	662	e210	553	148	218	375
8	1230	1280	e1070	e1250	1050	842	623	e300	413	143	210	363
9	1200	1190	e980	e1250	1030	839	631	629	353	130	200	344
10	1160	1100	968	e1240	1010	824	586	971	309	137	184	330
11	1180	1090	953	e1240	1000	787	528	560	305	151	179	317
12	1100	1080	947	e1160	1010	767	500	463	281	151	178	312
13	1070	1070	923	1150	1040	758	435	467	e240	160	179	297
14	1030	1050	907	1140	1060	768	389	359	e200	162	184	279
15	1070	1030	891	1150	1040	778	373	e280	180	158	184	279
16	1140	1020	897	1120	1020	831	394	e220	177	163	215	276
17	1290	1010	891	1120	932	1040	493	e500	e210	622	193	278
18	1470	1060	894	1150	914	1040	449	2730	e400	2650	1130	279
19	1450	1110	882	1150	924	940	361	2660	e360	1020	1540	294
20	1460	1130	869	1130	940	861	334	1460	249	441	591	383
21	1400	1120	859	1140	978	905	338	962	262	331	366	782
22	1370	1190	953	1130	1030	1060	271	818	237	289	300	883
23	1370	1370	1070	1110	1050	1100	274	701	177	250	265	935
24	1330	1340	1120	1100	1090	1020	339	624	165	232	254	1120
25	1300	1290	1130	1080	1080	972	329	719	160	209	228	1600
26	1300	1230	1100	1080	955	1040	e280	1140	164	202	233	1320
27	1280	1260	1100	1110	907	1060	e240	1220	376	184	274	1070
28	1250	1280	e1210	1240	894	868	e200	987	643	179	395	946
29	1210	1250	e1340	1220	864	655	179	804	527	180	419	856
30	1210	1230	e1400	1160	---	599	207	671	347	173	674	758
31	1260	---	e1370	1130	---	541	---	1070	---	172	683	---
TOTAL	39600	35880	33024	36970	29538	26813	15617	23830	12688	9846	10741	17244
MEAN	1277	1196	1065	1193	1019	865	521	769	423	318	346	575
MAX	1490	1370	1400	1360	1160	1100	1230	2730	1200	2650	1540	1600
MIN	1030	1010	859	1080	864	541	179	180	160	130	168	276
AC-FT	78550	71170	65500	73330	58590	53180	30980	47270	25170	19530	21300	34200

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2000, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	899	960	874	852	859	938	1110	2536	3375	1054	865	820													
MAX	3388	2585	1337	1434	1641	1852	3894	13060	14520	5784	2783	2079													
(WY)	1985	1985	1985	1984	1984	1983	1983	1980	1983	1983	1984	1984													
MIN	415	488	568	503	540	473	144	251	113	183	304	259													
(WY)	1978	1978	1982	1982	1978	1982	1982	1977	1977	1994	1981	1977													

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1976 - 2000
ANNUAL TOTAL	692277	291791	
ANNUAL MEAN	1897	797	a1262
HIGHEST ANNUAL MEAN			3631
LOWEST ANNUAL MEAN			456
HIGHEST DAILY MEAN	18800	2730	b21500
LOWEST DAILY MEAN	271	130	c61
ANNUAL SEVEN-DAY MINIMUM	331	146	63
INSTANTANEOUS PEAK FLOW		4380	d22900
INSTANTANEOUS PEAK STAGE		6.92	f11.00
ANNUAL RUNOFF (AC-FT)	1373000	578800	914000
10 PERCENT EXCEEDS	4650	1300	2130
50 PERCENT EXCEEDS	1110	892	782
90 PERCENT EXCEEDS	551	193	320

e Estimated.

a Average discharge for 71 years (water years 1902-03, 1906-74), 777 ft<sup>3</sup>/s; 562900 acre-ft/yr, prior to completion of Chatfield Dam.

b Maximum daily discharge for period of record, 31000 ft<sup>3</sup>/s, Jun 7, 1921.

c Minimum daily discharge for period of record, 28 ft<sup>3</sup>/s, Apr 30, 1955.

d Maximum discharge and stage for period of record, 31500 ft<sup>3</sup>/s, May 8, 1973, gage height, 11.73 ft.

f Maximum gage height for statistical period, 11.50 ft, May 1, 1999.

PLATTE RIVER BASIN

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06754000 SOUTH PLATTE RIVER NEAR KERSEY, CO--Continued  
(National Water-Quality Assessment Program station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1993 to February 1996, May 1997 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count; M, presence of material verified but not quantified.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD WATER UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS TOTAL (MG/L AS CAC03) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	
OCT 06...	0945	1280	1140	8.6	13.2	7.5	380	90.5	37.8	97.1	2	6.3	
NOV 02...	1120	1280	1100	8.3	7.8	10.2	370	88.1	36.8	97.0	2	6.3	
DEC 08...	1150	1060	1250	8.1	4.6	10.6	420	98.1	43.3	106	2	7.1	
JAN 04...	1150	1320	1080	8.1	.8	11.5	350	84.4	32.7	87.6	2	6.4	
FEB 02...	1125	1080	1110	8.1	3.9	9.8	380	89.9	36.6	100	2	7.3	
MAR 01...	1030	827	1180	8.2	8.1	10.1	390	90.6	39.7	104	2	7.8	
APR 11...	0950	538	1220	8.2	10.7	7.9	420	102	39.4	108	2	7.7	
MAY 03...	1020	419	1240	8.3	15.4	7.3	410	97.0	40.4	99.7	2	7.5	
JUN 06...	0950	709	871	8.3	19.1	7.4	290	67.4	29.2	65.6	2	4.5	
JUL 06...	1040	188	1420	8.3	22.6	9.6	510	119	52.6	98.0	2	6.2	
AUG 02...	1115	168	1460	8.3	21.9	10.8	500	116	51.7	101	2	6.1	
SEP 06...	1015	379	1320	8.2	18.4	7.6	440	98.4	46.1	101	2	6.1	
DATE		BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ALKA-LINITY WAT DIS TOT IT (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
OCT 06...	189	4	163	304	59.3	1.0	10.5	792	733	1.08	2740	.052	
NOV 02...	201	--	167	290	62.3	1.1	9.3	742	720	1.01	2560	.048	
DEC 08...	176	--	146	347	71.7	1.0	9.9	878	802	1.19	2510	.063	
JAN 04...	176	--	146	289	61.2	.9	8.8	750	689	1.02	2670	.095	
FEB 02...	221	--	181	296	70.7	1.0	9.8	760	754	1.03	2220	.141	
MAR 01...	205	--	168	314	69.6	1.0	8.4	836	772	1.14	1870	.102	
APR 11...	170	--	139	320	70.3	1.0	9.6	848	774	1.15	1230	.045	
MAY 03...	214	--	175	329	63.3	.9	9.6	820	781	1.12	928	.081	
JUN 06...	193	--	158	232	37.0	.7	8.4	578	555	.79	1110	.033	
JUL 06...	257	4	217	428	49.9	.9	10.4	1030	927	1.40	521	.094	
AUG 02...	286	6	244	447	49.8	.9	12.1	1040	962	1.42	473	.091	
SEP 06...	257	--	211	368	54.9	1.1	11.6	916	840	1.25	937	.033	

## PLATTE RIVER BASIN

06754000 SOUTH PLATTE RIVER NEAR KERSEY, CO--Continued  
(National Water-Quality Assessment Program station)

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 06...	6.15	.359	.47	1.3	.83	.640	.569	.526	4.9	1.1	<10	10
NOV 02...	6.24	.373	.57	1.3	.94	.748	.668	.549	4.7	.6	30	14
DEC 08...	6.36	.756	.64	1.7	1.4	.782	.687	.603	4.9	.9	10	21
JAN 04...	6.36	1.14	.49	2.2	1.6	.815	.669	.627	5.9	1.2	10	14
FEB 02...	6.87	1.44	.59	2.6	2.0	.843	.696	.571	5.1	.8	10	27
MAR 01...	7.21	.546	.74	1.6	1.3	.962	.819	.727	5.7	1.5	10	25
APR 11...	6.90	.123	.56	.99	.68	.731	.649	.618	4.5	.9	E10	18
MAY 03...	5.80	.453	.56	1.6	1.0	.750	.567	.502	5.2	1.8	<10	24
JUN 06...	3.27	.122	.32	1.1	.45	.528	.347	.340	4.6	2.6	<10	10
JUL 06...	6.93	.136	.44	1.1	.58	.458	.269	.286	4.9	1.0	<10	39
AUG 02...	6.91	<.020	--	.92	.37	.291	.163	.137	4.7	1.1	<10	59
SEP 06...	5.55	.050	.43	.78	.48	.357	.300	.270	3.9	.9	<10	19

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 06...	0945	1280	13.2	41	142	71
NOV 02...	1120	1280	7.8	49	169	38
DEC 08...	1150	1060	4.6	33	94	40
JAN 04...	1150	1320	.8	52	185	52
FEB 02...	1125	1080	3.9	51	149	52
MAR 01...	1030	827	8.1	29	65	79
APR 11...	0950	538	10.7	25	36	64
MAY 03...	1020	419	15.4	44	50	88
JUN 06...	0950	709	19.1	90	172	83
JUL 06...	1040	188	22.6	137	70	97
AUG 02...	1115	168	21.9	64	29	97
SEP 06...	1015	379	18.4	35	36	93

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO

LOCATION.--Lat 40°19'19", long 103°55'17", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.7, T.4 N., R.58 W., Morgan County, Hydrologic Unit 10190003, on left bank 400 ft downstream from bridge on State Highway 144, 2.8 mi southeast of Weldona, and 4.2 mi upstream from Bijou Creek.

DRAINAGE AREA.--13,245 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1952 to current year. Statistical summary computed for 1976 to current year.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,307.80 ft above sea level.

REMARKS.--No estimated daily discharges. Records fair. Natural flow of stream affected by transmountain and transbasin diversions, storage reservoirs, power developments, 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, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1640	831	743	920	958	586	481	387	1060	205	219	818
2	1470	827	737	1000	1070	676	740	653	1100	139	231	654
3	1370	862	735	1000	1080	660	1060	458	791	167	257	653
4	1340	873	723	976	1080	662	1020	189	591	310	270	576
5	1320	894	714	994	1100	687	1110	64	444	282	274	581
6	1280	867	743	999	1050	683	887	41	534	259	330	570
7	1240	873	742	985	1060	704	708	65	520	243	285	486
8	1080	884	729	949	1050	750	645	145	324	235	246	323
9	836	855	726	940	1030	811	596	224	127	266	239	242
10	752	796	744	858	1010	850	512	459	103	252	290	208
11	721	753	764	835	1020	819	382	517	141	265	273	180
12	736	740	753	803	1020	800	244	307	132	262	267	131
13	733	729	755	750	1020	780	203	339	184	203	269	135
14	709	713	750	803	1080	780	97	426	99	191	268	176
15	685	692	740	757	1100	796	49	349	62	195	262	189
16	719	682	775	746	1090	513	45	288	97	181	279	197
17	793	669	985	734	1080	423	42	277	105	184	347	195
18	878	654	1110	750	1010	540	37	963	157	526	359	175
19	963	686	1140	765	985	573	183	2050	271	827	908	164
20	994	692	1120	742	985	520	249	1270	228	302	975	282
21	1090	735	1110	716	976	481	231	620	100	224	436	367
22	1050	752	1080	697	662	516	219	320	142	149	249	498
23	1010	820	1080	683	586	697	174	569	243	121	342	499
24	1000	973	1140	669	580	742	143	697	193	99	235	557
25	979	886	1290	641	596	690	145	642	140	109	236	611
26	963	794	1330	765	648	662	142	753	138	144	325	830
27	898	738	1250	655	671	712	122	1160	295	303	330	717
28	837	734	1210	654	655	755	148	1230	465	290	336	561
29	803	750	1200	728	621	705	134	1020	472	276	469	458
30	782	752	949	719	---	561	257	866	322	274	516	408
31	836	---	803	659	---	522	---	770	---	253	767	---
TOTAL	30507	23506	28670	24892	26873	20656	11005	18118	9580	7736	11089	12441
MEAN	984	784	925	803	927	666	367	584	319	250	358	415
MAX	1640	973	1330	1000	1100	850	1110	2050	1100	827	975	830
MIN	685	654	714	641	580	423	37	41	62	99	219	131
AC-FT	60510	46620	56870	49370	53300	40970	21830	35940	19000	15340	22000	24680

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2000, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	575	530	613	756	699	540	805	1857	2499	797	667	694	694	694	694	694	694	694	694	694	694	694	694	694	694	694
MAX	3119	2298	1266	1443	1562	1494	3226	10130	12310	5121	2208	2118	2118	2118	2118	2118	2118	2118	2118	2118	2118	2118	2118	2118	2118	2118
(WY)	1985	1985	1986	1984	1984	1983	1983	1980	1983	1995	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984	1984
MIN	134	100	115	259	231	132	119	183	101	191	237	123	123	123	123	123	123	123	123	123	123	123	123	123	123	123
(WY)	1977	1977	1995	1995	1978	1978	1982	1981	1977	1981	1981	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977	1977

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1976 - 2000	
ANNUAL TOTAL	568638		225073			
ANNUAL MEAN	1558		615		a919	
HIGHEST ANNUAL MEAN					2995	
LOWEST ANNUAL MEAN					231	
HIGHEST DAILY MEAN	16000	May 3	2050	May 19	e,bl6300	Jun 11 1995
LOWEST DAILY MEAN	28	Apr 7	37	Apr 18	28	Apr 7 1999
ANNUAL SEVEN-DAY MINIMUM	30	Apr 3	94	Apr 13	30	Apr 3 1999
INSTANTANEOUS PEAK FLOW			2470		c18400	
INSTANTANEOUS PEAK STAGE			4.87		10.42	
ANNUAL RUNOFF (AC-FT)	1128000		446400		665600	
10 PERCENT EXCEEDS	4060		1060		1650	
50 PERCENT EXCEEDS	874		669		488	
90 PERCENT EXCEEDS	173		162		164	

a Average discharge for 22 years (water years 1953-74), 572 ft<sup>3</sup>/s; 414400 acre-ft/yr, prior to completion of Chatfield Dam.  
 b Maximum daily discharge for period of record, 20800 ft<sup>3</sup>/s, May 9, 1973.  
 c Maximum discharge and stage for period of record, 26800 ft<sup>3</sup>/s, May 8, 1973, gage height, 11.68 ft, from rating curve extended above 16000 ft<sup>3</sup>/s.

PLATTE RIVER BASIN

06758500 SOUTH PLATTE RIVER NEAR WELDONA, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1967 to September 1968, October 1971 to current year.

REMARKS:--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD WATER UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	
NOV 12...	1100	772	1330	8.4	10.0	10.6	600	100	430	99.2	42.7	114	
MAR 09...	1130	860	1290	8.1	6.0	11.3	K20	120	440	105	42.3	115	
MAY 11...	1045	483	1110	8.4	16.0	8.9	210	290	370	88.5	36.3	86.0	
DATE	RATIO	SODIUM AD-SORP-TION (MG/L AS K) (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC UNFLTRD TIT 4.5 LAB (MG/L AS CACO3) (90410)	SULFATE DIS-SOLVED (MG/L AS S04) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L AS BE) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)
NOV 12...	2	6.9	288	376	68.4	1.0	10.8	894	921	1.22	1860	.019	
MAR 09...	2	7.5	205	361	72.5	.9	10.9	926	872	1.26	2150	.024	
MAY 11...	2	6.4	171	299	53.5	.9	10.3	744	703	1.01	970	.019	
DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	
NOV 12...	5.88	<.020	.62	.491	.420	.360	46	<2	230	<8.0	<14.0	<13	
MAR 09...	6.87	<.020	.20	.733	.570	.523	44	<2	263	<8.0	<14.0	<13	
MAY 11...	3.90	<.020	.93	.596	.317	.294	37	<2	204	<8.0	<14.0	<13	
DATE	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM, DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
NOV 12...	<10	<10	<100	34.1	7	<34	<40	2.9	<7	1220	<10	E11	
MAR 09...	<10	<10	<100	34.5	7	<34	<40	3.2	<7	1190	<10	E10	
MAY 11...	<10	<10	<100	27.7	7	<34	<40	2.5	<7	999	<10	<20	





## 07079300 EAST FORK ARKANSAS RIVER AT HIGHWAY 24 NEAR LEADVILLE, CO

LOCATION.--Lat 39°16'21", long 106°18'21", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec. 14, T.9 S., R.80 W., Lake County, Hydrologic Unit 11020001, on right bank 20 ft downstream from U.S. Highway 24, 0.35 mi downstream from Leadville Mine Drainage Tunnel, 1.5 mi northwest of Leadville, and 2.2 mi upstream from Tennessee Creek.

DRAINAGE AREA.--49.9 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1990 to current year. Water-quality data available, May 1990 to September 1996.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 9,900 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions (see elsewhere in this report). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	18	e14	e12	e12	e9.5	12	30	400	69	32	33
2	25	18	e14	e13	e12	e9.8	12	36	365	65	31	30
3	25	18	e14	e12	e12	e10	12	49	305	66	30	28
4	24	18	e13	e11	e11	e10	12	65	268	62	30	27
5	24	18	e13	e11	e11	e10	13	86	236	56	28	26
6	25	18	e13	e11	e11	e10	13	110	210	52	27	29
7	30	18	e13	e11	e11	e10	13	116	189	53	26	29
8	30	17	e13	e11	e11	e10	13	122	183	58	25	28
9	30	17	e13	e11	e11	e10	14	89	174	73	24	30
10	28	16	e13	e11	e11	e10	15	84	156	70	23	27
11	27	16	e13	e12	e11	e10	15	110	146	58	24	25
12	26	16	e14	e12	e11	e10	16	106	143	59	25	24
13	25	16	e13	e12	e11	e10	17	80	134	67	24	22
14	24	16	e13	e12	e11	e10	18	74	121	65	23	22
15	24	16	e13	e12	e11	e11	18	75	121	63	22	21
16	23	15	e13	e12	e11	e11	17	83	114	81	23	21
17	23	e15	e14	e12	e10	e11	19	109	102	106	24	20
18	23	e15	e14	e12	e10	e10	21	82	94	92	28	21
19	23	e15	e14	e12	e10	e10	19	74	98	71	27	20
20	22	e15	e14	e12	e10	e10	19	77	110	59	26	20
21	22	e15	e14	e12	e10	e10	20	81	94	53	29	21
22	21	e15	e13	e12	e10	e10	19	115	88	48	32	28
23	21	e15	e13	e12	e10	e10	20	e220	86	46	32	25
24	20	e15	e14	e12	e10	11	20	e300	81	44	30	25
25	20	e15	e14	e12	e10	11	20	e400	80	42	28	23
26	20	e15	e14	e12	e10	10	22	e300	78	41	29	23
27	19	e14	e14	e12	e10	11	24	e250	81	41	32	22
28	18	e14	e13	e12	e9.7	11	29	e270	77	39	31	22
29	19	e14	e13	e12	e9.6	11	31	e370	72	37	38	22
30	19	e14	e13	e12	---	11	32	e550	69	36	41	21
31	19	---	e13	e12	---	11	---	e450	---	33	37	---
TOTAL	725	477	416	366	308.3	319.3	545	4963	4475	1805	881	735
MEAN	23.4	15.9	13.4	11.8	10.6	10.3	18.2	160	149	58.2	28.4	24.5
MAX	30	18	14	13	12	11	32	550	400	106	41	33
MIN	18	14	13	11	9.6	9.5	12	30	69	33	22	20
AC-FT	1440	946	825	726	612	633	1080	9840	8880	3580	1750	1460

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	19.4	14.9	12.3	10.7	10.3	10.6	14.1	96.9	230	99.4	41.8	25.4
MAX	23.4	18.1	15.4	13.0	13.3	13.0	19.8	205	404	266	75.1	32.2
(WY)	2000	1996	1996	1996	1997	1997	1996	1996	1996	1995	1995	1995
MIN	15.1	10.8	10.1	9.17	7.10	8.74	10.5	38.4	133	42.2	23.5	19.3
(WY)	1995	1992	1992	1995	1993	1995	1993	1995	1998	1994	1994	1994

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1990 - 2000	
ANNUAL TOTAL	18718.7		16015.6			
ANNUAL MEAN	51.3		43.8		49.8	
HIGHEST ANNUAL MEAN					73.0	
LOWEST ANNUAL MEAN					34.5	
HIGHEST DAILY MEAN	375	Jun 26	550	May 30	811	Jun 8 1997
LOWEST DAILY MEAN	9.5	Feb 11	e9.5	Mar 1	6.0	Dec 9 1994
ANNUAL SEVEN-DAY MINIMUM	9.8	Feb 25	e9.8	Feb 25	6.7	Feb 8 1993
INSTANTANEOUS PEAK FLOW			e600		May 30	
INSTANTANEOUS PEAK STAGE			b		May 30	
ANNUAL RUNOFF (AC-FT)	37130		31770		36110	
10 PERCENT EXCEEDS	162		95		138	
50 PERCENT EXCEEDS	18		20		18	
90 PERCENT EXCEEDS	10		11		9.9	

e Estimated.

a From rating curve extended above 517 ft<sup>3</sup>/s.

b Gage height unknown.







07086000 ARKANSAS RIVER AT GRANITE, CO--Continued

## WATER-QUALITY RECORDS

## PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1993 to current year.

WATER TEMPERATURE: October 1993 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for specific conductance are good. Records for water temperature are fair. Daily data that are not published are either missing or of unacceptable quality.

## EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 249 microsiemens, Jan. 16, 1996 and Oct. 1, 1997; minimum, 65 microsiemens, July 5-6, 1998.

WATER TEMPERATURE: Maximum, 18.8°C, Aug. 2, 1999; minimum, 0.0°C, many days.

## EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 220 microsiemens, Nov. 11; minimum, 63 microsiemens, June 10.

WATER TEMPERATURE: Maximum, 18.1°C, Aug. 8-9, 13; minimum 0.0°C, many days.

## SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	157	143	150	201	183	187	195	176	183	127	117	121
2	154	151	153	213	180	189	197	185	192	127	119	123
3	155	150	152	217	186	194	199	180	189	124	117	121
4	154	149	152	208	187	194	188	174	184	121	114	117
5	164	150	156	211	183	191	192	171	185	121	114	117
6	185	153	171	210	180	186	200	170	188	121	114	118
7	189	177	182	210	179	185	193	177	186	120	112	118
8	193	175	181	212	180	187	191	181	186	123	117	119
9	176	168	172	216	181	193	197	183	193	122	121	121
10	174	167	170	219	191	197	186	181	183	123	120	122
11	173	168	171	220	193	199	184	181	182	123	120	122
12	182	169	176	208	185	193	187	180	185	129	123	125
13	185	177	181	203	182	186	186	179	182	127	124	125
14	184	178	181	203	176	183	184	177	180	131	120	127
15	182	173	176	204	179	183	193	168	181	124	119	122
16	175	167	170	207	179	187	---	---	---	124	119	121
17	187	161	168	210	188	194	---	---	---	119	111	115
18	176	162	168	203	189	194	---	---	---	126	115	121
19	190	170	175	195	176	189	---	---	---	132	126	128
20	209	173	183	188	179	184	---	---	---	133	129	131
21	208	187	192	188	177	182	---	---	---	132	124	129
22	199	182	188	184	175	179	---	---	---	124	122	123
23	199	175	181	189	177	183	---	---	---	122	120	121
24	200	174	181	214	182	199	---	---	---	120	118	119
25	199	175	181	204	181	195	---	---	---	125	118	122
26	212	181	191	187	168	177	---	---	---	130	125	127
27	212	192	197	182	169	177	127	110	117	130	126	127
28	215	192	197	180	172	177	123	114	116	129	119	124
29	203	186	191	180	173	177	119	109	114	123	119	121
30	210	177	186	186	175	180	121	114	117	123	116	120
31	211	183	188	---	---	---	121	114	117	122	118	120
MONTH	215	143	176	220	168	187	---	---	---	133	111	122

ARKANSAS RIVER BASIN

07086000 ARKANSAS RIVER AT GRANITE, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	128	118	122	120	115	117	162	144	151	113	107	110
2	129	124	126	119	116	117	168	149	157	115	112	113
3	130	125	128	118	113	116	168	157	163	115	105	109
4	125	121	123	118	113	115	186	162	173	112	105	109
5	122	117	120	118	114	115	184	174	180	113	105	108
6	123	119	121	116	114	115	184	173	176	107	99	101
7	123	117	120	123	115	118	175	168	171	104	98	100
8	130	119	122	127	120	123	171	165	168	104	97	99
9	129	122	125	125	117	122	170	163	167	106	92	99
10	127	120	125	119	116	118	168	160	162	93	92	92
11	121	119	120	118	112	115	175	160	167	97	89	93
12	123	116	119	118	115	116	182	166	175	90	86	87
13	119	117	118	117	111	114	181	161	167	92	86	88
14	120	117	118	120	114	117	167	158	162	91	89	90
15	124	117	120	122	120	121	163	155	158	91	90	90
16	128	118	122	122	118	120	168	155	161	94	79	88
17	128	123	125	119	113	117	167	158	162	79	76	77
18	124	116	121	119	115	117	161	152	158	76	74	75
19	121	113	117	117	108	114	159	152	154	76	74	75
20	121	110	114	118	115	116	167	154	160	75	74	75
21	120	113	116	124	116	118	165	147	154	75	73	74
22	120	115	117	123	119	120	153	143	146	78	74	75
23	127	118	120	124	120	121	151	143	146	82	75	79
24	123	115	120	124	118	121	154	147	150	80	75	78
25	121	112	116	121	118	120	156	149	152	77	73	75
26	121	113	117	122	119	121	166	152	159	74	72	73
27	124	112	115	128	122	125	165	131	146	74	72	73
28	117	113	115	132	128	130	140	112	123	77	74	75
29	119	114	116	163	129	141	116	108	111	77	72	75
30	---	---	---	158	145	149	112	108	110	75	69	72
31	---	---	---	147	144	145	---	---	---	69	67	68
MONTH	130	110	120	163	108	121	186	108	156	115	67	87
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	69	67	68	88	83	86	86	81	83	166	142	153
2	68	67	68	86	83	85	85	82	84	165	156	161
3	67	65	66	87	83	85	86	83	85	166	159	162
4	67	65	66	85	82	84	85	81	84	166	163	164
5	68	66	66	85	81	83	83	80	82	174	164	170
6	68	66	67	87	82	85	83	80	81	186	170	178
7	68	65	66	93	82	86	82	79	81	193	182	188
8	69	65	67	104	91	96	85	79	83	193	186	190
9	71	64	68	99	89	94	85	82	83	187	177	180
10	66	63	64	92	88	90	85	82	84	179	175	177
11	66	64	65	93	88	91	84	81	83	178	174	177
12	65	64	64	91	89	90	84	81	82	192	175	187
13	66	64	65	92	88	91	87	83	85	195	186	191
14	71	64	68	98	88	94	83	82	83	195	183	190
15	76	70	73	98	93	95	92	82	87	183	173	177
16	74	68	71	102	95	100	116	92	101	178	172	176
17	70	68	69	116	98	106	168	102	134	179	174	177
18	70	68	69	106	100	104	166	154	161	181	176	178
19	77	68	71	101	99	100	166	156	161	193	178	189
20	80	74	77	100	97	99	165	159	162	194	188	191
21	75	73	74	98	90	96	164	148	159	191	177	184
22	74	71	73	90	86	88	151	147	150	182	176	179
23	72	69	71	87	85	86	151	139	146	176	171	173
24	70	69	69	86	85	86	144	139	143	179	172	176
25	69	68	69	89	85	87	142	133	138	181	171	176
26	74	67	70	89	86	88	135	132	134	193	179	186
27	79	73	75	115	86	91	134	130	132	193	184	187
28	80	77	79	88	85	87	138	125	132	196	187	191
29	82	77	80	86	83	85	138	126	130	194	182	187
30	90	80	86	84	82	83	138	131	134	183	179	181
31	---	---	---	84	81	83	145	130	134	---	---	---
MONTH	90	63	70	116	81	90	168	79	113	196	142	179

## ARKANSAS RIVER BASIN

07086000 ARKANSAS RIVER AT GRANITE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.5	6.7	9.0	6.7	1.2	3.9	3.0	.0	1.2	2.4	.3	1.0
2	11.0	6.4	8.6	6.0	.0	3.0	2.4	.0	1.4	1.8	.0	.7
3	11.6	6.0	8.6	5.7	.0	3.0	.7	.0	.1	1.1	.0	.2
4	11.7	4.9	8.1	4.2	.0	2.3	.2	.0	.0	1.8	.0	.6
5	11.9	4.8	8.3	5.6	.0	2.9	.0	.0	.0	1.9	.3	.9
6	10.5	6.8	8.5	5.8	.0	3.0	.0	.0	.0	2.0	.0	.4
7	8.5	5.9	7.0	5.6	.0	3.0	.0	.0	.0	2.4	.0	.7
8	10.9	3.9	7.2	6.0	.0	3.2	.0	.0	.0	2.4	.0	.9
9	11.6	4.3	7.8	6.1	.9	3.6	.0	.0	.0	2.1	.4	.9
10	11.6	4.4	7.9	5.3	.0	2.8	.0	.0	.0	1.9	.6	1.1
11	11.5	4.5	8.0	5.2	.0	2.8	.0	.0	.0	2.4	.9	1.4
12	11.0	4.3	7.7	5.1	.0	2.6	.0	.0	.0	1.8	.4	1.2
13	11.4	4.1	7.6	4.7	.0	2.3	.0	.0	.0	2.9	.0	1.0
14	10.9	4.1	7.4	4.7	.0	2.3	.0	.0	.0	2.8	.0	1.0
15	9.6	3.7	6.8	4.8	.0	2.4	.0	.0	.0	3.4	.3	1.5
16	7.2	2.2	4.3	4.8	.0	2.4	.0	.0	.0	3.3	.9	1.6
17	6.7	.5	3.3	5.3	.0	3.0	.0	.0	.0	3.6	1.0	1.8
18	5.5	1.8	3.7	4.6	.4	2.7	.0	.0	.0	2.7	1.2	1.7
19	7.4	1.6	4.4	3.2	.0	1.1	.0	.0	.0	3.3	.8	1.8
20	7.6	1.2	4.4	3.6	.0	1.6	.0	.0	.0	3.4	.7	1.4
21	7.9	.6	4.4	2.4	.0	.6	.0	.0	.0	3.4	.6	1.4
22	7.9	.9	4.5	1.4	.0	.4	.0	.0	.0	2.9	.7	1.3
23	8.0	.8	4.5	.0	.0	.0	.0	.0	.0	2.5	.0	.9
24	7.9	.7	4.3	.0	.0	.0	.0	.0	.0	1.7	.0	.9
25	7.5	.8	4.3	.0	.0	.0	.6	.0	.1	2.2	.7	1.3
26	7.5	.8	4.3	2.6	.0	.7	1.6	.0	.4	3.2	.6	1.4
27	7.5	.9	4.3	2.7	.0	1.1	1.8	.0	.5	1.8	.0	.9
28	6.6	.7	4.0	3.2	.0	1.4	2.4	.0	.7	2.2	.0	.4
29	5.4	2.0	3.7	3.5	.0	1.4	2.4	.0	.7	1.2	.0	.2
30	5.7	.0	2.8	3.0	.0	1.1	2.5	.0	.8	1.3	.0	.2
31	7.0	.2	3.7	---	---	---	2.5	.0	.8	1.0	.0	.3
MONTH	11.9	.0	5.9	6.7	.0	2.0	3.0	.0	.2	3.6	.0	1.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.4	.0	.6	2.4	.0	.8	6.9	.0	2.7	11.6	4.0	7.5
2	3.1	.0	.9	2.8	.8	1.4	4.4	.2	2.3	13.1	5.2	9.2
3	3.2	.0	1.0	4.3	.1	1.5	6.5	.3	2.9	13.1	6.1	9.7
4	2.5	.1	1.0	4.6	.0	1.4	10.5	.6	5.2	13.9	6.2	10.0
5	2.9	.0	.9	2.5	.3	1.1	10.4	2.4	6.4	13.8	5.9	9.9
6	3.1	.0	1.0	3.1	.0	1.3	10.2	3.5	6.6	12.6	5.9	9.5
7	3.4	.0	1.0	4.3	.8	1.8	8.9	2.1	5.4	10.8	6.2	8.7
8	3.5	.0	1.0	3.8	.0	1.3	9.8	.2	4.9	9.4	5.9	7.0
9	2.4	.1	.9	5.7	.4	2.1	11.0	1.1	6.1	11.2	4.1	7.6
10	2.1	.6	1.1	4.3	.3	1.7	7.8	1.6	5.0	12.6	7.4	9.8
11	2.9	.2	1.2	4.2	.0	1.4	9.0	2.3	5.4	11.7	7.3	9.4
12	3.0	.0	.9	3.5	.9	1.7	11.4	2.4	7.0	8.7	5.4	7.0
13	1.8	.5	1.0	5.0	.0	1.8	10.8	1.7	6.5	9.4	3.9	6.6
14	3.1	.6	1.3	5.6	.0	2.0	9.5	2.3	6.3	10.2	5.8	8.1
15	3.5	.3	1.3	2.8	.3	1.5	7.0	3.0	4.8	10.6	6.8	8.7
16	3.8	.0	1.2	5.3	.0	2.0	11.8	1.8	6.4	11.5	7.0	9.1
17	2.6	.6	1.2	5.9	.0	2.2	12.8	3.3	8.2	8.8	6.2	7.2
18	3.0	.2	1.2	3.8	.0	1.3	9.5	2.5	6.5	7.6	5.8	6.7
19	2.9	.0	.7	5.6	.0	2.0	6.1	1.6	3.0	9.6	6.4	7.9
20	2.8	.0	.8	2.2	.0	1.3	11.9	1.2	6.1	9.7	7.5	8.5
21	4.0	.3	1.4	4.1	.0	1.3	8.7	2.5	6.2	10.0	6.9	8.6
22	1.0	.2	.6	1.9	.1	1.0	6.2	2.6	4.0	11.6	7.8	9.7
23	4.0	.0	1.4	6.7	.1	2.8	9.5	2.1	5.3	12.2	8.0	10.2
24	3.2	.4	1.3	6.4	1.0	3.1	10.5	3.5	6.8	11.2	8.2	9.7
25	1.5	.0	.3	6.3	.5	3.1	11.7	1.3	6.6	9.8	7.4	8.9
26	2.0	.0	.5	4.7	1.7	2.8	13.1	3.8	8.6	9.5	7.4	8.6
27	4.2	.0	1.3	7.5	.6	3.6	13.2	4.3	9.0	11.6	7.3	9.4
28	3.5	.5	1.4	4.8	1.5	2.9	10.6	4.8	8.2	12.8	8.5	10.7
29	3.9	.2	1.3	7.9	.9	4.0	9.8	4.9	7.8	13.2	9.0	11.1
30	---	---	---	5.5	1.3	3.4	8.3	5.8	6.9	12.9	8.3	10.8
31	---	---	---	2.7	.0	.7	---	---	---	12.8	8.8	10.9
MONTH	4.2	.0	1.0	7.9	.0	1.9	13.2	.0	5.9	13.9	3.9	8.9



ARKANSAS RIVER BASIN

07086000 ARKANSAS RIVER AT GRANITE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.9	9.1	10.7	15.2	11.6	13.3	17.4	13.6	15.3	15.2	11.0	13.2
2	12.6	9.2	10.7	15.2	11.8	13.5	17.6	14.3	15.7	17.0	9.7	13.2
3	12.8	9.4	11.1	16.1	12.1	14.0	17.2	14.6	15.6	16.4	9.0	12.8
4	13.3	9.1	11.2	16.1	12.0	14.1	17.1	14.1	15.6	17.8	9.9	13.8
5	12.3	9.2	10.9	16.0	11.8	14.0	17.3	14.5	16.0	17.3	11.0	14.1
6	13.7	9.1	11.3	16.6	11.6	14.1	17.8	14.2	16.0	14.2	10.2	12.2
7	13.9	9.2	11.5	15.5	12.8	14.1	17.2	14.7	16.0	16.6	8.5	12.1
8	12.5	9.0	11.0	16.4	12.8	14.2	18.1	14.2	16.2	14.1	9.6	11.8
9	13.3	8.7	10.8	16.7	13.1	14.7	18.1	14.6	16.2	15.8	8.0	11.7
10	12.7	6.9	9.8	16.9	12.7	14.7	17.7	14.2	15.8	16.2	7.7	12.0
11	12.7	6.9	10.0	17.8	13.1	15.2	17.0	14.7	15.8	14.8	7.5	11.3
12	13.4	7.8	10.6	15.5	13.3	14.5	16.5	14.6	15.4	15.9	7.1	11.4
13	12.8	8.8	10.7	16.3	12.8	14.6	18.1	13.9	15.9	16.2	7.5	11.9
14	13.7	7.6	10.5	17.3	13.2	14.9	17.3	14.6	16.0	15.2	8.1	11.9
15	14.7	7.8	11.1	16.9	13.0	14.7	17.9	14.6	16.1	16.4	8.3	12.3
16	14.0	7.9	11.0	16.5	13.0	14.7	16.8	13.8	15.4	16.6	7.8	12.4
17	13.7	9.1	11.2	16.5	13.3	14.9	17.3	11.3	14.2	14.1	8.9	11.8
18	13.4	9.0	11.3	17.5	12.9	15.3	16.6	11.8	14.2	14.6	9.7	11.9
19	11.9	10.2	11.0	17.5	12.9	15.3	17.8	11.6	14.9	15.1	7.8	11.4
20	13.8	9.0	11.3	17.0	13.1	15.2	16.9	11.6	14.4	14.7	9.0	11.6
21	14.3	9.5	12.1	17.9	13.1	15.5	15.8	10.4	13.4	12.0	6.8	9.3
22	14.6	10.8	12.8	17.6	13.7	15.8	17.3	11.0	14.0	14.4	7.5	10.6
23	13.7	11.6	12.7	17.7	14.0	15.9	16.4	10.8	13.8	11.1	6.5	8.9
24	13.6	10.7	12.3	16.6	13.5	15.3	16.8	11.5	14.3	9.9	4.8	7.1
25	13.6	10.8	12.3	17.4	13.9	15.7	17.2	12.0	14.7	11.2	2.6	6.9
26	12.4	11.1	11.7	16.5	14.0	15.2	16.7	12.0	14.4	12.0	3.5	7.9
27	13.3	10.5	11.8	16.8	13.6	15.0	16.9	11.7	14.3	12.0	4.3	8.4
28	14.7	10.6	12.7	16.8	13.8	15.2	17.7	12.0	14.8	11.5	5.3	8.7
29	15.7	12.5	13.9	16.5	13.7	15.0	18.0	13.7	15.6	13.0	6.8	9.5
30	15.9	11.9	13.6	16.0	13.2	14.7	16.0	12.8	14.5	13.4	6.7	10.0
31	---	---	---	17.4	12.8	15.0	15.5	11.9	13.7	---	---	---
MONTH	15.9	6.9	11.5	17.9	11.6	14.8	18.1	10.4	15.1	17.8	2.6	11.1

07087050 ARKANSAS RIVER BELOW GRANITE, CO

LOCATION.--Lat 38°59'42", long 106°13'11", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.22, T.12 S., R.79 W., Chaffee County, Hydrologic Unit 11020001, on right bank 500 ft east of U.S. Highway 24, 1.0 mi downstream from Pine Creek, and 4.8 mi southeast of Granite.

DRAINAGE AREA.--546 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1999 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,620 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge 3,280 ft<sup>3</sup>/s, May 31, 2000, gage height, 8.06 ft, from rating curve extended above 3,260 ft<sup>3</sup>/s; minimum daily discharge, 115 ft<sup>3</sup>/s, Apr. 10-12, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 3,280 ft<sup>3</sup>/s at 1315 May 31, gage height, 8.06 ft; from rating curve extended above 3,260 ft<sup>3</sup>/s; minimum daily discharge, 133 ft<sup>3</sup>/s, Apr. 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	135	416	3050	838	670	254
2	---	---	---	---	---	---	133	471	2920	827	684	211
3	---	---	---	---	---	---	137	573	2930	832	674	198
4	---	---	---	---	---	---	137	568	2910	811	687	193
5	---	---	---	---	---	---	157	671	2830	814	679	191
6	---	---	---	---	---	---	178	759	2670	916	674	194
7	---	---	---	---	---	---	171	789	2470	916	672	190
8	---	---	---	---	---	---	158	797	2230	960	702	187
9	---	---	---	---	---	---	170	825	2070	985	692	197
10	---	---	---	---	---	---	192	888	1810	973	644	182
11	---	---	---	---	---	---	179	890	1690	938	650	175
12	---	---	---	---	---	---	178	917	1720	934	673	171
13	---	---	---	---	---	---	200	844	1710	940	698	168
14	---	---	---	---	---	---	212	812	1450	914	710	167
15	---	---	---	---	---	---	216	773	1230	883	638	174
16	---	---	---	---	---	---	190	896	1280	980	410	166
17	---	---	---	---	---	---	217	1270	1410	1090	216	163
18	---	---	---	---	---	---	254	1380	1350	1070	239	162
19	---	---	---	---	---	---	233	1420	1310	803	223	163
20	---	---	---	---	---	---	206	1390	1490	707	210	156
21	---	---	---	---	---	---	235	1380	1460	704	232	157
22	---	---	---	---	---	---	234	1350	1450	731	285	234
23	---	---	---	---	---	---	221	1640	1430	710	319	200
24	---	---	---	---	---	---	237	e2310	1420	685	309	190
25	---	---	---	---	---	---	212	e2420	1420	689	295	182
26	---	---	---	---	---	---	227	2430	1410	684	297	180
27	---	---	---	---	---	---	308	2260	1280	662	297	178
28	---	---	---	---	---	---	428	2130	1120	695	307	172
29	---	---	---	---	---	---	443	2480	1040	663	364	174
30	---	---	---	---	---	---	441	2890	870	646	398	172
31	---	---	---	---	---	---	---	3160	---	647	353	---
TOTAL	---	---	---	---	---	---	6639	41799	53430	25647	14901	5501
MEAN	---	---	---	---	---	---	221	1348	1781	827	481	183
MAX	---	---	---	---	---	---	443	3160	3050	1090	710	254
MIN	---	---	---	---	---	---	133	416	870	646	210	156
AC-FT	---	---	---	---	---	---	13170	82910	106000	50870	29560	10910

e Estimated.

07091200 ARKANSAS RIVER NEAR NATHROP, CO

LOCATION.--Lat 38°39'08", long 106°03'02", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.23, T.51 N., R.8 E., Chaffee County, Hydrologic Unit 11020001, on right bank 300 ft upstream from end of Chaffee County Road 194 in Browns Canyon, 3.7 mi downstream from Browns Creek, 6.7 mi south of Nathrop, and 9 mi north of Salida.

DRAINAGE AREA.--1,060 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to September 1982. April 1989 to September 1993. October 1993 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,350 ft above sea level, from topographic map.

REMARKS.--Records good except for Apr. 7 to May 19 and estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions (see elsewhere in this report), storage reservoirs, power development, diversions for irrigation of about 15,000 acres, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (occurred during period of seasonal record), 5,540 ft<sup>3</sup>/s, July 14, 1995, gage height, 8.63 ft, from rating curve extended above 5,500 ft<sup>3</sup>/s; maximum gage height, 9.94 ft, Aug. 31, 1978 (backwater from unnamed tributary); minimum daily discharge, 95 ft<sup>3</sup>/s, Feb. 25-27, 1977.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 3,260 ft<sup>3</sup>/s at 0500 May 31, gage height, 7.23 ft; minimum daily discharge, 260 ft<sup>3</sup>/s (estimated), April 2.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	e265	468	3010	904	729	395
2	---	---	---	---	---	---	e260	487	2840	889	767	339
3	---	---	---	---	---	---	e265	575	2800	890	744	325
4	---	---	---	---	---	---	e265	645	2810	875	759	317
5	---	---	---	---	---	---	e285	742	2710	848	e750	315
6	---	---	---	---	---	---	e295	876	2580	917	e740	320
7	---	---	---	---	---	---	292	908	2390	930	e730	315
8	---	---	---	---	---	---	276	937	2210	993	756	311
9	---	---	---	---	---	---	278	866	2010	986	756	327
10	---	---	---	---	---	---	290	944	1830	1000	716	312
11	---	---	---	---	---	---	291	931	1650	954	698	299
12	---	---	---	---	---	---	277	969	1680	970	729	291
13	---	---	---	---	---	---	286	898	1680	969	765	285
14	---	---	---	---	---	---	294	841	1550	954	773	282
15	---	---	---	---	---	---	301	790	1280	932	765	286
16	---	---	---	---	---	---	285	794	1260	1020	e650	284
17	---	---	---	---	---	---	287	1160	1420	1150	e460	282
18	---	---	---	---	---	---	321	1290	1360	1150	390	281
19	---	---	---	---	---	---	325	1360	1310	950	394	281
20	---	---	---	---	---	---	296	1330	1450	804	367	274
21	---	---	---	---	---	---	307	1320	1450	770	364	270
22	---	---	---	---	---	---	316	1320	1420	792	415	316
23	---	---	---	---	---	---	305	1480	1400	777	436	325
24	---	---	---	---	---	---	317	2320	1400	745	433	311
25	---	---	---	---	---	---	300	2530	1400	754	424	303
26	---	---	---	---	---	---	303	2400	1450	748	428	300
27	---	---	---	---	---	---	337	2200	1370	735	423	296
28	---	---	---	---	---	---	456	2090	1180	766	405	291
29	---	---	---	---	---	---	514	2440	1120	752	441	280
30	---	---	---	---	---	---	511	2840	958	721	474	285
31	---	---	---	---	---	---	---	3130	---	725	473	---
TOTAL	---	---	---	---	---	---	9400	41881	52978	27370	18154	9098
MEAN	---	---	---	---	---	---	313	1351	1766	883	586	303
MAX	---	---	---	---	---	---	514	3130	3010	1150	773	395
MIN	---	---	---	---	---	---	260	468	958	721	364	270
AC-FT	---	---	---	---	---	---	18640	83070	105100	54290	36010	18050

e Estimated.



ARKANSAS RIVER BASIN

07091200 ARKANSAS RIVER NEAR NATHROP, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---	14.4	8.9	11.8
4	---	---	---	---	---	---	---	---	---	14.5	9.5	12.1
5	---	---	---	---	---	---	---	---	---	14.3	9.5	12.0
6	---	---	---	---	---	---	---	---	---	13.6	9.5	11.6
7	---	---	---	---	---	---	---	---	---	13.1	9.3	11.2
8	---	---	---	---	---	---	11.0	4.5	7.6	11.5	8.5	9.6
9	---	---	---	---	---	---	11.3	4.5	7.6	11.8	6.6	9.1
10	---	---	---	---	---	---	9.6	5.3	7.4	13.1	9.4	11.3
11	---	---	---	---	---	---	8.0	5.3	6.6	12.8	10.1	11.5
12	---	---	---	---	---	---	10.3	3.6	6.8	11.2	8.1	9.6
13	---	---	---	---	---	---	10.6	4.9	7.8	9.8	6.4	8.2
14	---	---	---	---	---	---	10.2	5.6	8.0	11.5	7.7	9.6
15	---	---	---	---	---	---	9.3	6.4	7.6	12.2	8.6	10.4
16	---	---	---	---	---	---	11.8	4.7	7.9	12.5	9.8	11.2
17	---	---	---	---	---	---	11.8	5.6	8.8	11.5	8.7	9.9
18	---	---	---	---	---	---	10.1	6.7	8.6	9.1	7.5	8.3
19	---	---	---	---	---	---	8.8	5.5	7.3	10.2	8.3	9.2
20	---	---	---	---	---	---	11.0	4.1	7.4	11.9	8.4	10.1
21	---	---	---	---	---	---	9.8	5.4	8.0	12.0	8.4	10.3
22	---	---	---	---	---	---	9.1	6.3	7.8	13.8	9.1	11.5
23	---	---	---	---	---	---	11.2	6.5	8.6	14.7	10.6	12.6
24	---	---	---	---	---	---	10.8	6.9	8.5	13.2	10.7	11.9
25	---	---	---	---	---	---	12.0	5.1	8.3	11.7	9.7	10.7
26	---	---	---	---	---	---	12.8	6.0	9.4	10.6	9.3	9.9
27	---	---	---	---	---	---	---	---	---	12.7	8.7	10.7
28	---	---	---	---	---	---	---	---	---	14.0	10.1	12.0
29	---	---	---	---	---	---	---	---	---	13.8	11.0	12.5
30	---	---	---	---	---	---	---	---	---	13.7	10.5	12.3
31	---	---	---	---	---	---	---	---	---	13.5	10.7	12.3
MONTH	---	---	---	---	---	---	---	---	---	---	---	---
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	13.4	10.7	12.2	17.3	14.0	15.9	17.2	15.2	16.4	15.9	12.3	14.3
2	13.3	11.0	12.1	17.1	14.4	15.9	17.3	15.0	16.2	17.6	11.7	14.6
3	13.4	11.2	12.4	17.7	14.7	16.2	17.8	15.9	16.6	14.9	10.4	12.9
4	13.4	11.1	12.5	18.1	14.6	16.5	18.4	14.5	16.4	18.3	10.6	14.2
5	13.2	11.3	12.4	17.7	14.6	16.3	18.3	15.2	16.9	19.0	12.4	15.3
6	13.9	11.2	12.5	18.0	14.9	16.4	18.5	14.7	16.6	17.8	11.9	14.5
7	14.3	11.6	13.1	16.8	14.5	15.7	18.0	14.6	16.4	17.3	11.3	14.3
8	13.5	11.9	12.8	17.1	13.7	15.5	18.8	13.8	16.3	14.7	11.3	13.3
9	13.7	11.6	12.6	17.8	14.2	16.1	18.6	14.8	16.8	15.9	10.7	13.6
10	12.7	10.8	11.8	18.1	14.2	16.3	18.3	14.8	16.6	16.7	10.3	13.7
11	12.6	10.7	11.8	18.9	14.5	16.9	18.0	14.4	16.2	16.5	10.0	13.6
12	13.6	10.8	12.3	17.7	15.5	16.6	16.6	14.5	15.6	16.5	9.2	13.1
13	14.7	11.4	13.0	18.2	14.2	16.3	17.9	14.2	16.2	17.0	9.5	13.6
14	14.4	11.1	12.7	18.8	14.4	16.6	18.3	15.2	16.7	17.5	10.0	14.0
15	15.1	11.9	13.5	18.0	15.1	16.6	18.9	14.5	16.7	17.0	10.9	14.2
16	14.7	12.1	13.5	17.3	14.8	16.1	18.8	15.3	16.6	16.9	10.6	14.1
17	14.9	11.8	13.3	17.8	15.0	16.3	18.8	13.1	15.8	15.9	11.3	13.9
18	13.6	11.6	12.8	18.4	14.3	16.4	17.4	14.4	15.9	17.3	12.1	13.9
19	14.5	12.6	13.3	18.5	14.2	16.6	18.2	13.3	15.9	16.4	9.6	13.1
20	15.0	11.3	13.1	18.1	14.5	16.4	17.5	13.4	15.7	16.5	10.9	12.8
21	15.6	11.9	13.8	18.4	14.4	16.4	17.0	12.2	14.6	13.9	8.5	11.4
22	15.6	12.7	14.4	19.1	14.4	16.8	17.1	13.0	15.1	15.2	10.9	12.8
23	15.8	13.5	14.4	19.4	15.3	17.5	17.2	12.9	15.2	12.7	10.0	11.2
24	15.3	12.6	14.0	17.2	14.8	16.2	17.0	12.5	15.0	12.8	8.0	10.2
25	15.6	12.8	14.3	18.5	14.5	16.6	18.2	12.6	15.5	11.6	5.5	8.9
26	14.5	13.3	13.8	18.2	15.2	16.6	17.0	13.5	15.5	12.6	5.9	9.4
27	15.1	12.8	13.9	17.7	15.1	16.5	17.1	12.9	15.2	13.3	6.8	10.5
28	16.5	12.8	14.6	17.9	15.0	16.5	17.6	12.9	15.6	12.5	7.7	10.6
29	17.6	14.0	15.8	17.8	15.3	16.7	18.7	14.2	16.5	14.9	9.2	11.7
30	17.2	14.0	15.8	16.7	14.6	15.8	17.2	14.2	15.7	14.4	9.3	12.0
31	---	---	---	17.9	14.2	16.2	16.8	12.8	14.7	---	---	---
MONTH	17.6	10.7	13.3	19.4	13.7	16.4	18.9	12.2	16.0	19.0	5.5	12.9



07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO

LOCATION.--Lat 38°39'32", long 105°48'48", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.13, T.51 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 0.1 mi downstream from County Road 2, 1.0 mi upstream from Steer Creek, 14.3 mi north of Howard, and 14.6 mi upstream from mouth.

DRAINAGE AREA.--106 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1989 to current year (seasonal records only). Records for December 1980 to September 1986 (continuous records) and October 1986 to October 1988 (seasonal records only), at site 0.2 mi downstream, not equivalent because of seepage at that site.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,790 ft above sea level, from topographic map. Prior to Oct. 28, 1988, at site 0.2 mi downstream at different datum. Mar. 24, 1989 to June 30, 1994, at site 0.1 mi downstream at different datum. July 1, 1994 to Aug. 1, 1996, at site 60 ft upstream at datum 1.00 ft higher.

REMARKS.--Records good except estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--5 years (water years 1981-86), 5.89 ft<sup>3</sup>/s; 4,270 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,360 ft<sup>3</sup>/s, Aug. 14, 1983, gage height, 8.22 ft, site and datum then in use, from slope-area measurement of peak flow; no flow, July 17-23, 1989.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 189 ft<sup>3</sup>/s at 2005 Aug. 17, gage height, 3.63 ft; minimum daily, 0.16 ft<sup>3</sup>/s, June 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.66	---	---	---	---	---	e1.0	1.5	.49	.40	.28	.41
2	.67	---	---	---	---	---	e1.0	1.3	.44	.35	.31	.36
3	.67	---	---	---	---	---	e1.2	1.2	.45	.34	.29	.33
4	.63	---	---	---	---	---	e1.8	1.2	.40	.27	.33	.32
5	.66	---	---	---	---	---	e2.5	1.2	.40	.20	.32	.38
6	.71	---	---	---	---	---	e3.5	1.1	.38	.17	.27	.46
7	.74	---	---	---	---	---	3.4	1.1	.36	.18	.25	.40
8	.82	---	---	---	---	---	2.6	1.4	.34	.37	.29	.39
9	.77	---	---	---	---	---	2.4	1.5	.31	.31	.23	.42
10	.75	---	---	---	---	---	2.8	1.2	.29	.31	.22	.36
11	.75	---	---	---	---	---	2.3	1.1	.30	.23	.41	.31
12	.73	---	---	---	---	---	2.0	1.1	.30	.39	.36	.30
13	.74	---	---	---	---	---	2.2	1.1	.23	9.0	.43	.30
14	.73	---	---	---	---	---	2.5	1.0	.20	6.1	.40	.30
15	.72	---	---	---	---	---	2.5	.99	.19	3.8	.52	.28
16	.76	---	---	---	---	---	2.1	.95	.18	1.1	e5.0	.27
17	e.75	---	---	---	---	---	2.2	.91	.18	1.5	e12	.28
18	e.75	---	---	---	---	---	2.4	.94	.19	.96	e5.0	.30
19	e.78	---	---	---	---	---	2.1	1.1	.25	.80	e.70	.30
20	e.78	---	---	---	---	---	1.9	1.0	.24	e.80	e.65	.33
21	e.76	---	---	---	---	---	1.7	.89	.19	e.60	e.70	.41
22	e.75	---	---	---	---	---	1.8	.85	.17	e.50	.71	.54
23	e.75	---	---	---	---	---	1.7	.81	.16	e.45	.57	.50
24	e.75	---	---	---	---	---	1.6	.78	.30	e.40	.56	.55
25	e.75	---	---	---	---	---	1.5	.78	.36	e.36	2.1	.51
26	e.75	---	---	---	---	---	1.4	.76	.73	.36	.70	.46
27	e.74	---	---	---	---	---	1.3	.75	1.1	.43	.57	.44
28	e.75	---	---	---	---	---	1.3	.68	.81	.47	.48	.45
29	e.77	---	---	---	---	---	1.3	.64	.65	.40	.44	.47
30	e.79	---	---	---	---	---	1.5	.61	.50	.35	.44	.49
31	e.80	---	---	---	---	---	---	.54	---	.34	.44	---
TOTAL	22.93	---	---	---	---	---	59.5	30.98	11.09	32.24	35.97	11.62
MEAN	.74	---	---	---	---	---	1.98	1.00	.37	1.04	1.16	.39
MAX	.82	---	---	---	---	---	3.5	1.5	1.1	9.0	12	.55
MIN	.63	---	---	---	---	---	1.0	.54	.16	.17	.22	.27
AC-FT	45	---	---	---	---	---	118	61	22	64	71	23

e Estimated.

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1981 to October 1988 at site 1,000 ft downstream, not equivalent because of seepage at site. March 1989 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: March 1995 to current year (seasonal records only).  
 SUSPENDED-SEDIMENT DISCHARGE: June 1981 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since June 1981. Water temperature probe with satellite telemetry since March 1995.

REMARKS.--Records for water temperature are good. Records for suspended sediment are fair except for May 9-10 and July 25 to Aug. 10 and estimated sediment discharges, which are poor. Daily water temperature data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--

WATER TEMPERATURE (seasonal only): Maximum, 30.7°C, July 28, 1995, July 18, 1998; minimum, 0.0°C, Oct. 7, 15, 19, 29, 1995, Apr. 30, 1996.

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 25,800 mg/L, Aug. 20, 1982; minimum daily mean, 0 mg/L, many days.

SEDIMENT LOAD (seasonal only): Maximum daily, 15,600 tons, Aug. 14, 1983; minimum daily, 0.0 ton, many days.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURE (seasonal only): Maximum, 30.6°C, July 23; minimum, 0.1°C, Oct. 21, 24-25.

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 1,620 mg/L, July 15; minimum daily mean, 32 mg/L, June 21.

SEDIMENT LOAD (seasonal only): Maximum daily, 120 tons (estimated), Aug. 17; minimum daily, 0.02 ton, several days (some estimated).

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT					JUN				
01...	1300	.67	404	--	07...	1300	.37	391	--
NOV					27...	1145	1.1	497	18.3
15...	1200	.76	432	--	JUL				
MAR					13...	1200	3.9	288	--
24...	1430	--	387	--	25...	1500	.35	395	--
APR					AUG				
06...	1900	3.6	312	--	17...	1100	.87	370	--
20...	1500	2.2	411	--	21...	1245	.63	427	16.9
MAY					SEP				
10...	1600	1.2	425	--	07...	1400	.39	388	--

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDE (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDE (T/DAY) (80155)
APR					
06...	1800	3.3	10.2	673	6.0
06...	1900	3.6	--	761	7.4
20...	1430	2.2	15.7	268	1.6
MAY					
10...	1700	1.2	21.2	144	.47
JUN					
07...	1330	.36	24.6	52	.05
27...	1145	1.1	18.3	364	1.1
JUL					
13...	1200	3.9	--	1220	13
13...	1245	3.7	20.4	1180	12
25...	1600	.36	21.8	256	.25
AUG					
17...	1115	.86	17.0	378	.88
21...	1245	.63	16.9	85	.14
SEP					
07...	1345	.40	21.4	58	.06



ARKANSAS RIVER BASIN

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.0	.9	6.6	---	---	---	---	---	---	---	---	---
2	15.4	1.3	7.2	---	---	---	---	---	---	---	---	---
3	15.8	3.4	8.3	---	---	---	---	---	---	---	---	---
4	15.2	.2	6.5	---	---	---	---	---	---	---	---	---
5	14.7	.2	6.4	---	---	---	---	---	---	---	---	---
6	12.3	2.5	7.0	---	---	---	---	---	---	---	---	---
7	11.9	4.6	7.4	---	---	---	---	---	---	---	---	---
8	14.3	1.1	6.7	---	---	---	---	---	---	---	---	---
9	15.2	1.4	7.3	---	---	---	---	---	---	---	---	---
10	15.2	.9	7.1	---	---	---	---	---	---	---	---	---
11	15.0	1.7	7.4	---	---	---	---	---	---	---	---	---
12	14.3	.5	6.5	---	---	---	---	---	---	---	---	---
13	13.9	1.0	6.6	---	---	---	---	---	---	---	---	---
14	13.9	.4	6.0	---	---	---	---	---	---	---	---	---
15	11.8	.2	5.2	---	---	---	---	---	---	---	---	---
16	4.1	.2	1.7	---	---	---	---	---	---	---	---	---
17	7.7	.2	1.9	---	---	---	---	---	---	---	---	---
18	8.0	.2	2.3	---	---	---	---	---	---	---	---	---
19	10.3	.2	3.6	---	---	---	---	---	---	---	---	---
20	11.1	.2	4.3	---	---	---	---	---	---	---	---	---
21	12.2	.1	4.5	---	---	---	---	---	---	---	---	---
22	12.2	.2	4.6	---	---	---	---	---	---	---	---	---
23	12.1	.2	4.6	---	---	---	---	---	---	---	---	---
24	11.8	.1	4.2	---	---	---	---	---	---	---	---	---
25	10.9	.1	3.9	---	---	---	---	---	---	---	---	---
26	11.1	.2	3.7	---	---	---	---	---	---	---	---	---
27	11.0	.2	4.0	---	---	---	---	---	---	---	---	---
28	9.4	.2	3.6	---	---	---	---	---	---	---	---	---
29	6.4	.2	2.6	---	---	---	---	---	---	---	---	---
30	7.6	.2	1.9	---	---	---	---	---	---	---	---	---
31	9.7	.2	2.9	---	---	---	---	---	---	---	---	---
MONTH	15.8	.1	5.0	---	---	---	---	---	---	---	---	---

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	6.8	.2	2.5	17.1	1.9	8.2
2	---	---	---	---	---	---	7.3	.3	2.3	20.0	1.8	9.5
3	---	---	---	---	---	---	8.4	.3	3.1	22.3	2.3	11.2
4	---	---	---	---	---	---	10.4	.5	4.3	22.3	3.6	12.2
5	---	---	---	---	---	---	10.4	.4	4.3	22.1	3.3	11.7
6	---	---	---	---	---	---	10.9	.3	4.1	21.5	3.3	11.4
7	---	---	---	---	---	---	11.7	.3	4.6	21.7	4.6	11.5
8	---	---	---	---	---	---	11.4	.2	4.4	11.5	4.1	7.3
9	---	---	---	---	---	---	13.2	.2	5.7	19.1	2.4	10.0
10	---	---	---	---	---	---	7.0	.3	3.8	21.3	4.6	11.6
11	---	---	---	---	---	---	7.5	.9	3.4	20.1	4.3	10.6
12	---	---	---	---	---	---	14.2	.3	6.8	16.8	1.2	7.5
13	---	---	---	---	---	---	13.5	.8	6.9	19.3	.3	8.3
14	---	---	---	---	---	---	12.9	1.0	6.3	15.9	1.5	8.3
15	---	---	---	---	---	---	9.6	1.0	5.2	19.2	1.7	9.7
16	---	---	---	---	---	---	15.5	.3	7.0	18.5	4.4	10.1
17	---	---	---	---	---	---	16.9	1.4	8.5	11.7	3.3	6.4
18	---	---	---	---	---	---	13.7	2.1	7.2	12.1	1.7	6.6
19	---	---	---	---	---	---	8.9	.2	3.9	17.2	4.0	9.4
20	---	---	---	---	---	---	17.5	.3	7.5	18.8	3.7	10.7
21	---	---	---	---	---	---	12.7	.9	7.0	20.4	3.8	11.2
22	---	---	---	---	---	---	12.9	1.8	6.5	23.4	4.1	12.8
23	---	---	---	---	---	---	11.0	2.8	6.5	25.3	5.4	14.3
24	---	---	---	---	---	---	15.9	3.3	8.2	21.8	5.9	12.6
25	---	---	---	---	---	---	17.1	.3	7.5	18.0	6.9	11.5
26	---	---	---	---	---	---	19.0	1.2	9.6	14.1	4.8	9.5
27	---	---	---	---	---	---	19.7	3.0	9.9	24.2	3.5	12.8
28	---	---	---	---	---	---	14.6	2.0	8.0	24.9	4.2	13.6
29	---	---	---	---	---	---	18.5	2.7	9.4	23.4	5.5	14.0
30	---	---	---	---	---	---	7.3	3.8	4.8	25.2	4.5	13.9
31	---	---	---	---	---	---	---	---	---	25.6	5.5	14.6
MONTH	---	---	---	---	---	---	19.7	.2	6.0	25.6	.3	10.7

ARKANSAS RIVER BASIN

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.3	3.8	13.2	24.8	7.6	16.1	22.9	7.7	14.7	18.8	9.2	13.1
2	23.4	6.4	13.2	25.6	8.6	15.9	26.0	9.1	15.8	21.2	7.6	13.4
3	23.2	5.1	12.7	24.1	9.9	15.4	21.9	9.3	14.6	20.0	5.9	11.9
4	24.4	4.1	12.1	26.9	6.7	15.5	25.8	9.0	15.9	22.2	6.0	13.2
5	24.1	4.0	12.0	27.3	4.8	15.2	24.2	9.6	16.0	20.4	9.2	14.3
6	25.7	4.7	13.4	29.0	6.5	16.0	25.6	8.0	15.2	20.7	8.0	13.4
7	24.7	4.3	13.6	27.1	9.6	15.6	24.6	7.4	15.1	22.0	8.2	13.7
8	25.2	5.1	14.0	24.5	9.7	16.1	26.6	7.0	15.8	18.1	7.5	12.4
9	25.2	8.3	14.7	26.1	10.5	16.7	24.8	7.5	14.9	21.2	6.8	12.8
10	24.6	3.7	12.9	25.7	8.6	16.4	27.4	9.1	16.0	20.7	5.4	12.2
11	22.2	4.8	12.5	25.3	8.3	16.6	24.5	9.6	15.3	22.2	5.1	12.5
12	24.4	3.6	13.2	22.8	11.6	16.2	20.7	11.0	14.9	22.3	4.7	12.7
13	26.1	4.5	14.0	21.8	10.3	15.8	27.2	9.6	16.6	22.6	5.3	13.3
14	25.9	5.0	14.4	27.3	10.6	16.7	27.0	9.9	16.0	21.9	5.9	12.9
15	26.4	6.0	15.0	23.0	11.5	16.0	23.6	9.8	15.3	21.9	5.9	13.4
16	25.5	5.1	13.7	19.8	11.9	15.8	24.6	10.4	15.0	22.5	5.6	13.4
17	24.9	6.4	13.7	23.7	11.9	16.8	22.3	6.7	13.7	19.5	6.5	12.5
18	21.7	4.6	11.9	25.8	10.4	17.3	17.8	6.9	11.9	19.4	8.3	12.6
19	24.9	7.4	14.6	26.8	8.9	17.0	21.1	10.2	15.0	19.5	5.0	11.5
20	25.8	6.8	14.7	25.2	10.0	16.8	21.8	9.3	14.3	15.6	6.7	9.8
21	28.0	5.0	15.3	26.3	10.5	17.0	19.1	8.0	12.6	16.7	3.3	9.3
22	27.1	6.6	15.9	27.1	7.8	16.5	23.8	10.1	15.0	17.8	7.6	11.2
23	20.7	8.0	13.4	30.6	7.0	18.0	21.8	8.8	14.6	10.2	2.5	6.4
24	22.3	5.5	13.0	27.3	6.3	15.4	20.2	8.4	13.5	13.2	1.1	6.1
25	24.8	8.6	15.3	26.5	7.9	16.5	25.7	8.9	14.3	16.2	.8	7.3
26	16.0	10.8	12.6	21.7	8.8	15.2	20.5	9.0	13.8	16.9	1.2	8.0
27	22.9	10.1	15.3	21.9	9.3	15.3	23.8	8.5	15.0	18.0	2.1	9.0
28	23.7	9.0	15.4	23.5	8.4	15.2	23.0	9.3	15.4	17.3	3.1	9.5
29	25.2	10.3	16.2	22.2	8.5	15.3	24.7	10.6	16.1	18.2	5.3	10.4
30	24.3	7.7	14.8	21.6	7.6	13.9	21.7	10.4	15.0	17.3	5.4	10.3
31	---	---	---	26.6	6.5	15.4	18.9	8.0	13.0	---	---	---
MONTH	28.0	3.6	13.9	30.6	4.8	16.1	27.4	6.7	14.8	22.6	.8	11.4

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	.66	---	---	---	---	---	---	---	---
2	.67	---	---	---	---	---	---	---	---
3	.67	---	---	---	---	---	---	---	---
4	.63	---	---	---	---	---	---	---	---
5	.66	---	---	---	---	---	---	---	---
6	.71	---	---	---	---	---	---	---	---
7	.74	---	---	---	---	---	---	---	---
8	.82	---	---	---	---	---	---	---	---
9	.77	---	---	---	---	---	---	---	---
10	.75	---	---	---	---	---	---	---	---
11	.75	---	---	---	---	---	---	---	---
12	.73	---	---	---	---	---	---	---	---
13	.74	---	---	---	---	---	---	---	---
14	.73	---	---	---	---	---	---	---	---
15	.72	---	---	---	---	---	---	---	---
16	.76	---	---	---	---	---	---	---	---
17	e.75	---	---	---	---	---	---	---	---
18	e.75	---	---	---	---	---	---	---	---
19	e.78	---	---	---	---	---	---	---	---
20	e.78	---	---	---	---	---	---	---	---
21	e.76	---	---	---	---	---	---	---	---
22	e.75	---	---	---	---	---	---	---	---
23	e.75	---	---	---	---	---	---	---	---
24	e.75	---	---	---	---	---	---	---	---
25	e.75	---	---	---	---	---	---	---	---
26	e.75	---	---	---	---	---	---	---	---
27	e.74	---	---	---	---	---	---	---	---
28	e.75	---	---	---	---	---	---	---	---
29	e.77	---	---	---	---	---	---	---	---
30	e.79	---	---	---	---	---	---	---	---
31	e.80	---	---	---	---	---	---	---	---
TOTAL	22.93	---	0	0	---	0	0	---	0

ARKANSAS RIVER BASIN

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
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	---	---	---	---	---	---	---	---	---
TOTAL	0	---	0	0	---	0	0	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	e1.0	---	e.27	1.5	156	.62	.49	---	e.07
2	e1.0	---	e.28	1.3	148	.53	.44	54	.06
3	e1.2	---	e.37	1.2	164	.55	.45	70	.09
4	e1.8	---	e.78	1.2	232	.76	.40	---	e.08
5	e2.5	---	e2.0	1.2	---	e.59	.40	58	.06
6	e3.5	---	e7.8	1.1	105	.32	.38	46	.05
7	3.4	604	6.0	1.1	77	.24	.36	53	.05
8	2.6	827	5.7	1.4	159	.63	.34	81	.07
9	2.4	594	3.9	1.5	148	.61	.31	---	e.07
10	2.8	---	e3.4	1.2	142	.48	.29	---	e.05
11	2.3	365	2.3	1.1	127	.39	.30	52	.04
12	2.0	216	1.2	1.1	106	.31	.30	---	e.04
13	2.2	396	2.4	1.1	123	.35	.23	47	.03
14	2.5	512	3.5	1.0	150	.41	.20	---	e.02
15	2.5	---	e3.0	.99	---	e.35	.19	---	e.02
16	2.1	320	1.8	.95	95	.24	.18	---	e.02
17	2.2	243	1.4	.91	78	.19	.18	34	.02
18	2.4	236	1.5	.94	87	.22	.19	52	.03
19	2.1	333	1.9	1.1	171	.49	.25	---	e.04
20	1.9	281	1.4	1.0	---	e.57	.24	46	.03
21	1.7	183	.86	.89	169	.41	.19	32	.02
22	1.8	136	.65	.85	116	.27	.17	40	.02
23	1.7	122	.55	.81	116	.25	.16	54	.02
24	1.6	177	.76	.78	123	.26	.30	---	e.06
25	1.5	---	e.99	.78	---	e.26	.36	90	.09
26	1.4	226	.86	.76	108	.22	.73	132	.28
27	1.3	154	.55	.75	87	.18	1.1	319	.90
28	1.3	155	.54	.68	91	.17	.81	344	.75
29	1.3	227	.80	.64	86	.15	.65	---	e.48
30	1.5	---	e.79	.61	---	e.11	.50	183	.25
31	---	---	---	.54	57	.08	---	---	---
TOTAL	59.5	---	58.25	30.98	---	11.21	11.09	---	3.81

## ARKANSAS RIVER BASIN

07093740 BADGER CREEK, UPPER STATION, NEAR HOWARD, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.40	142	.15	.28	137	.10	.41	70	.08
2	.35	210	.20	.31	144	.12	.36	---	e.06
3	.34	268	.24	.29	---	e.11	.33	62	.06
4	.27	---	e.16	.33	145	.13	.32	68	.06
5	.20	150	.08	.32	136	.12	.38	63	.07
6	.17	129	.06	.27	109	.08	.46	107	.13
7	.18	171	.09	.25	132	.09	.40	72	.08
8	.37	330	.34	.29	---	e.11	.39	64	.07
9	.31	---	e.26	.23	123	.08	.42	64	.07
10	.31	203	.17	.22	115	.07	.36	69	.07
11	.23	201	.13	.41	154	.17	.31	50	.04
12	.39	434	.47	.36	146	.14	.30	---	e.05
13	9.0	1380	44	.43	---	e.18	.30	63	.05
14	6.1	1350	111	.40	153	.17	.30	46	.04
15	3.8	1620	23	.52	164	.24	.28	---	e.03
16	1.1	449	1.3	e5.0	---	e34	.27	35	.03
17	1.5	585	2.4	e12	---	e120	.28	35	.03
18	.96	382	1.0	e5.0	---	e39	.30	51	.04
19	.80	---	e.54	e.70	---	e.94	.30	51	.04
20	e.80	---	e.40	e.65	---	e.29	.33	---	e.03
21	e.60	---	e.26	e.70	---	e.34	.41	41	.05
22	e.50	---	e.24	.71	218	.42	.54	62	.09
23	e.45	---	e.23	.57	---	e.20	.50	41	.06
24	e.40	---	e.19	.56	90	.14	.55	37	.06
25	e.36	---	e.24	2.1	968	24	.51	---	e.06
26	.36	203	.20	.70	519	1.1	.46	44	.05
27	.43	194	e.23	.57	126	.20	.44	49	.06
28	.47	240	.30	.48	---	e.10	.45	77	.09
29	.40	---	e.22	.44	85	.10	.47	66	.08
30	.35	164	.15	.44	97	.12	.49	---	e.08
31	.34	148	.14	.44	72	.09	---	---	---
TOTAL	32.24	---	188.39	35.97	---	222.95	11.62	---	1.81

e Estimated.

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO

LOCATION.--Lat 38°28'02", long 105°51'34", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.27, T.49 N., R.10 E., Fremont County, Hydrologic Unit 11020001, on left bank 660 ft upstream from Denver and Rio Grande Railroad bridge, 960 ft upstream from mouth, and 1.9 mi northwest of Howard.

DRAINAGE AREA.--211 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1980 to September 1996, October 1996 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,780 ft above sea level, from topographic map. Prior to May 19, 1983, at site 360 ft downstream at datum 5.07 ft lower.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,900 ft<sup>3</sup>/s, July 8, 1996, from rating curve extended above 161 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow, gage height, 10.73 ft, from floodmarks; minimum daily, 0.56 ft<sup>3</sup>/s, Feb. 4, 1982.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 622 ft<sup>3</sup>/s, at 1635 Aug. 17, gage height, 6.43 ft, from rating curve extended above 161 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; minimum daily, 3.1 ft<sup>3</sup>/s, Aug. 11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	---	---	---	---	---	7.2	7.4	6.0	5.2	4.5	4.9
2	6.0	---	---	---	---	---	7.3	7.0	6.1	5.1	4.5	4.3
3	5.9	---	---	---	---	---	7.4	6.8	6.3	5.1	4.6	4.4
4	5.9	---	---	---	---	---	7.3	6.7	6.1	4.8	4.4	4.2
5	5.9	---	---	---	---	---	7.8	6.6	6.2	4.5	3.9	4.3
6	6.0	---	---	---	---	---	8.2	6.5	6.0	4.4	3.8	4.5
7	6.1	---	---	---	---	---	8.3	6.4	5.8	4.5	3.8	4.5
8	6.2	---	---	---	---	---	8.2	9.1	5.6	5.0	3.7	4.6
9	6.0	---	---	---	---	---	8.1	9.8	5.6	4.9	3.6	4.5
10	5.9	---	---	---	---	---	8.4	8.9	5.6	4.7	4.1	4.4
11	5.9	---	---	---	---	---	8.5	7.9	5.6	4.6	3.1	4.2
12	5.8	---	---	---	---	---	8.0	7.6	5.5	5.0	3.2	4.1
13	5.9	---	---	---	---	---	8.1	7.4	5.3	6.9	3.5	4.0
14	5.9	---	---	---	---	---	8.1	7.4	5.2	6.9	3.4	4.0
15	6.0	---	---	---	---	---	8.1	7.2	5.0	7.9	3.5	4.0
16	6.3	---	---	---	---	---	7.6	7.0	5.1	8.1	3.9	3.9
17	6.2	---	---	---	---	---	7.5	7.1	5.3	9.3	16	4.0
18	6.3	---	---	---	---	---	7.5	8.2	5.4	7.5	9.2	4.0
19	6.4	---	---	---	---	---	7.5	8.7	5.3	6.3	5.0	3.9
20	6.2	---	---	---	---	---	7.2	8.4	5.1	5.9	4.6	4.0
21	6.0	---	---	---	---	---	7.3	7.8	4.9	5.7	4.5	4.2
22	5.8	---	---	---	---	---	7.3	7.2	4.7	5.4	4.6	4.3
23	5.8	---	---	---	---	---	7.3	6.9	4.6	5.3	4.7	4.5
24	5.8	---	---	---	---	---	7.2	6.8	5.0	5.1	4.6	4.8
25	5.8	---	---	---	---	---	7.0	7.4	5.0	5.2	5.0	4.5
26	5.8	---	---	---	---	---	6.9	7.5	6.2	5.2	4.4	4.3
27	5.8	---	---	---	---	---	6.8	7.3	6.2	5.3	3.6	4.2
28	5.8	---	---	---	---	---	6.9	6.7	5.7	5.4	13	4.2
29	6.0	---	---	---	---	---	6.9	6.4	5.4	5.1	4.6	4.3
30	5.8	---	---	---	---	---	7.6	6.2	5.2	5.0	4.7	4.3
31	5.8	---	---	---	---	---	---	6.2	---	4.7	5.0	---
TOTAL	185.0	---	---	---	---	---	227.5	228.5	165.0	174.0	155.0	128.3
MEAN	5.97	---	---	---	---	---	7.58	7.37	5.50	5.61	5.00	4.28
MAX	6.4	---	---	---	---	---	8.5	9.8	6.3	9.3	16	4.9
MIN	5.8	---	---	---	---	---	6.8	6.2	4.6	4.4	3.1	3.9
AC-FT	367	---	---	---	---	---	451	453	327	345	307	254



ARKANSAS RIVER BASIN

07093775 BADGER CREEK, LOWER STATION, NEAR HOWARD, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	14.1	.6	5.4	20.1	4.7	10.4
2	---	---	---	---	---	---	16.0	.1	5.7	21.7	4.7	11.7
3	---	---	---	---	---	---	15.1	.5	6.0	23.2	6.2	13.0
4	---	---	---	---	---	---	18.4	1.9	8.1	23.5	6.9	13.9
5	---	---	---	---	---	---	17.7	3.7	9.0	22.8	6.8	13.2
6	---	---	---	---	---	---	16.8	3.8	8.6	22.3	6.6	13.0
7	---	---	---	---	---	---	16.2	4.1	8.6	22.4	7.0	12.6
8	---	---	---	---	---	---	17.0	1.9	7.9	10.8	7.1	9.3
9	---	---	---	---	---	---	18.2	3.3	9.1	20.6	5.1	11.4
10	---	---	---	---	---	---	16.8	3.6	8.1	22.3	6.8	12.8
11	---	---	---	---	---	---	9.6	4.1	6.1	21.0	7.4	12.1
12	---	---	---	---	---	---	18.2	2.3	8.6	18.7	4.1	9.5
13	---	---	---	---	---	---	17.9	4.2	9.6	19.8	3.7	10.2
14	---	---	---	---	---	---	16.4	4.3	8.6	18.8	5.1	11.0
15	---	---	---	---	---	---	14.7	4.0	7.9	21.2	5.7	11.9
16	---	---	---	---	---	---	18.6	3.0	9.2	17.6	7.7	11.4
17	---	---	---	---	---	---	19.8	4.2	10.1	14.0	7.0	9.4
18	---	---	---	---	---	---	17.4	4.4	9.2	13.4	6.5	9.1
19	---	---	---	---	---	---	13.9	2.6	6.5	19.9	6.3	10.9
20	---	---	---	---	---	---	19.5	3.0	9.5	18.5	5.9	11.3
21	---	---	---	---	---	---	16.6	4.0	9.1	23.1	6.7	13.2
22	---	---	---	---	---	---	14.4	4.9	8.2	24.2	7.5	14.3
23	---	---	---	---	---	---	16.2	5.9	10.0	25.6	8.8	15.6
24	---	---	---	---	---	---	18.8	5.8	10.1	21.2	9.4	14.3
25	---	---	---	---	---	---	19.1	2.6	9.4	20.1	10.2	13.5
26	---	---	---	---	---	---	21.0	4.2	11.4	18.0	8.2	11.8
27	---	---	---	---	---	---	21.5	5.9	12.0	24.3	7.0	14.0
28	---	---	---	---	---	---	20.0	5.8	11.0	23.2	7.8	14.7
29	---	---	---	---	---	---	19.6	6.2	11.3	22.2	9.2	14.9
30	---	---	---	---	---	---	8.9	5.5	7.3	24.9	8.6	14.5
31	---	---	---	---	---	---	---	---	---	25.0	9.6	15.7
MONTH	---	---	---	---	---	---	21.5	.1	8.7	25.6	3.7	12.4
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	23.3	8.3	14.4	25.6	11.2	17.1	25.7	12.7	18.1	---	---	---
2	21.4	10.6	14.6	24.5	11.1	16.4	26.6	13.3	18.5	20.7	10.6	14.6
3	23.3	9.4	14.4	26.8	12.7	16.9	27.9	14.3	18.9	23.3	9.3	13.9
4	25.5	8.7	14.7	26.7	10.5	16.6	28.1	13.9	18.7	25.0	9.1	15.4
5	25.7	8.6	14.2	26.8	8.9	16.2	27.1	12.7	18.4	26.2	11.5	16.5
6	26.0	9.1	15.3	28.1	10.3	17.7	28.5	11.9	18.3	18.8	11.5	14.1
7	27.1	8.7	15.8	26.6	13.0	16.8	26.6	11.4	17.3	24.1	10.4	14.6
8	25.7	9.8	15.7	25.6	11.8	17.1	29.3	10.6	17.6	18.3	10.0	13.1
9	25.2	11.7	16.2	25.3	12.8	17.2	28.7	10.7	17.6	23.2	9.5	14.2
10	23.2	8.6	14.5	25.1	12.1	17.7	28.4	12.2	17.5	23.4	8.6	14.1
11	22.3	9.1	14.0	28.2	11.9	18.7	28.1	12.6	17.2	24.1	8.8	14.4
12	23.7	8.2	14.5	25.0	13.8	17.3	23.3	13.2	16.4	24.7	8.2	14.4
13	25.2	8.5	15.2	28.7	12.3	17.4	29.4	12.2	18.7	25.1	8.4	14.8
14	26.0	9.0	15.9	29.6	12.2	18.3	27.7	12.7	17.6	23.9	9.1	14.7
15	25.6	9.5	16.0	26.8	13.7	17.9	29.6	12.5	18.0	24.6	9.2	15.1
16	24.3	9.0	14.6	26.9	13.5	18.2	26.9	12.8	17.5	25.3	8.9	14.9
17	23.5	9.6	14.5	23.8	13.7	17.7	25.4	13.2	18.0	23.1	9.3	14.5
18	21.9	8.3	13.5	27.7	12.3	18.2	---	---	---	22.5	11.2	15.0
19	24.6	10.7	15.8	27.2	11.2	17.9	---	---	---	23.1	8.8	14.1
20	26.0	9.7	16.0	26.8	13.0	18.5	---	---	---	16.4	8.2	11.5
21	27.2	9.5	16.4	25.4	13.4	18.3	---	---	---	19.7	6.5	11.9
22	24.8	10.4	16.0	28.0	13.2	18.9	24.8	12.1	16.1	21.7	9.9	13.4
23	23.6	11.5	15.3	27.5	12.8	19.0	26.2	11.0	16.3	10.4	5.4	8.9
24	24.9	9.7	15.0	23.4	12.1	16.6	24.6	11.0	16.0	18.9	5.4	9.6
25	27.2	10.7	16.8	27.1	12.6	18.2	27.2	11.2	17.5	19.7	4.3	10.3
26	16.7	12.7	14.1	24.7	12.6	17.7	---	---	---	20.7	4.8	10.7
27	25.0	12.0	16.8	24.6	13.5	17.9	---	---	---	21.6	5.9	11.6
28	25.4	12.6	16.8	24.8	12.6	17.7	---	---	---	21.1	6.6	12.1
29	26.1	12.3	17.7	23.3	12.8	17.5	---	---	---	21.6	8.3	13.1
30	26.5	11.3	16.9	25.1	12.8	17.6	---	---	---	21.7	8.9	13.2
31	---	---	---	28.4	12.4	18.9	---	---	---	---	---	---
MONTH	27.2	8.2	15.4	29.6	8.9	17.7	---	---	---	---	---	---

07094500 ARKANSAS RIVER AT PARKDALE, CO

LOCATION.--Lat 38°29'14", long 105°22'23", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.18, T.18 S., R.71 W., Fremont County, Hydrologic Unit 11020001, on left bank at Parkdale, 100 ft upstream from Bumback Gulch, 300 ft upstream from bridge on U.S. Highway 50, and 0.9 mi upstream from Copper Gulch.

DRAINAGE AREA.--2,548 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to September 1955, October 1964 to September 1994, April 1995 to current year (seasonal records only). Monthly discharge only for October 1945 to May 1946, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,720 ft above sea level, from topographic map. Prior to Oct. 1, 1964, at site 600 ft downstream at different datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, diversions for irrigation of about 35,000 acres upstream from station, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (occurred during period of seasonal record), 6,830 ft<sup>3</sup>/s, June 18, 1995, gage height 8.82 ft; maximum gage height, 9.13 ft, June 9, 1985; minimum daily, 199 ft<sup>3</sup>/s, Mar. 17, 1978.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 3,470 ft<sup>3</sup>/s at 1600 May 31, gage height, 6.07 ft; minimum daily, 315 ft<sup>3</sup>/s, Sept. 21.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	372	635	3310	1030	823	546
2	---	---	---	---	---	---	362	557	3090	1010	847	456
3	---	---	---	---	---	---	389	560	2980	991	853	410
4	---	---	---	---	---	---	379	659	2960	990	848	391
5	---	---	---	---	---	---	428	759	2830	955	860	382
6	---	---	---	---	---	---	446	922	2720	954	842	379
7	---	---	---	---	---	---	418	990	2490	1010	829	383
8	---	---	---	---	---	---	404	1060	2300	1060	826	383
9	---	---	---	---	---	---	377	1070	2070	1070	839	378
10	---	---	---	---	---	---	372	988	1960	1100	831	378
11	---	---	---	---	---	---	433	983	1740	1070	789	359
12	---	---	---	---	---	---	413	1020	1730	1060	799	345
13	---	---	---	---	---	---	377	1020	1710	1110	850	341
14	---	---	---	---	---	---	379	930	1700	1180	880	333
15	---	---	---	---	---	---	393	853	1450	1080	919	326
16	---	---	---	---	---	---	396	802	1350	1100	890	330
17	---	---	---	---	---	---	365	995	1430	1220	708	326
18	---	---	---	---	---	---	365	1360	1440	1290	559	323
19	---	---	---	---	---	---	398	1440	1390	1180	510	322
20	---	---	---	---	---	---	396	1440	1420	960	483	318
21	---	---	---	---	---	---	361	1400	1510	891	457	315
22	---	---	---	---	---	---	377	1390	1470	880	472	317
23	---	---	---	---	---	---	366	1410	1460	890	515	376
24	---	---	---	---	---	---	354	2060	1460	866	520	391
25	---	---	---	---	---	---	361	2680	1450	859	515	369
26	---	---	---	---	---	---	341	2590	1490	858	504	358
27	---	---	---	---	---	---	349	2360	1520	868	513	362
28	---	---	---	---	---	---	407	2160	1360	852	494	359
29	---	---	---	---	---	---	557	2310	1270	871	513	351
30	---	---	---	---	---	---	607	e2990	1170	841	525	342
31	---	---	---	---	---	---	---	e3300	---	833	558	---
TOTAL	---	---	---	---	---	---	11942	43693	56230	30929	21371	10949
MEAN	---	---	---	---	---	---	398	1409	1874	998	689	365
MAX	---	---	---	---	---	---	607	3300	3310	1290	919	546
MIN	---	---	---	---	---	---	341	557	1170	833	457	315
AC-FT	---	---	---	---	---	---	23690	86670	111500	61350	42390	21720

e Estimated.





## ARKANSAS RIVER BASIN

07094500 ARKANSAS RIVER AT PARKDALE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	---	---	---	9.1	3.2	5.9	13.9	8.8	11.2
2	---	---	---	---	---	---	9.5	4.8	7.0	16.5	10.6	13.5
3	---	---	---	---	---	---	8.4	5.3	7.0	18.0	12.3	15.2
4	---	---	---	---	---	---	13.0	6.1	9.4	19.4	14.1	16.7
5	---	---	---	---	---	---	14.5	9.0	11.6	19.2	14.7	17.0
6	---	---	---	---	---	---	14.6	9.4	11.9	16.9	14.1	15.4
7	---	---	---	---	---	---	13.3	9.2	11.0	16.8	13.7	15.2
8	---	---	---	---	---	---	13.0	7.7	10.5	14.8	10.9	12.8
9	---	---	---	---	---	---	15.2	8.9	12.0	15.2	9.8	12.6
10	---	---	---	---	---	---	14.4	10.2	11.7	17.2	12.1	14.6
11	---	---	---	---	---	---	10.7	7.9	9.5	16.9	13.2	15.1
12	---	---	---	---	---	---	14.0	6.7	10.2	14.8	11.6	13.1
13	---	---	---	---	---	---	15.2	9.5	12.3	13.6	10.2	11.9
14	---	---	---	---	---	---	15.7	10.4	13.0	14.4	10.8	12.8
15	---	---	---	---	---	---	12.2	8.7	9.8	16.7	11.4	14.1
16	---	---	---	---	---	---	14.8	7.2	10.9	15.4	12.7	13.8
17	---	---	---	---	---	---	16.2	9.7	12.7	13.7	11.7	12.7
18	---	---	---	---	---	---	15.9	10.9	13.3	12.4	10.2	11.2
19	---	---	---	---	---	---	11.9	9.1	10.5	12.7	9.6	11.2
20	---	---	---	---	---	---	14.6	8.0	11.2	13.8	10.9	12.4
21	---	---	---	---	---	---	14.0	9.8	12.1	15.9	11.7	14.0
22	---	---	---	---	---	---	14.1	10.4	11.8	17.3	12.8	15.1
23	---	---	---	---	---	---	13.7	10.8	12.0	18.9	14.3	16.7
24	---	---	---	---	---	---	17.1	10.7	13.6	---	15.1	---
25	---	---	---	---	---	---	15.9	10.1	13.0	---	---	---
26	---	---	---	---	---	---	17.2	10.2	13.7	---	---	---
27	---	---	---	---	---	---	18.2	12.1	14.9	---	---	---
28	---	---	---	---	---	---	17.1	12.5	14.9	---	---	---
29	---	---	---	---	---	---	16.4	12.8	14.7	---	---	---
30	---	---	---	---	---	---	14.3	10.2	12.1	16.2	13.6	14.6
31	---	---	---	---	---	---	---	---	---	16.7	13.5	14.9
MONTH	---	---	---	---	---	---	18.2	3.2	11.5	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	15.5	12.9	14.3	19.7	16.8	18.5	20.9	17.1	19.2	19.2	17.1	18.0
2	15.2	13.2	14.2	20.2	16.8	18.6	19.9	17.0	18.6	19.6	15.8	17.6
3	15.5	12.6	14.2	20.0	17.1	18.3	19.8	17.0	18.7	17.9	15.5	16.4
4	15.9	12.8	14.4	21.3	16.3	18.7	20.8	17.4	19.2	19.2	14.1	16.6
5	16.0	13.1	14.6	21.0	16.4	18.8	21.1	17.8	19.4	21.0	16.0	18.4
6	16.0	13.0	14.5	21.2	17.3	19.4	21.4	17.5	19.7	20.6	16.4	18.2
7	17.0	13.1	15.1	21.1	18.3	19.5	21.3	17.7	19.6	19.2	14.9	16.7
8	17.7	13.8	15.8	20.6	16.7	18.8	20.7	17.1	19.1	17.4	15.1	16.3
9	17.0	14.0	15.5	21.1	17.6	19.4	21.2	17.2	19.3	18.2	13.9	16.2
10	16.4	13.5	15.0	20.4	17.3	19.1	21.9	18.4	20.0	18.5	14.4	16.6
11	15.7	13.3	14.6	21.8	18.0	19.9	20.2	18.0	19.4	19.2	15.0	17.1
12	16.3	12.6	14.6	20.4	18.9	19.7	19.7	17.6	18.3	18.8	14.9	17.0
13	16.8	13.6	15.4	21.4	17.4	19.3	21.3	16.7	19.0	19.4	14.6	17.2
14	17.6	14.1	15.9	21.8	15.9	19.2	21.7	18.5	19.9	19.2	15.4	17.4
15	18.4	14.4	16.4	21.5	17.8	20.0	21.4	17.9	19.7	19.3	15.2	17.4
16	17.3	14.4	15.8	19.8	18.1	19.0	19.4	17.5	18.6	19.8	15.4	17.8
17	15.9	13.2	14.5	20.6	18.4	19.4	20.7	17.7	19.1	19.2	15.5	17.6
18	15.9	13.8	14.8	20.9	17.6	19.3	20.6	17.8	19.3	18.9	16.2	17.3
19	17.6	14.4	15.9	21.1	17.7	19.4	21.1	17.7	19.5	18.4	14.5	16.7
20	18.1	15.3	16.7	21.9	18.7	20.1	21.8	17.7	19.6	16.8	12.4	14.3
21	18.3	14.8	16.6	21.1	18.1	19.6	20.8	16.4	18.6	15.4	10.9	13.2
22	19.0	15.6	17.3	21.7	18.2	19.8	21.9	17.5	19.3	15.3	13.1	14.3
23	18.2	16.0	17.0	21.4	18.1	19.7	21.2	16.9	18.8	14.7	9.6	11.8
24	17.4	14.5	16.1	19.8	17.7	18.9	21.6	16.8	18.9	10.9	8.0	9.2
25	18.1	15.5	16.9	20.5	16.8	18.7	21.7	17.2	19.2	13.7	9.6	11.7
26	17.5	14.9	15.7	20.3	17.6	19.1	21.0	17.3	19.2	14.2	10.2	12.4
27	17.3	14.3	15.8	19.8	18.0	19.1	21.4	16.5	18.9	14.7	11.1	13.1
28	18.1	15.8	16.9	19.8	17.2	18.7	21.9	17.5	19.7	15.3	11.8	13.6
29	19.3	15.9	17.6	21.0	17.4	19.3	22.0	18.2	20.0	16.6	13.0	14.6
30	20.3	16.8	18.4	20.9	17.0	19.1	21.3	18.1	19.5	17.3	13.5	15.2
31	---	---	---	21.0	16.6	19.0	20.1	16.8	18.4	---	---	---
MONTH	20.3	12.6	15.7	21.9	15.9	19.2	22.0	16.4	19.2	21.0	8.0	15.7

07096000 ARKANSAS RIVER AT CANON CITY, CO

LOCATION.--Lat 38°26'02", long 105°15'24", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.31, T.18 S., R.70 W.(revised), Fremont County, Hydrologic Unit 11020002, on right bank 800 ft upstream from Sand Creek, 0.7 mi downstream from Grape Creek, and 0.7 mi upstream from First Street Bridge in Canon City.

DRAINAGE AREA.--3,117 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1888 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as "near Canyon" 1900-1906.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1311: 1897-98.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,342.13 ft above 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 higher.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 250 acres upstream from station.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	466	400	361	459	448	443	417	555	2970	845	634	404
2	461	401	387	459	438	451	400	478	2790	818	645	326
3	451	391	400	451	436	458	417	474	2700	800	656	286
4	462	393	394	418	442	452	407	558	2710	801	652	268
5	431	409	353	450	433	452	444	651	2620	769	656	262
6	415	411	355	472	437	457	553	814	2560	752	649	257
7	412	441	397	432	428	437	520	915	2360	817	640	258
8	403	426	411	451	430	439	464	961	2180	849	630	254
9	416	428	407	467	429	419	417	970	1960	868	648	247
10	415	427	404	453	432	420	399	859	1860	897	664	245
11	418	412	404	482	442	411	444	868	1640	870	599	233
12	402	389	404	454	435	414	420	901	1590	853	599	225
13	398	375	399	452	424	412	375	903	1570	891	650	213
14	400	384	410	443	426	409	374	822	1570	1020	682	209
15	401	414	366	438	430	411	375	749	1290	890	698	206
16	401	382	359	444	434	430	381	727	1150	899	731	208
17	421	345	391	450	435	425	350	834	1240	1030	554	208
18	420	385	415	455	445	436	347	1190	1290	1110	434	202
19	458	393	451	458	430	421	377	1290	1220	1010	388	207
20	458	349	480	458	423	424	353	1260	1250	787	366	206
21	436	357	450	444	428	468	327	1210	1370	707	339	207
22	422	371	450	444	431	452	345	1190	1330	694	340	209
23	418	374	437	435	444	456	342	1220	1310	701	364	250
24	421	344	459	424	446	494	328	1830	1310	679	369	287
25	414	324	473	435	449	513	327	2430	1290	671	369	273
26	414	344	492	445	421	534	307	2350	1350	671	358	262
27	397	376	485	462	433	544	263	2180	1410	674	367	258
28	395	378	477	450	443	514	302	2010	1200	663	353	256
29	393	369	473	405	449	517	467	2090	1080	675	368	252
30	410	361	473	408	---	483	537	2580	986	650	386	242
31	394	---	461	409	---	455	---	2920	---	643	405	---
TOTAL	13023	11553	13078	13807	12621	14051	11779	38789	51156	25004	16193	7420
MEAN	420	385	422	445	435	453	393	1251	1705	807	522	247
MAX	466	441	492	482	449	544	553	2920	2970	1110	731	404
MIN	393	324	353	405	421	409	263	474	986	643	339	202
AC-FT	25830	22920	25940	27390	25030	27870	23360	76940	101500	49600	32120	14720

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1889 - 2000, BY WATER YEAR (WY)

	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900
MEAN	374	379	370	348	345	354	426	1111	2292	1481	857	451
MAX	1195	620	623	609	781	711	1120	2667	4286	5541	2134	1411
(WY)	1912	1924	1983	1983	1985	1989	1942	1984	1980	1957	1957	1909
MIN	167	180	204	195	217	176	108	243	481	230	217	188
(WY)	1978	1940	1940	1979	1978	1904	1940	1977	1902	1902	1977	1931

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1889 - 2000
ANNUAL TOTAL	295956	228474	
ANNUAL MEAN	811	624	735
HIGHEST ANNUAL MEAN			1299
LOWEST ANNUAL MEAN			329
HIGHEST DAILY MEAN	3510	2970	9480
LOWEST DAILY MEAN	211	202	69
ANNUAL SEVEN-DAY MINIMUM	239	206	87
INSTANTANEOUS PEAK FLOW		3120	a19000
INSTANTANEOUS PEAK STAGE		8.69	b,c10.70
ANNUAL RUNOFF (AC-FT)	587000	453200	532200
10 PERCENT EXCEEDS	1550	1220	1720
50 PERCENT EXCEEDS	540	440	418
90 PERCENT EXCEEDS	341	336	240

a Site and datum then in use, from rating curve extended above 5000 ft<sup>3</sup>/s.  
 b From floodmark.  
 c Maximum gage height, 10.90 ft, Jun 18, 1995.

07096000 ARKANSAS RIVER AT CANON CITY, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1993 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1993 to current year.

WATER TEMPERATURE: October 1993 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for specific conductance are good. Records for water temperature are good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR CURRENT YEAR AND FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 739 microsiemens, Aug. 16, 2000; minimum, 94 microsiemens, June 9, 1996.

WATER TEMPERATURE: Maximum, 22.6°C, July 20, 2000; minimum, 0.0°C, many days.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	299	291	295	336	330	333	321	316	318	278	267	272
2	307	293	299	332	324	328	323	316	320	276	268	272
3	312	301	306	333	324	329	321	314	317	275	264	269
4	317	309	313	333	326	330	320	312	316	284	268	273
5	321	312	316	333	324	329	327	314	318	289	260	276
6	321	312	317	335	321	326	330	321	324	---	---	---
7	325	316	320	333	323	327	326	315	320	---	---	---
8	332	324	327	332	325	328	323	314	319	286	262	273
9	332	326	329	333	327	330	---	---	---	275	260	264
10	332	324	329	333	326	330	324	313	318	273	264	267
11	332	323	327	332	325	328	324	317	321	269	261	266
12	331	323	327	334	329	331	---	---	---	269	259	265
13	332	324	329	336	327	331	---	---	---	269	262	264
14	333	325	330	337	328	332	---	---	---	272	260	265
15	333	326	329	338	329	334	---	---	---	275	265	270
16	331	321	325	339	325	331	338	320	327	275	266	271
17	329	322	325	334	324	329	334	317	322	275	270	272
18	329	324	327	337	326	331	315	310	313	270	266	269
19	329	325	327	334	322	327	---	---	---	271	267	269
20	327	321	324	341	323	329	---	---	---	270	263	266
21	330	323	326	346	330	337	---	---	---	272	262	267
22	334	328	330	349	326	334	---	---	---	273	268	271
23	335	328	331	329	316	324	---	---	---	274	266	270
24	335	328	331	328	310	318	---	---	---	275	264	269
25	333	326	329	336	323	327	---	---	---	276	266	271
26	331	325	329	336	326	331	276	260	268	275	263	268
27	332	324	329	336	324	329	275	258	266	270	262	265
28	335	326	330	324	315	319	273	263	268	270	262	266
29	340	332	336	317	311	314	272	262	266	274	259	266
30	340	332	336	318	312	315	272	261	267	284	259	265
31	336	327	331	---	---	---	274	264	269	278	264	269
MONTH	340	291	324	349	310	328	---	---	---	---	---	---

ARKANSAS RIVER BASIN

07096000 ARKANSAS RIVER AT CANON CITY, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	275	262	269	279	273	276	337	306	319	269	249	258
2	267	258	261	277	274	275	345	337	340	263	251	259
3	272	263	266	280	275	277	346	339	342	258	248	253
4	271	263	268	284	275	279	354	346	351	252	237	244
5	272	260	266	285	280	282	369	350	358	239	219	229
6	273	265	269	282	276	279	370	356	363	220	203	210
7	273	262	268	282	275	278	364	347	356	211	189	200
8	273	262	267	283	277	280	352	345	349	195	187	190
9	273	268	271	283	277	280	349	343	347	200	190	195
10	273	268	271	283	281	282	352	344	348	202	193	199
11	273	268	271	283	279	282	349	337	341	195	186	190
12	275	269	272	283	274	279	347	339	342	191	182	186
13	275	268	271	283	277	280	351	342	348	182	178	180
14	273	269	271	282	273	278	358	345	354	205	178	195
15	273	267	271	282	268	277	357	345	352	222	188	199
16	275	268	270	281	269	274	349	345	347	226	216	222
17	272	268	270	288	277	281	352	347	349	224	206	219
18	271	267	269	291	285	289	356	351	353	206	186	193
19	271	260	266	288	281	285	358	342	349	187	164	180
20	275	264	267	286	282	284	342	317	331	165	152	157
21	274	264	269	283	270	276	340	317	332	171	150	162
22	275	266	269	283	269	274	341	337	339	152	149	151
23	291	267	272	297	279	283	341	335	337	156	148	151
24	289	270	276	301	290	296	342	335	338	150	129	143
25	286	270	276	309	296	302	342	335	339	130	123	127
26	296	268	275	309	302	306	340	332	337	125	122	124
27	292	266	277	311	301	305	341	323	329	138	121	127
28	290	270	278	304	298	302	334	315	324	141	127	136
29	283	272	276	307	298	301	325	283	304	128	121	126
30	---	---	---	306	295	299	283	263	274	121	113	119
31	---	---	---	307	299	302	---	---	---	116	108	113
MONTH	296	258	270	311	268	285	370	263	340	269	108	182
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	109	106	108	---	---	---	197	193	195	267	259	263
2	116	106	112	---	---	---	197	190	194	277	267	270
3	116	111	113	---	---	---	190	187	189	296	277	286
4	125	110	118	---	---	---	192	188	190	306	295	300
5	115	110	113	184	181	182	192	189	191	307	303	305
6	116	112	114	184	177	180	191	188	189	309	302	306
7	119	113	116	182	171	174	193	189	191	312	304	308
8	122	114	118	177	169	173	192	185	190	308	305	307
9	126	114	120	182	168	173	190	183	187	314	307	309
10	127	117	123	180	174	177	187	183	185	315	309	313
11	143	123	130	181	178	179	222	186	193	313	306	310
12	135	125	130	182	180	181	195	191	194	314	310	312
13	132	124	128	197	181	187	197	187	190	316	310	313
14	130	123	126	201	172	184	248	192	201	317	309	314
15	143	124	132	180	174	177	201	193	198	314	310	312
16	147	136	141	186	179	181	739	184	246	315	309	312
17	147	136	143	189	184	186	228	209	220	313	309	311
18	143	135	138	186	178	180	322	222	259	314	306	311
19	141	137	139	180	172	175	305	276	289	311	308	309
20	141	134	139	173	170	171	293	290	292	313	305	309
21	138	133	135	176	171	173	296	291	293	318	307	311
22	135	132	134	200	176	186	300	293	297	318	315	316
23	136	132	134	214	200	208	301	288	295	319	302	313
24	135	131	133	214	212	213	288	277	282	302	289	296
25	138	132	135	214	210	212	283	275	278	306	297	303
26	140	134	138	212	204	208	291	275	279	307	302	306
27	150	137	144	206	198	201	289	278	282	310	307	308
28	152	146	149	201	193	196	296	277	279	309	303	306
29	158	149	155	202	191	196	286	276	279	310	304	307
30	166	153	156	195	191	192	286	271	276	311	306	310
31	---	---	---	197	194	196	275	260	266	---	---	---
MONTH	166	106	130	---	---	---	739	183	235	319	259	305

## ARKANSAS RIVER BASIN

07096000 ARKANSAS RIVER AT CANON CITY, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.5	10.0	11.3	7.6	5.6	6.6	4.2	3.0	3.7	1.4	.1	.7
2	12.5	10.0	11.3	6.5	4.4	5.6	4.8	3.7	4.0	1.4	.4	.9
3	11.5	9.6	10.6	7.2	4.8	6.0	3.8	1.8	3.0	.9	.0	.4
4	12.4	9.1	10.9	6.9	5.0	6.1	2.1	1.3	1.7	.1	.1	.1
5	12.6	9.8	11.3	7.0	5.4	6.3	1.4	.0	.6	.2	.1	.1
6	13.1	10.6	11.8	7.0	5.2	6.1	1.0	.0	.3	.3	.0	.1
7	12.7	11.3	12.0	6.7	4.8	5.8	1.0	.0	.4	.1	.1	.1
8	12.7	9.7	11.3	7.4	5.3	6.5	1.2	.2	.7	.2	.0	.1
9	13.2	10.0	11.7	8.0	6.2	7.1	.5	.0	.1	.1	.0	.1
10	13.1	10.5	11.9	6.6	5.1	6.0	.4	.0	.1	.6	.0	.2
11	13.4	10.7	12.1	6.8	4.9	5.8	.7	.0	.2	1.1	.0	.5
12	13.0	10.3	11.7	5.9	4.4	5.1	.3	.0	.0	2.7	.3	1.6
13	12.9	10.3	11.6	5.4	3.8	4.6	.2	.0	.0	2.1	.9	1.5
14	12.7	10.2	11.5	5.5	3.8	4.6	.0	.0	.0	1.8	.5	1.2
15	11.8	9.7	10.6	5.3	3.7	4.5	.0	.0	.0	2.3	1.0	1.6
16	10.0	5.6	8.0	5.3	3.7	4.5	.0	.0	.0	3.6	1.8	2.6
17	7.1	4.6	6.0	5.7	4.1	4.8	.3	.0	.1	5.3	3.6	4.6
18	7.6	5.8	6.7	6.5	4.9	5.6	.6	.0	.1	5.5	4.6	5.0
19	8.4	5.9	7.2	4.9	3.2	4.0	.4	.0	.0	6.0	4.7	5.3
20	9.0	6.6	7.9	4.6	3.1	3.8	.0	.0	.0	5.2	3.7	4.3
21	9.4	7.0	8.3	4.4	3.4	4.0	.0	.0	.0	4.2	2.7	3.6
22	9.4	7.1	8.4	4.5	3.8	4.0	.0	.0	.0	4.0	2.5	3.2
23	9.5	7.3	8.5	3.9	1.8	2.5	.0	.0	.0	3.0	1.8	2.5
24	9.4	7.3	8.4	2.3	1.0	1.7	.0	.0	.0	3.1	1.1	2.2
25	9.1	7.0	8.2	1.6	.4	1.0	.0	.0	.0	2.9	2.0	2.4
26	8.8	6.8	7.9	3.2	1.4	2.3	.3	.0	.1	3.4	1.5	2.4
27	8.9	7.0	8.0	4.5	3.0	3.8	.5	.0	.1	3.4	2.7	3.0
28	9.1	7.1	8.2	4.7	3.3	4.0	.8	.0	.2	3.4	2.2	2.8
29	8.7	7.1	8.0	4.5	3.5	3.9	1.1	.0	.4	2.2	.0	.9
30	7.2	5.4	6.4	4.0	3.3	3.7	.9	.0	.3	.1	.0	.1
31	7.4	5.2	6.5	---	---	---	.9	.0	.4	.1	.1	.1
MONTH	13.4	4.6	9.5	8.0	.4	4.7	4.8	.0	.5	6.0	.0	1.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	.7	.0	.2	6.7	5.1	6.0	8.5	2.9	5.5	13.3	9.5	11.3
2	1.3	.1	.6	5.5	4.7	5.2	8.4	4.8	6.4	16.0	11.0	13.4
3	2.4	.6	1.5	7.7	3.9	5.8	8.7	5.1	6.6	17.5	12.8	15.2
4	3.1	2.0	2.5	8.8	5.1	7.0	12.1	5.8	8.7	18.8	14.6	16.8
5	3.4	1.6	2.6	7.6	5.5	6.7	13.8	9.0	11.2	19.0	15.6	17.3
6	3.9	2.5	3.1	6.8	3.7	5.4	13.6	9.1	11.3	17.4	14.8	15.8
7	3.8	2.2	3.0	7.8	4.8	6.3	12.3	8.6	10.3	17.3	14.2	15.5
8	4.1	2.4	3.2	7.9	4.8	6.3	12.0	7.4	9.7	15.6	11.4	13.2
9	3.8	2.5	3.2	7.1	4.4	5.5	14.4	8.7	11.4	15.1	10.3	12.7
10	4.3	2.9	3.6	6.0	3.6	4.7	13.0	10.4	11.5	16.7	12.7	14.8
11	3.8	2.9	3.3	6.7	2.7	4.7	10.7	8.2	9.5	17.0	13.8	15.2
12	5.4	3.1	4.0	6.4	4.7	5.3	12.9	6.7	9.6	14.4	12.1	13.3
13	4.6	2.4	3.5	7.8	4.2	6.0	14.3	9.7	12.0	13.6	10.5	12.0
14	5.3	2.6	4.0	8.5	5.3	7.0	15.5	10.5	12.8	14.7	11.2	13.1
15	6.4	4.3	5.3	7.4	3.2	6.0	12.6	8.7	9.8	16.4	11.7	14.1
16	5.8	4.0	5.1	6.7	2.9	4.8	13.7	7.3	10.3	15.2	13.0	14.1
17	6.1	4.6	5.3	8.6	4.7	6.7	14.9	9.8	12.2	13.3	11.6	12.4
18	4.8	3.6	4.2	8.2	5.7	7.3	14.9	10.9	12.7	12.2	10.3	11.4
19	4.3	2.4	3.5	7.1	3.8	5.5	11.5	8.9	10.3	12.9	9.8	11.4
20	4.2	2.3	3.4	6.3	3.6	5.4	13.9	8.3	11.0	13.4	11.3	12.4
21	6.2	3.0	4.6	5.0	2.8	3.9	13.9	9.9	12.1	15.8	12.3	14.0
22	6.8	4.7	5.5	4.6	3.7	4.0	13.2	10.3	11.5	16.7	13.6	15.2
23	6.0	3.7	5.0	8.4	3.4	5.9	13.7	11.0	11.9	18.4	14.7	16.6
24	6.8	4.1	5.5	10.4	6.2	8.3	16.4	11.3	13.4	17.9	15.2	16.2
25	5.7	2.4	4.1	10.9	7.7	9.3	15.4	10.4	12.7	16.0	13.6	14.9
26	4.1	1.4	2.7	11.0	8.2	9.7	16.0	10.6	13.3	14.6	12.3	13.2
27	5.4	2.4	4.0	12.2	7.8	10.0	17.5	12.3	14.6	15.2	10.9	13.0
28	6.6	3.9	5.3	10.3	8.3	9.4	16.6	13.1	14.8	16.4	13.0	14.8
29	7.6	4.6	6.1	11.9	8.1	9.8	17.4	13.1	14.9	16.1	14.5	15.4
30	---	---	---	9.9	6.4	8.6	14.8	10.7	12.5	16.6	13.9	15.2
31	---	---	---	6.4	3.4	4.6	---	---	---	17.1	14.3	15.6
MONTH	7.6	.0	3.7	12.2	2.7	6.5	17.5	2.9	11.1	19.0	9.5	14.2

ARKANSAS RIVER BASIN

07096000 ARKANSAS RIVER AT CANON CITY, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.9	13.7	15.0	20.1	18.1	19.2	21.1	18.4	19.9	19.8	17.7	18.8
2	15.7	13.8	14.9	20.5	17.5	19.2	20.4	18.2	19.4	19.9	16.8	18.2
3	15.8	13.5	14.8	20.4	17.8	19.1	20.6	18.1	19.4	17.8	16.0	17.0
4	16.3	13.8	15.1	21.0	17.3	19.2	20.8	18.7	19.9	19.2	14.4	17.0
5	16.4	13.8	15.3	20.9	17.6	19.4	21.4	18.8	20.1	20.4	17.1	18.7
6	16.3	13.6	15.1	21.3	18.7	20.0	22.0	18.8	20.3	20.3	17.8	18.7
7	17.3	13.9	15.7	21.4	19.3	20.3	21.6	18.8	20.3	18.9	15.8	17.3
8	18.0	14.9	16.4	20.8	17.9	19.4	21.3	18.3	19.8	18.5	15.8	16.9
9	17.7	14.8	16.3	21.4	18.7	20.2	21.5	18.4	19.9	18.5	15.2	16.8
10	16.6	14.3	15.7	20.9	18.5	19.9	22.3	19.2	20.7	18.9	15.4	17.1
11	16.2	14.3	15.4	22.0	18.9	20.6	21.0	19.3	20.2	19.7	15.6	17.5
12	16.5	13.7	15.2	21.3	19.7	20.4	20.1	18.4	19.2	19.2	15.6	17.4
13	16.8	14.6	15.9	21.6	18.6	20.1	21.5	17.9	19.5	19.7	15.3	17.4
14	17.8	14.9	16.4	21.8	16.5	19.8	22.3	19.5	20.8	19.5	16.2	17.7
15	18.5	15.4	17.0	22.2	19.7	20.8	22.0	19.3	20.5	19.8	15.9	17.8
16	17.4	15.2	16.4	20.7	19.1	19.8	20.7	18.5	19.3	20.1	16.2	18.0
17	16.1	14.2	15.0	21.1	18.9	20.0	20.7	18.9	19.6	19.1	16.3	17.9
18	16.3	14.8	15.6	21.3	18.4	20.0	21.5	18.7	19.8	19.2	16.6	17.7
19	18.0	15.2	16.6	21.4	18.7	20.1	21.5	18.8	20.0	18.8	15.3	17.1
20	18.8	16.2	17.4	22.6	19.5	20.9	22.0	18.9	20.1	17.1	12.8	14.7
21	18.5	16.0	17.3	21.4	19.2	20.3	21.0	17.6	19.3	15.3	11.5	13.5
22	19.2	16.6	17.8	22.3	19.5	20.7	22.0	18.4	20.0	15.1	13.7	14.4
23	18.9	16.8	17.8	22.0	19.1	20.5	21.3	17.6	19.4	13.7	9.6	12.0
24	17.9	15.6	16.8	20.5	18.8	19.6	21.1	17.7	19.3	9.6	8.4	9.1
25	18.3	16.4	17.6	21.1	17.9	19.4	21.7	18.3	19.7	13.6	9.5	11.3
26	18.2	15.6	16.5	20.4	18.6	19.6	21.0	18.4	19.7	14.3	10.8	12.5
27	17.8	15.0	16.3	20.5	19.1	19.9	21.2	17.7	19.5	15.0	11.5	13.1
28	18.1	16.6	17.3	20.5	18.3	19.4	21.5	18.6	20.1	15.7	12.1	13.8
29	19.5	16.7	18.1	21.2	18.3	19.9	22.4	19.0	20.6	16.4	13.3	14.6
30	20.4	17.2	18.9	21.1	18.5	20.0	21.2	19.0	20.0	17.1	13.9	15.3
31	---	---	---	21.2	18.0	19.8	19.7	17.6	18.9	---	---	---
MONTH	20.4	13.5	16.3	22.6	16.5	19.9	22.4	17.6	19.8	20.4	8.4	16.0

## 07096250 FOURMILE CREEK BELOW CRIPPLE CREEK NEAR VICTOR, CO

LOCATION.--Lat 38°39'52", long 105°13'37", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.9, T.16 S., R.70 W., Teller County, Hydrologic Unit 11020002, on left bank 500 ft from Teller County Route 88, 0.2 mi downstream from Cripple Creek, and 5.5 mi southwest of Victor.

DRAINAGE AREA.--272 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1992 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 6,870 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by small diversions for irrigation, flows from Cripple Creek sewage treatment plant, and releases from Pisgah Lake. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	15	e13	e14	e11	12	27	43	38	16	36	14
2	27	15	e12	e13	e12	12	26	40	37	15	36	12
3	26	15	e11	e12	e13	12	26	40	30	15	36	12
4	26	15	e11	e12	13	13	29	41	26	14	39	11
5	24	14	e11	e12	13	14	34	40	26	13	39	11
6	24	14	e12	e12	13	13	39	42	26	12	37	9.7
7	25	14	e13	e12	12	14	40	44	26	12	37	9.3
8	29	14	e13	e12	12	13	41	90	25	13	34	9.7
9	27	14	e12	e12	12	13	42	102	24	11	33	9.6
10	25	14	e11	e12	11	12	45	100	17	9.9	33	8.7
11	24	14	e11	e12	11	12	45	89	15	9.6	32	8.0
12	23	14	e11	e12	12	12	43	83	15	11	32	7.7
13	21	13	e11	e11	11	12	43	78	13	13	33	7.2
14	21	13	e12	e11	12	13	41	75	14	12	28	6.7
15	20	13	e13	e11	12	13	42	71	13	11	11	6.7
16	22	13	e14	e11	12	14	40	63	13	12	11	6.4
17	25	13	e15	e11	12	17	36	62	14	18	10	6.4
18	25	13	e15	e11	11	18	38	64	15	23	14	6.8
19	22	12	e15	e11	12	16	41	78	14	22	11	7.1
20	20	12	e15	e12	13	19	37	65	14	21	9.6	7.5
21	19	12	e14	e11	13	16	35	61	13	21	9.3	7.7
22	18	14	e12	e11	13	17	35	55	12	21	9.2	7.4
23	17	e11	e11	e13	12	19	38	51	12	21	8.6	8.3
24	17	e11	e11	e16	13	22	44	54	12	20	9.4	10
25	16	e11	e11	e12	11	24	40	54	11	21	10	9.2
26	16	e11	e11	e11	11	25	37	51	19	22	11	7.9
27	16	e12	e12	e11	13	26	37	47	19	22	9.4	7.2
28	15	e13	e13	e11	13	27	40	45	21	32	9.3	6.7
29	16	e13	e14	e11	12	27	42	44	19	40	11	6.5
30	15	e13	e14	e11	---	27	44	39	16	38	16	6.5
31	16	---	e14	e11	---	27	---	38	---	36	16	---
TOTAL	665	395	388	365	351	531	1147	1849	569	577.5	670.8	254.9
MEAN	21.5	13.2	12.5	11.8	12.1	17.1	38.2	59.6	19.0	18.6	21.6	8.50
MAX	29	15	15	16	13	27	45	102	38	40	39	14
MIN	15	11	11	11	11	12	26	38	11	9.6	8.6	6.4
AC-FT	1320	783	770	724	696	1050	2280	3670	1130	1150	1330	506

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2000, BY WATER YEAR (WY)

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
MEAN	15.7	11.9	8.71	7.80	6.93	8.76	21.8	68.6	50.6	26.9	31.6	21.3
MAX	21.5	21.8	16.6	15.4	12.1	17.1	40.2	149	128	75.8	101	44.9
(WY)	2000	1995	1996	1996	2000	2000	1994	1994	1995	1995	1999	1998
MIN	6.65	6.91	5.66	4.55	3.79	3.56	9.75	12.3	11.8	11.2	4.95	5.19
(WY)	1994	1999	1994	1997	1995	1999	1997	1996	1996	1993	1993	1993

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1993 - 2000
ANNUAL TOTAL	13825.7	7763.2	
ANNUAL MEAN	37.9	21.2	23.5
HIGHEST ANNUAL MEAN			38.2
LOWEST ANNUAL MEAN			12.6
HIGHEST DAILY MEAN	225	May 3	373
LOWEST DAILY MEAN	3.1	Mar 30	2.5
ANNUAL SEVEN-DAY MINIMUM	3.2	Mar 25	3.2
INSTANTANEOUS PEAK FLOW		129	May 8
INSTANTANEOUS PEAK STAGE		3.77	May 8
ANNUAL RUNOFF (AC-FT)	27420	15400	17010
10 PERCENT EXCEEDS	106	41	55
50 PERCENT EXCEEDS	16	14	12
90 PERCENT EXCEEDS	4.0	11	5.2

e Estimated.

a From rating curve extended above 187 ft<sup>3</sup>/s.



07097000 ARKANSAS RIVER AT PORTLAND, CO

LOCATION.--Lat 38°23'18", long 105°00'56", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.20, T.19 S., R.68 W., Fremont County, Hydrologic Unit 11020002, on right bank at bridge on State Highway 120 at Portland, and 1 mi downstream from Hardscrabble Creek.

DRAINAGE AREA.--4,024 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1939 to September 1952, October 1974 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,021.59 ft above sea level. Prior to Oct. 1, 1974, at site 400 ft downstream at datum 0.03 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions upstream from station for irrigation of about 60,000 acres and return flow from irrigated areas.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	513	509	411	446	386	408	434	646	3360	854	664	451
2	504	509	416	443	395	409	409	548	3150	801	669	404
3	499	455	424	428	398	423	434	505	3060	784	683	326
4	486	458	424	390	404	405	413	572	3060	768	676	315
5	457	488	388	452	394	405	461	658	2960	747	678	e277
6	440	488	367	489	393	417	590	838	2870	723	676	e279
7	442	523	400	372	380	421	583	971	2600	781	668	e242
8	455	504	406	403	368	389	510	1100	2350	807	651	e246
9	471	494	404	392	394	376	449	1230	2080	846	649	e248
10	457	496	381	394	386	377	398	1040	1920	852	684	e271
11	450	485	392	419	399	365	452	1030	1630	833	636	e265
12	429	461	384	406	395	379	455	1040	1510	816	613	e250
13	e424	441	373	422	376	386	406	1070	1510	850	677	227
14	407	438	373	422	366	374	385	982	1500	989	921	211
15	412	428	351	407	374	395	395	905	1270	836	790	203
16	457	407	334	411	385	436	414	842	1090	890	826	203
17	491	409	372	415	385	415	363	901	1160	1030	632	202
18	498	405	379	423	392	439	340	1330	1260	1100	621	191
19	552	390	396	423	381	410	377	1480	1190	1020	437	192
20	534	364	433	424	372	407	359	1460	1160	787	414	200
21	504	381	441	417	375	466	324	1390	1330	704	358	208
22	477	413	446	413	386	446	326	1350	1280	690	380	208
23	470	429	453	405	402	455	334	1360	1240	703	387	235
24	476	403	449	392	407	480	321	1940	1250	679	390	337
25	474	397	460	398	408	508	313	2790	1240	654	383	287
26	466	404	456	417	377	536	311	2750	1350	651	421	278
27	445	427	450	428	382	548	276	2550	1460	656	399	279
28	434	444	462	430	409	510	293	2310	1270	677	386	277
29	439	433	449	380	413	506	486	2340	1100	698	393	282
30	455	425	442	358	---	477	618	2880	1000	690	414	261
31	447	---	447	362	---	465	---	3260	---	678	430	---
TOTAL	14465	13308	12763	12781	11282	13433	12229	44068	53210	24594	17606	7855
MEAN	467	444	412	412	389	433	408	1422	1774	793	568	262
MAX	552	523	462	489	413	548	618	3260	3360	1100	921	451
MIN	407	364	334	358	366	365	276	505	1000	651	358	191
AC-FT	28690	26400	25320	25350	22380	26640	24260	87410	105500	48780	34920	15580

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2000, BY WATER YEAR (WY)

	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950
MEAN	396	421	379	361	353	369	506	1201	2518	1604	953	455
MAX	1083	748	693	626	774	683	1869	2680	4429	4472	2380	1008
(WY)	1985	1985	1983	1983	1985	1989	1942	1984	1980	1995	1984	1982
MIN	136	191	212	199	162	147	135	245	581	242	201	172
(WY)	1978	1978	1978	1979	1978	1978	1981	1977	1977	1977	1977	1977

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1939 - 2000

ANNUAL TOTAL	334342	237594	
ANNUAL MEAN	916	649	800
HIGHEST ANNUAL MEAN			1387
LOWEST ANNUAL MEAN			315
HIGHEST DAILY MEAN	3970	Apr 30	3360 Jun 1
LOWEST DAILY MEAN	175	Apr 12	191 Sep 18
ANNUAL SEVEN-DAY MINIMUM	199	Apr 11	200 Sep 15
INSTANTANEOUS PEAK FLOW			3600 Jun 1
INSTANTANEOUS PEAK STAGE			5.64 Jun 1
ANNUAL RUNOFF (AC-FT)	663200	471300	579500
10 PERCENT EXCEEDS	1990	1240	1880
50 PERCENT EXCEEDS	528	441	461
90 PERCENT EXCEEDS	355	336	228

e Estimated.  
a From rating curve extended above 5300 ft<sup>3</sup>/s.

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1977 to current year. October 1979 to October 1982 published records include observer once-daily water temperature and specific conductance measurements.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1979 to current year.  
WATER TEMPERATURE: October 1979 to current year.

INSTRUMENTATION.--Water-quality monitor since November 1982, with satellite telemetry.

REMARKS.--Specific conductance records are fair except for Oct. 9, 19-20, Jan. 7, 30-31, Feb. 3-4, June 22-23, July 27-28, Aug. 20, 22-27, 30, and Sept. 11-13, 18, which are poor. Water temperature records are good except for Oct. 9, June 22, July 27, Aug. 22, 28, and Sept. 12-20, which are poor. Specific conductance data may not be representative of the cross section at the site during flash floods. Daily data that are not published are either missing or of unacceptable quality. Periodic water-quality data available Feb. 1977 to Sept. 1995 under National Stream-Quality Accounting Network (NASQAN) for this site.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,420 microsiemens, Aug. 18, 2000; minimum, 111 microsiemens, June 22, 1984.  
WATER TEMPERATURE: Maximum, 26.0°C, July 27, 1987, Aug. 27, 2000; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily, 1,420 microsiemens, Aug. 18; minimum, 148 microsiemens, June 1.  
WATER TEMPERATURE: Maximum, 26.0°C, Aug. 27; minimum, 0.0°C, many days.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	493	466	479	661	495	527	565	521	549	483	458	469
2	497	459	480	584	512	532	559	535	545	493	455	471
3	493	473	488	539	498	524	559	536	548	481	452	468
4	516	482	493	552	512	524	556	530	541	536	441	477
5	523	495	509	521	503	512	590	532	553	513	455	480
6	529	504	519	525	505	516	577	555	567	496	451	469
7	525	498	513	530	506	515	566	539	551	521	472	496
8	544	495	528	530	504	519	550	531	542	502	470	484
9	525	508	514	531	513	524	583	523	545	494	448	473
10	---	---	---	540	512	526	588	518	560	484	461	472
11	---	---	---	534	514	526	564	535	549	494	430	465
12	---	---	---	556	530	537	567	531	547	482	443	464
13	536	494	522	552	525	541	579	537	556	487	430	456
14	530	489	516	552	514	542	568	531	553	529	461	485
15	525	488	511	553	524	543	607	474	551	523	493	505
16	514	494	502	556	500	536	606	568	592	518	495	506
17	513	499	507	582	525	553	579	547	562	507	493	499
18	561	486	506	573	496	546	567	528	545	508	467	493
19	572	539	555	558	527	546	553	515	532	496	473	486
20	536	513	529	619	522	560	516	469	504	491	461	478
21	533	514	524	588	536	555	497	452	478	496	470	482
22	537	506	527	581	539	553	496	439	464	499	473	488
23	534	506	521	561	514	543	499	436	469	504	477	490
24	549	490	517	563	538	549	489	449	472	522	480	499
25	542	497	511	575	549	559	491	429	463	515	476	492
26	520	497	510	574	551	564	480	452	467	505	455	487
27	529	499	513	571	520	549	484	452	467	500	469	486
28	529	499	516	554	518	537	479	437	461	515	480	492
29	538	506	526	544	529	536	482	452	464	544	481	511
30	537	496	516	556	528	537	493	449	465	543	510	526
31	524	493	513	---	---	---	487	449	464	543	498	525
MONTH	---	---	---	661	495	538	607	429	520	544	430	486

ARKANSAS RIVER BASIN

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	521	456	492	459	447	453	670	545	580	493	421	443
2	502	460	481	467	455	461	660	602	625	458	425	439
3	486	469	476	471	451	462	622	584	604	457	426	440
4	471	463	467	474	458	465	663	536	595	447	400	420
5	481	462	473	476	464	470	580	525	557	410	376	388
6	483	459	469	469	449	459	552	491	517	383	328	351
7	479	456	469	460	377	405	527	495	510	330	320	326
8	488	457	477	463	419	443	528	501	514	416	313	348
9	487	452	475	469	451	459	537	513	522	387	316	339
10	482	471	478	475	456	466	566	522	545	372	329	342
11	480	465	476	483	455	467	554	515	536	349	325	334
12	485	465	475	481	461	469	606	519	533	329	311	319
13	512	463	484	475	436	462	627	545	559	320	306	311
14	494	471	484	477	444	452	574	548	557	333	312	322
15	483	463	476	496	444	465	576	546	563	346	322	333
16	497	427	472	702	474	506	555	546	549	350	330	341
17	493	466	478	579	499	527	585	554	567	370	310	344
18	500	464	477	655	533	579	593	557	580	310	263	286
19	482	458	471	536	500	515	585	542	567	271	252	263
20	504	461	481	653	473	511	581	542	555	260	247	254
21	490	465	479	543	466	494	586	544	561	264	251	256
22	489	471	479	580	498	518	588	560	575	262	244	252
23	486	452	473	580	500	528	577	555	566	256	238	244
24	476	441	467	504	478	487	571	552	561	238	189	217
25	463	447	456	486	466	476	588	536	558	415	176	196
26	476	447	459	505	459	473	582	549	563	217	177	183
27	473	450	463	481	460	470	598	572	586	186	177	182
28	466	449	456	481	451	469	608	545	582	196	185	191
29	459	444	452	506	454	473	551	468	498	201	178	188
30	---	---	---	487	442	468	522	441	474	178	160	169
31	---	---	---	575	459	512	---	---	---	170	151	160
MONTH	521	427	473	702	377	479	670	441	555	493	151	296
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	160	148	153	286	268	277	349	329	340	458	441	450
2	162	150	158	295	280	290	343	324	335	477	443	458
3	169	160	164	298	284	292	335	325	331	512	472	497
4	169	160	164	294	279	287	336	325	330	533	457	507
5	172	159	164	295	281	290	342	323	335	660	425	527
6	175	166	169	299	278	292	342	327	335	579	472	540
7	178	168	173	290	269	282	341	327	332	584	485	544
8	181	171	176	289	264	280	340	321	331	586	487	554
9	197	180	187	278	269	273	329	323	326	603	396	551
10	208	181	187	285	262	277	335	319	325	607	530	564
11	203	187	196	302	272	280	365	329	342	588	491	557
12	205	193	201	297	274	286	362	344	349	594	473	563
13	206	193	200	298	280	287	349	318	332	616	518	586
14	206	193	198	344	269	304	671	281	460	---	---	---
15	232	195	211	303	289	295	700	320	388	---	---	---
16	244	220	228	905	293	349	667	323	378	---	---	---
17	240	218	232	473	311	366	395	352	370	---	---	---
18	225	215	220	389	289	311	1420	382	604	601	556	574
19	225	217	221	312	292	302	530	468	506	597	556	579
20	229	210	223	348	305	332	506	461	490	596	553	574
21	215	206	210	363	345	355	---	---	---	610	570	584
22	212	205	209	373	347	364	542	485	508	618	564	584
23	205	201	204	353	336	345	531	484	503	608	559	578
24	210	200	206	358	330	341	522	445	486	604	525	559
25	213	200	209	351	338	344	495	444	467	578	539	564
26	256	211	231	358	332	343	915	462	563	591	544	564
27	250	237	242	348	340	346	651	456	482	599	528	570
28	257	236	246	342	323	327	---	---	---	576	552	560
29	262	251	256	337	326	331	---	---	---	578	508	555
30	269	254	260	340	326	333	492	464	486	577	544	555
31	---	---	---	354	336	345	477	447	466	---	---	---
MONTH	269	148	203	905	262	314	---	---	---	---	---	---

## ARKANSAS RIVER BASIN

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.6	9.9	12.5	9.8	6.9	7.9	7.1	4.6	5.7	3.8	.5	2.1
2	14.5	10.0	12.1	9.0	5.1	6.9	7.0	4.5	5.5	3.5	.7	2.1
3	13.1	9.7	11.3	10.0	5.7	7.6	5.2	3.9	4.4	2.5	.0	1.3
4	14.7	8.7	11.6	10.3	5.8	7.9	5.1	2.2	3.7	1.2	.0	.4
5	15.7	10.2	12.7	10.3	6.4	8.1	4.3	.5	2.3	2.3	.0	.9
6	14.9	10.9	12.9	10.3	5.7	7.8	4.1	.9	2.4	2.6	.0	1.0
7	14.4	11.6	13.0	10.0	5.9	7.8	4.2	.9	2.4	1.6	.0	.5
8	15.5	10.5	12.7	10.6	6.4	8.3	2.5	1.1	1.8	3.1	.0	1.2
9	15.8	10.3	13.0	11.1	7.5	8.9	3.1	.2	1.6	2.3	.0	.8
10	---	---	---	10.1	6.1	8.0	3.1	.0	1.4	3.3	.0	1.3
11	---	---	---	10.5	6.2	8.0	3.2	.3	1.6	4.0	.0	1.7
12	16.2	---	---	9.8	5.7	7.5	3.2	.0	1.3	4.9	1.2	2.9
13	15.8	11.1	13.4	9.3	5.0	7.0	3.0	.0	1.4	4.3	1.0	2.6
14	15.9	11.0	13.2	9.0	4.8	6.7	1.8	.0	.8	4.5	.3	2.3
15	14.8	10.4	12.4	9.3	4.8	6.7	.4	.0	.1	4.7	1.3	2.9
16	11.8	7.5	9.4	9.0	4.9	6.7	3.3	.0	1.4	5.4	1.4	3.3
17	10.2	6.0	8.0	9.4	5.1	7.2	3.3	.6	1.8	7.4	2.9	5.0
18	9.6	6.1	7.8	8.6	5.8	7.0	3.7	.0	1.8	7.6	4.1	5.6
19	---	7.1	---	7.9	4.3	6.0	3.2	.1	1.5	8.5	4.8	6.2
20	12.0	---	---	7.4	4.1	5.6	1.7	.0	.5	6.5	3.4	5.0
21	12.6	7.9	10.0	7.2	4.2	5.8	.0	.0	.0	6.5	2.7	4.6
22	12.6	7.9	10.1	6.0	4.8	5.4	.2	.0	.0	5.7	2.9	4.1
23	12.7	8.1	10.2	5.8	3.4	4.6	1.8	.0	.6	5.3	1.4	3.1
24	12.6	8.1	10.1	5.3	2.4	3.7	2.8	.0	1.0	5.6	.7	3.1
25	12.4	8.1	10.1	4.7	1.3	3.0	3.2	.0	1.3	3.8	2.4	3.0
26	12.5	7.7	9.9	6.8	3.1	4.8	3.6	.2	1.6	4.3	1.7	2.9
27	11.7	7.9	9.6	7.2	3.6	5.3	3.7	.1	1.7	4.3	2.3	3.2
28	12.0	7.6	9.8	7.6	3.4	5.4	4.1	.7	2.1	4.7	2.3	3.2
29	10.2	7.9	9.1	6.9	3.6	5.2	4.3	.8	2.4	3.8	.2	1.9
30	10.5	6.4	8.2	6.7	3.8	5.3	3.6	.0	1.7	2.4	.0	.6
31	10.8	6.0	8.2	---	---	---	3.7	.0	1.7	1.8	.0	.7
MONTH	---	---	---	11.1	1.3	6.5	7.1	.0	1.9	8.5	.0	2.6
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3.7	.0	1.5	9.5	5.3	7.3	10.9	4.4	7.4	16.3	10.5	13.1
2	4.9	.1	2.3	7.5	6.0	6.6	10.7	4.8	7.6	18.6	11.1	14.7
3	---	1.2	---	10.3	4.9	7.3	11.7	4.9	7.9	20.3	12.6	16.4
4	5.6	---	---	11.7	5.4	8.4	14.1	5.3	9.5	21.9	14.5	17.9
5	6.0	1.7	3.8	10.6	6.3	8.2	15.9	8.9	12.2	22.1	15.5	18.5
6	6.7	2.4	4.5	9.9	5.1	7.4	15.5	10.1	12.7	18.9	15.5	16.9
7	7.1	2.4	4.6	9.4	5.8	7.6	14.1	9.4	11.6	19.4	14.4	16.5
8	6.9	2.7	4.7	9.2	5.7	7.4	13.6	7.6	10.6	16.3	12.2	14.0
9	6.0	3.8	4.8	9.3	5.4	7.1	16.5	8.8	12.4	16.8	11.0	13.7
10	5.8	3.7	4.8	8.0	4.5	6.0	14.8	10.3	12.5	19.2	13.0	15.9
11	4.5	3.5	4.0	9.9	3.7	6.7	11.9	9.2	10.9	19.5	14.1	16.3
12	6.5	3.3	4.6	8.9	4.5	6.8	15.1	7.2	11.0	16.8	12.3	14.3
13	6.5	3.4	4.9	10.3	3.7	6.9	16.5	9.9	13.1	15.4	10.6	13.0
14	8.5	2.9	5.7	11.4	5.3	8.3	16.8	10.9	13.7	16.4	11.7	14.0
15	9.3	4.3	6.6	9.1	4.5	7.4	13.7	9.7	11.1	18.5	12.2	15.2
16	8.7	4.3	6.5	9.5	3.3	6.1	14.9	6.8	10.8	17.1	13.7	15.2
17	7.5	4.6	6.0	10.9	4.3	7.5	16.5	9.3	12.8	14.0	11.8	12.5
18	7.7	4.5	5.8	10.1	7.0	8.3	17.3	10.3	13.7	12.9	11.5	12.1
19	7.3	2.9	4.8	10.4	4.5	7.5	14.1	8.9	11.5	15.7	10.6	12.7
20	7.1	2.4	4.7	8.6	5.1	6.8	16.5	8.3	12.2	14.9	11.7	13.1
21	9.3	3.0	6.0	8.4	3.8	5.9	16.9	9.8	13.5	17.3	12.4	14.7
22	8.4	5.0	6.7	6.3	4.2	5.3	15.2	10.9	12.8	19.1	14.3	16.4
23	9.7	4.7	7.1	11.6	4.8	8.0	16.4	10.7	13.0	21.0	15.4	17.9
24	9.2	4.5	6.7	13.3	6.8	9.8	17.8	11.2	14.4	18.5	16.4	17.5
25	7.2	3.6	5.5	14.3	8.3	11.1	17.8	10.6	14.2	17.6	15.0	16.0
26	7.3	1.9	4.4	13.6	8.9	11.1	17.9	10.9	14.6	15.8	13.5	14.5
27	8.7	2.8	5.6	15.1	8.6	11.6	19.6	12.0	15.7	15.9	12.3	14.2
28	9.9	4.0	6.9	13.6	9.3	11.1	17.4	12.3	15.3	17.9	14.0	15.9
29	10.6	6.0	8.0	14.8	9.0	11.5	18.5	13.1	15.8	17.9	15.4	16.3
30	---	---	---	10.9	7.5	9.5	16.0	12.2	13.2	17.6	14.6	16.2
31	---	---	---	8.1	5.3	6.7	---	---	---	18.4	15.0	16.6
MONTH	---	---	---	15.1	3.3	8.0	19.6	4.4	12.3	22.1	10.5	15.2

ARKANSAS RIVER BASIN

07097000 ARKANSAS RIVER AT PORTLAND, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.0	14.9	16.0	23.9	18.6	20.7	24.3	19.0	21.4	23.6	18.3	20.7
2	17.3	14.7	15.8	23.9	18.6	21.0	23.5	19.3	21.2	22.2	17.5	20.0
3	17.4	14.4	15.8	22.7	19.3	20.5	23.7	19.0	21.2	19.5	16.8	18.2
4	17.3	14.5	15.9	24.0	17.8	20.7	23.7	19.2	21.4	22.7	15.6	19.3
5	17.9	14.8	16.2	24.4	18.2	21.0	24.6	19.5	21.7	24.3	17.5	20.9
6	17.6	15.0	16.2	24.9	19.0	21.6	24.8	19.2	21.6	21.8	18.4	20.0
7	18.6	15.2	16.9	24.6	19.7	21.6	24.8	19.2	21.7	22.7	16.7	19.3
8	18.9	16.1	17.4	23.8	18.5	20.9	24.7	18.8	21.5	20.6	16.1	18.5
9	19.1	16.7	17.6	24.0	19.5	21.5	24.5	18.4	21.1	22.0	15.7	18.8
10	18.4	15.4	16.9	23.7	19.5	21.5	24.7	19.3	21.7	22.4	15.8	19.1
11	18.8	15.6	16.8	24.8	19.7	22.0	24.2	19.5	21.6	23.0	16.0	19.5
12	18.8	14.8	16.7	24.0	20.2	21.8	22.5	19.3	20.7	22.4	15.9	19.6
13	19.0	15.6	17.1	24.7	19.2	21.5	24.3	17.9	20.8	22.7	15.8	19.2
14	19.8	15.7	17.5	24.1	19.7	21.5	25.1	19.0	21.7	22.5	16.2	19.4
15	21.0	16.2	18.3	25.2	20.1	22.1	25.0	19.5	21.6	23.6	16.1	19.6
16	19.6	15.9	17.4	22.1	19.5	20.8	23.5	19.4	21.0	23.5	16.8	19.7
17	17.3	14.8	15.8	23.1	19.3	21.0	22.7	18.8	20.6	23.1	16.5	19.2
18	18.8	14.8	16.5	24.1	19.4	21.4	23.9	18.8	21.0	21.8	16.8	19.2
19	19.8	15.6	17.6	24.3	19.6	21.7	24.4	18.8	21.6	22.1	15.9	18.7
20	21.6	16.5	18.8	25.4	19.9	22.2	24.5	18.9	21.6	17.5	13.8	15.6
21	20.8	16.7	18.6	24.2	19.9	21.7	24.4	18.3	21.2	18.8	11.9	15.5
22	21.7	17.2	19.1	24.9	19.9	22.0	25.4	18.8	21.6	16.8	14.2	15.5
23	20.6	---	---	25.5	19.2	22.1	24.2	18.9	21.6	14.4	11.7	13.1
24	20.3	16.6	18.2	23.4	18.7	21.0	24.7	18.6	21.4	12.9	9.7	11.1
25	21.1	16.9	18.6	24.6	18.5	21.1	25.5	18.7	21.6	16.0	8.6	12.2
26	18.2	16.1	17.2	22.8	18.7	20.8	24.2	19.0	21.1	17.7	10.8	14.3
27	19.2	15.7	17.3	22.6	19.2	20.8	26.0	18.3	21.6	18.3	11.8	15.2
28	19.9	17.4	18.5	23.1	18.6	20.7	25.2	18.6	22.1	18.7	12.5	15.7
29	21.3	17.6	19.3	23.3	18.5	20.9	---	17.4	---	18.2	13.9	15.9
30	22.5	18.1	20.0	23.1	19.2	21.2	24.2	---	---	20.3	14.4	17.3
31	---	---	---	24.7	19.0	21.7	22.3	18.3	20.3	---	---	---
MONTH	22.5	---	---	25.5	17.8	21.3	---	---	---	24.3	8.6	17.7

## 07099050 BEAVER CREEK ABOVE UPPER BEAVER CEMETERY, NEAR PENROSE, CO

LOCATION.--Lat 38°33'42", long 105°01'17", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.20, T.17 S., R.68 W., Fremont County, Hydrologic Unit 11020002, on left bank 40 ft upstream from bridge on Fremont County Road 132, 1 mi downstream from Banta Gulch, 1.3 mi northeast of Upper Beaver Cemetery, and 9.2 mi north of Penrose.

DRAINAGE AREA.--122 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1991 to current year (seasonal records only). Water-quality data available, March 1991 to September 1994.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,020 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by storage reservoirs and diversions for municipal use by the City of Colorado Springs. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 659 ft<sup>3</sup>/s, June 10, 1997, gage height, 5.57 ft, from rating curve extended above 600 ft<sup>3</sup>/s; maximum gage height, 6.45 ft, May 12, 1994; minimum daily, 4.2 ft<sup>3</sup>/s, Mar. 25, 1996.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 146 ft<sup>3</sup>/s at 0100 May 11, gage height, 3.86 ft; minimum daily, 8.4 ft<sup>3</sup>/s, Mar. 9.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e34	23	---	---	---	9.0	14	62	84	19	13	26
2	e34	23	---	---	---	8.7	15	59	84	19	13	24
3	e34	22	---	---	---	8.9	15	60	81	24	13	22
4	e33	18	---	---	---	9.2	17	59	76	29	13	21
5	e33	18	---	---	---	9.2	22	61	69	26	13	20
6	33	17	---	---	---	9.1	25	80	64	27	14	18
7	e30	16	---	---	---	8.6	25	83	52	25	17	17
8	e27	13	---	---	---	8.8	23	102	39	12	16	16
9	e24	12	---	---	---	8.4	25	103	35	12	14	15
10	e20	12	---	---	---	8.9	27	123	30	12	13	14
11	18	12	---	---	---	9.0	22	128	28	13	14	13
12	18	12	---	---	---	8.5	20	105	26	14	16	12
13	18	12	---	---	---	9.1	32	97	24	23	11	11
14	21	12	---	---	---	8.7	62	96	23	18	19	11
15	21	11	---	---	---	8.5	69	95	21	19	20	11
16	22	11	---	---	---	9.1	55	89	21	19	22	12
17	24	---	---	---	---	9.8	63	90	24	20	21	12
18	27	---	---	---	---	9.7	74	89	24	20	27	11
19	33	---	---	---	---	10	70	93	24	18	22	11
20	33	---	---	---	---	9.3	55	89	22	17	20	11
21	32	---	---	---	---	9.0	62	80	22	16	19	11
22	32	---	---	---	---	9.9	60	74	21	16	24	11
23	33	---	---	---	---	11	58	74	20	17	21	12
24	33	---	---	---	---	11	67	92	19	16	19	14
25	32	---	---	---	---	12	64	106	20	15	21	12
26	32	---	---	---	---	13	59	102	41	13	24	13
27	30	---	---	---	---	14	59	96	47	14	24	17
28	25	---	---	---	---	15	65	95	38	15	23	15
29	24	---	---	---	---	15	68	100	26	15	36	14
30	24	---	---	---	---	14	66	100	22	14	31	13
31	24	---	---	---	---	15	---	86	---	13	29	---
TOTAL	858	---	---	---	---	319.4	1358	2768	1127	550	602	440
MEAN	27.7	---	---	---	---	10.3	45.3	89.3	37.6	17.7	19.4	14.7
MAX	34	---	---	---	---	15	74	128	84	29	36	26
MIN	18	---	---	---	---	8.4	14	59	19	12	11	11
AC-FT	1700	---	---	---	---	634	2690	5490	2240	1090	1190	873

e Estimated.

07099060 BEAVER CREEK ABOVE HIGHWAY 115, NEAR PENROSE, CO

LOCATION.--Lat 38°29'21", long 104°59'49", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.16, T.18 S., R.68 W., Fremont County, Hydrologic Unit 11020002, on left bank 300 ft downstream from Beaver Park Irrigation Company diversion dam, 1.8 mi upstream from State Highway 115, and 4.7 mi north of Penrose.

DRAINAGE AREA.--138 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1991 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 5,659.08 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges and discharges below 1.5 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by storage reservoirs, diversions for municipal use by Colorado Springs, and diversions for irrigation, mainly by the Beaver Park Irrigation Company. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 727 ft<sup>3</sup>/s, April 30, 1999, gage height 6.92 ft, from rating curve extended above 422 ft<sup>3</sup>/s; no flow many days.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 111 ft<sup>3</sup>/s at 0530 May 11, gage height, 4.00 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.1	1.2	---	---	---	e5.0	10	21	47	.48	.00	.02
2	5.2	.80	---	---	---	e5.0	12	19	49	.88	.00	.02
3	5.3	1.4	---	---	---	e5.0	14	20	46	.39	.00	.00
4	5.0	.30	---	---	---	e5.0	17	21	42	.03	.00	.01
5	4.8	.27	---	---	---	e5.0	11	22	35	.00	.00	.00
6	5.0	.30	---	---	---	e5.0	e14	38	30	.00	.00	.00
7	11	.30	---	---	---	e5.0	e14	41	22	.00	.00	.00
8	3.8	.26	---	---	---	e5.0	e13	60	18	.42	.00	.00
9	1.9	.22	---	---	---	e5.0	e14	55	6.7	1.0	.00	.00
10	.67	.29	---	---	---	e5.0	e15	78	.90	1.0	.00	.00
11	.71	.30	---	---	---	e5.0	e14	84	.75	1.0	.00	.00
12	.61	.35	---	---	---	e5.0	e10	49	.37	.95	.00	.00
13	.49	.35	---	---	---	e5.0	e15	41	.32	1.2	.00	.00
14	.47	.35	---	---	---	e5.0	17	40	.48	1.1	.00	.00
15	.36	.38	---	---	---	e5.0	28	39	.66	1.1	.00	.00
16	.52	.38	---	---	---	e5.0	18	35	.49	1.1	.37	.00
17	.60	---	---	---	---	e5.0	23	35	.17	1.2	.60	.00
18	3.3	---	---	---	---	e5.0	34	37	.49	.95	.72	.00
19	11	---	---	---	---	e5.0	31	45	.48	.57	.80	.00
20	11	---	---	---	---	e5.0	17	41	.23	.14	.59	.00
21	10	---	---	---	---	e5.0	20	33	.00	.00	.56	.00
22	9.7	---	---	---	---	e5.4	19	25	.00	.00	.65	.00
23	9.5	---	---	---	---	e6.0	18	25	.00	.00	.41	.00
24	9.3	---	---	---	---	e6.0	22	46	.00	.00	.04	.00
25	9.3	---	---	---	---	e6.4	22	70	.00	.00	.00	.00
26	9.3	---	---	---	---	e7.3	18	63	3.8	.00	.01	.00
27	8.4	---	---	---	---	e8.0	19	54	17	.00	.02	.00
28	1.9	---	---	---	---	e8.0	21	51	12	.00	.00	.00
29	1.7	---	---	---	---	e8.0	23	59	1.7	.00	.01	.00
30	1.2	---	---	---	---	e8.0	24	61	.24	.00	.38	.01
31	1.4	---	---	---	---	e8.0	---	46	---	.00	.01	---
TOTAL	148.53	---	---	---	---	176.1	547	1354	335.78	13.51	5.17	0.06
MEAN	4.79	---	---	---	---	5.68	18.2	43.7	11.2	.44	.17	.002
MAX	11	---	---	---	---	8.0	34	84	49	1.2	.80	.02
MIN	.36	---	---	---	---	5.0	10	19	.00	.00	.00	.00
AC-FT	295	---	---	---	---	349	1080	2690	666	27	10	.1

e Estimated

## ARKANSAS RIVER BASIN

07099200 ARKANSAS RIVER NEAR PORTLAND, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°20'14", long 104°56'18", in NW<sup>1</sup>/<sub>4</sub>, SW<sup>1</sup>/<sub>4</sub> sec.6, T.20 S., R.67 W., Fremont County, Hydrologic Unit 11020002, on right bank at Hobson Ranch, 1.4 mi downstream from Willow Creek and 5.4 mi southeast of Portland.

DRAINAGE AREA.--4,280 mi<sup>2</sup>

PERIOD OF RECORD.--March 1999 to current year.

REMARKS.--Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)
APR									
14...	1200	396	596	8.4	12.7	9.6	.206	.012	.038
MAY									
18...	1310	e1370	305	8.2	13.0	8.8	.158	.004	.019
JUN									
28...	0900	e1340	257	8.3	18.0	8.4	.064	.004	.012
SEP									
08...	1030	262	645	8.7	19.8	11.6	<.050	.004	.011



07099215 TURKEY CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°36'42", long 104°53'39", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.33, T.16 S., R.67 W., El Paso County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on left bank 100 ft downstream from State Highway 115 bridge, 0.7 mi downstream from Turkey Canyon, 0.8 mi upstream from Turkey Creek Ranch, and 9.4 mi southwest of Fountain.

DRAINAGE AREA.--13.0 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1978 to September 1989, May 1995 to September 1998, April 1999 to current year (seasonal records only). Water-quality data available, May 1978 to September 1982.

REVISED RECORDS.--WDR CO-80-1: 1978-79 (M). WDR CO-96-1: 1980 (M), 1982-86 (M).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,420 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report. Natural flow of stream affected by upstream diversions for irrigation and livestock.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 850 ft<sup>3</sup>/s, June 10, 1997, from slope-area measurement of peak flow, gage height 6.56 ft, from floodmarks; no flow many days most years.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 13.0 ft<sup>3</sup>/s at 1900 Aug. 17, gage height, 1.04 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.86	.75	.04	.00	.00	.21
2	---	---	---	---	---	---	.80	.69	.02	.00	.00	.14
3	---	---	---	---	---	---	.80	.57	.00	.00	.00	.12
4	---	---	---	---	---	---	.86	.49	.00	.00	.00	.11
5	---	---	---	---	---	---	1.2	.42	.00	.00	.00	.10
6	---	---	---	---	---	---	1.7	.37	.00	.00	.00	.09
7	---	---	---	---	---	---	1.8	.32	.00	.00	.00	.05
8	---	---	---	---	---	---	1.4	1.2	.00	.00	.00	.05
9	---	---	---	---	---	---	1.5	1.3	.00	.00	.00	.03
10	---	---	---	---	---	---	1.7	1.3	.00	.00	.00	.00
11	---	---	---	---	---	---	1.5	.87	.00	.00	.00	.00
12	---	---	---	---	---	---	1.2	.72	.00	.00	.00	.00
13	---	---	---	---	---	---	1.4	.66	.00	.00	.00	.00
14	---	---	---	---	---	---	1.5	.61	.00	.00	.00	.00
15	---	---	---	---	---	---	1.6	.53	.00	.00	.02	.00
16	---	---	---	---	---	---	1.3	.43	.00	.00	.00	.00
17	---	---	---	---	---	---	1.2	.45	.00	.00	.97	.00
18	---	---	---	---	---	---	1.3	.54	.00	.00	2.5	.00
19	---	---	---	---	---	---	1.3	.60	.00	.00	.18	.00
20	---	---	---	---	---	---	1.1	.54	.00	.00	.00	.00
21	---	---	---	---	---	---	1.1	.40	.00	.00	.00	.00
22	---	---	---	---	---	---	1.2	.29	.00	.00	.00	.00
23	---	---	---	---	---	---	1.2	.21	.00	.00	.00	.00
24	---	---	---	---	---	---	1.2	.18	.00	.00	.00	.00
25	---	---	---	---	---	---	1.0	.20	.00	.00	.00	.00
26	---	---	---	---	---	---	.91	.19	.00	.00	.02	.00
27	---	---	---	---	---	---	.84	.14	.00	.00	.01	.00
28	---	---	---	---	---	---	.82	.10	.00	.00	.02	.00
29	---	---	---	---	---	---	.77	.10	.00	.00	.46	.00
30	---	---	---	---	---	---	.78	.08	.00	.00	.26	.00
31	---	---	---	---	---	---	---	.06	---	.00	.18	---
TOTAL	---	---	---	---	---	---	35.84	15.31	0.06	0.00	4.62	0.90
MEAN	---	---	---	---	---	---	1.19	.49	.002	.000	.15	.030
MAX	---	---	---	---	---	---	1.8	1.3	.04	.00	2.5	.21
MIN	---	---	---	---	---	---	.77	.06	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	71	30	.1	.00	9.2	1.8

## 07099230 TURKEY CREEK ABOVE TELLER RESERVOIR, NEAR STONE CITY, CO

LOCATION.--Lat 38°27'54", long 104°49'33", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.19, T.18 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on left bank, 0.7 mi northwest of intersection of military roads 9 and 1, 2.2 mi upstream from Teller Reservoir Dam, and 2.2 mi northeast of Stone City.

DRAINAGE AREA.--62.3 mi<sup>2</sup>.

REVISED RECORDS.--WDR CO-89-1: Drainage area.

PERIOD OF RECORD.--May 1978 to current year. Water-quality data available, May 1978 to September 1981.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,520 ft above sea level, from topographic map. Prior to July 20, 1989, at site 0.6 mi downstream at different datum.

REMARKS.--Record fair except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions upstream from gage for irrigation, amount unknown. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.0	2.8	3.1	2.8	2.1	1.8	2.2	2.0	e.98	.53	.32	.00
2	e3.0	2.9	3.1	2.8	2.2	2.2	2.2	e1.9	e.97	.48	.33	.00
3	e3.0	3.0	3.2	2.6	2.0	2.0	2.3	e1.9	e.95	.48	.33	.00
4	e3.0	3.1	3.2	2.4	1.9	1.9	2.2	e1.9	e.95	.46	.32	.00
5	e3.0	3.3	3.2	2.7	1.9	1.9	2.0	e1.9	e.90	.46	.32	.00
6	e3.0	3.5	3.1	2.5	1.9	1.9	2.1	e1.8	e.90	.47	.30	.00
7	e3.1	3.4	3.1	2.4	1.9	2.1	2.2	e1.8	e.85	.48	.28	.00
8	3.2	3.3	3.1	2.6	1.9	2.2	2.4	e1.8	e.82	.47	.22	.00
9	3.2	3.2	3.1	2.4	1.9	2.0	2.6	e2.6	e.80	.47	.18	.00
10	3.2	3.2	3.2	2.3	1.9	2.0	2.6	2.3	e.80	.48	.20	.00
11	3.1	3.1	3.1	2.3	1.9	2.0	2.7	2.3	e.78	.43	.19	.00
12	2.9	3.1	3.1	2.2	2.0	2.0	2.6	2.5	e.75	.40	.15	.00
13	2.6	3.1	3.1	2.2	1.9	2.1	2.1	2.6	.75	.40	.11	.00
14	2.5	3.1	3.0	2.4	1.9	2.1	1.9	2.5	.74	.39	.06	.00
15	2.5	3.1	3.0	2.3	1.9	2.4	2.2	2.4	.70	.42	.01	.00
16	2.7	3.1	3.0	2.3	2.0	2.7	2.4	2.1	.72	.44	.00	.00
17	2.9	3.1	2.9	2.3	2.2	2.7	2.4	2.1	.71	.95	.00	.00
18	3.0	3.0	2.9	2.3	2.2	2.6	2.3	2.2	.70	.42	.00	.00
19	3.0	3.0	2.9	2.2	2.1	2.6	2.1	2.0	.68	.39	.00	.00
20	2.7	3.1	2.9	2.1	2.1	2.5	2.0	2.0	.65	.37	.00	.00
21	2.5	3.1	2.8	2.2	2.1	2.5	2.0	1.9	.64	.37	.00	.00
22	2.3	3.3	2.9	2.1	2.0	2.6	2.0	1.7	.61	.36	.00	.00
23	2.2	3.2	2.8	2.1	1.6	2.8	2.3	1.5	.61	.35	.00	.00
24	2.2	3.2	2.8	2.1	1.6	2.8	2.3	1.2	.50	.34	.00	.00
25	2.2	3.3	2.8	2.0	1.7	2.2	2.1	1.3	.32	.33	.00	.00
26	2.3	3.1	2.8	e2.0	1.7	2.3	1.8	1.1	.58	.32	.00	.00
27	2.3	3.1	2.8	e1.9	1.7	2.2	1.8	1.1	.57	.33	.00	.00
28	2.4	3.1	2.8	e1.9	1.8	2.1	1.8	1.1	.55	.33	.07	.00
29	2.7	3.1	2.7	e1.9	1.7	2.1	1.8	1.0	.55	.34	.11	.00
30	2.8	3.1	2.7	e1.9	---	2.1	2.0	1.0	.53	.35	.00	.00
31	2.8	---	2.7	e2.0	---	2.4	---	e.99	---	.33	.00	---
TOTAL	85.3	94.1	91.9	70.2	55.7	69.8	65.4	56.49	21.56	13.14	3.50	0.00
MEAN	2.75	3.14	2.96	2.26	1.92	2.25	2.18	1.82	.72	.42	.11	.000
MAX	3.2	3.5	3.2	2.8	2.2	2.8	2.7	2.6	.98	.95	.33	.00
MIN	2.2	2.8	2.7	1.9	1.6	1.8	1.8	.99	.32	.32	.00	.00
AC-FT	169	187	182	139	110	138	130	112	43	26	6.9	.00

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	2.79	1.96	1.00	.78	.74	.75	2.75	17.7	10.7	2.97	7.03	1.56												
MAX	44.6	26.7	6.47	2.69	2.58	2.75	21.8	124	60.1	17.1	79.2	18.1												
(WY)	1985	1985	1985	1985	1985	1985	1999	1999	1997	1985	1999	1982												
MIN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000												
(WY)	1979	1979	1979	1979	1979	1979	1979	1979	1989	1978	1990	1978												

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1978 - 2000
ANNUAL TOTAL	7981.44	627.09	
ANNUAL MEAN	21.9	1.71	4.34
HIGHEST ANNUAL MEAN			21.2 1999
LOWEST ANNUAL MEAN			.000 1991
HIGHEST DAILY MEAN	836 Aug 5	3.5 Nov 6	836 Aug 5 1999
LOWEST DAILY MEAN	.01 Feb 4	.00 Aug 16	a.00 May 18 1978
ANNUAL SEVEN-DAY MINIMUM	.01 Feb 6	.00 Aug 16	.00 May 18 1978
INSTANTANEOUS PEAK FLOW		7.1 Jul 17	b3640 Aug 20 1982
INSTANTANEOUS PEAK STAGE		3.96 Jul 17	c11.51 Aug 20 1982
ANNUAL RUNOFF (AC-FT)	15830	1240	3140
10 PERCENT EXCEEDS	58	3.1	6.3
50 PERCENT EXCEEDS	3.0	2.0	.50
90 PERCENT EXCEEDS	.22	.00	.00

e Estimated.

a No flow many days during most years.

b From rating curve extended above 95 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 7.64 ft and 11.27 ft, site and datum then in use.

c Maximum gage height, 11.88 ft, June 8, 1987, site and datum then in use.

07099233 TELLER RESERVOIR NEAR STONE CITY, CO

LOCATION.--Lat 38°26'33", long 104°49'31", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.31, T.18 S., R.66 W., in Pueblo County, Hydrologic Unit 11020002, at left upstream end of dam on Turkey Creek on Fort Carson Military Reservation, 1.4 mi upstream from Booth Gulch, and 2.0 mi east of Stone City.

DRAINAGE AREA.--71.5 mi<sup>2</sup>.

PERIOD OF RECORD.--September 1978 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,453 ft above sea level, from topographic map.

REMARKS.--Records poor. Reservoir is formed by an earthfill dam completed around 1908. Reservoir area-capacity table from 1980 survey. Total capacity, 2,620 acre-ft, at elevation 92 ft. Elevation of high crest of spillway, about 84 ft since 1996, with capacity of 1,130 acre-ft. Elevation of uncontrolled tower outlet invert is about 88 ft, with capacity of 1,780 acre-ft. There is a controlled outlet from reservoir, however considerable leakage occurs along dam margins.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 2,210 acre-ft, June 21, 1980, elevation, 90.15 ft, from capacity curve extended above 88 ft; no contents during 1979, 1991-1994 water years.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 1,120 acre-ft, Nov. 8-28, maximum elevation, 83.93 ft, Nov. 27; minimum contents, 281 acre-ft, Sept. 30, elevation, 75.19 ft.

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1030	1110	1080	567	544	518	537	525	480	426	381	337
2	1030	1110	1060	562	542	526	540	526	479	422	379	337
3	1040	1110	1050	557	544	527	540	524	477	420	376	335
4	1040	1110	1030	551	544	527	540	523	475	417	374	332
5	1040	1110	1010	547	547	526	536	518	474	415	372	330
6	1050	1110	997	545	543	525	533	516	471	412	371	327
7	1050	1110	982	544	544	530	532	513	470	409	367	326
8	1050	1120	964	544	544	529	530	519	467	406	365	323
9	1050	1120	948	543	542	527	532	520	465	403	363	321
10	1060	1120	929	541	542	527	530	519	463	401	360	318
11	1060	1120	904	545	540	526	532	516	460	397	359	315
12	1060	1120	878	542	542	526	530	512	458	395	358	313
13	1060	1120	858	543	541	526	529	512	456	394	357	313
14	1060	1120	835	544	540	526	529	511	453	390	354	310
15	1070	1120	815	545	538	534	527	511	450	388	353	308
16	1070	1120	795	544	540	540	527	509	447	388	348	305
17	1080	1120	774	544	536	543	527	507	445	414	352	303
18	1090	1120	749	542	537	543	526	508	445	412	352	302
19	1090	1120	725	544	538	542	524	508	442	410	350	300
20	1090	1120	702	545	535	541	523	508	440	408	349	297
21	1100	1120	679	540	536	541	521	506	439	406	350	295
22	1100	1120	658	541	534	545	520	504	435	404	347	295
23	1100	1120	643	544	535	544	523	502	433	403	348	295
24	1100	1120	628	542	537	542	521	501	432	401	346	295
25	1100	1120	615	542	524	540	523	501	431	398	341	294
26	1100	1120	604	541	523	537	521	496	433	395	340	292
27	1100	1120	592	543	523	534	520	495	433	394	337	289
28	1110	1120	585	550	521	533	521	492	431	390	345	286
29	1110	1110	578	544	519	534	525	489	431	388	342	285
30	1110	1090	574	537	---	533	525	485	427	386	341	281
31	1110	---	567	541	---	537	---	484	---	383	339	---
TOTAL	33310	33490	24808	16904	15575	16529	15844	15760	13542	12475	11016	9259
MEAN	1070	1120	800	545	537	533	528	508	451	402	355	309
MAX	1110	1120	1080	567	547	545	540	526	480	426	381	337
MIN	1030	1090	567	537	519	518	520	484	427	383	337	281

CAL YR 1999 TOTAL 371184 MEAN 1020 MAX 1640 MIN 567  
WTR YR 2000 TOTAL 218512 MEAN 597 MAX 1120 MIN 281

## 07099235 TURKEY CREEK NEAR STONE CITY, CO

LOCATION (REVISED).--Lat 38°25'56", long 104°49'58", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.36, T.18 S., R.67 W., Pueblo County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, on left bank, 1.1 mi downstream from Teller Reservoir Dam, on military road 14, and 2.0 mi southeast of Stone City.

DRAINAGE AREA.--71.5 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1978 to November 1984, June 1987 to current year.

REVISED RECORDS.--WDR CO-80-1: 1979(M).

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gage. Elevation of gage is 5,350 ft above sea level, from topographic map. Prior to June 12, 1987, at site 1.0 mi upstream at different datum. June 12, 1987 to Dec. 6, 1989, at site 0.6 mi upstream at different datum. Dec. 7, 1989 to Dec. 9, 1999, at site 0.9 mi upstream at different datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream mostly regulated by Teller Reservoir 1.1 mi upstream. Gage records seepage and releases from reservoir. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.80	e.86	e13	6.6	4.4	2.1	3.4	3.0	1.0	.02	.22	.06
2	e.80	e.86	e13	6.5	4.2	2.3	3.2	3.1	.94	.02	.00	.07
3	e.80	e.86	e12	6.2	4.3	2.7	3.3	2.9	.92	.06	.13	.08
4	e.80	e.86	e12	6.0	4.4	2.8	3.1	2.9	.88	.06	.31	.09
5	e.80	e.86	e12	5.9	4.4	2.8	3.0	2.9	.85	.08	.00	.09
6	e.81	e.86	e11	5.9	4.3	2.7	2.8	2.7	.86	.10	.00	.09
7	e.81	e.86	e11	5.7	4.3	2.8	2.8	2.5	.85	.10	.00	.10
8	e.81	e.86	e11	5.7	4.3	3.2	2.7	2.6	.85	.01	.00	.12
9	e.81	e.86	e12	5.6	4.2	3.2	2.7	2.8	.84	.03	.22	.12
10	e.81	e.86	e13	5.5	4.2	3.2	2.7	2.7	.81	.40	.13	.12
11	e.82	e.86	13	5.4	4.2	3.1	2.8	2.5	.76	.34	.11	.12
12	e.82	e.87	12	5.3	4.1	3.2	2.8	2.4	.74	.21	.11	.13
13	e.82	e.87	12	5.2	4.0	3.3	2.7	2.2	.70	.08	.09	.14
14	e.82	e.87	12	5.1	3.9	3.3	2.7	2.2	.75	.01	.06	.14
15	e.82	e.87	12	5.1	3.8	3.5	2.6	2.1	.72	.00	.06	.15
16	e.83	e.87	11	5.1	3.7	4.2	2.7	2.0	.19	.00	.07	.15
17	e.83	e.88	12	5.1	3.6	4.4	2.8	1.9	.47	.09	.06	.16
18	e.84	e.89	12	5.1	3.6	4.6	2.7	1.9	.17	.02	.16	.17
19	e.85	e.87	12	5.1	3.5	4.6	2.6	1.9	.01	.44	.08	.18
20	e.86	e.87	11	4.9	3.3	4.7	2.5	1.9	.05	.03	.07	.19
21	e.86	e.87	11	4.7	3.3	4.3	2.5	1.7	.18	.00	.07	.21
22	e.86	e.88	10	4.7	3.3	4.1	2.6	1.8	.09	.00	.07	.22
23	e.86	e.89	9.9	4.7	3.3	4.5	2.4	1.7	.08	.00	.05	.24
24	e.86	e.89	9.5	4.6	3.1	4.2	2.6	1.6	.08	.00	.03	.25
25	e.86	e.90	9.4	4.6	3.0	4.1	2.5	1.7	.10	.31	.01	.23
26	e.86	e.90	8.9	4.6	2.8	3.8	2.5	1.7	.11	.00	.01	.23
27	e.86	e.90	8.3	4.7	2.6	3.8	2.6	1.6	.06	.03	.06	.22
28	e.86	e.90	7.9	4.7	2.6	3.7	2.7	1.4	.09	.02	.10	.23
29	e.86	e7.2	7.5	4.7	2.4	3.4	2.6	1.3	.13	.01	.13	.23
30	e.86	e13	7.1	4.6	---	3.5	2.9	1.2	.56	.00	.04	.23
31	e.86	---	6.8	4.5	---	3.6	---	1.1	---	.00	.05	---
TOTAL	25.82	44.65	335.3	162.1	107.1	109.7	82.5	65.9	14.84	2.47	2.50	4.76
MEAN	.83	1.49	10.8	5.23	3.69	3.54	2.75	2.13	.49	.080	.081	.16
MAX	.86	13	13	6.6	4.4	4.7	3.4	3.1	1.0	.44	.31	.25
MIN	.80	.86	6.8	4.5	2.4	2.1	2.4	1.1	.01	.00	.00	.06
AC-FT	51	89	665	322	212	218	164	131	29	4.9	5.0	9.4

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

MEAN	.38	.39	.88	.55	.49	.48	.45	1.45	2.46	1.11	.85	.63
MAX	1.64	1.57	10.8	5.23	3.69	3.54	2.75	8.37	20.3	9.78	4.43	3.03
(WY)	1983	1983	2000	2000	2000	2000	2000	1995	1995	1995	1995	1995
MIN	.010	.010	.010	.010	.010	.015	.015	.011	.010	.010	.010	.010
(WY)	1992	1992	1992	1979	1979	1992	1979	1979	1978	1991	1991	1991

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1978 - 2000
ANNUAL TOTAL	725.46	957.64	
ANNUAL MEAN	1.99	2.62	.85
HIGHEST ANNUAL MEAN			3.93
LOWEST ANNUAL MEAN			.024
HIGHEST DAILY MEAN	45	May 1	70
LOWEST DAILY MEAN	.29	Feb 6	.00
ANNUAL SEVEN-DAY MINIMUM	.30	Feb 22	.04
INSTANTANEOUS PEAK FLOW		a15	b83
INSTANTANEOUS PEAK STAGE		4.07	c6.29
ANNUAL RUNOFF (AC-FT)	1440	1900	616
10 PERCENT EXCEEDS	7.1	6.1	1.7
50 PERCENT EXCEEDS	.86	1.2	.18
90 PERCENT EXCEEDS	.34	.06	.02

e Estimated.

a From rating curve extended above 14 ft<sup>3</sup>/s.

b From rating curve extended above 62 ft<sup>3</sup>/s.

c At site and datum then in use.

07099350 PUEBLO RESERVOIR NEAR PUEBLO, CO

LOCATION.--Lat 38°16'15", long 104°43'30", in NE<sup>1</sup>/<sub>4</sub> sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at dam on Arkansas River, 7 mi west of Pueblo.

DRAINAGE AREA.--4,669 mi<sup>2</sup>.

RESERVOIR ELEVATIONS AND CONTENTS RECORDS

PERIOD OF RECORD.--January 1974 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,898.70 ft above sea level, (levels by U.S. Bureau of Reclamation); gage readings at 2400 have been reduced to elevations above sea level.

REMARKS.--Reservoir is formed by concrete and earthfill dam. Storage began Jan. 9, 1974; dam completed in August 1975. Capacity, 357,700 acre-ft at elevation 4,898.70 ft, crest of spillway. Dead storage, 3,730 acre-ft, below elevation 4,764.00 ft, 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 to fulfill irrigation requirements in the Arkansas River valley. Figures given are total contents.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 295,480 acre-ft, Feb. 12, 1985, elevation, 4,886.94 ft; minimum since appreciable storage was attained, 22,680 acre-ft, Nov. 13, 1974, elevation, 4,790.50 ft.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 279,480 acre-ft, Mar. 15, elevation, 4,885.26 ft; minimum contents, 160,520 acre-ft, Sept. 22, elevation, 4,855.95 ft.

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30. . . . .	4,876.69	239,900	-
Oct. 31. . . . .	4,876.80	240,370	+470
Nov. 30. . . . .	4,877.93	245,350	+4,980
Dec. 31. . . . .	4,879.48	252,320	+6,970
CAL YR 1999. . . . .	-	-	+74,620
Jan. 31. . . . .	4,881.07	259,630	+7,310
Feb. 29. . . . .	4,884.50	275,820	+16,190
Mar. 31. . . . .	4,884.34	275,050	-770
Apr. 30. . . . .	4,879.26	251,320	-23,730
May 31. . . . .	4,878.90	249,690	-1,630
June 30. . . . .	4,877.17	241,990	-7,700
July 31. . . . .	4,868.38	205,650	-36,340
Aug. 31. . . . .	4,857.91	167,160	-38,490
Sept. 30. . . . .	4,856.06	160,890	-6,270
WTR YR 2000. . . . .	-	-	-79,010

## ARKANSAS RIVER BASIN

PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued  
WATER-QUALITY RECORDS

REMARKS.--Samples and field measurements were collected at a number of transects located along the length of the reservoir.

381754104504000 PUEBLO RESERVOIR SITE 2B

LOCATION.--Lat 38°17'54", long 104°50'40", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>, sec.24, T.20 S., R.67 W., Pueblo County, Hydrologic Unit 11020002, at approximate center of transect, approximately 1.1 mi downstream from Rush Creek, 1.1 mi upstream from Turkey Creek, and 7.8 mi upstream from Pueblo Dam.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAY							
11...	1155	--	--	--	--	.90	--
11...	1156	.10	393	8.3	15.8	--	7.0
11...	1157	3.00	393	8.3	15.7	--	7.0
11...	1158	6.00	394	8.3	15.6	--	6.9
11...	1159	9.00	395	8.3	15.4	--	6.8
11...	1200	12.0	399	8.3	15.0	--	6.4
11...	1201	15.0	409	8.2	14.5	--	6.2
11...	1202	18.0	484	8.2	13.3	--	5.6
11...	1203	21.0	503	8.1	12.5	--	4.5
11...	1204	23.0	557	8.0	12.0	--	4.3
JUN							
14...	1315	--	--	--	--	.80	--
14...	1316	.10	219	8.2	20.3	--	7.2
14...	1317	3.00	219	8.2	20.1	--	7.1
14...	1318	6.00	219	8.2	19.7	--	7.0
14...	1319	9.00	219	8.2	18.9	--	6.9
14...	1320	12.0	219	8.1	18.8	--	6.9
14...	1321	15.0	219	8.1	18.5	--	6.9
14...	1322	18.0	218	8.1	17.4	--	7.0
14...	1323	21.0	218	8.1	16.6	--	6.9
14...	1324	23.0	217	8.1	16.2	--	7.1
AUG							
15...	1250	--	--	--	--	.30	--
15...	1251	.10	444	7.7	23.0	--	5.3
15...	1252	3.00	457	7.7	22.3	--	5.2
15...	1253	6.00	429	7.7	21.7	--	5.2
15...	1254	7.00	431	7.7	21.6	--	5.2

ARKANSAS RIVER BASIN

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PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued  
WATER-QUALITY RECORDS

381725104494400 PUEBLO RESERVOIR SITE 3B

LOCATION.--Lat 38°17'25", long 104°49'44", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.19, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at approximate center of transect, approximately 100 ft downstream from Turkey Creek, and 6.7 mi upstream from Pueblo Dam.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAY							
11...	1125	--	--	--	--	.90	--
11...	1126	.10	413	8.4	15.9	--	7.4
11...	1127	3.00	414	8.4	15.9	--	7.4
11...	1128	6.00	417	8.4	15.8	--	7.4
11...	1129	9.00	424	8.4	15.7	--	7.3
11...	1130	12.0	432	8.3	15.6	--	7.3
11...	1131	15.0	460	8.3	15.3	--	7.2
11...	1132	18.0	489	8.3	14.3	--	6.9
11...	1133	21.0	550	8.2	13.3	--	6.4
11...	1134	24.0	559	8.2	11.1	--	6.4
11...	1135	27.0	566	8.2	10.9	--	5.7
11...	1136	30.0	563	8.1	10.8	--	5.8
11...	1137	33.0	561	8.1	10.7	--	6.1
11...	1138	36.0	561	8.1	10.6	--	6.2
11...	1139	37.0	560	8.1	10.6	--	6.1
JUN							
14...	1230	--	--	--	--	.90	--
14...	1231	.10	224	8.4	20.3	--	7.4
14...	1232	3.00	225	8.4	20.3	--	7.4
14...	1233	6.00	224	8.4	20.2	--	7.4
14...	1234	9.00	223	8.4	19.9	--	7.2
14...	1235	12.0	223	8.3	19.6	--	7.0
14...	1236	15.0	223	8.3	19.6	--	7.0
14...	1237	18.0	225	8.3	19.6	--	6.9
14...	1238	21.0	228	8.3	19.6	--	6.9
14...	1239	24.0	228	8.3	19.6	--	6.9
14...	1240	27.0	223	8.2	19.4	--	6.7
14...	1241	30.0	221	8.1	18.5	--	6.4
14...	1242	33.0	219	8.1	18.0	--	6.5
14...	1243	36.0	220	8.1	17.9	--	6.3
14...	1244	37.0	220	8.1	17.9	--	6.3
AUG							
15...	1235	--	--	--	--	.60	--
15...	1236	.10	404	8.3	23.7	--	6.3
15...	1237	3.00	409	8.1	23.3	--	5.8
15...	1238	6.00	417	8.1	23.2	--	5.7
15...	1239	9.00	423	8.0	23.1	--	5.5
15...	1240	12.0	429	7.9	23.1	--	5.3
15...	1241	15.0	444	7.8	22.9	--	4.8
15...	1242	18.0	456	7.7	22.4	--	4.4
15...	1243	21.0	445	7.6	21.7	--	4.5
15...	1244	22.0	445	7.6	21.7	--	4.4
SEP							
20...	1400	--	--	--	--	.50	--
20...	1401	.10	511	8.2	20.1	--	7.4
20...	1402	3.00	514	8.2	20.1	--	7.3
20...	1403	6.00	528	8.2	19.9	--	7.0
20...	1404	9.00	562	8.2	19.4	--	6.7
20...	1405	12.0	654	7.9	16.8	--	6.3
20...	1406	13.0	667	7.9	15.9	--	6.5

## ARKANSAS RIVER BASIN

PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued  
WATER-QUALITY RECORDS

381647104475300 PUEBLO RESERVOIR SITE 4B

LOCATION.--Lat 38°16'47", long 104°47'53", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>, sec.29, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at approximate center of transect, approximately 1.3 mi upstream from Peck Creek, 2.2 mi downstream from Turkey Creek, and 4.5 mi upstream from Pueblo Dam.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAY							
11...	1100	--	--	--	--	2.70	--
11...	1101	.10	543	8.5	15.9	--	8.3
11...	1103	6.00	543	8.5	15.8	--	8.2
11...	1105	12.0	529	8.5	15.2	--	8.2
11...	1107	18.0	528	8.5	14.3	--	8.0
11...	1109	24.0	546	8.4	11.0	--	7.7
11...	1111	30.0	546	8.3	10.5	--	7.8
11...	1113	36.0	546	8.3	10.4	--	7.8
11...	1115	42.0	546	8.3	10.4	--	7.8
11...	1117	48.0	546	8.3	10.2	--	7.7
11...	1119	54.0	545	8.2	9.9	--	7.6
11...	1121	60.0	545	8.2	9.9	--	7.6
11...	1123	64.0	545	8.3	9.9	--	7.5
JUN							
14...	1119	--	--	--	--	2.10	--
14...	1120	.10	295	8.3	20.1	--	7.2
14...	1121	6.00	295	8.3	20.0	--	7.2
14...	1122	12.0	287	8.3	19.6	--	7.0
14...	1123	18.0	298	8.3	19.7	--	7.0
14...	1124	24.0	310	8.3	19.7	--	7.0
14...	1125	30.0	305	8.3	19.6	--	6.9
14...	1126	36.0	248	8.3	18.3	--	6.1
14...	1127	42.0	236	8.3	17.7	--	5.9
14...	1128	48.0	405	8.1	15.7	--	5.6
14...	1129	54.0	430	8.0	15.3	--	5.6
14...	1130	60.0	453	8.0	15.0	--	5.6
14...	1131	62.0	458	8.0	14.9	--	5.5
AUG							
15...	1200	--	--	--	--	1.50	--
15...	1201	.10	381	8.3	24.2	--	5.9
15...	1202	6.00	380	8.3	23.7	--	6.1
15...	1203	12.0	381	8.2	23.5	--	5.7
15...	1204	18.0	381	8.1	23.4	--	5.2
15...	1205	24.0	383	7.7	23.1	--	3.2
15...	1206	30.0	383	7.6	22.9	--	2.4
15...	1207	36.0	388	7.6	22.7	--	2.3
15...	1208	42.0	390	7.6	22.6	--	2.2
15...	1209	48.0	398	7.6	22.2	--	2.6
SEP							
20...	1310	--	--	--	--	.60	--
20...	1311	.10	445	7.9	21.0	--	6.0
20...	1312	6.00	445	7.9	21.0	--	5.9
20...	1313	12.0	445	7.9	21.0	--	5.9
20...	1314	18.0	445	7.9	21.0	--	5.8
20...	1315	24.0	447	7.9	20.9	--	5.9
20...	1316	30.0	450	7.9	20.8	--	6.0
20...	1317	36.0	454	7.9	20.8	--	6.1
20...	1318	40.0	482	7.8	20.7	--	5.3



PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued  
WATER-QUALITY RECORDS

381559104465500 PUEBLO RESERVOIR SITE 5C

LOCATION.--Lat 38°15'59", long 104°46'55", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>, sec.33, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at approximate center of transect, approximately 0.1 mi upstream from Peck Creek, 1.2 mi upstream from Rock Creek, and 3.2 mi upstream from Pueblo Dam.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAY							
11...	1040	--	--	--	--	2.40	--
11...	1041	.10	515	8.5	14.7	--	8.1
11...	1042	3.00	516	8.5	14.5	--	8.1
11...	1043	6.00	527	8.5	14.1	--	8.1
11...	1044	9.00	530	8.4	13.8	--	8.1
11...	1045	12.0	539	8.4	13.7	--	8.1
11...	1046	15.0	542	8.4	13.7	--	8.0
11...	1047	18.0	541	8.4	13.7	--	8.0
11...	1048	21.0	547	8.4	13.6	--	8.0
11...	1049	24.0	547	8.4	13.6	--	8.0
11...	1050	27.0	552	8.4	13.3	--	8.0
11...	1051	30.0	549	8.4	13.1	--	7.9
11...	1052	33.0	550	8.4	13.0	--	7.9
11...	1053	36.0	551	8.4	12.9	--	7.9
11...	1054	39.0	551	8.4	12.1	--	7.7
11...	1055	42.0	551	8.4	11.8	--	7.7
11...	1056	45.0	548	8.3	11.0	--	7.7
11...	1057	48.0	549	8.3	11.1	--	7.6
11...	1058	51.0	549	8.3	10.5	--	7.5
11...	1059	54.0	548	8.3	10.3	--	7.5
11...	1100	57.0	547	8.3	10.1	--	7.5
11...	1101	60.0	546	8.3	10.0	--	7.5
11...	1102	63.0	545	8.3	9.8	--	7.4
11...	1103	66.0	544	8.2	9.7	--	7.4
11...	1104	69.0	544	8.2	9.7	--	7.4
11...	1105	72.0	543	8.2	9.6	--	7.4
JUN							
14...	1045	--	--	--	--	2.70	--
14...	1046	.10	357	8.3	20.5	--	7.3
14...	1047	3.00	357	8.3	20.5	--	7.3
14...	1048	6.00	353	8.3	20.3	--	7.3
14...	1049	9.00	326	8.4	20.0	--	7.2
14...	1050	12.0	331	8.3	19.9	--	7.1
14...	1051	15.0	333	8.3	19.9	--	7.1
14...	1052	18.0	337	8.3	19.9	--	7.1
14...	1053	21.0	357	8.3	19.9	--	7.0
14...	1054	24.0	366	8.3	19.8	--	7.0
14...	1055	27.0	372	8.3	19.8	--	6.9
14...	1056	30.0	360	8.3	19.6	--	6.8
14...	1057	33.0	330	8.3	18.8	--	6.2
14...	1058	36.0	288	8.3	18.4	--	6.1
14...	1059	39.0	304	8.2	18.1	--	5.9
14...	1100	42.0	302	8.2	17.7	--	5.8
14...	1101	45.0	316	8.2	16.9	--	5.6
14...	1102	48.0	319	8.1	16.7	--	5.6
14...	1103	51.0	349	8.1	16.4	--	5.6
14...	1104	54.0	355	8.1	16.4	--	5.6
14...	1105	57.0	386	8.1	16.3	--	5.8
14...	1106	60.0	412	8.0	15.6	--	5.7
14...	1107	63.0	416	8.0	15.5	--	5.6
14...	1108	66.0	451	8.0	15.1	--	5.5
14...	1109	69.0	487	7.9	14.4	--	5.2
14...	1110	70.0	485	7.9	14.1	--	5.1
AUG							
15...	1115	--	--	--	--	2.10	--
15...	1116	.10	380	8.3	24.1	--	5.9
15...	1117	3.00	379	8.3	24.0	--	6.0
15...	1118	6.00	379	8.3	23.8	--	5.9
15...	1119	9.00	379	8.3	23.7	--	5.8
15...	1120	12.0	379	8.3	23.7	--	5.8
15...	1121	15.0	379	8.3	23.7	--	5.7
15...	1122	18.0	379	8.3	23.6	--	5.7
15...	1123	21.0	378	8.3	23.6	--	5.7
15...	1124	24.0	378	8.3	23.6	--	5.7
15...	1125	27.0	378	8.3	23.5	--	5.7
15...	1126	30.0	378	8.3	23.5	--	5.7
15...	1127	33.0	380	8.1	23.4	--	4.9
15...	1128	36.0	381	8.0	23.3	--	4.5
15...	1129	39.0	381	8.0	23.3	--	4.2
15...	1130	42.0	387	7.6	22.7	--	2.1
15...	1131	45.0	387	7.5	22.6	--	1.5
15...	1132	48.0	387	7.5	22.5	--	1.1
15...	1133	51.0	387	7.5	22.4	--	.9
15...	1134	54.0	388	7.5	22.3	--	.7
15...	1135	57.0	389	7.5	22.1	--	.4

## ARKANSAS RIVER BASIN

PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued

381559104465500 PUEBLO RESERVOIR SITE 5C--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAMPLING DEPTH (FEET) (00003)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD UNITS) (00400)	TEMPERATURE WATER (DEG C) (00010)	TRANSPAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
SEP							
20...	1230	--	--	--	--	.90	--
20...	1231	.10	431	7.8	21.1	--	5.9
20...	1232	3.00	431	7.8	21.1	--	5.9
20...	1233	6.00	431	7.8	21.1	--	5.9
20...	1234	9.00	431	7.8	21.1	--	5.8
20...	1235	12.0	431	7.8	21.1	--	5.8
20...	1236	15.0	431	7.8	21.1	--	5.8
20...	1237	18.0	431	7.8	21.1	--	5.8
20...	1238	21.0	431	7.8	21.1	--	5.8
20...	1239	24.0	431	7.8	21.1	--	5.8
20...	1240	27.0	431	7.8	21.1	--	5.8
20...	1241	30.0	431	7.8	21.1	--	5.8
20...	1242	33.0	431	7.8	21.1	--	5.8
20...	1243	36.0	431	7.8	21.1	--	5.8
20...	1244	39.0	431	7.8	21.0	--	5.8
20...	1245	42.0	431	7.8	21.0	--	5.8
20...	1246	45.0	431	7.8	21.0	--	5.8
20...	1247	48.0	431	7.8	21.0	--	5.9
20...	1248	51.0	431	7.8	21.0	--	5.9
20...	1249	52.0	431	7.8	21.0	--	5.8

PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued  
WATER-QUALITY RECORDS

381548104453300 PUEBLO RESERVOIR SITE 6C

LOCATION.--Lat 38°15'48", long 104°45'33", in NE<sup>1</sup>/<sub>4</sub> SE<sup>1</sup>/<sub>4</sub>, sec.34, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at approximate center of transect, approximately 0.2 mi downstream from Rock Creek, and 1.2 mi downstream from Peck Creek, and 2.0 mi upstream from Pueblo Dam.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAY							
11...	0955	--	--	--	--	5.80	--
11...	0956	.10	550	8.5	14.5	--	8.0
11...	0957	6.00	548	8.5	13.7	--	8.1
11...	0958	12.0	548	8.5	13.5	--	8.1
11...	0959	18.0	548	8.5	13.4	--	8.0
11...	1000	24.0	548	8.5	13.0	--	8.0
11...	1001	30.0	548	8.5	12.8	--	7.9
11...	1002	36.0	548	8.5	12.7	--	7.9
11...	1003	42.0	548	8.5	12.6	--	7.9
11...	1004	48.0	546	8.5	11.8	--	8.0
11...	1005	54.0	547	8.5	11.5	--	7.8
11...	1006	60.0	547	8.5	10.4	--	7.7
11...	1007	66.0	545	8.4	10.0	--	7.5
11...	1008	72.0	545	8.4	9.9	--	7.5
11...	1009	78.0	544	8.4	9.8	--	7.5
11...	1010	84.0	544	8.4	9.7	--	7.5
11...	1011	90.0	543	8.4	9.5	--	7.4
11...	1012	96.0	543	8.4	9.4	--	7.1
JUN							
14...	1005	--	--	--	--	4.30	--
14...	1006	.10	377	8.3	20.3	--	7.2
14...	1007	6.00	377	8.3	20.1	--	7.2
14...	1008	12.0	380	8.3	20.0	--	7.2
14...	1009	18.0	389	8.3	19.9	--	7.1
14...	1010	24.0	392	8.3	19.8	--	7.0
14...	1011	30.0	382	8.3	19.5	--	6.9
14...	1012	36.0	365	8.3	19.3	--	6.7
14...	1013	42.0	342	8.2	17.5	--	6.0
14...	1014	48.0	352	8.2	17.2	--	6.0
14...	1015	54.0	388	8.1	16.8	--	6.0
14...	1016	60.0	438	8.1	16.5	--	6.2
14...	1017	66.0	443	8.1	15.9	--	6.1
14...	1018	72.0	498	8.0	15.8	--	6.4
14...	1019	78.0	509	8.0	14.5	--	5.9
14...	1020	84.0	495	8.0	14.3	--	5.7
14...	1021	90.0	504	8.0	14.0	--	5.6
14...	1022	96.0	520	8.0	13.8	--	5.6
14...	1023	100	528	7.9	13.1	--	5.1
AUG							
15...	1030	--	--	--	--	2.70	--
15...	1031	.10	378	8.4	23.9	--	6.2
15...	1032	6.00	377	8.4	23.9	--	6.2
15...	1033	12.0	377	8.4	23.8	--	6.3
15...	1034	18.0	377	8.4	23.8	--	6.3
15...	1035	24.0	377	8.4	23.7	--	6.2
15...	1036	30.0	377	8.4	23.7	--	6.2
15...	1037	36.0	377	8.4	23.7	--	6.2
15...	1038	42.0	382	7.9	23.1	--	4.0
15...	1039	48.0	387	7.6	22.5	--	2.0
15...	1040	54.0	389	7.5	22.2	--	1.3
15...	1041	60.0	388	7.5	21.9	--	.6
15...	1042	66.0	389	7.5	21.8	--	.4
15...	1043	72.0	388	7.5	21.6	--	.3
15...	1044	78.0	387	7.5	21.0	--	.2
15...	1045	81.0	386	7.5	20.7	--	.2
SEP							
20...	1139	--	--	--	--	1.20	--
20...	1140	.10	428	7.9	21.1	--	5.9
20...	1141	6.00	428	7.9	21.1	--	5.9
20...	1142	12.0	428	7.9	21.1	--	5.9
20...	1143	18.0	428	7.9	21.1	--	5.9
20...	1144	24.0	428	7.9	21.1	--	5.9
20...	1145	30.0	428	7.9	21.1	--	5.9
20...	1146	36.0	429	7.8	21.1	--	5.8
20...	1147	42.0	429	7.8	21.1	--	5.8
20...	1148	48.0	429	7.8	21.1	--	5.8
20...	1149	54.0	429	7.8	21.1	--	5.8
20...	1150	60.0	429	7.8	21.1	--	5.8
20...	1151	66.0	429	7.8	21.1	--	5.8
20...	1152	72.0	429	7.8	21.1	--	5.8
20...	1153	78.0	430	7.8	21.1	--	5.6

## ARKANSAS RIVER BASIN

PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued  
WATER-QUALITY RECORDS

381602104435200 PUEBLO RESERVOIR SITE 7B

LOCATION.--Lat 38°16'02", long 104°43'52", in SE<sup>1</sup>/<sub>4</sub> NW<sup>1</sup>/<sub>4</sub>, sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, at approximate center of transect, approximately 0.3 mi downstream from Boggs Creek, and 0.4 mi upstream from Pueblo Dam.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
MAY							
11...	0915	--	--	--	--	5.80	--
11...	0916	.10	553	8.2	15.2	--	8.2
11...	0917	3.00	553	8.2	14.9	--	8.2
11...	0918	6.00	553	8.3	14.8	--	8.1
11...	0919	9.00	553	8.3	14.7	--	8.1
11...	0920	12.0	553	8.3	14.7	--	8.1
11...	0921	15.0	554	8.2	14.6	--	8.1
11...	0922	18.0	552	8.2	14.5	--	8.1
11...	0923	21.0	552	8.3	14.5	--	8.1
11...	0924	24.0	552	8.3	14.4	--	8.0
11...	0925	27.0	552	8.3	14.3	--	8.0
11...	0926	30.0	552	8.3	14.3	--	8.0
11...	0927	33.0	552	8.3	14.2	--	8.0
11...	0928	36.0	552	8.3	14.1	--	8.0
11...	0929	39.0	551	8.3	14.0	--	8.0
11...	0930	42.0	551	8.3	13.8	--	8.0
11...	0931	45.0	551	8.3	13.5	--	8.0
11...	0932	48.0	551	8.3	13.3	--	8.0
11...	0933	51.0	550	8.3	13.2	--	8.0
11...	0934	54.0	549	8.3	12.9	--	7.9
11...	0935	57.0	549	8.3	12.5	--	7.9
11...	0936	60.0	544	8.3	10.5	--	8.0
11...	0937	63.0	542	8.3	10.4	--	8.0
11...	0938	66.0	543	8.3	10.3	--	8.0
11...	0939	69.0	543	8.3	10.1	--	7.9
11...	0940	72.0	542	8.3	10.0	--	7.9
11...	0941	75.0	541	8.2	10.0	--	7.9
11...	0942	78.0	541	8.2	9.8	--	8.0
11...	0943	81.0	540	8.2	9.7	--	7.9
11...	0944	84.0	540	8.2	9.6	--	7.9
11...	0945	87.0	541	8.2	9.5	--	7.8
11...	0946	90.0	540	8.2	9.5	--	7.8
11...	0947	93.0	540	8.2	9.4	--	7.8
11...	0948	96.0	541	8.2	9.4	--	7.7
11...	0949	99.0	540	8.2	9.4	--	7.7
11...	0950	102	541	8.2	9.3	--	7.7
11...	0951	105	541	8.2	9.3	--	7.6
11...	0952	108	540	8.2	9.2	--	7.5
11...	0953	111	540	8.2	9.2	--	7.4
11...	0954	114	541	8.2	9.2	--	7.3
11...	0955	117	541	8.2	9.1	--	7.1
11...	0956	120	541	8.2	9.1	--	6.9
11...	0957	122	541	8.2	9.1	--	6.8

ARKANSAS RIVER BASIN

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PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued

381602104435200 PUEBLO RESERVOIR SITE 7B--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
JUN							
14...	0915	--	--	--	--	4.00	--
14...	0916	.10	401	8.0	19.7	--	7.0
14...	0917	3.00	401	8.0	19.7	--	7.0
14...	0918	6.00	401	8.0	19.6	--	7.0
14...	0919	9.00	401	8.0	19.5	--	7.0
14...	0920	12.0	404	8.0	19.4	--	6.9
14...	0921	15.0	406	8.0	19.2	--	6.8
14...	0922	18.0	408	8.0	19.1	--	6.8
14...	0923	21.0	407	8.0	19.1	--	6.8
14...	0924	24.0	406	8.0	19.0	--	6.8
14...	0925	27.0	407	8.0	19.0	--	6.8
14...	0926	30.0	407	8.1	19.0	--	6.7
14...	0927	33.0	410	8.1	18.8	--	6.7
14...	0928	36.0	404	8.1	18.5	--	6.6
14...	0929	39.0	401	8.1	18.4	--	6.5
14...	0930	42.0	400	8.1	18.4	--	6.5
14...	0931	45.0	403	8.1	18.6	--	6.5
14...	0932	48.0	407	8.1	18.2	--	6.4
14...	0933	51.0	394	8.1	17.8	--	6.3
14...	0934	54.0	394	8.0	17.3	--	6.1
14...	0935	57.0	392	8.0	17.1	--	6.1
14...	0936	60.0	408	8.0	16.9	--	6.1
14...	0937	63.0	426	8.0	16.6	--	6.2
14...	0938	66.0	470	8.0	16.4	--	6.3
14...	0939	69.0	488	7.9	16.1	--	6.3
14...	0940	72.0	508	7.9	15.7	--	6.4
14...	0941	75.0	513	7.9	15.5	--	6.4
14...	0942	78.0	522	7.9	15.2	--	6.3
14...	0943	81.0	526	7.9	14.7	--	6.2
14...	0944	84.0	528	7.9	14.4	--	6.1
14...	0945	87.0	527	7.9	13.7	--	5.9
14...	0946	90.0	530	7.9	13.5	--	5.8
14...	0947	93.0	539	7.9	12.7	--	5.7
14...	0948	96.0	544	7.9	12.4	--	5.6
14...	0949	99.0	545	7.9	12.3	--	5.5
14...	0950	102	547	7.9	12.1	--	5.2
14...	0951	105	548	7.9	11.9	--	5.2
14...	0952	108	548	7.9	11.9	--	5.2
14...	0953	111	548	7.9	11.9	--	5.2
14...	0954	114	549	7.9	11.9	--	5.1
14...	0955	117	551	7.9	11.7	--	4.9
14...	0956	120	553	7.8	11.4	--	4.3
14...	0957	122	553	7.8	11.3	--	4.1

## ARKANSAS RIVER BASIN

## PUEBLO RESERVOIR NEAR PUEBLO, CO--Continued

## 381602104435200 PUEBLO RESERVOIR SITE 7B--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SAM- PLING DEPTH (FEET) (00003)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	TRANS- PAR- ENCY (SECCHI DISK) (M) (00078)	OXYGEN, DIS- SOLVED (MG/L) (00300)
AUG							
15...	0940	--	--	--	--	3.40	--
15...	0941	.10	376	8.4	23.6	--	6.4
15...	0942	3.00	375	8.4	23.6	--	6.4
15...	0943	6.00	376	8.4	23.6	--	6.4
15...	0944	9.00	376	8.4	23.6	--	6.3
15...	0945	12.0	375	8.4	23.6	--	6.3
15...	0946	15.0	376	8.4	23.6	--	6.3
15...	0947	18.0	376	8.4	23.6	--	6.3
15...	0948	21.0	376	8.4	23.6	--	6.3
15...	0949	24.0	376	8.4	23.6	--	6.3
15...	0950	27.0	376	8.4	23.6	--	6.3
15...	0951	30.0	376	8.4	23.6	--	6.2
15...	0952	33.0	376	8.4	23.6	--	6.2
15...	0953	36.0	375	8.4	23.6	--	6.2
15...	0954	39.0	376	8.4	23.6	--	6.3
15...	0955	42.0	376	8.4	23.6	--	6.3
15...	0956	45.0	376	8.4	23.6	--	6.2
15...	0957	48.0	376	8.4	23.6	--	6.2
15...	0958	51.0	380	7.9	23.1	--	4.3
15...	0959	54.0	382	7.6	22.6	--	2.4
15...	1000	57.0	383	7.5	22.4	--	1.9
15...	1001	60.0	384	7.5	22.2	--	1.5
15...	1002	63.0	384	7.5	22.0	--	1.2
15...	1003	66.0	383	7.4	21.8	--	1.0
15...	1004	69.0	383	7.4	21.6	--	.9
15...	1005	72.0	383	7.4	21.3	--	.7
15...	1006	75.0	383	7.4	21.3	--	.6
15...	1007	78.0	382	7.4	21.0	--	.5
15...	1008	81.0	381	7.4	20.7	--	.4
15...	1009	84.0	380	7.4	20.3	--	.4
15...	1010	87.0	379	7.4	20.1	--	.3
15...	1011	90.0	379	7.4	19.8	--	.3
15...	1012	93.0	381	7.4	19.3	--	.2
15...	1013	96.0	382	7.4	19.1	--	.2
15...	1014	99.0	387	7.4	18.6	--	.2
15...	1015	102	389	7.4	18.4	--	.1
15...	1016	105	389	7.4	18.0	--	.1
15...	1017	107	397	7.4	17.4	--	.1
SEP							
20...	1030	--	--	--	--	1.50	--
20...	1031	.10	430	7.7	21.2	--	5.6
20...	1032	3.00	429	7.8	21.2	--	5.6
20...	1033	6.00	429	7.8	21.2	--	5.6
20...	1034	9.00	429	7.8	21.2	--	5.6
20...	1035	12.0	429	7.8	21.2	--	5.5
20...	1036	15.0	429	7.8	21.2	--	5.5
20...	1037	18.0	429	7.8	21.2	--	5.5
20...	1038	21.0	429	7.8	21.2	--	5.5
20...	1039	24.0	429	7.8	21.2	--	5.5
20...	1040	27.0	429	7.8	21.2	--	5.5
20...	1041	30.0	429	7.8	21.2	--	5.5
20...	1042	33.0	429	7.8	21.2	--	5.5
20...	1043	36.0	429	7.8	21.2	--	5.5
20...	1044	39.0	430	7.8	21.2	--	5.5
20...	1045	42.0	429	7.8	21.2	--	5.5
20...	1046	45.0	429	7.8	21.2	--	5.5
20...	1047	48.0	430	7.8	21.2	--	5.5
20...	1048	51.0	430	7.8	21.2	--	5.5
20...	1049	54.0	430	7.8	21.2	--	5.5
20...	1050	57.0	430	7.8	21.2	--	5.5
20...	1051	60.0	430	7.8	21.2	--	5.5
20...	1052	63.0	430	7.8	21.2	--	5.5
20...	1053	66.0	430	7.8	21.2	--	5.5
20...	1054	69.0	430	7.8	21.2	--	5.5
20...	1055	72.0	430	7.8	21.2	--	5.5
20...	1056	75.0	430	7.8	21.2	--	5.5
20...	1057	78.0	430	7.8	21.2	--	5.5
20...	1058	81.0	430	7.8	21.2	--	5.5
20...	1059	84.0	429	7.8	21.2	--	5.6
20...	1100	87.0	429	7.8	21.2	--	5.6
20...	1101	90.0	428	7.8	21.2	--	5.6
20...	1102	93.0	429	7.8	21.2	--	5.7
20...	1103	96.0	428	7.8	21.1	--	5.7
20...	1104	98.0	428	7.8	21.1	--	5.8

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO

LOCATION.--Lat 38°16'18", long 104°43'03", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> (revised) sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on left bank 200 ft downstream from northeast corner of Arkansas River bridge, 0.4 mi downstream from Pueblo Dam, and 7 mi west of Pueblo.

DRAINAGE AREA.--4,670 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year. Statistical summary computed for 1975 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,740 ft above sea level, from topographic map. Prior to Mar. 23, 1967, at site 730 ft upstream at datum 1.23 ft higher. May 24, 1974 to Feb. 24, 1975, at site 1,500 ft downstream, at different datum. Since Feb. 25, 1975, at or within 50 ft of present location at present datum.

REMARKS.--Records good except for estimated daily discharges, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, diversions upstream from station for irrigation of about 88,000 acres and return flow from irrigated areas. Flow completely regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	302	345	362	e377	e171	289	749	641	2810	528	1100	208
2	306	385	362	e377	e83	314	898	774	2910	472	999	247
3	335	419	363	377	e83	329	899	494	2820	633	1000	239
4	348	418	362	377	e83	328	895	309	2750	941	1010	222
5	320	420	363	e370	82	327	896	307	2690	1330	1010	399
6	278	420	389	378	82	327	831	497	2560	1270	1040	451
7	270	420	429	379	83	328	822	763	2300	1170	1100	452
8	301	420	430	379	83	328	857	893	2040	1310	924	450
9	319	379	366	377	139	328	855	1080	1830	1430	793	451
10	342	329	306	377	187	329	885	1180	1610	1380	899	411
11	353	301	275	377	187	328	902	979	1500	1290	936	350
12	354	300	276	378	187	329	897	779	1300	1170	916	223
13	355	301	252	379	187	329	1730	955	1340	1030	991	164
14	324	285	227	379	187	404	2250	955	1650	1220	1130	164
15	279	245	225	379	186	459	930	916	1590	1180	1080	135
16	250	246	226	380	187	640	402	836	1340	1180	1080	102
17	283	245	196	380	188	815	491	745	1310	1380	1080	93
18	302	245	173	380	188	816	582	1020	1420	1600	1100	92
19	340	245	173	380	188	815	551	1320	1440	1630	1070	92
20	411	246	173	380	187	814	495	1330	1350	1240	1070	92
21	411	249	174	380	187	634	410	1090	1280	912	968	92
22	413	250	174	380	154	423	361	941	1250	826	907	92
23	366	251	174	381	131	401	361	961	1250	854	838	92
24	334	251	174	381	131	449	409	1150	1220	857	778	92
25	333	251	175	361	131	478	442	1880	1180	848	748	102
26	310	251	175	300	131	495	497	2520	976	935	747	111
27	294	252	229	282	203	576	502	2570	820	1070	818	110
28	295	253	279	265	281	627	432	1920	779	1160	782	116
29	325	255	310	232	294	626	300	1780	581	1230	658	150
30	343	315	355	232	---	628	392	2340	582	1270	451	159
31	344	---	e377	231	---	552	---	2650	---	1210	230	---
TOTAL	10140	9192	8524	10985	4591	14865	21923	36575	48478	34556	28253	6153
MEAN	327	306	275	354	158	480	731	1180	1616	1115	911	205
MAX	413	420	430	381	294	816	2250	2650	2910	1630	1130	452
MIN	250	245	173	231	82	289	300	307	581	472	230	92
AC-FT	20110	18230	16910	21790	9110	29480	43480	72550	96160	68540	56040	12200

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2000, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	361	260	163	177	215	327	606	1180	2408	1674	1055	468														
MAX	1103	505	553	558	837	718	1389	2564	4219	4110	2716	1040														
(WY)	1985	1985	1987	1985	1985	1985	1985	1984	1980	1995	1984	1982														
MIN	121	77.0	58.8	55.6	55.9	81.1	125	374	645	428	200	118														
(WY)	1979	1979	1980	1980	1979	1978	1978	1978	1977	1977	1977	1977														

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1975 - 2000	
ANNUAL TOTAL	280912		234235			
ANNUAL MEAN	770		640		a743	
HIGHEST ANNUAL MEAN					1227	
LOWEST ANNUAL MEAN					265	
HIGHEST DAILY MEAN	4060		2910		b5910	
LOWEST DAILY MEAN	100		82		c47	
ANNUAL SEVEN-DAY MINIMUM	100		83		49	
INSTANTANEOUS PEAK FLOW			5380		d10100	
INSTANTANEOUS PEAK STAGE			6.90		f9.40	
ANNUAL RUNOFF (AC-FT)	557200		464600		538300	
10 PERCENT EXCEEDS	1930		1310		1840	
50 PERCENT EXCEEDS	381		387		401	
90 PERCENT EXCEEDS	104		174		90	

e Estimated.  
a Average discharge for 8 years (water years 1966-73), 643 ft<sup>3</sup>/s; 465900 acre-ft/yr, prior to completion of Pueblo Dam.  
b Also the maximum daily discharge for period of record.  
c Minimum daily discharge for period of record, 28 ft<sup>3</sup>/s, May 11, 1967.  
d Present site and datum, from rating curve extended above 1600 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.  
f From floodmarks.

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1965 to September 1970, December 1985 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1985 to current year.

WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for daily specific conductance are good. Records for daily water temperature are good. Daily data not published are either missing or of unacceptable quality. Specific conductance data may not be representative of the river at the site during periods of transient hydrologic conditions caused by abrupt flow changes from Pueblo reservoir. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 814 microsiemens, Nov. 14, 1990; minimum, 223 microsiemens, July 13, 1986.

WATER TEMPERATURE: Maximum, 23.1°C, Aug. 13, 15, 17, 1994; minimum, 1.1°C, Jan. 30, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 621 microsiemens, Apr. 15; minimum, 379 microsiemens, July 25.

WATER TEMPERATURE: Maximum, 22.5°C, Sept. 16; minimum, 3.5°C, Jan. 30 to Feb. 1.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000												
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	466	448	455	514	497	506	537	527	534	563	525	550
2	465	456	461	503	482	492	542	532	537	554	523	542
3	465	458	460	507	476	485	547	537	541	565	528	550
4	463	455	459	494	479	486	543	513	526	542	525	534
5	465	456	459	510	479	491	527	512	518	542	527	535
6	470	456	463	503	487	497	517	503	510	542	522	531
7	470	457	463	510	490	498	519	508	513	537	530	533
8	463	454	459	502	487	495	518	514	516	538	526	533
9	463	457	460	506	492	499	518	508	514	536	521	525
10	465	453	459	513	499	506	520	506	512	539	520	528
11	468	457	463	514	504	508	521	514	519	544	527	536
12	475	465	470	510	498	504	528	520	524	538	522	529
13	484	474	479	512	500	505	540	528	534	535	526	531
14	482	465	474	525	506	513	540	515	525	534	527	531
15	493	465	478	520	511	515	518	515	516	540	528	532
16	489	469	478	519	510	514	517	513	515	536	529	532
17	473	455	462	523	506	514	523	513	518	539	529	532
18	466	458	460	518	484	499	522	518	519	541	530	536
19	475	457	462	506	485	496	520	517	519	543	526	533
20	485	470	478	504	488	497	520	516	519	538	532	535
21	492	479	486	501	487	494	520	517	518	541	530	535
22	501	487	494	509	495	502	520	516	518	543	530	536
23	514	494	500	508	492	500	525	517	520	543	531	537
24	509	494	499	510	498	506	533	518	524	543	533	537
25	510	498	502	513	494	504	538	522	531	554	534	539
26	513	500	505	500	495	497	545	537	541	542	531	536
27	513	495	502	511	495	501	546	531	541	538	531	533
28	517	503	507	511	505	508	543	526	538	547	531	536
29	509	498	504	523	510	518	550	532	542	548	533	538
30	499	483	491	530	515	522	560	528	542	544	534	539
31	509	486	497	---	---	---	562	545	555	541	534	537
MONTH	517	448	477	530	476	502	562	503	526	565	520	535



ARKANSAS RIVER BASIN

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	587	530	552	545	541	544	556	542	548	568	561	564
2	590	554	569	549	541	545	551	548	549	566	563	564
3	582	560	570	548	543	545	552	548	550	579	564	571
4	603	574	586	554	544	548	552	549	551	573	567	570
5	600	580	586	555	542	546	554	550	552	571	566	569
6	590	573	581	552	543	548	555	551	553	571	562	566
7	594	570	581	551	545	549	555	552	553	567	562	565
8	595	567	580	556	544	547	555	553	554	567	565	566
9	571	531	551	552	546	549	555	553	554	572	564	566
10	549	538	543	560	549	552	555	552	554	568	566	567
11	566	549	557	557	549	552	555	552	553	577	567	571
12	560	546	555	556	550	553	555	553	554	585	567	574
13	559	542	551	556	549	552	557	548	551	572	569	571
14	552	541	545	554	540	548	550	549	549	573	570	572
15	549	543	546	568	551	560	621	549	569	573	570	572
16	546	541	543	565	538	549	566	560	563	574	571	573
17	547	541	544	552	544	549	562	553	558	576	571	573
18	556	545	551	557	550	554	564	555	558	576	565	569
19	557	547	550	562	554	557	566	558	563	569	566	568
20	556	551	553	563	556	560	568	563	566	570	567	568
21	555	544	550	619	558	574	570	564	567	578	568	571
22	581	550	561	582	569	574	568	564	565	572	569	570
23	567	558	562	574	557	566	569	563	565	572	567	569
24	568	558	561	562	550	558	569	564	566	570	563	567
25	574	561	565	564	556	559	571	565	567	567	563	565
26	566	560	563	559	552	556	569	562	565	565	562	564
27	562	534	549	558	546	551	570	564	567	564	561	563
28	542	538	540	552	549	550	573	567	569	566	562	564
29	546	541	542	551	548	550	576	568	570	566	562	564
30	---	---	---	552	549	551	570	562	566	565	561	562
31	---	---	---	563	544	555	---	---	---	564	561	562
MONTH	603	530	558	619	538	553	621	542	559	585	561	568
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	563	560	562	509	483	494	389	385	387	420	413	417
2	562	559	561	503	490	496	389	386	388	421	409	414
3	563	561	562	502	467	482	388	384	386	420	413	416
4	563	560	561	475	442	459	389	383	386	424	415	420
5	563	560	562	452	435	444	388	385	386	422	410	415
6	562	557	560	447	430	438	389	383	386	421	412	417
7	560	556	558	445	420	434	386	382	384	430	415	424
8	560	557	558	445	416	427	394	383	388	430	422	427
9	560	553	556	428	414	422	390	388	389	429	422	424
10	557	551	555	425	411	417	388	384	387	433	422	427
11	555	548	553	426	407	416	389	386	387	434	423	428
12	552	543	548	422	406	415	392	387	389	448	426	435
13	551	542	548	420	410	416	392	386	389	446	436	441
14	550	541	546	417	395	407	391	386	389	458	439	447
15	552	536	541	411	402	406	393	389	391	486	455	467
16	552	533	539	407	398	402	395	389	392	504	461	471
17	543	533	536	403	390	396	395	391	394	488	463	474
18	533	519	525	395	389	392	396	391	394	491	466	476
19	536	510	521	393	384	388	396	393	395	484	469	478
20	535	506	516	406	386	396	400	394	396	485	467	475
21	524	505	515	403	396	399	406	397	400	489	461	473
22	520	506	513	400	392	397	404	400	401	489	470	480
23	517	492	502	398	392	394	407	400	403	490	465	477
24	517	483	493	395	380	388	407	401	405	482	473	478
25	509	479	494	390	379	385	413	405	410	496	471	480
26	504	478	492	392	386	389	413	406	409	507	484	497
27	504	487	495	392	384	387	412	405	409	516	495	505
28	509	467	492	390	382	386	417	405	411	507	494	501
29	506	493	501	388	383	385	427	406	414	501	464	482
30	503	481	492	386	382	384	431	414	418	491	477	484
31	---	---	---	388	382	385	421	414	416	---	---	---
MONTH	563	467	532	509	379	414	431	382	396	516	409	455

## ARKANSAS RIVER BASIN

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.3	17.1	17.7	14.0	13.3	13.6	9.4	8.9	9.1	5.5	4.6	4.9
2	17.7	17.1	17.3	13.8	13.2	13.4	9.3	8.8	9.0	5.7	4.8	5.1
3	17.6	17.0	17.2	13.7	13.0	13.3	9.0	8.7	8.8	5.1	4.6	4.8
4	17.7	17.0	17.2	13.7	13.0	13.2	9.4	8.7	8.9	5.4	4.7	4.9
5	17.6	16.8	17.1	13.5	12.8	13.1	9.3	8.8	8.9	5.3	4.8	5.0
6	17.3	16.6	16.9	13.3	12.6	12.9	9.3	8.7	8.9	5.3	4.7	4.9
7	17.0	16.3	16.6	13.1	12.5	12.7	9.0	8.5	8.7	5.2	4.6	4.8
8	17.0	16.2	16.5	13.1	12.4	12.6	8.6	8.5	8.6	5.2	4.6	4.8
9	17.0	16.2	16.5	12.8	12.1	12.5	8.7	8.1	8.4	5.1	4.4	4.6
10	16.9	16.2	16.5	12.6	11.9	12.1	8.4	8.0	8.2	5.0	4.4	4.6
11	16.9	16.1	16.4	12.6	11.9	12.1	8.2	7.5	7.9	4.9	4.4	4.6
12	16.7	16.1	16.3	12.5	11.8	12.0	8.0	7.3	7.5	5.1	4.4	4.7
13	16.6	16.0	16.2	12.4	11.7	12.0	7.6	7.1	7.2	4.9	4.3	4.6
14	16.7	16.0	16.3	12.2	11.6	11.8	7.6	6.9	7.2	4.8	4.2	4.5
15	16.6	15.8	16.1	12.2	11.5	11.8	7.3	6.7	6.9	4.8	4.3	4.5
16	16.0	15.6	15.8	12.1	11.4	11.7	7.4	6.7	7.0	4.8	4.3	4.4
17	16.2	15.6	15.8	12.1	11.4	11.6	7.2	6.7	6.9	4.9	4.3	4.5
18	16.1	15.4	15.6	12.2	11.3	11.6	7.2	6.5	6.7	4.9	4.3	4.5
19	15.9	15.0	15.4	12.0	11.3	11.5	7.1	6.3	6.6	5.0	4.3	4.6
20	15.4	14.6	15.0	11.8	11.2	11.4	6.6	6.1	6.3	4.8	4.3	4.4
21	15.0	14.3	14.6	11.7	11.2	11.3	6.4	6.0	6.1	4.8	4.2	4.5
22	14.7	14.0	14.3	11.4	11.0	11.2	6.4	5.8	6.1	4.8	4.2	4.5
23	14.6	13.8	14.1	11.4	10.8	11.0	6.6	5.7	6.0	4.7	4.2	4.4
24	14.5	13.7	14.0	11.1	10.4	10.7	6.6	5.5	5.9	4.6	4.1	4.3
25	14.4	13.7	13.9	10.9	10.3	10.5	6.4	5.3	5.7	4.3	4.0	4.1
26	14.4	13.6	13.9	11.0	10.4	10.6	5.9	5.0	5.4	4.6	3.9	4.1
27	14.3	13.5	13.8	10.9	10.2	10.4	5.7	5.0	5.2	4.3	4.0	4.1
28	14.2	13.5	13.8	10.6	9.9	10.2	5.8	4.9	5.2	4.3	3.9	4.1
29	14.0	13.6	13.7	9.9	9.3	9.7	5.7	4.8	5.1	4.4	3.6	4.0
30	14.2	13.5	13.8	9.6	9.2	9.4	5.6	4.7	5.1	4.3	3.5	3.8
31	14.2	13.5	13.7	---	---	---	5.3	4.6	4.8	4.3	3.5	3.8
MONTH	18.3	13.5	15.5	14.0	9.2	11.7	9.4	4.6	7.0	5.7	3.5	4.5
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.5	3.5	3.8	5.1	4.4	4.6	6.3	5.8	6.0	9.7	9.4	9.5
2	5.3	3.6	4.2	4.5	4.3	4.5	6.9	5.9	6.4	9.9	9.3	9.5
3	5.5	3.7	4.4	5.1	4.3	4.5	6.5	6.0	6.2	10.3	9.4	9.7
4	5.5	3.7	4.3	5.1	4.4	4.6	7.3	6.1	6.7	10.4	9.4	9.7
5	5.5	3.6	4.2	5.1	4.4	4.7	7.6	6.6	7.1	10.3	9.4	9.7
6	5.6	3.6	4.3	5.3	4.6	4.9	7.4	6.9	7.2	9.8	9.3	9.5
7	5.7	3.6	4.3	5.5	4.7	5.0	7.7	6.9	7.1	10.0	9.3	9.6
8	5.3	3.6	4.3	5.3	4.7	5.0	7.3	6.9	7.1	9.8	9.4	9.6
9	4.4	3.9	4.1	5.5	4.8	5.0	7.5	6.8	7.1	10.2	9.5	9.8
10	4.4	3.8	4.0	5.5	4.8	5.0	7.4	7.0	7.1	10.2	9.5	9.8
11	4.0	3.9	3.9	5.5	4.8	5.0	7.4	6.9	7.2	10.5	9.5	9.8
12	4.4	3.8	4.0	5.4	4.8	5.0	7.4	7.0	7.2	10.3	9.5	9.9
13	4.5	3.8	4.0	5.5	4.7	5.0	7.6	6.9	7.2	10.2	9.7	9.9
14	4.7	3.6	4.1	5.5	4.7	5.0	7.4	7.0	7.2	10.4	9.6	10.0
15	5.0	3.8	4.2	5.4	4.7	5.0	7.9	7.0	7.3	10.5	9.7	10.0
16	4.7	3.8	4.1	5.3	4.8	5.0	8.0	7.1	7.5	10.1	9.7	9.8
17	4.7	3.9	4.1	5.3	4.9	5.1	8.1	7.2	7.5	11.4	9.6	10.2
18	4.6	3.8	4.1	5.5	5.0	5.2	9.8	7.3	8.2	11.5	10.1	10.9
19	4.7	3.7	4.1	5.7	5.3	5.4	9.8	8.0	9.1	11.4	10.8	11.1
20	4.6	3.8	4.1	5.6	5.3	5.4	9.6	8.7	9.1	11.4	10.6	11.0
21	5.0	3.8	4.2	5.7	5.3	5.5	9.6	8.6	8.9	11.9	10.9	11.2
22	5.0	4.0	4.3	5.5	5.4	5.4	9.5	8.7	8.9	11.9	10.8	11.2
23	5.4	4.0	4.6	6.1	5.3	5.6	9.6	8.9	9.1	12.0	11.0	11.4
24	5.5	4.0	4.5	6.3	5.4	5.8	9.8	8.8	9.2	11.8	10.9	11.2
25	5.2	3.8	4.3	6.4	5.7	5.9	9.7	8.9	9.2	11.6	11.1	11.4
26	5.3	3.7	4.3	6.5	5.6	5.8	9.6	9.0	9.2	12.0	11.1	11.5
27	5.2	3.8	4.3	6.2	5.6	5.8	9.8	9.0	9.3	12.0	11.3	11.7
28	4.9	4.0	4.4	6.1	5.6	5.8	9.7	8.9	9.1	12.2	11.5	11.9
29	5.2	4.4	4.7	6.2	5.6	5.8	10.0	9.0	9.3	12.2	11.3	11.8
30	---	---	---	5.8	5.6	5.7	9.7	8.9	9.2	12.2	11.5	11.9
31	---	---	---	5.9	5.6	5.7	---	---	---	12.4	11.8	12.1
MONTH	5.7	3.5	4.2	6.5	4.3	5.2	10.0	5.8	7.9	12.4	9.3	10.5

ARKANSAS RIVER BASIN

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	12.6	11.9	12.2	15.8	14.3	15.0	19.4	18.8	19.1	21.4	20.6	20.9			
2	12.7	12.0	12.3	15.5	14.6	14.9	19.6	18.9	19.1	21.5	20.4	20.9			
3	12.6	12.1	12.3	15.7	14.5	15.2	19.6	18.9	19.2	21.1	20.7	20.8			
4	13.0	12.3	12.5	16.2	15.2	15.8	19.8	19.0	19.3	21.7	20.6	21.0			
5	12.9	12.2	12.6	16.7	15.7	16.2	19.9	19.2	19.4	22.0	20.8	21.3			
6	13.0	12.2	12.7	16.8	16.1	16.4	19.8	19.0	19.5	21.9	21.2	21.5			
7	13.1	12.5	12.9	16.9	16.2	16.6	20.2	19.1	19.7	22.0	21.2	21.5			
8	13.3	12.5	12.9	17.2	16.1	16.7	20.2	19.4	19.7	22.0	21.3	21.6			
9	13.4	12.3	12.9	17.2	16.6	16.9	20.2	19.4	19.8	22.1	21.4	21.7			
10	13.5	12.7	13.2	17.4	16.7	17.1	20.4	19.6	19.9	22.2	21.3	21.6			
11	13.4	12.8	13.0	17.5	16.6	17.2	20.4	19.7	20.0	22.1	21.2	21.6			
12	13.6	12.9	13.2	17.6	17.1	17.3	20.5	19.8	20.1	22.1	21.1	21.5			
13	13.5	12.8	13.2	17.6	17.1	17.3	20.5	19.8	20.1	22.2	20.9	21.4			
14	13.6	12.9	13.3	18.0	17.0	17.4	20.8	20.0	20.3	21.9	20.8	21.2			
15	14.0	12.7	13.6	17.8	17.4	17.6	21.0	20.2	20.5	22.2	20.7	21.2			
16	14.1	12.7	13.7	17.9	17.3	17.6	20.9	20.2	20.5	22.5	20.6	21.2			
17	13.9	13.2	13.6	18.3	17.6	17.9	21.0	20.4	20.7	21.8	20.5	21.0			
18	14.2	13.7	13.9	18.3	17.8	18.0	21.1	20.5	20.8	22.1	20.4	21.0			
19	14.9	13.4	14.2	18.6	17.8	18.2	21.5	20.5	20.9	22.2	20.3	20.9			
20	14.9	13.5	14.4	18.4	17.7	18.1	21.5	20.6	21.0	21.2	20.0	20.4			
21	14.8	14.0	14.4	18.6	17.7	18.1	21.4	20.7	21.0	21.8	19.9	20.6			
22	14.8	14.1	14.5	18.8	17.9	18.1	21.5	20.7	21.1	20.4	19.6	20.1			
23	15.3	14.1	14.7	18.7	17.9	18.2	21.5	20.8	21.1	19.7	19.1	19.5			
24	15.5	14.1	14.9	19.3	18.1	18.5	21.6	20.8	21.1	20.2	18.8	19.2			
25	15.6	14.4	14.9	19.2	18.3	18.7	21.7	21.0	21.3	20.1	18.4	19.1			
26	15.2	14.6	14.9	19.1	18.1	18.5	21.8	20.8	21.3	19.5	18.0	18.6			
27	15.4	14.4	14.8	19.0	18.1	18.5	21.8	21.1	21.4	19.2	17.7	18.2			
28	15.6	14.4	14.9	19.1	18.3	18.7	22.0	21.0	21.4	18.9	17.6	18.0			
29	15.4	14.4	14.8	19.1	18.7	18.8	22.1	21.1	21.5	18.9	17.6	18.1			
30	15.7	14.4	15.0	19.2	18.6	18.9	22.0	20.5	21.2	18.9	17.8	18.2			
31	---	---	---	19.3	18.8	19.0	21.3	20.5	20.8	---	---	---			
MONTH	15.7	11.9	13.7	19.3	14.3	17.5	22.1	18.8	20.4	22.5	17.6	20.5			

## ARKANSAS RIVER BASIN

07099969 ARKANSAS RIVER AT ST. CHARLES MESA DIVERSION AT PUEBLO, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°15'13", long 104°36'20", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.6, T.21 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, on right bank 10 ft upstream from intake of Saint Charles Mesa Water Association, 150 ft downstream from Santa Fe Avenue bridge, and 1.1 mi upstream from Fountain Creek.

DRAINAGE AREA.--4,778 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1988 to current year. Prior to October 1989, published as Arkansas River at Moffat Street at Pueblo (07099970).

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records fair. Daily data not published are either missing or of poor quality. Specific conductance data is not representative of the cross section at the site "and is more representative of flow entering diversion". Specific conductance data representative of the cross section at the site have been published as Arkansas River at Moffat Street at Pueblo (07099970) since water year 1991.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,980 microsiemens, Nov. 24, 1988; minimum, 225 microsiemens, Aug. 25, 1995.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 936 microsiemens, Sept. 19; minimum, 298 microsiemens, July 17.

## SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	659	623	642	667	655	662	684	677	679	727	677	688
2	663	638	654	668	627	651	686	675	681	688	666	672
3	653	629	642	639	619	627	688	668	680	676	664	670
4	640	631	636	633	620	626	688	666	676	667	652	659
5	654	635	644	630	617	625	668	659	665	665	659	662
6	678	643	658	636	628	633	667	645	661	664	649	658
7	693	650	677	641	630	634	646	634	641	662	645	652
8	670	647	660	643	633	637	645	632	639	660	653	656
9	660	645	653	658	626	640	666	628	641	667	654	658
10	656	633	648	681	655	661	670	661	665	669	655	662
11	647	627	640	691	680	686	686	670	683	659	652	654
12	646	634	641	687	679	684	688	679	685	664	653	657
13	651	641	646	688	680	684	711	685	692	657	651	654
14	660	646	653	689	680	686	723	711	715	653	649	651
15	669	645	661	716	685	707	712	692	699	659	653	656
16	696	660	686	715	699	706	705	693	700	660	652	655
17	678	641	660	710	687	700	707	670	692	662	654	657
18	692	633	652	726	691	710	691	678	686	659	655	657
19	652	607	640	691	669	676	694	688	691	666	653	659
20	627	621	624	694	678	684	695	688	692	658	655	656
21	638	621	630	697	675	685	692	675	684	659	652	654
22	640	627	636	696	681	688	689	673	682	660	649	657
23	663	635	645	691	675	682	687	677	681	657	652	655
24	677	663	669	696	679	688	686	683	685	659	650	653
25	683	667	673	691	682	687	694	683	688	665	657	660
26	680	666	676	694	675	684	698	691	695	703	662	672
27	694	676	685	688	669	677	722	696	703	707	674	689
28	692	677	683	688	675	684	703	686	694	716	684	694
29	696	659	681	694	684	690	705	688	699	708	686	702
30	671	645	657	701	677	693	698	675	684	710	682	695
31	667	649	658	---	---	---	688	674	682	718	685	697
MONTH	696	607	655	726	617	673	723	628	682	727	645	665

ARKANSAS RIVER BASIN

07099969 ARKANSAS RIVER AT ST. CHARLES MESA DIVERSION AT PUEBLO, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	711	688	699	644	627	635	627	582	610	657	623	646
2	823	698	753	671	550	616	593	584	587	659	627	648
3	834	805	817	679	580	636	591	585	589	706	628	658
4	825	805	820	685	633	646	594	586	590	736	681	704
5	826	819	822	694	635	666	596	588	592	737	671	692
6	836	823	828	696	638	668	611	594	600	709	637	681
7	837	811	825	698	375	606	616	600	606	646	612	634
8	821	812	816	667	422	640	602	594	599	630	512	608
9	829	665	789	647	631	641	604	595	600	624	598	612
10	665	642	645	642	633	638	604	593	600	607	595	601
11	656	647	652	641	626	635	601	593	598	634	600	611
12	662	644	652	640	624	634	602	591	596	644	625	634
13	661	644	648	636	628	633	602	544	578	627	615	623
14	658	644	652	639	609	625	552	548	550	624	617	622
15	654	641	648	622	433	580	669	548	604	629	621	625
16	656	639	646	605	518	584	670	650	659	632	627	630
17	653	645	648	589	578	583	652	634	646	644	630	637
18	650	634	645	589	564	579	636	624	630	651	604	629
19	647	617	634	589	585	587	642	629	633	607	588	599
20	647	639	643	589	575	584	649	618	637	607	593	599
21	652	643	647	617	581	592	677	636	650	633	598	612
22	705	643	662	620	476	602	677	660	667	637	622	628
23	703	674	692	631	611	626	676	656	666	669	614	633
24	707	680	698	632	613	625	671	644	661	709	546	630
25	705	683	694	623	615	619	661	637	649	655	551	602
26	697	681	688	621	614	618	654	635	647	606	552	575
27	716	670	700	618	604	613	654	638	646	574	549	564
28	670	627	643	613	606	609	665	646	654	589	553	571
29	652	622	638	615	537	593	702	651	668	584	571	577
30	---	---	---	614	581	605	745	499	618	581	564	572
31	---	---	---	625	576	590	---	---	---	578	560	567
MONTH	837	617	702	698	375	616	745	499	621	737	512	620
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	578	564	567	599	582	589	466	453	458	648	617	628
2	579	564	573	613	599	605	471	461	465	661	579	627
3	587	567	578	620	561	594	472	459	466	618	583	606
4	581	562	573	570	509	547	468	417	459	629	598	613
5	587	562	575	513	498	505	466	456	461	642	524	591
6	590	571	579	515	489	502	466	456	462	569	549	560
7	595	574	583	513	494	501	464	451	458	565	516	556
8	592	576	580	509	469	488	474	455	459	566	553	559
9	597	582	589	474	463	468	481	467	472	567	547	560
10	609	590	600	482	455	467	481	463	472	590	552	564
11	613	580	598	491	465	474	471	457	467	597	568	587
12	622	587	603	490	436	476	474	462	469	634	597	617
13	624	592	610	494	479	487	476	462	470	682	607	652
14	610	570	589	486	445	472	472	450	466	689	626	667
15	592	568	575	514	456	468	470	457	465	728	623	669
16	599	584	591	484	437	462	473	462	469	824	713	773
17	594	578	586	460	298	419	507	445	475	863	804	824
18	593	559	575	432	422	428	476	395	454	920	826	888
19	569	553	561	431	414	423	480	469	474	936	788	866
20	581	561	570	478	420	443	480	469	475	875	833	858
21	578	554	564	485	469	476	515	476	487	886	819	856
22	576	555	568	490	474	480	492	478	485	897	825	852
23	573	545	556	483	473	479	489	476	483	847	655	813
24	564	545	553	476	468	473	491	471	481	824	622	755
25	565	536	552	475	467	471	488	413	473	845	808	824
26	595	457	536	473	464	470	496	438	479	818	756	783
27	586	523	571	471	452	463	484	457	475	833	751	794
28	590	438	545	472	451	456	493	467	480	832	765	801
29	604	590	597	456	450	454	564	469	503	810	702	764
30	598	575	589	462	445	450	585	497	516	720	681	694
31	---	---	---	463	444	451	651	585	628	---	---	---
MONTH	624	438	576	620	298	482	651	395	478	936	516	707

ARKANSAS RIVER BASIN

07099970 ARKANSAS RIVER AT MOFFAT STREET, AT PUEBLO, CO

LOCATION.--Lat 38°15'13", long 104°36'20", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.6, T.21 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, on right bank 10 ft upstream from intake of Saint Charles Mesa Water Association, 150 ft downstream from Santa Fe Avenue bridge, and 1.1 mi upstream from Fountain Creek.

DRAINAGE AREA.--4,778 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS: WDR CO-90-1: 1989(M).

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 4,653 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Records do not include diversion for municipal supply of Saint Charles Mesa Water Association. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions, and diversions for irrigation and municipal use. Flow almost completely regulated by Pueblo Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	250	363	368	373	185	253	730	627	2720	505	1040	172
2	268	398	368	377	88	291	894	770	2870	435	928	196
3	303	425	372	375	61	341	897	551	2770	541	920	202
4	322	422	370	384	57	353	890	332	2700	809	950	178
5	288	425	368	382	59	350	898	324	2620	1220	954	319
6	241	422	386	382	54	350	838	467	2470	1180	977	394
7	231	422	433	378	56	398	807	719	2180	1070	1020	406
8	262	417	436	380	55	364	857	865	1880	1200	886	410
9	283	391	381	377	92	358	851	1030	1690	1320	729	408
10	316	341	319	374	161	355	863	1130	1460	1280	819	373
11	346	298	269	381	161	354	901	964	1370	1190	878	306
12	352	292	266	376	155	354	894	756	1180	1110	852	185
13	350	302	244	379	152	352	1580	928	1170	945	922	104
14	317	288	203	382	149	407	2130	926	1460	1110	1030	102
15	263	218	210	379	149	505	1080	879	1470	1080	1010	77
16	242	224	202	376	158	612	435	811	1200	1100	1000	42
17	282	239	186	378	162	789	494	729	1200	1370	1020	32
18	322	231	158	380	162	799	590	899	1290	1530	1060	31
19	335	232	152	380	163	792	575	1180	1320	1550	1020	31
20	411	232	152	382	161	791	515	1220	1210	1210	997	33
21	411	234	155	384	158	673	433	1020	1160	855	921	30
22	411	239	153	384	135	480	390	862	1130	771	879	29
23	374	248	153	384	111	444	400	859	1130	786	798	48
24	329	241	154	384	109	478	407	1030	1110	778	727	54
25	322	247	151	375	108	517	459	1710	1070	768	716	42
26	308	242	152	316	110	526	489	2410	968	841	724	61
27	282	247	194	288	147	592	501	2520	804	968	777	45
28	280	241	260	285	256	646	447	1860	790	1080	742	59
29	317	245	276	224	261	661	349	1620	568	1160	673	89
30	346	300	333	212	---	661	434	2170	550	1200	470	117
31	357	---	360	208	---	632	---	2560	---	1150	211	---
TOTAL	9721	9066	8184	11019	3835	15478	22028	34728	45510	32112	26650	4575
MEAN	314	302	264	355	132	499	734	1120	1517	1036	860	152
MAX	411	425	436	384	261	799	2130	2560	2870	1550	1060	410
MIN	231	218	151	208	54	253	349	324	550	435	211	29
AC-FT	19280	17980	16230	21860	7610	30700	43690	68880	90270	63690	52860	9070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1989 - 2000, BY WATER YEAR (WY)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	259	224	118	109	146	332	598	1133	2285	1579	969	378
MAX	431	491	330	355	312	623	1031	1716	4111	4290	1616	699
(WY)	1996	1998	1998	2000	1996	1997	1998	1996	1997	1995	1995	1995
MIN	125	87.9	16.1	16.7	64.2	159	217	491	970	957	545	113
(WY)	1990	1989	1990	1989	1995	1990	1991	1989	1989	1994	1990	1996

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1989 - 2000	
ANNUAL TOTAL	278167		222906			
ANNUAL MEAN	762		609		680	
HIGHEST ANNUAL MEAN					1107 1995	
LOWEST ANNUAL MEAN					444 1990	
HIGHEST DAILY MEAN	4240	Jun 26	2870	Jun 2	6030	Jun 23 1997
LOWEST DAILY MEAN	74	Feb 8	29	Sep 22	3.6	Dec 12 1989
ANNUAL SEVEN-DAY MINIMUM	79	Feb 3	33	Sep 16	8.2	Dec 11 1989
INSTANTANEOUS PEAK FLOW			4420	Apr 13	a10400	Jun 3 1994
INSTANTANEOUS PEAK STAGE			11.91	Apr 13	14.18	Jun 3 1994
ANNUAL RUNOFF (AC-FT)	551700		442100		492300	
10 PERCENT EXCEEDS	1880		1200		1690	
50 PERCENT EXCEEDS	411		392		358	
90 PERCENT EXCEEDS	84		152		57	

a From rating curve extended above 5190 ft<sup>3</sup>/s on basis of slope-conveyance and area-velocity studies.

07099970 ARKANSAS RIVER AT MOFFAT STREET, AT PUEBLO, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1988 to current year.

WATER TEMPERATURE: October 1988 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for water temperature are good. Records for specific conductance are fair except for June 19, which is poor.

Daily data not published are either during periods of estimated daily discharge, or are missing for the day. Specific conductance data computed by using discharge-related coefficients, the discharge record at the site, and the daily mean specific conductance from Arkansas River at St. Charles Mesa Diversion at Pueblo (07099969). Prior to October 1989, published specific conductance data was not representative of the cross section at the site. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 1,490 microsiemens, Oct. 17, 1996; minimum daily mean, 252 microsiemens, June 29, 1993.

WATER TEMPERATURE: Maximum, 26.3°C, Aug. 31, 1990; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily mean, 884 microsiemens, Sept. 18; minimum daily mean, 352 microsiemens, July 17.

WATER TEMPERATURE: Maximum, 25.3°C, Aug. 28; minimum, 0.8°C, Jan. 30.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	558	569	583	590	618	553	506	540	553	498	373	557
2	567	557	584	576	690	534	480	535	564	515	380	554
3	554	534	584	575	808	547	482	555	565	501	381	534
4	547	534	580	565	819	555	483	607	557	453	375	543
5	557	532	570	567	821	572	485	597	553	418	376	514
6	574	540	566	564	831	574	493	579	549	413	376	479
7	591	541	546	559	806	519	499	526	536	407	372	475
8	573	544	544	562	768	549	491	499	513	402	376	477
9	566	548	550	564	729	550	493	501	506	391	391	478
10	560	570	575	568	573	547	492	492	498	389	389	484
11	551	594	594	561	579	546	489	502	489	391	382	508
12	552	594	596	564	580	545	488	524	481	390	385	546
13	556	592	605	561	577	544	506	509	486	397	384	593
14	564	595	630	558	580	534	509	508	495	388	381	606
15	575	621	615	562	577	490	529	512	489	381	378	624
16	599	619	616	562	575	488	561	519	487	376	381	752
17	573	612	612	564	576	480	547	528	484	352	386	818
18	564	622	610	563	573	476	528	518	478	366	370	884
19	552	592	616	565	563	483	532	494	468	363	385	862
20	533	599	616	562	572	481	538	495	471	368	386	849
21	538	600	608	560	575	493	554	502	463	391	398	854
22	543	602	607	563	593	510	570	515	465	397	397	861
23	553	596	607	561	623	532	569	519	455	395	398	784
24	577	602	609	560	629	529	565	519	451	390	398	718
25	581	600	613	566	626	522	551	529	448	389	393	806
26	585	598	619	581	620	521	547	546	438	386	397	737
27	595	592	621	598	626	513	546	542	470	378	392	766
28	593	598	606	603	560	508	556	509	450	371	397	757
29	589	603	608	616	555	494	576	500	501	373	419	705
30	566	600	590	611	---	504	528	529	495	371	438	628
31	566	---	586	613	---	493	---	546	---	370	552	---
MEAN	566	583	596	572	642	522	523	526	495	399	393	658
MAX	599	622	630	616	831	574	576	607	565	515	552	884
MIN	533	532	544	558	555	476	480	492	438	352	370	475

## ARKANSAS RIVER BASIN

07099970 ARKANSAS RIVER AT MOFFAT STREET, AT PUEBLO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.6	14.4	16.9	13.7	10.9	12.3	10.0	8.5	9.1	6.6	4.0	5.2
2	17.8	13.5	15.8	13.8	10.4	12.0	9.4	7.7	8.5	6.6	4.0	5.3
3	17.1	13.5	15.3	14.4	10.7	12.3	8.2	6.8	7.6	5.3	3.5	4.0
4	18.6	13.4	16.0	14.4	10.5	12.3	8.4	6.5	7.3	5.9	2.5	4.1
5	19.1	13.9	16.5	14.1	10.9	12.4	8.8	5.8	7.3	6.6	4.2	5.2
6	18.0	14.4	16.4	14.4	10.2	12.1	9.3	6.3	7.7	6.2	4.2	5.2
7	17.5	15.3	16.2	14.2	10.3	12.1	8.7	7.0	7.7	5.5	2.9	4.2
8	18.1	14.0	16.0	14.0	10.6	12.2	7.6	6.8	7.2	5.8	3.5	4.5
9	18.6	13.5	16.2	14.1	11.2	12.5	8.3	6.0	7.2	5.0	3.0	4.0
10	18.4	13.8	16.2	13.4	9.9	11.7	7.6	5.6	6.6	5.9	2.9	4.3
11	18.9	14.1	16.5	13.3	9.5	11.6	7.8	5.9	6.8	5.6	2.8	4.1
12	18.6	13.9	16.2	13.2	9.4	11.4	7.4	4.6	6.1	6.7	3.4	5.0
13	18.2	13.9	16.1	13.3	9.1	11.4	6.4	4.5	5.5	5.8	3.2	4.4
14	18.0	13.6	15.9	12.8	9.2	11.2	6.2	4.3	5.1	5.7	2.9	4.2
15	16.9	13.6	15.4	12.6	8.8	11.0	5.6	2.9	4.4	6.2	3.6	4.7
16	15.3	11.7	13.0	12.6	8.9	11.0	7.2	4.2	5.7	5.8	3.3	4.5
17	15.7	11.3	13.3	12.8	8.8	11.0	6.9	5.7	6.4	6.5	3.4	4.8
18	15.0	11.9	13.5	11.7	9.7	10.6	6.3	4.1	5.4	6.6	3.7	5.0
19	16.0	12.4	14.0	11.3	8.0	9.9	6.1	4.0	5.2	6.9	3.8	5.3
20	16.6	12.4	14.3	11.2	8.4	9.9	5.2	3.6	4.5	6.1	3.1	4.6
21	16.5	12.3	14.2	10.9	8.5	10.0	4.7	2.8	3.9	6.1	3.2	4.5
22	16.2	12.0	13.9	10.3	9.1	9.6	5.3	3.4	4.5	6.4	3.4	4.8
23	15.8	11.8	13.8	10.3	8.2	9.3	6.1	3.3	4.9	5.7	2.8	4.2
24	15.9	11.3	13.7	10.1	8.0	9.1	6.5	3.8	5.4	6.0	2.5	4.1
25	15.5	11.5	13.6	9.3	6.6	8.1	6.3	3.6	5.3	4.6	3.2	3.7
26	15.8	11.1	13.5	11.2	8.4	9.8	6.3	4.1	5.4	5.7	3.0	4.2
27	14.6	11.2	13.0	10.7	8.2	9.7	6.2	3.3	5.0	4.8	2.8	3.8
28	14.7	11.0	13.0	10.6	7.6	9.3	6.9	3.6	5.3	4.6	3.2	3.8
29	13.7	11.7	12.5	9.6	7.7	8.6	6.8	3.7	5.3	4.6	1.8	3.2
30	14.7	10.7	12.6	10.2	7.6	9.0	6.6	3.7	5.2	4.5	.8	2.7
31	15.0	10.8	12.9	---	---	---	6.3	3.3	4.8	4.8	.9	2.9
MONTH	19.6	10.7	14.7	14.4	6.6	10.8	10.0	2.8	6.0	6.9	.8	4.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.2	1.4	3.5	8.1	3.7	5.9	9.2	5.2	6.7	13.4	9.2	10.7
2	6.2	2.0	4.3	6.6	4.4	5.2	9.1	5.3	6.8	14.5	8.8	11.1
3	7.6	4.0	5.7	8.4	3.6	5.7	8.4	5.5	6.7	16.8	9.1	12.4
4	7.0	3.9	5.4	9.3	3.6	6.2	11.2	5.3	7.7	17.5	9.7	13.4
5	6.8	2.8	4.9	8.4	3.9	6.1	11.4	6.3	8.4	17.8	9.9	13.7
6	7.7	3.1	5.4	8.3	3.8	5.8	11.6	6.9	8.7	13.8	9.8	11.7
7	7.6	3.0	5.3	8.5	4.5	6.5	10.3	6.7	8.1	13.8	9.4	11.1
8	7.0	2.9	5.2	7.2	4.5	6.0	10.8	6.0	7.9	12.0	9.8	10.3
9	6.0	4.5	5.2	7.9	3.9	5.7	11.8	6.3	8.5	13.8	9.5	11.1
10	5.3	2.9	4.3	7.9	4.0	5.9	10.8	6.8	8.3	14.0	9.4	11.2
11	4.5	2.9	3.3	9.2	3.9	6.4	9.2	7.1	7.8	14.7	9.7	11.5
12	5.8	2.8	4.1	8.1	4.1	6.0	11.1	6.5	8.3	14.6	8.9	11.2
13	5.6	2.4	4.0	9.3	3.7	6.3	9.9	6.7	7.9	13.2	9.0	10.7
14	7.2	2.4	4.9	9.3	3.9	6.4	9.1	7.0	7.8	14.0	9.2	11.1
15	8.0	3.7	6.1	7.9	3.6	5.6	10.0	6.8	8.0	14.7	9.5	11.6
16	6.7	2.9	5.3	8.7	3.3	5.5	12.9	5.9	8.9	11.9	9.6	10.6
17	6.2	3.0	4.8	8.1	4.1	5.6	12.6	6.6	9.2	11.9	9.3	10.6
18	6.3	3.0	4.6	7.1	4.6	5.7	13.1	6.9	9.5	12.7	9.7	11.1
19	6.3	1.7	4.3	8.9	4.3	6.1	12.9	7.5	10.0	14.4	10.6	12.0
20	5.8	2.1	4.2	7.4	4.8	5.7	14.5	8.1	10.8	14.0	10.8	12.0
21	8.0	2.6	5.5	6.7	4.7	5.5	14.3	7.9	10.9	16.0	10.6	12.8
22	7.1	3.5	5.6	6.2	4.5	5.3	12.3	8.3	10.3	16.1	10.8	13.1
23	9.1	4.5	6.9	10.7	5.4	7.4	13.1	8.9	10.7	16.8	11.1	13.5
24	8.2	4.4	6.6	10.6	5.2	7.5	15.1	8.8	11.5	14.6	11.2	12.5
25	7.1	3.3	5.3	11.1	5.4	7.8	13.9	8.3	10.7	16.0	11.3	12.3
26	7.2	1.6	4.5	9.2	5.5	7.2	15.0	8.3	11.2	13.4	11.4	12.2
27	8.4	3.4	6.0	11.0	5.1	7.5	15.1	8.6	11.4	14.1	11.4	12.5
28	7.9	3.1	5.6	9.2	5.4	7.0	12.7	8.6	10.7	15.5	11.8	13.1
29	9.1	4.7	6.6	10.5	5.9	7.6	14.6	8.9	11.5	14.4	11.4	12.7
30	---	---	---	7.0	5.4	6.0	12.3	8.5	9.6	14.4	11.6	12.7
31	---	---	---	6.3	4.7	5.5	---	---	---	14.6	12.2	13.1
MONTH	9.1	1.4	5.1	11.1	3.3	6.2	15.1	5.2	9.1	17.8	8.8	11.9



ARKANSAS RIVER BASIN

07099970 ARKANSAS RIVER AT MOFFAT STREET, AT PUEBLO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	14.3	12.1	12.9	22.1	14.7	17.8	22.4	18.2	19.9	24.6	19.3	21.8
2	14.4	12.3	12.9	21.5	14.9	18.1	22.8	18.4	20.2	23.7	18.7	21.5
3	14.7	12.3	13.1	19.8	15.6	17.5	22.8	18.5	20.2	22.1	18.6	20.3
4	14.6	12.3	13.3	21.0	15.0	17.5	23.5	18.8	20.4	23.8	18.0	21.0
5	15.1	12.5	13.4	20.1	15.5	17.5	23.0	18.9	20.4	24.8	19.2	22.0
6	14.9	12.5	13.4	20.3	16.1	17.8	22.3	18.9	20.2	24.7	19.5	21.8
7	15.5	12.8	13.9	20.7	16.3	17.8	23.2	18.8	20.5	23.7	19.0	21.1
8	15.9	12.6	13.9	19.7	16.2	17.7	24.0	18.7	20.8	23.7	19.2	21.2
9	15.9	12.5	14.0	20.3	16.9	18.1	23.8	18.6	20.8	24.4	19.4	21.6
10	16.5	12.6	14.2	20.8	16.9	18.3	23.7	18.9	20.9	24.5	19.0	21.5
11	16.8	13.0	14.4	21.0	16.9	18.5	23.7	19.2	20.9	24.4	18.7	21.4
12	17.1	12.9	14.6	20.9	17.3	18.7	22.7	19.5	20.7	23.8	18.1	21.0
13	17.0	12.9	14.5	21.6	17.1	18.9	23.6	19.6	21.1	24.5	18.4	21.5
14	16.4	12.9	14.4	21.0	17.2	18.7	23.2	19.7	21.0	23.5	19.0	21.4
15	17.2	13.3	14.9	21.5	17.4	19.0	23.9	19.8	21.2	23.9	18.5	21.3
16	17.0	13.0	14.6	20.6	17.5	18.6	22.6	19.8	20.9	25.0	18.6	21.8
17	15.7	13.2	14.2	21.8	17.9	19.1	23.3	20.0	21.1	24.3	18.8	21.5
18	16.0	13.4	14.5	21.2	17.8	19.1	23.1	20.1	21.3	22.8	18.7	20.8
19	17.9	13.9	15.4	21.4	17.8	19.2	24.1	20.2	21.6	23.5	17.7	20.5
20	18.4	13.6	15.7	22.1	18.1	19.5	24.0	20.1	21.5	19.9	15.7	17.3
21	18.4	14.1	15.8	22.1	17.6	19.4	24.1	20.0	21.5	22.1	14.2	17.9
22	18.0	14.2	15.8	22.5	17.8	19.5	24.5	20.2	21.8	19.2	16.1	17.8
23	17.7	14.4	15.7	22.5	17.6	19.6	24.6	20.0	21.8	16.1	12.8	14.2
24	19.3	14.2	16.2	21.2	17.4	19.2	24.6	19.9	21.9	15.9	12.1	13.7
25	18.8	14.5	16.2	23.1	17.8	20.0	25.0	20.1	22.1	19.8	12.0	15.5
26	18.5	15.3	16.3	21.9	17.8	19.4	24.4	20.2	21.9	20.4	14.1	17.2
27	18.6	14.8	16.4	21.8	18.0	19.4	24.8	20.1	21.9	21.3	14.7	17.8
28	17.7	15.3	16.4	21.7	18.0	19.4	25.3	20.3	22.3	20.8	14.9	17.8
29	20.5	14.9	17.2	21.3	18.2	19.5	25.0	19.9	22.1	18.4	15.8	17.1
30	20.5	14.7	17.2	21.8	18.3	19.8	24.6	20.1	22.0	21.6	15.9	18.6
31	---	---	---	22.6	18.4	20.0	23.4	19.1	21.5	---	---	---
MONTH	20.5	12.1	14.8	23.1	14.7	18.8	25.3	18.2	21.2	25.0	12.0	19.7



07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1974 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT: August 1995 to September 1998 (seasonal peaks only), April 1998 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since August 1995.

REMARKS.--Records for daily suspended sediment are fair except for Aug. 31, which is poor.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 8,090 mg/L, June 6, 1997; minimum daily mean, 2 mg/L, Apr. 15, 1999.

SEDIMENT LOAD (seasonal only): Maximum daily, 41,800 tons, June 6, 1997; minimum daily, 0.07 ton, Apr. 15-16, 1999.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 3,240 mg/L, Aug. 31; minimum daily mean, 3 mg/L, Oct. 30, June 13.

SEDIMENT LOAD (seasonal only): Maximum daily, 248 tons, Aug. 31; minimum daily, 0.09 ton, Sept. 16.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARDS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SULFATE DIS-SOLVED (MG/L) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
OCT 21...	0845	24	259	7.9	4.5	10.5	<1.0	56	30.6	6.30	16.0	2.7
DEC 14...	1330	18	276	8.2	1.0	11.2	<1.0	35	32.9	6.72	16.0	2.7
FEB 17...	0800	11	366	8.2	1.5	11.2	<1.0	K220	42.5	8.82	21.0	2.7
APR 19...	1130	31	211	8.1	6.2	9.9	<1.0	K40	23.4	4.43	<15.0	2.7
JUN 21...	1215	14	312	8.2	13.0	8.5	<1.0	900	34.8	6.75	15.0	2.7
AUG 15...	1200	16	270	8.3	16.5	7.5	<1.0	580	28.1	5.56	<15.0	2.7

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) (00608)	PHOS-PHORUS TOTAL (MG/L) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L) (00671)	ARSENIC TOTAL (UG/L) (01002)	ARSENIC DIS-SOLVED (UG/L) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L) (01022)	BORON, DIS-SOLVED (UG/L) (01020)	CADMIUM WATER UNFLTRD (UG/L) (01027)	CADMIUM DIS-SOLVED (UG/L) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L) (01034)
OCT 21...	.700	<.020	.040	.020	<1	<1.0	36	35	<.1	<.1	<1
DEC 14...	.900	--	.020	<.010	<1	<1.0	31	31	<.1	<.1	<1
FEB 17...	1.30	<.020	<.010	.010	<1	<1.0	43	40	<.1	<.1	<1
APR 19...	.650	<.020	.070	.020	<1	<1.0	25	21	<.1	<.1	<1
JUN 21...	.758	<.020	<.050	<.010	<1	<1.0	36	35	<.1	<.1	<1
AUG 15...	.524	<.020	<.050	<.010	<1	<1.0	35	32	<.1	<.1	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L) (01042)	COPPER, DIS-SOLVED (UG/L) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L) (01045)	IRON, DIS-SOLVED (UG/L) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L) (01051)	LEAD, DIS-SOLVED (UG/L) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) (01055)	MANGA-NESE, DIS-SOLVED (UG/L) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L) (71900)	MERCURY DIS-SOLVED (UG/L) (71890)
OCT 21...	<1.0	<1	<1	230	20	<1	<1	44	35	--	<.1
DEC 14...	<1.0	1	<1	680	20	1	<1	111	80	--	--
FEB 17...	<1.0	1	1	180	<10	<1	<1	46	40	--	<.1
APR 19...	<1.0	1	<1	--	--	2	<1	72	24	--	<.1
JUN 21...	1.1	4	2	220	20	<1	<1	38	19	<.3	<.2
AUG 15...	<1.0	1	1	490	<10	2	<1	43	9	<.3	<.2

## ARKANSAS RIVER BASIN

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- SUS- PENDE (T/DAY) (80155)
OCT 21...	<2	<2	<1	<.5	<1	<1	7	4	<.01	--	--
DEC 14...	<2	<2	1	.8	<1	<1	7	2	<.01	18	.87
FEB 17...	2	<2	1	.5	<1	<1	3	<3	<.01	4	.12
APR 19...	<2	<2	1	.9	<1	<1	9	<3	<.01	--	--
JUN 21...	<2	<2	2	<.5	<1	<1	5	<3	<.01	4	.15
AUG 15...	1	<2	1	.8	<1	<1	12	<3	<.01	13	.56

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 08...	1115	80	165	7.9	8.9	9.4	9.3	800	17.0	3.04	10.0
JUN 26...	1030	26	237	8.2	13.5	8.6	1.8	K2800	26.3	4.77	<15.0
JUL 17...	1700	25	261	--	17.4	--	3.4	4600	28.3	5.41	<15.0

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNPLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
MAY 08...	2.1	.518	.077	.703	.023	2	<1.0	22	22	.7	<.1
JUN 26...	2.6	.564	<.020	.131	.011	1	<1.0	26	27	.1	<.1
JUL 17...	2.5	.707	<.020	.273	.013	1	<1.0	19	13	.3	<.1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
MAY 08...	6	<1.0	10	1	13300	130	36	<1	1000	68	<.3
JUN 26...	1	<1.0	5	1	2650	30	6	<1	215	11	<.3
JUL 17...	3	1.2	6	1	4910	50	13	<1	400	8	<.3

DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, DIS- SUS- PENDE (MG/L) (80154)
MAY 08...	<.2	5	<2	4	.6	<1	<1	138	6	<.01	657
JUN 26...	<.2	2	<2	3	1.9	<1	<1	27	<3	<.01	162
JUL 17...	<.2	3	<2	3	1.0	<1	<1	65	<3	<.01	310

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	ACE-NAPHTH-YLENE TOTAL (UG/L) (34200)	ACE-NAPHTH-ENE TOTAL (UG/L) (34205)	ANTHRA-CENE TOTAL (UG/L) (34220)	BENZ(A) ANTHRA-CENE WATER UNPLTRD REC (UG/L) (34526)	BENZO B FLUOR-AN-THENE TOTAL (UG/L) (34230)	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZO-[GHI]-PERY-LENE TOTAL (UG/L) (34521)	BENZO K FLUOR-AN-THENE TOTAL (UG/L) (34242)	CHRY-SENE TOTAL (UG/L) (34320)	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L) (34556)
MAY 08...	151	<2	<2	<2	<3	<3	<3	<3	<3	<3	<3
JUN 26...	11	<2	<2	<2	<3	<3	<3	<3	<3	<3	<3
JUL 17...	21	<2	<2	<2	<3	<3	<3	<3	<3	<3	<3
DATE	FLUOR-ANTHENE (UG/L) (34376)	FLUOR-ENE TOTAL (UG/L) (34381)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	NAPHTH-ALENE TOTAL (UG/L) (34696)	PHENAN-THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	
MAY 08...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	<.001	
JUN 26...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	<.006	
JUL 17...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	<.005	
DATE	METHYL-AZIN-PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS DIS-SOLVED (38933)	CYANA-ZINE, WATER, DISS, REC (04041)	DCPA WATER FLTRD 0.7 U GF, REC (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (04040)	DI-AZINON, DIS-SOLVED (39572)	DI-ELDRIN DIS-SOLVED (39381)
MAY 08...	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.002	.102	<.001
JUN 26...	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.002	.007	<.001
JUL 17...	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.002	.024	<.001
DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONO-FOS WATER DISS REC (04095)	LINDANE DIS-SOLVED (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (82666)	MALA-THION, DIS-SOLVED (39532)	METO-LACHLOR WATER DISSOLV (39415)	METRI-BUZIN SENCOR WATER DISSOLV (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (82671)
MAY 08...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.007	<.002	<.004	<.004
JUN 26...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	<.005	<.004	<.004	<.004
JUL 17...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	<.005	.010	<.004	<.004
DATE	NAPPROP-AMIDE WATER FLTRD 0.7 U GF, REC (82684)	PARA-THION, DIS-SOLVED (39542)	METHYL-PARA-THION WAT FLT 0.7 U GF, REC (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (82669)	PENDI-ALIN WAT FLT 0.7 U GF, REC (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (82664)	PRO-METON, WATER, DISS, REC (04037)	PROPA-CHLOR, WATER, DISS, REC (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (82676)
MAY 08...	<.003	<.004	<.006	<.004	<.004	<.002	<.018	<.007	<.004	<.013	<.020
JUN 26...	<.003	<.004	<.006	<.004	<.004	<.002	<.018	<.007	<.004	<.013	<.003
JUL 17...	<.003	<.004	<.006	<.004	<.004	<.002	<.018	<.007	<.004	<.013	<.003

## ARKANSAS RIVER BASIN

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P' DDE DISSOLV (UG/L) (34653)
MAY 08...	<.005	<.010	<.007	<.013	<.002	<.001	<.002	<.002	<.005	<.006
JUN 26...	<.005	<.010	<.007	<.013	<.002	<.001	<.002	<.002	<.005	<.006
JUL 17...	<.005	<.010	<.007	<.013	<.002	<.001	<.002	<.002	<.005	<.006

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 02...	1530	31	222	8.5	MAY 26...	1230	31	215	11.0
21...	1415	23	266	7.5	JUN 01...	1300	23	245	13.5
NOV 01...	1545	18	282	6.0	JUL 06...	1445	12	318	17.5
02...	1455	16	323	5.5	17...	1015	14	262	15.0
DEC 03...	0930	15	332	2.5	AUG 01...	1200	8.1	357	15.5
JAN 11...	1345	16	295	3.0	17...	1900	28	199	16.1
MAR 16...	0850	12	388	.0	18...	1340	22	228	14.0
APR 03...	1415	15	383	4.5	30...	1100	18	252	14.6
05...	0745	22	312	3.5	SEP 12...	0930	8.8	387	11.5
18...	1415	34	215	10.0	28...	1100	12	265	9.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT 02...	1530	31	8.5	6	.50
21...	1415	23	7.5	7	.43
NOV 01...	1545	18	6.0	4	.19
DEC 14...	1330	18	1.0	18	.87
JAN 11...	1345	16	3.0	9	.39
FEB 17...	0800	11	1.5	4	.12
APR 03...	1415	15	4.5	6	.24
05...	0745	22	3.5	33	2.0
18...	1415	34	10.0	29	2.7
MAY 08...	1115	80	8.9	657	151
26...	1230	31	11.0	15	1.3
JUN 21...	1215	14	13.0	4	.15
26...	1030	26	13.5	162	11
JUL 17...	1015	14	15.0	10	.38
17...	1700	25	17.4	310	21
AUG 01...	1200	8.1	15.5	4	.09
15...	1200	16	16.5	13	.56
17...	1900	28	16.1	164	11
30...	1100	18	14.6	35	1.7
SEP 12...	0930	8.8	11.5	11	.26
28...	1100	12	9.0	8	.26

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	31	---	e.51	20	---	---	15	---	---
2	30	6	.50	17	---	---	15	---	---
3	28	7	.53	e17	---	---	16	---	---
4	28	8	.53	16	---	---	16	---	---
5	28	6	.43	16	---	---	14	---	---
6	27	5	.36	15	---	---	16	---	---
7	37	---	e36	15	---	---	16	---	---
8	33	100	9.2	14	---	---	15	---	---
9	30	20	1.5	14	---	---	14	---	---
10	28	13	.90	14	---	---	15	---	---
11	27	13	.86	14	---	---	15	---	---
12	25	---	e.79	13	---	---	14	---	---
13	24	11	.66	14	---	---	16	---	---
14	26	9	.59	14	---	---	16	---	---
15	26	9	.60	14	---	---	15	---	---
16	26	12	.79	14	---	---	19	---	---
17	24	---	e.68	14	---	---	19	---	---
18	25	8	.53	14	---	---	18	---	---
19	27	6	.42	13	---	---	18	---	---
20	25	6	.38	15	---	---	17	---	---
21	24	7	.40	15	---	---	17	---	---
22	23	---	e.33	19	---	---	16	---	---
23	23	5	.29	16	---	---	17	---	---
24	23	5	.29	15	---	---	16	---	---
25	22	5	.28	16	---	---	16	---	---
26	22	4	.23	17	---	---	16	---	---
27	21	---	e.20	16	---	---	16	---	---
28	21	---	e.19	16	---	---	16	---	---
29	21	---	e.17	15	---	---	16	---	---
30	21	3	.17	15	---	---	16	---	---
31	21	5	.26	---	---	---	16	---	---
TOTAL	797	---	59.57	457	---	0	497	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	16	---	---	12	---	---	11	---	---
2	17	---	---	15	---	---	12	---	---
3	15	---	---	16	---	---	11	---	---
4	15	---	---	13	---	---	11	---	---
5	16	---	---	13	---	---	11	---	---
6	14	---	---	13	---	---	12	---	---
7	15	---	---	13	---	---	13	---	---
8	16	---	---	13	---	---	11	---	---
9	15	---	---	13	---	---	10	---	---
10	15	---	---	13	---	---	10	---	---
11	17	---	---	12	---	---	10	---	---
12	17	---	---	11	---	---	11	---	---
13	17	---	---	e11	---	---	9.9	---	---
14	16	---	---	e11	---	---	10	---	---
15	16	---	---	e10	---	---	10	---	---
16	16	---	---	e10	---	---	13	---	---
17	16	---	---	e10	---	---	14	---	---
18	16	---	---	11	---	---	13	---	---
19	17	---	---	11	---	---	12	---	---
20	16	---	---	11	---	---	e13	---	---
21	16	---	---	11	---	---	13	---	---
22	16	---	---	11	---	---	14	---	---
23	15	---	---	11	---	---	14	---	---
24	17	---	---	11	---	---	15	---	---
25	17	---	---	11	---	---	16	---	---
26	16	---	---	9.8	---	---	17	---	---
27	15	---	---	10	---	---	18	---	---
28	14	---	---	11	---	---	20	---	---
29	11	---	---	12	---	---	20	---	---
30	11	---	---	---	---	---	19	---	---
31	11	---	---	---	---	---	19	---	---
TOTAL	477	---	0	339.8	---	0	412.9	---	0

## ARKANSAS RIVER BASIN

07103700 FOUNTAIN CREEK NEAR COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	18	---	e.29	34	11	1.0	22	6	.38
2	18	---	e1.5	37	24	2.5	24	4	.29
3	17	9	.41	38	23	2.4	23	6	.38
4	18	21	1.2	35	---	e1.8	22	9	.55
5	23	37	2.3	32	17	1.5	23	---	e.54
6	27	68	4.9	32	16	1.3	22	6	.37
7	28	48	3.6	31	18	1.5	20	7	.37
8	27	28	2.0	64	422	92	19	8	.40
9	29	46	3.6	53	---	e19	18	---	e.36
10	29	39	3.2	47	73	9.4	16	---	e.28
11	29	19	1.5	41	51	5.7	16	---	e.25
12	27	19	1.4	39	37	3.8	16	5	.20
13	30	28	2.3	37	31	3.1	15	3	.14
14	31	31	2.6	37	---	e2.6	15	4	.17
15	33	32	2.9	35	27	2.6	14	---	e.22
16	30	25	2.0	33	26	2.3	14	7	.25
17	31	24	2.0	34	37	3.5	17	7	.32
18	35	33	3.1	33	20	1.8	17	14	.65
19	33	21	1.9	34	---	e1.6	16	9	.38
20	31	16	1.4	32	16	1.4	14	---	e.13
21	31	21	1.7	30	14	1.2	13	4	.13
22	30	61	4.9	28	15	1.2	13	7	.23
23	32	33	2.8	28	16	1.2	13	8	.28
24	34	27	2.5	29	26	2.1	13	6	.19
25	33	23	2.0	32	25	2.2	14	---	e.20
26	30	13	1.1	30	15	1.2	33	540	66
27	32	20	1.7	27	11	.80	27	494	44
28	33	17	1.6	24	10	.65	20	39	2.2
29	35	---	e2.1	24	18	1.2	18	23	1.1
30	36	18	1.8	26	8	.55	15	---	e.76
31	---	---	---	25	---	e.43	---	---	---
TOTAL	870	---	66.30	1061	---	173.53	542	---	121.72

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	14	14	.50	8.2	6	.14	19	1050	59
2	14	9	.34	9.7	13	.34	15	79	3.3
3	16	32	1.4	9.8	16	.43	14	49	1.8
4	13	16	.56	19	287	40	13	---	e1.6
5	12	---	e.30	23	179	15	12	36	1.2
6	12	8	.27	14	13	.52	10	19	.54
7	12	8	.27	15	24	1.0	10	19	.51
8	12	6	.19	14	18	.71	11	19	.54
9	12	8	.26	13	10	.35	9.7	---	e.51
10	12	---	e.32	12	---	e.23	9.3	15	.39
11	11	22	.72	12	7	.23	11	18	.52
12	12	---	e.57	13	7	.26	8.8	12	.29
13	13	13	.45	12	9	.29	8.6	20	.47
14	12	10	.32	15	36	2.2	8.7	---	e.53
15	11	7	.21	15	19	.80	9.0	12	.30
16	13	---	e.42	16	26	1.3	8.4	4	.09
17	17	66	4.0	20	84	7.5	8.9	6	.15
18	14	25	.95	24	199	14	8.7	9	.21
19	12	16	.55	16	37	1.7	8.6	---	e.20
20	11	18	.57	16	---	e1.3	9.4	9	.22
21	13	---	e.50	17	138	9.9	11	14	.41
22	11	10	.30	15	19	.77	13	23	.84
23	11	10	.30	14	12	.44	14	47	2.3
24	10	18	.50	14	11	.44	15	---	e1.4
25	10	13	.37	14	---	e1.1	13	11	.41
26	10	---	e.26	15	88	3.7	13	7	.25
27	9.8	8	.21	13	11	.39	13	10	.36
28	10	9	.25	14	37	1.9	15	8	.34
29	9.9	8	.23	31	1130	108	13	---	e.26
30	9.0	8	.19	20	42	2.3	10	7	.21
31	8.5	---	e.19	21	3240	248	---	---	---
TOTAL	367.2	---	16.47	484.7	---	465.24	343.1	---	79.15

e Estimated.



07103703 CAMP CREEK AT GARDEN OF THE GODS, CO

LOCATION.--Lat 38°52'37", long 104°52'20", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.34, T.13 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank, 80 ft downstream from county road bridge at east entrance to Garden of the Gods Park, and 1.9 mi upstream from mouth.

DRAINAGE AREA.--9.45 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1992 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 6,310 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.02	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.12	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.01	.01	.00	.00	.00	.00	.00
16	.02	.00	.00	.00	.00	.05	.00	.00	.00	.00	.01	.00
17	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.04	.00
18	.01	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
22	.00	.01	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
29	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
30	.00	.00	.00	.00	---	.01	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.02	---	.00	---	.00	.02	---
TOTAL	0.05	0.01	0.01	0.00	0.01	0.16	0.01	0.12	0.00	0.00	0.18	0.05
MEAN	.002	.000	.000	.000	.000	.005	.000	.004	.000	.000	.006	.002
MAX	.02	.01	.01	.00	.01	.05	.01	.12	.00	.00	.05	.03
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.1	.02	.02	.00	.02	.3	.02	.2	.00	.00	.4	.1

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	.016	.001	.000	.002	.000	.091	2.80	12.1	6.80	.88	.76	.13						
MAX	.12	.003	.001	.015	.000	.38	15.7	45.5	27.7	6.78	5.66	.76						
(WY)	1995	1999	1993	1995	1998	1996	1999	1999	1997	1995	1999	1994						
MIN	.000	.000	.000	.000	.000	.000	.000	.004	.000	.000	.000	.000						
(WY)	1993	1993	1994	1993	1993	1994	1994	2000	2000	1993	1993	1993						

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1992 - 2000
ANNUAL TOTAL	2365.76	0.60	
ANNUAL MEAN	6.48	.002	2.16
HIGHEST ANNUAL MEAN			6.48 1999
LOWEST ANNUAL MEAN			.002 2000
HIGHEST DAILY MEAN	240 Apr 29	.12 May 8	240 Apr 29 1999
LOWEST DAILY MEAN	.00 Jan 1	.00 Oct 1	a.00 Aug 15 1992
ANNUAL SEVEN-DAY MINIMUM	.00 Jan 1	.00 Oct 8	.00 Aug 15 1992
INSTANTANEOUS PEAK FLOW		1.5 Aug 31	b430 Apr 29 1999
INSTANTANEOUS PEAK STAGE		2.65 Aug 31	c5.40 Apr 29 1999
ANNUAL RUNOFF (AC-FT)	4690	1.2	1570
10 PERCENT EXCEEDS	17	.00	2.4
50 PERCENT EXCEEDS	.00	.00	.00
90 PERCENT EXCEEDS	.00	.00	.00

a No flow most of the time most years.  
b From rating curve extended above 327 ft<sup>3</sup>/s.  
c From floodmarks.

ARKANSAS RIVER BASIN

07103707 FOUNTAIN CREEK AT 8th STREET AT COLORADO SPRINGS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°49'46", long 104°50'21", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.13, T.14 S., R.67 W., El Paso County, Hydrologic Unit 11020003, 270 ft downstream from 8th Street and 0.4 mi upstream from Monument Creek.

DRAINAGE AREA.--119 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1981 to September 1982. March 1997 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT 21...	1030	21	399	8.1	6.0	10.0	<1.0	75	41.1	11.7	59.0	2.8
DEC 15...	1300	17	532	8.3	.0	12.1	1.0	78	54.7	16.5	100	2.8
FEB 17...	1000	10	654	8.3	3.0	10.9	<1.0	32	62.9	22.0	140	2.7
APR 19...	1300	30	348	8.3	9.5	9.0	<1.0	K22	33.6	9.04	56.0	2.7
JUN 21...	1330	1.9	1380	8.1	20.0	7.0	<1.0	K890	118	49.4	472	2.9
AUG 15...	1315	2.6	728	8.1	21.5	6.6	<1.0	1400	60.2	22.3	190	2.7

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL SOLVED (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL SOLVED (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL SOLVED (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 21...	1.00	<.020	.050	.020	<1	<1.0	53	48	<.1	<.1	<1
DEC 15...	1.40	--	.040	.010	2	<1.0	66	67	<.1	.1	<1
FEB 17...	1.60	<.020	.030	<.010	2	<1.0	75	74	.1	<.1	<1
APR 19...	.750	.020	.060	.020	2	<1.0	39	38	<.1	<.1	<1
JUN 21...	2.86	<.020	<.050	<.010	5	4.0	174	174	.1	.1	<1
AUG 15...	1.21	<.020	<.050	.012	4	2.9	94	93	<.1	<.1	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
OCT 21...	<1.0	1	<1	350	20	<1	<1	123	104	--	<.1
DEC 15...	<1.0	2	1	500	20	2	<1	138	102	--	<.1
FEB 17...	<1.0	2	1	410	<10	2	<1	185	154	--	<.1
APR 19...	<1.0	2	<1	--	40	2	<1	83	47	--	<.1
JUN 21...	--	--	--	40	<10	<1	<1	482	475	<.3	<.2
AUG 15...	<1.0	2	2	250	<10	2	<1	155	142	<.3	E.1

ARKANSAS RIVER BASIN

07103707 FOUNTAIN CREEK AT 8th STREET AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 21...	<2	2	2	1.0	<1	<1	41	34	<.01	--	--
DEC 15...	2	3	5	5.0	<1	<1	26	16	<.01	14	.64
FEB 17...	3	2	6	5.1	<1	<1	40	26	<.01	8	.22
APR 19...	2	<2	3	2.6	<1	<1	18	8	<.01	14	1.1
JUN 21...	6	5	18	15.4	<1	<1	87	80	<.01	1	.01
AUG 15...	3	2	7	6.5	<1	<1	27	<3	<.01	3	.02

ARKANSAS RIVER BASIN

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 39°01'52", long 104°50'52", in SW<sup>1</sup>/<sub>4</sub>/SW<sup>1</sup>/<sub>4</sub> sec.1, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank, at U.S. Air Force Academy, 50 ft upstream from Denver and Rio Grande Western Railroad bridge, 0.8 mi upstream from North Gate Boulevard, and 1.5 mi downstream from Beaver Creek.

DRAINAGE AREA.--81.7 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,640 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by storage and diversions upstream from station for municipal supply of Monument and Palmer Lake.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	e11	e11	9.1	e10	11	26	37	15	8.0	3.1	6.7
2	8.3	e11	e11	9.3	e11	14	25	38	14	7.7	3.1	4.7
3	9.7	e11	e12	e9.3	11	e13	26	37	9.1	8.1	3.3	4.5
4	12	e11	e11	e8.8	e11	18	e28	33	7.4	7.3	4.0	4.4
5	14	e10	e10	e9.5	e12	e18	e31	31	6.9	6.6	4.2	4.7
6	11	e11	e11	e10	e12	e16	e33	28	7.7	6.3	3.9	4.5
7	9.9	e11	e10	e10	e12	13	40	25	7.7	6.5	3.7	4.2
8	e10	e11	e10	e11	12	e12	e43	37	7.7	6.2	3.5	4.1
9	e10	e11	e10	e11	12	11	45	36	8.5	5.9	3.6	3.7
10	e11	e11	e10	e11	12	e12	45	29	6.6	5.7	3.7	4.0
11	e11	e11	e10	e11	12	e13	44	29	7.1	6.1	3.7	4.0
12	e11	e11	e11	10	e12	14	e44	29	7.8	6.4	3.7	3.8
13	e11	e11	e12	e11	e12	e13	45	26	7.3	6.0	3.6	2.6
14	e12	e11	e9.0	e11	e11	13	45	25	7.8	5.2	3.7	2.3
15	e12	e10	e8.4	e11	11	15	45	23	8.2	5.0	3.9	2.3
16	e13	e9.6	e9.0	e10	9.7	e17	43	16	8.9	5.4	4.1	2.2
17	e13	e10	e9.2	e10	12	19	43	22	8.6	5.6	4.5	2.2
18	e13	e10	e9.4	e10	e11	20	44	28	8.3	5.6	5.6	2.4
19	e13	e10	e9.6	11	e10	e21	48	27	8.5	5.1	5.3	2.4
20	e12	e10	e9.6	e11	e10	e22	e42	24	8.1	5.2	4.5	3.1
21	e12	e10	e9.4	11	e10	e22	e42	21	6.7	4.8	5.3	3.4
22	e11	e11	e9.0	11	e10	23	43	17	6.9	4.8	5.8	6.1
23	e14	e11	e8.8	11	e10	e24	40	17	7.2	4.6	4.9	5.0
24	e12	e10	e8.6	e10	e9.8	e24	42	20	8.1	4.7	4.5	6.2
25	e12	e10	e9.6	8.5	e9.8	e23	e41	24	8.7	4.7	5.1	4.9
26	e12	e10	e9.8	e9.0	e9.8	e23	e41	20	12	4.6	9.5	4.3
27	e11	e11	e10	e9.4	e9.0	23	40	15	12	4.3	5.4	4.0
28	e11	e11	e10	e9.6	e9.0	23	39	14	9.9	4.1	5.1	3.8
29	e11	e11	e9.8	e9.8	e10	25	38	12	9.1	4.1	14	3.6
30	e11	e11	e9.6	e10	---	e28	42	13	8.6	3.6	8.6	3.5
31	e11	---	e9.4	e10	---	31	---	15	---	3.3	5.5	---
TOTAL	354.8	318.6	307.2	314.3	313.1	574	1193	768	260.4	171.5	152.4	117.6
MEAN	11.4	10.6	9.91	10.1	10.8	18.5	39.8	24.8	8.68	5.53	4.92	3.92
MAX	14	11	12	11	12	31	48	38	15	8.1	14	6.7
MIN	8.3	9.6	8.4	8.5	9.0	11	25	12	6.6	3.3	3.1	2.2
AC-FT	704	632	609	623	621	1140	2370	1520	517	340	302	233

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1985 - 2000, BY WATER YEAR (WY)

	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	5.52	6.49	5.45	4.98	5.43	9.09	28.7	52.9	25.6	9.78	9.13	5.53				
MAX (WY)	11.4	13.0	9.91	10.1	10.8	21.1	75.5	210	77.8	30.6	36.7	15.7				
MIN (WY)	2000	1998	2000	2000	2000	1998	1999	1999	1999	1995	1999	1997				
AC-FT (WY)	1990	1990	1990	1990	1990	1991	1989	1989	1989	1989	1989	1989				

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1985 - 2000
ANNUAL TOTAL	14887.6	4844.9	
ANNUAL MEAN	40.8	13.2	
HIGHEST ANNUAL MEAN			39.6
LOWEST ANNUAL MEAN			3.82
HIGHEST DAILY MEAN	1250	48	1250
LOWEST DAILY MEAN	2.8	2.2	.58
ANNUAL SEVEN-DAY MINIMUM	4.0	2.3	.69
INSTANTANEOUS PEAK FLOW		a67	b1790
INSTANTANEOUS PEAK STAGE		7.52	c9.01
ANNUAL RUNOFF (AC-FT)	29530	9610	9880
10 PERCENT EXCEEDS	110	29	31
50 PERCENT EXCEEDS	11	10	6.2
90 PERCENT EXCEEDS	5.1	4.1	2.0

e Estimated.

a From rating curve extended above 52 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

b From slope-area measurement of peak flow.

c From floodmarks.

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD, AT U.S. AIR FORCE ACADEMY, CO--Continued

WATER-QUALITY RECORDS

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

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SULFATE DIS-SOLVED (MG/L) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
DEC 15...	0830	8.2	299	8.0	.0	11.0	--	48	30.8	5.26	24.6	1.6
FEB 16...	0815	15	304	7.9	.0	11.4	--	16	29.4	5.08	26.3	1.2
APR 19...	0745	53	148	8.1	5.2	9.4	--	K1900	16.0	2.55	11.3	1.6
JUN 21...	0900	6.5	256	8.3	15.0	8.9	<1.0	120	25.6	4.25	20.4	1.4
AUG 15...	0915	3.9	363	8.5	19.0	9.0	1.3	100	31.6	5.40	24.0	1.4

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS, PHOS-DIS-SOLVED (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
DEC 15...	.596	.050	.546	.384	<3	<2.0	76	69	<.1	<1.0	<1
FEB 16...	1.72	.145	.634	.571	<3	<2.0	78	82	<.1	<1.0	<1
APR 19...	.093	.033	.319	.107	<3	<2.0	24	23	E.1	<1.0	E1
JUN 21...	.191	<.020	.376	.290	<3	<2.0	77	76	E.1	<1.0	<1
AUG 15...	.160	<.020	1.04	.874	<3	E1.1	174	173	<.1	<1.0	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
DEC 15...	<.8	2	2	320	30	<1	<1	78	75	<.3	<.2
FEB 16...	<1.0	2	2	410	60	E1	<1	99	84	<.3	<.2
APR 19...	<.8	2	<1	3240	100	4	<1	210	29	<.3	<.2
JUN 21...	<.8	2	2	400	110	E1	<1	50	37	<.3	<.2
AUG 15...	<.8	E1	2	560	70	<1	<1	80	42	<.3	<.2

DATE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
DEC 15...	<2	1	<3	<2.4	<1	<1	E18	8	<.01	7	.15
FEB 16...	E1	2	<3	<2.4	<1	<1	E29	16	<.01	14	.57
APR 19...	E1	<1	<3	<2.4	<1	<1	<31	6	<.01	322	46
JUN 21...	E1	1	<3	<2.4	<1	<1	<31	9	<.01	2	.04
AUG 15...	E1	2	<3	<2.4	<1	<1	E19	16	--	8	.08

## ARKANSAS RIVER BASIN

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD, AT U.S. AIR FORCE ACADEMY, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					MAY				
01...	1335	11	306	17.0	24...	0855	18	211	13.0
20...	1450	13	287	13.0	JUN				
NOV					21...	0900	6.5	256	15.0
12...	1010	11	300	6.5	JUL				
DEC					10...	1650	5.8	280	25.9
15...	0830	8.2	299	.0	AUG				
29...	1040	10	316	3.5	03...	1025	2.9	324	22.0
FEB					15...	0915	3.9	363	19.0
16...	0815	15	304	.0	24...	1120	4.2	394	21.9
APR					29...	1105	14	280	18.6
04...	1120	26	249	9.5					
19...	0745	53	148	5.2					

07103780 MONUMENT CREEK ABOVE NORTH GATE BOULEVARD, AT U.S. AIR FORCE ACADEMY, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.56 inches, May 8, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.56 inches, May 8.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.00	.00	.00	.01
2	---	---	---	---	---	---	---	.00	.00	.25	.01	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.11	.00
4	---	---	---	---	---	---	---	.00	.00	.00	.17	.00
5	---	---	---	---	---	---	e.00	.00	.00	.00	.01	.00
6	---	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	.11	.00	.00
8	---	---	---	---	---	---	.00	1.56	.00	.00	.00	.00
9	---	---	---	---	---	---	.00	.01	.00	.00	.04	.00
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.00	.00	.03	.06	.01	.00
12	---	---	---	---	---	---	.01	.00	.00	.16	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.04	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.20	.00
15	---	---	---	---	---	---	.13	.00	.00	.26	.00	.00
16	---	---	---	---	---	---	.07	.00	.00	.00	.05	.00
17	---	---	---	---	---	---	.00	.46	.17	.19	.54	.00
18	---	---	---	---	---	---	.00	.13	.00	.04	.21	.00
19	---	---	---	---	---	---	.00	.00	.04	.01	.01	.00
20	---	---	---	---	---	---	.00	.00	.00	.01	.18	.06
21	---	---	---	---	---	---	.00	.00	.00	.00	.77	.43
22	---	---	---	---	---	---	.04	.00	.00	.00	.35	.00
23	---	---	---	---	---	---	.05	.00	.00	.00	.01	.24
24	---	---	---	---	---	---	.00	.22	.00	.03	.00	.18
25	---	---	---	---	---	---	.00	.00	.55	.00	.42	e.00
26	---	---	---	---	---	---	.00	.03	.78	.01	.02	e.00
27	---	---	---	---	---	---	.00	.00	.35	.00	.06	.00
28	---	---	---	---	---	---	.00	.00	.04	.10	.44	.00
29	---	---	---	---	---	---	.14	.00	.01	.01	.93	.00
30	---	---	---	---	---	---	.22	.00	.01	.00	.17	.00
31	---	---	---	---	---	---	---	.00	---	.00	.14	---
TOTAL	---	---	---	---	---	---	---	2.41	1.98	1.24	4.89	0.92
MAX	---	---	---	---	---	---	---	1.56	.78	.26	.93	.43

e Estimated.

07103785 DEADMANS CREEK ABOVE DEADMANS LAKE AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 39°01'27", long 104°54'03", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.9, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank, 100 ft upstream from Deadmans Lake, 1.2 mi northwest of the Air Force Academy Chapel, 3.7 mi west of Interstate-25, and 5.0 mi southwest of Monument.

DRAINAGE AREA.--1.55 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 2000.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 7,220 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1.5 ft<sup>3</sup>/s, Apr. 9, 18, gage height, 4.05 feet, from rating curve extended above 0.90 ft<sup>3</sup>/s; no flow many days.EXTREMES FOR CURRENT YEAR.--Maximum discharge during period March to September, 1.5 ft<sup>3</sup>/s, Apr. 9, 18, gage height, 4.05 ft, from rating curve extended above 0.90 ft<sup>3</sup>/s; no flow many days.DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.40	.94	.26	.08	.01	.15
2	---	---	---	---	---	---	.38	.85	.28	.08	.00	.08
3	---	---	---	---	---	---	.40	.76	.27	.10	.00	.07
4	---	---	---	---	---	---	.57	.67	.26	.08	.01	.06
5	---	---	---	---	---	---	.80	.65	.25	.07	.02	.06
6	---	---	---	---	---	---	1.0	.64	.23	.06	.01	.06
7	---	---	---	---	---	---	1.1	.57	.21	.05	.01	.06
8	---	---	---	---	---	---	1.0	1.0	.19	.05	.00	.06
9	---	---	---	---	---	---	1.2	.89	.16	.05	.00	.05
10	---	---	---	---	---	---	1.2	.75	.15	.05	.00	.05
11	---	---	---	---	---	---	1.1	.68	.15	.05	.00	.04
12	---	---	---	---	---	---	1.1	.64	.13	.04	.00	.05
13	---	---	---	---	---	---	1.2	.60	.10	.05	.00	.05
14	---	---	---	---	---	---	1.3	.61	.10	.04	.00	.04
15	---	---	---	---	---	---	1.2	.56	.09	.04	.00	.04
16	---	---	---	---	---	---	1.2	.53	.10	.08	.00	.04
17	---	---	---	---	---	---	1.2	.57	.13	.08	.00	.04
18	---	---	---	---	---	---	1.3	.57	.11	.08	.06	.04
19	---	---	---	---	---	---	1.2	.63	.09	.05	.04	.04
20	---	---	---	---	---	---	1.2	.58	.08	.05	.02	.06
21	---	---	---	---	---	---	1.2	.49	.06	.04	.03	.09
22	---	---	---	---	---	---	1.1	.46	.06	.05	.06	.11
23	---	---	---	---	---	---	1.2	.42	.05	.03	.04	.11
24	---	---	---	---	---	---	1.1	.45	.05	.02	.03	.11
25	---	---	---	---	---	---	1.1	.47	.05	.03	.07	.14
26	---	---	---	---	---	---	1.0	.41	.20	.04	.10	.11
27	---	---	---	---	---	---	1.0	.37	.30	.04	.04	.09
28	---	---	---	---	---	---	.97	.33	.26	.03	.04	.09
29	---	---	---	---	---	---	.92	.30	.20	.02	.28	.08
30	---	---	---	---	---	---	1.0	.28	.11	.02	.25	.08
31	---	---	---	---	---	.37	---	.27	---	.01	.11	---
TOTAL	---	---	---	---	---	---	30.64	17.94	4.68	1.56	1.23	2.15
MEAN	---	---	---	---	---	---	1.02	.58	.16	.050	.040	.072
MAX	---	---	---	---	---	---	1.3	1.0	.30	.10	.28	.15
MIN	---	---	---	---	---	---	.38	.27	.05	.01	.00	.04
AC-FT	---	---	---	---	---	---	61	36	9.3	3.1	2.4	4.3



07103785 DEADMANS CREEK ABOVE DEADMANS LAKE, AT U. S. AIR FORCE ACADEMY, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records are good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.66 inches, May 8, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.66 inches, May 8.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.29	.01	.00	.00	.00	.03
2	---	---	---	---	---	---	.09	.00	.00	.34	.00	.00
3	---	---	---	---	---	---	.17	.00	.00	.03	.01	.00
4	---	---	---	---	---	---	.01	.00	.00	.00	.13	.01
5	---	---	---	---	---	---	.00	.00	.00	.00	.00	.01
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	.03	.00	.00
8	---	---	---	---	---	---	.00	1.66	.00	.00	.00	.00
9	---	---	---	---	---	---	.00	.06	.00	.00	.00	.00
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.01	.00	.02	.01	.00	.00
12	---	---	---	---	---	---	.01	.00	.00	.01	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.01	.04	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.10	.00
15	---	---	---	---	---	---	.02	.00	.00	.68	.01	.00
16	---	---	---	---	---	---	.20	.00	.03	.01	.05	.00
17	---	---	---	---	---	---	.00	.87	.31	.16	.33	.00
18	---	---	---	---	---	---	.00	.11	.01	.02	.31	.00
19	---	---	---	---	---	---	.00	.00	.08	.00	.04	.00
20	---	---	---	---	---	---	.00	.03	.00	.00	.06	.16
21	---	---	---	---	---	---	.00	.00	.00	.00	.41	.67
22	---	---	---	---	---	---	.11	.00	.00	.00	.38	.02
23	---	---	---	---	---	---	.07	.00	.00	.01	.00	.22
24	---	---	---	---	---	---	.01	.34	.00	.21	.00	.04
25	---	---	---	---	---	---	.00	.01	.66	.00	.97	.43
26	---	---	---	---	---	---	.00	.06	1.06	.23	.01	e.00
27	---	---	---	---	---	---	.00	.00	.34	.00	.04	.00
28	---	---	---	---	---	---	.00	.00	.06	.00	.43	.00
29	---	---	---	---	---	---	.22	.00	.02	.00	1.54	.00
30	---	---	---	---	---	---	.33	.00	.03	.00	.10	.00
31	---	---	---	---	---	---	---	.00	---	.00	.39	---
TOTAL	---	---	---	---	---	---	1.54	3.15	2.62	1.75	5.35	1.59
MAX	---	---	---	---	---	---	.33	1.66	1.06	.68	1.54	.67

e Estimated.

## 07103790 MONUMENT CREEK BELOW SEWAGE TREATMENT PLANT AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°58'53", long 104°49'50", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.30, T.12 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank, at U.S. Air Force Academy, 100 ft upstream from Sante Fe Recreation Trail footbridge, 1.0 mi west of Interstate 25, 1.2 mi southeast of Falcon Stadium, and 1.5 mi northwest of the south entrance to the U. S. Air Force Academy.

DRAINAGE AREA.--122 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,420 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, and those above 50 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by storage reservoirs, diversions for municipal use and sewage discharge. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge 78 ft<sup>3</sup>/s, May 8, 2000, gage height 4.21 ft, from rating curve extended above 44 ft<sup>3</sup>/s; minimum daily, 3.4 ft<sup>3</sup>/s, Aug. 13-14, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge 78 ft<sup>3</sup>/s at 1745 May 8, gage height 4.21 ft, from rating curve extended above 44 ft<sup>3</sup>/s; minimum daily, 3.4 ft<sup>3</sup>/s, Aug. 13-14.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	35	42	19	8.1	4.9	8.2
2	---	---	---	---	---	---	33	43	19	8.0	4.8	5.3
3	---	---	---	---	---	---	33	41	12	9.0	4.8	5.0
4	---	---	---	---	---	---	32	41	9.2	8.2	5.9	5.1
5	---	---	---	---	---	---	34	39	8.7	7.4	6.1	5.3
6	---	---	---	---	---	---	41	33	9.9	6.8	5.2	5.0
7	---	---	---	---	---	---	48	27	10	7.3	4.4	5.0
8	---	---	---	---	---	---	48	55	9.5	7.4	3.9	5.0
9	---	---	---	---	---	---	48	54	11	7.1	4.0	4.8
10	---	---	---	---	---	---	48	41	9.2	6.9	4.3	4.8
11	---	---	---	---	---	---	50	40	9.3	7.8	4.1	5.2
12	---	---	---	---	---	---	50	37	9.5	8.9	4.0	5.4
13	---	---	---	---	---	---	51	34	8.9	8.5	3.4	4.5
14	---	---	---	---	---	---	53	31	9.4	7.3	3.4	4.0
15	---	---	---	---	---	---	54	29	e9.7	6.9	3.6	3.9
16	---	---	---	---	---	---	52	17	10	7.6	4.0	3.6
17	---	---	---	---	---	---	48	26	10	8.6	5.1	3.8
18	---	---	---	---	---	---	46	38	9.6	9.3	7.8	4.2
19	---	---	---	---	---	---	51	35	9.3	7.2	7.6	3.9
20	---	---	---	---	---	---	45	31	8.4	7.4	5.1	4.7
21	---	---	---	---	---	---	47	25	6.5	6.8	6.9	5.4
22	---	---	---	---	---	---	45	18	6.4	7.2	9.6	8.6
23	---	---	---	---	---	---	40	19	6.4	6.6	7.9	7.3
24	---	---	---	---	---	---	43	25	7.5	6.3	5.6	9.7
25	---	---	---	---	---	---	42	31	e9.2	6.5	5.4	8.1
26	---	---	---	---	---	---	42	27	e16	6.1	11	7.0
27	---	---	---	---	---	---	41	18	e15	6.2	7.0	6.4
28	---	---	---	---	---	---	41	17	13	5.7	6.2	6.3
29	---	---	---	---	---	---	40	14	11	6.0	18	6.1
30	---	---	---	---	---	---	51	15	9.1	5.5	11	5.9
31	---	---	---	---	---	---	---	20	---	4.9	6.7	---
TOTAL	---	---	---	---	---	---	1332	963	311.7	223.5	191.7	167.5
MEAN	---	---	---	---	---	---	44.4	31.1	10.4	7.21	6.18	5.58
MAX	---	---	---	---	---	---	54	55	19	9.3	18	9.7
MIN	---	---	---	---	---	---	32	14	6.4	4.9	3.4	3.6
AC-FT	---	---	---	---	---	---	2640	1910	618	443	380	332

e Estimated.

07103790 MONUMENT CREEK BELOW SEWAGE TREATMENT PLANT, AT U.S. AIR FORCE ACADEMY, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.62 inches, May 8, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.62 inches, May 8.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.01	.00	.00	.00	.00
2	---	---	---	---	---	---	---	.00	.00	.36	.02	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	---	.00	.00	.00	.09	.01
5	---	---	---	---	---	---	.00	.00	.00	.00	.05	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	.00	1.62	.00	.00	.00	.00
9	---	---	---	---	---	---	.00	.01	.00	.00	.00	.00
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.02	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	.01	.00	.00	.00	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.06	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.01	.00
15	---	---	---	---	---	---	.14	.00	.00	.16	.00	.00
16	---	---	---	---	---	---	.00	.00	.00	.00	.02	.00
17	---	---	---	---	---	---	.00	.45	.20	.50	.42	.00
18	---	---	---	---	---	---	.00	.08	.00	.08	.00	.00
19	---	---	---	---	---	---	.00	.00	.03	.38	.10	.00
20	---	---	---	---	---	---	.00	.00	.00	.01	.00	.05
21	---	---	---	---	---	---	.00	.00	.00	.00	.71	.27
22	---	---	---	---	---	---	.03	.00	.00	.08	.26	.01
23	---	---	---	---	---	---	.07	.00	.00	.01	.00	.28
24	---	---	---	---	---	---	.01	.21	.00	.03	.00	.21
25	---	---	---	---	---	---	.00	.00	.48	.00	.29	.00
26	---	---	---	---	---	---	.00	.04	1.10	.05	.05	e.00
27	---	---	---	---	---	---	.00	.00	.32	.00	.02	.00
28	---	---	---	---	---	---	.00	.00	.00	.06	.62	.00
29	---	---	---	---	---	---	.14	.00	.03	.01	.32	.00
30	---	---	---	---	---	---	.20	.00	.00	.00	.01	.00
31	---	---	---	---	---	---	---	.00	---	.00	.13	---
TOTAL	---	---	---	---	---	---	---	2.42	2.16	1.73	3.18	0.83
MAX	---	---	---	---	---	---	---	1.62	1.10	.50	.71	.28

e Estimated.

## 07103797 WEST MONUMENT CREEK BELOW RAMPART RESERVOIR, CO

LOCATION.--Lat 38°58'30", long 104°57'18", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.26, T.12 S., R.68 W., El Paso County, Hydrologic Unit 11020003, on right bank 0.1 mi below Wildcat Gulch, and 0.5 mi below Rampart Reservoir.

DRAINAGE AREA.--7.29 mi<sup>2</sup>.

PERIOD OF RECORD.--November 1993 to current year.

GAGE.--Water-stage recorder and satellite telemetry. Elevation of gage is 8,710 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by storage reservoir and transmountain diversions. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	3.3	6.2	6.7	6.8	5.1	3.9	3.8	3.4	3.5	4.2	3.5
2	6.3	3.3	6.3	6.7	7.0	4.6	3.9	3.7	3.4	3.5	4.3	3.4
3	6.3	3.2	6.2	6.7	7.1	4.1	3.9	3.6	3.4	3.5	4.3	3.4
4	6.3	3.2	6.2	6.7	7.1	4.0	4.3	3.6	3.3	3.4	4.5	3.3
5	6.3	3.1	6.2	6.7	7.1	4.1	4.3	3.9	3.5	3.3	4.4	3.3
6	5.7	7.4	6.2	6.6	7.1	4.1	4.3	4.4	3.6	3.3	4.3	3.2
7	4.6	10	6.3	6.4	7.1	4.2	3.7	4.3	3.6	3.3	4.2	3.1
8	4.2	9.8	6.2	6.1	7.1	4.2	3.6	5.4	3.7	3.4	4.1	3.1
9	4.0	9.6	6.2	6.1	7.1	4.1	3.7	5.1	5.2	3.3	4.1	3.1
10	4.0	8.4	6.2	6.1	7.2	4.1	3.7	4.9	5.4	3.3	4.1	3.1
11	3.7	7.4	6.2	6.2	7.2	4.1	3.6	4.8	5.4	3.3	4.1	3.1
12	3.6	6.3	6.2	6.2	7.1	4.1	3.6	4.8	5.4	3.5	3.9	3.0
13	3.5	5.8	6.1	6.2	7.1	4.1	3.7	4.3	5.4	3.6	3.9	3.0
14	3.8	5.5	5.9	6.2	7.2	4.2	3.7	3.8	5.4	3.6	3.9	3.0
15	4.0	5.0	5.9	6.2	7.2	4.1	3.7	3.7	5.3	3.7	3.9	3.0
16	4.0	4.9	5.9	6.2	7.2	4.2	3.5	3.6	5.3	3.8	3.8	3.0
17	4.0	4.9	6.1	6.2	7.2	4.2	3.6	3.6	5.2	3.7	3.7	3.3
18	4.0	4.9	6.1	6.2	7.2	4.1	3.8	3.7	5.1	3.6	3.8	3.6
19	4.1	4.8	6.1	6.3	7.2	4.0	3.8	3.6	5.1	3.6	3.8	3.6
20	3.7	4.9	6.1	6.3	7.2	4.0	3.6	3.5	5.0	3.8	3.8	3.6
21	3.3	4.9	6.1	6.3	7.2	4.0	3.6	3.4	4.9	4.0	3.7	3.7
22	3.3	4.9	6.1	6.4	7.2	4.0	3.6	3.6	4.7	4.1	3.5	3.8
23	3.3	4.9	6.1	6.5	7.1	4.1	3.7	3.8	4.7	4.1	3.4	3.4
24	3.3	4.9	6.2	6.7	7.1	4.2	3.6	4.0	4.7	4.3	3.4	3.2
25	3.3	5.1	6.4	6.8	6.8	4.3	3.5	4.1	4.8	4.3	3.4	3.2
26	3.2	5.4	6.4	6.8	6.6	4.4	3.5	3.9	5.2	4.3	3.4	3.6
27	3.3	5.7	6.4	6.8	6.7	4.5	3.5	3.8	4.9	4.3	3.3	3.8
28	3.3	5.9	6.4	6.8	6.7	4.4	3.6	3.7	3.9	4.3	3.2	3.8
29	3.3	6.0	6.4	6.8	6.2	4.2	3.8	3.6	3.6	4.3	3.7	3.9
30	3.3	6.0	6.4	6.8	---	3.9	4.0	3.5	3.5	4.3	3.7	3.9
31	3.3	---	6.4	6.8	---	3.9	---	3.4	---	4.3	3.5	---
TOTAL	128.6	169.4	192.1	200.5	204.1	129.6	112.3	122.9	136.0	116.6	119.3	101.0
MEAN	4.15	5.65	6.20	6.47	7.04	4.18	3.74	3.96	4.53	3.76	3.85	3.37
MAX	6.3	10	6.4	6.8	7.2	5.1	4.3	5.4	5.4	4.3	4.5	3.9
MIN	3.2	3.1	5.9	6.1	6.2	3.9	3.5	3.4	3.3	3.3	3.2	3.0
AC-FT	255	336	381	398	405	257	223	244	270	231	237	200

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2000, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000
MEAN	4.96	5.77	6.46	6.20	6.40	6.09	6.28
MAX	10.1	10.6	9.68	9.36	8.75	10.7	10.5
(WY)	1995	1995	1994	1996	1996	1994	1996
MIN	3.55	3.48	3.82	3.69	3.91	4.18	3.74
(WY)	1999	1998	1998	1999	1999	2000	1998

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1994 - 2000
ANNUAL TOTAL	1871.5	1732.4	
ANNUAL MEAN	5.13	4.73	6.14
HIGHEST ANNUAL MEAN			10.0
LOWEST ANNUAL MEAN			4.13
HIGHEST DAILY MEAN	10	10	29
LOWEST DAILY MEAN	3.1	3.0	1.4
ANNUAL SEVEN-DAY MINIMUM	3.2	3.0	3.0
INSTANTANEOUS PEAK FLOW		12	a46
INSTANTANEOUS PEAK STAGE		4.77	5.54
ANNUAL RUNOFF (AC-FT)	3710	3440	4450
10 PERCENT EXCEEDS	7.2	6.8	12
50 PERCENT EXCEEDS	4.6	4.1	5.4
90 PERCENT EXCEEDS	3.6	3.3	3.6

a From rating curve extended above 30 ft<sup>3</sup>/s.

07103800 WEST MONUMENT CREEK AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°58'14", long 104°54'08", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.28, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 500 ft upstream from diversion to city of Colorado Springs water-treatment plant, 2.7 mi south of U.S. Air Force Academy chapel, and 4.4 mi upstream from mouth.

DRAINAGE AREA.--14.9 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CO-99-1: 1997 (M).

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 7,180 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by trans-mountain diversions from Colorado River basin, storage reservoirs, and operation of water-supply system. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.1	.95	.82	e.84	.95	1.5	2.7	1.1	.77	.42	.70
2	1.4	1.1	.94	.80	e.86	.95	1.5	2.5	1.1	.72	.42	.60
3	1.3	1.1	.96	.76	.88	.91	2.3	2.4	1.1	.77	.42	.57
4	1.3	1.0	1.0	.84	.89	.96	7.4	2.4	1.0	.68	.44	.53
5	1.3	1.0	e.96	.80	.98	.97	6.4	2.2	.99	.64	.46	.52
6	1.3	1.0	.92	.73	.95	.95	2.9	2.0	.94	.59	.43	2.1
7	1.6	1.0	.91	.71	.95	.99	2.8	2.0	.91	.86	.42	.64
8	3.3	1.0	.89	.80	.97	.91	2.8	3.3	.87	2.4	.42	.53
9	5.0	1.0	e.89	.77	.96	.88	3.7	3.1	.85	1.6	.40	.50
10	2.6	.97	.89	.73	.96	.88	8.5	2.7	.81	.62	.41	.48
11	1.4	.95	.88	.79	.95	e.84	3.8	2.5	.82	.58	.41	.47
12	1.3	.95	e.88	.78	.95	.88	5.6	2.4	.77	.55	.42	.46
13	1.3	.95	.87	.73	.95	.88	9.4	2.3	.76	.56	.40	.46
14	1.2	.93	e1.0	.74	.98	.88	8.4	2.3	.76	.53	.49	.43
15	1.2	.93	e.90	.73	.97	.89	3.5	2.1	.71	.59	.77	1.6
16	1.3	.93	.87	.74	.95	1.0	3.3	2.3	.72	.64	.51	1.7
17	1.3	.95	.86	.82	.97	1.3	3.3	2.2	.82	.61	.51	.43
18	1.3	.92	.83	.83	.97	1.9	3.4	2.1	.77	.58	.62	.44
19	1.3	.88	.80	e.83	.95	7.7	3.3	2.0	.72	.53	.52	.43
20	1.2	.95	e.80	e.86	e.92	5.6	3.2	1.8	.74	.52	.50	.45
21	1.2	.94	e.80	.85	.91	1.3	5.3	1.7	.67	.52	.63	.53
22	7.2	.98	.82	.83	.95	1.1	3.3	1.6	.64	.51	.68	.57
23	15	.97	.80	e.83	.93	1.2	3.3	1.5	.63	.50	.53	.55
24	11	e.98	.80	e.85	.94	1.3	3.3	1.5	.64	.49	.50	.58
25	5.8	e.98	.80	e.87	.92	1.4	3.1	1.6	.68	.47	.50	.71
26	4.0	1.0	.80	e.89	e.86	1.5	3.1	1.4	1.1	.50	.50	1.5
27	1.7	.97	.80	.90	.90	1.5	3.0	1.3	1.2	.47	.48	1.3
28	1.2	.95	.80	e.87	.94	1.6	3.0	1.3	.92	.47	.48	1.2
29	1.1	.94	.80	e.87	.96	1.6	2.8	1.3	.85	.46	1.2	1.0
30	1.1	.95	.80	e.87	---	1.6	2.9	1.2	.77	.44	.90	.69
31	1.1	---	.80	e.84	---	1.5	---	1.2	---	.43	.68	---
TOTAL	83.7	29.27	26.82	25.08	27.11	46.82	120.1	62.9	25.36	20.60	16.47	22.67
MEAN	2.70	.98	.87	.81	.93	1.51	4.00	2.03	.85	.66	.53	.76
MAX	15	1.1	1.0	.90	.98	7.7	9.4	3.3	1.2	2.4	1.2	2.1
MIN	1.1	.88	.80	.71	.84	.84	1.5	1.2	.63	.43	.40	.43
AC-FT	166	58	53	50	54	93	238	125	50	41	33	45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2000, BY WATER YEAR (WY)

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	1.90	1.26	.96	.71	.49	.55	2.19	7.33	4.70	2.38	2.78	1.78																				
MAX	11.7	7.74	8.62	8.78	4.21	2.46	12.4	41.2	30.6	23.3	23.8	20.3																				
(WY)	1972	1971	1971	1971	1999	1971	1971	1999	1997	1970	1970	1970																				
MIN	.000	.000	.000	.000	.000	.001	.11	.20	.031	.017	.000	.000																				
(WY)	1993	1993	1994	1993	1976	1991	1989	1976	1993	1993	1993	1993																				

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1970 - 2000
ANNUAL TOTAL	2578.53	506.90	
ANNUAL MEAN	7.06	1.38	2.02
HIGHEST ANNUAL MEAN			13.4
LOWEST ANNUAL MEAN			.10
HIGHEST DAILY MEAN	e116	Apr 30	Apr 30 1999
LOWEST DAILY MEAN	.62	Mar 17	a.00 Jan 29 1976
ANNUAL SEVEN-DAY MINIMUM	.63	Mar 12	.00 Jan 29 1976
INSTANTANEOUS PEAK FLOW		16	b132 Oct 23 Apr 30 1999
INSTANTANEOUS PEAK STAGE		1.85	c3.41 Oct 23 Apr 30 1999
ANNUAL RUNOFF (AC-FT)	5110	1010	1460
10 PERCENT EXCEEDS	28	2.8	5.1
50 PERCENT EXCEEDS	2.1	.93	.55
90 PERCENT EXCEEDS	.80	.50	.06

e Estimated.

a No flow many days during 1976, 1991-92.

b From rating curve extended above 105 ft<sup>3</sup>/s.

c From floodmarks, maximum gage height, 3.88 ft, Dec. 22, 1983, backwater from ice.

07103800 WEST MONUMENT CREEK AT U.S. AIR FORCE ACADEMY, CO--Continued

## PRECIPITATION RECORDS

PERIOD OF RECORD.--May to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 0.97 inch, June 26, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 0.97 inch, June 26.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.00	.00
2	---	---	---	---	---	---	---	---	.00	.20	.00	.00
3	---	---	---	---	---	---	---	---	.00	.01	.00	.00
4	---	---	---	---	---	---	---	---	.00	.00	.09	.00
5	---	---	---	---	---	---	---	---	.00	.00	.01	.00
6	---	---	---	---	---	---	---	---	.00	.00	.01	.00
7	---	---	---	---	---	---	---	---	.00	.00	.00	.00
8	---	---	---	---	---	---	---	---	.00	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.01	.00	.00	.00
11	---	---	---	---	---	---	---	---	.00	.00	.02	.00
12	---	---	---	---	---	---	---	---	.00	.02	.00	.00
13	---	---	---	---	---	---	---	---	.00	.02	.07	.00
14	---	---	---	---	---	---	---	---	.00	.00	.88	.00
15	---	---	---	---	---	---	---	---	.00	.00	.47	.00
16	---	---	---	---	---	---	---	---	.00	.00	.07	.00
17	---	---	---	---	---	---	---	---	.60	.21	.39	.00
18	---	---	---	---	---	---	---	---	.03	.00	.01	.00
19	---	---	---	---	---	---	---	---	.00	.04	.08	.00
20	---	---	---	---	---	---	---	---	.00	.00	.02	.08
21	---	---	---	---	---	---	---	---	.00	.00	.73	.60
22	---	---	---	---	---	---	---	---	.00	.00	.06	.04
23	---	---	---	---	---	---	---	---	.00	.00	.01	.25
24	---	---	---	---	---	---	---	---	.33	.00	.05	.01
25	---	---	---	---	---	---	---	---	.01	.30	.00	.39
26	---	---	---	---	---	---	---	---	.06	.97	.05	.00
27	---	---	---	---	---	---	---	---	.00	.33	.00	.00
28	---	---	---	---	---	---	---	---	.00	.02	.00	.46
29	---	---	---	---	---	---	---	---	.00	.04	.00	.92
30	---	---	---	---	---	---	---	---	.00	.02	.00	.00
31	---	---	---	---	---	---	---	---	.00	---	.00	---
TOTAL	---	---	---	---	---	---	---	---	1.94	1.16	4.10	1.35
MAX	---	---	---	---	---	---	---	---	.97	.47	.92	.60

07103930 WEST MONUMENT CREEK AT MOUTH, AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°57'32", long 104°50'08", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.36, T.12 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 75 ft downstream from Union Pacific railroad bridge at U. S. Air Force Academy, 0.2 mi north of Ice Lake, and 2.0 mi west of Interstate 25.

DRAINAGE AREA.--23.5 mi<sup>2</sup>.

PERIOD OF RECORD.--March to September 2000.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,380 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by storage and diversions above the station by the Pine Creek/McCullough Water Treatment Plant and others. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19 ft<sup>3</sup>/s, Apr. 14, 2000, gage height, 4.66 ft, from rating curve extended above 10 ft<sup>3</sup>/s; minimum daily, 0.02 ft<sup>3</sup>/s, Aug. 12, 2000.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period March to September, 19 ft<sup>3</sup>/s at 1630 Apr. 14, gage height, 4.66 ft, from rating curve extended above 10 ft<sup>3</sup>/s; minimum daily, 0.02 ft<sup>3</sup>/s, Aug. 12.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	2.1	2.7	1.7	1.3	.32	.74
2	---	---	---	---	---	---	3.0	e2.5	2.1	1.1	.33	.66
3	---	---	---	---	---	---	3.0	e3.0	2.0	1.1	.35	.63
4	---	---	---	---	---	---	7.1	e3.5	1.6	.98	.18	.58
5	---	---	---	---	---	---	9.6	e2.5	1.8	.86	.14	.55
6	---	---	---	---	---	---	6.4	.97	1.7	.75	.12	.82
7	---	---	---	---	---	---	4.9	1.3	1.5	.68	.10	.85
8	---	---	---	---	---	---	6.4	3.8	1.4	1.4	.10	.55
9	---	---	---	---	---	---	7.1	4.2	1.4	1.4	.08	.48
10	---	---	---	---	---	---	15	3.7	1.3	.74	.05	.41
11	---	---	---	---	---	---	8.6	3.3	1.2	.67	.03	.38
12	---	---	---	---	---	---	8.9	4.0	1.2	.59	.02	.38
13	---	---	---	---	---	---	14	4.6	1.1	.61	.03	.36
14	---	---	---	---	---	---	16	4.5	1.2	.56	.08	.34
15	---	---	---	---	---	---	8.3	3.3	.97	.55	.32	.46
16	---	---	---	---	---	---	7.5	2.0	1.1	.68	.37	1.0
17	---	---	---	---	---	---	7.3	4.2	1.3	.74	.43	.44
18	---	---	---	---	---	---	7.8	4.3	1.4	.72	.62	.41
19	---	---	---	---	---	---	7.6	4.2	1.2	.64	.50	.40
20	---	---	---	---	---	---	7.1	4.2	1.2	.63	.49	.42
21	---	---	---	---	---	---	7.6	3.4	1.1	.55	.54	.46
22	---	---	---	---	---	---	7.9	2.8	1.0	.55	.71	.61
23	---	---	---	---	---	---	---	e7.6	2.6	.95	.52	.65
24	---	---	---	---	---	---	e2.6	e7.4	2.9	.93	.46	.36
25	---	---	---	---	---	---	2.7	e7.2	3.4	.95	.42	.29
26	---	---	---	---	---	1.6	e7.0	2.9	1.9	.44	.40	1.3
27	---	---	---	---	---	1.5	6.1	2.6	2.5	.35	.38	1.4
28	---	---	---	---	---	1.5	4.2	1.8	2.2	.30	.37	1.2
29	---	---	---	---	---	1.7	4.6	1.2	1.8	.32	.63	1.4
30	---	---	---	---	---	2.6	4.1	1.2	1.4	.34	.71	.98
31	---	---	---	---	---	2.3	---	1.1	---	.37	.65	---
TOTAL	---	---	---	---	---	---	221.4	92.67	43.10	21.32	10.28	20.36
MEAN	---	---	---	---	---	---	7.38	2.99	1.44	.69	.33	.68
MAX	---	---	---	---	---	---	16	4.6	2.5	1.4	.71	1.4
MIN	---	---	---	---	---	---	2.1	.97	.93	.30	.02	.34
AC-FT	---	---	---	---	---	---	439	184	85	42	20	40

e Estimated.

07103940 MONUMENT CREEK AT SOUTH BOUNDARY, AT U.S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°57'15", long 104°50'00", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.1, T.13 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank at the south boundary of the U. S. Air Force Academy, 400 feet downstream from the Sante Fe Recreation Trail footbridge, 0.2 mi south of Ice Lake, and 1.5 mi west of Interstate 25.

DRAINAGE AREA.--150 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March to September 2000.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,350 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by storage and diversions above the station for the municipal supply of Monument and discharge from the sewage treatment facility upstream of the site. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 100 ft<sup>3</sup>/s, Apr. 19, 2000, from rating curve extended above 58 ft<sup>3</sup>/s, gage height, 4.47 ft; minimum daily, 4.7 ft<sup>3</sup>/s, Sept. 15.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period March to September, 100 ft<sup>3</sup>/s, at 1215 Apr. 19, gage height, 4.47 ft, from rating curve extended above 58 ft<sup>3</sup>/s; minimum daily, 4.7 ft<sup>3</sup>/s, Sept. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	39	43	21	12	7.2	14
2	---	---	---	---	---	---	39	43	21	12	7.0	12
3	---	---	---	---	---	---	e38	43	e14	12	6.5	11
4	---	---	---	---	---	---	e42	41	13	11	7.9	11
5	---	---	---	---	---	---	48	41	e13	11	9.1	11
6	---	---	---	---	---	---	48	36	15	9.1	8.6	11
7	---	---	---	---	---	---	48	33	13	9.8	7.6	11
8	---	---	---	---	---	---	52	60	12	11	6.9	10
9	---	---	---	---	---	---	57	62	12	9.9	6.2	8.4
10	---	---	---	---	---	---	62	48	9.8	9.5	6.7	7.4
11	---	---	---	---	---	---	56	46	10	10	6.8	6.3
12	---	---	---	---	---	---	59	45	11	10	6.9	6.0
13	---	---	---	---	---	---	63	42	10	9.3	7.0	5.1
14	---	---	---	---	---	---	66	40	11	8.5	6.8	4.8
15	---	---	---	---	---	---	60	37	12	8.0	7.7	4.7
16	---	---	---	---	---	---	56	25	13	9.1	8.4	5.6
17	---	---	---	---	---	---	54	33	13	9.6	9.4	4.9
18	---	---	---	---	---	---	55	44	13	9.2	13	5.1
19	---	---	---	---	---	---	60	42	12	8.7	12	5.2
20	---	---	---	---	---	---	50	39	12	8.8	9.0	5.9
21	---	---	---	---	---	---	55	33	9.7	7.5	12	6.9
22	---	---	---	---	---	---	55	26	9.7	7.6	14	10
23	---	---	---	---	---	---	48	e21	9.5	7.4	10	9.7
24	---	---	---	---	---	e33	54	29	12	e7.5	8.3	11
25	---	---	---	---	---	e33	52	35	13	e7.4	8.3	9.8
26	---	---	---	---	---	e32	50	32	18	e7.4	13	9.6
27	---	---	---	---	---	32	48	22	20	e7.5	9.7	9.1
28	---	---	---	---	---	32	43	21	16	7.6	10	8.5
29	---	---	---	---	---	35	42	18	14	7.2	22	8.5
30	---	---	---	---	---	41	51	19	13	5.9	15	7.7
31	---	---	---	---	---	45	---	21	---	6.2	13	---
TOTAL	---	---	---	---	---	---	1550	1120	395.7	277.7	296.0	251.2
MEAN	---	---	---	---	---	---	51.7	36.1	13.2	8.96	9.55	8.37
MAX	---	---	---	---	---	---	66	62	21	12	22	14
MIN	---	---	---	---	---	---	38	18	9.5	5.9	6.2	4.7
AC-FT	---	---	---	---	---	---	3070	2220	785	551	587	498

e Estimated.



07103940 MONUMENT CREEK AT SOUTH BOUNDARY, AT U.S. AIR FORCE ACADEMY, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.83 inches, May 8, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.83 inches, May 8.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.01	.00	.00	.00	.01
2	---	---	---	---	---	---	---	.00	.02	.28	.19	.00
3	---	---	---	---	---	---	---	.00	.00	.01	.01	.00
4	---	---	---	---	---	---	---	.00	.00	.00	.33	.00
5	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	.00	1.83	.00	.00	.00	.00
9	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.04	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	.07	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	.03	.00
15	---	---	---	---	---	---	.10	.00	.00	.29	.00	.00
16	---	---	---	---	---	---	.00	.00	.00	.02	.01	.00
17	---	---	---	---	---	---	.00	.45	.15	.26	.41	.00
18	---	---	---	---	---	---	.00	.02	.00	.01	.00	.00
19	---	---	---	---	---	---	.00	.00	.13	.02	.08	.00
20	---	---	---	---	---	---	.00	.00	.00	.01	.00	.02
21	---	---	---	---	---	---	.00	.00	.00	.03	.44	.21
22	---	---	---	---	---	---	.02	.00	.00	.03	.09	.00
23	---	---	---	---	---	---	.12	.00	.00	.01	.01	.32
24	---	---	---	---	---	---	.00	.29	.00	.01	.00	.18
25	---	---	---	---	---	---	.00	.01	.18	.00	.35	e .00
26	---	---	---	---	---	---	.00	.00	1.20	.00	.09	.00
27	---	---	---	---	---	---	.00	.00	.28	.00	.09	.00
28	---	---	---	---	---	---	.00	.00	.00	.09	.73	.00
29	---	---	---	---	---	---	.08	.00	.11	.01	.30	.00
30	---	---	---	---	---	---	.11	.00	.00	.00	.01	.00
31	---	---	---	---	---	---	---	.00	---	.00	.11	---
TOTAL	---	---	---	---	---	---	---	2.61	2.07	1.08	3.35	0.74
MAX	---	---	---	---	---	---	---	1.83	1.20	.29	.73	.32

e Estimated.

07103960 KETTLE CREEK ABOVE U. S. AIR FORCE ACADEMY, CO

LOCATION.--Lat 38°58'34", long 104°47'55", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.29, T.12 S, R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank 70 ft downstream from Highway 83, 0.5 mi upstream from Kettle Creek dam, 0.6 mi east of Interstate 25, and 2.7 mi upstream from mouth.

DRAINAGE AREA.--16.0 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,620 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those above 3.2 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by runoff from industrial and residential areas of northeast Colorado Springs. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 37.0 ft<sup>3</sup>/s, July 17, 2000, gage height, 4.40 ft, from rating curve extended above 3.2 ft<sup>3</sup>/s; minimum daily, 0.09 ft<sup>3</sup>/s (estimated), Aug. 15, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 37.0 ft<sup>3</sup>/s at 1545 July 17, gage height 4.40 ft, from rating curve extended above 3.2 ft<sup>3</sup>/s; minimum daily, 0.09 ft<sup>3</sup>/s (estimated), Aug. 15.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	1.8	2.8	.44	.78	e.30	.40
2	---	---	---	---	---	---	1.5	3.3	.37	.52	e.30	.41
3	---	---	---	---	---	---	1.7	2.9	.85	.60	e.30	.44
4	---	---	---	---	---	---	1.7	2.6	.95	.57	e.28	.30
5	---	---	---	---	---	---	2.3	3.5	.97	.48	e.26	.20
6	---	---	---	---	---	---	1.8	3.5	.91	.38	e.24	.26
7	---	---	---	---	---	---	1.3	3.0	.98	.42	e.22	.28
8	---	---	---	---	---	---	1.3	3.4	.96	.43	e.20	.24
9	---	---	---	---	---	---	1.7	2.6	.89	.33	e.17	e.22
10	---	---	---	---	---	---	3.1	3.2	.88	.33	e.15	e.20
11	---	---	---	---	---	---	4.1	3.0	1.1	.38	e.14	e.26
12	---	---	---	---	---	---	3.1	3.8	.99	e.36	e.12	e.24
13	---	---	---	---	---	---	2.4	4.4	.78	.35	e.11	e.24
14	---	---	---	---	---	---	2.1	4.4	.65	.34	e.10	e.24
15	---	---	---	---	---	---	3.7	3.5	.87	.53	e.09	e.22
16	---	---	---	---	---	---	3.7	3.0	1.1	.71	e.10	e.22
17	---	---	---	---	---	---	3.6	3.2	.93	1.4	e.14	e.20
18	---	---	---	---	---	---	3.4	2.7	.55	e.80	.16	e.20
19	---	---	---	---	---	---	2.0	3.0	.75	e.50	.21	e.20
20	---	---	---	---	---	---	1.4	2.3	.61	.41	.28	e.22
21	---	---	---	---	---	---	1.4	1.7	.65	.39	1.8	e.30
22	---	---	---	---	---	---	1.2	1.3	.57	.39	2.0	e.26
23	---	---	---	---	---	---	1.4	1.4	.61	.34	e1.0	e.24
24	---	---	---	---	---	---	1.6	2.0	.54	.27	e.60	e.26
25	---	---	---	---	---	---	1.7	1.6	.42	.22	.50	.28
26	---	---	---	---	---	---	2.0	1.5	.59	.32	.32	.36
27	---	---	---	---	---	---	2.2	.97	.40	.32	.40	.34
28	---	---	---	---	---	---	2.2	.86	.66	.45	.70	.45
29	---	---	---	---	---	---	2.4	.65	.82	e.40	.54	.48
30	---	---	---	---	---	---	2.6	.57	.83	e.35	.40	.38
31	---	---	---	---	---	---	---	.67	---	e.30	.37	---
TOTAL	---	---	---	---	---	---	66.4	77.32	22.62	14.37	12.50	8.54
MEAN	---	---	---	---	---	---	2.21	2.49	.75	.46	.40	.28
MAX	---	---	---	---	---	---	4.1	4.4	1.1	1.4	2.0	.48
MIN	---	---	---	---	---	---	1.2	.57	.37	.22	.09	.20
AC-FT	---	---	---	---	---	---	132	153	45	29	25	17

e Estimated.

07103960 KETTLE CREEK ABOVE U.S. AIR FORCE ACADEMY, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.88 inches, May 8, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.88 inches, May 8, but may have been higher during period of missing record, Aug. 3-23.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.05	.00	.00	.00	.00	.01
2	---	---	---	---	---	---	.01	.00	.08	.24	.01	.01
3	---	---	---	---	---	---	.00	.00	.00	.01	---	.00
4	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
5	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
7	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
8	---	---	---	---	---	---	.00	1.88	.00	.00	---	.00
9	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
10	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
11	---	---	---	---	---	---	.03	.00	.00	.00	---	.00
12	---	---	---	---	---	---	.00	.00	.00	.02	---	.00
13	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
14	---	---	---	---	---	---	.00	.00	.00	.00	---	.00
15	---	---	---	---	---	---	.08	.00	.00	.38	---	.00
16	---	---	---	---	---	---	.00	.00	.00	.02	---	.00
17	---	---	---	---	---	---	.00	.28	.20	.04	---	.00
18	---	---	---	---	---	---	.00	.08	.00	.13	---	.00
19	---	---	---	---	---	---	.00	.00	.04	.01	---	.00
20	---	---	---	---	---	---	.00	.00	.00	.00	---	.05
21	---	---	---	---	---	---	.00	.00	.00	e.00	---	.33
22	---	---	---	---	---	---	.01	.00	.00	.03	---	.01
23	---	---	---	---	---	---	.20	.00	.00	.01	---	.22
24	---	---	---	---	---	---	.00	.19	.00	.01	.00	e.25
25	---	---	---	---	---	---	.00	.00	.33	.00	.49	e.00
26	---	---	---	---	---	---	.00	.05	1.06	.02	.13	.00
27	---	---	---	---	---	---	.00	.01	.20	.00	.08	.00
28	---	---	---	---	---	---	.00	.00	.01	.23	.68	.00
29	---	---	---	---	---	---	.17	.00	.01	.00	.28	.00
30	---	---	---	---	---	---	.19	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.06	---
TOTAL	---	---	---	---	---	---	0.74	2.49	1.93	1.15	---	0.88
MAX	---	---	---	---	---	---	.20	1.88	1.06	.38	---	.33

e Estimated.

07103970 MONUMENT CREEK ABOVE WOODMEN ROAD, AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°56'02", long 104°49'00", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.7, T.13 S, R.66 W., El Paso County, Hydrologic Unit 11020003, on right bank 0.1 mi upstream from Woodmen Road, 0.2 mi west of Interstate 25, and 0.5 mi upstream from Cottonwood Creek.

DRAINAGE AREA.--181 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage recorder with satellite telemetry and concrete control. Elevation of gage is 6,270 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream affected by runoff from industrial and residential areas of northeast Colorado Springs.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	25	23	22	21	e20	44	51	27	16	10	17
2	24	25	23	24	e21	22	44	50	26	18	13	12
3	25	26	26	21	22	22	43	49	20	20	11	14
4	27	26	24	21	23	24	44	48	17	16	13	13
5	28	23	24	e23	23	24	49	47	16	15	12	13
6	28	23	26	e24	24	26	49	41	17	14	12	13
7	34	23	23	e24	24	30	53	37	17	14	11	12
8	32	24	23	e25	24	31	57	130	17	15	11	12
9	33	22	23	e25	24	23	57	72	18	16	11	11
10	30	22	24	e26	23	24	63	54	14	14	11	11
11	32	22	22	e24	23	23	59	52	14	13	11	11
12	31	22	21	e24	23	25	60	50	15	16	11	11
13	30	21	20	e25	23	24	64	46	18	14	11	9.9
14	31	21	21	e25	24	24	66	44	18	13	11	9.3
15	33	21	e18	e24	23	25	63	41	18	35	11	9.1
16	35	20	e19	25	23	35	59	31	19	19	11	9.7
17	35	21	e20	25	23	32	57	40	23	47	16	9.5
18	35	21	e21	25	e23	30	58	49	20	18	15	9.6
19	33	21	e20	24	23	29	63	45	19	15	11	9.6
20	32	21	e19	24	21	32	57	42	18	16	9.9	10
21	31	22	e18	24	21	28	59	36	15	15	25	13
22	31	e23	e19	23	22	32	58	29	15	14	18	13
23	36	e23	e20	22	e22	34	56	28	15	13	14	17
24	34	e24	e20	e21	22	34	58	40	16	13	11	14
25	29	e23	e19	e20	e21	33	54	42	18	12	20	9.4
26	30	e24	e19	e20	20	32	53	38	60	13	17	11
27	27	e23	e20	e22	18	34	53	29	36	13	11	11
28	27	e23	e21	23	19	35	51	26	21	18	20	12
29	27	e23	22	22	e19	37	52	22	21	12	38	11
30	26	24	22	20	---	44	59	22	19	11	18	11
31	26	---	22	21	---	53	---	27	---	10	15	---
TOTAL	938	682	662	718	642	921	1662	1358	607	508	439.9	349.1
MEAN	30.3	22.7	21.4	23.2	22.1	29.7	55.4	43.8	20.2	16.4	14.2	11.6
MAX	36	26	26	26	24	53	66	130	60	47	38	17
MIN	24	20	18	20	18	20	43	22	14	10	9.9	9.1
AC-FT	1860	1350	1310	1420	1270	1830	3300	2690	1200	1010	873	692

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2000, BY WATER YEAR (WY)

	1997	1998	1999	2000
MEAN	23.0	21.4	16.6	17.0
MAX	30.3	30.1	21.4	23.2
(WY)	2000	1998	2000	2000
MIN	12.8	13.9	12.1	13.2
(WY)	1999	1997	1997	1997

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1997 - 2000
ANNUAL TOTAL	30000	9487.0	
ANNUAL MEAN	82.2	25.9	44.2
HIGHEST ANNUAL MEAN			80.2
LOWEST ANNUAL MEAN			25.9
HIGHEST DAILY MEAN	2000	Apr 30	2000
LOWEST DAILY MEAN	11	Mar 24	8.7
ANNUAL SEVEN-DAY MINIMUM	12	Mar 23	9.5
INSTANTANEOUS PEAK FLOW		573	Jul 17
INSTANTANEOUS PEAK STAGE		6.04	Jul 17
ANNUAL RUNOFF (AC-FT)	59500	18820	32010
10 PERCENT EXCEEDS	227	49	84
50 PERCENT EXCEEDS	27	23	21
90 PERCENT EXCEEDS	16	12	12

e Estimated.

a From rating curve extended above 636 ft<sup>3</sup>/s.

b From floodmark.

07103970 MONUMENT CREEK ABOVE WOODMEN ROAD AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1997 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT: May to September 1997 (peak flows only), April 1998 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since May 1997.

REMARKS.--Daily suspended-sediment records are fair.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 3,580 mg/L, Aug. 19, 1998; minimum daily mean, 2 mg/L, June 9, 2000.

SEDIMENT LOAD (seasonal only): Maximum daily, 49,100 tons (estimated), Apr. 30, 1999; minimum daily, 0.08 ton, June 9, 2000.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 1,230 mg/L, May 8; minimum daily mean, 2 mg/L, June 9.

SEDIMENT LOAD (seasonal only): Maximum daily, 520 tons, May 8; minimum daily, 0.08 ton, June 9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SULFATE DIS-SOLVED (MG/L) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
OCT 20...	1230	31	354	8.2	9.5	9.4	<1.0	32	43.0	6.82	48.0	1.2
DEC 15...	1045	16	425	8.2	.0	11.4	<1.0	K1	54.8	8.15	60.0	1.1
FEB 16...	1000	21	366	8.2	2.5	11.2	<1.0	K2	41.1	7.59	50.0	1.2
APR 19...	0930	68	207	8.1	5.6	9.9	1.4	100	23.2	3.93	22.0	1.5
JUN 21...	1015	16	366	8.3	17.0	7.8	<1.0	72	44.1	6.42	42.0	1.2
AUG 15...	1030	11	408	8.5	21.0	7.6	<1.0	290	46.9	6.96	48.0	1.1

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)	PHOS-PHORUS TOTAL (MG/L) AS P (00665)	PHOS-ORTHOPHOSPHATE DIS-SOLVED (MG/L) AS P (00671)	ARSENIC TOTAL (UG/L) AS AS (01002)	ARSENIC DIS-SOLVED (UG/L) AS AS (01000)	BORON, TOTAL RECOV-ERABLE (UG/L) AS B (01022)	BORON, DIS-SOLVED (UG/L) AS B (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L) AS CD (01027)	CADMIUM DIS-SOLVED (UG/L) AS CD (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L) AS CR (01034)
OCT 20...	1.20	<.020	.200	.100	<1	<1.0	45	47	<.1	<.1	<1
DEC 15...	1.80	--	.200	.090	1	<1.0	46	45	.1	<.1	<1
FEB 16...	1.90	--	.400	.300	1	<1.0	61	62	.2	.1	<1
APR 19...	.560	.022	.400	.200	2	<1.0	30	30	.3	<.1	<1
JUN 21...	1.11	<.020	.118	.082	1	1.1	53	51	<.1	<.1	<1
AUG 15...	1.07	<.020	.174	.120	2	1.4	77	76	<.1	<.1	<1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L) AS CR (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L) AS CU (01042)	COPPER, DIS-SOLVED (UG/L) AS CU (01040)	IRON, TOTAL RECOV-ERABLE (UG/L) AS FE (01045)	IRON, DIS-SOLVED (UG/L) AS FE (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L) AS PB (01051)	LEAD, DIS-SOLVED (UG/L) AS PB (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L) AS HG (71900)	MERCURY DIS-SOLVED (UG/L) AS HG (71890)
OCT 20...	<1.0	1	1	1090	10	<1	<1	102	62	--	--
DEC 15...	<1.0	2	1	1350	<10	2	<1	140	88	--	--
FEB 16...	<1.0	3	1	1130	<10	2	<1	109	72	--	<.1
APR 19...	<1.0	4	<1	--	--	6	<1	175	29	--	<.1
JUN 21...	<1.0	7	4	290	20	<1	<1	31	19	<.3	<.2
AUG 15...	<1.0	2	2	330	<10	<1	<1	30	10	<.3	<.2

## ARKANSAS RIVER BASIN

07103970 MONUMENT CREEK ABOVE WOODMEN ROAD AT COLORADO SPRINGS, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 20...	3	<2	1	.8	<1	<1	12	6	<.01	--	--
DEC 15...	3	3	3	2.7	<1	<1	12	5	<.01	124	5.4
FEB 16...	3	<2	3	1.7	<1	<1	16	7	<.01	150	8.5
APR 19...	2	2	2	1.4	<1	<1	22	5	<.01	404	74
JUN 21...	3	2	3	1.9	<1	<1	14	5	<.01	8	.33
AUG 15...	3	2	3	2.2	<1	<1	12	<3	<.01	31	.92

## WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, UM-MF (COLS./ 100 ML) (31625)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 08...	1015	164	174	8.1	10.3	9.0	6.1	K1800	19.0	2.70	18.0
JUN 26...	1210	27	310	8.3	14.0	7.9	2.3	K900	36.1	5.28	38.0
JUL 17...	1830	134	148	--	21.5	7.1	6.9	10000	17.9	2.15	<15.0
AUG 21...	2030	67	178	8.0	18.1	--	6.1	7800	21.2	2.71	19.0

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
MAY 08...	.7	.396	.066	.701	.057	4	<1.0	22	18	.6	.1
JUN 26...	1.0	.821	<.020	.245	.104	2	<1.0	49	46	.1	<.1
JUL 17...	<.5	.480	.105	.915	.064	4	<1.0	<10	<10	.7	<.1
AUG 21...	<.5	.747	.155	.456	.094	2	<1.0	26	24	.3	<.1

DATE	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
MAY 08...	5	<1.0	15	1	9980	80	30	<1	510	44	<.3
JUN 26...	<1	1.7	5	3	1400	40	2	<1	104	15	<.3
JUL 17...	5	<1.0	21	1	14500	30	36	<1	553	12	<.3
AUG 21...	3	<1.0	12	2	5310	80	14	<1	254	7	<.3

07103970 MONUMENT CREEK ABOVE WOODMEN ROAD AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDEd (MG/L) (80154)
MAY 08...	<.2	9	2	4	.9	<1	<1	95	8	<.01	2020
JUN 26...	E.1	3	2	3	2.1	<1	<1	17	4	<.01	--
JUL 17...	<.2	11	<2	6	1.2	<1	<1	107	<3	<.01	--
AUG 21...	<.2	6	<2	2	.7	<1	<1	58	5	<.01	746

DATE	SEDI- MENT, DIS- CHARGE, SUS- PENDEd (T/DAY) (80155)	ACE- NAPHTH- YLENE TOTAL (UG/L) (34200)	ACE- NAPHTH- ENE TOTAL (UG/L) (34205)	ANTHRA- CENE TOTAL (UG/L) (34220)	BENZ(A) ANTHRA- CENE WATER UNFLTRD REC (UG/L) (34526)	BENZO B FLUOR- AN- THENE TOTAL (UG/L) (34230)	BENZO- A- PYRENE TOTAL (UG/L) (34247)	BENZO- [GHI]- PERY- LENE TOTAL (UG/L) (34521)	BENZO K FLUOR- AN- THENE TOTAL (UG/L) (34242)	CHRY- SENE TOTAL (UG/L) (34320)	1,2,5,6 -DIBENZ -ANTHRA -CENE TOTAL (UG/L) (34556)
MAY 08...	894	<2	<2	<2	<3	<3	<3	<3	<3	<3	<3
JUN 26...	--	<2	<2	<2	<3	<3	<3	<3	<3	<3	<3
JUL 17...	--	<2	<2	<2	<3	<3	<3	<3	<3	<3	<3
AUG 21...	135	<2	<2	<2	<3	<3	<3	<3	<3	<3	<3

DATE	FLUOR- ANTHRENE TOTAL (UG/L) (34376)	FLUOR- ENE TOTAL (UG/L) (34381)	INDENO (1,2,3- CD) PYRENE TOTAL (UG/L) (34403)	NAPHTH- ALENE TOTAL (UG/L) (34696)	PHENAN- THRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)
MAY 08...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	.011
JUN 26...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	.012
JUL 17...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	<.006
AUG 21...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	.010

DATE	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN- FLUR- ALIN WATER FLTRD REC (UG/L) (82673)	BUTYL- ATE, WATER, FLTRD DISS, REC (UG/L) (04028)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
MAY 08...	<.001	<.002	<.002	<.003	<.010	<.004	<.004	<.002	<.002	.130	<.001
JUN 26...	<.001	<.002	<.002	<.003	<.007	<.004	<.004	<.002	<.006	.050	<.001
JUL 17...	<.001	<.002	<.002	<.003	<.009	<.004	<.004	<.002	<.002	.286	<.001
AUG 21...	<.001	<.002	<.002	<.003	<.003	<.030	<.004	E.003	<.005	.216	<.001

DATE	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC FLUR- ALIN WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER FLTRD DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THON, DIS- SOLVED (UG/L) (39532)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
MAY 08...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	<.005	.007	<.004	<.004
JUN 26...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.019	.005	<.004	<.004
JUL 17...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.047	<.002	<.004	<.004
AUG 21...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.069	<.002	<.004	<.004

ARKANSAS RIVER BASIN

07103970 MONUMENT CREEK ABOVE WOODMEN ROAD AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, WAT DIS- SOLVED (UG/L) (39542)	METHYL-PARA-THION 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FLTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLTRD 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
MAY 08...	<.003	<.004	<.006	<.004	.035	<.002	<.018	<.007	<.004	<.013	<.003
JUN 26...	<.003	<.004	<.006	<.004	<.009	<.002	<.018	<.007	<.004	<.013	<.003
JUL 17...	<.003	<.004	<.006	<.004	.013	<.002	<.018	<.007	<.004	<.013	<.003
AUG 21...	<.003	<.004	<.006	<.004	<.010	<.002	.022	<.007	<.004	<.013	<.003

DATE	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLTRD 0.7 U GF, REC (UG/L) (82661)	ALPHA-BHC DIS- SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLTRD 0.7 U GF, REC (UG/L) (82687)	P,P'DE DISSOLV (UG/L) (34653)
MAY 08...	<.005	<.010	<.007	<.013	<.002	<.001	E.003	<.002	<.005	<.006
JUN 26...	<.005	E.012	<.007	<.013	<.002	<.001	<.002	<.002	<.005	<.006
JUL 17...	<.005	<.010	<.007	<.013	<.002	<.001	.006	<.002	<.005	<.006
AUG 21...	<.005	<.010	<.030	<.013	<.002	<.001	.006	<.002	<.005	<.006

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 01...	1400	26	367	16.5	JUN 07...	1000	17	340	17.0
20...	1400	34	352	11.5	18...	1630	19	345	17.5
NOV 02...	0900	23	379	1.5	26...	1130	26	308	13.9
DEC 03...	1130	30	404	1.5	30...	1000	19	381	17.9
JAN 12...	1310	24	392	4.0	JUL 11...	0915	14	380	18.5
APR 03...	1600	43	319	9.0	17...	1800	146	143	19.5
05...	0900	50	287	6.0	18...	1400	16	379	27.0
19...	1445	81	198	11.0	25...	1030	13	407	20.2
MAY 09...	1415	65	299	17.9	AUG 17...	0900	12	352	16.7
26...	1330	42	244	16.5	28...	1915	26	283	21.2
					31...	1200	13	388	20.6
					SEP 15...	1230	9.6	370	19.8



07103970 MONUMENT CREEK ABOVE WOODMEN ROAD AT COLORADO SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
01...	1400	26	16.5	90	6.4	--
20...	1400	34	11.5	48	4.4	--
NOV						
02...	0900	23	1.5	47	2.9	--
DEC						
15...	1045	16	.0	124	5.4	--
JAN						
12...	1310	24	4.0	176	12	--
FEB						
16...	1000	21	2.5	150	8.5	--
APR						
03...	1600	43	9.0	258	30	--
05...	0900	50	6.0	512	69	--
19...	0930	68	5.6	404	74	--
19...	1445	81	11.0	1430	313	--
MAY						
08...	1015	164	10.3	2020	894	--
09...	1415	65	17.9	376	66	--
26...	1330	42	16.5	116	13	--
JUN						
07...	1000	17	17.0	34	1.6	--
18...	1630	19	17.5	23	1.2	--
21...	1015	16	17.0	8	.33	--
26...	1130	26	13.9	98	6.9	--
30...	1000	19	17.9	33	1.7	--
JUL						
11...	0915	14	18.5	49	1.9	--
17...	1800	146	19.5	2220	875	--
18...	1400	16	27.0	62	2.7	--
25...	1030	13	20.2	30	1.1	--
AUG						
15...	1030	11	21.0	31	.92	--
17...	0900	12	16.7	25	.81	--
21...	2030	67	18.1	746	135	--
28...	1915	26	21.2	2140	150	76
31...	1200	13	20.6	78	2.7	--
SEP						
15...	1230	9.6	19.8	9	.23	--

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	26	78	5.4	25	---	---	23	---	---
2	24	---	e2.7	25	---	---	23	---	---
3	25	43	3.0	26	---	---	26	---	---
4	27	60	4.3	26	---	---	24	---	---
5	28	---	e4.5	23	---	---	24	---	---
6	28	---	e4.0	23	---	---	26	---	---
7	34	---	e29	23	---	---	23	---	---
8	32	---	e7.8	24	---	---	23	---	---
9	33	---	e6.5	22	---	---	23	---	---
10	30	---	e5.6	22	---	---	24	---	---
11	32	---	e5.6	22	---	---	22	---	---
12	31	---	e5.6	22	---	---	21	---	---
13	30	57	4.7	21	---	---	20	---	---
14	31	40	3.4	21	---	---	21	---	---
15	33	53	4.7	21	---	---	e18	---	---
16	35	73	7.3	20	---	---	e19	---	---
17	35	---	e5.5	21	---	---	e20	---	---
18	35	---	e5.5	21	---	---	e21	---	---
19	33	58	5.2	21	---	---	e20	---	---
20	32	50	4.3	21	---	---	e19	---	---
21	31	42	3.5	22	---	---	e18	---	---
22	31	---	e3.9	e23	---	---	e19	---	---
23	36	---	e5.5	e23	---	---	e20	---	---
24	34	64	6.0	e24	---	---	e20	---	---
25	29	---	e4.4	e23	---	---	e19	---	---
26	30	48	3.8	e24	---	---	e19	---	---
27	27	---	e2.9	e23	---	---	e20	---	---
28	27	34	2.5	e23	---	---	e21	---	---
29	27	36	2.6	e23	---	---	22	---	---
30	26	43	3.0	24	---	---	22	---	---
31	26	---	e3.2	---	---	---	22	---	---
TOTAL	938	---	165.9	682	---	0	662	---	0

## ARKANSAS RIVER BASIN

07103970 MONUMENT CREEK ABOVE WOODMEN ROAD AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
1	22	---	---	21	---	---	e20	---	---
2	24	---	---	e21	---	---	22	---	---
3	21	---	---	22	---	---	22	---	---
4	21	---	---	23	---	---	24	---	---
5	e23	---	---	23	---	---	24	---	---
6	e24	---	---	24	---	---	26	---	---
7	e24	---	---	24	---	---	30	---	---
8	e25	---	---	24	---	---	31	---	---
9	e25	---	---	24	---	---	23	---	---
10	e26	---	---	23	---	---	24	---	---
11	e24	---	---	23	---	---	23	---	---
12	e24	---	---	23	---	---	25	---	---
13	e25	---	---	23	---	---	24	---	---
14	e25	---	---	24	---	---	24	---	---
15	e24	---	---	23	---	---	25	---	---
16	25	---	---	23	---	---	35	---	---
17	25	---	---	23	---	---	32	---	---
18	25	---	---	e23	---	---	30	---	---
19	24	---	---	23	---	---	29	---	---
20	24	---	---	21	---	---	32	---	---
21	24	---	---	21	---	---	28	---	---
22	23	---	---	22	---	---	32	---	---
23	22	---	---	e22	---	---	34	---	---
24	e21	---	---	22	---	---	34	---	---
25	e20	---	---	e21	---	---	33	---	---
26	e20	---	---	20	---	---	32	---	---
27	e22	---	---	18	---	---	34	---	---
28	23	---	---	19	---	---	35	---	---
29	22	---	---	e19	---	---	37	---	---
30	20	---	---	---	---	---	44	---	---
31	21	---	---	---	---	---	53	---	---
TOTAL	718	---	0	642	---	0	921	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	44	---	e30	51	110	15	27	---	e5.8
2	44	---	e30	50	110	15	26	---	e5.0
3	43	247	29	49	106	14	20	---	e3.2
4	44	269	32	48	---	e14	17	50	2.3
5	49	497	66	47	112	14	16	42	1.8
6	49	438	58	41	122	14	17	36	1.6
7	53	470	67	37	127	13	17	26	1.2
8	57	498	76	130	1230	520	17	---	e.18
9	57	---	e75	72	418	86	18	2	.08
10	63	424	72	54	168	24	14	4	.15
11	59	351	56	52	139	20	14	---	e.20
12	60	365	59	50	---	e15	15	---	e.27
13	64	394	68	46	---	e12	18	---	e.39
14	66	---	e69	44	---	e9.9	18	---	e.49
15	63	339	58	41	63	7.1	18	---	e.60
16	59	292	47	31	42	3.6	19	---	e.80
17	57	325	50	40	89	13	23	---	e3.0
18	58	335	52	49	---	e16	20	26	1.4
19	63	777	137	45	---	e9.4	19	21	1.1
20	57	534	82	42	51	5.8	18	15	.75
21	59	287	45	36	32	3.1	15	8	.36
22	58	211	33	29	17	1.3	15	7	.30
23	56	179	27	28	---	e1.9	15	---	e.36
24	58	---	e29	40	394	76	16	11	.49
25	54	184	27	42	186	21	18	20	1.2
26	53	143	21	38	130	13	60	663	171
27	53	---	e20	29	78	6.1	36	546	58
28	51	149	20	26	61	4.3	21	---	e7.1
29	52	---	e19	22	56	3.3	21	85	6.2
30	59	120	19	22	62	3.8	19	46	2.3
31	---	---	---	27	86	6.2	---	---	---
TOTAL	1662	---	1473	1358	---	980.8	607	---	277.62

07103970 MONUMENT CREEK ABOVE WOODMEN ROAD AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
	JULY			AUGUST			SEPTEMBER		
1	16	92	3.9	10	161	4.5	17	272	15
2	18	145	14	13	290	19	12	26	.85
3	20	---	e16	11	93	2.9	14	22	.81
4	16	123	5.4	13	492	18	13	25	.92
5	15	53	2.2	12	575	19	13	34	1.2
6	14	83	3.2	12	307	9.7	13	---	e1.2
7	14	162	6.2	11	---	e6.1	12	28	.91
8	15	---	e6.1	11	137	4.2	12	19	.62
9	16	120	5.2	11	112	3.3	11	24	.74
10	14	104	4.1	11	137	4.1	11	9	.27
11	13	63	2.5	11	99	3.1	11	---	e.10
12	16	535	24	11	---	e3.5	11	5	.13
13	14	---	e19	11	109	3.2	9.9	16	.41
14	13	354	13	11	55	1.7	9.3	20	.50
15	35	705	252	11	35	1.0	9.1	9	.23
16	19	288	17	11	57	1.7	9.7	---	e.37
17	47	787	262	16	143	13	9.5	25	.63
18	18	144	7.9	15	179	9.3	9.6	26	.68
19	15	57	2.4	11	90	2.7	9.6	34	.87
20	16	89	4.1	9.9	67	1.8	10	36	1.0
21	15	56	2.2	25	336	67	13	209	16
22	14	40	1.6	18	553	29	13	153	5.6
23	13	---	e1.8	14	253	9.6	17	186	12
24	13	60	2.1	11	159	4.7	14	119	4.6
25	12	36	1.2	20	303	45	9.4	90	2.3
26	13	24	.82	17	332	17	11	---	e1.5
27	13	21	.76	11	111	3.5	11	26	.80
28	18	148	15	20	308	51	12	17	.53
29	12	112	3.9	38	539	76	11	15	.46
30	11	38	1.1	18	198	9.8	11	11	.34
31	10	86	2.3	15	138	12	---	---	---
TOTAL	508	---	702.98	439.9	---	456.4	349.1	---	71.57

e Estimated.

## 07103977 COTTONWOOD CREEK AT COWPOKE ROAD AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°57'04", long 104°42'47", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.6, T.13 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on left bank on downstream side of bridge on Cowpoke Road at Colorado Springs (revised), 1.0 mi upstream from Woodmen Road, and 5.3 mi east of Interstate 25.

DRAINAGE AREA.--5.93 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1998 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry and artificial control. Elevation of gage is 6,875 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 230 ft<sup>3</sup>/s, June 23, 1999, from rating curve extended above 40 ft<sup>3</sup>/s, on basis of velocity-area study; gage height, 6.25 ft from floodmarks; minimum daily, 0.03 ft<sup>3</sup>/s, on many days in 1998 and 2000 water years.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 29.0 ft<sup>3</sup>/s, July 17; gage height, 4.60 ft from floodmarks; minimum daily, 0.03 ft<sup>3</sup>/s (estimated), July 5-6.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.65	---	---	---	---	---	e.70	e.30	e.10	e.05	e.05	e.07
2	e.64	---	---	---	---	---	e.60	e.30	e.09	e.05	e.05	e.06
3	e.63	---	---	---	---	---	.56	e.35	e.08	e.04	e.05	e.06
4	e.62	---	---	---	---	---	e.50	e.40	e.08	e.04	e.05	e.05
5	e.61	---	---	---	---	---	e.40	e.45	e.07	e.03	e.05	e.05
6	e.60	---	---	---	---	---	e.30	e.50	e.07	e.03	e.05	e.05
7	1.0	---	---	---	---	---	e.30	e.50	e.06	.04	e.05	e.05
8	e.70	---	---	---	---	---	e.30	e2.0	e.06	.06	e.05	e.05
9	e.60	---	---	---	---	---	e.20	e1.0	e.05	.08	e.05	e.05
10	e.58	---	---	---	---	---	e.20	e.80	e.05	e.07	e.06	e.05
11	e.56	---	---	---	---	---	e.20	e.65	e.04	e.06	e.07	e.06
12	e.54	---	---	---	---	---	e.20	e.60	e.04	.07	e.07	e.07
13	e.52	---	---	---	---	---	e.20	e.50	e.04	.07	e.07	e.06
14	.50	---	---	---	---	---	e.20	e.55	.04	.07	e.07	e.06
15	.46	---	---	---	---	---	e.20	e.40	.04	e.10	e.07	e.06
16	.50	---	---	---	---	---	e.19	e.40	.04	e.50	e.07	e.06
17	.54	---	---	---	---	---	e.19	e.80	.04	e1.2	e.08	e.06
18	.64	---	---	---	---	---	e.18	e.40	.04	e.15	e.07	e.05
19	e.62	---	---	---	---	---	e.18	e.30	.05	e.10	e.05	e.05
20	e.62	---	---	---	---	---	e.18	e.25	.05	e.09	e.04	e.06
21	e.60	---	---	---	---	---	e.18	e.25	.05	e.08	e.08	e.14
22	e.60	---	---	---	---	---	e.18	e.25	.05	e.07	e.06	e.07
23	e.50	---	---	---	---	---	e.20	.25	.05	e.07	e.05	e.10
24	e.50	---	---	---	---	---	e.18	e.30	.06	e.06	e.04	e.08
25	e.50	---	---	---	---	---	.16	e.25	.07	e.06	e.20	e.07
26	e.40	---	---	---	---	---	.14	e.20	e.30	e.06	e.10	e.06
27	e.40	---	---	---	---	---	.13	e.17	e.14	e.06	e.10	e.06
28	e.40	---	---	---	---	---	e.15	e.14	e.09	e.05	e.14	e.06
29	e.30	---	---	---	---	---	e.20	e.12	e.07	e.05	e.14	e.06
30	e.30	---	---	---	---	---	e.40	e.11	e.06	e.05	e.10	e.05
31	e.30	---	---	---	---	---	---	e.11	---	e.05	e.08	---
TOTAL	16.93	---	---	---	---	---	7.90	13.60	2.07	3.56	2.26	1.88
MEAN	.55	---	---	---	---	---	.26	.44	.069	.11	.073	.063
MAX	1.0	---	---	---	---	---	.70	2.0	.30	1.2	.20	.14
MIN	.30	---	---	---	---	---	.13	.11	.04	.03	.04	.05
AC-FT	34	---	---	---	---	---	16	27	4.1	7.1	4.5	3.7

e Estimated.

07103977 COTTONWOOD CREEK AT COWPOKE ROAD AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1998 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT: April 1998 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since April 1998.

REMARKS.--Records of daily sediment are poor.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATION (seasonal only): Maximum, 6,760 mg/L, May 25, 1999; minimum daily mean, 7 mg/L, June 13, 2000.

SEDIMENT LOAD (seasonal only): Maximum daily, 2,510 tons (estimated), Apr. 30, 1999; minimum daily, 0.00 ton (most estimated), many days in 2000.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 2,820 mg/L, July 17; minimum daily mean, 7 mg/L, June 13.

SEDIMENT LOAD (seasonal only): Maximum daily, 9.1 tons (estimated), July 17; minimum daily, 0.00 ton (most estimated), many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) (00608)	PHOS-PHORUS TOTAL (MG/L) (00665)	PHOS-ORTHODIS-SOLVED (MG/L) (00671)
OCT 20...	1045	.62	328	8.3	8.0	9.4	120	<.050	<.020	E.035	<.010
APR 20...	0830	.18	385	7.8	5.0	10.0	<1	<.050	<.020	E.037	.013
JUN 22...	0945	.05	421	8.0	22.0	6.8	K1800	<.050	<.020	<.050	<.010
AUG 16...	1145	.07	455	7.6	23.0	6.4	K1400	<.050	.127	.191	<.010

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 07...	0845	.66	339	9.5	JUN 28...	1120	.10	456	19.5
OCT 14...	0815	.54	348	6.0	JUL 06...	1535	.03	454	--
NOV 01...	1315	.28	353	9.0	JUL 11...	1325	.06	439	26.5
DEC 06...	1425	.77	342	1.0	JUL 17...	1230	.07	514	26.0
JAN 04...	0945	.23	368	.0	JUL 17...	1545	4.9	238	17.5
FEB 01...	1010	.18	367	.0	JAN 18...	0830	.17	475	17.0
MAR 14...	0830	.57	341	.0	FEB 26...	0805	.06	442	15.0
MAR 29...	1230	.17	375	16.0	FEB 31...	1115	.05	439	26.0
APR 04...	0800	.53	346	1.0	AUG 07...	1230	.05	446	24.5
APR 25...	1000	.17	393	9.5	MAR 11...	0945	.07	434	22.0
MAY 04...	1015	.41	358	17.0	MAR 21...	1315	.03	443	28.5
MAY 09...	1400	1.0	357	21.5	APR 22...	1230	.07	441	29.5
MAY 11...	0815	.66	352	10.0	APR 29...	1330	.14	438	28.0
MAY 22...	1145	.24	378	22.5	SEP 01...	1230	.07	441	26.5
MAY 30...	1345	.11	420	27.5	SEP 07...	1215	.05	446	23.0
					SEP 12...	0930	.07	442	13.5
					SEP 15...	1145	.06	441	24.0
					SEP 21...	0845	.07	443	6.0
					SEP 27...	1300	.06	446	22.5

## ARKANSAS RIVER BASIN

07103977 COTTONWOOD CREEK AT COWPOKE ROAD AT COLORADO SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
07...	0845	.66	9.5	13	.02	--
14...	0815	.54	6.0	9	.01	--
20...	1045	.62	8.0	27	.05	--
NOV						
01...	1315	.28	9.0	7	.01	--
DEC						
06...	1425	.77	1.0	1210	2.5	--
JAN						
04...	0945	.23	.0	264	.16	--
FEB						
01...	1010	.18	.0	217	.11	--
MAR						
14...	0830	.57	.0	788	1.2	--
29...	1215	.17	16.0	401	.18	--
APR						
04...	0800	.53	1.0	386	.55	--
20...	0830	.18	5.0	62	.03	--
25...	1000	.17	9.5	16	.01	--
MAY						
04...	1015	.41	17.0	367	.41	--
09...	1400	1.0	21.5	863	2.4	--
11...	0815	.66	10.0	290	.52	--
22...	1145	.24	22.5	38	.02	--
30...	1345	.11	27.5	265	.08	--
JUN						
13...	1445	.04	--	6	.00	--
22...	0945	.05	22.0	11	.00	--
28...	1115	.10	19.5	130	.04	--
JUL						
06...	1530	.03	--	27	.00	--
11...	1315	.06	26.5	13	.00	--
17...	1230	.07	26.0	868	.16	--
17...	1545	4.9	17.5	41300	550	89
18...	0830	.17	17.0	1010	.46	--
26...	0800	.06	16.0	451	.07	--
31...	1115	.05	26.0	364	.05	--
AUG						
07...	1230	.05	24.5	128	.02	--
11...	0945	.07	22.0	237	.04	--
16...	1200	.07	23.0	545	.10	--
21...	1315	.03	28.5	249	.02	--
22...	1230	.07	29.5	269	.05	--
29...	1330	.14	28.0	741	.28	--
SEP						
01...	1230	.07	26.5	481	.09	--
07...	1215	.05	23.0	208	.03	--
12...	0930	.07	13.5	338	.06	--
15...	1145	.06	24.0	315	.05	--
21...	0845	.07	6.0	422	.08	--
27...	1300	.06	22.5	256	.04	--

07103977 COTTONWOOD CREEK AT COWPOKE ROAD AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	.65	---	e.04	---	---	---	---	---	---
2	e.64	---	e.04	---	---	---	---	---	---
3	e.63	---	e.03	---	---	---	---	---	---
4	e.62	---	e.03	---	---	---	---	---	---
5	e.61	---	e.03	---	---	---	---	---	---
6	e.60	---	e.02	---	---	---	---	---	---
7	1.0	28	.10	---	---	---	---	---	---
8	e.70	---	e.05	---	---	---	---	---	---
9	e.60	---	e.03	---	---	---	---	---	---
10	e.58	---	e.02	---	---	---	---	---	---
11	e.56	---	e.02	---	---	---	---	---	---
12	e.54	---	e.02	---	---	---	---	---	---
13	e.52	---	e.02	---	---	---	---	---	---
14	.50	9	.01	---	---	---	---	---	---
15	.46	---	e.01	---	---	---	---	---	---
16	.50	---	e.01	---	---	---	---	---	---
17	.54	---	e.01	---	---	---	---	---	---
18	.64	---	e.02	---	---	---	---	---	---
19	e.62	---	e.03	---	---	---	---	---	---
20	e.62	---	e.04	---	---	---	---	---	---
21	e.60	---	e.04	---	---	---	---	---	---
22	e.60	---	e.03	---	---	---	---	---	---
23	e.50	---	e.02	---	---	---	---	---	---
24	e.50	---	e.02	---	---	---	---	---	---
25	e.50	---	e.02	---	---	---	---	---	---
26	e.40	---	e.02	---	---	---	---	---	---
27	e.40	---	e.01	---	---	---	---	---	---
28	e.40	---	e.01	---	---	---	---	---	---
29	e.30	---	e.01	---	---	---	---	---	---
30	e.30	---	e.01	---	---	---	---	---	---
31	e.30	---	e.01	---	---	---	---	---	---
TOTAL	16.93	---	0.78	0	---	0	0	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
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	---	---	---	---	---	---	---	---	---
TOTAL	0	---	0	0	---	0	0	---	0

## ARKANSAS RIVER BASIN

07103977 COTTONWOOD CREEK AT COWPOKE ROAD AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	e.70	---	e.76	e.30	---	e.16	e.10	---	e.05
2	e.60	---	e.65	e.30	---	e.16	e.09	---	e.03
3	.56	---	e1.1	e.35	---	e.24	e.08	---	e.02
4	e.50	379	e.51	e.40	367	e.40	e.08	---	e.01
5	e.40	---	e.36	e.45	---	e.49	e.07	---	e.01
6	e.30	---	e.24	e.50	---	e.57	e.07	---	e.01
7	e.30	---	e.22	e.50	---	e.66	e.06	---	e.01
8	e.30	---	e.19	e2.0	---	e5.6	e.06	---	e.01
9	e.20	---	e.12	e1.0	860	e2.3	e.05	---	e.00
10	e.20	---	e.11	e.80	---	e1.1	e.05	---	e.00
11	e.20	---	e.10	e.65	280	e.49	e.04	---	e.00
12	e.20	---	e.09	e.60	---	e.41	e.04	---	e.00
13	e.20	---	e.08	e.50	---	e.31	e.04	7	e.00
14	e.20	---	e.07	e.55	---	e.31	.04	---	e.00
15	e.20	---	e.06	e.40	---	e.20	.04	---	e.00
16	e.19	---	e.05	e.40	---	e.17	.04	---	e.00
17	e.19	---	e.04	e.80	---	e.48	.04	---	e.00
18	e.18	---	e.04	e.40	---	e.09	.04	---	e.00
19	e.18	62	e.03	e.30	---	e.04	.05	---	e.00
20	e.18	---	e.03	e.25	---	e.03	.05	---	e.00
21	e.18	---	e.02	e.25	---	e.03	.05	---	e.00
22	e.18	---	e.02	e.25	39	e.03	.05	11	.00
23	e.20	---	e.02	.25	---	e.52	.05	---	e.00
24	e.18	---	e.01	e.30	---	e.39	.06	---	e.00
25	.16	16	.01	e.25	---	e.30	.07	---	e.00
26	.14	---	e.01	e.20	---	e.22	e.30	---	e.15
27	.13	---	e.01	e.17	---	e.17	e.14	---	e.06
28	e.15	---	e.01	e.14	---	e.12	e.09	124	e.03
29	e.20	---	e.02	e.12	---	e.09	e.07	---	e.02
30	e.40	---	e.28	e.11	251	e.07	e.06	---	e.01
31	---	---	---	e.11	---	e.06	---	---	---
TOTAL	7.90	---	5.26	13.60	---	16.21	2.07	---	0.42

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	e.05	---	e.01	e.05	---	e.04	e.07	481	e.09
2	e.05	---	e.01	e.05	---	e.04	e.06	---	e.07
3	e.04	---	e.01	e.05	---	e.03	e.06	---	e.06
4	e.04	---	e.00	e.05	---	e.03	e.05	---	e.04
5	e.03	---	e.00	e.05	---	e.02	e.05	---	e.04
6	e.03	26	e.00	e.05	---	e.02	e.05	---	e.03
7	.04	---	e.00	e.05	133	e.02	e.05	208	e.03
8	.06	---	e.00	e.05	---	e.02	e.05	---	e.03
9	.08	---	e.00	e.05	---	e.02	e.05	---	e.04
10	e.07	---	e.00	e.06	---	e.03	e.05	---	e.04
11	e.06	13	e.00	e.07	238	e.04	e.06	---	e.05
12	.07	---	e.00	e.07	---	e.05	e.07	338	e.06
13	.07	---	e.00	e.07	---	e.06	e.06	---	e.05
14	.07	---	e.00	e.07	---	e.07	e.06	---	e.05
15	e.10	---	e.03	e.07	---	e.09	e.06	315	e.05
16	e.50	2310	e3.1	e.07	545	e.10	e.06	---	e.05
17	e1.2	2820	e9.1	e.08	---	e.10	e.06	---	e.06
18	e.15	944	e.38	e.07	---	e.08	e.05	---	e.05
19	e.10	---	e.16	e.05	---	e.05	e.05	---	e.05
20	e.09	---	e.14	e.04	---	e.03	e.06	---	e.06
21	e.08	---	e.12	e.08	256	e.06	e.14	406	e.15
22	e.07	---	e.10	e.06	266	e.04	e.07	---	e.07
23	e.07	---	e.10	e.05	---	e.04	e.10	---	e.10
24	e.06	---	e.08	e.04	---	e.03	e.08	---	e.07
25	e.06	---	e.08	e.20	---	e2.1	e.07	---	e.06
26	e.06	446	e.07	e.10	---	e.78	e.06	---	e.04
27	e.06	---	e.07	e.10	---	e.26	e.06	251	e.04
28	e.05	---	e.06	e.14	---	e.32	e.06	---	e.04
29	e.05	---	e.05	e.14	748	e.28	e.06	---	e.03
30	e.05	---	e.05	e.10	---	e.18	e.05	---	e.02
31	e.05	350	e.05	e.08	---	e.12	---	---	---
TOTAL	3.56	---	13.77	2.26	---	5.15	1.88	---	1.62

e Estimated



07103980 COTTONWOOD CREEK AT WOODMEN ROAD NEAR COLORADO SPRINGS, CO

LOCATION.--Lat 38°56'22", long 104°44'26", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.11, T.13 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank, 250 ft downstream from Woodmen Road, 4.0 mi east of Interstate 25, 5.0 mi upstream from mouth, and 8.2 mi northeast of courthouse in Colorado Springs (revised).

DRAINAGE AREA.--10.3 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1992 to current year.

REVISED RECORDS.--WDR CO-93-1: Drainage area. WDR CO-96-1: 1995 (M)

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,680 ft above sea level, from topographic map. Prior to Apr. 13, 1999, at site 150 ft upstream at datum 10 ft higher with artificial control and crest-stage gage.

REMARKS.--Records fair except for estimated daily discharges and discharges above 40 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by runoff from industrial and residential areas of northeast Colorado Springs.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	1.4	1.7	e1.2	.81	1.4	2.2	1.4	.98	1.3	1.1	1.3
2	2.1	1.4	1.7	e1.2	1.1	1.9	1.8	1.5	1.0	1.9	1.0	1.2
3	2.4	1.5	1.7	e1.2	.99	1.9	1.8	1.7	.99	1.5	1.2	1.2
4	2.4	1.5	2.0	e1.2	.99	2.0	1.5	2.2	1.1	1.0	1.6	1.2
5	2.3	1.5	2.7	e1.2	1.0	2.1	1.3	2.5	1.1	.99	1.2	1.2
6	2.4	1.6	2.2	e1.1	1.0	2.3	1.2	2.5	.99	1.1	.92	1.2
7	4.7	1.5	1.8	e1.1	1.1	3.5	1.2	3.0	.96	.97	.82	1.1
8	3.6	1.5	1.5	e1.1	1.1	2.5	1.2	15	.95	1.1	.89	1.1
9	3.1	1.5	1.8	e1.0	1.2	1.3	1.2	3.1	.98	1.2	1.2	1.0
10	2.8	1.5	e2.0	e1.0	1.3	1.3	1.3	2.0	1.0	1.0	1.3	1.0
11	2.5	1.4	e1.8	e.98	1.7	1.2	1.3	1.8	1.2	1.4	2.6	.98
12	2.4	1.3	e1.9	e.98	1.4	1.1	1.2	1.6	1.1	1.3	1.5	.94
13	2.1	1.3	e2.0	e.98	1.2	1.2	1.2	1.5	1.1	1.1	1.2	.83
14	1.9	1.3	e1.8	e.96	1.4	1.7	1.2	1.7	1.2	1.0	1.4	.73
15	2.0	1.3	e2.1	e.94	1.6	2.5	1.5	1.6	1.0	2.7	1.3	.90
16	2.5	1.4	e1.8	e.94	1.5	5.4	1.3	1.5	1.0	5.9	1.2	.83
17	2.2	1.4	e1.7	e.94	1.6	3.1	1.2	3.5	1.9	7.2	2.8	.96
18	2.8	1.3	e1.7	e.94	1.6	1.9	1.2	1.5	1.2	1.9	1.7	.94
19	2.5	1.1	e1.7	e.94	1.1	1.8	1.3	1.2	1.2	1.1	1.3	.87
20	2.5	1.1	e1.7	e.92	1.2	1.5	1.3	1.3	1.0	1.3	1.2	1.1
21	2.1	1.1	e1.7	e.92	1.2	1.9	1.3	1.3	1.1	1.5	4.8	2.1
22	2.2	3.4	e1.6	e.92	1.2	2.6	1.3	1.4	1.0	1.5	2.1	1.2
23	2.0	2.1	e1.6	e.92	1.4	1.8	1.8	1.2	1.1	1.4	1.3	2.1
24	1.9	1.7	e1.5	e.92	1.2	1.4	1.9	2.8	1.0	1.2	1.2	2.1
25	1.9	2.4	e1.5	e.92	1.2	1.3	1.1	1.2	1.5	1.4	7.0	1.3
26	1.8	2.5	e1.4	e.92	1.2	1.3	.80	1.1	6.5	1.5	2.6	1.3
27	1.7	1.7	e1.3	e.90	1.3	1.3	.81	.96	2.4	1.5	1.0	1.3
28	1.5	1.7	e1.3	e.90	1.3	1.2	.91	.91	1.3	2.2	3.9	1.1
29	1.5	1.6	e1.3	e.90	1.6	1.4	1.3	.95	1.3	1.5	4.0	1.0
30	1.5	1.7	e1.2	e.94	---	1.9	2.2	.93	1.3	1.5	1.1	.81
31	1.5	---	e1.2	e.90	---	3.5	---	.97	---	1.2	1.2	---
TOTAL	71.1	47.7	52.9	30.88	36.49	61.2	40.82	65.82	40.45	53.36	57.63	34.89
MEAN	2.29	1.59	1.71	1.00	1.26	1.97	1.36	2.12	1.35	1.72	1.86	1.16
MAX	4.7	3.4	2.7	1.2	1.7	5.4	2.2	15	6.5	7.2	7.0	2.1
MIN	1.5	1.1	1.2	.90	.81	1.1	.80	.91	.95	.97	.82	.73
AC-FT	141	95	105	61	72	121	81	131	80	106	114	69

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	1.35	1.17	.82	.69	.78	1.27	2.10	3.75	3.29
MAX	2.59	3.20	1.71	1.36	1.26	3.34	6.42	13.6	8.85
(WY)	1995	1998	2000	1998	1998	1998	1999	1999	1999
MIN	.35	.47	.33	.33	.42	.49	.50	.64	.49
(WY)	1993	1993	1993	1994	1994	1995	1996	1993	1994

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1992 - 2000
ANNUAL TOTAL	1414.38	593.24	
ANNUAL MEAN	3.88	1.62	1.87
HIGHEST ANNUAL MEAN			3.63
LOWEST ANNUAL MEAN			.65
HIGHEST DAILY MEAN	100	Apr 30	15
LOWEST DAILY MEAN	.30	Mar 1	.73
ANNUAL SEVEN-DAY MINIMUM	.33	Mar 1	.87
INSTANTANEOUS PEAK FLOW			b279
INSTANTANEOUS PEAK STAGE			d6.54
ANNUAL RUNOFF (AC-FT)	2810	1180	f5.57
10 PERCENT EXCEEDS	7.9	2.5	3.5
50 PERCENT EXCEEDS	1.9	1.3	.85
90 PERCENT EXCEEDS	.50	.96	.34

e Estimated.

a Also occurred Jan 23, Feb 3, 1996.

b From rating curve extended above 36 ft<sup>3</sup>/s on basis of velocity-area study.

c From rating curve extended above 1.1 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow at gage height 4.45 ft, site and datum then in use.

d From floodmarks.

f From floodmarks, site and datum then in use. Maximum gage height 7.84 ft, May 25, 1999.

ARKANSAS RIVER BASIN

07103980 COTTONWOOD CREEK AT WOODMEN ROAD NEAR COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1998 to current year (seasonal records only).

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 07...	1530	4.1	496	11.0	MAY 10...	1215	2.0	549	20.0
JAN 04...	1100	1.2	649	2.5	JUN 14...	1015	1.3	577	17.5
FEB 01...	1115	.87	688	3.0	JUL 18...	1030	1.6	599	22.0
MAR 14...	0925	1.4	674	14.0	AUG 08...	0910	1.0	624	17.0
APR 04...	1330	1.6	564	16.5	17...	2015	9.8	220	17.0
26...	1030	.93	627	12.5	SEP 07...	1150	1.1	669	20.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- CHARGE, SUS- PEN- DED (MG/L) (80154)	SUS- PEN- DED (T/DAY) (80155)
AUG 17...	2015	9.8	17.0	2060	55
28...	2015	30	18.0	10200	826

07103985 COTTONWOOD CREEK TRIBUTARY ABOVE RANGEWOOD DRIVE AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°55'45", long 104°44'48", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.11, T.13S., R.66W., El Paso County, Hydrologic Unit 11020003, on right bank 400 ft upstream from Dublin Road, 0.2 mi upstream from Rangewood Drive, 0.5 mi upstream from mouth, and 3.2 mi east of Interstate 25.

DRAINAGE AREA.--2.81 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1998 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 6,630 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those above 50 ft<sup>3</sup>/s which are poor. Natural flow of stream affected by runoff from industrial and residential areas of northeast Colorado Springs.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 268 ft<sup>3</sup>/s, Aug. 25, 2000, gage height, 7.61 ft, from rating curve extended above 65 ft<sup>3</sup>/s; minimum daily 0.18 ft<sup>3</sup>/s, Apr. 18, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 268 ft<sup>3</sup>/s at 1930 Aug. 25, gage height, 7.61 ft, from rating curve extended above 65 ft<sup>3</sup>/s; minimum daily 0.35 ft<sup>3</sup>/s, Apr. 19.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.71	.70	---	---	---	---	.78	.68	.53	1.0	1.2	1.2
2	.73	---	---	---	---	---	.75	.68	.51	2.2	1.1	e1.2
3	.73	---	---	---	---	---	.61	.68	.57	1.0	1.2	e1.2
4	.77	---	---	---	---	---	.63	.68	.61	.86	1.6	e1.2
5	.78	---	---	---	---	---	.63	.68	.70	.88	1.1	e1.2
6	.83	---	---	---	---	---	.58	.68	.71	.89	.99	e1.2
7	1.3	---	---	---	---	---	.62	.69	.74	.92	1.1	e1.2
8	.85	---	---	---	---	---	.58	18	.89	.94	1.0	1.3
9	.81	---	---	---	---	---	.50	1.0	.85	.88	1.0	1.7
10	.80	---	---	---	---	---	.49	.64	.96	.88	1.0	1.3
11	.77	---	---	---	---	---	.56	.70	.99	.96	2.6	1.1
12	.72	---	---	---	---	---	.46	.67	.75	.91	.98	1.2
13	.72	---	---	---	---	---	.42	.64	.75	.94	1.1	.98
14	.69	---	---	---	---	---	.46	.65	.76	.98	1.3	1.0
15	.71	---	---	---	---	---	.62	.61	.79	2.1	1.1	1.1
16	.76	---	---	---	---	---	.40	.60	.81	5.5	1.0	1.1
17	.70	---	---	---	---	---	.39	2.5	1.3	9.8	4.6	1.1
18	.79	---	---	---	---	---	.36	.78	.81	1.0	1.5	1.1
19	.63	---	---	---	---	---	.35	.74	1.1	.93	1.5	1.1
20	.64	---	---	---	---	---	.37	.72	.79	.93	1.1	1.1
21	.65	---	---	---	---	---	.39	.70	.84	.98	7.9	2.2
22	.64	---	---	---	---	---	.43	.68	.82	.99	1.6	1.2
23	.66	---	---	---	---	---	.60	.68	.74	.97	1.1	2.8
24	.68	---	---	---	---	---	.74	4.6	.69	1.0	1.0	2.4
25	.68	---	---	---	---	---	.94	1.2	.86	.94	16	1.1
26	.69	---	---	---	---	---	.65	1.0	13	.96	9.0	1.1
27	.68	---	---	---	---	---	.63	.86	2.4	.97	2.3	1.1
28	.69	---	---	---	---	---	.65	.84	.92	2.2	e10	1.1
29	.67	---	---	---	---	---	.67	.80	.98	1.2	e12	1.2
30	.69	---	---	---	---	---	.88	.73	.85	1.1	e1.5	1.2
31	.70	---	---	---	---	---	---	.59	---	1.1	1.1	---
TOTAL	22.87	---	---	---	---	---	17.14	45.70	38.02	46.91	91.57	38.98
MEAN	.74	---	---	---	---	---	.57	1.47	1.27	1.51	2.95	1.30
MAX	1.3	---	---	---	---	---	.94	18	13	9.8	16	2.8
MIN	.63	---	---	---	---	---	.35	.59	.51	.86	.98	.98
AC-FT	45	---	---	---	---	---	34	91	75	93	182	77

e Estimated.

07103985 COTTONWOOD CREEK TRIBUTARY ABOVE RANGEWOOD DRIVE AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1998 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT: April 1998 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since April 1998.

REMARKS.--Records of daily sediment are fair.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 8,990 mg/L, Apr. 30, 1999; minimum daily mean, 2 mg/L, Apr. 12, 1999 and Apr. 20, 2000.

SEDIMENT LOAD (seasonal only): Maximum daily, 900 tons, Apr. 30, 1999; minimum daily, 0.00 ton, many days in 1999 (some estimated).

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 5,190 mg/L, Aug. 26; minimum daily mean, 2 mg/L, Apr. 20. SEDIMENT LOAD (seasonal only): Maximum daily, 461 tons, Aug. 25; minimum daily, 0.00 ton, Apr. 18-21 (some estimated).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, UM-MF SOLVED (COLS./100 ML) (31625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)	PHOS-PHORUS TOTAL (MG/L) AS P (00665)	PHOS-ORTHODIS-SOLVED (MG/L) AS P (00671)
OCT 20...	0915	.65	1210	8.3	8.5	9.6	K15	6.54	<.020	E.032	<.010
APR 20...	1000	.42	1160	8.4	11.0	9.5	<1	6.16	<.020	<.050	<.010
JUN 22...	1030	.88	1060	8.3	20.5	7.0	260	5.14	<.020	.150	.093
AUG 16...	1030	1.1	1090	8.4	17.5	7.5	K3400	5.32	<.020	.099	.061

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 08...	0910	.86	1200	9.5	MAY 09...	1145	1.4	817	17.5
OCT 14...	1430	.67	1160	18.0	MAY 11...	1300	.62	1190	21.5
NOV 01...	1215	.72	1130	12.0	MAY 30...	1545	.62	1160	21.5
JAN 04...	1145	.52	1190	5.5	JUN 28...	1245	.86	1160	17.0
FEB 01...	1130	.59	1210	6.5	JUL 11...	1435	.80	1070	25.5
MAR 14...	1145	.50	1210	11.5	JUL 17...	1400	1.1	1020	23.0
MAR 31...	0930	.57	1160	4.5	JUL 17...	1615	84	110	16.5
MAR 31...	1005	1.1	1530	3.0	JUL 18...	1100	1.0	1060	21.5
APR 05...	0715	.54	1270	5.5	AUG 07...	1230	1.2	1090	24.5
APR 25...	1115	1.2	551	13.5	AUG 22...	1100	.88	1020	20.0
MAY 09...	1130	.95	1020	18.0	AUG 29...	1435	1.6	1020	23.0
					SEP 07...	1300	1.2	1110	20.5
					SEP 12...	1015	1.6	1050	15.0
					SEP 21...	1000	1.2	1040	12.5

07103985 COTTONWOOD CREEK TRIBUTARY ABOVE RANGEWOOD DRIVE AT COLORADO SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
08...	0900	.88	9.5	253	.60	--
20...	0915	.65	8.5	24	.04	--
NOV						
01...	1215	.72	12.0	13	.02	--
DEC						
06...	1530	1.4	6.5	1130	4.3	--
JAN						
04...	1145	.52	5.5	36	.05	--
FEB						
01...	1130	.59	6.5	100	.16	--
MAR						
14...	1145	.50	11.5	54	.07	--
31...	0930	.57	4.5	74	.11	--
31...	1005	1.1	3.0	1310	3.9	--
APR						
05...	0715	.54	5.5	16	.02	--
20...	0945	.42	11.0	2	.00	--
25...	1115	1.2	13.5	67	.22	--
MAY						
09...	1130	.95	18.0	43	.11	--
09...	1145	1.4	17.5	2760	10	--
11...	1300	.62	21.5	44	.07	--
30...	1545	.62	21.5	56	.09	--
JUN						
13...	1345	.74	--	35	.07	--
22...	1130	.80	22.5	69	.15	--
28...	1230	.86	17.0	134	.31	--
JUL						
11...	1430	.81	25.5	5	.01	--
17...	1400	1.1	23.0	918	2.7	--
17...	1615	84	16.5	11900	2700	82
18...	1100	1.0	21.5	513	1.4	--
AUG						
04...	1215	1.1	23.5	93	.28	--
07...	1330	1.2	24.5	10	.03	--
16...	1030	1.1	17.5	42	.13	--
22...	1100	.88	20.0	152	.36	--
29...	1415	1.6	23.0	455	1.9	--
SEP						
07...	1300	1.2	20.5	313	1.0	--
12...	1015	1.6	15.0	168	.73	--
21...	1000	1.2	12.5	214	.69	--

ARKANSAS RIVER BASIN

07103985 COTTONWOOD CREEK TRIBUTARY ABOVE RANGEWOOD DRIVE AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	.71	---	e.03	.70	13	.03	---	---	---
2	.73	---	e.03	---	---	---	---	---	---
3	.73	---	e.03	---	---	---	---	---	---
4	.77	---	e.03	---	---	---	---	---	---
5	.78	---	e.03	---	---	---	---	---	---
6	.83	---	e.03	---	---	---	---	---	---
7	1.3	354	2.4	---	---	---	---	---	---
8	.85	286	.65	---	---	---	---	---	---
9	.81	172	.38	---	---	---	---	---	---
10	.80	---	e.31	---	---	---	---	---	---
11	.77	---	e.26	---	---	---	---	---	---
12	.72	---	e.20	---	---	---	---	---	---
13	.72	---	e.17	---	---	---	---	---	---
14	.69	---	e.14	---	---	---	---	---	---
15	.71	---	e.12	---	---	---	---	---	---
16	.76	---	e.18	---	---	---	---	---	---
17	.70	---	e.08	---	---	---	---	---	---
18	.79	---	e.20	---	---	---	---	---	---
19	.63	25	.04	---	---	---	---	---	---
20	.64	24	.04	---	---	---	---	---	---
21	.65	---	e.04	---	---	---	---	---	---
22	.64	---	e.04	---	---	---	---	---	---
23	.66	---	e.04	---	---	---	---	---	---
24	.68	---	e.04	---	---	---	---	---	---
25	.68	---	e.03	---	---	---	---	---	---
26	.69	---	e.03	---	---	---	---	---	---
27	.68	---	e.03	---	---	---	---	---	---
28	.69	---	e.03	---	---	---	---	---	---
29	.67	---	e.03	---	---	---	---	---	---
30	.69	---	e.03	---	---	---	---	---	---
31	.70	---	e.03	---	---	---	---	---	---
TOTAL	22.87	---	5.72	0.70	---	0.03	0	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
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	---	---	---	---	---	---	---	---	---
TOTAL	0	---	0	0	---	0	0	---	0

07103985 COTTONWOOD CREEK TRIBUTARY ABOVE RANGEWOOD DRIVE AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.78	775	1.9	.68	---	e.26	.53	---	e.15
2	.75	---	e1.1	.68	---	e.24	.51	93	.13
3	.61	---	e.15	.68	118	.22	.57	---	e.14
4	.63	---	e.04	.68	---	e.19	.61	---	e.16
5	.63	21	.04	.68	---	e.17	.70	---	e.19
6	.58	21	.03	.68	77	.14	.71	102	.20
7	.62	18	.03	.69	55	.10	.74	---	e.16
8	.58	---	e.03	18	2600	189	.89	---	e.14
9	.50	15	.02	1.0	834	1.8	.85	47	.11
10	.49	14	.02	.64	---	e1.1	.96	55	.14
11	.56	56	.11	.70	229	.43	.99	---	e.13
12	.46	13	.02	.67	38	.07	.75	---	e.08
13	.42	---	e.01	.64	---	e.05	.75	38	.08
14	.46	---	e.01	.65	27	.05	.76	46	.09
15	.62	118	.66	.61	---	e.05	.79	---	e.10
16	.40	---	e.02	.60	---	e.07	.81	47	.10
17	.39	8	.01	2.5	830	12	1.3	---	e2.0
18	.36	---	e.00	.78	---	e.61	.81	---	e.15
19	.35	---	e.00	.74	---	e.29	1.1	311	2.3
20	.37	2	.00	.72	---	e.18	.79	---	e.19
21	.39	---	e.00	.70	---	e.16	.84	---	e.17
22	.43	6	.01	.68	---	e.14	.82	66	.15
23	.60	---	e.14	.68	---	e.12	.74	---	e.09
24	.74	35	.09	4.6	967	57	.69	38	.07
25	.94	81	.22	1.2	---	e3.3	.86	70	.20
26	.65	70	.12	1.0	---	e2.3	13	2170	123
27	.63	---	e.14	.86	---	e.67	2.4	---	e6.6
28	.65	---	e.16	.84	---	e.33	.92	158	.39
29	.67	103	.19	.80	---	e.18	.98	242	.74
30	.88	---	e.84	.73	64	.13	.85	---	e.46
31	---	---	---	.59	105	.17	---	---	---
TOTAL	17.14	---	6.11	45.70	---	271.52	38.02	---	138.61

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.0	198	.54	1.2	---	e.44	1.2	---	e1.3
2	2.2	322	5.9	1.1	---	e.38	e1.2	---	e1.2
3	1.0	---	e.84	1.2	---	e.36	e1.2	---	e1.2
4	.86	---	e.17	1.6	431	2.6	e1.2	---	e1.2
5	.88	41	.10	1.1	---	e.13	e1.2	---	e1.1
6	.89	24	.06	.99	---	e.04	e1.2	---	e1.0
7	.92	14	.04	1.1	13	.04	e1.2	---	e1.0
8	.94	---	e.03	1.0	28	.08	1.3	---	e1.3
9	.88	8	.02	1.0	37	.10	1.7	365	1.7
10	.88	---	e.02	1.0	39	.11	1.3	---	e1.0
11	.96	20	.07	2.6	1030	9.5	1.1	---	e.66
12	.91	---	e.02	.98	---	e5.2	1.2	212	.66
13	.94	---	e.01	1.1	971	2.8	.98	297	.79
14	.98	5	.01	1.3	615	2.8	1.0	237	.64
15	2.1	368	3.0	1.1	193	.70	1.1	---	e.64
16	5.5	2460	76	1.0	49	.14	1.1	197	.57
17	9.8	2180	361	4.6	532	14	1.1	---	e.56
18	1.0	638	1.8	1.5	---	e2.8	1.1	198	.59
19	.93	693	1.8	1.5	563	2.7	1.1	224	.64
20	.93	624	1.6	1.1	---	e.65	1.1	---	e.63
21	.98	288	.77	7.9	1940	226	2.2	916	21
22	.99	221	.59	1.6	395	2.0	1.2	---	e2.2
23	.97	---	e.54	1.1	---	e.48	2.8	---	e17
24	1.0	229	.71	1.0	135	.38	2.4	2320	23
25	.94	---	e.56	16	2630	461	1.1	---	e1.7
26	.96	---	e.52	9.0	5190	291	1.1	---	e1.5
27	.97	---	e.53	2.3	3190	21	1.1	---	e1.4
28	2.2	---	e9.2	e10	---	e320	1.1	413	1.3
29	1.2	---	e.93	e12	---	e360	1.2	---	e1.1
30	1.1	---	e.55	e1.5	---	e1.7	1.2	---	e1.0
31	1.1	---	e.50	1.1	---	e1.3	---	---	---
TOTAL	46.91	---	468.43	91.57	---	1730.43	38.98	---	89.58

e Estimated.

## 07103990 COTTONWOOD CREEK AT MOUTH AT PIKEVIEW, CO

LOCATION.--Lat 38°55'41", long 104°48'35" (revised), in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.8, T.13 S, R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank 20 ft upstream from Vincent Drive bridge, 0.3 mi south of Woodmen Road, and 0.3 mi upstream from mouth.

DRAINAGE AREA.--18.7 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 6,265 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those above 900 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by runoff from industrial and residential areas of northeast Colorado Springs.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	5.5	6.1	e7.0	e7.0	6.2	8.4	e6.5	4.8	8.6	11	9.7
2	7.0	6.4	6.3	e7.0	e7.0	6.3	6.5	e6.5	5.3	13	14	8.6
3	7.3	7.1	7.7	e7.0	7.4	6.5	7.0	e6.0	8.1	7.8	10	12
4	7.0	5.4	5.9	e7.0	6.7	8.1	8.6	e6.0	8.4	4.5	9.4	11
5	7.6	4.5	7.9	e7.0	6.8	7.8	7.5	e5.0	7.8	4.9	7.3	14
6	7.9	5.8	6.2	6.4	6.7	7.9	5.9	e4.5	7.6	5.5	9.5	13
7	18	4.2	6.5	e6.0	6.8	23	5.5	4.1	7.3	8.9	8.3	12
8	8.2	6.9	7.1	e7.0	7.7	9.1	5.7	126	6.5	6.7	6.5	11
9	7.2	5.7	7.0	e7.0	7.1	4.9	6.7	9.7	7.2	4.3	5.7	11
10	6.8	5.5	8.8	e8.0	8.9	6.3	6.5	8.7	6.9	4.7	6.6	10
11	6.3	5.0	5.9	8.0	10	6.3	6.5	12	7.4	4.5	16	8.1
12	6.4	5.0	6.5	8.1	8.8	7.0	5.6	11	e7.0	5.7	6.9	8.4
13	8.0	4.3	8.3	8.0	8.8	5.0	e5.0	6.9	6.2	8.1	8.1	8.6
14	8.1	5.2	e7.0	8.1	9.8	4.7	e6.0	7.0	e6.0	8.8	7.1	7.8
15	6.5	5.8	e8.0	e8.0	9.0	5.1	6.8	6.6	5.6	22	8.4	7.6
16	10	6.3	6.5	e8.0	8.9	24	e6.0	6.7	5.7	33	7.8	7.7
17	7.6	5.7	e8.0	e8.0	10	13	e5.0	16	10	63	25	8.5
18	12	6.8	9.1	e9.0	9.3	9.0	e5.0	7.8	7.7	9.4	11	7.0
19	12	6.4	7.9	9.3	7.1	6.3	e5.0	7.5	10	7.6	6.1	6.6
20	10	5.4	8.4	9.9	6.5	5.1	4.7	7.3	4.8	12	9.1	7.6
21	8.4	5.7	e8.0	9.0	7.6	8.0	e5.0	7.7	5.7	13	49	18
22	8.5	14	e7.0	8.7	6.1	13	e5.0	8.3	5.9	13	8.3	7.1
23	8.1	9.4	6.7	e8.0	6.6	8.4	5.2	7.7	5.3	9.5	5.8	15
24	7.4	8.1	9.5	e7.0	6.1	6.5	e5.5	26	7.3	7.2	6.9	12
25	5.8	8.4	e9.0	e7.0	4.6	5.9	e5.5	4.8	7.6	6.8	86	6.4
26	7.6	13	e9.0	e9.0	5.9	7.0	e5.5	5.4	74	6.9	25	7.9
27	9.1	9.8	e8.0	e7.0	6.6	6.6	e5.5	5.4	17	6.8	7.8	6.8
28	12	6.8	e8.0	e6.0	7.5	6.1	6.6	7.0	8.4	14	43	6.2
29	8.3	6.1	e8.0	e6.0	8.0	7.2	11	4.5	14	7.2	45	6.6
30	6.0	6.4	e8.0	e7.0	---	11	7.0	5.0	7.8	6.5	8.6	5.8
31	5.3	---	e7.0	e7.0	---	19	---	5.3	---	9.1	15	---
TOTAL	257.4	200.6	233.3	235.5	219.3	270.3	185.7	358.9	293.3	343.0	494.2	282.0
MEAN	8.30	6.69	7.53	7.60	7.56	8.72	6.19	11.6	9.78	11.1	15.9	9.40
MAX	18	14	9.5	9.9	10	24	11	126	74	63	86	18
MIN	5.3	4.2	5.9	6.0	4.6	4.7	4.7	4.1	4.8	4.3	5.7	5.8
AC-FT	511	398	463	467	435	536	368	712	582	680	980	559

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1986 - 2000, BY WATER YEAR (WY)

	5.64	5.07	4.38	4.22	4.47	5.50	7.11	9.64	9.79	8.85	9.54	6.34
MEAN	5.64	5.07	4.38	4.22	4.47	5.50	7.11	9.64	9.79	8.85	9.54	6.34
MAX	9.59	9.18	7.90	7.60	7.56	11.1	33.3	40.7	26.4	20.6	27.7	13.9
(WY)	1995	1998	1998	2000	2000	1992	1999	1999	1995	1999	1999	1999
MIN	1.93	2.90	1.92	2.30	2.28	2.57	3.31	2.71	3.05	2.34	5.41	2.67
(WY)	1987	1987	1992	1987	1990	1999	1989	1986	1990	1992	1993	1986

## SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1986 - 2000

ANNUAL TOTAL	5965.6	3373.5	
ANNUAL MEAN	16.3	9.22	6.90
HIGHEST ANNUAL MEAN			15.7
LOWEST ANNUAL MEAN			4.01
HIGHEST DAILY MEAN	500	Apr 30	126
LOWEST DAILY MEAN	1.9	Mar 5	4.1
ANNUAL SEVEN-DAY MINIMUM	2.1	Mar 2	5.0
INSTANTANEOUS PEAK FLOW			a1150
INSTANTANEOUS PEAK STAGE			6.58
ANNUAL RUNOFF (AC-FT)	11830	6690	5000
10 PERCENT EXCEEDS	29	12	10
50 PERCENT EXCEEDS	8.0	7.2	4.5
90 PERCENT EXCEEDS	3.0	5.3	2.4

e Estimated.

a From rating curve extended above 900 ft<sup>3</sup>/s.

b From rating curve extended above 127 ft<sup>3</sup>/s, on basis of culvert measurement of peak flow, gage height not determined.

c From flood mark, maximum gage height for flood of Jun 17, 1993 not determined.



07103990 COTTONWOOD CREEK AT MOUTH AT PIKEVIEW, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1998 to current year.

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT: April 1998 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since April 1998.

REMARKS.--Records of daily suspended sediment are fair.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 7,870 mg/L, May 25, 1999; minimum daily mean, 180 mg/L, March 30, 1999.

SEDIMENT LOAD (seasonal only): Maximum daily, 13,500 tons (estimated), April 30, 1999; minimum daily, 1.2 tons (estimated), March 31, 1999.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 5,020 mg/L, July 16; minimum daily mean, 212 mg/L, Oct. 4.

SEDIMENT LOAD (seasonal only): Maximum daily, 3,280 tons (estimated), May 8; minimum daily, 2.9 tons (estimated), July 11.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) (00608)	PHOS-PHORUS TOTAL (MG/L) (00665)	PHOS-ORTHODIS-SOLVED (MG/L) (00671)
OCT 20...	0815	10	712	8.1	3.0	11.0	K180	5.67	<.020	.127	.015
APR 20...	1115	4.5	679	8.5	15.0	8.1	K13	5.59	<.020	.154	.010
JUN 22...	1245	5.7	673	8.5	28.0	6.2	K210	4.86	<.020	.151	.011
AUG 16...	0900	6.6	722	8.6	18.0	7.4	K1400	4.94	<.020	.209	.023

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	1050	8.1	741	13.5	MAY 09...	0930	9.2	587	11.0
NOV 01...	1045	6.6	719	8.0	NOV 31...	1245	4.1	689	28.0
DEC 07...	1100	5.7	736	4.5	JUN 14...	1215	5.6	689	24.5
JAN 04...	1345	15	721	.5	JUN 28...	1445	6.7	686	18.0
FEB 01...	1300	14	701	.5	JUL 12...	1020	6.4	701	22.5
MAR 15...	1215	5.1	716	6.5	JUL 18...	1345	7.1	634	29.0
APR 25...	1315	5.7	618	20.0	AUG 23...	0945	7.6	687	18.0
					SEP 15...	0900	10	770	13.0

## ARKANSAS RIVER BASIN

07103990 COTTONWOOD CREEK AT MOUTH AT PIKEVIEW, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)
OCT					
06...	1045	6.1	13.5	855	14
20...	0815	10	3.0	415	11
NOV					
01...	1045	6.6	8.0	325	5.8
DEC					
07...	1100	5.7	4.5	367	5.6
JAN					
04...	1345	15	.5	658	27
FEB					
01...	1300	14	.5	992	39
MAR					
15...	1215	5.1	6.5	565	7.8
28...	1015	5.7	12.0	421	6.5
APR					
25...	1315	5.7	20.0	548	8.4
MAY					
09...	0930	9.2	11.0	688	17
31...	1245	4.1	28.0	356	3.9
JUN					
14...	1215	5.6	24.5	406	6.1
22...	1230	6.6	28.0	295	5.3
28...	1430	7.1	18.0	379	7.3
JUL					
12...	1015	5.7	--	222	3.4
18...	1345	7.1	29.0	579	11
AUG					
04...	1000	7.6	21.0	581	12
16...	0845	6.6	18.0	581	10
23...	0945	7.6	18.0	729	15
29...	1530	8.1	25.5	875	19
SEP					
15...	0900	10	13.0	463	13

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
OCTOBER									
1	7.0	---	e4.3	5.5	---	---	6.1	---	---
2	7.0	274	5.5	6.4	---	---	6.3	---	---
3	7.3	---	e3.9	7.1	---	---	7.7	---	---
4	7.0	212	4.2	5.4	---	---	5.9	---	---
5	7.6	---	e5.9	4.5	---	---	7.9	---	---
6	7.9	---	e6.1	5.8	---	---	6.2	---	---
7	18	666	70	4.2	---	---	6.5	---	---
8	8.2	522	12	6.9	---	---	7.1	---	---
9	7.2	439	8.5	5.7	---	---	7.0	---	---
10	6.8	355	6.5	5.5	---	---	8.8	---	---
11	6.3	---	e4.8	5.0	---	---	5.9	---	---
12	6.4	240	4.2	5.0	---	---	6.5	---	---
13	8.0	281	6.6	4.3	---	---	8.3	---	---
14	8.1	336	7.5	5.2	---	---	e7.0	---	---
15	6.5	---	e5.1	5.8	---	---	e8.0	---	---
16	10	---	e18	6.3	---	---	6.5	---	---
17	7.6	---	e7.6	5.7	---	---	e8.0	---	---
18	12	---	e24	6.8	---	---	9.1	---	---
19	12	---	e21	6.4	---	---	7.9	---	---
20	10	427	12	5.4	---	---	8.4	---	---
21	8.4	---	e9.0	5.7	---	---	e8.0	---	---
22	8.5	---	e9.0	14	---	---	e7.0	---	---
23	8.1	---	e8.6	9.4	---	---	6.7	---	---
24	7.4	---	e7.8	8.1	---	---	9.5	---	---
25	5.8	386	6.0	8.4	---	---	e9.0	---	---
26	7.6	---	e6.8	13	---	---	e9.0	---	---
27	9.1	296	7.3	9.8	---	---	e8.0	---	---
28	12	---	e9.8	6.8	---	---	e8.0	---	---
29	8.3	327	7.4	6.1	---	---	e8.0	---	---
30	6.0	---	e5.3	6.4	---	---	e8.0	---	---
31	5.3	---	e4.7	---	---	---	e7.0	---	---
TOTAL	257.4	---	319.4	200.6	---	0	233.3	---	0

07103990 COTTONWOOD CREEK AT MOUTH AT PIKEVIEW, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
1	e7.0	---	---	e7.0	---	---	6.2	---	---
2	e7.0	---	---	e7.0	---	---	6.3	---	---
3	e7.0	---	---	7.4	---	---	6.5	---	---
4	e7.0	---	---	6.7	---	---	8.1	---	---
5	e7.0	---	---	6.8	---	---	7.8	---	---
6	6.4	---	---	6.7	---	---	7.9	---	---
7	e6.0	---	---	6.8	---	---	23	---	---
8	e7.0	---	---	7.7	---	---	9.1	---	---
9	e7.0	---	---	7.1	---	---	4.9	---	---
10	e8.0	---	---	8.9	---	---	6.3	---	---
11	8.0	---	---	10	---	---	6.3	---	---
12	8.1	---	---	8.8	---	---	7.0	---	---
13	8.0	---	---	8.8	---	---	5.0	---	---
14	8.1	---	---	9.8	---	---	4.7	---	---
15	e8.0	---	---	9.0	---	---	5.1	---	---
16	e8.0	---	---	8.9	---	---	24	---	---
17	e8.0	---	---	10	---	---	13	---	---
18	e9.0	---	---	9.3	---	---	9.0	---	---
19	9.3	---	---	7.1	---	---	6.3	---	---
20	9.9	---	---	6.5	---	---	5.1	---	---
21	9.0	---	---	7.6	---	---	8.0	---	---
22	8.7	---	---	6.1	---	---	13	---	---
23	e8.0	---	---	6.6	---	---	8.4	---	---
24	e7.0	---	---	6.1	---	---	6.5	---	---
25	e7.0	---	---	4.6	---	---	5.9	---	---
26	e9.0	---	---	5.9	---	---	7.0	---	---
27	e7.0	---	---	6.6	---	---	6.6	---	---
28	e6.0	---	---	7.5	---	---	6.1	---	---
29	e6.0	---	---	8.0	---	---	7.2	---	---
30	e7.0	---	---	---	---	---	11	---	---
31	e7.0	---	---	---	---	---	19	---	---
TOTAL	235.5	---	0	219.3	---	0	270.3	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	8.4	---	e12	e6.5	---	e10	4.8	576	7.5
2	6.5	576	10	e6.5	---	e10	5.3	---	e7.6
3	7.0	---	e11	e6.0	---	e9.7	8.1	---	e10
4	8.6	---	e14	e6.0	---	e9.7	8.4	424	9.7
5	7.5	---	e12	e5.0	---	e8.1	7.8	---	e9.0
6	5.9	582	9.3	e4.5	---	e7.3	7.6	435	8.9
7	5.5	587	8.6	4.1	---	e6.6	7.3	---	e8.0
8	5.7	698	11	126	---	e3280	6.5	---	e6.7
9	6.7	---	e12	9.7	886	25	7.2	357	6.9
10	6.5	---	e11	8.7	---	e15	6.9	---	e7.2
11	6.5	---	e10	12	601	19	7.4	431	8.6
12	5.6	523	7.9	11	600	18	e7.0	---	e8.1
13	e5.0	---	e6.7	6.9	---	e11	6.2	---	e7.1
14	e6.0	---	e7.6	7.0	---	e11	e6.0	---	e6.5
15	6.8	---	e14	6.6	---	e11	5.6	---	e5.0
16	e6.0	---	e7.2	6.7	---	e11	5.7	271	4.2
17	e5.0	---	e5.3	16	---	e197	10	848	40
18	e5.0	---	e5.0	7.8	---	e20	7.7	---	e6.5
19	e5.0	---	e4.8	7.5	703	14	10	565	28
20	4.7	---	e4.3	7.3	---	e8.5	4.8	---	e3.8
21	e5.0	---	e4.3	7.7	---	e5.6	5.7	---	e4.6
22	e5.0	---	e4.2	8.3	---	e6.5	5.9	294	4.6
23	5.2	452	12	7.7	---	e7.0	5.3	---	e4.2
24	e5.5	---	e13	26	2200	452	7.3	265	5.3
25	e5.5	---	e8.3	4.8	---	e14	7.6	336	11
26	e5.5	---	e8.3	5.4	---	e7.0	74	4640	1860
27	e5.5	---	e8.5	5.4	---	e6.6	17	2340	160
28	6.6	---	e10	7.0	---	e8.1	8.4	464	11
29	11	---	e45	4.5	---	e4.8	14	1120	117
30	7.0	---	e28	5.0	---	e5.1	7.8	---	e10
31	---	---	---	5.3	386	5.6	---	---	---
TOTAL	185.7	---	325.3	358.9	---	4224.2	293.3	---	2387.0

## ARKANSAS RIVER BASIN

07103990 COTTONWOOD CREEK AT MOUTH AT PIKEVIEW, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCENTRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCENTRATION (MG/L)	DISCHARGE (TONS/DAY)
	JULY			AUGUST			SEPTEMBER		
1	8.6	---	e12	11	---	e18	9.7	---	e19
2	13	---	e95	14	---	e203	8.6	448	10
3	7.8	---	e29	10	---	e82	12	---	e13
4	4.5	---	e5.7	9.4	1250	48	11	---	e13
5	4.9	---	e5.7	7.3	---	e7.0	14	---	e16
6	5.5	---	e5.7	9.5	277	7.1	13	---	e15
7	8.9	---	e8.1	8.3	---	e5.1	12	---	e14
8	6.7	---	e5.5	6.5	217	3.8	11	---	e13
9	4.3	274	3.2	5.7	239	3.7	11	---	e13
10	4.7	---	e3.2	6.6	242	4.3	10	---	e13
11	4.5	---	e2.9	16	1250	180	8.1	---	e9.8
12	5.7	255	3.9	6.9	---	e9.9	8.4	---	e10
13	8.1	---	e7.0	8.1	453	10	8.6	---	e11
14	8.8	331	7.9	7.1	385	7.4	7.8	---	e9.7
15	22	1210	287	8.4	---	e11	7.6	434	8.9
16	33	5020	1320	7.8	576	12	7.7	348	7.2
17	63	3970	2390	25	---	e342	8.5	413	9.4
18	9.4	686	18	11	---	e104	7.0	328	6.3
19	7.6	579	12	6.1	---	e13	6.6	---	e5.4
20	12	---	e19	9.1	---	e20	7.6	349	7.2
21	13	584	20	49	2130	950	18	---	e162
22	13	665	23	8.3	---	e36	7.1	822	16
23	9.5	---	e18	5.8	700	11	15	---	e104
24	7.2	---	e13	6.9	422	8.1	12	---	e60
25	6.8	662	12	86	2600	2700	6.4	---	e10
26	6.9	750	14	25	3640	613	7.9	---	e12
27	6.8	631	12	7.8	---	e40	6.8	---	e11
28	14	---	e158	43	2350	966	6.2	---	e9.5
29	7.2	706	14	45	2720	1010	6.6	---	e9.8
30	6.5	---	e12	8.6	---	e18	5.8	---	e8.3
31	9.1	---	e16	15	---	e100	---	---	---
TOTAL	343.0	---	4552.8	494.2	---	7543.4	282.0	---	626.5

e Estimated.



## ARKANSAS RIVER BASIN

07104050 NORTH ROCKRIMMON CREEK ABOVE DELMONICO DRIVE AT COLORADO SPRINGS, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°54'56", long 104°49'35", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.18, T.13 S., R.66 W., El Paso County, Hydrologic Unit 11020003, 0.1 mi upstream from Delmonico Drive, 0.2 mi west of Interstate 25, 0.3 mi upstream from mouth, and 2.0 mi downstream from Woodmen Road. Elevation of site is 6,220 feet above sea level, from topographic map.

DRAINAGE AREA.--1.82 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1998 to current year (seasonal records only).

REMARKS.--Annual maximum discharge data are published in the "Maximum Discharge at Crest-Stage Partial-Record Stations" section of this report.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
AUG 17...	1930	5.9	590	18.5	AUG 28...	1945	75	349	21.5

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
AUG 17...	1930	5.9	18.5	3990	63
28...	1945	75	21.5	7650	1560

07104905 MONUMENT CREEK AT BIJOU STREET, AT COLORADO SPRINGS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°50'14", long 104°49'44", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.18, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, at bridge on Bijou Street in Colorado Springs.

DRAINAGE AREA.--235 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1979 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT 21...	1230	47	636	8.5	10.0	9.6	<1.0	84	82.0	15.0	120	1.3
DEC 16...	0900	32	702	8.5	.0	11.8	<1.0	80	89.8	16.7	150	1.4
FEB 16...	1145	33	618	8.4	6.5	10.4	<1.0	K24	73.4	14.2	140	1.3
APR 18...	1315	94	374	8.4	16.0	7.9	<1.0	K28	42.9	7.63	69.0	1.5
JUN 20...	1345	28	646	8.4	26.0	6.5	1.4	880	80.2	13.4	130	1.2
AUG 15...	1445	23	696	8.5	27.0	6.2	2.7	1900	84.3	14.6	150	1.2

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 21...	2.80	<.020	.200	.070	1	<1.0	63	62	.1	<.1	<1
DEC 16...	3.60	--	.100	.090	1	<1.0	64	68	.1	<.1	<1
FEB 16...	3.00	--	.400	.200	2	<1.0	66	70	.4	<.1	2
APR 18...	1.50	<.002	.400	.100	2	<1.0	42	42	.2	<.1	2
JUN 20...	2.75	.022	.168	.049	2	1.4	64	57	.2	<.1	2
AUG 15...	2.85	<.020	.526	.053	6	1.8	70	69	.6	<.1	7

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
OCT 21...	<1.0	2	<1	1690	<10	2	<1	63	10	--	<.1
DEC 16...	<1.0	2	1	1080	<10	1	<1	52	20	--	--
FEB 16...	<1.0	5	1	2970	<10	4	<1	95	19	--	--
APR 18...	<1.0	4	<1	--	40	5	<1	139	4	--	--
JUN 20...	2.0	--	5	1960	<10	3	<1	67	5	<.3	<.2
AUG 15...	1.2	--	3	10900	<10	19	<1	324	6	<.3	<.2

## ARKANSAS RIVER BASIN

07104905 MONUMENT CREEK AT BIJOU STREET, AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 21...	4	2	8	6.9	<1	<1	15	6	<.01	--	--
DEC 16...	5	5	11	9.7	<1	<1	10	5	<.01	83	7.2
FEB 16...	6	3	9	6.9	<1	<1	24	7	<.01	251	23
APR 18...	4	3	5	4.1	<1	<1	33	4	<.01	473	120
JUN 20...	6	4	10	7.9	<1	<1	22	4	<.01	144	11
AUG 15...	12	4	12	9.3	<1	<1	72	4	<.01	736	46



07105000 BEAR CREEK NEAR COLORADO SPRINGS, CO

LOCATION.--Lat 38°49'21", long 104°53'17", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.21, T.14 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on left bank, 30 ft east of 26th Street, 0.1 mi west of Colorado Springs, 0.6 mi southwest of Bear Creek Nature Center, and 3.4 mi upstream from mouth.

DRAINAGE AREA.--6.89 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1992 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 6,520 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	2.7	2.3	2.0	1.9	1.9	2.6	3.7	2.4	1.8	1.2	1.3
2	3.1	2.6	2.3	2.0	1.9	1.9	2.5	3.6	2.4	1.9	1.1	1.3
3	3.0	2.5	2.0	1.9	1.8	1.9	2.4	3.4	2.3	1.9	1.2	1.3
4	3.0	2.5	2.1	1.9	1.8	1.9	2.8	3.3	2.1	1.7	1.2	1.3
5	3.0	2.5	2.1	2.1	1.8	1.9	3.6	3.3	2.1	1.7	1.4	1.3
6	3.0	2.5	2.4	2.0	1.8	1.9	4.4	3.4	2.1	1.8	1.6	1.3
7	3.7	2.5	2.3	2.0	1.8	2.0	4.4	3.3	2.0	1.8	1.6	1.3
8	3.9	2.5	2.2	2.0	1.8	2.0	4.1	4.2	2.0	1.8	1.4	1.3
9	3.7	2.6	2.1	1.9	1.8	1.9	4.2	4.0	2.0	1.6	1.3	1.3
10	3.5	2.5	2.2	1.9	1.8	1.8	4.3	3.7	2.0	1.6	1.3	1.2
11	3.4	2.4	2.2	1.9	1.8	1.8	4.1	3.6	2.0	1.6	1.3	1.2
12	3.3	2.4	2.2	1.9	1.8	1.9	4.0	3.6	1.8	1.6	1.2	1.2
13	3.2	2.4	2.2	1.9	1.8	1.8	4.1	3.5	2.0	1.8	1.2	1.2
14	3.2	2.4	2.1	1.9	1.8	1.9	4.3	3.4	2.0	1.9	1.4	1.2
15	3.1	2.4	2.1	1.9	1.8	1.8	4.4	3.2	1.9	1.8	1.4	1.2
16	3.2	2.3	2.1	1.9	1.8	1.7	4.1	3.2	2.0	1.9	1.5	1.2
17	3.2	2.3	2.1	1.9	1.8	2.2	4.0	3.2	2.1	2.0	1.5	1.2
18	3.2	2.3	2.1	1.9	1.7	2.2	4.2	3.2	2.1	1.8	1.7	1.2
19	3.3	2.3	2.0	1.9	1.7	2.0	4.3	3.2	1.8	1.7	1.5	1.2
20	3.3	2.3	2.0	1.9	1.8	2.2	4.1	3.2	1.8	1.7	1.4	1.3
21	3.2	2.4	2.0	1.9	1.8	2.1	4.1	3.1	1.7	1.7	1.5	1.3
22	3.2	2.3	2.0	1.8	1.8	2.1	4.1	2.9	1.7	1.6	1.6	1.3
23	3.1	2.3	2.1	1.6	1.8	2.2	4.0	2.9	1.7	1.5	1.5	1.5
24	3.0	2.2	2.0	1.8	1.8	2.5	3.8	3.1	1.7	1.4	1.5	1.6
25	3.0	2.5	2.1	1.8	1.7	2.6	3.6	3.0	1.7	1.3	1.5	1.6
26	3.0	2.5	2.0	1.9	1.7	2.8	3.5	2.7	2.3	1.3	1.4	1.5
27	2.9	2.4	2.1	1.8	1.8	2.8	3.5	2.6	2.2	1.4	1.3	1.4
28	2.8	2.3	2.1	1.7	1.9	2.9	3.5	2.6	2.1	1.4	1.3	1.4
29	2.8	2.3	2.1	1.4	1.9	2.8	3.6	2.5	2.1	1.4	1.9	1.4
30	2.8	2.3	2.0	1.8	---	2.8	3.7	2.4	2.0	1.3	1.4	1.3
31	2.8	---	2.0	1.9	---	2.5	---	2.4	---	1.2	1.3	---
TOTAL	97.9	72.4	65.6	58.1	52.2	66.7	114.3	99.4	60.1	50.9	43.6	39.3
MEAN	3.16	2.41	2.12	1.87	1.80	2.15	3.81	3.21	2.00	1.64	1.41	1.31
MAX	3.9	2.7	2.4	2.1	1.9	2.9	4.4	4.2	2.4	2.0	1.9	1.6
MIN	2.8	2.2	2.0	1.4	1.7	1.7	2.4	2.4	1.7	1.2	1.1	1.2
AC-FT	194	144	130	115	104	132	227	197	119	101	86	78

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	2000	2000	2000	2000	2000	1999	1999	1999	1995	1999	1997	
MEAN	2.11	1.77	1.53	1.37	1.32	1.49	2.92	9.12	6.16	3.26	3.38	2.31
MAX	3.16	2.41	2.12	1.87	1.80	2.15	6.13	22.0	17.0	7.55	6.77	4.39
(WY)	2000	2000	2000	2000	2000	2000	1999	1999	1997	1995	1999	1997
MIN	.37	.14	.17	.30	.36	.52	.31	.87	.47	.30	.55	.30
(WY)	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1993	1992

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1992 - 2000
ANNUAL TOTAL	1968.27	820.5	
ANNUAL MEAN	5.39	2.24	3.19
HIGHEST ANNUAL MEAN			5.30
LOWEST ANNUAL MEAN			.41
HIGHEST DAILY MEAN	89	Apr 30	89
LOWEST DAILY MEAN	.97	Apr 2	.02
ANNUAL SEVEN-DAY MINIMUM	1.2	Mar 3	.05
INSTANTANEOUS PEAK FLOW		6.0	Oct 7
INSTANTANEOUS PEAK STAGE		1.32	Oct 7
ANNUAL RUNOFF (AC-FT)	3900	1630	2310
10 PERCENT EXCEEDS	14	3.5	6.2
50 PERCENT EXCEEDS	2.9	2.0	1.9
90 PERCENT EXCEEDS	1.5	1.3	.44

a From rating curve extended above 122 ft<sup>3</sup>/s.  
b From floodmarks.

07105490 CHEYENNE CREEK AT EVANS AVENUE AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°47'26", Long 104°51'49", SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.35, T.14 S., R.67W., El Paso County, Hydrologic Unit 11020003, on right bank 23 ft upstream from Evans Avenue, 30 ft downstream from the confluence of North and South Cheyenne Creeks, and 3.1 mi upstream from the mouth.

DRAINAGE AREA.--21.7 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1992 to current year.

REVISED RECORDS.--WDR CO-93-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,280 ft above sea level, from topographic map. Prior to June 13, 2000, at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by several small reservoirs and diversions upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	1.2	3.3	3.6	.68	.52	3.2	6.3	1.0	.72	.69	2.9
2	3.7	.89	3.0	3.6	.64	.50	2.6	2.7	1.0	.78	.60	2.5
3	3.2	1.2	2.7	3.3	.71	.53	2.3	2.4	1.2	.78	.45	1.9
4	3.1	2.3	2.6	3.1	.58	.54	1.7	3.8	.97	.82	.48	1.5
5	3.1	3.9	2.6	3.7	.58	.54	7.6	5.9	.99	.85	.54	.90
6	2.5	4.5	3.1	3.6	.58	.54	13	4.8	1.0	.97	2.6	.94
7	6.1	2.0	3.1	3.2	.54	.70	14	6.8	.96	1.0	.82	.80
8	5.9	3.5	2.7	2.9	.50	.78	14	13	.86	1.1	.72	1.6
9	3.1	6.0	2.5	2.6	.46	.63	15	17	.86	.95	.59	1.4
10	2.8	6.4	3.0	2.7	.48	.62	14	20	.90	.96	.54	.79
11	3.1	5.6	3.0	2.8	.43	.66	13	14	.89	1.0	.52	.73
12	2.1	2.1	2.8	2.9	.41	.63	11	8.8	.88	.99	.51	.69
13	2.0	2.7	3.2	2.2	.37	.72	10	9.4	.85	.95	.54	.64
14	2.0	3.1	3.0	1.5	.39	.61	9.8	7.7	.78	.95	.61	.64
15	2.0	2.2	3.0	1.6	.43	.58	10	5.2	.82	.88	.68	.67
16	2.8	2.0	3.1	1.5	.41	.81	9.1	6.1	.80	.88	.70	.64
17	3.6	2.1	2.9	1.5	.40	.99	8.3	5.7	.88	.99	.95	.59
18	6.2	2.3	2.9	1.5	.44	1.1	8.8	3.6	.98	.90	1.6	.63
19	7.4	2.3	3.2	1.4	.44	1.3	9.8	5.6	.61	.82	1.2	.64
20	4.2	2.4	4.1	1.3	.43	1.1	9.0	5.0	.63	.93	1.0	.64
21	4.0	2.2	6.8	1.6	.43	.93	7.4	3.7	.64	.89	1.1	.64
22	3.5	4.1	5.3	1.0	.41	1.8	6.3	3.1	.69	.82	1.1	.59
23	2.8	6.1	3.4	1.5	.46	2.5	6.5	2.8	.69	.79	.94	.62
24	2.1	5.4	3.2	1.8	.46	1.6	6.8	3.1	.80	.75	1.1	.70
25	2.6	5.7	3.1	.86	.42	1.8	6.9	3.3	.77	.66	1.7	.64
26	2.3	5.5	3.1	.91	.75	2.3	6.2	2.9	1.4	.71	1.8	.64
27	1.5	5.2	3.1	.78	.97	2.2	6.6	3.4	3.7	.87	2.2	.65
28	1.6	5.0	3.1	.79	.59	1.9	6.9	2.6	4.1	.72	2.7	.91
29	1.5	4.6	3.9	1.3	.45	1.8	6.9	2.6	3.1	.79	3.5	.66
30	1.4	3.9	3.6	1.3	---	1.7	7.6	1.7	1.8	.75	3.5	.72
31	1.2	---	3.6	.71	---	2.4	---	1.4	---	.75	3.2	---
TOTAL	96.9	106.39	102.0	63.05	14.84	35.33	254.3	184.4	35.55	26.72	39.18	28.51
MEAN	3.13	3.55	3.29	2.03	.51	1.14	8.48	5.95	1.18	.86	1.26	.95
MAX	7.4	6.4	6.8	3.7	.97	2.5	15	20	4.1	1.1	3.5	2.9
MIN	1.2	.89	2.5	.71	.37	.50	1.7	1.4	.61	.66	.45	.59
AC-FT	192	211	202	125	29	70	504	366	71	53	78	57

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2000, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
MEAN	4.61	4.00	3.12	2.92	2.65	3.24	11.4	40.4	30.9	9.70	14.4	5.62
MAX	7.31	5.56	5.15	4.54	5.20	7.34	25.5	86.4	93.1	30.5	39.7	11.2
(WY)	1997	1998	1998	1996	1998	1998	1999	1994	1995	1995	1999	1997
MIN	.73	.84	.46	.91	.51	.53	.88	2.63	1.18	.86	1.26	.95
(WY)	1993	1993	1993	1993	2000	1993	1993	1996	2000	2000	2000	2000

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	FOR WATER YEARS 1992 - 2000
ANNUAL TOTAL	6524.86	987.17	
ANNUAL MEAN	17.9	2.70	11.7
HIGHEST ANNUAL MEAN			21.8
LOWEST ANNUAL MEAN			1.40
HIGHEST DAILY MEAN	453	Apr 30	453
LOWEST DAILY MEAN	.81	Mar 30	.10
ANNUAL SEVEN-DAY MINIMUM	1.0	Mar 26	.23
INSTANTANEOUS PEAK FLOW		36	a595
INSTANTANEOUS PEAK STAGE		2.03	b3.51
ANNUAL RUNOFF (AC-FT)	12940	1960	8500
10 PERCENT EXCEEDS	59	6.3	28
50 PERCENT EXCEEDS	4.0	1.6	4.1
90 PERCENT EXCEEDS	2.2	.58	.84

a From rating curve extended above 437 ft<sup>3</sup>/s.  
b At different datum.

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'59", long 104°49'20", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.19, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank 31 ft upstream from Nevada Avenue bridge in Colorado Springs, 100 ft downstream from mouth of Cheyenne Creek, and 1.3 mi downstream from mouth of Monument Creek.

DRAINAGE AREA.--392 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1921 to September 1924, January 1976 to current year. Monthly discharge only for some periods, published in WSP 1311. Statistical summary computed for 1976 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 5,900 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Records fair except for those above 1000 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation and municipal use, return flow from irrigated areas and discharges from sewage treatment plants.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	78	63	66	73	47	85	127	60	42	25	78
2	87	73	61	74	79	49	87	116	68	44	26	54
3	87	75	73	63	70	48	88	119	62	65	29	50
4	88	77	70	62	61	50	88	113	56	38	39	46
5	91	75	63	74	59	51	103	104	55	33	42	35
6	91	75	69	61	59	53	115	97	53	31	55	38
7	140	72	68	56	58	82	125	95	45	30	34	35
8	117	74	66	66	59	90	127	421	41	31	26	29
9	103	75	64	62	59	47	129	201	42	32	23	31
10	92	74	68	75	57	45	134	166	39	34	23	27
11	89	73	65	73	54	47	132	151	41	36	29	24
12	86	70	62	65	55	51	132	136	41	41	28	23
13	83	71	63	63	53	49	134	127	40	37	25	33
14	87	70	63	70	52	48	140	119	41	36	30	25
15	86	70	57	66	53	58	147	106	35	52	29	25
16	109	72	70	69	55	136	134	89	34	56	25	27
17	94	68	67	69	57	95	129	123	60	200	52	22
18	98	61	66	69	73	82	132	129	62	53	72	24
19	108	58	64	67	60	57	137	122	52	41	40	23
20	87	61	64	65	56	64	128	114	38	44	34	22
21	84	67	62	66	55	64	129	97	33	40	107	33
22	84	109	60	64	56	80	127	80	31	36	64	47
23	91	77	64	62	57	69	136	73	30	34	65	68
24	91	68	64	66	52	63	134	107	38	32	46	78
25	85	72	64	68	53	60	125	113	37	31	108	47
26	83	98	63	83	48	58	121	97	245	30	118	39
27	82	75	63	89	49	61	120	77	108	28	58	36
28	78	67	62	80	47	59	122	66	66	39	136	33
29	79	66	63	63	56	62	125	62	62	39	197	32
30	78	64	62	68	---	72	148	59	49	31	71	32
31	77	---	62	66	---	109	---	63	---	28	58	---
TOTAL	2820	2185	1995	2110	1675	2006	3713	3669	1664	1344	1714	1116
MEAN	91.0	72.8	64.4	68.1	57.8	64.7	124	118	55.5	43.4	55.3	37.2
MAX	140	109	73	89	79	136	148	421	245	200	197	78
MIN	77	58	57	56	47	45	85	59	30	28	23	22
AC-FT	5590	4330	3960	4190	3320	3980	7360	7280	3300	2670	3400	2210

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2000, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	48.1	41.7	33.6	30.6	28.7	40.3	94.9	208	136	79.2	91.3	48.6														
MAX	212	143	81.3	68.1	57.8	92.6	486	944	555	268	341	116														
(WY)	1985	1985	1985	2000	2000	1998	1999	1999	1997	1995	1999	1999														
MIN	10.6	11.4	11.8	5.12	6.27	11.4	14.8	23.5	16.3	12.9	20.9	7.98														
(WY)	1978	1979	1979	1979	1979	1976	1978	1976	1976	1976	1993	1978														

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1976 - 2000
ANNUAL TOTAL	84631	26011	
ANNUAL MEAN	232	71.1	75.6
HIGHEST ANNUAL MEAN			228
LOWEST ANNUAL MEAN			23.2
HIGHEST DAILY MEAN	7510	Apr 30	7510
LOWEST DAILY MEAN	27	Mar 24	2.0
ANNUAL SEVEN-DAY MINIMUM	29	Mar 21	3.3
INSTANTANEOUS PEAK FLOW		1500	a10100
INSTANTANEOUS PEAK STAGE		5.03	b12.12
ANNUAL RUNOFF (AC-FT)	167900	51590	54740
10 PERCENT EXCEEDS	585	122	155
50 PERCENT EXCEEDS	87	64	36
90 PERCENT EXCEEDS	37	32	15

a From slope-area measurement of peak flow.  
b From floodmark.

## 07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SUSPENDED SEDIMENT: August 1995 to September 1997 (seasonal peaks only), April 1998 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since August 1995.

REMARKS.--Records for daily sediment are fair.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 8,640 mg/L, Apr. 29, 1999; minimum daily mean, 12 mg/L, Sept. 8, 1998.

SEDIMENT LOAD (seasonal only): Maximum daily, 275,000 tons (estimated), Apr. 30, 1999; minimum daily, 1.9 tons, Sept. 8, 1998.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 6,440 mg/L, June 26; minimum daily mean, 41 mg/L, June 8.

SEDIMENT LOAD (seasonal only): Maximum daily, 7,820 tons, May 8; minimum daily, 3.4 tons (estimated), Sept. 17.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SULFATE DIS-SOLVED (MG/L) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
OCT 19...	1245	97	492	7.9	9.0	10.0	<1.0	240	54.7	12.9	94.0	2.2
DEC 14...	1115	57	593	8.3	.5	11.3	<1.0	25	69.0	15.5	120	2.1
FEB 15...	1300	53	688	8.3	9.5	9.6	<1.0	34	76.9	17.9	160	1.7
APR 18...	1200	133	346	8.2	12.5	8.8	<1.0	120	36.0	7.70	64.0	2.4
JUN 20...	1230	42	755	8.3	22.5	7.4	1.3	900	85.0	18.2	170	1.6
AUG 15...	0745	31	721	8.2	18.0	7.3	1.6	E40	79.6	16.7	160	1.3

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 19...	1.70	<.020	.200	.030	1	<1.0	57	58	.1	<.1	3
DEC 14...	2.20	<.020	.100	.030	1	<1.0	69	71	.1	<.1	<1
FEB 15...	3.00	.040	.300	.100	3	<1.0	83	79	.4	<.1	2
APR 18...	1.00	.004	.300	.070	2	<1.0	43	42	.2	<.1	2
JUN 20...	2.86	<.020	.170	.044	2	2.0	84	79	.3	<.1	--
AUG 15...	2.55	<.020	.144	.043	3	2.0	87	83	.3	<.1	2

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
OCT 19...	1.3	4	1	2780	<10	3	<1	107	38	--	<.1
DEC 14...	<1.0	2	1	1060	<10	2	<1	88	47	<.3	<.2
FEB 15...	<1.0	6	2	3250	<10	4	<1	128	49	<.1	<.1
APR 18...	<1.0	4	<1	--	20	6	<1	124	13	--	<.1
JUN 20...	--	8	3	2340	<10	4	<1	96	20	<.3	E.1
AUG 15...	1.0	6	3	2250	<10	5	<1	99	11	<.3	<.2

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- SUS- PENDE (T/DAY) (80155)
OCT 19...	5	<2	4	3.6	<1	<1	26	8	<.01	--	--
DEC 14...	4	4	7	6.5	<1	<1	14	7	<.01	140	22
FEB 15...	6	3	9	7.0	<1	<1	30	6	<.01	228	33
APR 18...	3	2	4	3.1	<1	<1	24	3	<.01	309	111
JUN 20...	6	4	10	10.1	<1	<1	30	7	<.01	180	20
AUG 15...	6	4	10	8.5	<1	<1	<3	7	<.01	207	17

WATER-QUALITY DATA DURING 24-HOUR SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
FEB 28...	0510	49	659	--	1.5	12.2	1.0	4.10	.004	.300	.100
FEB 28...	1100	47	666	--	6.0	11.3	<1.0	3.00	.011	.190	.100
FEB 28...	1700	45	701	8.4	9.8	9.2	<1.0	3.00	.020	.310	.100
FEB 28...	2400	47	693	8.0	5.0	10.3	<1.0	3.10	.016	.560	.100
FEB 29...	0500	68	850	8.1	3.5	10.9	>9.2	2.90	.187	.550	.100
JUL 19...	0500	44	597	8.3	16.7	7.5	<1.0	1.87	<.020	.192	.048
JUL 19...	1100	44	620	8.3	20.2	7.3	<1.0	2.03	<.020	.199	.046
JUL 19...	1700	42	622	8.4	24.5	6.5	1.7	2.07	<.020	.163	.046
JUL 19...	2400	35	688	8.3	19.0	7.1	<1.0	2.30	<.020	.058	.083
JUL 20...	0530	42	681	8.4	17.0	7.4	<1.0	2.40	<.020	.070	.067

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 08...	1100	583	242	8.1	11.0	8.9	11	2000	25.4	4.36	36.0
JUN 26...	1030	133	333	8.1	15.0	7.7	6.1	3200	36.2	6.86	63.0
JUL 17...	1730	885	272	8.3	20.5	7.0	8.2	>3000	31.0	5.16	51.0
AUG 21...	1930	482	239	8.3	19.0	--	<8.9	27000	26.4	4.56	44.0

DATE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
MAY 08...	.6	.802	.200	3.59	.045	14	<1.0	46	29	1.9	<.1
JUN 26...	.9	1.12	.047	.735	.044	6	1.1	45	40	.6	<.1
JUL 17...	.6	1.19	.157	5.69	.030	25	1.6	33	58	4.9	<.1
AUG 21...	.5	1.10	.217	3.65	.038	22	1.7	56	36	3.3	<.1

## ARKANSAS RIVER BASIN

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, TOTAL DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, TOTAL DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, TOTAL DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, TOTAL DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, TOTAL DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, TOTAL RECOVERABLE (UG/L AS HG) (71900)
MAY 08...	22	1.2	56	1	36700	60	99	<1	1610	22	E.2
JUN 26...	7	1.6	19	4	11200	40	20	<1	419	7	<.3
JUL 17...	39	<1.0	110	1	70000	10	216	<1	2870	11	.4
AUG 21...	32	<1.0	81	3	46000	60	180	<1	1870	8	<.3
DATE	MERCURY, TOTAL DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, TOTAL DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, TOTAL DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, TOTAL DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, TOTAL DIS-SOLVED (UG/L AS ZN) (01090)	CYANIDE, TOTAL (MG/L AS CN) (00720)	SEDIMENT, SUSPENDED (MG/L) (80154)
MAY 08...	<.2	39	2	9	1.9	<1	<1	324	4	<.01	--
JUN 26...	<.2	12	2	6	3.9	<1	<1	87	3	<.01	1460
JUL 17...	<.2	78	2	16	4.0	<1	<1	679	<3	<.01	--
AUG 21...	<.2	48	2	8	2.1	--	<1	635	7	<.01	5400
DATE	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	ACE-NAPHTHYLENE, TOTAL (UG/L) (34200)	ACE-NAPHTHYLENE, TOTAL (UG/L) (34205)	ANTHRACENE, TOTAL (UG/L) (34220)	BENZ(A) ANTHRA-CENE, WATER UNPLTRD REC (UG/L) (34526)	BENZO B FLUOR-ANTHRENE, TOTAL (UG/L) (34230)	BENZO-A-PYRENE, TOTAL (UG/L) (34247)	BENZO-[GHI]-PERYLENE, TOTAL (UG/L) (34521)	BENZO K FLUOR-ANTHRENE, TOTAL (UG/L) (34242)	CHRYSENE, TOTAL (UG/L) (34320)	1,2,5,6-DIBENZ-ANTHRA-CENE, TOTAL (UG/L) (34556)
MAY 08...	--	<2	<2	<2	<2	<3	<3	<3	<3	<3	<3
JUN 26...	524	<2	<2	<2	<2	<3	<3	<3	<3	<3	<3
JUL 17...	--	<2	<2	<2	<2	<3	<3	<3	<3	3	<3
AUG 21...	7030	<2	<2	<2	3	4	4	<3	4	5	<3
DATE	FLUOR-ANTHRENE, TOTAL (UG/L) (34376)	FLUOR-ENE, TOTAL (UG/L) (34381)	INDENO (1,2,3-CD) PYRENE, TOTAL (UG/L) (34403)	NAPHTH-ALENE, TOTAL (UG/L) (34696)	PHENANTHRENE, TOTAL (UG/L) (34461)	PYRENE, TOTAL (UG/L) (34469)	2,6-DI-ETHYL ANILINE, WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	
MAY 08...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	.019	
JUN 26...	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002	.023	
JUL 17...	4	<2	<3	<2	3	3	<.003	<.002	<.002	.006	
AUG 21...	8	<2	<3	<2	3	7	<.003	<.002	<.002	.096	
DATE	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL WATER, FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN WATER, FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS, DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA, WATER, FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DI-BLDRIN, DIS-SOLVED (UG/L) (39381)
MAY 08...	<.001	<.002	<.002	<.003	<.010	<.004	<.004	<.002	<.002	.150	<.001
JUN 26...	<.001	<.002	<.002	<.003	<.010	<.004	<.004	<.002	<.008	.142	<.001
JUL 17...	<.001	<.002	<.002	<.003	<.003	<.004	.012	<.002	<.002	.140	<.001
AUG 21...	<.001	<.006	<.002	<.003	<.003	<.040	<.020	<.002	<.007	.174	<.001

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	DISUL-FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LIN-URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR WATER DISSOLV (UG/L) (39415)	METRI-BUZIN SENCOR WATER DISSOLV (UG/L) (82630)	MOL-INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)
MAY 08...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.043	.009	<.004	<.004
JUN 26...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.072	.007	<.004	<.004
JUL 17...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.036	<.002	<.004	<.004
AUG 21...	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.079	<.002	<.004	<.004

DATE	NAPROP-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL-THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRON-AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)
MAY 08...	<.003	<.004	<.006	<.004	.023	<.002	.044	<.007	<.004	<.013	<.003
JUN 26...	<.003	<.004	<.006	<.004	<.010	<.002	.023	<.007	<.004	<.013	<.003
JUL 17...	<.003	<.004	<.006	<.004	<.004	<.002	.057	<.007	<.004	<.013	<.003
AUG 21...	<.003	<.004	<.006	<.004	<.020	<.002	.049	<.007	<.004	<.070	<.003

DATE	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA-BHC DIS-SOLVED (UG/L) (34253)	PER-METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P'DE DISSOLV (UG/L) (34653)
MAY 08...	<.005	<.010	<.007	<.013	<.002	<.001	E.002	<.002	<.005	<.006
JUN 26...	<.005	<.010	<.007	<.013	<.002	<.001	<.002	<.002	<.005	<.006
JUL 17...	.019	<.010	<.040	<.013	<.002	<.001	.006	<.002	<.005	<.006
AUG 21...	<.020	<.020	<.020	<.013	<.002	<.001	.014	<.002	<.005	<.006

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 01...	1100	89	588	9.5	MAY 01...	1355	123	410	13.0
NOV 02...	1200	71	640	6.5	NOV 10...	1520	162	415	17.0
DEC 15...	1430	55	698	1.5	JUN 07...	1235	45	630	23.5
JAN 06...	1445	57	725	1.5	JUL 06...	1340	32	749	27.5
FEB 03...	1310	68	670	5.0	JUL 26...	1520	32	805	22.5
MAR 01...	1515	46	679	9.5	AUG 10...	1230	30	895	24.5
APR 06...	1350	119	495	14.5	AUG 23...	1015	52	593	17.5
					AUG 29...	1345	114	418	22.5
					SEP 15...	1445	26	830	24.0

## ARKANSAS RIVER BASIN

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
01...	1100	89	9.5	125	30	--
NOV						
02...	1200	71	6.5	569	109	--
DEC						
14...	1115	57	.5	140	22	--
JAN						
06...	1445	57	1.5	305	47	--
FEB						
15...	1300	53	9.5	228	33	--
APR						
06...	1415	116	14.5	361	113	--
18...	1200	133	12.5	309	111	--
25...	1315	125	13.5	350	118	--
MAY						
10...	1545	162	17.0	405	177	--
24...	0915	76	15.0	276	57	--
JUN						
07...	1235	45	23.5	39	4.7	--
20...	1230	42	22.5	180	20	--
26...	1030	133	15.0	1460	524	--
JUL						
06...	1315	33	27.5	57	5.1	--
17...	1740	956	20.5	12100	31200	76
AUG						
15...	0745	31	18.0	207	17	--
21...	1930	482	19.0	5400	7030	--
23...	1015	52	17.5	290	41	--
29...	1400	114	22.5	719	221	--
SEP						
15...	1445	26	24.0	78	5.5	--

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN	MEAN	SEDIMENT DISCHARGE (TONS/DAY)	MEAN	MEAN	SEDIMENT DISCHARGE (TONS/DAY)	MEAN	MEAN	SEDIMENT DISCHARGE (TONS/DAY)
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)		DISCHARGE (CFS)	CONCEN- TRATION (MG/L)		DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	
		OCTOBER				NOVEMBER			
1	85	145	33	78	---	---	63	---	---
2	87	99	23	73	---	---	61	---	---
3	87	90	21	75	---	---	73	---	---
4	88	89	21	77	---	---	70	---	---
5	91	---	e23	75	---	---	63	---	---
6	91	---	e26	75	---	---	69	---	---
7	140	754	481	72	---	---	68	---	---
8	117	262	86	74	---	---	66	---	---
9	103	165	46	75	---	---	64	---	---
10	92	---	e32	74	---	---	68	---	---
11	89	109	26	73	---	---	65	---	---
12	86	139	32	70	---	---	62	---	---
13	83	242	54	71	---	---	63	---	---
14	87	188	44	70	---	---	63	---	---
15	86	---	e36	70	---	---	57	---	---
16	109	350	122	72	---	---	70	---	---
17	94	297	75	68	---	---	67	---	---
18	98	---	e48	61	---	---	66	---	---
19	108	310	92	58	---	---	64	---	---
20	87	---	e54	61	---	---	64	---	---
21	84	176	40	67	---	---	62	---	---
22	84	134	30	109	---	---	60	---	---
23	91	154	38	77	---	---	64	---	---
24	91	156	38	68	---	---	64	---	---
25	85	---	e35	72	---	---	64	---	---
26	83	160	36	98	---	---	63	---	---
27	82	190	42	75	---	---	63	---	---
28	78	---	e48	67	---	---	62	---	---
29	79	---	e59	66	---	---	63	---	---
30	78	---	e69	64	---	---	62	---	---
31	77	---	e82	---	---	---	62	---	---
TOTAL	2820	---	1892	2185	---	0	1995	---	0



07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
1	66	---	---	73	---	---	47	---	---
2	74	---	---	79	---	---	49	---	---
3	63	---	---	70	---	---	48	---	---
4	62	---	---	61	---	---	50	---	---
5	74	---	---	59	---	---	51	---	---
6	61	---	---	59	---	---	53	---	---
7	56	---	---	58	---	---	82	---	---
8	66	---	---	59	---	---	90	---	---
9	62	---	---	59	---	---	47	---	---
10	75	---	---	57	---	---	45	---	---
11	73	---	---	54	---	---	47	---	---
12	65	---	---	55	---	---	51	---	---
13	63	---	---	53	---	---	49	---	---
14	70	---	---	52	---	---	48	---	---
15	66	---	---	53	---	---	58	---	---
16	69	---	---	55	---	---	136	---	---
17	69	---	---	57	---	---	95	---	---
18	69	---	---	73	---	---	82	---	---
19	67	---	---	60	---	---	57	---	---
20	65	---	---	56	---	---	64	---	---
21	66	---	---	55	---	---	64	---	---
22	64	---	---	56	---	---	80	---	---
23	62	---	---	57	---	---	69	---	---
24	66	---	---	52	---	---	63	---	---
25	68	---	---	53	---	---	60	---	---
26	83	---	---	48	---	---	58	---	---
27	89	---	---	49	---	---	61	---	---
28	80	---	---	47	---	---	59	---	---
29	63	---	---	56	---	---	62	---	---
30	68	---	---	---	---	---	72	---	---
31	66	---	---	---	---	---	109	---	---
TOTAL	2110	---	0	1675	---	0	2006	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	85	---	e83	127	1230	422	60	126	20
2	87	---	e90	116	1220	384	68	73	13
3	88	---	e96	119	---	e469	62	50	8.3
4	88	428	102	113	1810	550	56	---	e7.5
5	103	---	e101	104	---	e719	55	55	8.2
6	115	342	107	97	2940	772	53	51	7.4
7	125	405	137	95	---	e550	45	50	6.0
8	127	536	183	421	5170	7820	41	41	4.5
9	129	380	133	201	864	517	42	---	e11
10	134	---	e95	166	385	172	39	99	11
11	132	226	81	151	287	117	41	81	9.0
12	132	259	93	136	216	79	41	94	10
13	134	398	144	127	---	e70	40	90	9.7
14	140	377	142	119	195	63	41	---	e7.6
15	147	---	e162	106	---	e45	35	69	6.5
16	134	424	153	89	127	30	34	119	11
17	129	---	e138	123	1280	625	60	256	47
18	132	---	e132	129	898	324	62	622	153
19	137	---	e129	122	316	104	52	---	e36
20	128	---	e114	114	---	e99	38	189	20
21	129	287	100	97	384	101	33	140	12
22	127	228	78	80	---	e74	31	145	12
23	136	362	153	73	---	e61	30	125	10
24	134	659	250	107	1030	435	38	---	e8.5
25	125	342	116	113	784	252	37	84	9.0
26	121	222	73	97	---	e57	245	6440	6560
27	120	247	80	77	112	24	108	1770	582
28	122	233	76	66	---	e13	66	815	146
29	125	293	100	62	52	8.7	62	217	36
30	148	---	e664	59	---	e7.8	49	82	11
31	---	---	---	63	75	13	---	---	---
TOTAL	3713	---	4105	3669	---	14977.5	1664	---	7793.2

## ARKANSAS RIVER BASIN

07105500 FOUNTAIN CREEK AT COLORADO SPRINGS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	42	82	9.2	25	305	21	78	655	173
2	44	87	14	26	225	30	54	---	e22
3	65	755	195	29	---	e18	50	116	16
4	38	---	e5.1	39	564	78	46	119	15
5	33	51	4.5	42	369	48	35	100	9.4
6	31	52	4.4	55	437	171	38	100	10
7	30	---	e5.6	34	146	13	35	124	12
8	31	---	e7.1	26	---	e6.4	29	150	12
9	32	---	e9.2	23	59	3.6	31	195	16
10	34	118	11	23	65	4.1	27	166	12
11	36	---	e11	29	109	12	24	---	e9.6
12	41	97	11	28	121	9.2	23	---	e8.6
13	37	61	6.1	25	---	e5.8	33	---	e19
14	36	---	e4.8	30	---	e11	25	114	7.8
15	52	726	320	29	250	23	25	80	5.3
16	56	1580	475	25	166	11	27	63	4.6
17	200	3860	4810	52	390	92	22	---	e3.4
18	53	---	e204	72	725	208	24	68	4.4
19	41	---	e71	40	219	23	23	114	7.0
20	44	296	34	34	318	29	22	286	17
21	40	171	18	107	1440	1430	33	630	82
22	36	189	19	64	824	166	47	---	e181
23	34	---	e19	65	620	222	68	903	220
24	32	---	e18	46	132	17	78	662	166
25	31	---	e18	108	1050	1620	47	153	20
26	30	---	e19	118	1830	877	39	87	9.3
27	28	242	18	58	1170	190	36	---	e7.7
28	39	391	55	136	1800	1980	33	100	8.9
29	39	---	e63	197	2090	1850	32	140	12
30	31	500	42	71	324	62	32	122	10
31	28	498	37	58	337	55	---	---	---
TOTAL	1344	---	6538.0	1714	---	9286.1	1116	---	1101.0

e Estimated.

07105530 FOUNTAIN CREEK BELOW JANITELL ROAD BELOW COLORADO SPRINGS, CO

LOCATION.--Lat 38°48'11", long 104°47'43", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.29, T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank at downstream side of bridge on Janitell Road below Colorado Springs.

DRAINAGE AREA.--413 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 5,840 ft above sea level, from topographic map. Prior to July 10, 1990, at site 500 ft upstream, at datum 2.00 ft higher. July 10, 1990 to May 27, 1999 on right bank at upstream side of bridge on Janitell Road at same datum. May 28, 1999 to present at current site and datum.

REMARKS.--Records fair except for estimated daily discharges and those above 1,000 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation and municipal use, return flow from irrigated areas, and flows from sewage treatment plants.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	223	144	155	100	118	123	169	146	120	96	84	119
2	222	148	149	98	129	125	173	140	122	101	84	99
3	223	148	168	88	141	128	162	141	118	119	94	96
4	201	148	167	84	146	130	160	140	113	92	100	98
5	173	149	161	88	147	131	168	140	112	88	108	88
6	169	150	168	84	147	132	169	137	110	86	122	86
7	303	149	162	84	146	152	174	136	105	86	101	85
8	197	152	162	91	144	155	177	449	103	88	89	79
9	192	151	e160	90	143	129	176	227	103	89	85	85
10	188	149	e155	91	143	127	176	192	102	91	86	80
11	187	148	e153	93	140	130	171	179	104	94	89	77
12	183	141	e150	94	141	135	163	171	104	96	90	76
13	176	139	149	94	142	131	162	166	103	89	86	88
14	172	139	145	97	140	132	165	160	105	89	95	82
15	170	138	140	101	140	141	172	156	102	98	94	82
16	184	135	138	101	142	202	163	146	101	108	96	83
17	172	132	136	102	145	158	159	164	125	304	119	80
18	172	126	132	104	154	156	164	166	135	102	135	79
19	178	117	130	113	144	141	163	158	119	93	99	80
20	165	122	117	130	141	144	156	154	106	94	93	79
21	163	131	110	132	141	146	159	145	103	87	163	88
22	161	188	109	134	136	162	161	133	101	85	132	109
23	164	179	113	133	139	153	168	125	101	83	163	136
24	161	162	111	135	134	147	169	146	104	82	112	150
25	159	166	107	135	132	150	157	157	104	83	189	106
26	152	187	109	152	128	149	154	145	303	82	169	96
27	149	175	108	138	129	150	147	132	169	84	115	91
28	153	165	109	128	126	151	144	124	136	102	225	89
29	151	163	111	125	130	157	145	123	131	98	219	88
30	148	156	106	124	---	165	158	120	113	88	110	90
31	145	---	102	123	---	194	---	121	---	88	101	---
TOTAL	5556	4497	4192	3386	4028	4526	4904	4939	3577	3065	3647	2764
MEAN	179	150	135	109	139	146	163	159	119	98.9	118	92.1
MAX	303	188	168	152	154	202	177	449	303	304	225	150
MIN	145	117	102	84	118	123	144	120	101	82	84	76
AC-FT	11020	8920	8310	6720	7990	8980	9730	9800	7090	6080	7230	5480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2000, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	110	103	82.2	83.8	94.6	107	184	314	256	151	177	118
MAX	179	150	140	122	139	161	658	1022	693	319	467	200
(WY)	2000	2000	1998	1998	2000	1998	1999	1999	1997	1995	1999	1999
MIN	47.3	48.6	39.5	46.2	56.4	76.4	86.1	78.6	69.4	70.1	74.2	59.7
(WY)	1993	1990	1990	1990	1990	1991	1993	1993	1990	1993	1993	1992

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1990 - 2000
ANNUAL TOTAL	117255	49081	
ANNUAL MEAN	321	134	155
HIGHEST ANNUAL MEAN			312
LOWEST ANNUAL MEAN			76.0
HIGHEST DAILY MEAN	10300	Apr 30	10300
LOWEST DAILY MEAN	70	Mar 10	31
ANNUAL SEVEN-DAY MINIMUM	71	Mar 8	81
INSTANTANEOUS PEAK FLOW			3630
INSTANTANEOUS PEAK STAGE			7.35
ANNUAL RUNOFF (AC-FT)	232600	97350	112200
10 PERCENT EXCEEDS	661	172	241
50 PERCENT EXCEEDS	169	135	101
90 PERCENT EXCEEDS	104	88	56

e Estimated.  
a From rating curve extended above 13,200 ft<sup>3</sup>/s.  
b Maximum gage height, 11.11 ft, Sept 2, 1994.

07105530 FOUNTAIN CREEK BELOW JANITELL ROAD, BELOW COLORADO SPRINGS, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1975 to June 1976, May 1979 to September 1979, December 1979 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: October 1990 to January 1998.  
 pH: October 1990 to January 1998  
 SPECIFIC CONDUCTANCE: October 1990 to January 1998  
 WATER TEMPERATURE: October 1990 to January 1998

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

DISSOLVED OXYGEN: Maximum, 11.3 mg/L, May 5, 1991; minimum, 4.4 mg/L, Mar. 28, 1991.  
 pH: Maximum, 8.8 units, July 19, 1995; minimum, 6.7 units, July 26, 1995.  
 SPECIFIC CONDUCTANCE: Maximum, 1,710 microsiemens, Nov. 20, 1994; minimum, 114 microsiemens, May 9, 1994.  
 WATER TEMPERATURE: Maximum, 25.1°C, July 16, 1993; minimum, 0.0°C, Apr. 24, 1997.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SULFATE SOLVED (MG/L) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
OCT 19...	1145	174	628	7.4	10.0	9.5	2.5	380	53.9	15.7	120	1.8
DEC 14...	0915	141	734	7.7	8.0	9.3	3.1	110	60.4	18.6	150	2.0
FEB 15...	1100	150	739	7.7	10.5	9.3	6.2	92	58.3	18.9	170	1.9
APR 18...	1015	181	531	7.9	11.0	9.4	3.1	K630	43.2	12.9	120	2.1
JUN 20...	1045	116	740	7.9	20.0	7.8	4.5	1100	56.0	18.4	170	2.0
AUG 14...	1330	109	767	7.8	24.0	7.4	3.6	K370	56.8	19.0	190	1.7

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) (00608)	PHOS-PHORUS, DIS-SOLVED (MG/L) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L) (00671)	ARSENIC TOTAL (UG/L) (01002)	ARSENIC DIS-SOLVED (UG/L) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L) (01022)	BORON, DIS-SOLVED (UG/L) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L) (01027)	CADMIUM DIS-SOLVED (UG/L) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L) (01034)
OCT 19...	2.30	<.020	.400	.080	2	<1.0	160	159	.2	<.1	3
DEC 14...	2.90	.070	.500	.400	1	<1.0	199	203	.1	.1	1
FEB 15...	3.40	1.00	.300	.100	2	<1.0	217	220	.2	<.1	1
APR 18...	1.70	.110	.400	.200	3	1.4	152	148	.3	.1	3
JUN 20...	2.60	.088	.477	.205	2	2.3	256	258	.2	.1	2
AUG 14...	3.03	.060	.457	.167	2	1.8	276	275	.1	<.1	1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L) (01042)	COPPER, DIS-SOLVED (UG/L) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L) (01045)	IRON, DIS-SOLVED (UG/L) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L) (01051)	LEAD, DIS-SOLVED (UG/L) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) (01055)	MANGA-NESE, DIS-SOLVED (UG/L) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L) (71900)	MERCURY DIS-SOLVED (UG/L) (71890)
OCT 19...	1.4	7	2	3450	40	5	<1	166	69	<.3	<.2
DEC 14...	<1.0	5	2	720	50	2	<1	91	67	--	--
FEB 15...	<1.0	6	3	1130	20	3	<1	109	81	--	<.1
APR 18...	2.0	8	1	--	20	11	<1	161	45	--	<.1
JUN 20...	3.4	9	5	760	30	2	<1	96	69	<.3	<.2
AUG 14...	1.4	7	5	640	<10	2	<1	78	56	<.3	<.2

07105530 FOUNTAIN CREEK BELOW JANITELL ROAD, BELOW COLORADO SPRINGS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 19...	8	2	4	3.7	<1	<1	56	30	<.01	--	--
DEC 14...	5	6	7	6.7	<1	<1	57	53	<.01	49	19
FEB 15...	6	4	7	5.3	<1	<1	65	56	<.01	64	26
APR 18...	5	4	5	4.5	<1	<1	64	31	<.01	192	94
JUN 20...	6	5	7	7.7	<1	<1	69	63	<.01	88	28
AUG 14...	6	4	7	6.2	<1	<1	61	<3	<.01	37	11

WATER-QUALITY DATA DURING 24-HOUR SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
FEB 28...	0630	109	723	7.5	6.0	12.2	6.4	2.80	1.79	.700	.600
FEB 28...	1205	139	728	7.6	11.3	9.4	8.4	2.60	1.58	.600	.300
FEB 28...	1830	131	769	7.8	11.7	8.3	>9.2	3.10	4.40	.540	.400
FEB 29...	0115	121	773	7.7	9.5	9.3	>9.2	2.10	3.80	2.00	1.20
FEB 29...	0600	125	850	7.8	6.5	10.0	>9.3	2.80	2.10	1.20	.700
JUL 19...	0615	77	693	8.1	17.4	7.2	1.1	2.35	.069	.189	.074
JUL 19...	1230	104	701	7.9	22.5	7.1	1.8	2.38	.048	.210	.052
JUL 19...	1830	91	732	8.0	23.3	6.7	3.8	3.92	.238	.239	.076
JUL 20...	0130	81	756	8.0	19.5	7.0	1.7	3.42	.056	.107	.090
JUL 20...	0630	73	772	8.2	17.5	7.3	1.0	2.89	.050	.086	.092

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 06...	1125	174	735	14.5	MAY 02...	1420	140	525	16.5
NOV 02...	1405	155	813	13.5	MAY 10...	1410	193	480	17.5
DEC 07...	1210	166	785	10.5	JUN 07...	1200	118	682	21.5
JAN 06...	1405	89	822	8.0	JUL 06...	1220	96	739	23.5
FEB 03...	1200	156	766	8.5	JUL 26...	1340	95	758	23.0
MAR 01...	1400	122	776	11.5	AUG 07...	1435	113	722	24.5
APR 06...	1240	180	572	12.5	AUG 24...	1340	118	722	21.5
					SEP 07...	1215	100	730	21.5

## 07105800 FOUNTAIN CREEK AT SECURITY, CO

LOCATION.--Lat 38°43'46", long 104°44'00", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.24, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on left bank on upstream side of Carson Road Bridge, 0.9 mi southwest of South Security School, 3.5 mi northeast of Fountain, and 5.5 mi upstream from Jimmy Camp Creek.

DRAINAGE AREA.--495 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CO-85-1: 1984 (M).

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 5,640 ft above sea level, from topographic map. Prior to Oct.26, 1966, at site 60 ft upstream on right bank at datum 5.00 ft higher. Oct. 26, 1996 to July 18, 1972, at present site at datum 5.00 ft higher. July 19, 1972 to Feb. 20 1980, at site 980 ft downstream on right bank at datum 1.00 ft lower. Feb. 21, 1980 to June 30, 1986 at present site at datum 5.00 ft higher. July 1, 1986 to Feb. 6, 1995 at present site at datum 2.00 ft higher. Feb. 7, 1995 to Nov. 29 1995 at present site at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair except for those above 1,500 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by storage reservoirs, power developments, ground-water withdrawals, diversions for municipal use and for irrigation of about 5,100 acres, return flows from irrigated acreage, flows from sewage treatment plants, and transbasin and transmountain diversions.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	206	180	142	130	140	202	186	119	122	83	136
2	211	202	177	145	150	151	226	176	132	125	88	112
3	202	207	198	126	162	159	203	176	130	172	101	110
4	190	208	190	110	172	164	208	167	124	116	117	117
5	187	202	189	118	172	174	215	163	126	100	129	111
6	186	204	198	104	170	171	222	154	125	89	181	97
7	394	201	197	102	170	193	234	148	118	91	114	104
8	310	199	194	117	164	199	241	538	113	94	97	102
9	328	196	181	113	163	163	241	341	107	95	87	111
10	297	194	181	110	163	163	238	233	100	97	89	104
11	245	197	184	115	162	175	244	187	103	102	93	100
12	215	190	178	117	160	194	239	168	98	110	105	97
13	204	187	180	121	157	194	230	173	94	98	95	104
14	207	189	172	134	150	197	229	173	98	98	116	103
15	216	186	165	142	149	224	232	168	89	101	108	96
16	257	190	180	147	153	324	211	155	89	126	123	97
17	226	186	176	150	161	229	189	188	131	446	158	96
18	228	183	176	148	182	217	189	197	142	206	162	99
19	252	176	171	158	159	176	194	208	106	120	91	102
20	220	176	157	168	151	172	186	202	109	114	89	106
21	220	185	143	149	151	179	188	176	107	110	194	117
22	212	245	141	152	148	210	186	148	103	92	164	144
23	214	192	146	143	154	191	196	128	102	85	201	169
24	214	195	147	150	149	191	210	151	106	83	136	183
25	210	194	137	153	146	191	207	206	104	93	258	93
26	205	227	139	171	140	191	196	161	410	97	251	78
27	208	215	140	154	144	199	185	153	265	119	157	73
28	212	205	145	150	139	204	180	135	213	135	436	75
29	210	200	154	146	148	213	181	125	174	111	614	83
30	202	189	150	142	---	227	202	121	145	92	152	89
31	205	---	139	135	---	277	---	125	---	91	118	---
TOTAL	7109	5926	5205	4232	4519	6052	6304	5730	3982	3730	4907	3208
MEAN	229	198	168	137	156	195	210	185	133	120	158	107
MAX	394	245	198	171	182	324	244	538	410	446	614	183
MIN	186	176	137	102	130	140	180	121	89	83	83	73
AC-FT	14100	11750	10320	8390	8960	12000	12500	11370	7900	7400	9730	6360

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1965 - 2000, BY WATER YEAR (WY)

MEAN	82.2	73.6	63.7	67.3	74.1	85.6	124	217	193	122	136	86.9
MAX	317	198	168	146	156	195	738	1131	886	381	561	231
(WY)	1985	2000	2000	1998	2000	2000	1999	1999	1997	1995	1999	1999
MIN	12.6	15.1	17.8	11.9	14.1	21.3	23.7	24.7	17.8	30.1	23.5	13.1
(WY)	1965	1965	1976	1976	1972	1965	1978	1966	1968	1972	1974	1968

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1965 - 2000
ANNUAL TOTAL	135536	60904	
ANNUAL MEAN	371	166	111
HIGHEST ANNUAL MEAN			355
LOWEST ANNUAL MEAN			31.5
HIGHEST DAILY MEAN	e11000	614	Apr 30 1999
LOWEST DAILY MEAN	84	73	Mar 11 1965
ANNUAL SEVEN-DAY MINIMUM	87	95	Jul 5 1965
INSTANTANEOUS PEAK FLOW		4320	Jul 17 1965
INSTANTANEOUS PEAK STAGE		4.91	Jul 17 1965
ANNUAL RUNOFF (AC-FT)	268800	120800	80180
10 PERCENT EXCEEDS	792	223	202
50 PERCENT EXCEEDS	206	163	75
90 PERCENT EXCEEDS	116	98	24

e Estimated.

a From rating curve extended above 2900 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow. Flood of May 30, 1935 may have been larger.

b From floodmarks, site and datum then in use.

07105800 FOUNTAIN CREEK AT SECURITY, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1990 to January 1998.  
 WATER TEMPERATURE: October 1990 to January 1998.  
 pH: October 1990 to January 1998.  
 DISSOLVED OXYGEN: October 1990 to January 1998.  
 SUSPENDED SEDIMENT: April 1998 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since April 1998.

REMARKS.--Daily suspended sediment records are fair. Daily data that are not published are either missing or of unacceptable quality.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

DISSOLVED OXYGEN: Maximum, 14.2 mg/L, Oct. 25, 1997; minimum, 3.5 mg/L, Aug. 9, 1992.  
 pH: Maximum, 8.9 units, Apr. 18-20, 1997; minimum, 6.5 units, May 24-25, 1996.  
 SPECIFIC CONDUCTANCE: Maximum, 1,460 microsiemens, Mar. 6, 1996; minimum, 101 microsiemens, June 12, 1995.  
 WATER TEMPERATURE: Maximum, 29.8°C, July 17, 1991; minimum, 0.0°C, many days.  
 SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 4,570 mg/L, June 30, 1998; minimum daily mean, 28 mg/L, June 7, 2000.  
 SEDIMENT LOAD (seasonal only): Maximum daily, 400,000 tons (estimated), Apr. 30, 1999; minimum daily, 7.6 tons (estimated), June 6, 2000.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 3,300 mg/L, Oct 8; minimum daily mean, 28 mg/L, June 7.  
 SEDIMENT LOAD (seasonal only): Maximum daily, 9,120 tons, July 17; minimum daily, 7.6 tons (estimated), June 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) AS CA (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG (00925)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) AS F (00950)	
OCT	19...	0945	227	677	--	7.5	9.7	2.8	820	61.8	17.8	140	1.6
DEC	13...	1430	187	795	8.3	8.5	9.6	2.9	--	65.8	20.2	170	1.8
FEB	15...	0900	120	844	8.2	6.5	9.9	7.6	62	73.3	22.5	210	1.7
APR	18...	0845	170	555	8.2	9.5	9.5	2.1	93	48.0	13.7	120	2.0
JUN	20...	0945	88	839	8.2	17.0	7.6	3.0	400	67.8	21.0	190	1.8
AUG	14...	1215	120	888	8.3	25.5	7.1	4.0	960	69.8	22.7	220	1.6

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)	PHOS-PHORUS TOTAL (MG/L) AS P (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L) AS P (00671)	ARSENIC TOTAL (UG/L) AS AS (01002)	ARSENIC DIS-SOLVED (UG/L) AS AS (01000)	BORON, TOTAL RECOV-ERABLE (UG/L) AS B (01022)	BORON, DIS-SOLVED (UG/L) AS B (01020)	CADMIUM WATER UNFLTRD (UG/L) AS CD (01027)	CADMIUM DIS-SOLVED (UG/L) AS CD (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L) AS CR (01034)	
OCT	19...	2.80	.030	.400	.200	2	<1.0	135	133	.2	<.1	2
DEC	13...	3.80	.170	.400	.300	2	1.2	220	220	.1	<.1	2
FEB	15...	3.80	1.20	.300	.200	2	<1.0	189	180	.3	.1	2
APR	18...	2.00	.130	.400	.300	2	1.4	115	114	.2	<.1	2
JUN	20...	3.34	.080	.773	.624	3	2.9	210	216	.2	.1	2
AUG	14...	3.38	.057	.533	.319	3	2.3	220	205	.2	.2	2

## ARKANSAS RIVER BASIN

07105800 FOUNTAIN CREEK AT SECURITY, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	CHROMIUM, TOTAL DIS- SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGANESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
OCT 19...	1.8	7	2	3420	20	4	<1	142	32	<.3	<.2
DEC 13...	<1.0	6	3	1550	20	3	<1	98	44	<.3	<.2
FEB 15...	<1.0	8	5	1690	<10	2	<1	106	59	<.3	<.2
APR 18...	<1.0	5	2	--	<10	3	<1	93	23	--	<.1
JUN 20...	3.5	8	5	720	<10	1	<1	58	22	<.3	<.2
AUG 14...	1.3	9	4	2060	<10	3	<1	86	7	<.3	<.2

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELENIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDE (MG/L AS CN) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 19...	8	3	5	5.4	<1	<1	43	20	<.01	--	--
DEC 13...	6	6	7	6.4	<1	<1	54	44	<.01	87	44
FEB 15...	8	4	9	7.4	<1	<1	46	31	<.01	74	24
APR 18...	4	4	5	5.1	<1	<1	28	17	<.01	94	43
JUN 20...	7	6	8	9.2	<1	<1	40	34	<.01	39	9.3
AUG 14...	8	7	10	8.4	<1	<1	41	<3	<.01	179	58

## WATER-QUALITY DATA DURING 24-HOUR SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST- CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
FEB 28...	0900	109	808	--	6.1	9.2	10	3.30	1.70	.700	.500
28...	1500	151	787	7.8	12.9	8.4	8.2	3.40	1.35	.700	.400
28...	2130	139	826	8.1	9.6	8.7	16	3.60	2.40	.700	.400
29...	0400	131	817	8.0	7.5	9.7	17	2.70	3.00	1.70	.900
29...	0900	134	889	8.1	6.5	10.2	12	3.30	2.40	.900	.700
JUL 19...	0845	95	801	8.2	18.4	7.1	1.2	2.87	.071	.385	.225
19...	1500	128	783	8.2	27.6	6.5	1.4	2.73	.102	.404	.187
19...	2130	102	765	8.3	22.0	6.4	3.2	3.43	.080	.462	.207
20...	0400	95	809	8.3	18.5	7.0	1.1	3.66	.028	.176	.163
20...	0930	80	837	8.3	20.5	7.3	<1.0	3.17	.051	.249	.256

## WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST- CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO- CHEM- ICAL, 5 DAY (MG/L) (00310)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
MAY 08...	1245	796	353	8.1	11.5	8.4	>5.6	4000	30.1	7.44	66.0
JUN 26...	1330	219	459	8.1	17.0	7.5	9.7	K7000	37.0	10.2	99.0
JUL 17...	1830	1480	289	8.4	18.5	7.2	18	>12000	24.7	5.47	57.0
AUG 21...	2200	563	401	7.9	19.0	--	--	27000	34.5	8.39	89.0



ARKANSAS RIVER BASIN

07105800 FOUNTAIN CREEK AT SECURITY, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC, TOTAL (UG/L AS AS) (01002)	ARSENIC, DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM, UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM, DIS-SOLVED (UG/L AS CD) (01025)
MAY 08...	.7	1.14	.300	4.17	.095	21	1.5	94	63	2.5	.1
JUN 26...	.9	1.70	.110	1.18	.303	6	1.4	115	114	.6	.1
JUL 17...	.5	1.03	.134	8.14	.043	38	2.2	62	24	4.7	<.1
AUG 21...	.7	1.57	.190	4.30	.095	32	2.5	89	67	4.3	<.1

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DIS-SOLVED (UG/L AS CU) (01030)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY, TOTAL RECOVERABLE (UG/L AS HG) (71900)
MAY 08...	31	1.1	76	2	53800	40	124	<1	2330	41	E.2
JUN 26...	8	<1.0	24	3	11800	20	21	<1	481	6	<.3
JUL 17...	46	<1.0	129	1	81600	10	286	<1	4280	22	.4
AUG 21...	31	<1.0	94	2	63100	70	215	<1	2460	18	.3

DATE	MERCURY, DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CYANIDE, TOTAL (MG/L AS CN) (00720)	SEDIMENT, SUSPENDED (MG/L) (80154)
MAY 08...	<.2	54	3	10	3.0	<1	<1	431	9	<.01	--
JUN 26...	<.2	14	3	7	4.3	<1	<1	99	15	<.01	884
JUL 17...	<.2	--	2	16	3.0	1	<1	901	5	<.01	7380
AUG 21...	<.2	53	3	10	3.2	<1	<1	808	15	<.01	5080

DATE	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	ACE-NAPHTHYLENE TOTAL (UG/L) (34200)	ACE-NAPHTHENE TOTAL (UG/L) (34205)	ANTHRA-CENE TOTAL (UG/L) (34220)	BENZ (A) ANTHRA-CENE WATER UNFLTRD REC (UG/L) (34526)	BENZO B FLUOR-ANTHRENE TOTAL (UG/L) (34230)	BENZO-A-PYRENE TOTAL (UG/L) (34247)	BENZO-[GHI]-PERYLENE TOTAL (UG/L) (34521)	BENZO K FLUOR-ANTHRENE TOTAL (UG/L) (34242)	CHRYSENE TOTAL (UG/L) (34320)
MAY 08...	--	--	<2	<2	<2	<3	<3	<3	<3	<3	<3
JUN 26...	523	--	<2	<2	<2	<3	<3	<3	<3	<3	<3
JUL 17...	29500	67	<2	<2	<2	<3	<3	<3	<3	<3	<3
AUG 21...	7720	--	<2	<2	<2	<3	<3	<3	<3	<3	<3

DATE	1,2,5,6-DIBENZ-ANTHRA-CENE TOTAL (UG/L) (34556)	FLUOR-ANTHRENE TOTAL (UG/L) (34376)	FLUOR-ENE TOTAL (UG/L) (34381)	INDENO (1,2,3-CD) PYRENE TOTAL (UG/L) (34403)	NAPHTH-ALENE TOTAL (UG/L) (34696)	PHENANTHRENE TOTAL (UG/L) (34461)	PYRENE TOTAL (UG/L) (34469)	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)
MAY 08...	<3	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002
JUN 26...	<3	<2	<2	<3	<2	<2	<2	<.003	<.002	<.002
JUL 17...	<3	3	<2	<3	<2	<2	<2	<.003	<.002	<.002
AUG 21...	<3	4	<2	<3	<2	<2	3.5	<.003	<.002	<.002

## ARKANSAS RIVER BASIN

07105800 FOUNTAIN CREEK AT SECURITY, CO--Continued

WATER-QUALITY DATA DURING STORMWATER-RUNOFF SAMPLING, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	METHYL AZIN-PHOS, WAT FLT 0.7 U GF, REC (UG/L) (82686)	BEN-FLUR-ALIN, WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL, WATER, FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-PYRIFOS, DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA, WATER, FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL, ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DI-AZINON, DIS-SOLVED (UG/L) (39572)
MAY 08...	.021	<.001	<.002	<.002	<.003	<.020	<.004	<.004	<.002	<.002	.160
JUN 26...	.023	<.001	<.002	<.002	<.003	<.010	<.004	<.004	<.002	<.007	.141
JUL 17...	.005	<.001	<.002	<.002	<.003	<.003	<.004	<.004	<.002	<.002	.142
AUG 21...	.022	<.001	<.006	<.002	<.003	<.040	<.030	<.004	<.002	<.006	.138
DATE	DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	DISUL-FOTON, WATER, FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC, WATER, FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL-FLUR-ALIN, WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO-PROP, WATER, FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOS, WATER, DISS, REC (UG/L) (04095)	LINDANE, DIS-SOLVED (UG/L) (39341)	LIN-URON, WATER, FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA-THION, DIS-SOLVED (UG/L) (39532)	METO-LACHLOR, WATER, DISSOLV (UG/L) (39415)	METRI-BUZIN, SENCOR, WATER, DISSOLV (UG/L) (82630)
MAY 08...	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.025	<.008	<.004
JUN 26...	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.050	.007	<.004
JUL 17...	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.052	<.002	<.004
AUG 21...	<.001	<.017	<.002	<.004	<.003	<.003	<.004	<.002	.085	<.002	<.004
DATE	MOL-INATE, WATER, FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP-AMIDE, WATER, FLTRD 0.7 U GF, REC (UG/L) (82684)	PARA-THION, DIS-SOLVED (UG/L) (39542)	METHYL, PARA-THION, WAT FLT 0.7 U GF, REC (UG/L) (82667)	PEB-ULATE, WATER, FLTRD 0.7 U GF, REC (UG/L) (82669)	PENDI-METH-ALIN, WAT FLT 0.7 U GF, REC (UG/L) (82683)	PHORATE, WATER, FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO-METON, WATER, DISS, REC (UG/L) (04037)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL, WATER, FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE, WATER, FLTRD 0.7 U GF, REC (UG/L) (82685)
MAY 08...	<.004	<.003	<.004	<.006	<.004	.016	<.002	.022	<.007	<.004	<.013
JUN 26...	<.004	<.003	<.004	<.006	<.004	<.008	<.002	.022	<.007	<.004	<.013
JUL 17...	<.004	<.003	<.004	<.006	<.004	<.004	<.002	.040	<.007	<.004	<.013
AUG 21...	<.004	<.003	<.004	<.006	<.004	<.010	<.002	.094	<.007	<.004	<.013
DATE	PRON-AMIDE, WATER, FLTRD 0.7 U GF, REC (UG/L) (82676)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU-THIURON, WATER, FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, FLTRD 0.7 U GF, REC (UG/L) (82665)	TER-BUFOS, WATER, FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB, WATER, FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE, WATER, FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-FLUR-ALIN, WAT FLT 0.7 U GF, REC (UG/L) (82661)	ALPHA, BHC, DIS-SOLVED (UG/L) (34253)	PER-METHRIN, CIS, WAT FLT 0.7 U GF, REC (UG/L) (82687)	P,P'DDE, DISSOLV (UG/L) (34653)
MAY 08...	<.040	<.005	<.010	<.007	<.013	<.002	<.001	E.002	<.002	<.005	<.006
JUN 26...	<.003	<.005	<.010	<.007	<.013	<.002	<.001	<.002	<.002	<.005	<.006
JUL 17...	<.003	<.005	<.010	<.030	<.013	<.002	<.001	.006	<.002	<.005	<.006
AUG 21...	<.003	<.006	<.010	<.030	<.013	<.002	<.001	.009	<.002	<.005	<.006

07105800 FOUNTAIN CREEK AT SECURITY, CO--Continued

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT					JUN				
01...	1345	251	763	19.0	02...	1450	165	690	21.5
NOV					27...	1030	236	568	15.0
02...	1445	216	808	12.5	JUL				
DEC					06...	1045	70	912	22.5
07...	1350	230	822	10.0	18...	1315	208	710	26.0
JAN					AUG				
06...	1215	109	864	6.0	03...	1330	109	820	25.0
FEB					10...	1130	70	929	24.0
03...	1050	116	877	5.0	23...	1145	134	730	22.5
MAR					24...	1200	146	729	23.0
01...	1225	169	791	10.0	29...	1240	394	483	22.5
APR					SEP				
07...	1055	215	627	8.5	07...	1325	139	838	22.5
MAY					15...	1335	128	858	24.0
02...	1255	196	602	16.0					
10...	1235	258	553	17.5					
24...	1030	102	743	17.5					

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER-ATURE WATER (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
01...	1345	251	19.0	124	84	--
NOV						
02...	1445	216	12.5	255	149	--
DEC						
13...	1430	187	8.5	87	44	--
JAN						
06...	1215	109	6.0	78	23	--
FEB						
15...	0900	120	6.5	74	24	--
APR						
07...	1030	216	8.5	243	142	--
18...	0845	170	9.5	94	43	--
25...	1145	239	13.0	181	117	--
MAY						
10...	1300	243	17.5	347	228	--
24...	1030	102	17.5	37	10	--
JUN						
07...	1000	86	19.0	16	3.7	--
20...	0945	88	17.0	39	9.3	--
26...	1330	219	17.0	884	523	--
JUL						
06...	1045	70	22.5	32	6.0	--
17...	1830	1480	18.5	7380	29500	67
18...	1315	208	26.0	511	287	--
AUG						
03...	1330	109	25.0	154	45	--
14...	1215	120	25.5	179	58	--
21...	2200	563	19.0	5080	7720	--
23...	1130	142	22.5	320	123	--
29...	1200	427	22.5	832	959	--
SEP						
15...	1400	125	24.0	156	53	--

ARKANSAS RIVER BASIN

07105800 FOUNTAIN CREEK AT SECURITY, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	119	119	71	---	---	---	---	---	---
2	91	91	52	---	---	---	---	---	---
3	92	92	50	---	---	---	---	---	---
4	92	92	47	---	---	---	---	---	---
5	113	113	57	---	---	---	---	---	---
6	---	---	e61	---	---	---	---	---	---
7	2260	2260	5500	---	---	---	---	---	---
8	3300	3300	2760	---	---	---	---	---	---
9	1460	1460	1280	---	---	---	---	---	---
10	606	606	487	---	---	---	---	---	---
11	---	---	e194	---	---	---	---	---	---
12	193	193	111	---	---	---	---	---	---
13	146	146	80	---	---	---	---	---	---
14	129	129	72	---	---	---	---	---	---
15	184	184	108	---	---	---	---	---	---
16	220	220	158	---	---	---	---	---	---
17	143	143	87	---	---	---	---	---	---
18	112	112	69	---	---	---	---	---	---
19	---	---	e92	---	---	---	---	---	---
20	175	175	104	---	---	---	---	---	---
21	---	---	e121	---	---	---	---	---	---
22	211	211	121	---	---	---	---	---	---
23	202	202	116	---	---	---	---	---	---
24	149	149	86	---	---	---	---	---	---
25	---	---	e84	---	---	---	---	---	---
26	---	---	e90	---	---	---	---	---	---
27	---	---	e99	---	---	---	---	---	---
28	---	---	e110	---	---	---	---	---	---
29	---	---	e117	---	---	---	---	---	---
30	---	---	e118	---	---	---	---	---	---
31	---	---	e127	---	---	---	---	---	---
TOTAL	9997	---	12629	0	---	0	0	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
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	---	---	---	---	---	---	---	---	---
TOTAL	0	---	0	0	---	0	0	---	0

07105800 FOUNTAIN CREEK AT SECURITY, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	---	---	e125	107	107	54	166	166	53
2	---	---	e301	89	89	43	110	110	39
3	---	---	e188	122	122	58	---	---	e25
4	223	223	125	102	102	46	---	---	e16
5	---	---	e116	---	---	e32	---	---	e11
6	214	214	129	60	60	25	---	---	e7.6
7	256	256	162	63	63	25	28	28	9.3
8	327	327	213	2290	2290	4870	---	---	e21
9	338	338	220	1290	1290	1310	---	---	e37
10	---	---	e195	359	359	228	175	175	47
11	---	---	e171	220	220	111	142	142	39
12	243	243	157	233	233	106	174	174	46
13	291	291	181	77	77	36	143	143	36
14	356	356	221	91	91	43	---	---	e29
15	---	---	e356	---	---	e58	119	119	29
16	498	498	283	143	143	60	246	246	61
17	157	157	81	248	248	139	843	843	310
18	155	155	79	288	288	153	1170	1170	502
19	157	157	82	239	239	135	---	---	e131
20	---	---	e91	---	---	e99	98	98	28
21	224	224	114	145	145	69	148	148	43
22	257	257	129	199	199	80	97	97	27
23	278	278	158	146	146	50	99	99	28
24	467	467	267	176	176	91	---	---	e52
25	200	200	111	473	473	367	337	337	96
26	142	142	75	76	76	33	3100	3100	4950
27	102	102	51	39	39	16	1790	1790	1280
28	---	---	e38	38	38	14	---	---	e577
29	93	93	45	90	90	31	---	---	e309
30	169	169	93	---	---	e49	427	427	169
31	---	---	---	157	157	53	---	---	---
TOTAL	5147	---	4557	7560	---	8484	9412	---	9007.9

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	157	157	51	137	137	31	---	---	e108
2	---	---	e78	108	108	25	---	---	e84
3	792	792	526	138	138	38	---	---	e76
4	134	134	42	234	234	78	---	---	e75
5	77	77	21	453	453	155	217	217	65
6	37	37	8.8	1530	1530	2240	129	129	33
7	---	---	e9.1	347	347	104	---	---	e25
8	42	42	11	123	123	32	92	92	26
9	---	---	e16	111	111	26	122	122	37
10	99	99	26	99	99	24	154	154	44
11	---	---	e37	198	198	51	---	---	e44
12	167	167	50	445	445	126	---	---	e42
13	79	79	20	---	---	e141	---	---	e45
14	---	---	e45	424	424	155	---	---	e43
15	553	553	166	146	146	43	124	124	31
16	1670	1670	734	642	642	308	171	171	46
17	2930	2930	9120	601	601	419	---	---	e67
18	671	671	438	701	701	374	---	---	e69
19	146	146	47	142	142	35	---	---	e70
20	118	118	36	134	134	32	---	---	e73
21	103	103	31	1230	1230	2130	---	---	e80
22	137	137	34	1670	1670	808	---	---	e98
23	108	108	25	1050	1050	1990	557	557	460
24	---	---	e30	861	861	353	637	637	390
25	229	229	58	1480	1480	2710	176	176	44
26	332	332	87	2230	2230	2250	80	80	17
27	895	895	530	1070	1070	485	---	---	e21
28	557	557	286	---	---	e6860	147	147	30
29	---	---	e102	1240	1240	3130	213	213	48
30	116	116	29	366	366	151	220	220	53
31	89	89	22	---	---	e101	---	---	---
TOTAL	10238	---	12715.9	17910	---	25405	3039	---	2344

e Estimated.

## ARKANSAS RIVER BASIN

07105900 JIMMY CAMP CREEK AT FOUNTAIN, CO

LOCATION.--Lat 38°41'04", long 104°41'17", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.5, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on right bank at downstream side of bridge on county road, 1,000 ft east of Fountain, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--65.6 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 5,530 ft above sea level, from topographic map. Jan. 1976 to Sept. 3, 1986, at datum 4.0 ft higher. Aug. 14, 1991 to July 14, 1994, at site 110 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges and those above 40 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 17, 1965, reached an estimated discharge of 124,000 ft<sup>3</sup>/s, gage height, unknown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.5	2.3	2.6	1.8	e1.7	1.7	1.5	2.7	1.7	2.0	1.4	1.6
2	2.4	2.1	2.5	1.7	e1.9	1.7	1.9	2.6	1.6	2.0	1.3	1.6
3	2.6	2.2	2.6	1.7	1.6	1.6	2.1	2.6	1.6	1.8	1.3	1.6
4	2.5	2.1	2.7	e1.6	1.6	1.6	2.0	2.7	1.6	1.7	1.3	1.6
5	2.4	2.1	e2.6	1.6	1.6	1.6	1.9	2.9	1.7	1.6	1.3	1.7
6	2.6	2.1	2.8	1.7	1.7	1.7	1.8	3.3	1.6	1.5	1.7	1.7
7	3.3	2.1	2.7	e1.7	1.7	1.8	1.9	3.3	1.7	1.5	1.4	1.9
8	4.1	2.1	2.7	1.8	1.8	1.8	1.9	4.5	1.6	1.4	1.5	1.9
9	2.4	2.1	e2.7	1.8	1.8	1.9	1.9	4.2	1.7	1.4	1.4	1.7
10	2.4	2.2	2.9	1.6	1.8	2.0	1.9	3.6	1.7	1.3	1.7	1.7
11	2.2	2.2	2.8	e1.6	1.9	2.2	2.0	3.3	1.7	1.3	2.2	1.7
12	2.0	2.2	2.1	1.7	1.8	2.3	2.0	3.2	1.8	1.3	1.9	1.7
13	2.1	2.2	2.4	1.6	1.8	2.3	1.8	3.7	1.9	1.7	1.9	1.7
14	2.1	2.2	2.3	e1.6	1.7	2.3	1.9	2.6	2.0	1.4	2.8	1.6
15	2.0	2.2	e2.4	1.6	1.6	e2.1	2.0	4.2	1.9	1.3	3.3	1.7
16	2.0	2.2	2.4	1.8	1.6	e2.0	2.1	2.3	1.8	1.4	2.9	1.7
17	2.1	2.2	2.3	1.7	1.5	e2.1	2.0	2.2	2.0	2.2	4.2	1.7
18	2.3	2.1	2.4	1.6	1.4	e2.0	3.6	2.2	1.9	1.5	4.8	1.7
19	2.3	2.1	2.4	1.7	e1.5	e2.2	5.4	2.1	1.7	1.4	3.0	1.6
20	2.4	2.1	2.3	1.7	e1.6	e2.1	1.8	2.1	1.7	1.6	2.6	1.7
21	2.4	2.3	e2.2	1.7	1.7	e1.9	2.0	2.1	1.8	2.0	3.7	1.8
22	2.5	2.4	e2.3	1.7	1.8	e1.8	2.3	2.1	1.9	2.3	3.3	1.8
23	2.9	2.2	e2.2	e1.7	1.7	1.8	2.5	2.1	1.8	2.2	2.9	2.2
24	2.2	2.0	2.3	e1.8	1.7	1.7	2.4	2.0	1.9	2.2	3.2	2.0
25	2.4	e2.3	e2.2	1.9	1.6	1.7	2.4	1.9	1.9	2.1	4.7	1.8
26	2.3	2.6	1.8	1.9	1.7	1.8	2.6	1.9	2.7	1.8	4.0	2.2
27	2.1	2.7	1.7	1.9	1.7	1.8	2.6	1.7	2.3	1.8	4.1	2.4
28	2.1	2.7	1.6	1.8	1.7	1.7	2.9	1.6	2.2	2.0	4.9	2.0
29	2.2	2.7	1.6	e1.7	1.7	1.7	2.8	1.6	2.2	1.9	17	2.1
30	2.3	2.6	1.6	e1.6	---	1.7	2.9	1.6	2.1	1.9	2.0	2.1
31	2.5	---	e1.6	e1.6	---	1.9	---	1.6	---	1.7	1.4	---
TOTAL	74.6	67.6	71.7	52.9	48.9	58.5	68.8	80.5	55.7	53.2	95.1	54.2
MEAN	2.41	2.25	2.31	1.71	1.69	1.89	2.29	2.60	1.86	1.72	3.07	1.81
MAX	4.1	2.7	2.9	1.9	1.9	2.3	5.4	4.5	2.7	2.3	17	2.4
MIN	2.0	2.0	1.6	1.6	1.4	1.6	1.5	1.6	1.6	1.3	1.3	1.6
AC-FT	148	134	142	105	97	116	136	160	110	106	189	108

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2000, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	
MEAN	2.09	2.26	1.79	1.68	1.61	1.74	2.06	2.65	3.69	3.80	4.74	1.84									
MAX	3.55	6.49	3.17	2.74	2.39	3.54	9.33	10.1	27.8	27.9	13.4	5.12									
(WY)	1985	1982	1995	1986	1977	1980	1999	1995	1995	1985	1984	1994									
MIN	1.20	1.58	.87	1.01	.79	1.05	.56	.91	.98	.96	.84	.68									
(WY)	1979	1984	1988	1988	1990	1990	1990	1986	1989	1989	1993	1990									

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1976 - 2000	
ANNUAL TOTAL	1633.81		781.7			
ANNUAL MEAN	4.48		2.14		2.50	
HIGHEST ANNUAL MEAN					5.12	
LOWEST ANNUAL MEAN					1.20	
HIGHEST DAILY MEAN	223	Jul 31	17	Aug 29	700	Jul 28 1985
LOWEST DAILY MEAN	.80	Mar 25	1.3	Jul 10	.00	Apr 12 1990
ANNUAL SEVEN-DAY MINIMUM	.99	Mar 19	1.4	Jul 6	.07	Apr 10 1990
INSTANTANEOUS PEAK FLOW			147	Aug 29	a4810	Jun 3 1994
INSTANTANEOUS PEAK STAGE			b5.83	Aug 29	b9.51	Jun 3 1994
ANNUAL RUNOFF (AC-FT)	3240		1550		1810	
10 PERCENT EXCEEDS	3.9		2.7		3.0	
50 PERCENT EXCEEDS	2.3		1.9		1.7	
90 PERCENT EXCEEDS	1.2		1.6		.98	

e Estimated.

a From contracted-opening measurement of peak flow.

b From floodmarks.

07105945 ROCK CREEK ABOVE FORT CARSON RESERVATION, CO

LOCATION.--Lat 38°42'27", long 104°50'46", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.36, T.15 S., R.67 W., El Paso County, Hydrologic Unit 11020003, on right bank 20 ft upstream from county road bridge, 0.6 mi northwest of Rock Creek Park, 1.2 mi upstream from State Highway 115, and 3.2 mi southwest of Fort Carson Military Reservation (revised).

DRAINAGE AREA.--6.79 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1978 to current year. Water-quality data available, May 1978 to September 1979.

REVISED RECORDS.--WDR CO-85-1: 1982.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,390 ft above sea level, from topographic map. Prior to Oct. 10, 1997, at site 50 feet downstream at datum 0.78 ft lower.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.74	.90	.58	e.60	.70	2.1	2.3	.55	.73	.09	.49
2	1.0	.79	.88	.61	e.60	.73	1.9	2.0	.58	.64	.09	.39
3	1.0	.78	.87	.60	e.62	.72	1.7	1.9	.57	.63	.08	.35
4	1.0	.74	.81	.63	e.60	.74	2.2	1.7	.54	.51	.08	.31
5	.93	.71	.83	.61	.60	.74	5.5	1.5	.55	.44	.09	.28
6	.85	.69	.87	.62	.64	.74	8.8	1.4	.57	.39	.13	.25
7	1.3	.68	.82	.73	.65	.84	8.4	1.3	.49	.30	.23	.23
8	2.1	.67	.83	.54	.68	.98	6.7	2.6	.44	.24	.15	.22
9	1.5	.61	.80	.49	.71	.87	5.8	2.5	.40	.26	.13	.20
10	1.2	.58	.81	.57	.72	.80	5.7	2.0	.36	.24	.11	.18
11	1.1	.57	.79	.58	.70	.75	5.4	1.7	.39	.23	.11	.16
12	1.0	.57	.75	.53	.69	.77	4.6	1.5	.40	.23	.11	.16
13	.87	.56	.74	.51	.70	.72	4.3	1.4	.35	.23	.09	.16
14	.85	.54	.65	.55	.68	.72	4.4	1.4	.35	.20	.12	.14
15	.78	.52	.68	.55	.74	.79	4.6	1.3	.32	.19	.13	.14
16	.96	.51	.64	.54	.73	.73	4.1	1.2	.30	.17	.13	.13
17	1.0	.51	.62	.61	.74	.97	3.7	1.2	.39	.21	1.8	.12
18	1.1	.55	.61	.61	.71	1.2	3.7	1.2	.40	.21	4.2	.12
19	1.1	.60	.61	.67	.65	1.0	3.8	1.2	.34	.18	1.5	.11
20	1.1	.62	.66	.69	.71	1.2	3.6	1.1	.31	.17	.88	.12
21	.99	.62	.69	.67	.73	1.1	3.5	1.0	.28	.17	.65	.10
22	.93	.80	.67	.63	.78	1.2	3.4	.94	.28	.17	.99	.10
23	.89	.81	.61	.57	.79	1.4	3.4	.89	.28	.19	.55	.22
24	.87	.78	.62	.51	.80	1.6	3.6	.91	.28	.15	.42	.30
25	.87	.77	.56	.53	.75	2.0	3.4	.96	.28	.13	.36	.24
26	.85	.86	.51	.62	.67	2.2	3.2	.90	1.0	.12	.44	.26
27	.83	.91	.52	.67	.71	2.3	2.9	.80	1.7	.12	.42	.21
28	.81	.88	.53	.55	.68	2.4	2.8	.72	1.6	.12	.42	.18
29	.81	.87	.56	e.60	.72	2.3	2.6	.68	1.3	.12	1.3	.16
30	.74	.88	.57	e.56	---	2.2	2.7	.61	.94	.11	.68	.15
31	.75	---	.57	e.61	---	1.9	---	.58	---	.09	.53	---
TOTAL	31.08	20.72	21.58	18.34	20.10	37.31	122.5	41.39	16.54	7.89	17.01	6.18
MEAN	1.00	.69	.70	.59	.69	1.20	4.08	1.34	.55	.25	.55	.21
MAX	2.1	.91	.90	.73	.80	2.4	8.8	2.6	1.7	.73	4.2	.49
MIN	.74	.51	.51	.49	.60	.70	1.7	.58	.28	.09	.08	.10
AC-FT	62	41	43	36	40	74	243	82	33	16	34	12

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	1.56	1.03	.52	.49	.50	1.02	5.05	11.4	5.54	1.95	3.42	1.31												
MAX	20.7	10.7	2.25	1.42	1.33	2.56	20.7	39.1	32.7	7.23	18.1	7.75												
(WY)	1985	1985	1985	1985	1985	1998	1999	1995	1997	1985	1999	1982												
MIN	.000	.028	.051	.073	.12	.29	.34	.41	.31	.010	.000	.000												
(WY)	1979	1979	1979	1979	1979	1981	1981	1996	1996	1978	1978	1978												

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1978 - 2000

ANNUAL TOTAL	2779.59	360.64	
ANNUAL MEAN	7.62	.99	2.87
HIGHEST ANNUAL MEAN			7.70
LOWEST ANNUAL MEAN			.36
HIGHEST DAILY MEAN	397	Apr 30	397
LOWEST DAILY MEAN	.31	Jan 1	a.00
ANNUAL SEVEN-DAY MINIMUM	.31	Feb 26	.00
INSTANTANEOUS PEAK FLOW			9.8
INSTANTANEOUS PEAK STAGE			2.86
ANNUAL RUNOFF (AC-FT)	5510	715	2080
10 PERCENT EXCEEDS	19	2.1	6.0
50 PERCENT EXCEEDS	.90	.68	.68
90 PERCENT EXCEEDS	.34	.16	.17

- e Estimated.
- a No flow many days.
- b From rating curve extended above 133 ft<sup>3</sup>/s on basis of width-contraction measurement of peak flow at gage height 5.28 ft.
- c From floodmark, site and datum then in use.

## ARKANSAS RIVER BASIN

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO

LOCATION.--Lat 38°36'06", long 104°40'11", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.4, T.17 S., R.65 W., El Paso County, Hydrologic Unit 11020003, on right bank 50 ft upstream from Old Pueblo Road bridge, 100 ft downstream from Denver & Rio Grande Railroad bridge, 0.9 mi downstream from Little Fountain Creek, and 5.6 mi south of Fountain.

DRAINAGE AREA.--681 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1938 to February 1940 (monthly records only), March 1940 to September 1954; July 1985 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Elevation of gage is 5,355 ft above sea level, from topographic map. Sept. 18, 1938 to Mar. 1, 1940, nonrecording gage, at site 50 ft downstream, at different datum. Mar. 2, 1940 to Sept. 30, 1954, at site 200 ft upstream, at different datum. July 2, 1985 to Sept. 2, 1987, at site 500 ft upstream, at different datum. Sept. 3, 1987 to Mar. 12, 1990, at site 1,100 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records fair except for those above 1,000 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation and municipal use, return flows from irrigation, and sewage effluent discharges.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 14.4 ft, at different datum, May 30, 1935, discharge undetermined. Floods of May 1935 and June 1965 probably exceeded flood of May 1940.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	241	249	243	201	171	193	210	218	115	109	62	222
2	239	252	234	197	182	197	241	157	120	97	69	174
3	259	250	256	194	234	204	219	167	107	229	84	164
4	259	251	211	166	238	207	197	169	95	140	87	159
5	256	241	223	192	228	202	219	171	95	92	128	154
6	209	241	252	196	213	213	227	161	103	73	211	123
7	462	235	249	188	207	218	222	155	91	74	161	114
8	401	260	249	213	199	346	230	706	84	79	79	115
9	311	260	239	204	196	228	232	396	89	77	65	112
10	275	229	243	206	199	193	243	241	87	75	82	111
11	267	242	248	221	204	188	238	192	94	71	85	109
12	261	234	238	218	200	202	231	186	95	85	97	103
13	261	245	251	203	198	201	226	185	84	69	74	105
14	247	236	249	217	199	173	218	146	89	64	98	122
15	230	251	225	210	191	213	236	147	81	78	88	118
16	261	253	245	201	193	409	271	108	93	136	100	116
17	258	247	252	201	199	245	225	119	152	300	229	113
18	257	237	245	199	217	285	180	216	173	180	404	116
19	295	234	260	202	214	185	186	174	157	153	192	109
20	248	247	224	258	210	199	189	159	129	148	114	107
21	247	254	216	261	211	182	191	143	112	117	104	110
22	237	388	214	260	204	234	193	120	108	74	353	142
23	260	295	213	233	197	254	203	88	104	63	155	141
24	263	251	219	234	191	209	271	120	105	65	365	279
25	278	235	207	235	173	203	220	226	100	76	250	131
26	243	278	202	245	180	201	198	202	557	74	696	112
27	239	279	198	283	189	203	193	146	501	110	269	77
28	256	246	206	227	192	200	181	112	256	109	430	71
29	251	243	222	195	197	203	185	113	229	141	1170	72
30	231	233	223	187	---	224	241	130	162	59	314	61
31	239	---	197	182	---	322	---	116	---	58	259	---
TOTAL	8241	7596	7153	6629	5826	6936	6516	5689	4367	3275	6874	3762
MEAN	266	253	231	214	201	224	217	184	146	106	222	125
MAX	462	388	260	283	238	409	271	706	557	300	1170	279
MIN	209	229	197	166	171	173	180	88	81	58	62	61
AC-FT	16350	15070	14190	13150	11560	13760	12920	11280	8660	6500	13630	7460

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1939 - 2000, BY WATER YEAR (WY)

	70.3	84.7	71.4	71.8	75.6	85.5	132	238	180	113	146	70.4
MEAN	70.3	84.7	71.4	71.8	75.6	85.5	132	238	180	113	146	70.4
MAX	266	253	231	214	201	224	787	1602	1080	432	713	242
(WY)	2000	2000	2000	2000	2000	2000	1999	1999	1997	1995	1999	1999
MIN	3.70	10.0	5.14	6.99	6.07	6.39	4.30	9.78	4.50	3.47	3.15	1.31
(WY)	1954	1940	1953	1952	1941	1941	1954	1950	1953	1952	1954	1939

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1939 - 2000	
ANNUAL TOTAL	166913		72864			
ANNUAL MEAN	457		199		112	
HIGHEST ANNUAL MEAN					430	
LOWEST ANNUAL MEAN					10.3	
HIGHEST DAILY MEAN	13200		1170		13200	
LOWEST DAILY MEAN	86		58		a.00	
ANNUAL SEVEN-DAY MINIMUM	91		74		.27	
INSTANTANEOUS PEAK FLOW			5220		b22100	
INSTANTANEOUS PEAK STAGE			7.62		c9.19	
ANNUAL RUNOFF (AC-FT)	331100		144500		80800	
10 PERCENT EXCEEDS	1040		261		231	
50 PERCENT EXCEEDS	243		202		61	
90 PERCENT EXCEEDS	117		89		7.4	

a Also occurred Sep 30, 1939.

b From contracted-opening and slope-area measurement of peak flow.

c At different datum, maximum gage height, 12.06 ft, Apr 30, 1999.



07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1987 to current year.

PERIOD OF DAILY RECORD.--

DISSOLVED OXYGEN: November 1987 to current year.  
 pH: November 1987 to current year.  
 SPECIFIC CONDUCTANCE: November 1987 to current year.  
 WATER TEMPERATURE: November 1987 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.-- Records for daily dissolved oxygen are poor. Records for daily pH are fair except for Dec. 8, 25, 28, Mar. 17-19, and June 30 to July 13, which are poor. Records for daily specific conductance are fair. Records for daily water temperature are good except for Dec. 10 to Jan. 26, which are fair and Nov. 26, Feb. 19, 21, and May 16 to Aug. 24, which are poor. Daily data that are not published are either missing or of unacceptable quality.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

DISSOLVED OXYGEN: Maximum, 12.9 mg/L, Mar. 15, 2000; minimum, 3.7 mg/L, July 9, 1993.  
 pH: Maximum, 8.7 units, Dec. 9-10, 1999; minimum, 6.5 units, Oct. 26, 28-29, 31, 1995.  
 SPECIFIC CONDUCTANCE: Maximum, 1,660 microsiemens, Aug. 27-28, 1996; minimum, 141 microsiemens, Aug. 8, 1991.  
 WATER TEMPERATURE: Maximum, 31.8°C, July 9, 1990; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 12.9 mg/L, Mar. 15; minimum, 4.3 mg/L, Aug. 20.  
 pH: Maximum, 8.7 units, Dec. 9-10; minimum, 7.7 units, May 8, June 26-27.  
 SPECIFIC CONDUCTANCE: Maximum, 1330 microsiemens, Feb. 19; minimum, 304 microsiemens, Aug. 29.  
 WATER TEMPERATURE: Maximum, 31.6° C, July 15; minimum, 0.0° C, many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT 18...	1400	238	905	8.3	11.5	8.6	1.5	210	79.3	25.6	250	1.8
DEC 13...	1300	186	998	8.2	5.0	10.3	1.5	--	86.0	28.0	250	1.8
FEB 14...	1230	152	971	8.2	10.5	8.7	3.1	K22	80.1	26.7	260	1.8
APR 17...	1300	180	741	8.4	16.0	8.0	1.7	K28	61.9	20.0	200	2.0
JUN 19...	1215	102	949	8.2	24.0	6.5	2.1	480	78.6	25.4	240	1.8
AUG 14...	1045	91	1050	8.1	22.5	6.9	2.9	E960	80.7	27.8	290	1.6

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL SOLVED (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL SOLVED (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL SOLVED (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 18...	3.30	.030	.500	.300	3	1.5	180	180	.2	<.1	2
DEC 13...	3.70	.170	.600	.500	3	1.6	192	196	.2	.1	2
FEB 14...	4.50	.400	.400	.200	3	1.1	213	206	.3	.1	1
APR 17...	3.00	.030	.600	.400	3	1.8	158	158	.3	.1	3
JUN 19...	3.47	.110	.953	.750	4	3.3	213	213	.3	.1	1
AUG 14...	3.00	<.020	.618	.270	4	2.6	221	218	.4	.1	3



ARKANSAS RIVER BASIN

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	9.9	8.0	9.1	10.4	8.3	9.3	10.7	7.3	9.5	9.3	7.3	8.4
2	9.7	7.5	8.7	10.5	9.4	10.1	11.1	8.5	10.1	9.4	6.7	8.0
3	9.3	7.6	8.5	10.8	8.1	9.6	11.6	8.6	10.1	8.9	6.4	7.6
4	9.3	8.5	8.9	10.8	7.9	9.4	11.2	6.9	9.0	8.5	6.4	7.3
5	9.8	8.1	8.9	10.5	8.4	9.5	9.2	6.9	8.1	8.3	6.2	7.2
6	9.6	8.0	8.8	10.9	8.9	10.0	9.5	7.4	8.4	8.1	7.0	7.5
7	9.7	7.9	8.9	10.2	8.4	9.3	10.2	8.6	9.3	8.3	6.6	7.5
8	9.8	8.1	9.0	10.4	8.0	9.0	11.5	8.1	9.6	8.5	7.2	7.9
9	9.4	8.3	9.0	11.1	8.9	10.3	10.2	7.5	8.8	9.0	6.6	7.9
10	9.7	8.4	9.1	11.2	9.0	10.4	9.6	7.9	8.8	8.6	6.1	7.4
11	9.9	9.2	9.7	11.2	8.5	9.9	10.0	9.0	9.5	8.4	6.4	7.5
12	10.0	8.4	9.3	10.7	8.8	9.9	10.7	8.0	9.3	9.1	6.8	8.1
13	9.7	8.3	9.1	11.2	7.7	9.5	10.1	7.7	8.8	10.0	7.1	8.5
14	9.8	7.7	8.8	10.9	8.2	9.6	9.5	7.7	8.6	9.2	6.9	8.0
15	9.3	7.8	8.7	12.9	8.5	10.2	10.2	9.0	9.8	8.8	6.6	7.7
16	9.8	8.2	9.0	12.7	8.5	10.4	10.9	7.8	9.4	8.5	7.1	7.8
17	9.7	8.7	9.2	11.6	8.5	9.9	9.9	7.6	8.7	9.2	7.7	8.5
18	9.9	8.7	9.3	10.5	8.2	9.3	9.6	7.5	8.6	9.5	8.0	8.8
19	10.3	8.0	9.2	---	---	---	10.3	8.1	9.2	9.6	6.8	8.2
20	9.9	8.0	9.0	11.8	9.8	10.4	10.3	7.4	8.8	9.1	7.5	8.2
21	9.5	7.4	8.5	12.3	9.0	11.1	9.8	7.3	8.4	8.9	6.6	7.7
22	9.7	7.5	8.7	11.2	9.2	10.4	8.6	7.1	8.0	8.6	6.5	7.5
23	10.2	7.8	9.1	10.2	7.5	9.0	8.9	7.6	8.3	8.3	6.1	7.1
24	10.3	8.5	9.5	9.8	6.8	8.4	8.5	6.9	7.8	8.1	6.8	7.4
25	10.6	8.4	9.6	9.2	6.8	8.1	9.2	7.0	8.2	8.0	6.4	7.2
26	11.8	8.1	10.0	9.5	7.7	8.7	9.2	6.7	7.9	7.9	6.6	7.3
27	11.2	8.1	9.6	10.0	7.1	8.6	8.9	6.6	7.8	8.6	6.5	7.5
28	10.4	7.8	9.1	9.4	7.8	8.7	8.9	6.9	7.9	8.6	6.5	7.5
29	9.7	7.6	8.8	9.4	6.6	8.1	8.6	6.8	7.7	8.2	6.4	7.4
30	---	---	---	10.5	8.5	9.4	9.7	8.3	9.1	8.3	6.6	7.4
31	---	---	---	11.6	9.5	10.5	---	---	---	8.1	6.4	7.3
MONTH	11.8	7.4	9.1	---	---	---	11.6	6.6	8.8	10.0	6.1	7.7
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	8.6	6.7	7.5	7.2	5.2	6.0	7.2	5.7	6.4	7.1	6.0	6.6
2	8.5	6.9	7.7	7.0	5.3	6.1	7.1	5.7	6.4	7.3	6.1	6.8
3	8.3	5.0	7.2	6.3	5.3	5.8	7.0	5.8	6.5	7.6	6.7	7.1
4	8.5	6.6	7.6	6.8	5.0	5.9	7.0	5.5	6.4	7.8	6.2	7.0
5	8.3	6.6	7.6	6.9	5.1	6.1	---	---	---	7.6	6.2	6.9
6	8.4	6.5	7.5	6.9	5.0	5.9	---	---	---	7.7	6.6	7.1
7	8.4	6.0	7.2	6.9	5.2	6.0	7.2	5.6	6.5	7.7	6.4	7.2
8	7.9	6.2	7.0	7.2	5.3	6.2	7.2	5.5	6.5	7.8	6.5	7.1
9	7.8	6.4	7.1	7.1	5.3	6.0	7.5	5.8	6.6	7.6	6.4	7.0
10	8.0	6.2	7.1	7.4	5.3	6.1	---	---	---	7.8	5.0	6.7
11	7.7	6.0	7.0	7.0	5.1	6.0	---	---	---	7.9	6.3	7.1
12	7.8	6.1	6.9	7.0	5.4	6.1	---	---	---	8.0	6.4	7.1
13	7.7	6.3	7.1	7.2	5.9	6.3	---	---	---	8.0	6.2	7.0
14	8.5	6.3	7.3	7.1	5.8	6.3	7.0	6.0	6.6	7.8	6.2	7.0
15	8.2	5.7	7.1	7.1	5.8	6.5	7.3	6.2	6.7	7.9	6.2	7.0
16	8.7	7.1	7.8	6.9	5.7	6.4	7.3	6.2	6.9	7.6	5.4	6.7
17	8.7	7.4	8.0	7.2	6.0	6.6	7.2	6.2	6.8	7.5	6.3	6.9
18	8.7	6.8	7.6	7.0	5.5	6.4	7.0	5.9	6.5	7.5	5.2	6.8
19	8.0	5.5	6.9	7.2	5.6	6.4	6.7	4.8	5.9	---	---	---
20	8.0	5.9	7.1	7.1	5.6	6.4	6.6	4.3	5.8	---	---	---
21	8.3	6.1	7.3	7.0	5.6	6.4	6.6	4.4	5.8	8.7	6.7	7.8
22	8.2	6.5	7.5	6.8	5.7	6.5	6.8	5.6	6.3	7.9	7.2	7.5
23	8.2	6.7	7.6	7.2	5.5	6.4	6.8	5.2	6.1	8.8	7.9	8.3
24	8.9	6.7	7.7	7.2	6.1	6.7	6.9	5.5	6.2	9.7	8.4	9.0
25	8.6	6.6	7.7	7.4	6.1	6.7	6.7	5.3	6.1	9.8	6.6	8.4
26	8.2	6.6	7.8	7.3	6.0	6.7	---	---	---	9.6	7.1	8.3
27	8.7	5.4	7.6	7.3	6.0	6.7	---	---	---	9.3	7.0	8.2
28	8.7	7.8	8.1	7.1	5.6	6.5	---	---	---	9.5	6.7	8.0
29	9.1	5.8	7.7	7.0	5.6	6.3	6.9	5.8	6.3	8.2	6.8	7.6
30	6.7	5.4	6.1	6.9	5.5	6.2	6.9	6.0	6.4	8.2	6.6	7.4
31	---	---	---	7.1	5.4	6.3	7.0	6.0	6.6	---	---	---
MONTH	9.1	5.0	7.4	7.4	5.0	6.3	---	---	---	---	---	---

ARKANSAS RIVER BASIN

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	8.2	8.2	8.1	8.0	8.1	---	---	---	8.4	8.2	8.3
2	8.3	8.2	8.2	8.2	8.1	8.1	---	---	---	8.3	8.2	8.3
3	8.2	8.2	8.2	8.3	8.1	8.2	---	---	---	8.3	8.2	8.2
4	8.3	8.2	8.2	8.3	8.2	8.3	---	---	---	8.3	8.2	8.3
5	8.3	8.2	8.2	8.3	8.2	8.3	---	---	---	8.4	8.3	8.3
6	8.3	8.2	8.2	8.3	8.2	8.3	---	---	---	8.4	8.2	8.3
7	8.3	8.0	8.2	8.3	8.2	8.3	---	---	---	8.4	8.2	8.3
8	8.1	7.9	8.0	8.3	8.2	8.3	8.6	8.3	8.4	8.4	8.3	8.3
9	8.1	8.1	8.1	8.4	8.3	8.3	8.7	8.5	8.6	8.4	8.3	8.3
10	8.1	8.1	8.1	8.4	8.3	8.3	8.7	8.6	8.6	8.4	8.3	8.3
11	8.2	8.1	8.1	8.4	8.3	8.3	8.6	8.5	8.6	8.4	8.3	8.3
12	8.2	8.1	8.1	8.4	8.3	8.3	8.6	8.4	8.5	8.4	8.3	8.3
13	8.2	8.1	8.2	8.4	8.3	8.3	8.5	8.4	8.4	8.4	8.3	8.3
14	8.3	8.2	8.2	8.4	8.3	8.3	8.5	8.3	8.4	8.4	8.3	8.3
15	8.3	8.2	8.2	8.4	8.3	8.3	8.4	8.2	8.3	8.4	8.3	8.3
16	8.3	8.2	8.2	8.4	8.3	8.3	8.3	8.2	8.2	8.4	8.3	8.3
17	8.2	8.0	8.1	8.4	8.3	8.3	8.3	8.1	8.2	8.4	8.3	8.3
18	8.2	8.1	8.1	8.4	8.3	8.4	8.3	8.1	8.2	8.4	8.3	8.3
19	8.2	8.1	8.1	8.4	8.3	8.4	8.3	8.2	8.2	8.4	8.3	8.3
20	8.2	8.1	8.2	8.5	8.3	8.4	8.3	8.2	8.2	8.4	8.3	8.3
21	8.2	8.2	8.2	8.4	8.3	8.4	8.3	8.1	8.2	8.4	8.3	8.3
22	8.2	8.2	8.2	8.3	8.2	8.3	8.3	8.2	8.2	8.3	8.2	8.3
23	8.3	8.2	8.2	8.3	8.2	8.3	8.3	8.2	8.2	8.3	8.2	8.3
24	8.2	8.1	8.1	8.4	8.3	8.3	8.3	8.2	8.2	8.3	8.2	8.3
25	8.2	8.1	8.1	8.4	8.3	8.4	8.3	8.2	8.3	8.3	8.2	8.3
26	8.2	8.1	8.2	8.4	8.3	8.4	---	---	---	8.4	8.1	8.3
27	8.2	8.1	8.2	---	---	---	---	---	---	8.2	8.1	8.2
28	8.2	8.2	8.2	---	---	---	8.3	8.2	8.3	8.2	8.2	8.2
29	8.2	8.1	8.2	---	---	---	8.4	8.2	8.3	8.3	8.2	8.2
30	8.2	8.1	8.2	---	---	---	8.3	8.2	8.3	8.3	8.2	8.2
31	8.2	8.0	8.1	---	---	---	8.3	8.2	8.3	8.3	8.2	8.2
MONTH	8.3	7.9	8.2	---	---	---	---	---	---	8.4	8.1	8.3
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	8.2	8.2	8.3	8.2	8.3	8.2	8.0	8.1	8.0	7.9	8.0
2	8.3	8.2	8.3	8.4	8.3	8.3	8.2	8.1	8.2	8.1	8.0	8.0
3	8.2	8.2	8.2	8.4	8.3	8.3	8.2	8.1	8.1	8.1	7.9	8.0
4	8.3	8.2	8.2	8.4	8.3	8.3	8.2	8.0	8.1	8.1	7.9	8.0
5	8.3	8.2	8.2	8.4	8.2	8.3	8.2	8.0	8.1	8.1	8.0	8.0
6	8.2	8.2	8.2	8.4	8.3	8.3	8.2	8.1	8.2	8.2	8.0	8.1
7	8.2	8.1	8.2	8.3	8.1	8.2	8.2	8.1	8.2	8.1	8.0	8.0
8	8.2	8.2	8.2	8.2	7.9	8.1	8.3	8.1	8.2	8.0	7.7	7.9
9	8.3	8.0	8.2	8.3	8.2	8.3	8.3	8.1	8.2	8.0	7.8	7.9
10	8.2	8.2	8.2	8.3	8.3	8.3	8.3	8.1	8.2	8.1	8.0	8.0
11	8.3	8.2	8.3	8.3	8.3	8.3	8.3	8.2	8.3	8.1	8.0	8.1
12	8.3	8.2	8.3	8.3	8.3	8.3	8.3	8.2	8.2	8.1	8.0	8.1
13	8.3	8.2	8.2	8.3	8.2	8.2	8.3	8.2	8.2	8.1	8.0	8.1
14	8.3	8.2	8.2	8.3	8.2	8.3	8.3	8.2	8.2	8.1	8.0	8.1
15	8.3	8.2	8.2	8.3	8.2	8.3	8.2	8.1	8.1	8.1	8.0	8.0
16	8.3	8.2	8.3	8.3	8.1	8.2	8.2	8.0	8.1	8.1	8.0	8.1
17	8.3	8.2	8.3	8.3	8.2	8.3	8.2	8.1	8.1	8.1	8.0	8.1
18	8.3	8.2	8.3	8.3	8.2	8.3	8.3	8.1	8.2	8.1	8.0	8.1
19	8.2	8.2	8.2	8.3	8.2	8.2	8.3	8.2	8.2	8.1	8.1	8.1
20	8.3	8.2	8.2	8.4	8.3	8.3	8.2	8.0	8.1	8.1	8.1	8.1
21	8.3	8.2	8.2	8.4	8.1	8.4	8.2	8.0	8.1	8.1	8.0	8.1
22	8.2	8.2	8.2	8.4	8.2	8.3	8.1	7.9	8.0	8.2	8.0	8.1
23	8.3	8.2	8.2	8.3	8.2	8.2	8.2	8.0	8.1	8.2	8.1	8.1
24	8.3	8.2	8.3	8.3	8.0	8.2	8.0	7.9	8.0	8.2	8.0	8.1
25	8.3	8.3	8.3	8.2	8.0	8.1	8.0	7.9	7.9	8.1	7.9	8.0
26	8.3	8.2	8.3	8.2	8.1	8.2	8.1	7.9	8.0	8.1	7.9	8.0
27	8.3	8.2	8.3	8.2	8.1	8.2	8.1	7.9	8.0	8.2	8.1	8.1
28	8.3	8.2	8.2	8.2	8.0	8.1	8.0	7.9	8.0	8.2	8.1	8.1
29	8.3	8.2	8.2	8.2	7.9	8.0	8.1	7.9	8.0	8.2	8.1	8.1
30	---	---	---	8.2	8.0	8.1	8.0	7.9	8.0	8.2	8.1	8.1
31	---	---	---	8.1	8.0	8.1	---	---	---	8.3	8.1	8.1
MONTH	8.3	8.0	8.2	8.4	7.9	8.2	8.3	7.9	8.1	8.3	7.7	8.1

ARKANSAS RIVER BASIN

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	8.1	8.2	8.3	8.1	8.2	8.2	8.1	8.1	8.2	8.1	8.2
2	8.3	8.1	8.2	8.2	8.1	8.1	8.3	8.1	8.1	8.3	8.2	8.2
3	8.2	8.1	8.2	8.1	7.9	8.0	8.2	8.1	8.1	8.3	8.1	8.2
4	8.2	8.1	8.2	8.2	8.1	8.1	8.2	8.1	8.1	8.3	8.1	8.2
5	8.2	8.1	8.2	8.2	8.1	8.1	8.2	8.0	8.1	8.3	8.1	8.2
6	8.3	8.1	8.2	8.1	8.0	8.1	8.2	7.9	8.1	8.3	8.1	8.2
7	8.3	8.1	8.2	8.1	8.0	8.1	8.2	7.9	8.0	8.3	8.2	8.3
8	8.3	8.1	8.2	8.2	8.0	8.1	8.2	8.1	8.1	8.4	8.2	8.3
9	8.3	8.1	8.2	8.2	8.0	8.1	8.2	8.1	8.1	8.3	8.1	8.2
10	8.3	8.1	8.2	8.2	8.1	8.1	8.2	8.1	8.2	8.3	8.1	8.2
11	8.3	8.1	8.2	8.1	8.0	8.0	8.3	8.1	8.2	8.5	8.1	8.2
12	8.3	8.1	8.2	8.1	7.9	8.0	8.2	8.1	8.2	8.4	8.1	8.2
13	8.3	8.1	8.2	8.2	7.9	8.0	8.2	8.1	8.2	8.4	8.1	8.2
14	8.4	8.2	8.3	8.2	8.0	8.1	8.2	7.9	8.1	8.3	8.0	8.1
15	8.4	8.2	8.3	8.2	8.0	8.1	8.2	8.1	8.2	8.2	8.0	8.1
16	8.3	8.2	8.2	8.0	8.0	8.0	8.2	8.1	8.2	8.2	8.0	8.1
17	8.4	8.1	8.2	8.1	7.9	8.0	8.3	8.0	8.1	8.2	8.0	8.1
18	8.3	8.1	8.2	8.0	7.8	7.9	8.2	8.0	8.1	8.3	8.0	8.1
19	8.2	8.0	8.1	8.1	8.0	8.0	8.2	8.1	8.1	8.2	8.0	8.1
20	8.2	8.1	8.2	8.1	8.0	8.1	8.1	8.1	8.1	8.2	8.0	8.0
21	8.3	8.2	8.2	8.1	8.0	8.0	8.2	7.9	8.1	8.3	8.0	8.1
22	8.3	8.2	8.2	8.1	8.1	8.1	8.1	7.7	8.0	8.2	8.1	8.1
23	8.3	8.2	8.2	8.2	8.0	8.1	8.1	8.0	8.1	8.2	8.0	8.1
24	8.3	8.2	8.2	8.2	8.0	8.1	8.1	7.8	8.0	8.1	8.0	8.0
25	8.3	8.2	8.2	8.2	8.0	8.1	8.1	7.9	8.0	8.1	8.0	8.1
26	8.2	7.7	8.0	8.3	8.1	8.2	---	---	---	8.1	8.1	8.1
27	8.1	7.7	8.0	8.2	8.0	8.1	---	---	---	8.2	8.1	8.1
28	8.2	8.1	8.1	8.1	8.0	8.1	---	---	---	8.2	8.1	8.1
29	8.2	8.1	8.2	8.1	7.9	8.0	8.0	7.8	7.9	8.2	8.1	8.2
30	8.2	8.2	8.2	8.2	8.1	8.1	8.2	7.9	8.0	8.2	8.1	8.2
31	---	---	---	8.2	8.1	8.1	8.2	8.1	8.2	---	---	---
MONTH	8.4	7.7	8.2	8.3	7.8	8.1	---	---	---	8.5	8.0	8.1

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	820	761	794	---	---	---	1060	1010	1030	1060	1000	1020
2	820	778	800	---	---	---	1040	915	979	1100	1010	1050
3	823	788	802	985	946	974	988	854	931	1120	1020	1070
4	814	787	803	997	948	966	985	906	941	1190	1030	1080
5	827	745	799	979	933	952	1030	908	994	1150	987	1060
6	845	785	810	980	917	951	1030	951	983	1130	1030	1070
7	855	380	759	988	935	952	1060	979	1010	1180	1010	1070
8	769	466	654	991	949	964	1040	955	1010	1120	1040	1070
9	825	764	802	989	942	964	1140	1020	1060	1140	1020	1060
10	855	818	834	985	944	959	1120	1060	1070	1150	1010	1060
11	886	841	864	990	943	960	1120	984	1070	1130	987	1040
12	936	881	904	993	945	961	1100	907	1010	1100	1030	1060
13	973	902	936	997	947	969	1080	924	992	1120	1010	1050
14	952	917	930	1020	945	972	1070	928	1000	1120	995	1040
15	950	878	925	990	929	957	1070	945	1030	1090	1010	1040
16	924	887	910	994	946	963	1010	904	956	1080	1000	1030
17	910	841	881	989	945	962	981	876	939	1080	1000	1030
18	923	881	901	1000	957	974	1010	916	962	1060	1000	1030
19	902	863	880	997	942	966	999	878	940	1050	970	1010
20	934	886	906	1010	962	986	932	854	891	970	932	946
21	973	899	919	1000	885	968	978	871	907	967	921	937
22	972	919	933	953	807	906	985	880	928	951	919	934
23	967	911	938	933	807	886	1070	905	947	959	910	935
24	935	897	917	---	---	---	1000	899	934	966	900	930
25	943	905	921	---	---	---	947	908	931	960	915	935
26	962	908	935	---	---	---	---	---	---	1010	869	949
27	947	892	926	---	---	---	---	---	---	1250	895	956
28	959	890	912	---	---	---	1060	1000	1020	1290	1020	1120
29	962	828	910	1110	985	1060	1070	972	1010	1150	1020	1100
30	---	---	---	1100	1020	1050	1020	965	992	1160	1050	1110
31	---	---	---	---	---	---	1080	978	1020	1110	964	1040
MONTH	---	---	---	---	---	---	---	---	---	1290	869	1030

## ARKANSAS RIVER BASIN

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1120	1000	1050	998	942	965	933	856	907	861	791	814
2	1140	1010	1050	983	933	955	941	835	908	929	831	875
3	1070	968	1020	973	913	941	942	886	921	910	852	874
4	1040	977	1000	986	929	956	970	906	933	911	831	868
5	1030	968	992	967	889	939	936	856	896	920	847	867
6	1020	971	996	962	896	919	869	800	845	891	818	852
7	1020	969	989	969	882	927	846	791	822	923	822	869
8	1020	966	992	884	754	804	816	768	787	828	357	618
9	1020	957	990	928	844	887	804	768	784	804	380	650
10	1020	964	984	957	896	920	813	756	781	888	787	826
11	1030	990	1000	981	911	932	809	752	774	940	818	890
12	1040	993	1020	970	905	939	791	761	775	994	860	926
13	1020	965	993	967	901	930	770	742	755	945	868	901
14	1020	965	985	980	910	935	758	722	738	957	897	917
15	1020	970	991	976	766	910	744	703	726	978	906	933
16	1020	956	982	930	701	840	765	729	748	965	892	939
17	1000	944	973	988	724	900	788	755	769	982	861	930
18	1270	976	1020	969	806	894	829	754	779	861	778	822
19	1330	1020	1170	---	---	---	796	759	776	912	810	854
20	1030	976	1010	987	923	958	803	749	775	889	810	848
21	1030	967	994	1020	915	943	798	757	775	940	824	868
22	1020	966	984	1080	933	1020	820	770	793	987	850	899
23	1020	968	985	1010	910	946	801	749	786	1030	904	967
24	1020	965	980	993	929	959	847	721	761	1030	821	960
25	1020	958	984	955	904	930	834	781	802	880	670	805
26	1020	946	974	934	887	912	841	797	822	866	727	824
27	998	939	964	947	883	901	861	816	838	942	842	891
28	1010	934	965	924	885	898	895	843	862	981	895	929
29	1020	957	974	946	887	908	897	831	864	996	897	949
30	---	---	---	906	842	882	866	762	824	998	907	953
31	---	---	---	922	786	843	---	---	---	1010	919	961
MONTH	1330	934	1000	---	---	---	970	703	811	1030	357	874
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1010	934	960	1020	939	977	1140	1050	1090	963	880	919
2	1000	882	940	1050	978	1010	1160	1080	1110	993	922	958
3	988	901	941	981	690	835	1130	1050	1090	---	---	---
4	1010	928	967	1010	900	962	1140	1050	1090	---	---	---
5	999	897	942	1090	968	1010	---	---	---	---	---	---
6	1020	896	957	1090	984	1040	1090	546	972	1080	987	1040
7	1040	914	972	1120	1010	1060	1040	592	923	1080	989	1030
8	1040	935	989	1100	1010	1060	1130	1020	1070	1110	1020	1060
9	1090	946	1000	1100	1010	1060	1180	1080	1120	1110	1030	1070
10	1080	962	1010	1090	983	1040	1200	1090	1140	1110	1030	1070
11	1100	959	1020	1090	989	1040	1200	1110	1140	1120	1040	1070
12	1070	963	1010	1080	977	1030	1160	1020	1110	1130	1060	1080
13	1080	963	1020	1100	995	1040	---	---	---	1130	1050	1090
14	1100	959	1030	1110	982	1050	1140	1020	1080	1080	981	1030
15	1100	975	1040	1110	927	1060	1140	1050	1090	1070	1000	1030
16	1120	975	1060	1030	830	945	1180	870	1100	1090	1010	1060
17	1050	915	1000	990	374	824	1130	842	1020	1120	1020	1060
18	1000	869	950	901	425	709	956	656	808	1110	1030	1060
19	973	788	903	1000	901	957	1070	955	1010	1120	1040	1070
20	1020	904	970	1050	919	992	1100	1020	1070	1120	1050	1070
21	1070	956	1020	1040	920	985	1100	734	1070	1120	1040	1080
22	1090	979	1030	1080	999	1040	908	505	731	1060	979	1010
23	1110	979	1040	1100	1010	1050	982	884	927	1060	952	1010
24	1090	978	1030	1110	1010	1060	945	406	741	964	645	760
25	1100	968	1030	1130	1040	1070	1060	421	969	---	---	---
26	972	527	690	1130	1050	1080	818	373	581	---	---	---
27	804	390	618	1130	776	1040	---	---	---	---	---	---
28	838	751	797	1080	739	995	---	---	---	1140	1070	1110
29	869	813	829	993	732	903	775	304	503	1160	1080	1100
30	949	868	919	1090	973	1030	902	775	860	1170	1060	1110
31	---	---	---	1120	1020	1070	980	900	946	---	---	---
MONTH	1120	390	956	1130	374	1000	---	---	---	---	---	---

ARKANSAS RIVER BASIN

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.4	8.8	12.9	12.6	6.3	8.7	10.5	5.9	7.5	9.0	3.1	5.6
2	16.4	7.9	11.8	12.1	3.9	7.5	9.8	5.2	6.8	8.2	2.4	5.1
3	15.0	8.1	10.7	13.0	5.3	8.5	5.7	2.5	4.6	4.6	.0	2.3
4	18.0	7.3	12.0	14.0	5.3	9.1	5.8	1.4	3.1	6.2	.0	2.2
5	18.3	8.5	12.9	13.9	6.4	9.4	7.5	.4	3.5	7.7	1.6	3.8
6	18.1	10.0	13.6	14.5	5.4	9.4	8.2	2.1	4.5	7.3	1.4	3.8
7	18.7	8.2	13.0	14.2	5.9	9.5	8.4	2.2	4.6	7.8	.0	3.1
8	17.7	8.5	12.2	15.0	6.8	10.4	4.1	3.1	3.7	8.1	2.1	4.5
9	19.3	9.1	13.5	14.5	8.2	10.6	5.7	.4	3.1	7.3	1.0	3.3
10	19.0	9.9	13.9	13.9	6.2	9.5	8.0	2.0	4.5	8.2	1.2	3.9
11	19.3	10.0	14.2	14.6	6.5	10.0	7.9	2.8	4.7	9.3	.0	4.4
12	19.1	9.8	14.1	14.4	6.1	9.6	8.2	2.2	4.4	9.7	3.8	5.9
13	18.1	10.2	13.5	14.5	6.0	9.6	7.1	2.2	4.2	8.0	1.7	4.3
14	19.2	9.4	13.6	13.6	6.0	9.2	5.5	1.1	3.0	8.7	1.5	4.5
15	17.8	9.2	12.8	14.2	5.9	9.4	7.0	.0	2.8	8.9	2.7	5.5
16	11.9	7.3	9.1	14.0	6.2	9.4	8.4	2.2	4.8	9.4	3.0	5.6
17	14.1	5.7	9.1	13.8	6.1	9.4	7.4	3.7	5.2	10.4	3.8	6.4
18	11.7	6.8	8.8	11.9	5.7	8.5	8.5	2.6	5.1	10.2	4.6	6.8
19	13.7	7.0	9.7	10.9	3.7	6.8	6.6	2.2	4.0	10.8	4.7	6.9
20	15.5	6.3	10.3	10.2	4.8	7.1	4.9	1.0	2.8	10.0	3.3	6.1
21	16.2	6.8	10.9	10.9	3.7	7.2	4.3	.0	2.0	9.7	3.4	6.0
22	16.2	7.3	11.2	7.9	3.4	5.2	6.1	.9	3.1	9.1	3.3	5.9
23	16.3	7.4	11.2	8.2	3.0	4.9	7.8	1.3	4.0	9.0	2.1	4.8
24	16.4	7.2	11.3	8.1	1.9	4.4	9.1	2.0	4.9	9.5	2.0	5.2
25	15.6	7.7	11.1	7.4	1.3	4.1	---	---	---	5.8	2.6	3.9
26	16.2	7.2	11.0	10.4	3.9	6.8	---	---	---	7.8	2.5	4.0
27	14.9	7.4	10.6	---	---	---	---	---	---	5.8	1.3	3.1
28	14.1	6.5	10.0	---	---	---	---	---	---	6.5	1.7	3.0
29	10.0	6.5	8.8	---	---	---	9.6	2.9	5.7	6.7	.0	2.2
30	13.6	4.7	8.6	9.9	4.7	7.2	8.8	2.6	5.2	6.3	.0	1.9
31	14.7	6.0	9.7	---	---	---	8.6	1.7	4.8	7.4	.0	2.4
MONTH	19.4	4.7	11.5	---	---	---	---	---	---	10.8	.0	4.4
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	7.9	.0	2.9	12.4	4.1	7.8	15.4	4.6	8.4	17.9	7.8	12.0
2	10.0	.3	4.5	7.3	5.2	6.0	12.4	3.8	7.0	21.8	7.8	14.0
3	9.8	2.0	5.4	14.4	4.3	8.4	10.8	2.7	6.8	23.4	9.2	15.7
4	7.0	2.9	4.4	15.5	4.1	9.0	17.9	3.7	10.1	24.2	11.0	17.0
5	9.2	1.6	5.0	13.2	5.2	8.3	19.5	7.4	12.7	24.0	11.8	17.4
6	9.9	2.6	6.0	10.8	3.9	6.8	18.0	8.3	12.6	19.9	12.1	15.8
7	11.2	2.8	6.4	12.9	5.5	8.6	13.3	6.6	9.6	22.7	11.8	15.9
8	10.3	2.8	6.3	9.7	5.3	7.4	16.2	4.4	9.9	13.9	10.4	11.9
9	7.7	4.7	5.9	11.0	4.1	6.5	18.5	6.5	12.1	19.7	9.3	13.8
10	8.9	3.0	5.8	10.3	4.1	6.4	16.6	8.4	11.8	22.8	10.4	15.9
11	5.7	2.9	3.6	13.5	4.2	8.1	12.4	8.1	9.7	22.5	10.9	15.4
12	8.6	2.7	4.7	11.6	4.8	7.2	17.2	5.8	11.1	20.2	8.9	13.4
13	8.8	2.9	5.0	14.5	3.2	8.1	18.9	7.8	12.8	19.1	6.9	12.3
14	12.5	2.3	6.8	13.5	4.1	8.5	18.2	9.1	12.7	19.9	8.6	14.0
15	12.1	4.1	7.4	11.1	.0	5.8	10.2	7.1	8.6	22.6	9.9	15.6
16	10.8	3.2	6.7	11.9	1.2	5.9	17.2	4.6	10.3	18.7	11.0	14.0
17	7.1	3.0	4.8	12.3	2.5	7.6	18.3	7.5	12.3	15.2	8.9	11.3
18	7.6	2.2	4.4	10.6	5.4	7.5	18.2	8.1	12.3	14.8	7.8	10.9
19	9.6	.7	4.7	12.7	3.2	7.5	15.1	6.3	10.0	21.9	8.2	14.3
20	---	---	---	7.5	2.7	5.5	19.5	6.2	12.2	17.4	9.9	13.9
21	13.1	3.1	7.5	7.6	1.9	4.4	19.8	7.7	13.3	23.5	10.0	16.3
22	---	---	---	6.9	4.0	5.5	17.9	9.0	12.7	24.0	11.4	17.6
23	13.8	4.6	8.3	16.3	5.7	10.0	16.7	9.2	12.3	27.1	12.7	19.6
24	10.7	4.2	6.9	17.6	6.2	11.1	19.0	9.7	13.5	23.0	14.5	18.5
25	10.9	4.0	6.6	18.4	7.8	12.2	19.1	7.7	12.7	26.0	14.7	19.0
26	12.4	1.7	6.3	14.9	7.2	10.8	22.0	8.3	14.2	23.2	14.5	17.8
27	12.6	2.6	7.1	18.6	6.0	11.7	21.7	9.4	14.9	25.5	12.7	18.6
28	12.8	3.6	7.7	15.3	7.5	10.9	20.1	9.1	14.0	26.5	13.1	19.2
29	13.7	5.4	8.4	18.2	7.8	11.7	20.5	10.3	14.4	25.2	14.8	19.1
30	---	---	---	9.5	4.9	7.4	11.1	7.4	8.9	27.0	14.2	19.9
31	---	---	---	9.4	2.9	5.6	---	---	---	28.1	15.8	20.8
MONTH	---	---	---	18.6	.0	8.0	22.0	2.7	11.5	28.1	6.9	15.8

## ARKANSAS RIVER BASIN

07106000 FOUNTAIN CREEK NEAR FOUNTAIN, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	26.8	14.1	20.0	30.0	16.3	22.2	29.0	17.5	22.6	25.5	16.7	20.6
2	25.0	15.6	19.1	28.6	17.6	22.3	29.6	18.7	23.4	24.2	16.1	19.8
3	28.1	14.7	19.3	26.9	19.4	22.2	27.6	19.1	22.5	21.7	15.2	18.2
4	26.8	14.1	19.3	28.8	17.1	22.5	29.7	18.8	22.6	25.8	14.5	19.7
5	26.2	14.9	18.9	29.2	16.2	22.4	29.0	18.2	22.5	26.3	16.4	20.8
6	27.5	14.2	19.5	29.6	17.7	23.3	27.5	17.8	21.5	25.1	16.1	20.0
7	28.4	14.3	20.9	30.6	18.9	23.1	28.6	16.5	21.5	24.0	15.1	18.8
8	28.0	15.2	20.6	30.8	17.8	23.2	28.9	17.0	22.2	23.1	14.2	18.3
9	26.3	15.6	20.0	29.7	18.5	23.4	28.0	17.1	21.9	24.0	14.1	18.5
10	26.6	14.8	20.1	30.6	19.3	23.7	29.6	17.8	23.0	24.9	14.0	18.7
11	27.9	15.9	20.6	30.5	18.9	23.3	30.1	18.4	22.3	25.0	13.7	18.6
12	27.3	14.8	20.7	28.7	19.1	23.2	27.2	18.7	22.3	24.3	13.6	18.4
13	26.2	15.4	19.8	30.8	18.4	23.8	29.7	18.3	23.5	26.0	13.9	19.4
14	26.9	13.6	19.7	31.4	19.0	24.7	30.5	18.8	23.8	24.4	14.6	19.0
15	29.4	14.7	20.4	31.6	19.5	24.0	30.6	19.5	23.2	25.2	14.2	19.2
16	23.9	14.2	17.5	28.2	19.0	22.3	28.9	18.9	21.6	26.1	14.7	19.8
17	20.7	13.8	16.1	27.2	17.0	21.4	27.1	17.9	20.7	25.0	14.6	19.1
18	25.3	12.5	18.0	29.1	17.8	22.4	24.6	17.6	20.3	24.0	15.4	19.0
19	26.9	15.0	19.8	30.1	18.3	23.5	29.5	17.2	22.4	23.5	14.0	18.3
20	28.3	15.3	20.8	28.7	19.1	23.3	28.5	17.4	21.9	16.6	11.9	13.9
21	27.6	15.7	21.1	29.3	18.8	22.6	27.2	16.4	20.6	20.9	9.9	15.1
22	28.1	16.1	21.3	29.0	19.5	22.4	27.3	17.2	20.9	17.2	12.7	14.8
23	26.1	16.7	20.1	30.2	17.7	23.1	28.4	16.4	21.5	13.7	10.1	11.9
24	27.1	15.3	20.2	25.3	17.5	20.7	27.0	16.8	21.4	12.6	8.3	10.1
25	27.9	16.6	20.8	27.2	16.5	21.7	28.9	16.8	21.6	18.6	7.6	12.4
26	18.6	17.1	17.6	28.4	17.5	22.2	---	---	---	20.3	8.9	13.9
27	21.1	15.9	18.2	28.2	17.5	21.5	---	---	---	21.4	9.8	14.9
28	19.3	16.1	17.9	28.1	17.4	21.6	---	---	---	21.4	10.5	15.4
29	25.9	15.6	20.3	28.0	17.5	22.4	24.6	17.6	20.5	19.8	12.2	15.5
30	27.8	16.6	21.1	27.1	17.8	22.3	24.7	17.0	20.5	22.7	12.2	16.8
31	---	---	---	29.7	17.5	22.9	24.0	17.1	20.1	---	---	---
MONTH	29.4	12.5	19.7	31.6	16.2	22.7	---	---	---	26.3	7.6	17.3



07106300 FOUNTAIN CREEK NEAR PINON, CO

LOCATION.--Lat 38°26'23", long 104°35'35", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.31, T.18 S., R.64 W., Pueblo County, Hydrologic Unit 11020003, on right bank, 0.5 mi below Pinon Road bridge, 0.9 mi northeast of Pinon, and 2.7 mi upstream from Steele Hollow Creek.

DRAINAGE AREA.--849 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1973 to current year. Low-flow records may not be equivalent prior to October 1995, as a result of varying underflow (diversion system) entering between the sites.

REVISED RECORDS.--WDR CO-80-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 4,990 ft above sea level, from topographic map. Apr. 1973 to Apr. 22, 1976, non-recording gage, and Apr. 23, 1976 to Sept. 30, 1995, water-stage recorder, at site 0.5 mi upstream at different datum. Oct. 1, 1995 to present at various locations within 70 ft. downstream from underflow mouth (see district office for location history).

REMARKS.--No estimated daily discharges. Records fair except for discharges above 1,000 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by storage reservoirs, power developments, transbasin and transmountain diversions for municipal use, diversions upstream from station for municipal use and for irrigation of about 10,000 acres, and return flow from irrigated areas.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	216	218	207	179	166	177	356	183	67	94	46	178
2	200	217	205	173	166	175	267	126	59	83	43	150
3	209	215	206	171	175	179	309	104	64	121	44	130
4	230	221	233	160	180	173	218	94	57	91	46	126
5	192	219	214	159	178	179	217	81	54	72	52	129
6	173	214	213	166	183	181	227	67	53	45	46	110
7	155	215	212	159	182	178	239	75	49	42	149	96
8	717	219	211	162	181	310	252	432	45	44	76	87
9	304	214	211	166	179	222	251	690	45	45	59	83
10	271	210	208	162	180	177	263	243	44	44	50	79
11	248	214	207	164	179	178	278	196	43	58	46	78
12	242	220	209	167	178	180	261	158	46	61	45	76
13	211	212	215	163	183	201	251	148	42	56	42	75
14	205	213	213	165	182	180	233	115	41	54	41	79
15	209	210	198	167	179	185	238	111	41	52	43	77
16	214	211	202	167	178	311	284	100	44	54	42	75
17	303	208	222	169	181	463	256	82	48	137	54	77
18	268	209	217	168	183	361	201	129	71	587	314	78
19	311	207	218	167	184	260	177	130	81	134	140	77
20	279	207	212	174	186	226	189	120	62	116	76	74
21	238	207	186	178	184	216	178	114	50	105	54	73
22	218	289	176	178	185	223	177	103	36	82	214	84
23	219	384	174	178	183	289	176	84	33	70	119	104
24	248	244	181	178	184	226	264	72	33	60	230	242
25	242	223	183	180	180	205	209	114	33	51	99	165
26	235	231	175	179	175	203	146	171	182	47	546	117
27	223	300	174	191	182	200	138	115	515	47	262	85
28	207	239	177	185	183	195	122	86	213	64	141	71
29	216	221	178	176	181	198	114	73	151	97	1270	65
30	211	214	198	173	---	197	141	81	127	71	311	60
31	214	---	182	172	---	277	---	78	---	52	196	---
TOTAL	7628	6825	6217	5296	5220	6925	6632	4475	2429	2736	4896	3000
MEAN	246	228	201	171	180	223	221	144	81.0	88.3	158	100
MAX	717	384	233	191	186	463	356	690	515	587	1270	242
MIN	155	207	174	159	166	173	114	67	33	42	41	60
AC-FT	15130	13540	12330	10500	10350	13740	13150	8880	4820	5430	9710	5950

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1973 - 2000, BY WATER YEAR (WY)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	84.5	103	93.7	101	107	115	141	296	200	110	159	77.2																
MAX	457	289	201	174	180	229	664	1599	1083	365	794	241																
(WY)	1985	1985	2000	1996	2000	1998	1999	1999	1997	1985	1999	1999																
MIN	.81	5.77	30.0	19.0	35.2	20.0	3.36	.96	8.39	4.34	3.87	.000																
(WY)	1976	1979	1977	1979	1978	1978	1975	1975	1978	1976	1974	1975																

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1973 - 2000
ANNUAL TOTAL	166474	62279	
ANNUAL MEAN	456	170	132
HIGHEST ANNUAL MEAN			438
LOWEST ANNUAL MEAN			29.4
HIGHEST DAILY MEAN	11000	1270	11000
LOWEST DAILY MEAN	79	33	.00
ANNUAL SEVEN-DAY MINIMUM	92	43	.00
INSTANTANEOUS PEAK FLOW		2330	a19100
INSTANTANEOUS PEAK STAGE		4.45	b9.80
ANNUAL RUNOFF (AC-FT)	330200	123500	95610
10 PERCENT EXCEEDS	1010	251	246
50 PERCENT EXCEEDS	214	178	86
90 PERCENT EXCEEDS	132	52	4.5

a From rating curve extended above 15,000 ft<sup>3</sup>/s.  
b From floodmark.

## ARKANSAS RIVER BASIN

07106300 FOUNTAIN CREEK NEAR PINON, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1976 to December 1983, December 1990 to current year.

REMARKS.--Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SULFATE DIS-SOLVED (MG/L) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
OCT 18...	1215	226	945	8.3	11.0	9.3	1.0	540	83.8	26.6	250	1.9
DEC 13...	1045	204	1010	8.3	1.0	11.1	2.2	--	87.4	28.0	250	1.9
FEB 14...	1000	186	999	8.4	4.5	10.4	2.6	K120	84.2	27.2	270	1.9
APR 17...	1130	264	813	8.5	12.5	8.9	1.9	K73	68.2	21.3	220	2.0
JUN 19...	1030	130	1010	8.3	20.5	7.2	8.6	K3000	85.1	26.4	260	2.0
AUG 14...	0915	30	1150	8.3	20.5	7.2	<1.0	560	95.0	30.0	310	2.2

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 18...	2.80	.040	.600	.200	4	1.8	185	184	.3	<.1	3
DEC 13...	3.30	.052	.600	.200	4	1.5	187	188	.4	.1	3
FEB 14...	4.20	<.020	.500	.200	4	1.2	206	199	.4	.1	3
APR 17...	2.90	<.002	.600	.200	4	2.0	171	163	.4	.1	3
JUN 19...	2.71	<.020	1.28	.286	8	3.5	206	201	.7	.1	8
AUG 14...	1.47	<.020	.454	.181	5	3.3	224	222	.3	.1	3

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
OCT 18...	2.1	9	2	6120	<10	8	<1	228	9	--	<.1
DEC 13...	<1.0	9	3	6010	<10	9	<1	244	8	<.3	<.2
FEB 14...	1.0	12	3	4750	<10	6	<1	188	6	--	<.1
APR 17...	<1.0	9	3	--	<10	8	<1	198	2	--	<.1
JUN 19...	1.9	--	4	11600	<10	21	<1	--	4	<.3	<.2
AUG 14...	1.8	9	4	3360	<10	5	<1	142	2	<.3	<.2

ARKANSAS RIVER BASIN

07106300 FOUNTAIN CREEK NEAR PINON, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NICKEL, TOTAL RECOV- ERABLE (UG/L AS NI) (01067)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 18...	11	5	7	6.0	<1	<1	46	12	<.01	--	--
DEC 13...	10	6	6	6.0	<1	<1	60	21	<.01	876	483
FEB 14...	10	5	10	7.3	<1	<1	51	24	<.01	437	219
APR 17...	8	6	7	6.6	<1	<1	46	14	<.01	448	319
JUN 19...	17	7	10	10.2	<1	<1	102	12	<.01	746	262
AUG 14...	10	6	12	9.6	<1	<1	26	<3	<.01	148	12

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
NOV 01...	1435	206	1020	13.0	JUN 02...	1205	60	1040	22.0
DEC 02...	1400	221	1020	8.5	15...	1205	44	1090	25.5
JAN 05...	1215	161	1070	5.0	27...	1320	436	635	22.0
FEB 02...	1310	179	1080	7.5	JUL 05...	1310	80	1030	30.0
MAR 01...	0935	191	988	5.5	18...	1030	496	630	21.5
APR 05...	1100	220	976	13.0	21...	1305	109	1010	29.5
28...	1105	130	916	16.0	AUG 08...	1220	82	1060	28.0
MAY 04...	1205	106	947	22.5	14...	1000	41	1080	22.5
09...	1135	537	600	15.5	22...	1530	217	792	--
15...	1245	120	952	20.5	SEP 01...	1215	180	975	24.0



07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1985 to current year.  
 WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for daily water temperature and specific conductance are fair. Daily data that are not published are either missing or of unacceptable quality. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,460 microsiemens, July 7, 1989; minimum, 162 microsiemens, June 7, 1997.  
 WATER TEMPERATURE: Maximum, 33.1°C, July 17, 1991; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,990 microsiemens, Apr. 30; minimum, 482 microsiemens, May 9.  
 WATER TEMPERATURE: Maximum, 32.9°C, July 15; minimum, 0.0°C, many days.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1997 TO SEPTEMBER 1998

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)
APR 01...	0745	336	929	8.3	5.5	10.1	3.0	e25	120	74.0	26.9
22...	0845	290	919	8.0	8.0	9.9	2.0	65	65	74.2	27.6
JUN 25...	1345	94	1150	8.3	26.5	--	<1.2	K40	K260	91.0	33.6
AUG 20...	1400	232	947	8.1	26.0	6.6	1.7	--	K3000	79.5	27.9

DATE	SULFATE DIS-SOLVED (MG/L) (00945)	FLUO-RIDE DIS-SOLVED (MG/L) (00950)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) (00608)	ALUM-INUM, DIS-SOLVED (UG/L) (01106)	ARSENIC TOTAL (UG/L) (01002)	ARSENIC DIS-SOLVED (UG/L) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L) (01022)	BORON, DIS-SOLVED (UG/L) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L) (01027)
APR 01...	--	1.9	3.60	.040	6	7	2.4	142	151	.5
22...	270	1.9	2.60	--	6	5	2.1	143	150	.3
JUN 25...	290	2.3	3.10	--	12	4	2.8	194	196	1.2
AUG 20...	260	2.0	2.60	--	7	16	3.9	178	164	1.3

DATE	CADMIUM DIS-SOLVED (UG/L) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L) (01042)	COPPER, DIS-SOLVED (UG/L) (01040)	IRON, DIS-SOLVED (UG/L) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L) (01051)	LEAD, DIS-SOLVED (UG/L) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) (01055)	MANGA-NESE, DIS-SOLVED (UG/L) (01056)
APR 01...	.1	8	<1.0	15	--	<10	19	<1	380	1
22...	.1	5	<1.0	--	--	<10	15	<1	280	1
JUN 25...	.1	6	1.6	14	2	<10	13	<1	209	2
AUG 20...	<.1	17	<1.0	28	3	<10	66	<1	519	3

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L) (71900)	MERCURY DIS-SOLVED (UG/L) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L) (01067)	NICKEL, DIS-SOLVED (UG/L) (01065)	SELE-NIUM, TOTAL (UG/L) (01147)	SELE-NIUM, DIS-SOLVED (UG/L) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L) (01077)	SILVER, DIS-SOLVED (UG/L) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L) (01092)	ZINC, DIS-SOLVED (UG/L) (01090)
APR 01...	<.1	<.1	20	8	15	14.9	<1	<1	68	10
22...	--	<.1	14	10	16	13.4	<1	<1	49	8
JUN 25...	<.1	<.1	14	14	21	20.7	<1	<1	45	6
AUG 20...	--	<.1	38	13	20	17.8	<1	<1	124	9

## ARKANSAS RIVER BASIN

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCHI FECAL, KF AGAR (COLS./100 ML) (31673)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT 21...	1430	127	1160	8.5	13.0	8.8	<1.0	140	110	94.2	35.6	--
DEC 07...	0845	164	1060	8.5	2.0	10.7	1.5	110	100	93.9	35.4	300
FEB 22...	0900	168	1080	8.4	2.5	11.3	1.9	K20	130	90.7	33.6	310
APR 19...	0915	97	1170	8.2	9.5	10.0	<1.0	49	92	99.3	37.5	330
JUN 21...	0945	671	875	7.9	18.0	7.8	1.2	K360	760	76.4	25.3	240
AUG 16...	0745	481	841	7.9	16.5	8.1	<1.0	E600	3000	71.6	24.4	230

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ALUM-INUM, TOTAL RECOV-ERABLE (UG/L AS AL) (01105)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)
OCT 21...	2.1	3.10	<.020	.600	.200	3720	6	6	3.4	222	207	.5
DEC 07...	2.1	3.50	.020	.500	.200	3970	7	4	2.7	198	202	.6
FEB 22...	1.9	4.10	<.020	.600	.200	2150	6	3	2.3	207	207	.3
APR 19...	2.0	3.30	<.020	.400	.300	1340	9	3	2.5	209	208	.2
JUN 21...	2.1	2.10	.020	.700	.100	7610	12	4	2.7	136	141	.5
AUG 16...	2.1	2.40	<.020	.800	.080	8740	7	9	2.2	136	129	.8

DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT 21...	<.1	13	<1.0	12	3	5340	<10	11	<1	220	2
DEC 07...	<.1	4	1.0	9	3	5510	<10	10	<1	260	2
FEB 22...	.1	3	2.6	8	3	3650	<10	7	<1	168	2
APR 19...	<.1	1	<1.0	5	2	2170	<10	4	<1	112	2
JUN 21...	.1	3	<1.0	8	2	12200	<10	19	<1	361	3
AUG 16...	.1	8	3.4	25	2	15400	<10	16	<1	469	3

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 21...	--	--	20	13	25	24.2	<1	<1	37	8	<.02
DEC 07...	--	--	12	14	--	--	<1	<1	44	12	<.02
FEB 22...	--	--	9	10	--	--	<1	<1	40	16	<.02
APR 19...	--	--	8	7	19	21.1	<1	<1	24	11	<.02
JUN 21...	--	--	6	6	18	15.1	<1	<1	66	6	<.01
AUG 16...	<.1	<.1	15	5	8	9.3	<1	<1	77	6	<.01

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, BIO-CHEM-ICAL, 5 DAY (MG/L) (00310)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	CALCIUM DIS-SOLVED (MG/L) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L) (00925)	SULFATE DIS-SOLVED (MG/L) (00945)	FLUO-RIDE, DIS-SOLVED (MG/L) (00950)
OCT 18...	1030	256	1050	7.7	8.0	10.0	1.1	270	89.4	33.3	300	2.0
DEC 13...	0830	206	1130	8.5	.0	12.2	<1.0	--	99.5	36.0	310	2.0
FEB 14...	0815	193	1100	8.4	1.0	11.9	1.4	44	93.2	33.8	310	2.0
APR 17...	1000	241	922	8.4	9.5	9.6	1.7	K5	75.1	26.5	240	2.0
JUN 19...	0900	79	1320	8.4	17.5	--	3.3	490	104	43.2	380	2.3
AUG 14...	0730	40	1570	8.3	18.5	7.6	<1.0	K57	112	62.4	420	2.4

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM WATER UNFLTRD TOTAL (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT 18...	2.80	<.020	.800	.100	6	2.2	190	185	.5	<.1	5
DEC 13...	4.20	--	.600	.200	4	2.0	190	198	.4	.1	4
FEB 14...	4.70	<.020	.500	.200	5	2.0	200	195	.5	.1	4
APR 17...	3.20	<.002	.700	.200	5	2.3	170	164	.6	.1	4
JUN 19...	2.66	<.020	.623	.137	6	3.5	224	224	.5	.1	4
AUG 14...	3.04	<.020	.198	.116	5	3.8	251	249	.2	<.1	1

DATE	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
OCT 18...	2.2	12	3	9810	<10	12	<1	346	6	--	--
DEC 13...	<1.0	13	3	4650	<10	6	<1	189	8	--	--
FEB 14...	<1.0	11	3	5820	<10	7	<1	218	4	<.1	<.1
APR 17...	<1.0	11	2	--	<10	10	<1	257	2	--	<.1
JUN 19...	2.6	15	5	5450	<10	9	<1	283	3	<.3	<.2
AUG 14...	2.0	6	5	1280	<10	2	<1	49	7	<.3	<.2

DATE	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT 18...	15	6	17	17.6	<1	<1	63	11	<.01	--	--
DEC 13...	10	7	20	18.4	<1	<1	41	15	<.01	691	385
FEB 14...	13	6	20	16.1	<1	<1	53	13	<.01	553	288
APR 17...	10	6	15	13.8	<1	<1	50	10	<.01	598	389
JUN 19...	13	8	34	32.4	<1	<1	40	5	<.01	--	--
AUG 14...	10	8	--	--	<1	<1	10	<3	<.01	44	4.7

## ARKANSAS RIVER BASIN

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1190	1140	1160	1190	1160	1180	1160	1130	1140	1170	1140	1160
2	1180	1150	1160	1190	1160	1180	1160	1130	1150	1170	1140	1160
3	1190	1140	1160	1200	1160	1180	1160	1130	1140	1180	1130	1170
4	1200	1150	1160	1200	1170	1180	1140	1090	1120	---	---	---
5	1200	1160	1180	1200	1170	1180	1160	1050	1110	1280	1150	1220
6	1230	1160	1190	1200	1160	1180	1160	1140	1150	1260	1230	1240
7	1260	1200	1220	1200	1160	1180	1150	1120	1130	1260	1200	1220
8	1220	727	917	1200	1160	1180	1140	1110	1120	1270	1200	1240
9	1060	940	1020	1200	1170	1190	1170	1100	1130	1260	1200	1230
10	1080	1050	1070	1200	1160	1180	1160	1130	1150	1270	1190	1230
11	1100	1060	1080	1190	1160	1180	1160	1140	1150	1250	1140	1210
12	1110	1060	1090	1280	1150	1170	1140	991	1110	1250	1160	1230
13	1130	1090	1110	1180	1150	1170	1150	1090	1130	1250	1220	1230
14	1210	1100	1140	1180	1150	1170	1140	1080	1130	1240	1130	1210
15	1160	1120	1140	1180	1150	1160	1140	1030	1100	1240	1210	1220
16	1140	1030	1110	1180	1140	1160	1160	1120	1140	1250	1200	1220
17	1110	1070	1090	1170	1140	1160	1150	1110	1120	1230	1200	1210
18	1100	960	1080	1180	1080	1120	1140	1090	1120	1230	1200	1210
19	1160	1060	1100	1180	1090	1160	1140	1090	1120	1220	1200	1210
20	1150	1070	1100	1180	1140	1160	1130	1100	1110	1210	1160	1190
21	1150	1100	1120	1180	1150	1170	1190	1090	1120	1170	1130	1150
22	1130	1100	1110	1190	1090	1130	1180	1120	1150	1160	1120	1140
23	1140	1110	1120	1120	968	1030	1160	1060	1140	1150	1080	1120
24	1140	1100	1120	1080	1010	1040	1170	1120	1150	1140	1110	1130
25	1130	1100	1120	1090	1040	1070	1160	1110	1150	1150	1100	1120
26	1140	1110	1130	1110	1080	1090	1170	1140	1160	1120	1090	1110
27	1160	1130	1140	1110	1040	1070	1180	1140	1160	1130	1060	1100
28	1170	1140	1160	1160	1070	1090	1170	1140	1160	1220	1090	1150
29	1170	1150	1160	1140	1090	1110	1180	1140	1160	1220	1150	1190
30	1180	1150	1170	1150	1110	1130	1170	1120	1140	---	---	---
31	1190	1160	1180	---	---	---	1160	1070	1140	1240	1180	1210
MONTH	1260	727	1120	1280	968	1140	1190	991	1140	---	---	---
DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1230	1140	1200	1220	1070	1160	1140	1010	1080	1070	983	1030
2	1330	1140	1220	1290	1120	1210	1150	1090	1130	1090	1030	1060
3	1260	1180	1220	1230	1190	1200	1160	1060	1110	1110	1080	1090
4	1240	1180	1200	1200	1170	1190	1140	1110	1130	1160	1060	1130
5	1210	1170	1190	1180	1080	1150	1140	1110	1130	1180	997	1150
6	1200	1160	1180	1160	1120	1130	1130	1090	1110	1170	1110	1150
7	1190	1160	1170	1350	785	1080	1100	1050	1070	1170	1070	1120
8	1180	1150	1170	1310	1060	1130	1060	992	1020	1620	863	1180
9	1180	1160	1170	1130	1060	1100	1030	976	996	863	482	659
10	1180	1150	1160	1120	1060	1100	1000	959	980	961	806	904
11	1180	1150	1160	1140	1030	1080	979	934	957	1010	954	982
12	1180	1140	1160	1130	1050	1090	946	925	935	1050	1000	1020
13	1180	1150	1160	1090	1040	1060	949	933	943	1050	1030	1040
14	1180	1110	1150	1100	1040	1060	947	926	939	1080	1040	1060
15	1180	1150	1160	1130	784	1060	946	911	923	1140	1070	1100
16	1130	1110	1120	1070	987	1020	923	896	909	1140	1080	1110
17	1150	1110	1130	1080	893	1010	946	903	922	1150	1050	1080
18	1150	1100	1120	1130	1080	1100	978	941	958	1180	1060	1130
19	1230	1100	1160	1160	1090	1120	981	959	971	1120	1080	1100
20	1230	1160	1190	1170	1150	1160	978	939	956	1120	1090	1110
21	1180	1150	1160	1180	1140	1160	977	951	968	1140	1100	1120
22	1170	1130	1150	1230	1090	1170	979	946	964	1180	1120	1160
23	1160	1140	1150	1210	1120	1170	982	959	970	1250	1150	1200
24	1160	1130	1140	1190	1150	1170	974	917	944	1240	1080	1140
25	---	---	---	1210	1170	1190	975	917	941	1530	1060	1170
26	1140	1100	1120	1210	1160	1190	1020	968	991	1310	963	1070
27	1160	1090	1130	1210	1170	1190	1020	993	1010	1090	1010	1040
28	1150	1090	1110	1210	1180	1200	1070	1020	1040	1140	1080	1110
29	1130	1020	1090	1200	1010	1190	1080	1060	1060	1180	1090	1150
30	---	---	---	1200	1180	1190	1990	979	1160	1190	1100	1160
31	---	---	---	1180	989	1090	---	---	---	1220	1090	1170
MONTH	---	---	---	1350	784	1130	1990	896	1010	1620	482	1090



ARKANSAS RIVER BASIN

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1240	1090	1160	1190	1110	1150	1410	1300	1360	1080	999	1040
2	1280	1110	1240	1240	1180	1210	1440	1380	1410	1100	1050	1070
3	1360	1210	1270	1250	1040	1200	1460	1400	1420	1120	1090	1100
4	1320	1220	1240	1200	1040	1140	1410	1360	1380	1140	1110	1120
5	1260	1230	1250	1270	1190	1220	1420	1320	1380	1150	1120	1130
6	1260	1220	1240	1430	1270	1350	1330	1210	1240	1190	1140	1160
7	1280	1240	1260	1470	1360	1420	1300	902	1190	1330	1180	1210
8	1290	1200	1270	1480	1380	1430	1300	1150	1230	1300	1190	1250
9	1380	1370	1370	1470	1370	1410	1370	1290	1330	1250	1230	1240
10	1400	1360	1380	1500	1350	1400	1470	1360	1400	1280	1250	1260
11	1390	1320	1360	1630	1020	1410	1500	1410	1450	1300	1260	1280
12	1430	1320	1370	1640	1420	1480	1490	1420	1440	1300	1260	1280
13	1400	1330	1370	1440	1380	1410	1530	1400	1470	1320	1290	1300
14	1400	1370	1390	1470	1380	1430	1540	1430	1490	1320	1270	1300
15	1440	1380	1400	1510	1420	1460	1450	1320	1420	1320	1280	1290
16	1550	1420	1450	1510	1350	1450	1350	1310	1330	1350	1280	1300
17	1450	1340	1390	1490	864	1190	1370	1240	1340	1340	1280	1310
18	1340	1220	1280	994	627	792	1460	906	1120	1340	1300	1320
19	1260	1160	1210	1160	979	1090	1190	982	1110	1330	1290	1300
20	1240	1140	1200	1210	1130	1170	1240	1190	1220	1340	1300	1320
21	1300	1200	1250	1230	1190	1210	1600	1240	1290	1330	1300	1320
22	1350	1290	1320	1260	1210	1240	1600	870	1200	1340	1270	1300
23	1390	1320	1340	1340	1260	1290	1210	1030	1140	1340	1190	1230
24	1360	1330	1340	1340	1070	1270	1240	771	1040	1340	973	1160
25	1380	1300	1350	1390	1340	1350	1470	955	1110	1140	965	1020
26	1980	889	1370	1430	1370	1400	1380	607	919	1180	1140	1160
27	910	679	789	1440	1400	1420	1000	840	915	1260	1180	1210
28	1030	862	970	1470	1230	1330	1100	1000	1050	1280	1250	1270
29	1100	1030	1060	1300	1130	1220	1140	505	729	1300	1270	1290
30	1120	1070	1100	1240	1140	1200	947	673	842	1320	1290	1310
31	---	---	---	1300	1240	1280	1010	936	975	---	---	---
MONTH	1980	679	1270	1640	627	1290	1600	505	1220	1350	965	1230

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.3	8.6	12.9	11.9	6.1	8.4	9.0	5.1	6.5	6.3	.7	3.3
2	17.1	7.6	11.9	11.0	3.6	7.2	7.6	4.2	5.5	5.9	1.1	3.5
3	15.0	7.7	11.0	12.2	3.9	7.6	5.1	2.6	4.0	3.0	.0	1.1
4	18.1	6.6	11.9	12.8	4.2	8.3	4.6	1.1	2.6	2.5	.0	.7
5	19.5	8.2	13.3	12.6	5.5	8.6	4.6	.0	1.8	6.0	.5	2.6
6	18.5	10.1	14.0	13.0	4.3	8.4	6.3	.2	2.8	5.4	1.4	2.8
7	18.0	12.4	14.0	13.0	4.7	8.7	5.6	1.1	3.0	3.8	.0	1.2
8	17.3	9.6	13.1	13.4	5.7	9.3	2.5	1.3	2.0	5.8	.0	2.3
9	19.6	8.9	13.8	13.7	7.2	9.9	3.8	.0	1.7	4.2	.0	1.5
10	19.4	9.6	14.2	12.7	5.4	8.8	3.0	.0	1.4	6.0	.0	2.2
11	20.1	9.9	14.5	13.0	5.3	8.8	5.4	.5	2.4	5.4	.0	2.2
12	19.7	9.2	14.1	12.5	4.9	8.5	4.6	.0	1.7	8.2	1.0	4.1
13	19.1	9.8	13.9	12.9	4.6	8.4	2.7	.0	1.0	6.3	.2	3.0
14	17.1	9.0	13.2	11.9	4.8	8.2	3.2	.0	1.0	5.6	.0	2.3
15	15.9	10.2	12.8	12.1	4.4	8.0	2.1	.0	.6	6.6	1.1	3.3
16	12.9	7.3	9.6	12.3	4.6	8.2	5.4	.0	2.2	6.8	.7	3.5
17	10.8	5.6	7.9	12.4	4.8	8.4	4.8	1.6	3.0	8.0	1.3	4.3
18	10.2	6.7	8.6	10.7	5.3	7.8	5.1	.0	2.4	8.2	2.4	4.9
19	12.5	7.5	9.7	9.5	2.6	5.8	4.8	.0	2.0	8.9	3.6	5.7
20	13.2	5.9	9.9	9.3	3.3	6.0	2.3	.0	.8	6.9	1.2	4.1
21	15.7	7.9	11.1	8.5	3.1	6.1	.9	.0	.2	7.2	1.0	3.9
22	15.6	7.1	11.1	6.5	3.9	5.6	2.9	.0	.9	7.6	1.2	4.0
23	15.7	7.2	11.0	7.1	2.4	4.4	4.9	.0	1.7	6.5	.0	2.9
24	16.1	6.9	11.1	7.3	2.3	4.3	5.6	.0	2.2	6.1	.0	2.7
25	15.7	7.3	11.0	5.5	.0	2.8	6.0	.0	2.6	4.0	.9	2.3
26	15.8	6.8	10.9	9.7	3.5	6.1	6.0	1.0	3.2	5.1	.3	2.0
27	13.5	7.4	10.2	8.8	3.6	6.1	5.8	.0	2.5	3.8	.6	2.0
28	14.0	6.7	10.0	9.2	3.0	6.0	6.9	.3	3.3	3.8	.8	2.0
29	10.2	6.8	8.7	7.0	3.6	5.2	6.9	.4	3.4	4.1	.0	1.2
30	12.4	4.4	8.0	7.8	3.1	5.8	5.8	.1	2.8	2.9	.0	.6
31	13.4	5.1	9.0	---	---	---	5.1	.0	2.3	3.8	.0	1.1
MONTH	20.1	4.4	11.5	13.7	.0	7.2	9.0	.0	2.4	8.9	.0	2.7

## ARKANSAS RIVER BASIN

07106500 FOUNTAIN CREEK AT PUEBLO, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.3	.0	1.7	11.1	3.8	7.1	11.9	4.7	7.5	18.5	7.8	12.4
2	7.7	.0	3.2	7.2	4.7	5.9	9.3	5.6	7.3	21.9	8.1	14.6
3	8.6	2.1	4.9	11.3	2.9	6.6	8.5	3.8	6.6	24.0	9.6	16.3
4	7.2	2.4	4.4	12.6	3.9	7.9	12.5	4.1	8.1	24.7	11.1	17.3
5	7.2	.5	3.9	11.3	4.9	7.9	12.7	8.3	10.5	25.5	11.6	18.1
6	8.5	1.5	4.8	10.3	4.0	7.0	14.7	10.2	11.8	18.6	11.7	15.3
7	9.2	1.6	5.1	11.3	5.3	7.8	13.3	8.4	10.9	22.6	10.9	15.6
8	8.3	1.4	4.9	9.1	4.8	6.9	14.2	6.5	10.2	14.6	11.2	12.5
9	6.7	4.0	5.0	9.6	4.0	6.1	15.8	8.6	11.3	20.1	10.2	14.6
10	6.5	2.0	4.3	9.0	3.7	5.9	15.1	10.8	12.3	23.9	11.1	16.8
11	3.9	1.8	2.7	10.0	3.6	6.4	12.3	10.7	11.6	24.3	11.7	16.7
12	6.8	1.1	3.4	9.7	4.9	7.0	13.1	8.6	10.8	20.2	8.7	14.1
13	6.4	1.3	3.3	11.3	3.2	7.0	19.4	9.8	14.0	19.7	7.6	13.3
14	9.4	.7	4.8	11.1	4.0	7.2	17.8	9.2	13.1	22.2	8.5	14.8
15	10.5	3.5	6.4	9.9	3.4	6.6	13.1	6.1	9.1	24.0	10.1	16.8
16	9.4	2.1	5.7	10.5	2.7	6.1	17.0	4.4	10.3	17.6	11.2	14.2
17	7.9	2.4	4.7	10.8	3.0	6.6	18.3	7.2	12.1	15.3	8.8	11.3
18	7.9	1.7	4.2	9.7	5.8	7.2	18.9	7.8	12.5	15.0	7.6	11.3
19	7.6	.0	3.6	9.7	2.7	6.2	16.4	6.2	10.5	22.9	8.4	15.0
20	6.6	.4	3.4	8.0	4.3	6.0	19.3	5.6	12.1	21.9	10.0	15.5
21	11.3	1.4	6.0	6.0	3.0	4.2	19.7	7.6	13.5	23.8	9.9	16.8
22	9.2	3.1	6.2	5.6	3.2	4.4	16.9	9.0	12.4	26.0	11.5	18.4
23	12.3	4.3	7.9	13.8	4.8	8.5	16.5	9.5	12.4	27.5	12.8	19.7
24	10.3	3.8	6.9	15.4	6.7	9.3	20.7	9.0	14.1	21.8	14.2	17.7
25	8.1	2.1	4.8	15.1	7.6	10.0	19.2	7.6	13.1	25.0	13.7	18.1
26	9.5	.5	4.3	13.2	8.3	10.5	21.8	8.1	14.4	23.0	14.4	17.9
27	10.6	1.5	5.6	13.9	8.2	10.4	21.9	9.3	15.2	25.4	12.2	18.2
28	10.3	2.6	6.2	11.8	9.8	10.6	18.3	9.2	13.7	26.6	12.4	18.9
29	12.2	5.0	7.7	12.2	9.0	10.5	21.1	9.6	14.3	26.0	13.6	19.1
30	---	---	---	11.1	8.0	10.0	11.8	7.1	8.9	28.0	13.0	19.2
31	---	---	---	8.2	3.4	5.9	---	---	---	27.0	14.8	19.7
MONTH	12.3	.0	4.8	15.4	2.7	7.4	21.9	3.8	11.5	28.0	7.6	16.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	26.3	12.5	18.9	31.7	17.7	23.6	29.4	16.5	22.2	26.4	17.5	21.3
2	24.7	14.5	18.0	31.0	18.6	24.3	29.1	17.5	22.5	25.8	16.6	20.5
3	28.6	13.7	19.2	29.0	20.3	23.7	30.6	18.5	23.5	21.5	16.4	19.1
4	27.4	13.3	19.3	31.8	18.7	24.4	31.5	18.9	23.4	24.3	15.2	19.8
5	28.4	14.6	19.8	29.8	17.3	22.7	29.8	18.2	23.0	26.7	17.0	21.3
6	26.9	13.9	19.3	29.8	17.1	23.0	27.7	20.2	23.3	26.3	17.7	21.2
7	28.8	13.1	20.3	31.6	17.9	22.7	25.7	18.8	21.6	25.8	16.9	20.3
8	29.2	14.0	20.3	28.2	17.9	21.9	30.5	16.8	23.8	24.1	15.7	19.7
9	27.2	15.0	20.2	31.3	17.8	23.4	30.4	17.0	22.9	25.6	15.1	19.9
10	27.0	13.6	19.4	31.4	18.9	23.6	31.8	18.9	24.3	25.9	14.1	19.4
11	28.2	14.5	20.2	31.2	16.6	22.3	32.2	18.8	24.0	27.1	14.1	19.7
12	24.4	16.3	20.2	28.6	17.9	22.3	29.0	19.5	22.5	25.8	13.9	19.1
13	27.3	15.6	20.6	31.5	18.0	23.8	32.3	19.0	24.6	26.7	14.0	19.8
14	27.5	14.7	20.0	32.7	18.7	24.7	31.0	19.1	23.5	24.8	15.5	19.8
15	28.0	13.9	19.6	32.9	18.7	24.3	30.1	19.4	23.1	24.9	15.4	19.5
16	26.9	14.4	18.6	29.0	19.0	22.4	28.5	18.1	21.9	24.8	15.5	19.9
17	21.2	13.4	16.5	27.9	18.5	22.1	26.0	18.5	21.5	22.7	14.3	18.5
18	22.4	12.7	17.3	28.2	17.2	22.0	25.6	19.9	22.5	24.3	15.6	19.3
19	25.5	15.0	19.5	30.3	18.1	23.5	29.4	19.7	23.4	24.9	13.7	18.5
20	25.1	15.3	19.7	30.0	19.5	23.9	28.8	18.5	22.6	19.1	12.8	14.7
21	27.4	15.7	20.9	29.7	18.4	22.9	29.1	17.3	21.8	25.3	9.6	16.4
22	29.4	16.1	21.5	30.3	19.2	23.0	27.1	18.3	21.6	19.1	13.5	16.0
23	27.3	16.5	20.8	28.8	17.7	22.7	28.2	17.0	22.0	13.6	10.8	12.3
24	29.5	15.1	21.3	27.0	17.2	21.6	26.6	17.6	22.1	13.3	9.2	11.2
25	30.9	16.3	21.5	31.3	16.8	23.1	30.7	17.5	22.9	18.6	7.3	12.5
26	23.6	17.1	19.8	30.0	17.5	22.5	25.2	17.5	21.0	20.5	8.9	14.3
27	22.9	16.4	19.5	30.1	17.4	22.3	27.2	17.2	21.7	22.3	10.1	15.5
28	22.4	17.9	19.8	28.9	17.0	21.7	29.4	18.4	22.9	22.6	10.5	16.0
29	27.4	17.0	21.6	26.6	16.5	21.7	24.5	18.2	21.3	19.8	12.5	15.5
30	29.2	16.9	22.4	28.5	18.1	22.4	25.7	18.0	21.7	23.6	12.7	17.3
31	---	---	---	30.4	16.7	22.7	24.9	17.9	20.8	---	---	---
MONTH	30.9	12.5	19.9	32.9	16.5	22.9	32.3	16.5	22.6	27.1	7.3	17.9

07107900 GREENHORN CREEK NEAR RYE, CO

LOCATION.--Lat 37°55'14", long 104°57'21", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.36, T.24 S., R.68 W., Pueblo County, Hydrologic Unit 11020002, on right bank 20 ft upstream from road bridge in Rye Mountain Park and 1.4 mi west of Post Office in Rye.

DRAINAGE AREA.--9.56 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1973 to October 1980, October 1998 to current year.

GAGE.--Water-stage recorder with satellite telemetry. October 1973 to September 1979, at site 5 ft downstream at different datum. Elevation of gage is 7,220 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those above 35 ft<sup>3</sup>/s, which are poor. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.3	3.5	e3.0	e2.6	2.0	3.7	15	8.8	3.8	2.4	2.5
2	2.8	3.2	3.5	e2.7	e2.7	2.0	3.9	14	8.7	3.6	2.4	2.4
3	2.6	3.1	2.7	e2.5	e2.8	2.1	e4.2	15	8.5	3.3	2.5	2.5
4	2.5	3.0	2.6	e2.5	e2.8	2.1	4.6	18	8.0	3.5	2.7	2.4
5	2.5	3.0	3.0	e2.5	e2.8	2.2	6.5	25	8.1	4.1	3.0	2.3
6	2.5	3.0	2.5	e2.5	e2.8	2.1	8.0	23	7.4	4.1	2.9	2.3
7	3.2	3.0	2.6	e2.6	e2.8	2.2	7.4	20	6.4	4.3	2.7	2.4
8	2.9	3.2	2.6	e2.7	e2.7	2.1	6.0	22	6.1	4.0	2.5	2.6
9	2.6	3.3	2.5	e2.7	e2.6	2.1	6.0	19	6.0	3.7	2.4	2.6
10	2.5	3.2	2.6	e2.7	e2.5	2.3	6.5	25	5.8	3.5	2.4	2.3
11	2.7	3.2	2.5	e2.8	e2.5	e2.5	6.4	26	5.4	3.9	2.6	2.2
12	2.8	3.3	2.5	e2.9	e2.5	2.4	5.9	17	4.8	4.3	2.9	2.3
13	2.9	3.2	2.5	e3.0	e2.5	2.3	6.4	13	4.6	4.2	2.7	2.3
14	3.0	3.1	2.5	e3.0	e2.5	2.1	7.1	12	4.3	3.7	2.5	2.2
15	3.2	3.1	2.5	e3.0	e2.3	2.2	6.8	12	4.0	3.4	2.5	2.1
16	3.4	3.0	2.5	e3.0	e2.1	2.2	6.0	11	3.9	3.5	2.9	2.1
17	3.5	3.0	e2.5	e3.0	e2.1	2.6	6.1	9.1	4.1	4.2	2.8	2.0
18	3.8	3.2	e2.5	e3.0	e2.1	2.5	7.0	7.7	4.1	3.7	2.9	1.9
19	4.0	3.2	e2.5	e3.0	e2.1	2.8	7.3	7.7	3.9	3.0	2.7	1.9
20	3.9	3.4	e2.5	e3.0	e2.0	2.8	6.8	8.3	3.7	2.8	2.6	2.1
21	3.9	3.4	e2.5	e3.0	e2.0	e3.3	7.6	7.5	3.6	2.8	2.5	2.1
22	3.9	3.4	e2.5	e3.0	e2.0	2.7	7.2	8.7	3.6	2.9	3.1	2.6
23	3.9	3.3	e2.5	e3.0	e2.0	2.8	6.8	11	3.5	2.8	2.6	2.4
24	3.6	3.5	e2.5	e3.0	e2.0	3.2	6.8	12	3.4	2.8	2.6	2.3
25	3.2	3.8	e2.6	e3.0	e2.0	3.3	6.4	12	3.5	2.7	2.7	2.3
26	3.2	3.6	e2.7	e2.8	e2.0	3.4	6.5	11	4.1	2.7	2.7	2.1
27	3.2	3.6	e2.8	e2.6	e2.0	3.5	9.4	10	4.9	2.7	2.6	2.1
28	3.2	3.5	e2.9	e2.5	e2.0	3.6	16	10	4.4	2.9	2.7	2.0
29	3.3	3.5	e3.0	e2.5	e2.0	3.5	17	11	4.1	2.8	2.8	2.0
30	3.2	3.6	e3.0	e2.5	---	3.4	16	11	3.9	2.6	2.6	2.0
31	3.2	---	e3.0	e2.5	---	3.5	---	9.7	---	2.6	2.6	---
TOTAL	98.0	98.2	83.1	86.5	67.8	81.8	222.3	433.7	155.6	104.9	82.5	67.3
MEAN	3.16	3.27	2.68	2.79	2.34	2.64	7.41	14.0	5.19	3.38	2.66	2.24
MAX	4.0	3.8	3.5	3.0	2.8	3.6	17	26	8.8	4.3	3.1	2.6
MIN	2.5	3.0	2.5	2.5	2.0	2.0	3.7	7.5	3.4	2.6	2.4	1.9
AC-FT	194	195	165	172	134	162	441	860	309	208	164	133

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2000, BY WATER YEAR (WY)

	3.28	2.51	1.84	1.80	1.90	2.42	4.86	11.9	10.1	5.84	4.07	2.57
MEAN	3.28	2.51	1.84	1.80	1.90	2.42	4.86	11.9	10.1	5.84	4.07	2.57
MAX	7.09	4.06	2.68	2.79	3.08	3.59	7.41	23.5	22.3	18.6	6.96	4.19
(WY)	1977	1977	2000	2000	1977	1974	2000	1999	1975	1975	1999	1976
MIN	1.37	.88	1.04	1.24	1.34	1.64	3.92	4.75	2.54	1.10	1.17	.90
(WY)	1979	1979	1974	1979	1975	1978	1975	1978	1978	1978	1978	1978

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1974 - 2000

ANNUAL TOTAL	2308.8	1581.7	
ANNUAL MEAN	6.33	4.32	4.44
HIGHEST ANNUAL MEAN			6.44
LOWEST ANNUAL MEAN			2.05
HIGHEST DAILY MEAN	31	May 22	69
LOWEST DAILY MEAN	2.0	Jan 1	a.60
ANNUAL SEVEN-DAY MINIMUM	2.0	Jan 1	.63
INSTANTANEOUS PEAK FLOW			b47
INSTANTANEOUS PEAK STAGE			5.49
ANNUAL RUNOFF (AC-FT)	4580	3140	3210
10 PERCENT EXCEEDS	17	8.0	9.4
50 PERCENT EXCEEDS	3.2	3.0	2.7
90 PERCENT EXCEEDS	2.2	2.2	1.3

e Estimated.

a Also occurred Nov 14-16, 1978.

b From rating curve extended above 31 ft<sup>3</sup>/s.

c From slope-area measurement of peak flow.

d Site and datum then in use; maximum gage height, 5.63 ft, Apr 29, 1999.

07108100 GRANEROS CREEK NEAR RYE, CO

LOCATION.--Lat 37°54'47", long 104°55'31", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.31, T.24 S., R.67 W., Pueblo County, Hydrologic Unit 11020003, on right bank at downstream side of culvert on Greenhorn Road, and 0.7 mi southeast of Rye.

DRAINAGE AREA.--4.32 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 6,770 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream may be affected by upstream diversions. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.19	1.6	.50	e.50	e.45	.47	1.3	4.6	5.2	.30	.00	.01
2	.19	1.5	.47	e.50	e.45	.52	1.3	5.5	5.4	.39	.00	.00
3	.23	1.5	.36	e.50	e.45	.55	1.3	6.6	5.1	.19	.00	.00
4	.20	1.4	.18	e.50	e.45	.62	1.6	7.0	4.7	.10	.00	.00
5	.16	1.3	.37	e.45	e.45	.67	4.3	6.9	5.0	.05	.00	.00
6	.14	1.2	.52	e.45	e.45	.75	5.9	6.5	4.7	.03	.00	.00
7	.27	1.1	.62	e.45	e.45	.83	5.0	5.8	3.9	.03	.01	.00
8	.19	1.0	.57	e.45	e.45	.78	3.3	6.6	3.7	.04	.00	.00
9	.15	1.2	.55	e.45	e.40	.68	2.9	6.1	3.4	.02	.00	.00
10	.13	1.1	.58	e.45	e.40	.63	3.6	5.8	3.0	.01	.00	.00
11	.10	1.0	.52	e.45	e.40	.67	3.8	6.3	2.7	.01	.00	.00
12	.12	.90	.49	e.45	e.40	.66	2.9	5.8	2.3	.00	.00	.00
13	.16	.84	.47	e.45	e.40	.61	3.4	5.7	1.8	.00	.00	.00
14	.18	.70	.44	e.45	e.40	.58	4.0	5.2	1.6	.10	.00	.00
15	.21	.62	.42	e.45	e.40	.61	3.8	4.5	1.4	.03	.00	.00
16	.33	.53	.45	e.45	e.40	.66	2.8	4.7	1.4	.01	.00	.00
17	.54	.52	.46	e.45	e.40	.86	2.6	4.7	1.6	.23	.01	.00
18	.91	.47	e.48	e.45	e.40	1.1	3.2	4.4	1.5	.30	.03	.00
19	1.6	.45	e.50	e.45	e.40	.90	3.4	4.1	1.4	.53	.02	.00
20	1.3	.48	e.50	e.45	e.40	.96	2.8	3.7	1.3	.51	.02	.00
21	1.2	.49	e.50	e.45	e.40	.93	2.9	3.2	1.1	.37	.00	.00
22	1.1	.58	e.50	e.45	e.40	1.1	3.2	3.2	.91	.09	.02	.00
23	1.2	.51	e.50	e.45	e.40	1.2	3.1	3.7	.22	.15	.01	.00
24	1.6	.59	e.50	e.45	e.40	1.7	3.3	4.8	.14	.12	.01	.00
25	1.5	.53	e.50	e.45	e.40	1.8	3.4	5.3	.10	.09	.01	.00
26	1.4	.67	e.50	e.45	e.40	1.7	3.1	5.6	.67	.08	.01	.00
27	1.4	.57	e.50	e.45	e.40	1.8	3.9	5.2	1.8	.07	.01	.00
28	1.6	.50	e.50	e.45	e.40	1.7	4.3	5.1	.74	.12	.00	.00
29	1.9	.48	e.50	e.45	e.40	1.5	4.2	5.3	.58	.07	.02	.01
30	1.7	.49	e.50	e.45	---	1.5	5.1	5.2	.43	.00	.02	.01
31	1.6	---	e.50	e.45	---	1.2	---	5.3	---	.00	.01	---
TOTAL	23.50	24.82	14.95	14.15	12.00	30.24	99.7	162.4	67.79	4.04	0.21	0.03
MEAN	.76	.83	.48	.46	.41	.98	3.32	5.24	2.26	.13	.007	.001
MAX	1.9	1.6	.62	.50	.45	1.8	5.9	7.0	5.4	.53	.03	.01
MIN	.10	.45	.18	.45	.40	.47	1.3	3.2	.10	.00	.00	.00
AC-FT	47	49	30	28	24	60	198	322	134	8.0	.4	.06

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2000, BY WATER YEAR (WY)

	1998	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	
MEAN	.52	.70	.48	.45	.42	.72	3.44	9.86	5.59	.74	1.16	.10
MAX	.76	.83	.48	.46	.43	.98	3.55	14.5	8.92	1.35	2.32	.21
(WY)	2000	2000	2000	2000	1999	2000	1999	1999	1999	1999	1999	1999
MIN	.29	.57	.47	.44	.41	.46	3.32	5.24	2.26	.13	.007	.001
(WY)	1999	1999	1999	1999	2000	1999	2000	2000	2.00	2000	2000	2000

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1998 - 2000
ANNUAL TOTAL	1046.12	453.83	
ANNUAL MEAN	2.87	1.24	2.02
HIGHEST ANNUAL MEAN			2.80
LOWEST ANNUAL MEAN			1.24
HIGHEST DAILY MEAN	37	Apr 30	37
LOWEST DAILY MEAN	.05	Sep 7	a.00
ANNUAL SEVEN-DAY MINIMUM	.10	Sep 6	.00
INSTANTANEOUS PEAK FLOW			8.2
INSTANTANEOUS PEAK STAGE			1.92
ANNUAL RUNOFF (AC-FT)	2070	900	1460
10 PERCENT EXCEEDS	11	4.3	5.7
50 PERCENT EXCEEDS	.58	.49	.50
90 PERCENT EXCEEDS	.27	.00	.04

e Estimated.

a No flow many days during 2000.

b From rating curve extended above 19 ft<sup>3</sup>/s.

07108900 ST. CHARLES RIVER AT VINELAND, CO

LOCATION.--Lat 38°14'44", long 104°29'09", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.6, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank at right downstream end of downstream bridge on U.S. Highway 50 Business (revised), 1.6 mi west of Vineland, and 3.0 mi upstream from mouth.

DRAINAGE AREA.--474 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1978 to current year. Records for March 1968 to September 1974 at site 2.6 mi upstream at different datum published as "St. Charles River near Vineland," (station 07108800) are not equivalent because of tributary inflow.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Datum of gage is 4,581.58 ft above sea level, (Colorado Division of Highways benchmark).

REMARKS.--Records good except for estimated daily discharges and those above 1,000 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by diversions upstream from station for irrigation of about 8,500 acres and for industrial uses and by return flow from land irrigated by Bessemer Ditch. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1901, 56,000 ft<sup>3</sup>/s, at site 5.0 mi upstream, date and gage height unknown.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	34	16	15	17	16	50	138	22	15	6.3	78
2	17	40	16	15	18	17	47	121	32	11	6.8	20
3	17	44	15	14	23	18	50	105	247	11	8.1	16
4	18	43	17	e14	20	18	55	128	41	10	7.7	15
5	18	38	16	14	18	17	78	168	29	9.6	8.4	16
6	19	31	16	17	16	16	188	176	24	9.6	9.7	13
7	20	32	17	14	17	16	198	165	22	10	8.7	9.9
8	20	31	18	14	17	20	172	136	20	12	8.7	10
9	20	31	17	15	17	17	155	155	20	11	11	9.4
10	20	31	16	14	17	17	130	138	17	11	11	9.3
11	21	31	17	14	18	15	124	129	15	12	11	8.9
12	21	30	16	13	19	14	116	124	12	13	8.9	9.1
13	21	28	15	12	18	14	95	110	11	15	11	8.3
14	22	27	16	12	17	14	75	93	8.3	14	9.1	6.4
15	23	25	14	13	17	15	72	59	8.4	13	8.5	6.7
16	23	22	16	15	17	18	75	53	7.8	16	8.8	5.8
17	26	22	17	15	17	18	69	50	8.1	35	26	5.9
18	27	21	16	14	17	18	68	52	8.5	59	315	5.9
19	34	20	15	15	17	17	65	53	7.1	22	30	5.5
20	39	19	15	15	17	24	66	50	6.7	16	26	5.4
21	37	19	14	17	17	20	68	52	8.5	13	25	5.6
22	38	19	15	16	17	20	70	48	11	16	26	7.6
23	38	19	14	16	17	20	73	44	9.6	17	25	9.7
24	39	19	14	15	16	20	69	42	8.3	13	24	13
25	39	18	14	17	15	20	58	74	7.7	8.7	21	12
26	39	17	15	17	14	20	53	42	12	6.3	21	10
27	39	17	14	e16	15	19	53	37	16	6.9	20	8.9
28	34	17	14	e16	15	17	58	32	18	8.1	19	8.2
29	33	17	14	e15	15	19	96	30	25	8.2	19	9.2
30	32	16	14	e16	---	21	118	25	30	8.5	19	8.0
31	32	---	14	17	---	38	---	23	---	6.3	91	---
TOTAL	843	778	477	462	495	573	2664	2652	713.0	437.2	850.7	356.7
MEAN	27.2	25.9	15.4	14.9	17.1	18.5	88.8	85.5	23.8	14.1	27.4	11.9
MAX	39	44	18	17	23	38	198	176	247	59	315	78
MIN	17	16	14	12	14	14	47	23	6.7	6.3	6.3	5.4
AC-FT	1670	1540	946	916	982	1140	5280	5260	1410	867	1690	708

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2000, BY WATER YEAR (WY)

	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	15.0	16.7	13.4	13.2	13.8	22.3	73.8	170	84.4	36.3	47.6	20.0											
MAX	39.5	32.3	24.3	22.6	25.1	127	306	484	358	108	207	120											
(WY)	1983	1999	1998	1998	1998	1998	1987	1980	1983	1995	1982	1982											
MIN	3.50	5.59	6.81	6.75	7.68	6.71	5.02	6.06	8.79	7.60	10.2	6.36											
(WY)	1979	1979	1981	1981	1981	1995	1981	1991	1990	1981	1989	1980											

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1979 - 2000	
ANNUAL TOTAL	25219.2		11301.6			
ANNUAL MEAN	69.1		30.9		44.0	
HIGHEST ANNUAL MEAN					88.4	
LOWEST ANNUAL MEAN					9.52	
HIGHEST DAILY MEAN	3150	Apr 30	315	Aug 18	3150	Apr 30 1999
LOWEST DAILY MEAN	7.9	Apr 1	5.4	Sep 20	.25	Apr 25 1979
ANNUAL SEVEN-DAY MINIMUM	9.8	Mar 26	5.8	Sep 15	2.7	Apr 25 1981
INSTANTANEOUS PEAK FLOW			3140	Aug 18	a7560	Aug 11 1982
INSTANTANEOUS PEAK STAGE			b10.99	Aug 18	c12.70	Aug 11 1982
ANNUAL RUNOFF (AC-FT)	50020		22420		31880	
10 PERCENT EXCEEDS	156		69		101	
50 PERCENT EXCEEDS	19		17		15	
90 PERCENT EXCEEDS	12		8.7		6.8	

e Estimated.  
a From rating curve extended above 1750 ft<sup>3</sup>/s.  
b From floodmarks.  
c Maximum gage height, 13.68 ft, Apr 30, 1999.



07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April to October 1976, April 1979 to September 1980, December 1985 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1979 to September 1980, December 1985 to current year.

WATER TEMPERATURE: July 1979 to September 1980, December 1985 to current year.

pH: July 1979 to September 1980, August 1988 to current year.

DISSOLVED OXYGEN: July 1979 to September 1980, August 1988 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for daily specific conductance are good except for Nov. 24 and Sept. 3-5, which are fair. Records for daily pH are fair. Records for daily water temperature are good. Records for daily dissolved oxygen are poor. Daily data that are not published are either missing or of unacceptable quality. Water-quality data prior to December 1985 are published in other reports. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--

DISSOLVED OXYGEN: Maximum, 14.0 mg/L, Feb. 16, 1996; minimum, 2.6 mg/L, July 14, 1992.

pH: Maximum, 9.1 units, Dec. 3, 1989; minimum, 7.2 units, several days in 1992, 1995-96.

SPECIFIC CONDUCTANCE: Maximum, 1,380 microsiemens, Jan. 24-25, 1980 and Sept. 1, 2000; minimum, 246 microsiemens, June 16, 1980.

WATER TEMPERATURE: Maximum, 31.5°C, Aug. 6, 1980; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

DISSOLVED OXYGEN: Maximum, 13.1 mg/L, Jan. 4; minimum, 5.2 mg/L, Sept. 1.

pH: Maximum, 8.7 units, Dec. 3, 1989; minimum, 7.7 units, Sept. 18, 22-23, 30.

SPECIFIC CONDUCTANCE: Maximum, 1,380 microsiemens, Sept. 1; minimum, 463 microsiemens, July 17.

WATER TEMPERATURE: Maximum, 26.6°C, Aug. 10; minimum, 0.0°C, Jan. 4, 30-31.

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.3	7.4	7.8	9.3	7.6	8.4	10.5	9.3	9.7	11.5	10.2	10.8
2	8.8	7.2	7.9	9.4	8.0	8.6	10.4	9.3	9.7	11.7	10.1	10.8
3	8.8	7.5	8.2	10.1	8.2	9.2	10.8	9.8	10.3	12.2	10.2	11.4
4	8.7	7.0	8.0	9.7	7.8	8.8	11.4	10.2	10.7	13.1	10.1	11.5
5	8.2	6.8	7.5	10.5	8.1	9.2	11.4	10.4	10.9	11.2	10.1	10.6
6	8.2	6.9	7.5	10.5	8.4	9.2	10.9	9.8	10.4	11.4	10.4	10.8
7	8.3	7.2	7.9	10.6	8.4	9.4	11.5	10.3	10.8	12.4	10.6	11.5
8	8.7	7.1	7.9	10.3	8.1	9.1	11.6	10.6	11.1	11.4	9.7	10.8
9	8.6	7.5	8.0	10.0	7.5	8.7	11.8	9.8	11.0	11.7	10.4	11.0
10	8.8	7.9	8.3	9.9	8.0	8.7	10.8	9.7	10.3	11.7	9.8	10.8
11	8.8	7.0	7.9	9.8	7.9	8.6	10.4	9.5	10.0	11.5	9.6	10.6
12	8.4	7.0	7.6	10.1	8.0	8.8	11.1	9.9	10.5	10.9	9.1	10.1
13	8.8	7.2	7.9	9.7	7.6	8.5	11.4	10.3	10.8	11.7	9.6	10.6
14	9.1	7.3	8.1	9.9	7.8	8.7	11.1	10.3	10.7	12.1	10.3	11.1
15	8.3	7.4	7.8	10.7	8.0	9.0	12.1	10.7	11.3	11.4	9.6	10.5
16	9.2	7.5	8.5	10.6	7.6	8.7	11.5	9.8	10.9	11.6	9.8	10.6
17	9.4	8.4	8.9	10.6	7.4	8.7	10.6	9.7	10.1	11.4	9.5	10.4
18	9.1	8.3	8.6	9.1	7.1	7.8	10.9	9.6	10.3	11.0	9.3	10.1
19	8.9	7.6	8.3	9.9	7.9	8.6	10.5	9.6	10.1	10.9	9.4	10.0
20	8.8	7.9	8.4	9.8	7.6	8.5	11.1	10.3	10.8	11.6	9.5	10.3
21	9.8	8.1	8.8	---	---	---	11.7	10.7	11.2	11.2	9.4	10.2
22	9.8	8.2	8.8	---	---	---	11.4	10.3	10.9	10.9	9.2	10.0
23	9.8	7.7	8.8	---	---	---	11.3	9.7	10.6	11.4	9.7	10.6
24	9.3	7.5	8.3	10.6	9.8	10.3	11.0	9.5	10.3	11.8	9.7	10.8
25	9.2	7.3	8.1	10.9	9.8	10.3	10.9	9.6	10.3	11.4	9.8	10.7
26	9.2	7.4	8.2	10.6	8.8	9.8	10.7	9.4	10.1	11.6	9.6	10.7
27	9.8	7.4	8.6	10.5	8.8	9.6	11.0	9.6	10.4	11.3	10.1	10.6
28	10.4	8.2	9.2	10.6	9.2	9.7	11.1	9.7	10.5	11.2	10.1	10.6
29	8.7	8.1	8.4	10.6	9.2	9.7	11.7	9.8	10.7	11.9	10.4	11.1
30	9.8	8.1	8.9	9.9	8.8	9.4	11.3	9.9	10.6	12.3	10.8	11.4
31	9.5	7.6	8.5	---	---	---	11.8	10.1	10.9	12.2	10.5	11.2
MONTH	10.4	6.8	8.2	---	---	---	12.1	9.3	10.5	13.1	9.1	10.7

## ARKANSAS RIVER BASIN

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

OXYGEN DISSOLVED (MG/L), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	11.7	10.0	11.0	10.4	8.3	9.2	10.5	8.8	9.7	9.5	7.9	8.8
2	11.4	8.8	10.4	9.7	8.3	8.9	10.5	9.1	9.7	9.5	7.5	8.5
3	10.3	8.5	9.4	10.2	8.2	9.3	10.6	9.2	9.8	9.2	6.7	8.1
4	10.3	9.0	9.6	9.4	7.3	8.5	10.5	7.9	9.3	8.3	6.7	7.4
5	10.8	8.4	9.7	9.4	7.6	8.5	9.8	8.1	9.2	8.0	6.5	7.2
6	10.5	8.5	9.6	9.7	8.0	8.8	10.1	8.3	9.1	8.1	6.6	7.5
7	10.9	8.7	9.8	9.0	7.4	8.2	9.8	8.3	9.1	8.9	7.5	8.2
8	10.7	8.5	9.7	9.2	7.8	8.7	10.4	8.3	9.4	9.0	7.5	8.4
9	10.3	8.9	9.5	9.6	8.2	8.9	9.8	8.0	8.9	8.8	7.6	8.2
10	10.5	9.2	9.8	9.7	8.4	9.0	9.5	8.1	8.8	8.7	7.5	8.1
11	10.9	9.6	10.3	9.6	8.1	8.9	9.6	8.4	9.1	8.6	7.3	7.9
12	11.0	9.0	10.3	10.1	8.6	9.3	10.0	8.5	9.2	8.9	7.5	8.1
13	10.9	9.3	10.1	10.3	9.0	9.5	9.9	8.4	9.2	9.3	7.7	8.4
14	10.8	9.2	10.0	10.7	8.7	9.6	10.0	9.1	9.5	9.0	7.5	8.2
15	10.5	8.6	9.7	10.2	9.0	9.6	10.4	8.3	9.5	8.7	6.9	7.9
16	11.0	9.0	9.9	10.6	8.7	9.7	9.6	7.8	8.7	8.5	7.1	7.9
17	10.4	9.1	9.7	10.6	8.8	9.5	9.2	7.5	8.3	8.7	7.7	8.3
18	11.2	9.7	10.3	9.8	8.8	9.3	9.0	7.5	8.1	9.0	7.9	8.4
19	11.2	9.3	10.4	10.4	8.2	9.3	9.2	7.7	8.5	8.7	7.2	8.0
20	11.1	9.5	10.3	9.9	8.4	9.3	9.6	7.7	8.7	8.5	7.2	7.8
21	10.8	8.4	9.8	10.6	9.2	10.0	9.1	7.4	8.3	8.5	7.2	7.8
22	10.4	8.8	9.5	10.3	9.5	9.8	8.7	7.4	8.1	8.9	7.0	7.9
23	10.0	8.2	9.0	10.2	8.1	9.3	9.1	7.8	8.5	8.6	6.5	7.7
24	10.5	8.6	9.5	9.3	7.7	8.5	9.1	7.3	8.2	8.7	6.8	7.9
25	11.2	9.0	9.9	9.1	7.0	8.1	9.2	7.5	8.4	8.5	7.6	8.1
26	11.2	8.3	10.0	9.2	7.4	8.3	9.4	7.4	8.4	8.8	8.1	8.5
27	10.9	8.4	9.6	9.4	7.2	8.4	9.6	7.3	8.4	9.0	8.0	8.6
28	11.3	9.0	10.2	9.5	7.9	8.8	9.5	7.4	8.3	8.9	7.2	8.2
29	10.4	7.9	9.1	9.9	8.4	9.1	9.1	7.0	8.1	8.3	7.4	7.9
30	---	---	---	10.2	8.6	9.7	9.2	7.3	8.5	8.7	7.8	8.2
31	---	---	---	11.0	10.0	10.5	---	---	---	8.7	7.8	8.3
MONTH	11.7	7.9	9.9	11.0	7.0	9.1	10.6	7.0	8.8	9.5	6.5	8.1
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.8	8.0	8.4	7.7	6.2	7.0	8.0	6.6	7.3	6.7	5.2	6.2
2	8.8	8.0	8.4	7.6	6.1	6.8	8.0	6.5	7.3	---	---	---
3	8.8	7.1	8.2	7.4	6.1	6.7	8.1	6.5	7.2	---	---	---
4	8.8	8.1	8.4	7.8	6.2	7.1	8.1	6.4	7.2	---	---	---
5	8.8	7.9	8.4	8.0	6.5	7.4	8.0	6.3	7.1	7.4	6.1	6.8
6	8.8	8.1	8.4	7.9	6.8	7.4	7.8	6.3	7.0	7.3	6.1	6.6
7	8.9	7.8	8.4	7.9	6.7	7.2	7.8	6.3	6.8	8.0	6.5	7.0
8	8.9	7.7	8.3	7.9	6.8	7.4	7.7	6.3	7.0	7.9	6.2	7.0
9	8.6	7.7	8.2	7.8	6.8	7.3	8.0	6.3	7.1	7.4	5.8	6.6
10	8.7	7.5	8.1	7.8	6.6	7.2	7.8	6.3	7.0	7.7	5.8	6.6
11	8.5	7.2	8.0	7.7	6.4	7.1	7.8	6.3	7.0	7.5	5.6	6.4
12	8.3	6.9	7.7	7.5	6.2	6.9	8.0	6.3	7.0	7.3	5.7	6.4
13	8.1	7.1	7.7	7.7	6.5	7.1	7.8	6.0	6.8	7.5	5.4	6.4
14	8.6	7.5	8.1	7.8	6.6	7.1	7.7	6.0	6.7	7.5	5.5	6.4
15	8.5	7.2	7.9	7.6	6.5	7.1	7.3	5.8	6.5	8.3	5.6	6.7
16	8.4	7.3	7.7	7.7	6.6	7.1	7.4	6.1	6.6	8.2	5.4	6.8
17	8.5	7.4	7.9	7.2	6.4	6.8	7.5	6.2	6.7	8.7	5.6	7.0
18	8.3	7.3	7.8	7.5	6.2	6.7	6.6	5.4	6.2	9.4	5.4	7.2
19	8.9	7.4	8.0	7.5	6.6	7.1	6.6	5.8	6.2	9.7	5.8	7.5
20	8.8	7.1	8.0	7.6	6.6	7.2	6.9	5.9	6.3	10.7	6.5	8.3
21	8.8	7.4	8.1	7.5	6.3	6.9	7.0	5.9	6.4	10.5	6.5	8.3
22	8.6	7.2	7.9	7.5	6.5	7.0	7.1	6.0	6.4	10.8	6.5	8.1
23	8.5	7.2	7.8	7.7	6.4	7.0	7.3	6.2	6.7	9.9	7.0	8.4
24	8.6	6.8	7.7	7.8	6.4	7.1	7.4	5.9	6.6	10.0	7.8	8.8
25	8.4	6.9	7.6	7.7	6.3	7.0	7.2	6.0	6.5	9.3	8.0	8.6
26	8.0	6.7	7.3	8.1	6.3	7.1	7.4	5.9	6.4	9.0	6.5	8.1
27	7.6	6.5	6.8	8.0	6.7	7.3	6.8	5.9	6.3	9.1	6.1	7.5
28	7.5	6.7	7.1	8.3	6.9	7.5	6.9	5.8	6.3	8.8	6.1	7.5
29	7.6	6.4	7.0	8.0	6.8	7.4	7.0	5.8	6.3	9.4	6.4	7.8
30	7.6	6.3	6.9	7.8	6.7	7.3	6.7	5.8	6.2	9.6	6.9	8.2
31	---	---	---	8.0	6.5	7.3	6.9	5.9	6.4	---	---	---
MONTH	8.9	6.3	7.9	8.3	6.1	7.1	8.1	5.4	6.7	---	---	---



ARKANSAS RIVER BASIN

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	7.8	8.1	8.5	8.2	8.4	8.4	8.2	8.3	8.1	8.0	8.0
2	8.4	8.0	8.2	8.6	8.3	8.4	8.7	8.3	8.4	8.1	7.9	8.0
3	8.4	7.9	8.2	8.4	8.2	8.3	8.6	8.3	8.5	8.1	7.8	8.0
4	8.4	7.9	8.2	8.4	8.1	8.3	8.5	8.2	8.3	8.1	7.9	8.0
5	8.4	7.9	8.2	8.5	8.2	8.4	8.5	8.2	8.4	8.1	7.8	8.0
6	8.3	8.0	8.2	8.5	8.2	8.4	8.4	8.1	8.3	8.1	7.9	8.0
7	8.3	8.1	8.2	8.5	8.3	8.4	8.4	8.0	8.2	8.1	7.8	8.0
8	8.5	8.0	8.2	8.5	8.2	8.4	8.3	8.1	8.2	8.1	7.8	8.0
9	8.4	8.0	8.1	8.4	8.1	8.3	8.3	8.0	8.2	8.2	7.8	8.0
10	8.5	8.1	8.3	8.4	8.1	8.3	8.3	8.0	8.2	8.2	7.9	8.0
11	8.4	8.0	8.2	8.5	8.2	8.4	8.2	7.9	8.1	8.2	7.9	8.0
12	8.4	8.1	8.3	8.5	8.0	8.3	8.1	8.0	8.1	8.2	8.0	8.1
13	8.4	8.2	8.3	8.4	8.1	8.3	8.2	7.9	8.1	8.2	7.9	8.0
14	8.4	8.1	8.2	8.4	8.1	8.3	8.1	7.9	8.0	8.1	7.9	8.0
15	8.5	8.0	8.3	8.5	8.0	8.3	8.2	8.0	8.1	8.2	7.9	8.0
16	8.5	8.3	8.4	8.3	8.0	8.2	8.3	8.0	8.2	8.2	8.0	8.0
17	8.6	8.1	8.4	8.3	8.1	8.2	8.4	8.3	8.3	8.2	8.0	8.0
18	8.6	8.1	8.3	8.3	8.0	8.1	8.3	8.2	8.2	8.2	7.9	8.0
19	8.4	8.0	8.2	8.3	8.0	8.2	8.3	8.2	8.2	8.2	7.9	8.0
20	8.4	8.1	8.3	8.3	8.0	8.1	8.3	8.2	8.3	8.2	8.0	8.1
21	8.3	8.0	8.2	---	---	---	8.3	8.1	8.2	8.2	8.0	8.1
22	8.3	8.0	8.1	---	---	---	8.2	8.1	8.2	8.2	7.9	8.1
23	8.3	8.0	8.2	---	---	---	8.2	8.1	8.2	8.2	8.0	8.1
24	8.3	8.0	8.2	8.3	8.1	8.2	8.1	8.0	8.0	8.2	8.0	8.1
25	8.3	8.0	8.2	8.3	8.0	8.2	8.1	8.0	8.1	8.2	7.9	8.1
26	8.4	8.1	8.3	8.5	8.3	8.4	8.2	8.0	8.1	8.2	8.0	8.1
27	8.4	8.2	8.3	8.4	8.2	8.3	8.0	7.9	8.0	8.2	8.0	8.1
28	8.5	8.2	8.4	8.3	8.1	8.3	8.1	7.9	8.0	8.2	8.0	8.0
29	8.5	8.3	8.4	8.3	8.1	8.2	8.1	7.9	8.0	8.2	8.0	8.1
30	8.5	8.1	8.3	8.3	8.1	8.2	8.1	7.9	8.0	8.2	8.0	8.1
31	8.4	8.2	8.3	---	---	---	8.1	7.9	8.0	8.2	8.0	8.1
MONTH	8.6	7.8	8.2	---	---	---	8.7	7.9	8.2	8.2	7.8	8.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.2	8.0	8.1	8.4	8.0	8.1	8.4	8.2	8.3	8.2	7.8	8.0
2	8.2	8.0	8.0	8.2	8.0	8.1	8.5	8.3	8.4	8.2	7.9	8.0
3	8.2	8.0	8.0	8.3	7.9	8.1	8.5	8.2	8.4	8.2	7.9	8.0
4	8.2	8.0	8.1	8.3	8.0	8.1	8.6	8.3	8.4	8.1	7.9	8.0
5	8.1	7.9	8.0	8.4	8.1	8.2	8.6	8.3	8.4	8.1	7.9	8.0
6	8.2	7.9	8.0	8.4	8.1	8.3	8.4	8.1	8.2	8.1	7.9	8.0
7	8.2	8.0	8.1	8.3	8.0	8.2	8.3	8.0	8.2	8.2	8.0	8.1
8	8.2	7.9	8.1	8.2	7.9	8.1	8.3	8.0	8.2	8.2	8.0	8.1
9	8.2	7.9	8.0	8.3	8.0	8.1	8.4	8.1	8.2	8.2	7.9	8.0
10	8.2	8.0	8.1	8.4	8.0	8.2	8.4	8.1	8.2	8.3	8.0	8.1
11	8.2	8.0	8.1	8.3	8.0	8.2	8.3	8.1	8.2	8.3	8.0	8.2
12	8.3	8.0	8.1	8.4	8.2	8.3	8.3	8.1	8.2	8.3	8.1	8.2
13	8.3	8.0	8.1	8.4	8.2	8.3	8.2	8.0	8.1	8.4	8.1	8.2
14	8.3	8.0	8.1	8.3	8.1	8.2	8.1	8.0	8.1	8.4	8.1	8.2
15	8.3	8.0	8.1	8.4	8.2	8.3	8.1	8.0	8.1	8.4	8.1	8.2
16	8.3	8.0	8.2	8.3	8.1	8.2	8.0	7.8	7.9	8.4	8.1	8.2
17	8.3	8.0	8.1	8.3	8.0	8.2	8.0	7.8	7.9	8.4	8.1	8.2
18	8.3	8.0	8.2	8.3	8.1	8.2	8.0	7.8	7.9	8.5	8.2	8.3
19	8.3	7.9	8.1	8.4	8.1	8.3	8.0	7.9	7.9	8.5	8.2	8.3
20	8.2	8.0	8.1	8.4	8.2	8.3	8.0	7.8	7.9	8.5	8.1	8.3
21	8.3	8.0	8.1	8.4	8.1	8.2	8.0	7.8	7.9	8.4	8.1	8.3
22	8.3	8.0	8.1	8.4	8.1	8.3	7.9	7.8	7.9	8.4	8.2	8.3
23	8.3	7.9	8.1	8.4	8.1	8.3	8.0	7.9	7.9	8.4	8.2	8.3
24	8.4	8.1	8.2	8.4	8.3	8.3	8.1	7.9	8.0	8.4	8.2	8.3
25	8.4	8.1	8.2	8.4	8.2	8.3	8.1	7.9	8.0	8.3	8.1	8.2
26	8.2	8.0	8.1	8.4	8.2	8.4	8.1	7.9	8.0	8.4	8.2	8.2
27	8.3	7.9	8.1	8.4	8.2	8.4	8.1	7.9	8.1	8.4	8.2	8.3
28	8.3	8.0	8.1	8.4	8.2	8.3	8.1	7.9	8.0	8.4	8.1	8.3
29	8.2	7.9	8.0	8.6	8.3	8.4	8.1	7.9	8.0	8.3	8.0	8.2
30	---	---	---	8.6	8.3	8.4	7.9	7.8	7.8	8.4	8.0	8.2
31	---	---	---	8.4	8.2	8.3	---	---	---	8.4	8.3	8.3
MONTH	8.4	7.9	8.1	8.6	7.9	8.2	8.6	7.8	8.1	8.5	7.8	8.2

## ARKANSAS RIVER BASIN

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

PH, WATER, WHOLE, FIELD, STANDARD UNITS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	8.4	8.3	8.3	8.1	7.9	8.0	8.2	7.9	8.1	8.2	7.8	8.0
2	8.4	8.3	8.4	8.2	8.0	8.1	8.3	8.0	8.2	8.2	8.0	8.1
3	8.3	8.0	8.2	8.1	8.0	8.0	8.4	8.0	8.2	8.1	7.9	8.0
4	8.3	8.2	8.3	8.2	8.0	8.1	8.3	8.0	8.2	8.2	7.9	8.1
5	8.3	8.2	8.2	8.3	8.1	8.2	8.4	8.0	8.2	8.2	8.0	8.1
6	8.3	8.1	8.2	8.3	8.1	8.2	8.4	8.0	8.2	8.1	7.9	8.0
7	8.3	8.1	8.2	8.3	8.1	8.2	8.3	8.0	8.1	8.2	7.9	8.1
8	8.2	8.0	8.1	8.3	8.1	8.2	8.3	8.0	8.1	8.2	7.9	8.1
9	8.2	7.9	8.1	8.4	8.1	8.3	8.4	8.0	8.2	8.3	8.0	8.1
10	8.2	8.0	8.1	8.4	8.1	8.3	8.4	8.1	8.3	8.3	7.9	8.2
11	8.2	7.8	8.0	8.4	8.1	8.3	8.5	8.1	8.3	8.3	8.0	8.2
12	8.0	7.8	8.0	8.3	8.1	8.2	8.5	8.0	8.2	8.3	8.0	8.1
13	8.0	7.9	7.9	8.3	8.0	8.2	8.4	8.0	8.2	8.4	8.0	8.1
14	8.0	7.8	7.9	8.2	8.0	8.1	8.4	8.0	8.2	8.4	8.0	8.1
15	8.0	7.8	7.9	8.1	7.9	8.0	8.4	8.0	8.2	8.5	8.0	8.2
16	8.0	7.9	8.0	8.2	7.9	8.0	8.4	8.0	8.2	8.4	7.9	8.1
17	8.0	7.9	8.0	8.0	7.8	7.9	8.3	8.0	8.2	8.4	7.9	8.1
18	8.1	7.9	8.0	7.9	7.8	7.9	8.2	7.8	8.0	8.4	7.7	8.0
19	8.1	7.9	8.0	8.0	7.8	7.9	8.3	7.9	8.0	8.5	7.9	8.1
20	8.1	7.9	8.0	8.0	7.8	7.9	8.3	8.0	8.1	8.6	7.8	8.1
21	8.1	7.9	8.0	8.0	7.8	7.9	8.3	8.0	8.1	8.5	7.9	8.1
22	8.2	7.9	8.1	8.0	7.8	7.9	8.3	7.8	8.0	8.4	7.7	8.0
23	8.1	8.0	8.1	8.0	7.9	8.0	8.3	8.0	8.1	8.3	7.7	7.9
24	8.2	7.9	8.1	8.1	7.9	8.0	8.3	8.0	8.1	8.1	7.8	7.9
25	8.2	7.9	8.1	8.1	7.9	8.0	8.3	7.9	8.1	8.1	7.8	8.0
26	8.1	7.8	8.0	8.2	7.9	8.1	8.3	7.9	8.0	8.2	7.9	8.0
27	8.0	7.8	7.9	8.2	7.9	8.1	8.2	7.9	8.0	8.3	7.9	8.0
28	8.1	7.9	8.0	8.2	7.9	8.0	8.3	7.9	8.1	8.4	7.9	8.1
29	8.1	7.9	8.0	8.1	7.9	8.0	8.3	7.9	8.0	8.1	7.8	7.9
30	8.1	8.0	8.0	8.1	7.9	8.0	8.2	8.0	8.1	8.1	7.7	7.9
31	---	---	---	8.2	7.9	8.1	8.2	8.0	8.1	---	---	---
MONTH	8.4	7.8	8.1	8.4	7.8	8.1	8.5	7.8	8.1	8.6	7.7	8.1

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	904	880	889	896	871	881	908	883	895	893	864	882
2	907	884	893	929	848	883	922	885	904	893	862	881
3	885	863	873	848	814	826	917	891	905	895	863	878
4	869	845	856	863	812	838	919	898	908	890	828	863
5	880	855	867	860	833	849	914	869	885	884	845	864
6	922	872	898	876	833	862	897	871	885	890	848	873
7	966	921	952	872	853	865	894	844	856	900	869	884
8	1020	811	894	871	848	863	852	832	843	913	851	877
9	902	832	870	897	860	873	892	829	845	889	848	866
10	897	877	886	913	889	901	944	892	915	889	850	868
11	888	864	875	933	913	925	977	940	955	889	847	868
12	883	853	871	941	916	928	975	938	955	884	851	871
13	891	860	878	931	910	921	982	937	957	876	851	865
14	918	871	886	930	910	919	1020	982	999	866	839	854
15	928	903	917	998	925	952	1020	971	988	869	841	857
16	951	921	931	974	954	964	995	974	985	868	844	856
17	935	902	922	990	950	970	1000	966	980	867	839	854
18	902	873	886	998	971	983	1030	1000	1010	861	836	850
19	932	842	894	988	949	967	1030	1010	1020	876	842	858
20	892	827	851	965	945	955	1030	1000	1010	874	850	864
21	863	844	855	---	---	---	1030	982	1000	873	849	861
22	862	845	855	---	---	---	1020	993	1000	865	850	859
23	897	845	860	---	---	---	1020	992	1010	861	840	852
24	906	884	894	968	923	948	1030	999	1010	859	835	847
25	909	881	895	978	948	963	1030	999	1010	859	839	849
26	916	877	891	972	952	963	1030	1000	1020	901	850	871
27	933	908	920	971	954	960	1030	1000	1020	918	884	900
28	927	908	918	956	940	948	1000	929	951	931	899	915
29	931	889	920	955	930	946	956	928	943	965	927	951
30	896	879	886	962	908	949	928	885	909	966	928	952
31	891	869	880	---	---	---	891	862	873	980	924	957
MONTH	1020	811	889	---	---	---	1030	829	950	980	828	876

ARKANSAS RIVER BASIN

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	973	942	960	920	870	894	870	781	842	780	723	750
2	1100	964	1040	923	863	903	791	723	767	727	708	718
3	1160	1100	1130	924	855	875	757	731	741	827	711	737
4	1140	1120	1130	865	843	854	746	731	739	849	812	830
5	1120	1110	1120	874	847	860	746	726	738	821	783	798
6	1120	1100	1110	876	853	866	757	713	730	790	709	770
7	1130	1110	1120	876	834	857	719	697	707	719	683	701
8	1130	1110	1120	884	750	859	710	686	697	691	677	685
9	1130	1110	1120	888	834	865	714	695	703	791	626	666
10	1110	999	1030	898	878	887	720	706	714	679	636	660
11	1010	985	997	900	873	887	720	705	714	715	664	680
12	1010	986	996	896	871	884	722	706	714	736	696	713
13	1000	984	995	904	870	883	725	614	685	732	675	696
14	1010	979	995	892	822	876	630	612	620	704	687	694
15	1010	984	1000	823	784	803	807	608	672	723	692	707
16	1010	976	989	834	759	807	812	794	802	722	707	715
17	986	960	974	855	745	783	805	784	795	748	710	726
18	981	956	969	872	829	843	786	751	764	769	692	740
19	991	953	971	853	820	831	784	748	767	703	664	690
20	1000	981	992	892	816	832	801	768	781	694	664	678
21	992	960	979	875	817	832	831	786	801	720	666	686
22	999	973	983	922	875	903	845	816	832	715	686	704
23	1070	999	1040	974	922	940	840	806	825	711	686	698
24	1060	1040	1050	943	894	925	867	808	825	741	688	706
25	1060	1040	1050	897	882	890	822	764	802	726	638	684
26	1060	1030	1040	893	878	886	788	755	772	665	629	644
27	1050	1020	1030	887	847	875	766	742	756	644	623	632
28	1040	882	923	850	828	840	797	749	767	677	617	640
29	911	885	900	850	810	826	815	748	778	666	645	655
30	---	---	---	835	796	815	846	733	792	648	578	627
31	---	---	---	864	810	829	---	---	---	625	600	616
MONTH	1160	882	1030	974	745	862	870	608	755	849	578	698
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	614	592	606	768	726	743	524	498	508	1380	809	974
2	605	572	593	776	734	751	540	519	528	908	879	894
3	855	582	646	773	690	752	549	520	535	879	804	835
4	628	603	616	701	655	680	531	514	524	916	854	872
5	624	605	613	655	544	562	521	510	516	915	717	875
6	617	605	610	553	520	537	534	513	526	763	721	746
7	681	591	610	549	526	537	606	518	540	741	719	732
8	627	611	618	539	503	526	585	526	545	741	711	728
9	633	610	622	510	489	504	581	563	571	733	707	720
10	637	618	630	514	491	501	565	523	553	750	696	717
11	666	611	626	724	494	527	534	522	527	754	725	743
12	659	620	637	855	547	615	529	519	524	858	746	796
13	668	624	652	565	544	558	533	513	524	967	858	906
14	631	602	621	562	489	538	521	474	507	966	930	945
15	625	596	606	525	495	518	515	485	508	993	934	952
16	633	614	625	525	505	516	518	512	515	1060	993	1020
17	629	603	618	704	463	561	535	512	518	1080	1020	1040
18	635	608	621	672	499	559	1090	535	715	1080	1030	1060
19	627	601	615	521	503	512	616	579	595	1090	1050	1070
20	628	608	620	578	489	519	581	564	573	1090	1020	1060
21	615	603	609	608	572	585	591	553	569	1080	1010	1040
22	654	595	622	613	587	603	666	560	582	1100	1060	1080
23	648	578	617	608	578	594	621	578	591	1100	1040	1080
24	634	595	615	581	560	570	694	594	616	1070	1010	1040
25	640	575	614	575	551	566	614	593	604	1030	957	988
26	638	576	601	565	535	551	747	571	619	1030	1010	1020
27	711	630	667	539	514	530	636	569	602	1050	1010	1030
28	703	635	671	537	502	514	643	598	611	1050	1020	1040
29	761	653	747	543	509	524	770	562	616	1070	1020	1040
30	800	737	755	530	512	520	693	571	640	1020	932	971
31	---	---	---	518	498	509	811	693	775	---	---	---
MONTH	855	572	631	855	463	567	1090	474	570	1380	696	934

## ARKANSAS RIVER BASIN

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.3	13.0	15.5	11.9	9.4	10.7	8.7	6.9	7.8	5.8	3.2	4.6
2	16.1	12.0	14.2	11.3	7.8	9.7	8.2	6.4	7.3	5.6	3.2	4.6
3	14.9	11.7	13.4	12.3	7.9	10.2	6.7	4.9	5.7	4.8	1.4	3.2
4	16.7	11.0	13.8	12.5	8.3	10.6	5.6	4.2	4.8	3.0	.0	1.5
5	17.7	12.4	15.1	12.4	9.1	10.8	5.5	2.5	4.1	5.9	2.6	4.0
6	17.6	13.4	15.6	12.3	8.2	10.4	6.3	3.4	4.9	5.4	3.2	4.3
7	16.6	14.7	15.7	12.3	8.5	10.7	6.3	3.9	5.2	3.9	.9	2.6
8	16.2	12.9	14.5	12.8	9.0	11.1	5.1	4.2	4.5	5.2	2.3	3.7
9	17.6	12.5	15.1	13.2	9.7	11.5	5.3	2.8	4.2	4.4	2.2	3.3
10	17.7	13.4	15.6	12.1	8.6	10.6	5.1	2.8	3.9	5.4	1.9	3.6
11	18.5	13.4	16.0	12.3	8.5	10.5	5.8	3.5	4.5	5.0	1.8	3.5
12	18.0	13.2	15.8	11.9	8.3	10.2	4.9	2.1	3.6	6.8	2.8	4.7
13	17.6	13.5	15.6	11.8	8.0	10.1	3.4	1.9	2.7	5.5	2.9	4.4
14	17.5	12.8	15.2	11.3	8.1	9.9	3.9	1.8	2.9	4.6	2.1	3.4
15	16.1	12.5	14.4	11.4	7.6	9.6	2.8	.1	1.6	5.9	2.8	4.3
16	14.1	8.9	11.1	11.3	7.7	9.6	5.2	1.3	3.2	5.7	3.1	4.5
17	12.7	7.9	10.2	11.5	7.7	9.8	5.5	3.8	4.5	6.5	3.2	4.9
18	11.9	9.3	10.8	10.9	8.1	9.8	4.7	2.1	3.6	7.0	4.2	5.6
19	13.7	9.9	11.7	9.1	5.7	7.7	4.7	2.4	3.6	7.6	4.4	5.9
20	14.4	9.8	12.2	9.0	6.3	7.7	3.1	1.5	2.4	6.0	3.3	4.9
21	15.1	10.5	12.9	8.9	6.3	7.2	2.0	.2	1.1	6.1	3.2	4.8
22	14.9	10.7	12.9	---	---	---	3.5	.7	2.2	6.3	3.4	5.0
23	14.6	10.6	12.8	---	---	---	4.7	1.0	2.8	5.5	2.5	4.1
24	14.7	10.4	12.6	7.7	5.5	6.5	5.3	1.8	3.7	5.6	1.9	3.8
25	14.6	10.7	12.8	6.0	3.7	5.0	5.5	2.2	4.0	4.8	2.7	3.5
26	14.6	10.2	12.5	9.4	5.0	7.1	6.0	3.1	4.5	5.2	2.2	3.6
27	13.2	10.5	11.9	8.6	6.5	7.7	5.6	2.2	4.0	4.2	2.4	3.4
28	13.4	9.5	11.6	8.6	5.7	7.3	6.0	2.7	4.4	4.0	2.5	3.3
29	12.2	9.6	10.8	7.4	6.3	6.8	5.8	3.0	4.5	3.7	1.0	2.4
30	12.4	7.9	10.2	8.5	6.1	7.4	5.4	2.8	4.2	2.7	.0	1.5
31	12.9	8.7	10.9	---	---	---	4.9	2.2	3.7	3.4	.0	1.8
MONTH	18.5	7.9	13.3	---	---	---	8.7	.1	4.0	7.6	.0	3.8
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.8	.8	2.9	9.0	5.6	7.5	10.3	5.4	7.7	15.1	9.2	11.8
2	7.0	1.4	4.2	8.2	5.2	6.6	9.1	5.2	7.5	17.0	10.0	13.6
3	8.0	3.9	6.0	9.6	4.0	6.6	9.4	5.4	7.4	18.4	11.1	14.9
4	7.3	4.3	5.8	11.0	5.4	8.2	12.8	5.2	8.9	21.1	13.9	17.4
5	7.1	2.5	5.1	10.3	6.5	8.3	13.8	7.4	10.9	22.0	14.8	18.3
6	8.0	3.3	5.9	9.8	5.5	7.6	13.9	8.4	11.3	18.9	14.9	16.4
7	8.2	3.4	6.0	9.7	6.4	8.2	12.5	8.1	10.5	17.3	11.6	14.3
8	7.8	3.2	5.8	8.7	6.2	7.4	12.4	6.5	9.7	15.1	11.4	12.3
9	6.8	5.3	6.0	8.4	4.9	6.6	14.4	7.8	11.2	16.6	10.5	13.3
10	6.2	3.5	4.9	8.3	5.0	6.7	13.1	8.9	11.3	17.7	11.4	14.6
11	4.8	2.9	3.6	10.3	4.9	7.6	11.7	8.7	10.2	17.4	11.8	14.7
12	6.0	2.6	4.0	9.4	6.0	7.6	13.6	7.2	10.4	16.5	10.6	13.7
13	6.0	2.9	4.5	10.6	5.0	7.8	14.4	8.4	11.1	15.5	9.7	12.8
14	8.1	2.6	5.3	11.1	6.0	8.6	12.2	8.0	10.0	16.6	10.3	13.6
15	9.7	5.1	7.3	9.0	5.5	7.6	11.5	6.9	9.0	18.0	10.9	14.6
16	8.7	4.3	6.7	9.6	3.7	6.6	14.0	7.1	10.4	16.1	11.6	13.3
17	7.7	4.4	6.2	9.0	4.5	7.0	14.8	9.4	12.0	13.2	10.2	11.9
18	7.2	3.8	5.4	8.0	5.9	6.9	15.4	9.5	12.5	14.2	9.6	11.8
19	7.2	2.3	4.9	9.9	4.0	7.2	13.7	8.8	11.5	17.4	10.5	13.7
20	6.0	2.8	4.5	8.7	5.6	6.8	16.0	8.7	12.4	16.6	11.2	14.0
21	9.7	3.2	6.4	6.1	4.2	5.2	15.5	10.3	13.2	18.7	11.2	14.9
22	8.9	5.2	7.2	5.9	4.6	5.2	14.3	11.4	13.0	19.4	12.4	16.1
23	11.3	6.0	8.6	12.0	5.7	8.5	14.4	10.4	12.1	20.5	13.2	17.1
24	10.2	5.8	8.2	12.7	7.5	10.2	17.6	11.2	14.3	18.6	13.8	15.8
25	8.1	4.5	6.4	13.3	7.5	10.7	15.7	10.4	13.2	16.9	12.9	14.7
26	8.6	2.1	5.4	11.7	8.1	10.3	17.7	10.7	14.1	16.4	12.6	14.2
27	9.9	3.5	6.8	13.6	6.8	10.3	17.8	11.3	14.6	17.6	12.0	14.5
28	8.7	4.7	6.8	11.5	7.4	9.7	15.6	11.4	13.9	19.0	12.2	15.3
29	10.9	6.3	8.3	13.1	7.2	10.2	16.6	11.1	14.0	17.7	12.8	15.3
30	---	---	---	10.5	6.6	7.9	14.3	9.7	10.9	17.5	12.4	14.9
31	---	---	---	6.6	4.3	5.4	---	---	---	18.1	13.0	15.2
MONTH	11.3	.8	5.8	13.6	3.7	7.8	17.8	5.2	11.3	22.0	9.2	14.5

ARKANSAS RIVER BASIN

07109500 ARKANSAS RIVER NEAR AVONDALE, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.3	12.6	14.7	25.1	17.1	21.0	24.5	18.4	21.6	25.1	18.5	21.7
2	16.4	12.9	14.4	25.8	18.6	22.0	25.6	18.7	22.1	24.7	19.5	22.1
3	17.8	12.1	14.7	24.4	19.1	21.6	25.1	19.5	22.2	22.3	19.6	20.7
4	18.0	12.8	15.1	24.2	17.5	21.0	25.3	19.6	22.3	25.3	19.1	21.9
5	18.1	13.0	15.2	23.3	16.2	19.9	25.7	19.4	22.4	26.1	21.0	23.5
6	17.7	13.0	15.2	23.2	17.0	20.2	24.1	19.3	21.8	25.9	19.6	22.7
7	19.2	13.1	15.8	23.8	17.6	20.4	25.1	18.8	21.9	24.1	18.9	21.5
8	19.2	13.2	16.2	23.3	16.8	19.9	25.7	18.9	22.3	24.6	18.5	21.3
9	19.6	13.5	16.4	23.8	17.6	20.6	26.0	19.4	22.7	25.0	18.5	21.7
10	19.5	13.3	16.4	24.1	17.8	20.8	26.6	19.7	23.0	25.2	18.3	21.7
11	20.0	13.8	16.8	23.6	18.0	20.6	25.9	19.9	22.8	25.2	18.3	21.6
12	20.3	13.7	17.0	23.6	18.1	20.7	25.3	20.1	22.7	24.4	17.7	21.0
13	20.5	14.2	17.3	25.1	18.3	21.5	26.3	19.8	22.9	26.0	17.4	21.7
14	20.2	13.5	16.7	24.9	18.5	21.6	26.1	19.9	22.8	24.9	18.0	21.5
15	20.8	13.5	16.8	24.5	18.5	21.5	25.9	20.0	22.7	25.1	17.6	21.3
16	19.7	14.1	16.6	23.3	18.6	20.7	24.5	19.8	22.1	26.3	17.3	21.8
17	17.7	13.6	15.5	23.4	18.6	20.7	24.6	19.9	22.1	24.4	17.5	21.3
18	18.4	13.5	16.0	24.3	18.0	20.9	23.8	18.4	21.4	24.8	18.0	21.3
19	20.2	14.7	17.4	24.4	18.4	21.3	25.5	20.4	23.0	24.2	16.6	20.4
20	21.4	14.8	18.0	24.0	18.8	21.1	25.7	20.2	23.0	19.5	14.9	17.1
21	21.5	15.1	18.2	23.9	18.7	21.5	24.7	19.8	22.3	22.4	12.8	17.6
22	21.5	15.3	18.4	24.6	19.0	21.8	26.0	20.0	22.8	20.3	16.0	17.8
23	20.0	15.4	17.8	25.8	18.8	22.2	25.7	19.7	22.9	16.0	12.3	13.6
24	22.1	15.1	18.4	23.6	18.4	21.2	26.2	20.2	23.3	15.4	11.1	12.9
25	21.1	15.6	18.6	25.8	18.5	22.0	26.4	20.4	23.4	17.4	10.1	13.7
26	19.5	16.0	17.7	24.3	19.0	21.8	24.8	20.2	22.5	19.4	11.7	15.6
27	20.6	16.3	18.2	23.9	18.4	21.2	25.4	19.9	22.8	20.5	13.0	16.7
28	20.1	17.1	18.6	23.6	18.4	21.0	26.1	20.4	23.4	21.1	13.2	17.3
29	22.8	16.7	19.7	24.2	18.2	21.1	23.9	20.1	22.2	19.1	14.9	16.9
30	23.4	17.0	20.2	24.0	18.8	21.3	24.9	20.5	22.7	22.1	14.9	18.4
31	---	---	---	24.8	18.6	21.7	24.1	20.1	22.2	---	---	---
MONTH	23.4	12.1	16.9	25.8	16.2	21.1	26.6	18.4	22.5	26.3	10.1	19.6

## ARKANSAS RIVER BASIN

07116500 HUERFANO RIVER NEAR BOONE, CO

LOCATION.--Lat 38°13'30", long 104°15'37", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.18, T.21 S., R.61 W., Pueblo County, Hydrologic Unit 11020006, at right upstream end of bridge on U.S. Highway 50, 0.8 mi upstream from mouth, and 1.6 mi south of Boone.

DRAINAGE AREA.--1,875 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1922 to September 1925 (monthly and annual discharge only, published in WSP 1311 as "near Nepesta"), October 1979 to current year.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gages. Datum of gage is 4,443.75 ft above sea level. Jan. 1922 to Sept. 1925, at different datum.

REMARKS.--Records fair except for estimated daily discharges and discharges above 350 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by diversions for irrigation of about 48,000 acres and return flow from irrigated areas. Several measurements of water temperature and specific conductance were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	36	30	36	23	8.9	57	199	8.5	3.6	.97	.00
2	33	33	29	23	22	10	56	153	8.4	4.8	1.4	.30
3	35	26	33	20	17	12	56	101	35	6.8	1.8	.29
4	31	29	31	20	15	11	52	39	9.0	4.5	1.8	.18
5	26	31	32	27	15	9.7	56	23	7.9	1.9	1.5	.02
6	27	30	30	28	13	9.7	45	143	7.2	2.6	.32	.00
7	25	29	34	27	13	11	44	94	8.6	6.6	.48	.00
8	26	33	37	29	13	18	46	103	7.3	3.4	.20	.00
9	27	34	36	30	13	12	39	158	6.4	4.9	.00	.00
10	26	32	32	30	14	11	37	195	5.8	5.4	.00	.00
11	25	32	38	27	13	9.8	39	239	5.2	5.8	.00	.00
12	19	27	33	39	13	9.0	54	222	4.3	5.8	.00	.00
13	14	26	29	32	13	9.5	35	213	4.2	5.4	.00	.00
14	15	28	32	31	12	9.0	41	213	4.2	5.3	.00	.00
15	19	29	30	33	13	8.9	30	211	3.8	4.7	.00	.00
16	24	17	33	29	12	10	30	157	3.7	5.0	.00	.00
17	38	18	34	27	11	9.7	26	176	3.5	5.5	.00	.00
18	39	15	43	21	12	11	31	164	3.3	4.2	.00	.00
19	42	13	41	17	12	11	31	66	2.9	5.4	.00	.00
20	39	14	36	16	12	12	63	69	2.9	5.3	.00	.00
21	42	14	25	16	11	17	65	45	2.9	8.9	.00	.00
22	38	14	22	16	11	42	102	57	2.8	5.4	.04	.00
23	31	14	25	15	11	41	224	32	3.1	5.2	.11	.00
24	29	24	28	16	10	30	339	20	2.8	2.9	.00	.00
25	30	27	33	17	9.7	31	389	21	3.8	4.8	.00	.06
26	28	30	39	15	9.4	27	311	22	3.0	4.7	.00	.27
27	26	28	43	e15	9.4	28	237	21	3.4	4.8	.00	.30
28	31	30	37	e16	9.5	28	56	19	3.6	5.1	.00	.30
29	34	32	37	e17	8.8	23	78	15	3.3	3.1	.00	.37
30	33	29	37	e17	---	18	186	11	3.8	4.4	.00	.43
31	34	---	34	e18	---	44	---	8.6	---	2.1	.00	---
TOTAL	918	774	1033	720	370.8	542.2	2855	3209.6	174.6	148.3	8.62	2.52
MEAN	29.6	25.8	33.3	23.2	12.8	17.5	95.2	104	5.82	4.78	.28	.084
MAX	42	36	43	39	23	44	389	239	35	8.9	1.8	.43
MIN	14	13	22	15	8.8	8.9	26	8.6	2.8	1.9	.00	.00
AC-FT	1820	1540	2050	1430	735	1080	5660	6370	346	294	17	5.0

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2000, BY WATER YEAR (WY)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	11.0	17.4	16.7	22.2	25.6	22.8	35.4	163	105	26.4	30.3	6.67										
MAX	46.7	46.0	40.2	65.1	65.2	129	224	1113	667	226	254	26.5										
(WY)	1985	1986	1998	1984	1998	1984	1998	1987	1983	1995	1981	1995										
MIN	.000	.000	.000	.000	.13	2.12	.47	.53	.16	.000	.28	.000										
(WY)	1990	1990	1990	1990	1990	1990	1990	1992	1981	1989	2000	1980										

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1980 - 2000
ANNUAL TOTAL	20626.8	10756.64	
ANNUAL MEAN	56.5	29.4	40.3
HIGHEST ANNUAL MEAN			153
LOWEST ANNUAL MEAN			5.09
HIGHEST DAILY MEAN	801	389	2900
LOWEST DAILY MEAN	3.3	.00	a.00
ANNUAL SEVEN-DAY MINIMUM	4.3	.00	.00
INSTANTANEOUS PEAK FLOW		534	b8030
INSTANTANEOUS PEAK STAGE		9.37	c10.90
ANNUAL RUNOFF (AC-FT)	40910	21340	29220
10 PERCENT EXCEEDS	184	48	66
50 PERCENT EXCEEDS	26	16	8.6
90 PERCENT EXCEEDS	7.3	.00	.00

e Estimated.

a No flow many days most years.

b From rating curve extended above 1130 ft<sup>3</sup>/s. Maximum discharge for period of record, 19400 ft<sup>3</sup>/s, Aug 1, 1923, gage height, 9.4 ft, datum then in use, from slope-area measurement of peak flow.

c From flood marks. Maximum gage height for statistical period, 11.75 ft, Jul 19, 1995.

07119500 APISHAPA RIVER NEAR FOWLER, CO

LOCATION.--Lat 38°05'28", long 103°58'52", in SE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.35, T.22 S., R.59 W, Otero Country, Hydrologic Unit 11020007, on right bank on downstream side of county road bridge HH.5, 3.5 mi southeast of Fowler, and 5.4 mi upstream from mouth.

DRAINAGE AREA.--1,125 mi<sup>2</sup>.

PERIOD OF RECORD.--Streamflow records, April 1922 to September 1925, May 1939 to current year. Monthly discharge only for some periods, published in WSP 1311. Water-quality data available, November 1963 to September 1967, January to April 1969.

REVISED RECORDS.--WSP 957: 1939, 1941. WSP 1117: Drainage area. WSP 1241: 1923(M). WRD Colo. 1974: 1973(M).

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gages. Datum of gage is 4,317.05 ft above sea level. Prior to Aug. 29, 1923, at site 3 mi downstream at different datum. Aug. 29, 1923 to Sept. 30, 1925, May 27, 1939 to July 30, 1940, on left bank at different datums. July 30, 1940 to Sept. 30, 1985, at datum 2.0 ft higher.

REMARKS.--No estimated daily discharges. Records good except Feb. 2 to Mar. 7, which are fair. Natural flow of stream affected by waste water from Oxford Farmers Co. and Rocky Ford Highline canals, and diversions upstream of station for irrigation of about 4,700 acres. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	10	8.1	13	7.3	11	14	16	14	12	5.1	14
2	16	9.5	8.1	11	7.2	7.8	15	16	11	5.7	5.4	7.5
3	24	16	7.8	11	6.6	6.3	28	12	13	9.7	6.1	5.2
4	21	17	8.2	6.9	6.5	10	34	15	17	7.4	5.7	5.2
5	18	19	6.7	8.8	6.8	13	32	17	13	8.1	5.8	9.9
6	14	19	6.6	11	6.9	16	27	17	12	8.7	5.9	18
7	16	19	6.9	6.7	7.0	23	26	18	11	8.9	5.5	14
8	17	18	7.7	6.6	7.0	15	34	20	8.1	9.4	5.6	7.9
9	16	19	6.6	7.9	7.2	17	41	27	12	8.5	7.0	10
10	17	18	6.6	8.9	7.0	20	43	23	10	8.1	9.5	12
11	17	19	6.5	8.3	7.0	16	43	29	8.8	11	9.4	12
12	15	19	6.3	9.7	7.0	15	39	36	9.2	11	9.7	9.6
13	16	19	6.1	9.7	7.2	18	39	28	8.1	12	9.4	5.8
14	16	21	6.1	11	7.1	16	35	26	7.6	10	6.3	8.2
15	17	17	5.8	12	7.3	11	27	28	6.9	11	6.8	9.1
16	15	11	6.0	10	7.3	13	27	20	7.0	14	7.0	5.7
17	8.3	11	6.7	11	7.3	13	26	19	7.4	41	13	5.5
18	12	11	7.5	11	7.3	15	26	25	8.5	43	30	4.9
19	19	9.7	7.3	11	7.1	19	25	20	8.1	24	20	4.9
20	17	10	6.8	9.7	7.0	18	19	19	7.2	36	20	5.3
21	16	10	6.0	9.3	7.0	16	12	18	6.3	27	20	7.5
22	19	11	6.2	8.8	6.7	20	16	17	6.8	38	19	11
23	19	19	7.2	7.7	6.7	22	30	16	7.9	17	15	9.1
24	16	9.4	7.6	6.9	6.6	23	31	9.7	6.8	12	13	9.2
25	13	8.0	7.4	8.0	6.5	22	19	8.3	7.8	10	16	8.5
26	15	7.9	7.8	7.0	6.1	23	17	9.4	8.6	5.1	17	6.7
27	15	7.9	7.5	7.7	5.9	21	15	11	9.4	8.3	17	6.7
28	16	7.3	8.0	7.6	5.6	18	9.4	5.9	11	6.1	15	8.6
29	17	7.0	9.7	6.9	5.3	24	8.6	12	12	5.5	15	8.4
30	16	7.4	9.0	6.5	---	24	8.8	16	14	5.4	15	7.5
31	13	---	9.4	6.8	---	16	---	15	---	5.4	16	---
TOTAL	502.3	407.1	224.2	278.4	197.5	522.1	766.8	569.3	290.5	439.3	371.2	257.9
MEAN	16.2	13.6	7.23	8.98	6.81	16.8	25.6	18.4	9.68	14.2	12.0	8.60
MAX	24	21	9.7	13	7.3	24	43	36	17	43	30	18
MIN	8.3	7.0	5.8	6.5	5.3	6.3	8.6	5.9	6.3	5.1	5.1	4.9
AC-FT	996	807	445	552	392	1040	1520	1130	576	871	736	512

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1922 - 2000, BY WATER YEAR (WY)

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	15.7	16.7	10.9	7.00	9.21	11.5	22.0	43.8	45.1	53.1	64.3	19.5																																																																			
MAX	87.2	83.1	54.7	30.4	54.0	59.6	530	576	290	306	628	154																																																																			
(WY)	1924	1966	1966	1966	1971	1924	1942	1955	1948	1958	1923	1940																																																																			
MIN	1.06	.90	1.33	2.37	1.85	1.35	.94	1.65	1.13	1.53	1.56	1.07																																																																			
(WY)	1965	1940	1955	1976	1976	1955	1955	1975	1954	1974	1974	1956																																																																			

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1922 - 2000

ANNUAL TOTAL	10275.4	4826.6	
ANNUAL MEAN	28.2	13.2	26.8
HIGHEST ANNUAL MEAN			105
LOWEST ANNUAL MEAN			5.73
HIGHEST DAILY MEAN	400	May 2	43
LOWEST DAILY MEAN	2.7	Apr 11	4.9
ANNUAL SEVEN-DAY MINIMUM	3.0	Mar 8	5.5
INSTANTANEOUS PEAK FLOW			132
INSTANTANEOUS PEAK STAGE			3.72
ANNUAL RUNOFF (AC-FT)	20380	9570	19410
10 PERCENT EXCEEDS	76	23	44
50 PERCENT EXCEEDS	16	11	7.0
90 PERCENT EXCEEDS	3.5	6.3	1.9

a From slope-area measurement of peak flow, at site 2 mi upstream from present site, caused by failure of Apishapa Dam 31 mi upstream.

b At datum then in use. Peak stage for flood of Aug 22, 1923, unknown.

## 07119700 ARKANSAS RIVER AT CATLIN DAM NEAR FOWLER, CO

LOCATION (REVISED).--Lat 38°07'15", long 103°54'49", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.20, T.22 S., R.58 W., Otero County, Hydrologic Unit 11020005, on right bank at Catlin Canal flume gage, 2.2 mi downstream from diversion dam for Catlin Canal, 2.3 mi downstream from Apishapa River, and 6.0 mi east of Fowler.

DRAINAGE AREA.--10,901 mi<sup>2</sup>, of which 54 mi<sup>2</sup> is probably noncontributing.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. Statistical summary computed for 1975 to current year.

GAGE.--Water-stage recorders with satellite telemetry on river and on Catlin Canal and Parshall flume on canal. Datum of river gage is 4,245.92 ft above sea level. Datum of canal gage is 4,257.87 ft above sea level. Prior to May 13, 1971, river gage at site 2.2 mi upstream at datum 24.08 ft higher, and canal gage at site 1.7 mi upstream at datum 3.26 ft higher.

REMARKS.--Records fair, except for estimated daily discharges, which are poor. 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, diversions for irrigation, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	429	786	869	846	578	477	1060	841	1720	641	861	469
2	346	796	901	850	582	506	1100	973	1690	625	693	440
3	362	841	911	846	520	517	1230	1030	1930	516	613	342
4	386	820	901	807	488	587	1240	853	1730	430	621	400
5	417	801	877	e796	496	606	1200	582	1600	658	665	e285
6	399	800	840	e826	506	590	1200	538	1650	1030	683	e206
7	371	789	825	799	e450	513	1190	695	1560	888	745	288
8	319	798	896	763	268	553	1110	873	1250	714	862	274
9	337	774	898	750	271	666	1100	989	1010	777	924	284
10	322	841	860	750	267	586	1140	1460	1130	922	743	254
11	309	785	795	740	328	519	1120	1300	1020	919	762	412
12	330	730	763	744	370	453	1150	1020	926	971	865	365
13	529	718	751	773	368	413	1120	877	755	884	838	289
14	557	715	758	e770	362	404	1260	1070	674	624	870	e216
15	611	726	e733	e772	357	455	1780	1090	912	699	955	182
16	600	465	740	e789	349	688	1030	999	950	781	818	218
17	599	369	760	e807	343	858	504	913	716	909	806	183
18	657	336	796	e820	355	1170	562	893	703	1270	1100	182
19	723	329	788	787	372	1120	608	902	768	1630	1150	176
20	695	318	e790	776	388	1080	584	1240	817	1520	918	162
21	744	308	e780	773	389	1050	560	1410	728	1250	809	140
22	736	314	768	794	394	1000	524	1240	676	925	836	159
23	684	454	747	794	406	842	536	e1060	673	783	837	161
24	655	536	741	781	393	779	723	e1000	715	733	889	190
25	619	552	741	775	377	730	702	1110	932	733	829	211
26	545	538	740	757	365	696	731	1360	940	744	744	286
27	527	537	744	704	376	692	716	1710	958	561	903	254
28	576	562	e752	701	348	718	614	1690	1070	578	927	236
29	721	772	809	703	440	779	639	1110	915	744	818	215
30	765	869	801	636	---	827	741	818	706	856	1180	212
31	794	---	836	598	---	969	---	1670	---	932	737	---
TOTAL	16664	18979	24911	23827	11506	21843	27774	33316	31824	26247	26001	7691
MEAN	538	633	804	769	397	705	926	1075	1061	847	839	256
MAX	794	869	911	850	582	1170	1780	1710	1930	1630	1180	469
MIN	309	308	733	598	267	404	504	538	673	430	613	140
AC-FT	33050	37640	49410	47260	22820	43330	55090	66080	63120	52060	51570	15260

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2000, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	422	450	396	435	409	428	628	1329	2154	1411	1041	458														
MAX	1234	925	804	854	1249	912	1526	3901	4420	4108	2384	1209														
(WY)	1985	1985	2000	1985	1998	1998	1999	1999	1995	1995	1984	1982														
MIN	91.0	152	133	175	180	175	86.6	212	432	286	526	84.5														
(WY)	1979	1979	1991	1990	1995	1978	1978	1981	1977	1977	1978	1977														

## SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1975 - 2000

ANNUAL TOTAL	444081	270583																								
ANNUAL MEAN	1217	739																								
HIGHEST ANNUAL MEAN																										
LOWEST ANNUAL MEAN																										
HIGHEST DAILY MEAN																										
LOWEST DAILY MEAN																										
ANNUAL SEVEN-DAY MINIMUM																										
INSTANTANEOUS PEAK FLOW																										
INSTANTANEOUS PEAK STAGE																										
ANNUAL RUNOFF (AC-FT)																										
10 PERCENT EXCEEDS																										
50 PERCENT EXCEEDS																										
90 PERCENT EXCEEDS																										

e Estimated.

a Average discharge for 9 years (water years 1965-73), 636 ft<sup>3</sup>/s, 460800 acre-ft/yr, prior to completion of Pueblo Dam.

b Maximum daily discharge for period of record, 43200 ft<sup>3</sup>/s, Jun 18, 1965.

c Also occurred Sep 12, 1974.

d Maximum combined instantaneous discharge.

f Maximum discharge and stage for period of record, 43200 ft<sup>3</sup>/s, Jun 18, 1965, gage height, 7.95 ft, site and datum then in use, from rating curve extended above 13000 ft<sup>3</sup>/s, on basis of flow-over-dam computation of peak flow.

g Gage height at Arkansas River gage.



07119700 ARKANSAS RIVER AT CATLIN DAM NEAR FOWLER, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1990 to current year.

WATER TEMPERATURE: May 1990 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for daily specific conductance are fair. Records for water temperature are good. Daily data that are not published are either missing or of unacceptable quality. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,800 microsiemens, Apr. 27, 1991; minimum, 244 microsiemens, May 25, 1993.

WATER TEMPERATURE: Maximum, 30.9°C, Aug. 9, 1992; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 1,610 microsiemens, Sept. 16; minimum, 636 microsiemens, July 20.

WATER TEMPERATURE: Maximum, 30.3°C, July 14; minimum, 0.0°C, many days.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	1260	1130	1180	1140	1110	1120	1250	1210	1240	1230	1190	1200
2	---	---	---	1130	1110	1120	1210	1140	1160	1210	1160	1180
3	---	---	---	1160	1110	1130	1160	1120	1140	1210	1180	1190
4	---	---	---	1150	1110	1120	1300	1130	1220	1220	1180	1200
5	1270	1170	1220	1140	1130	1130	1330	1280	1300	1200	1170	1190
6	1210	1170	1200	1140	1130	1140	1320	1180	1220	1200	1170	1180
7	---	1210	---	1150	1140	1140	1220	1180	1190	1190	1160	1180
8	---	---	---	1160	1140	1150	1180	1130	1150	1180	1160	1170
9	---	---	---	1160	1140	1150	1150	1120	1140	1190	1160	1170
10	---	---	---	1150	1130	1140	1160	1140	1150	1200	1160	1180
11	---	---	---	1170	1150	1160	1220	1160	1210	1200	1160	1180
12	---	---	---	1200	1160	1190	1260	1220	1250	1190	1150	1170
13	1180	1130	1140	1220	1190	1200	1260	1250	1260	1190	1160	1170
14	1160	1140	1150	1240	1190	1210	1280	1250	1270	1180	1160	1170
15	1170	1150	1150	1280	1230	1260	1350	1280	1320	1180	1140	1160
16	1200	1160	1180	1490	1250	1410	1330	1300	1310	1170	1130	1150
17	1200	1160	1190	1530	1480	1500	1320	1290	1300	1160	1130	1150
18	1220	1180	1200	1500	1480	1500	1310	1290	1300	1160	1130	1140
19	1200	1130	1150	1520	1500	1510	1340	1310	1330	1140	1120	1140
20	1190	1150	1170	1550	1510	1540	1360	1330	1340	1150	1130	1140
21	1190	1110	1140	1550	1530	1540	1380	1340	1360	1150	1130	1140
22	1150	1120	1140	1530	1490	1520	1380	1340	1350	1150	1120	1130
23	1170	1150	1160	1590	1380	1430	1370	1340	1360	1140	1110	1130
24	1180	1160	1170	1380	1330	1360	1370	1350	1360	1140	1110	1120
25	1220	1180	1210	1380	1340	1370	1360	1340	1350	1140	1120	1120
26	1260	1220	1250	1400	1380	1390	1370	1340	1350	1140	1100	1120
27	1270	1250	1260	1410	1380	1400	1370	1340	1360	1150	1120	1130
28	1260	1220	1240	1410	1360	1390	1380	1330	1350	1180	1150	1170
29	1240	1170	1190	1370	1250	1310	1330	1250	1290	1200	1170	1190
30	1190	1150	1170	1260	1230	1250	1280	1240	1260	1270	1190	1240
31	1150	1120	1130	---	---	---	1270	1210	1240	1290	1150	1250
MONTH	---	---	---	1590	1110	1290	1380	1120	1270	1290	1100	1170

## ARKANSAS RIVER BASIN

07119700 ARKANSAS RIVER AT CATLIN DAM NEAR FOWLER, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1280	1250	1270	1300	1200	1230	1040	988	1020	942	912	931
2	1280	1250	1270	1300	1200	1220	1060	975	1040	914	872	888
3	1360	1270	1320	1230	1200	1220	975	929	949	976	885	946
4	1410	1360	1400	1240	1160	1200	961	939	951	1050	963	989
5	1420	1400	1410	1180	1150	1170	966	945	955	1150	1050	1120
6	1420	1390	1400	1210	1170	1190	967	915	947	1140	1110	1130
7	1430	1380	1400	1310	1170	1230	956	932	946	1120	1020	1090
8	1560	1430	1510	1210	1170	1190	950	920	936	1020	935	958
9	1580	1530	1550	1240	1170	1200	926	909	917	939	918	934
10	1560	1540	1550	1230	1200	1210	918	893	904	918	822	858
11	1550	1440	1500	1230	1210	1220	908	885	898	901	840	870
12	1440	1400	1420	1260	1230	1250	885	849	867	949	890	905
13	1420	1400	1410	---	---	---	849	797	820	988	949	964
14	1420	1390	1410	---	---	---	797	721	767	990	930	951
15	1430	1400	1410	---	1170	---	721	681	698	947	931	941
16	1440	1400	1420	1170	1070	1100	801	681	716	986	942	953
17	1430	1410	1420	1070	1020	1060	936	801	866	1000	970	983
18	1420	1390	1410	1020	937	957	956	936	949	1020	996	1000
19	1420	1380	1400	958	940	951	961	928	939	1050	928	1010
20	1400	1370	1390	964	938	948	929	918	923	928	865	900
21	1400	1370	1380	959	938	949	936	922	928	867	848	859
22	1400	1370	1380	985	946	954	975	936	950	911	862	874
23	1380	1340	1370	1070	985	1040	998	944	978	919	907	913
24	1410	1360	1390	1110	1070	1090	1010	970	993	929	903	917
25	1450	1410	1430	1110	1090	1100	1010	1000	1010	912	845	894
26	1460	1420	1440	1090	1050	1070	1010	985	992	845	778	813
27	1450	1410	1430	1060	1040	1050	998	986	993	785	734	763
28	1470	1360	1410	1050	1020	1040	991	972	983	754	729	740
29	1470	1200	1300	1020	978	992	987	934	958	879	752	791
30	---	---	---	984	951	970	937	898	915	877	822	858
31	---	---	---	988	926	950	---	---	---	822	718	759
MONTH	1580	1200	1410	---	---	---	1060	681	924	1150	718	919
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	729	719	724	872	844	855	751	700	714	---	907	---
2	728	710	720	863	845	853	773	751	761	---	1030	---
3	865	700	729	---	850	---	806	771	791	---	---	---
4	855	713	744	---	---	---	823	791	809	---	---	---
5	722	708	715	914	844	885	817	785	802	---	---	---
6	718	686	704	844	720	751	815	793	804	1420	1250	1360
7	731	696	715	777	724	751	801	761	790	1250	1130	1180
8	774	723	740	823	776	807	792	730	773	1230	1170	1200
9	783	770	776	816	744	790	770	716	732	1210	1080	1160
10	775	750	760	744	712	730	832	770	811	1160	1050	1100
11	789	771	780	735	707	719	811	760	789	1050	964	1020
12	827	783	796	802	718	738	760	730	744	1080	1020	1060
13	866	816	837	875	767	804	749	721	740	1200	1060	1120
14	899	832	872	819	776	803	750	721	740	---	---	---
15	835	756	805	833	711	794	724	673	703	---	1300	---
16	792	749	762	788	709	751	750	670	720	1610	1280	1430
17	814	792	808	899	704	750	762	710	746	1530	1490	1520
18	804	778	792	824	669	729	881	682	738	1570	1480	1520
19	778	713	754	729	639	680	1060	794	903	1530	1480	1510
20	743	711	724	665	636	650	797	783	792	1530	1500	1520
21	766	743	752	739	650	673	798	786	792	1560	1500	1520
22	769	762	765	803	739	777	796	752	776	1580	1490	1530
23	771	747	763	817	798	808	831	790	811	1520	1460	1500
24	747	736	741	823	783	809	829	778	793	1510	1460	1490
25	738	705	718	795	778	784	813	766	796	1500	1320	1400
26	707	690	699	787	777	781	853	791	816	1340	1290	1320
27	719	690	698	---	780	---	842	760	815	1390	1310	1330
28	750	719	737	848	769	827	808	769	789	1440	1370	1400
29	764	741	751	769	724	743	834	797	814	1530	1430	1480
30	844	764	807	772	729	753	841	713	767	1560	1510	1530
31	---	---	---	737	694	708	912	730	813	---	---	---
MONTH	899	686	756	---	---	---	1060	670	780	---	---	---

ARKANSAS RIVER BASIN

07119700 ARKANSAS RIVER AT CATLIN DAM NEAR FOWLER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.7	11.1	14.2	10.8	7.9	9.2	7.1	5.9	6.5	5.4	2.3	3.7
2	---	---	---	10.1	6.2	8.2	8.0	5.0	6.4	5.2	2.7	4.1
3	---	---	---	10.4	5.9	8.2	6.1	3.8	4.8	4.3	.5	2.5
4	---	---	---	10.7	6.6	8.8	4.5	2.3	3.5	1.4	.0	.5
5	---	---	---	11.3	7.6	9.3	3.4	.4	2.0	4.1	1.0	2.3
6	17.8	11.9	14.6	11.1	6.7	8.9	4.1	1.4	2.6	4.7	2.3	3.2
7	17.2	12.4	15.0	11.2	6.9	9.1	4.8	1.7	3.2	2.8	.0	1.5
8	---	---	---	11.9	7.6	9.8	3.5	1.8	2.7	3.7	.8	2.0
9	---	---	---	12.0	8.6	10.2	2.9	.0	1.5	3.9	.9	2.3
10	---	---	---	11.3	7.5	9.5	3.5	1.1	2.4	4.5	1.0	2.6
11	---	---	---	11.4	7.4	9.4	4.3	2.1	3.0	3.8	.8	2.4
12	---	---	---	11.1	7.1	9.1	3.7	.5	2.2	5.5	1.8	3.7
13	---	---	---	11.0	6.6	8.8	2.1	.4	1.2	5.3	2.6	3.9
14	17.8	11.8	14.7	10.7	6.8	8.7	1.8	.0	.8	3.3	1.7	2.4
15	15.6	11.7	13.7	10.5	6.4	8.5	1.1	.0	.4	4.2	1.5	2.7
16	13.2	7.6	10.1	11.6	6.1	8.7	3.1	.0	1.4	5.0	2.1	3.5
17	11.2	6.4	8.6	11.8	5.9	8.9	3.9	1.6	2.7	5.5	2.6	4.1
18	10.8	6.7	8.8	12.2	7.3	9.6	3.7	1.4	2.6	6.7	3.8	5.2
19	12.7	8.2	10.3	10.1	4.3	7.1	3.5	1.7	2.5	7.1	4.4	5.5
20	13.5	8.1	10.7	9.4	4.3	6.7	2.1	.1	1.1	5.7	2.9	4.4
21	14.1	9.0	11.5	9.7	4.1	6.9	.1	.0	.0	5.6	2.8	4.2
22	14.2	9.5	11.8	6.8	4.6	6.0	1.4	.0	.4	6.2	2.9	4.5
23	14.4	9.6	11.9	7.2	2.8	4.9	2.8	.0	1.1	5.6	2.3	3.9
24	14.5	9.4	11.9	7.7	4.2	5.5	4.2	.2	2.1	4.7	1.5	3.2
25	14.5	9.3	11.8	5.4	1.9	3.8	4.7	1.0	2.7	3.8	1.6	2.7
26	14.7	8.7	11.7	8.5	3.1	5.7	5.3	1.9	3.4	4.4	1.2	2.7
27	12.4	9.2	10.8	9.7	5.2	7.3	5.2	1.3	3.2	4.1	1.3	2.6
28	12.9	7.9	10.3	9.0	4.9	6.8	5.4	1.6	3.4	3.9	1.8	2.7
29	10.9	8.0	9.8	6.3	5.8	6.0	4.9	2.0	3.4	3.6	.3	1.9
30	10.8	5.9	8.3	7.9	4.9	6.5	4.6	1.4	3.0	2.3	.0	.9
31	11.6	6.9	9.2	---	---	---	3.8	1.0	2.5	2.4	.0	.8
MONTH	---	---	---	12.2	1.9	7.9	8.0	.0	2.5	7.1	.0	3.0
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	4.0	.0	1.7	10.5	6.0	8.5	9.6	4.0	6.6	14.4	9.9	11.8
2	5.8	.5	3.1	8.9	5.6	7.2	11.0	6.6	8.6	18.1	11.6	14.8
3	8.0	3.3	5.4	10.6	4.2	7.3	10.5	7.1	8.8	20.4	14.4	17.4
4	7.6	4.0	5.5	12.0	6.0	9.1	12.9	6.7	9.9	23.2	16.5	19.7
5	7.5	1.9	4.7	12.3	7.6	9.6	15.5	10.6	13.1	25.4	17.7	21.4
6	8.6	3.2	5.8	11.7	5.4	8.6	16.2	11.5	13.9	23.6	17.6	20.7
7	9.0	3.4	6.1	12.0	8.4	10.1	14.7	11.4	13.0	20.6	16.5	18.6
8	9.5	2.4	5.9	10.4	6.9	8.7	13.8	9.0	11.6	18.1	13.7	15.7
9	8.5	5.2	6.7	11.2	5.7	8.3	16.1	10.5	13.3	18.9	12.1	15.4
10	7.3	2.8	5.0	9.3	6.2	7.7	14.9	12.1	13.6	20.0	14.5	17.3
11	4.3	1.9	2.6	11.3	4.7	7.9	13.5	11.2	12.3	19.9	15.1	17.5
12	5.9	1.7	3.4	11.7	6.0	8.8	15.2	9.7	12.4	19.0	13.6	16.1
13	6.7	2.1	4.1	---	---	---	16.6	11.6	14.2	18.1	12.9	15.4
14	9.3	1.9	5.6	---	---	---	16.5	13.2	14.9	18.5	13.0	15.9
15	11.1	4.4	7.6	11.6	6.8	10.4	14.5	10.0	11.5	20.5	14.7	17.7
16	10.1	3.9	7.0	11.0	5.3	7.8	14.9	7.7	11.0	19.2	16.2	17.7
17	7.1	4.4	5.8	11.3	6.2	8.7	15.5	9.4	12.3	16.5	12.8	14.7
18	9.5	3.0	5.9	9.3	7.1	8.3	18.9	11.4	14.6	14.2	10.1	12.2
19	8.6	1.7	5.0	10.4	5.1	7.9	15.2	10.6	12.9	18.6	11.6	15.1
20	6.2	1.9	4.0	9.8	7.5	8.7	17.9	9.2	13.3	18.4	14.8	16.8
21	10.7	2.2	6.2	7.5	4.9	5.6	17.7	11.7	14.7	20.4	14.4	17.4
22	11.2	5.3	8.0	5.3	4.4	4.8	19.4	12.5	15.6	22.3	16.3	19.4
23	13.5	6.2	9.4	11.1	5.1	7.7	14.5	11.8	13.1	23.5	17.9	21.1
24	11.6	6.8	9.1	14.7	8.9	11.5	19.6	11.3	15.0	21.4	19.7	20.2
25	9.9	4.0	6.7	16.1	10.1	13.0	17.6	12.8	15.2	20.4	17.4	18.9
26	10.6	2.3	6.0	15.6	11.2	13.3	19.0	12.1	15.4	19.9	16.6	18.3
27	11.5	2.8	7.0	16.6	10.0	13.2	20.5	14.3	17.2	20.2	16.0	18.1
28	10.7	3.9	7.1	13.5	11.1	12.4	19.9	13.5	16.8	21.3	15.9	18.7
29	11.4	6.1	8.6	15.2	9.7	12.1	20.1	14.7	17.0	23.4	17.5	20.5
30	---	---	---	11.8	6.9	9.5	16.2	10.8	12.6	23.2	18.6	21.0
31	---	---	---	6.9	4.3	5.5	---	---	---	20.8	17.9	19.4
MONTH	13.5	.0	5.8	---	---	---	20.5	4.0	13.1	25.4	9.9	17.6

## ARKANSAS RIVER BASIN

07119700 ARKANSAS RIVER AT CATLIN DAM NEAR FOWLER, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	19.7	16.4	18.0	28.6	20.3	24.2	27.3	21.7	24.5	25.1	19.5	22.4
2	19.7	16.1	17.9	29.4	21.9	25.0	28.5	21.3	24.7	---	18.9	---
3	20.7	16.0	18.1	---	21.9	---	27.8	22.1	24.6	---	---	---
4	20.6	15.9	18.2	---	---	---	29.0	21.8	25.2	---	---	---
5	21.4	16.2	18.8	28.5	20.5	24.6	29.6	22.0	25.2	28.0	---	---
6	21.6	17.0	19.3	27.5	21.9	24.7	28.6	21.8	24.5	28.2	17.1	21.8
7	22.5	17.0	19.8	28.6	21.6	24.7	28.1	20.3	24.0	25.1	18.2	21.5
8	23.6	18.3	20.8	28.9	21.0	24.6	27.9	21.0	24.5	23.2	16.9	20.2
9	23.5	17.9	20.7	29.0	21.8	25.4	28.2	22.2	25.0	26.7	17.1	21.4
10	23.1	17.9	20.6	28.4	22.7	25.4	28.9	21.3	24.8	26.8	17.0	21.7
11	22.8	18.8	20.6	28.5	22.3	24.9	29.2	22.2	25.2	25.0	16.8	20.5
12	24.0	18.4	21.1	26.2	22.0	24.0	27.5	22.3	24.6	24.2	16.6	20.1
13	24.2	18.5	21.1	28.3	21.9	24.9	29.2	21.9	25.2	26.0	16.1	20.6
14	23.8	17.2	20.4	30.3	22.6	26.2	28.8	23.0	25.7	24.4	16.5	20.4
15	24.4	17.9	20.9	29.2	23.2	26.4	28.1	23.2	25.5	25.9	16.3	20.7
16	22.5	17.6	19.7	26.4	22.9	24.4	27.4	21.7	24.4	26.2	16.3	20.9
17	19.1	15.2	17.3	26.2	21.0	23.7	26.0	21.4	23.4	25.4	16.5	20.6
18	22.7	15.8	19.1	26.9	21.6	24.2	23.6	20.8	22.0	23.8	16.5	19.8
19	24.4	18.2	21.2	26.1	21.0	23.8	25.9	19.8	22.8	24.9	14.5	19.1
20	24.6	18.9	21.7	26.2	21.8	24.0	27.8	22.3	24.9	21.0	13.1	16.2
21	24.7	18.3	21.5	25.6	20.9	23.4	25.8	21.6	23.8	23.0	10.9	16.4
22	26.3	19.9	22.8	26.4	21.1	23.7	25.6	20.9	23.3	20.3	14.6	16.8
23	24.6	19.7	22.1	28.5	21.2	24.7	27.0	20.8	23.9	14.6	9.9	12.0
24	26.3	18.9	22.4	27.4	22.2	24.6	27.5	22.0	24.7	13.6	8.8	10.9
25	25.8	20.7	22.8	28.2	21.5	24.7	28.1	21.9	24.9	18.0	7.9	12.4
26	22.7	19.1	20.8	28.3	22.6	25.2	25.8	21.4	23.6	19.2	10.3	14.2
27	22.4	18.1	20.1	---	21.6	---	26.1	20.4	23.2	20.7	11.9	15.9
28	22.0	19.0	20.5	27.8	21.4	24.2	27.2	21.9	24.5	20.9	12.5	16.5
29	24.3	18.7	21.3	27.6	20.8	24.1	26.6	21.5	24.0	19.3	14.1	16.8
30	25.4	19.1	22.4	27.3	21.7	24.6	24.7	22.3	23.5	21.5	13.9	17.7
31	---	---	---	27.6	21.7	24.7	24.6	19.9	22.1	---	---	---
MONTH	26.3	15.2	20.4	---	---	---	29.6	19.8	24.3	---	---	---



## 07123000 ARKANSAS RIVER AT LA JUNTA, CO

LOCATION.--Lat 37°59'26", long 103°31'55", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.2, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank at upstream side of bridge on State Highway 109 in La Junta, and 450 ft upstream from King Arroyo.

DRAINAGE AREA.--12,210 mi<sup>2</sup>, of which 115 mi<sup>2</sup> 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. Statistical summary computed for 1975 to current year.

REVISED RECORDS.--WSP 1341: Drainage area. WSP 1731: 1922.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 4,039.60 ft above 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 upstream at present datum.

REMARKS.-- Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 400,000 acres, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	88	79	46	27	34	57	49	58	191	50	193	52
2	93	73	37	42	28	77	47	50	132	51	87	58
3	81	94	34	31	26	67	58	44	703	55	51	58
4	113	158	34	30	289	57	50	42	937	44	46	48
5	92	82	33	27	478	60	62	35	616	36	49	59
6	92	76	34	28	488	71	62	42	693	38	56	66
7	77	73	31	28	494	65	45	44	480	35	82	34
8	65	73	29	41	385	67	63	50	246	36	124	65
9	66	71	26	30	194	64	68	68	120	44	236	84
10	65	65	23	29	173	57	68	e82	87	44	214	82
11	67	71	20	27	147	55	67	104	120	33	138	63
12	62	63	28	37	169	55	73	65	84	46	92	111
13	65	64	22	32	183	54	62	55	76	121	99	104
14	64	67	22	27	180	46	50	60	61	46	71	72
15	72	62	27	26	183	45	63	57	55	39	56	42
16	74	37	35	69	194	58	200	46	130	44	59	36
17	62	32	34	35	193	57	78	37	60	127	54	71
18	64	31	42	28	179	55	72	49	51	111	145	69
19	71	30	32	29	175	72	70	48	47	204	120	60
20	59	32	31	47	185	50	55	46	42	278	83	48
21	53	31	32	44	197	67	47	79	40	104	68	38
22	55	31	29	36	124	57	45	49	39	61	60	34
23	54	32	27	34	77	34	49	37	42	51	65	38
24	55	28	41	33	70	37	57	32	39	48	65	58
25	61	26	45	62	61	29	42	32	40	44	69	64
26	66	22	34	34	59	40	40	73	43	57	64	58
27	64	17	31	61	53	42	45	48	52	51	66	65
28	65	18	30	39	54	42	50	202	48	50	53	55
29	71	19	28	60	54	42	47	82	97	49	45	78
30	92	107	28	60	---	52	57	41	49	62	48	71
31	114	---	28	63	---	65	---	54	---	172	62	---
TOTAL	2242	1664	973	1196	5126	1696	1841	1811	5420	2221	2720	1841
MEAN	72.3	55.5	31.4	38.6	177	54.7	61.4	58.4	181	71.6	87.7	61.4
MAX	114	158	46	69	494	77	200	202	937	278	236	111
MIN	53	17	20	26	26	29	40	32	39	33	45	34
AC-FT	4450	3300	1930	2370	10170	3360	3650	3590	10750	4410	5400	3650

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2000, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	173	128	122	169	159	114	142	603	931	542	337	125														
MAX	1189	545	335	569	620	517	821	3375	4307	3634	1345	464														
(WY)	1985	1987	1987	1998	1985	1998	1998	1999	1995	1995	1984	1982														
MIN	8.82	4.21	13.5	9.50	6.37	19.6	6.67	21.9	103	71.6	66.2	9.59														
(WY)	1978	1979	1976	1976	1976	1978	1978	1981	1988	2000	1987	1977														

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1975 - 2000	
ANNUAL TOTAL	227489		28751			
ANNUAL MEAN	623		78.6			
HIGHEST ANNUAL MEAN					a296	
LOWEST ANNUAL MEAN					832	
HIGHEST DAILY MEAN	e19000		937 Jun 4		e,b19000 May 2 1999	
LOWEST DAILY MEAN	12		17 Nov 27		c2.5 Dec 8 1978	
ANNUAL SEVEN-DAY MINIMUM	13		23 Nov 23		3.0 Dec 4 1978	
INSTANTANEOUS PEAK FLOW			1600 Jun 4		d,e,f30000 May 2 1999	
INSTANTANEOUS PEAK STAGE			8.26 Jun 4		d,g15.55 May 2 1999	
ANNUAL RUNOFF (AC-FT)	451200		57030		214500	
10 PERCENT EXCEEDS	2080		134		623	
50 PERCENT EXCEEDS	81		56		103	
90 PERCENT EXCEEDS	28		31		23	

e Estimated.

a Average discharge for 61 years (water years 1913-73), 244 ft<sup>3</sup>/s; 176800 acre-ft/yr, prior to completion of Pueblo Dam.

b Maximum daily discharge for period of record, 61100 ft<sup>3</sup>/s, Jun 4, 1921.

c Minimum daily discharge for period of record, no flow, Jan 20-22 and Mar 20-22, 1915.

d Maximum discharge and stage for period of record, 200000 ft<sup>3</sup>/s, Jun 4, 1921, gage height, 18.40 ft, site

and datum then in use, from rating curve extended above 15000 ft<sup>3</sup>/s, on basis of slope-area measurement of peak flow.

f Peak discharge (estimated) includes an estimated 7600 ft<sup>3</sup>/s overflow that bypassed the main channel.

g Gage height reflects the discharge flowing in the main channel.

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO

LOCATION.--Lat 38°04'51", long 103°13'09", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.3, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020009, on right bank at upstream side of bridge on U.S. Highway 50, 1.1 mi north of courthouse in Las Animas, and 4.2 mi upstream from Purgatoire River.

DRAINAGE AREA.--14,417 mi<sup>2</sup>, of which 441 mi<sup>2</sup> are probably noncontributing.

WATER-DISCHARGE RECORDS

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. Statistical summary computed for 1975 to current year.

REVISED RECORDS.--WSP 1341: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 3,883.97 ft above 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 downstream at datum 9.00 ft lower.

REMARKS.--No estimated daily discharges. 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, and return flow from irrigated areas. Flow partly regulated by Pueblo Reservoir (station 07099350) since Jan. 9, 1974.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	140	132	105	124	147	95	79	60	47	168	62
2	135	127	113	103	110	153	86	75	112	45	169	52
3	138	123	109	111	105	173	90	73	189	47	107	51
4	140	142	108	103	101	163	100	70	757	46	82	54
5	148	166	105	104	346	155	97	64	481	44	80	51
6	145	131	104	101	457	150	101	61	532	42	72	53
7	145	126	105	97	500	156	95	59	565	40	65	63
8	138	124	103	98	513	153	82	58	256	41	74	51
9	126	123	101	105	385	149	81	61	168	43	109	57
10	124	119	100	102	308	141	83	66	95	41	198	69
11	122	116	99	98	277	130	86	77	71	40	162	67
12	121	115	98	98	254	127	84	86	61	39	116	54
13	112	109	100	100	289	123	89	68	53	40	85	82
14	110	100	99	100	306	112	80	66	53	52	85	87
15	112	98	94	97	305	84	74	61	55	46	78	64
16	123	96	99	98	297	82	110	62	54	47	67	50
17	132	82	107	122	292	83	164	63	61	64	62	46
18	128	74	106	112	293	78	92	59	53	143	59	59
19	132	68	110	104	292	77	77	58	53	97	103	65
20	133	66	105	101	299	85	70	57	51	265	103	58
21	124	65	102	111	317	77	66	61	53	268	92	54
22	121	65	103	112	312	83	65	72	49	153	87	47
23	123	82	101	105	229	79	64	67	52	97	75	46
24	122	103	100	102	189	69	62	62	54	79	65	52
25	120	101	107	102	182	67	61	60	51	77	62	66
26	122	100	110	117	174	64	62	59	48	89	63	74
27	123	99	104	105	165	62	61	63	49	94	67	71
28	121	96	103	120	154	62	59	64	49	85	71	72
29	115	95	103	110	152	61	57	123	52	81	62	70
30	113	96	102	119	---	62	64	70	59	79	57	82
31	122	---	102	121	---	74	---	55	---	84	55	---
TOTAL	3922	3147	3234	3283	7727	3281	2457	2079	4296	2455	2800	1829
MEAN	127	105	104	106	266	106	81.9	67.1	143	79.2	90.3	61.0
MAX	148	166	132	122	513	173	164	123	757	268	198	87
MIN	110	65	94	97	101	61	57	55	48	39	55	46
AC-FT	7780	6240	6410	6510	15330	6510	4870	4120	8520	4870	5550	3630

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2000, BY WATER YEAR (WY)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	164	151	143	191	200	125	134	612	917	503	317	114														
MAX	1092	810	398	641	761	422	877	4043	4263	3339	1343	373														
(WY)	1985	1998	1998	1998	1985	1998	1987	1999	1995	1995	1999	1984														
MIN	5.13	6.05	8.40	8.45	18.5	9.44	10.8	14.1	36.4	30.5	55.2	9.12														
(WY)	1978	1975	1978	1978	1978	1975	1978	1981	1988	1981	1987	1977														

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1975 - 2000

ANNUAL TOTAL	272380	40510																								
ANNUAL MEAN	746	111								a298																
HIGHEST ANNUAL MEAN										841		1995														
LOWEST ANNUAL MEAN										84.1		1976														
HIGHEST DAILY MEAN				22600	May 3		757	Jun 4		b22600		May 3 1999														
LOWEST DAILY MEAN				38	Apr 11		39	Jul 12		c3.0		Nov 30 1974														
ANNUAL SEVEN-DAY MINIMUM				39	Apr 16		41	Jul 7		4.1		Sep 26 1977														
INSTANTANEOUS PEAK FLOW							1130	Jun 4		d32900		May 2 1999														
INSTANTANEOUS PEAK STAGE							7.63	Jun 4		f14.02		May 2 1999														
ANNUAL RUNOFF (AC-FT)				540300			80350			215800																
10 PERCENT EXCEEDS				2200			165			585																
50 PERCENT EXCEEDS				131			96			118																
90 PERCENT EXCEEDS				66			53			16																

- a Average discharge for 34 years (water years 1940-73), 203 ft<sup>3</sup>/s; 147100 acre-ft/yr, prior to completion of Pueblo Dam.
- b Maximum daily discharge for period of record, 25800 ft<sup>3</sup>/s, May 20, 1955.
- c Minimum daily discharge for period of record, 0.9 ft<sup>3</sup>/s, Jul 31, Aug 1 and 3, 1964.
- d From rating curve extended above 21,600 ft<sup>3</sup>/s, maximum discharge and stage for period of record, 44000 ft<sup>3</sup>/s, May 20, 1955, gage height, 15.03 ft, site and datum then in use, from current-meter measurement and slope-area measurement of over-flow channel.
- f From floodmark.

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO--Continued

## WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1985 to current year.

WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for daily specific conductance are poor. Records for daily water temperature are poor. Daily data that are not published are either missing or of unacceptable quality. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 7,950 microsiemens, Jan. 22, 1986; minimum, 310 microsiemens, July 21, 1990.

WATER TEMPERATURE: Maximum, 34.7°C, July 21, 1998; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 4,640 microsiemens, Mar. 15; minimum, 1,130 microsiemens, June 4.

WATER TEMPERATURE: Maximum, 34.1°C, July 15; minimum, 0.2°C, several days.

## SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3130	2620	2850	3000	2690	2820	3400	2510	2880	3350	3240	3300
2	2880	2610	2780	3000	2910	2970	3250	2850	3090	3290	3260	3270
3	2820	2640	2740	3050	2960	3010	3270	3130	3210	3280	2930	3120
4	3020	2660	2800	3050	2530	2800	3240	3180	3210	3160	2920	3050
5	2910	2680	2800	2780	2340	2490	3290	3170	3210	3190	3020	3120
6	2980	2860	2940	3000	2780	2900	3260	3180	3220	3250	3140	3200
7	3010	2860	2930	3050	2930	3000	3300	3190	3240	3210	3060	3140
8	3150	3000	3060	3070	2990	3040	3300	3220	3260	3140	3070	3100
9	3270	3150	3220	3070	3010	3040	3320	3240	3280	3180	2840	3040
10	3310	3230	3260	3120	3050	3080	3350	3270	3310	3160	2840	3010
11	3340	3230	3280	3170	3080	3120	3390	3300	3360	3220	3160	3190
12	3310	3130	3210	3220	3020	3120	3390	3310	3340	3240	3160	3210
13	3440	3300	3360	3250	3180	3210	3490	3210	3340	3240	2960	3160
14	3440	3400	3420	3320	3220	3260	3440	3300	3370	3070	2950	3010
15	3490	3410	3450	3440	3300	3350	3640	3120	3390	3160	3070	3120
16	3410	2970	3260	3540	3230	3350	3370	3190	3310	3180	3120	3160
17	3200	2820	3040	3790	3530	3650	3400	3110	3300	3170	2350	2860
18	3240	3160	3190	3920	3770	3860	3200	3110	3160	3070	2440	2820
19	3190	3060	3140	4030	3890	3970	3300	3050	3190	3190	3070	3140
20	3120	3060	3090	4060	3970	4010	3160	3060	3110	3220	3160	3190
21	3280	3110	3220	4100	3990	4020	3210	3060	3130	3180	2840	3030
22	3240	3180	3210	4100	3980	4070	3170	3040	3090	3040	2860	2940
23	3180	3100	3150	4270	3200	3720	3180	3000	3090	3080	2860	3000
24	3140	3060	3090	3320	3210	3280	3110	2990	3050	3060	2940	3020
25	3160	3070	3120	3330	3280	3310	3060	2790	2940	3060	2940	3020
26	3110	2990	3050	3370	3300	3340	2840	2770	2800	3020	2580	2740
27	3090	2990	3050	3440	3340	3380	3010	2810	2950	2960	2750	2890
28	3120	3040	3080	3450	3380	3420	3140	3010	3090	2980	2430	2750
29	3230	3120	3190	3380	3350	3370	3220	3110	3160	3020	2500	2840
30	3230	3200	3220	3380	3340	3370	3230	3180	3210	3140	2420	2770
31	3250	2870	3110	---	---	---	3280	3200	3250	2980	2610	2750
MONTH	3490	2610	3110	4270	2340	3310	3640	2510	3180	3350	2350	3030



ARKANSAS RIVER BASIN

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3040	2580	2770	3220	3100	3160	3920	3400	3600	4220	3860	4100
2	3060	2650	2940	3420	2920	3210	4290	3920	4030	3860	3560	3730
3	3220	3060	3160	3120	2920	2990	4050	3640	3920	3890	3480	3670
4	3210	3140	3180	3210	2980	3070	3640	3140	3290	3830	3480	3610
5	3180	1470	1860	3220	3080	3160	3270	3170	3240	3900	3420	3620
6	---	---	---	3240	3070	3140	3170	3040	3110	4120	3880	4000
7	---	---	---	3140	2960	3040	3250	3030	3100	3960	3580	3780
8	1840	1790	1810	3260	3020	3150	3560	3250	3430	3960	3350	3800
9	2190	1830	2020	3270	3110	3170	3600	3230	3440	4340	3770	4050
10	2310	2190	2260	3270	3130	3170	3440	3250	3330	3900	3310	3640
11	2350	2300	2320	3460	3270	3390	3450	3240	3320	3640	2770	3300
12	2490	2350	2430	3470	3360	3410	3480	3220	3360	3080	2640	2840
13	2410	2150	2260	3460	3420	3440	3310	3040	3130	3380	3040	3200
14	2210	2060	2120	4360	3400	3600	3540	3180	3330	3640	3320	3420
15	2220	2150	2190	4640	4360	4520	3640	3330	3480	3560	3350	3450
16	2220	2140	2180	4590	4370	4490	3420	1650	2840	3480	3190	3300
17	2230	2200	2220	4420	4200	4310	2600	1520	1920	3560	3290	3410
18	2220	2160	2190	4520	4240	4350	3460	2600	3060	3930	3500	3650
19	2220	2190	2210	4520	3700	4310	3770	3460	3630	3840	3600	3730
20	2270	2190	2230	4060	3300	3660	3820	3730	3780	3680	3380	3540
21	2220	2160	2190	4150	3790	3960	3810	3520	3690	3770	3240	3420
22	2260	2200	2230	4160	3380	3880	3750	3050	3510	3440	2780	2990
23	2650	2230	2470	4380	3430	3980	---	---	---	3420	3080	3200
24	2760	2610	2690	4600	4380	4500	---	---	---	3460	3210	3300
25	2790	2720	2760	4480	4240	4360	---	---	---	3720	3460	3610
26	2840	2770	2790	4240	4080	4160	3970	3660	3860	3750	3560	3640
27	2820	2750	2790	4220	4120	4180	4060	3720	3910	3710	2950	3310
28	3430	2750	2900	4480	4200	4320	4100	3750	3940	3580	3000	3250
29	3140	3050	3090	4610	4350	4450	4130	3840	3990	3090	1570	2200
30	---	---	---	4520	4360	4430	4210	3550	3820	3600	2750	3260
31	---	---	---	4280	3750	4070	---	---	---	3780	3370	3620
MONTH	---	---	---	4640	2920	3780	---	---	---	4340	1570	3470
DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	3740	2410	3390	3320	3100	3200	2600	1750	2090	2990	2540	2760
2	2600	1830	2180	3300	3200	3250	2120	1760	1930	3100	2990	3040
3	2720	1300	2250	3390	3120	3240	2560	2120	2320	3040	2930	3000
4	1320	1130	1250	3240	3110	3190	2720	2560	2680	2990	2780	2900
5	1380	1140	1250	3200	3040	3120	2760	2610	2710	3100	2780	2950
6	1400	1180	1310	3150	2990	3080	2870	2680	2790	3180	2550	2940
7	1380	1210	1300	3270	2990	3120	2930	2820	2870	2910	2490	2640
8	---	---	---	3040	2850	2950	2840	2350	2670	3100	2820	2970
9	---	---	---	3020	2720	2900	---	---	---	3080	2610	2930
10	---	---	---	3100	2740	2910	2180	1650	1850	2610	2480	2550
11	---	---	---	3220	2860	3050	---	---	---	2650	2430	2540
12	---	---	---	---	---	---	---	---	---	2940	2650	2800
13	3690	3510	3570	---	---	---	---	---	---	2910	2050	2320
14	3770	3600	3690	---	---	---	---	---	---	2190	2060	2110
15	---	---	---	---	---	---	---	---	---	2610	2190	2400
16	---	---	---	---	---	---	2850	2700	2780	2880	2610	2760
17	---	---	---	---	---	---	2870	2720	2800	2950	2840	2890
18	3570	3040	3410	---	---	---	3020	2370	2890	2890	2500	2690
19	3450	3040	3310	2540	1640	2160	2380	1940	2120	2700	2500	2610
20	3450	3040	3190	---	---	---	2670	2000	2260	2840	2690	2780
21	3550	3240	3380	1880	1510	1620	2570	2250	2460	3030	2800	2910
22	3600	3480	3540	2700	1880	2220	2670	2510	2590	3170	3000	3090
23	3570	3330	3460	3190	2700	2940	2740	2550	2620	3170	3090	3150
24	3520	3200	3430	---	---	---	2880	2740	2830	3150	2900	3070
25	3250	3070	3170	---	---	---	2920	2830	2890	2900	2730	2810
26	3580	3160	3360	2950	2680	2810	2850	2660	2760	2730	2630	2690
27	3290	3140	3190	2830	2610	2740	2730	2530	2680	2890	2620	2750
28	3360	3170	3260	2920	2790	2860	2570	2440	2500	2780	2670	2710
29	3300	2970	3160	2940	2750	2860	2930	2570	2780	2750	2680	2720
30	3220	2550	2880	2780	2610	2710	3070	2930	3000	2750	2340	2550
31	---	---	---	2650	2520	2580	3200	2840	3080	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	3180	2050	2770

## ARKANSAS RIVER BASIN

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	18.3	9.8	13.6	11.2	6.0	8.1	8.0	5.9	6.9	8.5	3.1	5.2
2	16.2	11.1	13.3	11.5	4.3	7.6	9.0	4.5	6.4	7.6	2.8	5.0
3	13.9	10.3	11.7	12.7	4.3	8.1	6.8	3.5	5.0	4.4	.5	2.6
4	17.5	9.5	12.9	12.0	4.8	8.3	5.0	2.2	3.9	4.2	---	---
5	18.4	10.9	14.2	12.0	5.9	8.6	4.5	.2	1.9	5.3	.5	2.7
6	18.2	10.5	13.9	12.6	5.0	8.4	4.5	.5	2.2	7.1	2.6	4.2
7	16.3	9.5	12.4	12.9	5.1	8.7	5.0	.2	2.5	5.4	.7	2.5
8	18.2	11.7	14.5	13.7	6.4	9.7	4.2	1.2	2.9	6.2	.7	2.9
9	19.9	10.4	14.7	13.4	7.3	10.0	5.3	.3	2.8	6.1	1.2	3.2
10	19.8	11.2	15.1	13.2	5.9	9.3	5.9	1.1	3.2	7.1	1.0	3.6
11	21.1	11.6	15.8	13.2	5.9	9.2	6.2	2.3	3.9	6.6	.7	3.5
12	21.3	11.5	15.9	12.8	5.7	9.0	5.7	.2	2.6	8.7	2.1	5.0
13	19.8	11.6	15.2	13.0	5.4	8.9	3.5	.2	1.9	7.2	1.8	4.4
14	20.4	11.0	15.2	13.0	5.4	8.9	2.8	.3	1.5	4.9	1.2	3.1
15	17.2	10.7	13.9	12.7	5.3	8.8	3.9	---	---	6.7	1.5	3.7
16	13.0	8.4	10.1	12.6	5.0	8.5	5.7	.3	2.5	6.2	1.9	3.8
17	13.7	6.7	9.6	13.0	4.9	8.7	6.4	2.1	3.8	6.3	1.7	4.1
18	12.7	6.3	9.5	13.5	7.1	9.5	6.1	.8	3.4	9.0	3.2	5.9
19	14.8	8.1	10.9	11.2	4.1	7.4	5.8	2.3	3.8	9.7	3.7	6.3
20	15.6	6.8	10.7	11.5	4.0	7.2	4.0	.4	2.1	8.1	2.7	5.2
21	16.6	7.5	11.5	10.9	4.2	7.3	3.5	.4	1.6	6.6	2.2	4.4
22	16.5	7.7	11.6	7.8	3.9	6.3	3.8	.5	1.8	6.9	2.0	4.4
23	16.2	8.1	11.6	8.0	3.0	5.1	5.6	.5	2.5	7.6	1.8	4.4
24	16.2	7.5	11.3	8.7	3.9	5.6	6.9	.7	3.5	7.3	.9	3.8
25	16.2	7.7	11.5	6.8	1.7	4.3	6.8	1.1	3.8	4.6	1.8	2.9
26	15.9	7.3	11.2	9.7	3.1	6.1	7.0	1.6	4.1	5.9	.9	3.0
27	13.2	7.9	10.3	10.8	5.1	7.6	7.3	1.1	4.1	4.3	.3	2.3
28	14.1	7.0	10.2	9.3	5.9	7.1	8.3	1.8	4.7	4.0	.3	2.2
29	11.3	7.5	9.4	7.6	5.6	6.3	6.9	1.9	4.2	5.1	.3	2.1
30	13.0	5.2	8.7	10.8	5.7	7.8	7.1	.9	3.8	4.0	.2	1.6
31	13.2	5.2	8.9	---	---	---	6.3	.7	3.6	4.6	.2	1.8
MONTH	21.3	5.2	12.2	13.7	1.7	7.9	9.0	---	---	9.7	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	5.2	.3	2.2	13.5	6.4	9.5	12.9	4.1	7.7	17.4	10.0	12.9
2	8.3	.2	3.9	9.6	5.3	7.0	15.2	3.8	8.5	24.6	9.0	16.1
3	9.7	2.9	6.0	12.9	4.8	8.3	14.9	4.8	8.9	26.6	12.1	18.7
4	8.9	3.2	5.8	15.1	6.1	10.3	18.9	4.7	11.0	28.4	13.6	20.4
5	6.8	2.9	4.6	14.8	7.1	10.2	20.6	8.5	14.0	29.2	15.5	21.5
6	7.2	3.8	5.4	14.8	5.8	10.0	21.0	9.9	14.7	28.9	16.1	21.8
7	7.7	4.2	5.8	14.0	9.6	11.4	15.2	8.9	12.1	26.0	15.8	20.0
8	8.5	3.6	6.0	14.0	8.1	10.7	19.6	5.7	11.9	20.0	13.5	16.2
9	8.7	5.8	7.1	13.9	6.0	9.5	22.3	8.0	14.3	26.4	11.3	17.9
10	8.3	4.4	6.3	8.2	5.2	6.9	18.7	10.0	13.9	27.2	12.8	19.6
11	5.6	2.5	3.4	13.1	3.1	7.6	18.2	10.0	13.4	26.6	13.6	19.4
12	4.7	2.2	3.2	13.4	5.2	8.8	21.1	8.4	14.5	23.3	11.6	16.6
13	6.5	2.3	4.0	14.9	5.5	9.7	22.9	10.0	15.8	22.7	10.3	15.7
14	7.6	2.2	5.0	15.2	6.1	10.0	22.2	10.9	16.1	24.2	11.1	17.2
15	10.6	4.7	7.4	14.5	4.8	9.4	14.7	8.5	10.8	25.9	12.8	18.8
16	9.5	5.8	7.5	14.8	3.2	8.0	19.7	5.6	12.0	23.0	14.5	18.4
17	8.6	5.7	7.0	15.7	3.1	8.7	18.3	9.9	13.5	17.4	10.2	13.9
18	9.5	4.7	6.7	11.2	5.5	8.4	22.6	9.5	15.0	16.0	7.7	11.1
19	8.7	3.7	6.0	16.6	3.0	9.2	20.2	8.5	12.9	24.7	8.3	15.5
20	6.5	3.2	5.0	11.8	6.1	8.3	22.5	6.8	13.8	23.5	12.2	17.7
21	9.3	3.3	6.2	7.0	5.4	6.2	22.7	8.8	15.4	29.3	12.9	20.4
22	10.3	5.6	7.7	7.3	5.4	6.3	22.9	10.8	16.1	29.4	14.9	21.8
23	12.9	6.7	9.4	16.4	6.3	10.2	20.4	12.4	15.2	30.2	16.5	22.8
24	11.2	6.9	9.1	18.4	7.1	12.0	25.2	10.5	16.5	23.6	16.4	20.0
25	10.0	4.7	7.5	20.6	8.9	13.6	22.1	9.4	15.4	21.3	14.4	17.8
26	11.5	4.7	7.7	20.1	9.1	13.8	22.6	10.5	16.1	28.0	14.6	19.9
27	11.6	4.4	7.8	21.4	7.3	13.6	25.4	11.3	17.5	28.7	14.3	20.8
28	11.3	5.4	8.3	16.3	7.7	11.5	24.1	10.7	16.7	30.3	14.3	21.5
29	13.2	6.3	9.2	19.3	7.5	11.9	25.5	12.2	17.9	29.4	17.9	22.8
30	---	---	---	9.6	7.0	7.9	15.2	11.1	12.2	27.7	16.0	21.1
31	---	---	---	6.7	4.6	5.8	---	---	---	26.6	16.2	19.4
MONTH	13.2	.2	6.2	21.4	3.0	9.5	25.5	3.8	13.8	30.3	7.7	18.6

ARKANSAS RIVER BASIN

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	JUNE			JULY			AUGUST			SEPTEMBER		
				MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	24.5	15.4	18.8	32.1	17.5	24.1	29.0	18.8	23.9	30.6	19.0	23.2			
2	25.7	15.8	20.0	32.3	18.4	24.1	30.6	20.7	25.1	28.5	17.0	21.9			
3	27.5	16.1	21.6	31.6	18.2	23.9	29.9	20.7	24.5	27.8	17.8	22.3			
4	23.8	20.2	21.9	31.7	18.1	23.9	32.1	20.3	25.5	30.9	16.6	22.7			
5	24.5	18.9	21.2	32.7	17.2	24.0	31.8	20.0	25.0	30.3	17.8	23.1			
6	25.4	20.4	22.6	32.7	18.5	24.0	32.2	19.7	24.5	30.4	16.1	22.5			
7	26.2	19.6	22.7	31.1	17.0	23.1	32.5	18.5	24.6	27.7	17.7	21.8			
8	---	---	---	32.6	17.0	23.8	31.2	19.0	24.5	28.6	16.3	21.0			
9	---	---	---	33.5	18.0	25.2	29.3	21.0	24.3	29.2	16.9	21.8			
10	---	---	---	34.0	19.8	25.3	29.9	20.8	24.8	29.1	17.2	22.6			
11	---	---	---	32.5	19.0	24.9	29.9	21.0	25.0	29.0	17.6	22.1			
12	---	---	---	29.2	19.3	22.9	30.2	22.6	25.7	26.6	16.2	20.6			
13	27.4	---	---	---	18.4	---	31.9	21.4	26.1	27.7	15.6	20.9			
14	28.8	13.2	20.0	31.4	---	---	33.4	21.4	26.5	25.4	16.9	20.7			
15	29.4	14.7	21.0	34.1	19.4	25.7	32.4	21.5	25.7	28.2	15.7	20.8			
16	25.8	15.2	19.4	29.4	19.5	23.8	28.9	19.0	22.9	27.3	15.7	20.7			
17	21.0	14.2	16.5	29.3	19.3	22.4	29.2	18.6	22.9	26.8	15.8	20.7			
18	28.8	13.2	20.0	30.3	18.6	23.9	24.3	18.1	20.9	25.7	16.2	20.2			
19	28.8	16.5	21.7	31.2	19.2	24.6	30.3	18.5	23.6	25.9	15.6	19.9			
20	28.5	15.8	21.1	29.1	21.1	24.6	30.9	19.6	24.4	22.4	14.3	17.3			
21	29.1	13.9	20.9	29.1	21.5	24.6	29.3	19.5	23.2	24.6	12.5	17.5			
22	30.3	17.0	22.0	29.6	19.2	23.6	29.3	19.2	23.4	23.1	14.0	17.4			
23	29.2	16.8	21.5	31.6	18.4	24.3	30.7	18.0	23.6	14.0	10.7	12.3			
24	30.3	16.6	22.4	29.7	18.1	22.6	31.7	18.2	24.1	17.1	9.8	12.3			
25	32.0	17.2	23.0	31.2	17.9	23.9	31.9	18.6	24.3	21.5	8.3	14.0			
26	27.6	16.5	21.0	31.2	19.1	24.4	31.3	18.8	23.7	21.7	10.5	15.4			
27	23.5	16.3	19.4	31.9	19.5	24.9	31.0	19.0	24.2	23.5	10.9	16.4			
28	26.2	16.9	20.4	30.2	19.5	24.4	31.0	19.7	24.7	24.0	11.5	17.1			
29	30.9	16.0	22.3	30.8	19.0	24.5	29.6	18.6	23.6	21.5	13.6	17.4			
30	30.1	17.3	23.0	29.7	18.9	23.7	28.5	18.9	23.0	24.6	13.6	18.5			
31	---	---	---	31.3	18.2	24.1	30.0	17.4	22.6	---	---	---			
MONTH	---	---	---	---	---	---	33.4	17.4	24.2	30.9	8.3	19.5			

ARKANSAS RIVER BASIN

07124200 PURGATOIRE RIVER AT MADRID, CO

LOCATION (REVISED).--Lat 37°07'46", long 104°38'22", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.35, T.33 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 70 ft downstream from county road bridge, 0.3 mi northeast of Madrid, 1.0 mi downstream from Burro Canyon, and 9 mi west of Trinidad.

DRAINAGE AREA.--505 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1972 to current year. Water-quality data available, October 1978 to September 1981.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gage. Datum of gage is 6,261.61 ft above sea level (U.S. Army, Corps of Engineers bench mark).

REMARKS.--Records good except those above 400 ft<sup>3</sup>/s and estimated daily discharges, which are poor. Diversions for irrigation of about 6,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	51	42	29	e26	e26	21	51	111	103	43	23	23
2	50	39	29	e25	e27	24	49	93	122	36	21	20
3	49	39	e29	e24	e27	23	66	90	133	38	21	19
4	49	39	e29	e23	e26	22	64	95	115	40	23	18
5	47	38	e28	e22	e26	23	140	114	102	35	24	18
6	45	38	e28	e21	26	22	144	133	99	35	27	17
7	45	36	e27	e21	24	29	116	127	95	40	26	16
8	47	36	e27	e21	23	28	95	129	87	41	24	20
9	45	36	e27	e22	28	24	86	147	85	35	19	18
10	44	34	e26	e23	24	23	83	122	76	35	18	20
11	43	34	e26	e26	23	22	92	124	75	37	19	16
12	41	33	e26	e28	22	22	83	132	68	36	28	16
13	38	32	e25	e29	23	22	81	123	60	30	32	14
14	37	32	e26	e30	23	22	81	114	53	45	25	13
15	39	32	e27	e31	23	22	84	103	49	43	29	13
16	40	32	e28	e31	21	27	80	89	42	52	32	13
17	47	32	e28	e31	23	26	73	86	46	52	28	13
18	46	31	e28	e30	22	29	70	83	58	44	44	14
19	58	28	e27	30	22	23	72	89	60	40	38	13
20	55	32	e26	28	25	30	70	94	55	38	32	13
21	53	31	e26	28	27	28	67	79	50	31	30	15
22	52	32	e25	28	23	30	68	63	45	28	37	14
23	48	32	e26	26	23	36	69	58	46	32	37	16
24	45	31	e26	e24	23	44	70	73	55	28	35	16
25	42	27	e28	e22	21	48	69	98	53	26	31	16
26	40	40	e30	e22	19	44	70	105	52	26	38	15
27	40	35	e31	e22	23	40	74	92	74	29	32	15
28	39	32	e31	e23	25	41	86	82	88	43	29	14
29	41	31	e30	e23	23	44	97	90	103	36	27	13
30	43	30	e29	e24	---	47	119	92	59	32	28	13
31	43	---	e27	e25	---	57	---	98	---	26	24	---
TOTAL	1402	1016	855	789	691	943	2469	3128	2208	1132	881	474
MEAN	45.2	33.9	27.6	25.5	23.8	30.4	82.3	101	73.6	36.5	28.4	15.8
MAX	58	42	31	31	28	57	144	147	133	52	44	23
MIN	37	27	25	21	19	21	49	58	42	26	18	13
AC-FT	2780	2020	1700	1560	1370	1870	4900	6200	4380	2250	1750	940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1972 - 2000, BY WATER YEAR (WY)

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	31.0	25.5	21.5	19.1	19.7	21.0	48.0	148	202	129	115	55.8																		
MAX	78.5	39.2	40.3	36.6	37.2	55.9	204	547	589	313	342	232																		
(WY)	1983	1999	1984	1984	1983	1987	1987	1999	1983	1983	1981	1981																		
MIN	9.89	12.7	8.47	7.60	5.80	9.72	12.4	26.6	34.8	18.6	18.9	11.0																		
(WY)	1973	1977	1977	1973	1977	1979	1981	1981	1972	1972	1972	1978																		

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1972 - 2000
ANNUAL TOTAL	47934	15988	
ANNUAL MEAN	131	43.7	71.5
HIGHEST ANNUAL MEAN			145
LOWEST ANNUAL MEAN			21.6
HIGHEST DAILY MEAN	1260	May 3	1640
LOWEST DAILY MEAN	14	Feb 23	3.0
ANNUAL SEVEN-DAY MINIMUM	15	Mar 5	3.0
INSTANTANEOUS PEAK FLOW		707	Jun 29
INSTANTANEOUS PEAK STAGE		4.64	Jun 29
ANNUAL RUNOFF (AC-FT)	95080	31710	51820
10 PERCENT EXCEEDS	368	90	180
50 PERCENT EXCEEDS	40	32	30
90 PERCENT EXCEEDS	17	21	13

e Estimated.

a From rating curve extended above 300 ft<sup>3</sup>/s, on basis of timed-drift measurement, and slope-area measurements of peak flow.

b From floodmarks.

07124400 TRINIDAD LAKE NEAR TRINIDAD, CO

LOCATION (REVISED).--Lat 37°08'28", long 104°33'05", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, in valve house near center of dam on Purgatoire River, and 3.2 mi southwest of courthouse in Trinidad.

DRAINAGE AREA.--672 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1977 to current year.

REVISED RECORDS.--WDR CO-78-1: 1977(M). WDR CO-83-1: 1981-82 (contents). WDR CO-89-1: 1988 (contents).

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 6,073.64 ft above sea level, (levels by U.S. Army, Corps of Engineers).

REMARKS.--Records good. Reservoir is formed by a rock and earthfill dam completed in 1977. Storage began Aug. 19, 1977. Reservoir area-capacity tables were revised beginning Nov. 1, 1999 after a resurvey by the Corp of Engineers. Total capacity, 180,000 acre-ft, at elevation 6,284 ft top of parapet. Elevation of high crest of spillway, 6,258 ft, with capacity of 119,100 acre-ft. Elevation of notch crest in spillway is 6,243 ft, capacity, 91,340 acre-ft. Permanent pool is 4,112 acre-ft at elevation 6,144.75 ft. Elevation of outlet invert is 6,095 ft. Reservoir is used for flood control, storage for irrigation, and to help control sedimentation. Figures given are total contents.

COOPERATION.--Capacity tables provided by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 72,700 acre-ft, Aug. 7, 12, 1999 elevation, 6,230.29 ft; no contents prior to Aug. 19, 1977.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 71,000 acre-ft, maximum elevation, 6,229.97 ft, Mar. 31; minimum contents, 29,100 acre-ft; minimum elevation, 6,192.32 ft., Sept. 30.

Capacity table (elevation, in feet, and contents, in acre-feet, effective Nov. 1, 1999)

6,150.0	5,656	6,180.0	19,900	6,210.0	45,760
6,155.0	7,324	6,185.0	23,430	6,215.0	51,470
6,160.0	9,224	6,190.0	27,240	6,220.0	57,580
6,165.0	11,450	6,195.0	31,390	6,225.0	64,110
6,170.0	13,910	6,200.0	35,800	6,230.0	71,020
6,175.0	16,700	6,205.0	40,610	6,235.0	78,420

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	63100	62600	64500	66200	67700	68900	70900	70400	64500	e54200	44900	34700
2	63100	62700	64600	66300	67700	69000	70800	70300	64400	53900	44600	34400
3	63000	62800	64700	66300	67800	69100	70800	70100	64200	53600	44200	34100
4	62900	62900	64700	66300	67800	69100	70800	70100	64000	53200	43900	33800
5	62800	63000	64800	66400	67900	69200	70900	70100	63900	52900	43500	33500
6	62700	63000	64800	66500	67900	69200	70900	70200	63700	52500	43200	33300
7	62600	63100	64900	66500	68000	69300	70700	70200	63500	52300	42800	33100
8	62500	63100	64900	66500	68000	69300	70600	70300	63100	52100	42500	32800
9	62500	63200	65000	66600	68100	69300	70600	70200	62800	51800	42100	32600
10	62400	63300	65000	66600	68100	69400	70600	69900	62500	51600	41700	32400
11	62300	63300	65100	66700	68200	69400	70800	69700	62200	51400	41400	32200
12	62200	63400	65100	66700	68200	69500	70700	69500	61900	51200	41000	32000
13	62100	63500	65200	66800	68300	69500	70600	69300	61600	50900	40700	31800
14	61900	63500	65300	66800	68300	69500	70500	69100	61200	50600	40300	31600
15	61900	63600	65300	66900	68300	69700	70400	68800	60700	50300	40000	31400
16	61900	63600	65300	67000	68400	69700	70400	68600	60200	50100	39700	31300
17	61900	63700	65400	67000	68400	69800	70400	68300	59700	49900	39400	31100
18	61900	63700	65500	67100	68500	69800	70400	68000	59400	49600	39100	31000
19	62000	63800	65500	67100	68500	69900	70400	67800	59000	49300	38800	30900
20	62000	63800	65600	67200	68600	70000	70400	67600	58500	49000	38500	30700
21	62100	63900	65600	67200	68600	70000	70400	67300	58000	48700	38200	30600
22	62100	63900	65700	67300	68700	70100	70400	67000	57600	48300	37900	30400
23	62200	64000	65700	67300	68700	70200	70400	66700	57100	48000	37600	30200
24	62200	64100	65800	67300	68700	70300	70400	66400	56600	47600	37200	30000
25	62300	64100	65800	67400	68800	70400	70400	66200	56100	47300	36900	29800
26	62300	64200	65900	67500	68800	70500	70300	66000	55700	46900	36500	29600
27	62400	64300	66000	67500	68800	70600	70300	65700	55300	46600	36200	29500
28	62400	64300	66000	e67500	68900	70700	70300	65500	55000	46300	35900	29400
29	62500	64400	66100	e67600	68900	70700	70300	65200	54800	46000	35600	29300
30	62500	64400	66100	e67600	---	70900	70500	64900	54600	45600	35300	29100
31	62600	---	66200	67600	---	71000	---	64700	---	45300	35000	---
MAX	63100	64400	66200	67600	68900	71000	70900	70400	64500	54200	44900	34700
MIN	61900	62600	64500	66200	67700	68900	70300	64700	54600	45300	35000	29100

CAL YR 1999 MAX 72700 MIN 19600  
WTR YR 2000 MAX 71000 MIN 29100

e Estimated.

## 07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO

LOCATION (REVISED).--Lat 37°08'38", long 104°32'50", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.27, T.33 S., R.64 W., Las Animas County, Hydrologic Unit 11020010, on left bank of flip bucket outlet, 500 ft downstream from base of dam, 0.8 mi upstream from Santa Fe Railroad bridge, and 3.0 mi southwest of courthouse in Trinidad.

DRAINAGE AREA.--672 mi<sup>2</sup>.

PERIOD OF RECORD.--December 1976 to current year. Water-quality data available, March 1977 to September 1984.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Datum of gage is 6,073.64 ft above sea level, (levels by U.S. Army, Corps of Engineers). Auxillary gage is water-stage recorder in shelter about 1,000 ft downstream.

REMARKS.--No estimated daily discharges. Records good except for those below 0.5 ft<sup>3</sup>/s, which are fair. Natural flow of stream affected by diversions upstream from station for irrigation of about 6,000 acres. Flow since Aug. 19, 1977, completely regulated by Trinidad Lake (station 07124400) immediately upstream. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	70	.51	.38	2.2	2.2	.33	103	139	208	206	188	160
2	69	.47	.38	2.4	2.0	.33	103	173	206	206	190	164
3	69	.44	.38	2.1	1.8	.33	86	174	206	206	192	165
4	69	.44	.38	2.1	1.3	.33	85	118	206	207	192	165
5	69	.44	.38	1.8	.51	.33	159	87	206	208	190	119
6	70	.44	.38	1.7	.51	.33	233	87	206	181	190	108
7	70	.44	.38	1.7	.51	.33	250	87	206	159	190	127
8	70	.44	.38	1.7	.51	.33	198	124	240	145	190	138
9	70	.44	.38	1.7	.47	.33	102	201	258	146	188	113
10	52	.44	.38	1.7	.44	.33	68	241	235	167	188	102
11	43	.40	.38	1.7	.44	.33	65	225	207	151	188	97
12	57	.38	.36	1.7	.44	.33	110	215	206	153	187	94
13	77	.38	.33	1.7	.44	.33	145	215	206	162	186	96
14	83	.38	.33	1.7	.44	.31	145	215	242	185	185	95
15	54	.38	.33	1.7	.44	.28	145	214	275	192	185	94
16	25	15	.33	1.6	.44	.27	93	188	282	192	185	94
17	25	7.9	.33	1.6	.44	.27	68	211	268	190	180	93
18	25	.58	.31	1.6	.44	.27	68	209	259	189	171	61
19	24	.58	.27	1.5	.44	.27	66	209	259	189	166	15
20	23	.52	.27	1.5	.39	.58	67	209	260	189	165	91
21	23	.51	.27	1.5	.37	.66	73	209	277	187	165	92
22	7.8	.51	.27	1.4	.38	.63	78	209	284	187	168	92
23	.78	.51	.27	1.4	.37	.98	78	209	284	187	187	91
24	.73	.51	.27	1.4	.35	1.1	78	209	284	189	192	91
25	.68	.51	.27	1.4	.33	.99	78	209	284	190	191	91
26	.68	.51	.27	3.0	.33	.94	78	209	284	190	191	90
27	.58	.51	.27	4.5	.33	.95	82	209	284	189	190	72
28	.51	.51	.27	4.0	.33	.93	90	209	232	189	179	66
29	.51	.45	1.3	3.8	.33	.16	94	209	205	187	160	69
30	.54	.38	1.7	3.4	---	.44	95	209	205	188	158	69
31	.51	---	1.6	2.8	---	64	---	209	---	189	159	---
TOTAL	1150.32	35.91	13.80	64.0	17.72	78.32	3183	5840	7264	5695	5636	3014
MEAN	37.1	1.20	.45	2.06	.61	2.53	106	188	242	184	182	100
MAX	83	15	1.7	4.5	2.2	64	250	241	284	208	192	165
MIN	.51	.38	.27	1.4	.33	.16	65	87	205	145	158	15
AC-FT	2280	71	27	127	35	155	6310	11580	14410	11300	11180	5980

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1977 - 2000, BY WATER YEAR (WY)

	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	
MEAN	23.9	5.84	2.51	2.78	3.05	3.13	32.9	168	206	178	154	117													
MAX	96.0	25.9	11.9	14.7	13.1	17.8	106	375	614	306	310	283													
(WY)	1984	1984	1979	1977	1977	1977	2000	1994	1983	1983	1999	1984													
MIN	.35	.015	.001	.012	.056	.007	.073	25.5	51.5	40.5	36.1	5.15													
(WY)	1989	1982	1995	1985	1984	1982	1984	1980	1977	1977	1977	1987													

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	FOR 1997 WATER YEAR	FOR 1998 WATER YEAR	FOR 1999 WATER YEAR	FOR 2000 WATER YEAR
ANNUAL TOTAL	33059.24	31992.07				
ANNUAL MEAN	90.6	87.4	77.4			
HIGHEST ANNUAL MEAN			146			1983
LOWEST ANNUAL MEAN			42.8			1978
HIGHEST DAILY MEAN	715	Aug 3	284	Jun 22	917	Sep 11 1981
LOWEST DAILY MEAN	.00	May 11	.16	Mar 29	a.00	Aug 20 1977
ANNUAL SEVEN-DAY MINIMUM	.00	May 11	.27	Dec 19	.00	Nov 18 1979
INSTANTANEOUS PEAK FLOW			289	Jun 21	b963	Sep 10 1981
INSTANTANEOUS PEAK STAGE			6.37	Jun 21	7.89	Sep 10 1981
ANNUAL RUNOFF (AC-FT)	65570	63460	56070			
10 PERCENT EXCEEDS	252	209	245			
50 PERCENT EXCEEDS	.78	69	12			
90 PERCENT EXCEEDS	.09	.33	.04			

a No flow at times most years

b From rating curve extended above 920 ft<sup>3</sup>/s.

07126140 VAN BREMER ARROYO NEAR TYRONE, CO

LOCATION.--Lat 37°23'58", long 104°06'55", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>, sec.27, T.30 S., R. 60 W., Las Animas County, Hydrologic Unit 11020010, on left bank, on Pinon Canyon Army Maneuver Site, 200 ft downstream from military road at gas line crossing near Brown Sheep Camp, 6 mi southeast of Tyrone, and 11 mi upstream from mouth.

DRAINAGE AREA.--132 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1985 to September 1998, October 1998 to current year (seasonal records only). Water-quality data available, May 1985 to April 1998.

GAGE.--Water-stage recorder with satellite telemetry, crest-stage gages, and artificial control. Elevation of gage is 5,310 ft above sea level, from topographic map.

REMARKS.--Records good except for discharges 0.08 to 0.30 ft<sup>3</sup>/s, which are fair, discharges greater than 50 ft<sup>3</sup>/s or less than 0.08 ft<sup>3</sup>/s, and estimated daily discharges, which are poor. Natural flow of stream affected by return flow from irrigation and storage in a small channel reservoir upstream. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 511 ft<sup>3</sup>/s, Aug. 23, 1986, from flow through culvert computation, gage height, 10.02 ft; maximum gage height, 11.64 ft, Aug. 3, 1998; no flow many days most years (some estimated).

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 11 ft<sup>3</sup>/s at 1115 Oct. 12, gage height, 5.19 ft; no flow many days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.5	---	---	---	---	---	---	.02	.00	.00	.00	2.1
2	6.8	---	---	---	---	---	---	.02	.00	.00	.00	2.1
3	5.0	---	---	---	---	---	---	.02	.00	.00	.00	2.8
4	5.8	---	---	---	---	---	---	.01	.00	.00	.00	3.5
5	6.7	---	---	---	---	---	---	.01	.00	.00	.00	4.6
6	7.8	---	---	---	---	---	---	.00	.00	.00	.00	5.7
7	6.9	---	---	---	---	---	---	.00	.00	.00	.00	5.8
8	7.6	---	---	---	---	---	---	.02	.00	.00	.00	4.7
9	8.0	---	---	---	---	---	---	.01	.00	.00	.00	4.4
10	8.2	---	---	---	---	---	e.01	.01	.00	.00	.00	4.2
11	8.7	---	---	---	---	---	.01	.00	.00	.00	.00	2.7
12	9.7	---	---	---	---	---	.01	.00	.00	.00	.00	2.0
13	8.6	---	---	---	---	---	.02	.00	.00	.00	.00	1.5
14	7.7	---	---	---	---	---	.02	.01	.00	.00	.00	1.2
15	4.5	---	---	---	---	---	.01	.01	.00	.00	.00	1.0
16	2.6	---	---	---	---	---	.01	.00	.00	.30	.00	1.3
17	5.1	---	---	---	---	---	.01	.01	.00	.02	.00	.88
18	4.2	---	---	---	---	---	.01	.00	.00	.00	.00	.36
19	e2.9	---	---	---	---	---	.01	.00	.00	.00	.00	.10
20	---	---	---	---	---	---	.01	.01	.00	.00	.00	.01
21	---	---	---	---	---	---	.01	.01	.00	.00	.04	.00
22	---	---	---	---	---	---	.02	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	.03	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	.03	.00	.00	.00	.45	.00
25	---	---	---	---	---	---	.02	.00	.00	.00	.26	.00
26	---	---	---	---	---	---	.03	.00	.00	.00	.67	1.2
27	---	---	---	---	---	---	.01	.00	.00	.00	1.2	1.8
28	---	---	---	---	---	---	.02	.00	.00	.00	1.6	2.9
29	---	---	---	---	---	---	.02	.00	.00	.00	1.9	4.3
30	---	---	---	---	---	---	.02	.00	.00	.00	2.3	4.7
31	---	---	---	---	---	---	---	.00	---	.00	2.7	---
TOTAL	---	---	---	---	---	---	---	0.17	0.00	0.32	11.12	65.85
MEAN	---	---	---	---	---	---	---	.005	.000	.010	.36	2.19
MAX	---	---	---	---	---	---	---	.02	.00	.30	2.7	5.8
MIN	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	.3	.00	.6	.22	131

e Estimated

07126140 VAN BREMER ARROYO NEAR TYRONE, CO--Continued

## PRECIPITATION RECORDS

PERIOD OF RECORD.--June 1993 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Records published for period of seasonal operation only (Oct. 1-19, and Apr. 10 to Sept. 30). Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 3.00 inches, Sept. 9, 1995.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.72 inches, July 16.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	.00	.00	.02	.00	.00
2	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	.00	.00	.00	.05	.00
7	.09	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	.71	.00	.00	.00	.00
9	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	e.00	.00	.00	.02	.00	.00
11	.00	---	---	---	---	---	.22	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	.00	.00	.00	.00	.01	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.05	---	---	---	---	---	.00	.00	.00	1.72	.00	.00
17	.16	---	---	---	---	---	.00	.00	.00	.16	.02	.00
18	.11	---	---	---	---	---	.00	.00	.00	.01	.04	.00
19	e.36	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	---	---	---	---	---	---	.00	.17	.00	.00	.00	.02
21	---	---	---	---	---	---	.00	.00	.00	.00	1.10	.01
22	---	---	---	---	---	---	.00	.00	.00	.14	.00	.03
23	---	---	---	---	---	---	.00	.00	.01	.00	.00	.26
24	---	---	---	---	---	---	.00	.03	.00	.00	.00	.02
25	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.29	.15	.27	.00
27	---	---	---	---	---	---	.00	.00	.53	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.00	.05	.00	.00
29	---	---	---	---	---	---	.01	.00	.27	.00	.00	.00
30	---	---	---	---	---	---	.18	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	0.91	1.10	2.27	1.49	0.34
MAX	---	---	---	---	---	---	---	.71	.53	1.72	1.10	.26

e Estimated.





07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1983 to April 1998. May 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: January 1983 to April 1998.

WATER TEMPERATURE: January 1983 to April 1998.

SUSPENDED SEDIMENT: May 1999 to current year (seasonal peaks only).

INSTRUMENTATION.--Pumping sediment sampler since May 1999.

REMARKS.--Records fair except for estimated days, which are poor.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 8,860 microsiemens, May 13, 1987; minimum, 114 microsiemens, June 28, 1995.

WATER TEMPERATURE: Maximum, 34.0°C, June 15, 28, 1986; minimum, 0.0°C, many days most years.

SEDIMENT CONCENTRATIONS (seasonal peaks only): Maximum daily mean, 1,720 mg/L, Aug. 5, 1999; minimum daily mean, 132 mg/L, June 12, 1999.

SEDIMENT LOAD (seasonal peaks only): Maximum daily, 4,000 tons (estimated), Aug. 3, 1999; minimum daily, 0.04 ton, (estimated), Aug. 15, 1999, July 18 and Aug. 25, 2000.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal peaks only): Maximum daily mean, 1,070 mg/L, Aug. 21; minimum daily mean, 379 mg/L, July 17.

SEDIMENT LOAD (seasonal peaks only): Maximum daily, 201 tons, Aug. 21; minimum daily, 0.04 ton (estimated), July 18, Aug. 25.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					JUN				
20...	1430	1.7	2150	12.1	23...	1235	.06	2000	24.4
JAN					AUG				
26...	1600	.17	2100	7.6	17...	1510	.07	1780	25.4
APR					31...	1550	.06	1630	25.8
13...	1855	.14	2190	19.5					

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT					
20...	1430	1.7	12.1	18	.08
JUN					
23...	1235	.06	24.4	15	.00
AUG					
17...	1510	.07	25.4	23	.00
31...	1550	.06	25.8	13	.00

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.1	---	---	.30	---	---	.27	---	---
2	4.3	---	---	.29	---	---	.26	---	---
3	3.8	---	---	.30	---	---	.25	---	---
4	2.9	---	---	.30	---	---	.30	---	---
5	2.9	---	---	.30	---	---	.27	---	---
6	4.0	---	---	.27	---	---	.26	---	---
7	4.8	---	---	.27	---	---	.26	---	---
8	4.3	---	---	.27	---	---	.23	---	---
9	4.7	---	---	.27	---	---	.22	---	---
10	4.9	---	---	.27	---	---	.21	---	---
11	5.1	---	---	.27	---	---	.22	---	---
12	5.9	---	---	.27	---	---	.19	---	---
13	6.2	---	---	.27	---	---	.20	---	---
14	5.6	---	---	.25	---	---	.22	---	---
15	4.8	---	---	.25	---	---	.19	---	---
16	2.9	---	---	.25	---	---	.20	---	---
17	2.1	---	---	.26	---	---	.21	---	---
18	2.5	---	---	.26	---	---	.21	---	---
19	3.3	---	---	.24	---	---	.21	---	---
20	1.9	---	---	.25	---	---	.20	---	---
21	1.8	---	---	.25	---	---	.18	---	---
22	1.3	---	---	.25	---	---	.19	---	---
23	.94	---	---	.27	---	---	.18	---	---
24	.70	---	---	.27	---	---	.18	---	---
25	.54	---	---	.26	---	---	.19	---	---
26	.44	---	---	.27	---	---	.20	---	---
27	.38	---	---	.27	---	---	.19	---	---
28	.34	---	---	.27	---	---	.20	---	---
29	.34	---	---	.25	---	---	.20	---	---
30	.35	---	---	.25	---	---	.20	---	---
31	.32	---	---	---	---	---	.19	---	---
TOTAL	87.45	---	0	8.02	---	0	6.68	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.20	---	---	.18	---	---	.19	---	---
2	.17	---	---	.17	---	---	.19	---	---
3	.16	---	---	.17	---	---	.19	---	---
4	.14	---	---	.17	---	---	.17	---	---
5	.16	---	---	.17	---	---	.16	---	---
6	.17	---	---	.17	---	---	.14	---	---
7	.15	---	---	.17	---	---	.17	---	---
8	.16	---	---	.17	---	---	.43	---	---
9	.16	---	---	.17	---	---	.18	---	---
10	.16	---	---	.16	---	---	.14	---	---
11	.16	---	---	.17	---	---	.14	---	---
12	.17	---	---	.17	---	---	.14	---	---
13	.16	---	---	.17	---	---	.14	---	---
14	.15	---	---	.17	---	---	.14	---	---
15	.17	---	---	.15	---	---	.27	---	---
16	.17	---	---	.13	---	---	.41	---	---
17	.17	---	---	.12	---	---	.22	---	---
18	.17	---	---	.12	---	---	.21	---	---
19	.17	---	---	.13	---	---	.18	---	---
20	.15	---	---	.14	---	---	.16	---	---
21	.16	---	---	.14	---	---	.17	---	---
22	.16	---	---	.14	---	---	.25	---	---
23	.14	---	---	.16	---	---	.23	---	---
24	.15	---	---	.14	---	---	.19	---	---
25	.16	---	---	.12	---	---	.17	---	---
26	.16	---	---	.12	---	---	.16	---	---
27	.19	---	---	.13	---	---	.15	---	---
28	.20	---	---	.14	---	---	.16	---	---
29	.18	---	---	.27	---	---	.17	---	---
30	.17	---	---	---	---	---	.20	---	---
31	.17	---	---	---	---	---	.56	---	---
TOTAL	5.11	---	0	4.53	---	0	6.38	---	0

ARKANSAS RIVER BASIN

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	APRIL			MAY			JUNE		
		MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	.47	---	---	.23	---	---	.06	---	---	
2	.36	---	---	.16	---	---	.06	---	---	
3	.30	---	---	.14	---	---	.07	---	---	
4	.25	---	---	.13	---	---	.06	---	---	
5	.20	---	---	.11	---	---	.06	---	---	
6	.18	---	---	.10	---	---	.08	---	---	
7	.17	---	---	.10	---	---	.07	---	---	
8	.16	---	---	.18	---	---	.07	---	---	
9	.16	---	---	.23	---	---	.06	---	---	
10	.15	---	---	.14	---	---	.06	---	---	
11	.21	---	---	.09	---	---	.07	---	---	
12	.18	---	---	.09	---	---	.06	---	---	
13	.15	---	---	.09	---	---	.05	---	---	
14	.14	---	---	.09	---	---	.04	---	---	
15	.13	---	---	.10	---	---	.04	---	---	
16	.14	---	---	.10	---	---	.06	---	---	
17	.13	---	---	.09	---	---	.06	---	---	
18	.12	---	---	.09	---	---	.08	---	---	
19	.10	---	---	.09	---	---	.07	---	---	
20	.11	---	---	.11	---	---	.06	---	---	
21	.12	---	---	.11	---	---	.06	---	---	
22	.12	---	---	.10	---	---	.06	---	---	
23	.13	---	---	.09	---	---	.06	---	---	
24	.14	---	---	.08	---	---	.06	---	---	
25	.14	---	---	.09	---	---	.06	---	---	
26	.11	---	---	.11	---	---	.07	---	---	
27	.11	---	---	.08	---	---	.11	---	---	
28	.11	---	---	.07	---	---	.13	---	---	
29	.11	---	---	.07	---	---	.12	---	---	
30	.29	---	---	.07	---	---	.11	---	---	
31	---	---	---	.07	---	---	---	---	---	
TOTAL	5.19	---	0	3.40	---	0	2.08	---	0	

DAY	MEAN DISCHARGE (CFS)	JULY			AUGUST			SEPTEMBER		
		MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	
1	.09	---	---	.07	---	---	.06	---	---	
2	.08	---	---	.07	---	---	.06	---	---	
3	.08	---	---	.08	---	---	.07	---	---	
4	.07	---	---	.07	---	---	.06	---	---	
5	.07	---	---	.06	---	---	.06	---	---	
6	.07	---	---	.07	---	---	.06	---	---	
7	.05	---	---	.07	---	---	1.2	---	---	
8	.15	---	---	.07	---	---	2.4	---	---	
9	.07	---	---	.06	---	---	2.0	---	---	
10	.06	---	---	.06	---	---	1.5	---	---	
11	.06	---	---	.06	---	---	1.6	---	---	
12	.07	---	---	.07	---	---	1.2	---	---	
13	.07	---	---	.06	---	---	.65	---	---	
14	.06	---	---	.06	---	---	.37	---	---	
15	.06	---	---	.05	---	---	.25	---	---	
16	6.1	475	39	.06	---	---	.18	---	---	
17	.68	379	.83	.06	---	---	.13	---	---	
18	.13	---	e.04	.10	---	---	.11	---	---	
19	.08	---	---	.10	---	---	.10	---	---	
20	.08	---	---	.09	---	---	.10	---	---	
21	.08	---	---	15	1070	201	.10	---	---	
22	.07	---	---	11	795	38	.10	---	---	
23	.07	---	---	1.2	---	e1.2	.11	---	---	
24	.07	---	---	.33	---	e.19	.14	---	---	
25	.07	---	---	.13	---	e.04	.12	---	---	
26	.06	---	---	.10	---	---	.12	---	---	
27	.06	---	---	.10	---	---	.12	---	---	
28	.07	---	---	.09	---	---	.12	---	---	
29	.08	---	---	.07	---	---	.12	---	---	
30	.08	---	---	.06	---	---	.12	---	---	
31	.07	---	---	.06	---	---	---	---	---	
TOTAL	8.96	---	39.87	29.53	---	240.43	13.33	---	0	

e Estimated

07126200 VAN BREMER ARROYO NEAR MODEL, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--June 1993 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Records published for period of seasonal operation only (Oct. 1-20 and Apr. 13 to Sept. 30). Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 2.67 inches, May 25, 1996.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.85 inches, Aug. 21.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.01	.01	.00
4	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	.00	.00	.03	.00	.00
7	.08	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	.59	.00	.67	.00	.03
9	.00	---	---	---	---	---	---	.00	.00	.01	.00	.00
10	.00	---	---	---	---	---	---	.00	.05	.00	.00	.00
11	.00	---	---	---	---	---	---	.00	.10	.04	.00	.00
12	.00	---	---	---	---	---	---	.00	.00	.00	.01	.00
13	.00	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.05	.00
16	.05	---	---	---	---	---	.00	.00	.00	1.56	.00	.00
17	.24	---	---	---	---	---	.00	.00	.00	.18	.17	.00
18	.16	---	---	---	---	---	.00	.00	.04	.00	.07	.00
19	.28	---	---	---	---	---	.00	.00	.00	.00	.02	.00
20	e.00	---	---	---	---	---	.00	.02	.00	.00	.00	.13
21	---	---	---	---	---	---	.00	.00	.00	.00	1.85	.00
22	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	.00	.00	.00	.00	.00	.19
24	---	---	---	---	---	---	.02	.02	.00	.00	.00	.03
25	---	---	---	---	---	---	.00	.09	.11	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.00	.01	.00	.00
27	---	---	---	---	---	---	.00	.00	.45	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.00	.18	.00	.00
29	---	---	---	---	---	---	.33	.00	.16	.00	.00	.00
30	---	---	---	---	---	---	.40	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.02	---
TOTAL	---	---	---	---	---	---	---	0.72	0.91	2.69	2.20	0.38
MAX	---	---	---	---	---	---	---	.59	.45	1.56	1.85	.19

e Estimated.

## ARKANSAS RIVER BASIN

07126300 PURGATOIRE RIVER NEAR THATCHER, CO

LOCATION (REVISED).--Lat 37°21'23", long 103°53'59", in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.10, T.31 S., R.58 W., Las Animas County, Hydrologic Unit 11020010, on right bank 250 ft downstream from county road bridge at gas line crossing, 1.2 mi downstream from Van Bremer Arroyo, and 18 mi southeast of Thatcher.

DRAINAGE AREA.--1,791 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1966 to current year. Statistical summary computed for 1976 to current year, subsequent to completion of Trinidad Reservoir. Water-quality data available, December 1982 to April 1998.

REVISED RECORDS.--WDR CO-84-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gages. Elevation of gage is 4,790 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges and flows greater than 2,000 ft<sup>3</sup>/s, which are poor. Natural flow of stream affected by diversions upstream from station for irrigation of about 30,000 acres. Peak flows regulated to some extent by Trinidad Dam, 52 mi upstream, since January 1975. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data for Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of July 22, 1954 and May 19, 1955, reached stages of 26.7 and 25.2 ft, respectively, from floodmarks, discharges unknown. Flood of June 18, 1965, reached a stage of 23.5 ft, from floodmarks, discharge, 47,700 ft<sup>3</sup>/s.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	45	40	40	37	31	104	106	12	41	16	17
2	44	41	40	39	33	36	187	112	15	36	16	18
3	40	40	40	e38	35	35	281	144	14	28	16	19
4	42	40	e40	e38	33	36	243	121	21	31	14	18
5	57	43	e39	e39	33	33	367	88	21	42	10	19
6	58	42	38	40	32	31	577	40	15	29	11	18
7	44	40	e37	40	32	29	431	32	30	27	13	16
8	42	40	e37	42	33	33	346	30	26	19	24	15
9	42	40	e37	47	32	33	264	32	20	21	17	19
10	42	39	e36	43	33	30	167	72	20	22	9.4	15
11	40	38	e35	38	34	29	126	82	16	35	6.4	13
12	39	39	e35	38	34	29	131	65	22	90	4.9	13
13	39	39	e34	35	33	29	164	33	28	50	4.3	12
14	43	37	e34	34	32	28	193	30	24	35	3.5	9.5
15	39	38	e32	34	31	28	184	30	21	29	6.9	8.0
16	36	39	e31	35	30	34	181	32	23	61	8.1	7.9
17	42	39	e32	35	29	43	132	25	17	50	19	7.8
18	44	49	e33	36	29	49	91	21	21	58	36	7.7
19	63	41	e34	36	29	54	91	21	28	52	28	7.7
20	86	38	e35	36	28	47	85	23	26	34	25	7.1
21	68	39	e36	35	29	42	82	25	19	26	55.5	5.8
22	57	38	e37	35	29	43	84	23	15	23	114	5.1
23	51	39	e37	34	30	51	91	20	15	25	27	5.3
24	46	42	38	33	30	61	93	18	11	25	17	6.7
25	52	43	41	32	29	60	91	14	9.1	22	13	9.2
26	49	41	42	34	27	54	76	17	10	17	13	12
27	47	42	45	35	27	47	60	19	11	31	13	13
28	46	42	45	36	26	42	39	17	105	24	23	12
29	45	41	45	e32	29	41	41	13	67	17	26	11
30	46	40	43	31	---	41	64	12	47	15	20	16
31	47	---	e42	32	---	51	---	12	---	16	16	---
TOTAL	1479	1214	1170	1132	898	1230	5066	1329	729.1	1031	1125.5	363.8
MEAN	47.7	40.5	37.7	36.5	31.0	39.7	169	42.9	24.3	33.3	36.3	12.1
MAX	86	49	45	47	37	61	577	144	105	90	555	19
MIN	36	37	31	31	26	28	39	12	9.1	15	3.5	5.1
AC-FT	2930	2410	2320	2250	1780	2440	10050	2640	1450	2040	2230	722

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2000, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	34.4	32.6	29.2	28.4	30.2	37.7	89.9	138	98.1	88.8	143	59.2													
MAX	84.0	66.4	44.3	43.2	53.3	143	467	592	764	547	910	302													
(WY)	1986	1999	1987	1988	1987	1998	1983	1987	1983	1981	1981	1981													
MIN	.73	3.71	12.1	10.6	11.5	5.97	1.38	6.22	6.69	8.80	9.10	.64													
(WY)	1979	1979	1979	1978	1976	1977	1978	1991	1976	1989	1976	1978													

## SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1976 - 2000	
ANNUAL TOTAL	41384		16767.4			
ANNUAL MEAN	113		45.8			
HIGHEST ANNUAL MEAN					a67.8	
LOWEST ANNUAL MEAN					181	1981
HIGHEST DAILY MEAN					12.3	1976
LOWEST DAILY MEAN	4690	May 1	577	Apr 6	10000	Jul 3 1981
ANNUAL SEVEN-DAY MINIMUM	17	Apr 12	3.5	Aug 14	b.00	Jun 28 1976
INSTANTANEOUS PEAK FLOW	23	Mar 27	6.2	Aug 10	.00	Jun 28 1976
INSTANTANEOUS PEAK STAGE			c3900	Aug 21	d42400	Jul 3 1981
ANNUAL RUNOFF (AC-FT)	82090		8.82	Aug 21	22.00	Jul 3 1981
10 PERCENT EXCEEDS	216		33260		49100	
50 PERCENT EXCEEDS	40		78		114	
90 PERCENT EXCEEDS	28		34		30	
			13		6.8	

e Estimated.

a Average discharge for 10 years (water years 1967-76), 37.9 ft<sup>3</sup>/s; 27460 acre-ft/yr, prior to completion of Trinidad Dam.

b No flow at times during 1966, 1971-73, 1976, 1990.

c From rating curve extended above 1660 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow.

d From rating curve extended above 2020 ft<sup>3</sup>/s on basis of two slope-area measurements of peak flow.

07126300 PURGATOIRE RIVER NEAR THATCHER, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April 1999 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Records published for period of seasonal operation only (Oct. 1-19 and Apr. 12 to Sept. 30). Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 2.79 inches, Aug. 21, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitaion, 2.79 inches, Aug. 21.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	---	.00	.00	.03	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.01	.00	.00
4	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	.00	.00	.05	.00	.00
7	.25	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.05	---	---	---	---	---	---	.54	.00	.38	.00	.02
9	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	---	.00	.02	.00	.00	.00
11	.00	---	---	---	---	---	---	.00	.10	.03	.06	.00
12	.04	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.06	---	---	---	---	---	.00	.00	.00	1.57	.00	.00
17	.19	---	---	---	---	---	.00	.00	.00	.08	.82	.00
18	.20	---	---	---	---	---	.00	.00	.07	.00	.07	.00
19	e.22	---	---	---	---	---	.00	.00	.00	.00	.07	.01
20	---	---	---	---	---	---	.00	.00	.00	.00	.00	.08
21	---	---	---	---	---	---	.00	.00	.00	.00	2.79	.00
22	---	---	---	---	---	---	.00	.00	.00	.00	.01	.00
23	---	---	---	---	---	---	.00	.00	.02	.00	.00	.09
24	---	---	---	---	---	---	.07	.01	.00	.00	.00	.04
25	---	---	---	---	---	---	.00	.14	.63	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.01	.31	.00	.00
27	---	---	---	---	---	---	.00	.00	.38	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.00	.15	.00	.00
29	---	---	---	---	---	---	.21	.00	.02	.00	.00	.00
30	---	---	---	---	---	---	.67	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL		---	---	---	---	---		0.69	1.25	2.61	3.82	0.24
MAX		---	---	---	---	---		.54	.63	1.57	2.79	.09

e Estimated.

## ARKANSAS RIVER BASIN

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO

LOCATION (REVISED).--Lat 37°25'27", long 103°55'11", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.17, T.30 S., R.58 W., Las Animas County, Hydrologic Unit 11020010, on left bank 1.6 mi southeast of Rock Crossing, 5 mi upstream from mouth, and 13.5 mi southeast of Thatcher.

DRAINAGE AREA.--48.4 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1983 to September 1998, October 1998 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry, concrete control, and crest-stage gages. Elevation of gage is 4,982 ft above sea level, from topographic map.

REMARKS.--Records fair except for estimated daily discharges and those above 40 ft<sup>3</sup>/s, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,090 ft<sup>3</sup>/s, Sept. 30, 1998, gage height, 13.71 ft, from slope-area measurement of peak flow; no flow most days.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 471 ft<sup>3</sup>/s at 1750 Aug. 21, gage height, 7.05 ft, from rating curve extended above 330 ft<sup>3</sup>/s on basis of slope-area measurement of peak flow; no flow most days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
7	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
9	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
11	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	e.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
21	---	---	---	---	---	---	.00	.00	.00	.00	53	.00
22	---	---	---	---	---	---	.00	.00	.00	.00	5.8	.00
23	---	---	---	---	---	---	.00	.00	.00	.00	.21	.00
24	---	---	---	---	---	---	.00	.00	.00	.00	.04	.00
25	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
27	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
29	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
30	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	0.00	0.00	0.00	59.05	0.00
MEAN	---	---	---	---	---	---	---	.000	.000	.000	1.90	.000
MAX	---	---	---	---	---	---	---	.00	.00	.00	53	.00
MIN	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	.00	.00	.00	117	.00

e Estimated.



07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: March 1983 to April 1998.

WATER TEMPERATURE: March 1983 to April 1998.

SUSPENDED-SEDIMENT DISCHARGE: March 1983 to October 1998. May 1999 to current year (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since Aug. 1983.

REMARKS.--Daily suspended-sediment records are poor. Daily mean suspended-sediment concentrations published for days of partial flow might not reflect concentrations during the flow event, including Aug. 21.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 2,520 microsiemens, Aug. 20, 1984; minimum, 37 microsiemens, July 28, 1997.

WATER TEMPERATURE: Maximum, 32.0°C, Aug. 11, 1987; minimum, 0.0°C, Apr. 2, 1988.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 15,300 mg/L, Aug. 22, 1984; no flow most of the time.

SEDIMENT LOAD: Maximum daily, 12,700 tons (estimated), Sept. 30, 1998; minimum, 0.0 ton, many days; no flow most of the time.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 926 mg/L, Aug. 21; minimum daily mean, 319 mg/L, Aug. 23.

SEDIMENT LOAD (seasonal only): Maximum daily, 535 tons, Aug. 21; minimum daily, 0.01 ton (estimated), Aug. 24; no flow most of the time.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	.00	---	---	---	---	---	---	---	---
2	.00	---	---	---	---	---	---	---	---
3	.00	---	---	---	---	---	---	---	---
4	.00	---	---	---	---	---	---	---	---
5	.00	---	---	---	---	---	---	---	---
6	.00	---	---	---	---	---	---	---	---
7	.00	---	---	---	---	---	---	---	---
8	.00	---	---	---	---	---	---	---	---
9	.00	---	---	---	---	---	---	---	---
10	.00	---	---	---	---	---	---	---	---
11	.00	---	---	---	---	---	---	---	---
12	.00	---	---	---	---	---	---	---	---
13	.00	---	---	---	---	---	---	---	---
14	.00	---	---	---	---	---	---	---	---
15	.00	---	---	---	---	---	---	---	---
16	.00	---	---	---	---	---	---	---	---
17	.00	---	---	---	---	---	---	---	---
18	.00	---	---	---	---	---	---	---	---
19	.00	---	---	---	---	---	---	---	---
20	e.00	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---
22	---	---	---	---	---	---	---	---	---
23	---	---	---	---	---	---	---	---	---
24	---	---	---	---	---	---	---	---	---
25	---	---	---	---	---	---	---	---	---
26	---	---	---	---	---	---	---	---	---
27	---	---	---	---	---	---	---	---	---
28	---	---	---	---	---	---	---	---	---
29	---	---	---	---	---	---	---	---	---
30	---	---	---	---	---	---	---	---	---
31	---	---	---	---	---	---	---	---	---
TOTAL	0.00	---	0	0	---	0	0	---	0

ARKANSAS RIVER BASIN

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
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	---	---	---	---	---	---	---	---	---
TOTAL	0	---	0	0	---	0	0	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	---	---	---	.00	---	---	.00	---	---
2	---	---	---	.00	---	---	.00	---	---
3	---	---	---	.00	---	---	.00	---	---
4	---	---	---	.00	---	---	.00	---	---
5	---	---	---	.00	---	---	.00	---	---
6	---	---	---	.00	---	---	.00	---	---
7	---	---	---	.00	---	---	.00	---	---
8	---	---	---	.00	---	---	.00	---	---
9	---	---	---	.00	---	---	.00	---	---
10	---	---	---	.00	---	---	.00	---	---
11	---	---	---	.00	---	---	.00	---	---
12	---	---	---	.00	---	---	.00	---	---
13	e.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	---	---	---	.00	---	---	---	---	---
TOTAL	0.00	---	0	0.00	---	0	0.00	---	0

ARKANSAS RIVER BASIN

07126325 TAYLOR ARROYO BELOW ROCK CROSSING NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	.00	---	---	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	53	926	535	.00	---	---
22	.00	---	---	5.8	618	12	.00	---	---
23	.00	---	---	.21	319	.20	.00	---	---
24	.00	---	---	.04	---	e.01	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	.00	---	---
TOTAL	0.00	---	0	59.05	---	547.21	0.00	---	0

e Estimated.

07126325 TAYLOR ARROYO BELOW ROCK CROSSING, NEAR THATCHER, CO--Continued

## PRECIPITATION RECORDS

PERIOD OF RECORD.--May 1999 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Records published for period of seasonal operation only (Oct. 1-20 and Apr. 13 to Sept. 30). Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 3.23 inches, Aug. 21, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 3.23 inches, Aug. 21.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.00	.33	.00
4	.00	---	---	---	---	---	---	.00	.00	.00	.13	.13
5	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
7	.23	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	.62	.00	.00	.00	.00
9	.00	---	---	---	---	---	---	.01	.00	.00	.00	.00
10	.00	---	---	---	---	---	---	.00	.03	.00	.00	.00
11	.00	---	---	---	---	---	---	.00	.16	.03	.01	.00
12	.00	---	---	---	---	---	---	.00	.00	.00	.03	.00
13	.00	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.01	.00
16	.08	---	---	---	---	---	.00	.00	.00	.49	.00	.00
17	.26	---	---	---	---	---	.00	.00	.00	.09	.63	.00
18	.13	---	---	---	---	---	.00	.00	.01	.00	.03	.00
19	.25	---	---	---	---	---	.00	.01	.00	.00	.02	.00
20	e.00	---	---	---	---	---	.00	.02	.02	.00	.06	.06
21	---	---	---	---	---	---	.00	.00	.00	.01	3.23	.03
22	---	---	---	---	---	---	.00	.00	.00	.00	.00	.01
23	---	---	---	---	---	---	.02	.00	.00	.00	.00	.28
24	---	---	---	---	---	---	.01	.02	.00	.00	.00	.05
25	---	---	---	---	---	---	.00	.03	.01	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.14	.17	.00	.00
27	---	---	---	---	---	---	.00	.00	.32	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.01	.24	.00	.00
29	---	---	---	---	---	---	.40	.01	.06	.00	.00	.00
30	---	---	---	---	---	---	.35	.00	.01	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	0.95	---	---	---	---	---	0.78	0.72	0.77	1.03	4.48	0.56
MAX	.26	---	---	---	---	---	.40	.62	.32	.49	3.23	.28

e Estimated.

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO

LOCATION.--Lat 37°29'34", long 103°49'39", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.30, T.29 S., R.57 W., Las Animas County, Hydrologic Unit 11020010, on left bank, on Pinon Canyon Maneuver Site, 0.8 mi downstream from Sharp Ranch, 5.3 mi upstream from mouth, and 16 mi southeast of Thatcher.

DRAINAGE AREA.--49.2 mi<sup>2</sup>. (Area at sites used prior to May 14, 1999, 41.4 mi<sup>2</sup>.)

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to September 1992, October 1992 to September 1998 (annual maximum only), May 1999 to current year (seasonal records only). Records prior to May 14, 1999 may not be equivalent because of difference in drainage area.

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gages. April 1983 to April 1989, at site 0.4 mile upstream at different datum. October 1, 1992 to May 13, 1999, at site 0.2 mile upstream at different datum. Elevation of gage is 4,785 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are poor. Records for 2000 water year are good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,110 ft<sup>3</sup>/s, May 22, 1987, from rating curve extended above 3.8 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 9.42 and 10.39 feet, gage height, 10.39 ft, site and datum then in use; no flow most days.

EXTREMES FOR 1999 WATER YEAR (seasonal only).--Maximum discharge during period May to September, 173 ft<sup>3</sup>/s at 2245 June 12, gage height, 8.68 feet, from rating curve extended above 0.09 ft<sup>3</sup>/s on basis of step-backwater method; no flow most days.

EXTREMES FOR CURRENT YEAR (seasonal only).--No flow during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.00	.00
2	---	---	---	---	---	---	---	---	.00	.00	.00	.00
3	---	---	---	---	---	---	---	---	.00	.00	.00	.00
4	---	---	---	---	---	---	---	---	.00	.00	7.1	.00
5	---	---	---	---	---	---	---	---	.00	.00	6.1	.00
6	---	---	---	---	---	---	---	---	.00	.00	.01	.00
7	---	---	---	---	---	---	---	---	.00	.00	.91	.00
8	---	---	---	---	---	---	---	---	.00	.00	2.3	.00
9	---	---	---	---	---	---	---	---	.00	.00	.01	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.00
11	---	---	---	---	---	---	---	---	.00	.00	.00	.00
12	---	---	---	---	---	---	---	---	8.5	.00	.00	.00
13	---	---	---	---	---	---	---	---	17	.00	.00	.00
14	---	---	---	---	---	---	---	e.03	1.3	.00	.00	.00
15	---	---	---	---	---	---	---	e.03	.18	.00	.00	.00
16	---	---	---	---	---	---	---	e.03	.08	.00	.00	.00
17	---	---	---	---	---	---	---	e.03	.05	.00	.00	.00
18	---	---	---	---	---	---	---	e.03	.03	.00	.00	.00
19	---	---	---	---	---	---	---	.03	.00	.00	.00	.00
20	---	---	---	---	---	---	---	.06	.00	.00	.00	.00
21	---	---	---	---	---	---	---	.06	.00	.00	.00	.00
22	---	---	---	---	---	---	---	.05	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.02	.00	.00	.00	.00
24	---	---	---	---	---	---	---	.01	.00	.00	.00	.00
25	---	---	---	---	---	---	---	.09	.00	.00	.00	.00
26	---	---	---	---	---	---	---	.12	.00	.00	.00	.00
27	---	---	---	---	---	---	---	.06	.00	.00	.00	.00
28	---	---	---	---	---	---	---	.04	.00	.00	.00	.00
29	---	---	---	---	---	---	---	.02	.00	.00	.00	.00
30	---	---	---	---	---	---	---	.01	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	27.14	0.00	16.43	0.00
MEAN	---	---	---	---	---	---	---	---	.90	.000	.53	.000
MAX	---	---	---	---	---	---	---	---	17	.00	7.1	.00
MIN	---	---	---	---	---	---	---	---	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	---	54	.00	33	.00

e Estimated.

## ARKANSAS RIVER BASIN

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
5	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
7	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
9	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
11	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
12	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
17	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
18	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
19	e.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
20	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
21	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
22	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
25	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
27	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
29	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
30	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00	0.00
MEAN	---	---	---	---	---	---	---	.000	.000	.000	.000	.000
MAX	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
MIN	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	.00	.00	.00	.00	.00

e Estimated

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1989 to September 1992. May 1999 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1989 to September 1992.

WATER TEMPERATURE: May 1989 to September 1992.

SUSPENDED SEDIMENT: May 1999 to current year (seasonal records only).

INSTRUMENTATION.--June 1989 to September 1992, water-quality monitor at site 0.4 mi upstream. Pumping sediment sampler with satellite telemetry, since May 1999.

REMARKS.--Records poor. Daily mean suspended-sediment concentrations published for days of partial flow might not reflect concentrations during the flow event, including June 12 and Aug. 7, 1999.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,830 microsiemens, Dec. 6, 21, 1989; minimum, 129 microsiemens, June 4, 1992.

WATER TEMPERATURE: Maximum, 30.5°C, July 9-10, 1983; minimum, 0.0°C, many days.

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 827 mg/L, June 13, 1999; minimum daily, 6 mg/L, Aug. 7, 1999.

SEDIMENT LOAD (seasonal only): Maximum daily, 66 tons, June 13, 1999; minimum daily, 0.0 ton, many days; no flow most days.

EXTREMES FOR 1999 WATER YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 827 mg/L, June 13; minimum daily, 6 mg/L, Aug. 7.

SEDIMENT LOAD (seasonal only): Maximum daily, 66 tons, June 13; minimum daily, 0.0 ton, many days; no flow most days.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): No flow for current year.

SEDIMENT LOAD (seasonal only): No flow for current year.

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
MAY					AUG				
19...	1425	.04	3170	24.8	06...	1055	<.01	1950	24.5
26...	1000	.09	2720	17.0					

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	OCTOBER			NOVEMBER			DECEMBER		
	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
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	---	---	---	---	---	---	---	---	---
TOTAL	0	---	0	0	---	0	0	---	0

ARKANSAS RIVER BASIN

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
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	---	---	---	---	---	---	---	---	---
TOTAL	0	---	0	0	---	0	0	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	---	---	---	---	---	---	.00	---	---
2	---	---	---	---	---	---	.00	---	---
3	---	---	---	---	---	---	.00	---	---
4	---	---	---	---	---	---	.00	---	---
5	---	---	---	---	---	---	.00	---	---
6	---	---	---	---	---	---	.00	---	---
7	---	---	---	---	---	---	.00	---	---
8	---	---	---	---	---	---	.00	---	---
9	---	---	---	---	---	---	.00	---	---
10	---	---	---	---	---	---	.00	---	---
11	---	---	---	---	---	---	.00	---	---
12	---	---	---	---	---	---	8.5	97	31
13	---	---	---	---	---	---	17	827	66
14	---	---	---	e.03	---	e.00	1.3	36	.18
15	---	---	---	e.03	---	e.00	.18	---	e.00
16	---	---	---	e.03	---	e.00	.08	---	e.00
17	---	---	---	e.03	---	e.00	.05	---	e.00
18	---	---	---	e.03	---	e.00	.03	---	e.00
19	---	---	---	.03	---	e.00	.00	---	---
20	---	---	---	.06	---	e.00	.00	---	---
21	---	---	---	.06	---	e.00	.00	---	---
22	---	---	---	.05	---	e.00	.00	---	---
23	---	---	---	.02	---	e.00	.00	---	---
24	---	---	---	.01	---	e.00	.00	---	---
25	---	---	---	.09	---	e.00	.00	---	---
26	---	---	---	.12	---	e.00	.00	---	---
27	---	---	---	.06	---	e.00	.00	---	---
28	---	---	---	.04	---	e.00	.00	---	---
29	---	---	---	.02	---	e.00	.00	---	---
30	---	---	---	.01	---	e.00	.00	---	---
31	---	---	---	.00	---	---	---	---	---
TOTAL	0	---	0	0.72	---	0.00	27.14	---	97.18



07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
	JULY			AUGUST			SEPTEMBER		
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	7.1	---	e13	.00	---	---
5	.00	---	---	6.1	---	e8.5	.00	---	---
6	.00	---	---	.01	---	e.00	.00	---	---
7	.00	---	---	.91	6	.18	.00	---	---
8	.00	---	---	2.3	87	.86	.00	---	---
9	.00	---	---	.01	---	e.00	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	.00	---	---	.00	---	---	.00	---	---
12	.00	---	---	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	.00	---	---
TOTAL	0.00	---	0	16.43	---	22.54	0.00	---	0

e Estimated.

\*\*\*\*\*

--NO FLOW DURING 2000 WATER YEAR--

\*\*\*\*\*

ARKANSAS RIVER BASIN

07126390 LOCKWOOD CANYON CREEK NEAR THATCHER, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--May 1999 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records for 1999 and 2000 water years are good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.10 inches, Sept. 15, 1999.

EXTREMES FOR 1999 WATER YEAR (seasonal only).--Maximum daily precipitation for period May to September, 1.10 inches, Sept. 15.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 0.77 inches, July 17.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.76	.00
2	---	---	---	---	---	---	---	---	.00	.00	.01	.00
3	---	---	---	---	---	---	---	---	.00	.00	.24	.00
4	---	---	---	---	---	---	---	---	.00	.00	.49	.00
5	---	---	---	---	---	---	---	---	.00	.00	.00	.00
6	---	---	---	---	---	---	---	---	.00	.00	.00	.00
7	---	---	---	---	---	---	---	---	.00	.00	.66	.00
8	---	---	---	---	---	---	---	---	.00	.24	.04	.00
9	---	---	---	---	---	---	---	---	.25	.02	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.00
11	---	---	---	---	---	---	---	---	.00	.00	.00	.00
12	---	---	---	---	---	---	---	---	1.04	.00	.00	.00
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	e.00	.05	.00	.00	.00
15	---	---	---	---	---	---	---	.02	.00	.00	.00	1.10
16	---	---	---	---	---	---	---	.00	.00	.12	.00	.00
17	---	---	---	---	---	---	---	.00	.07	.01	.00	.00
18	---	---	---	---	---	---	---	.00	.00	.00	.15	.00
19	---	---	---	---	---	---	---	.10	.00	.00	.00	.00
20	---	---	---	---	---	---	---	.00	.00	.20	.00	.00
21	---	---	---	---	---	---	---	.00	.00	.01	.07	.00
22	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.05	.00	.00
24	---	---	---	---	---	---	---	.00	.00	.02	.00	.00
25	---	---	---	---	---	---	---	.56	.00	.00	.00	.00
26	---	---	---	---	---	---	---	.00	.00	.04	.00	.00
27	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
28	---	---	---	---	---	---	---	.00	.00	.00	.03	.00
29	---	---	---	---	---	---	---	.00	.00	.00	.32	.00
30	---	---	---	---	---	---	---	.00	.00	.12	.00	.00
31	---	---	---	---	---	---	---	.00	---	1.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	1.41	1.83	2.77	1.10
MAX	---	---	---	---	---	---	---	---	1.04	1.00	.76	1.10
e	Estimated											

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	.00	---	---	---	---	---	---	.00	.00	.00	.15	.00
4	.00	---	---	---	---	---	---	.00	.00	.00	.16	.05
5	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	.00	---	---	---	---	---	---	.00	.00	.28	.08	.00
7	.33	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	.45	.01	.00	.00	.00
9	.00	---	---	---	---	---	---	.00	.00	.01	.00	.00
10	.00	---	---	---	---	---	---	.00	.01	.00	.00	.00
11	.00	---	---	---	---	---	---	.00	.01	.52	.00	.00
12	.00	---	---	---	---	---	---	.00	.00	.00	.03	.00
13	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
14	.00	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	.00	.00	.00	.00	.00	.00
16	.05	---	---	---	---	---	.00	.00	.00	.19	.00	.00
17	.27	---	---	---	---	---	.00	.00	.00	.77	.33	.00
18	.07	---	---	---	---	---	.00	.00	.00	.01	.01	.00
19	e.31	---	---	---	---	---	.00	.00	.00	.00	.01	.00
20	---	---	---	---	---	---	.00	.00	.05	.15	.00	.04
21	---	---	---	---	---	---	.00	.00	.00	.14	.64	.01
22	---	---	---	---	---	---	.00	.00	.03	.00	.00	.00
23	---	---	---	---	---	---	.07	.00	.00	.00	.00	.18
24	---	---	---	---	---	---	.01	.03	.00	.00	.00	.04
25	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
26	---	---	---	---	---	---	.00	.00	.29	.00	.18	.00
27	---	---	---	---	---	---	.00	.00	.29	.00	.00	.00
28	---	---	---	---	---	---	.00	.00	.03	.23	.00	.00
29	---	---	---	---	---	---	.13	.00	.06	.00	.00	.00
30	---	---	---	---	---	---	.33	.00	.02	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	0.48	0.80	2.30	1.59	0.32
MAX	---	---	---	---	---	---	---	.45	.29	.77	.64	.18
e	Estimated.											

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO

LOCATION (REVISED).--Lat 37°30'55", long 103°43'30", Las Animas County, Hydrologic Unit 11020010, on left bank 200 ft downstream from Welsh Canyon Creek, 0.3 mi upstream from mouth, and 21 mi east of Thatcher.

DRAINAGE AREA.--48.8 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to September 1990, October 1990 to September 1999 (annual maximum only), April to September 2000 (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry and crest-stage gages. Elevation of gage is 4,510 ft above sea level, from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,530 ft<sup>3</sup>/s, May 22 1997, from rating curve extended above 0.3 ft<sup>3</sup>/s on basis of slope-area measurements of peak flow at gage heights 7.54, 8.40, and 10.02 feet, gage height, 10.09 feet, from floodmarks; no flow most days.

EXTREMES FOR CURRENT YEAR (seasonal only).--No flow during the year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
4	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
5	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
7	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
9	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
10	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
12	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
13	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
15	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
16	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
17	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
18	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
19	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
20	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
21	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
22	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
25	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
26	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
27	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
28	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
29	---	---	---	---	---	---	e.00	.00	.00	.00	.00	.00
30	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	0.00	0.00	0.00	0.00	0.00
MEAN	---	---	---	---	---	---	---	.000	.000	.000	.000	.000
MAX	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
MIN	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	.00	.00	.00	.00	.00

e Estimated.

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to September 1990. June to September 2000.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: May 1983 to September 1990.

WATER TEMPERATURE: May 1983 to September 1990.

SUSPENDED SEDIMENT: June to September 2000 (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since June 2000.

REMARKS.--Records good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,100 microsiemens, June 28, 1983; minimum, 83 microsiemens, June 6, 1989.

WATER TEMPERATURE: Maximum, 33.3°C, Aug. 17, 1990; minimum, 5.5°C, Apr. 25, 1990.

SEDIMENT CONCENTRATION (seasonal only): No flow for period of record.

SEDIMENT LOAD (seasonal only): No flow for period of record.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): No flow for current year.

SEDIMENT LOAD (seasonal only): No flow for current year.

**--NO FLOW DURING CURRENT YEAR--**

07126415 RED ROCK CANYON CREEK AT MOUTH NEAR THATCHER, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Records published for period of seasonal operation only (Apr. 28 to Sept. 30). Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.07 inches, Aug. 17, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.07 inches, Aug. 17.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	.00	.01	.00	.00	.00
2	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
3	---	---	---	---	---	---	---	.00	.00	.00	.06	.00
4	---	---	---	---	---	---	---	.00	.00	.00	.01	.02
5	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
6	---	---	---	---	---	---	---	.00	.00	.11	.21	.00
7	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	---	.43	.00	.00	.00	.00
9	---	---	---	---	---	---	---	.01	.00	.00	.00	.00
10	---	---	---	---	---	---	---	.00	.02	.00	.00	.00
11	---	---	---	---	---	---	---	.00	.01	.74	.00	.00
12	---	---	---	---	---	---	---	.00	.00	.00	.06	.00
13	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
15	---	---	---	---	---	---	---	.00	.00	.01	.03	.00
16	---	---	---	---	---	---	---	.00	.00	.17	.00	.00
17	---	---	---	---	---	---	---	.00	.00	.17	1.07	.00
18	---	---	---	---	---	---	---	.00	.00	.00	.03	.00
19	---	---	---	---	---	---	---	.18	.00	.00	.01	.00
20	---	---	---	---	---	---	---	.00	.00	.32	.00	.05
21	---	---	---	---	---	---	---	.00	.00	.00	.18	.01
22	---	---	---	---	---	---	---	.00	.00	.00	.01	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.10
24	---	---	---	---	---	---	---	.00	.00	.00	.00	.04
25	---	---	---	---	---	---	---	.03	.15	.00	.00	.00
26	---	---	---	---	---	---	---	.00	.68	.00	.04	.00
27	---	---	---	---	---	---	---	.00	.73	.00	.00	.00
28	---	---	---	---	---	---	e.00	.00	.02	.10	.00	.00
29	---	---	---	---	---	---	.06	.00	.10	.00	.00	.00
30	---	---	---	---	---	---	.35	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	0.65	1.72	1.62	1.71	0.22
MAX	---	---	---	---	---	---	---	.43	.73	.74	1.07	.10

e Estimated.

07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO

LOCATION.--Lat 37°35'21", long 103°38'52", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.23, T.28 S., R.65 W., Las Animas County, Hydrologic Unit 11020010, on left bank 0.5 mi upstream from mouth, 0.6 mi southwest of Rourke Ranch house, 0.9 mi upstream from Iron Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--56.2 mi<sup>2</sup>.

## WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1983 to September 1990, October 1990 to September 1999 (annual maximum only), June to September 2000 (seasonal records only).

REVISED RECORDS.--WDR CO-84-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gages. Elevation of gage is 4,402 ft above sea level, from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,640 ft<sup>3</sup>/s, Aug. 21, 1984, from slope-area measurement of peak flow, gage height, 12.56 feet, from floodmark; no flow most days.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge during period June to September, 184 ft<sup>3</sup>/s, July 11, gage height, 6.33 feet, from rating curve extended above 41 ft<sup>3</sup>/s on basis of slope-area measurements at gage heights 8.70 ft, 11.61 ft, and 12.56 ft; no flow most days.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.00	.00
2	---	---	---	---	---	---	---	---	---	.00	.00	.00
3	---	---	---	---	---	---	---	---	---	.00	.00	.00
4	---	---	---	---	---	---	---	---	---	.00	.00	.00
5	---	---	---	---	---	---	---	---	---	.00	.00	.00
6	---	---	---	---	---	---	---	---	e.00	.00	4.2	.00
7	---	---	---	---	---	---	---	---	.00	.00	.00	.00
8	---	---	---	---	---	---	---	---	.00	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.00
11	---	---	---	---	---	---	---	---	.00	5.4	.00	.00
12	---	---	---	---	---	---	---	---	.00	.06	.00	.00
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.00	.00	.00	.00
15	---	---	---	---	---	---	---	---	.00	.00	.00	.00
16	---	---	---	---	---	---	---	---	.00	.00	.00	.00
17	---	---	---	---	---	---	---	---	.00	.00	.00	.00
18	---	---	---	---	---	---	---	---	.00	.00	.00	.00
19	---	---	---	---	---	---	---	---	.00	.00	.00	.00
20	---	---	---	---	---	---	---	---	.00	.00	.00	.00
21	---	---	---	---	---	---	---	---	.00	.00	.00	.00
22	---	---	---	---	---	---	---	---	.00	.00	.00	.00
23	---	---	---	---	---	---	---	---	.00	.00	.00	.00
24	---	---	---	---	---	---	---	---	.00	.00	.00	.00
25	---	---	---	---	---	---	---	---	.00	.00	.00	.00
26	---	---	---	---	---	---	---	---	.00	.00	.00	.00
27	---	---	---	---	---	---	---	---	.00	.00	.00	.00
28	---	---	---	---	---	---	---	---	.00	.00	.00	.00
29	---	---	---	---	---	---	---	---	.00	.00	.00	.00
30	---	---	---	---	---	---	---	---	.00	.00	.00	.00
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	5.46	4.20	0.00
MEAN	---	---	---	---	---	---	---	---	---	.18	.14	.000
MAX	---	---	---	---	---	---	---	---	---	5.4	4.2	.00
MIN	---	---	---	---	---	---	---	---	---	.00	.00	.00
AC-FT	---	---	---	---	---	---	---	---	---	11	8.3	.00

e Estimated.

07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1983 to September 1990. June to September 2000.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1983 to September 1990.

WATER TEMPERATURE: July 1983 to September 1990.

SUSPENDED SEDIMENT: May 1983 to September 1990. June to September 2000 (seasonal records only).

INSTRUMENTATION.--Pumping sediment sampler since June 2000.

REMARKS.--Records poor. Daily mean sediment concentrations published for days of partial flow might not reflect concentrations during the flow event, including July 11, Aug. 6.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,640 microsiemens, June 29, 1988; minimum, 109 microsiemens, Aug. 1 1984.

WATER TEMPERATURE: Maximum, 27.2°C, July 31, 1990; minimum, 8.6°C, May 24, 1988.

SEDIMENT CONCENTRATION: Maximum daily mean, 48,700 mg/L, July 15, 1984; minimum daily mean, 78 mg/L, July 2, 1986.

SEDIMENT LOAD: Maximum daily, 21,100 tons, Aug. 22, 1984; minimum daily, 0.02 ton (estimated), July 14, 1989, Aug. 16, 1990; no flow most days.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATION (seasonal only): Maximum daily mean, 852 mg/L, Aug. 6; minimum daily mean, 326 mg/L, July 11.

SEDIMENT LOAD (seasonal only): Maximum daily, 74 tons, Aug. 6; minimum daily, 0.12 ton (estimated), July 12; no flow most days.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
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	---	---	---	---	---	---	---	---	---
TOTAL	--0	---	--0	--0	---	--0	--0	---	--0

ARKANSAS RIVER BASIN

07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
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	---	---	---	---	---	---	---	---	---
TOTAL	--0	---	--0	--0	---	--0	--0	---	--0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	APRIL			MAY			JUNE		
1	---	---	---	---	---	---	---	---	---
2	---	---	---	---	---	---	---	---	---
3	---	---	---	---	---	---	---	---	---
4	---	---	---	---	---	---	---	---	---
5	---	---	---	---	---	---	---	---	---
6	---	---	---	---	---	---	e.00	---	---
7	---	---	---	---	---	---	.00	---	---
8	---	---	---	---	---	---	.00	---	---
9	---	---	---	---	---	---	.00	---	---
10	---	---	---	---	---	---	.00	---	---
11	---	---	---	---	---	---	.00	---	---
12	---	---	---	---	---	---	.00	---	---
13	---	---	---	---	---	---	.00	---	---
14	---	---	---	---	---	---	.00	---	---
15	---	---	---	---	---	---	.00	---	---
16	---	---	---	---	---	---	.00	---	---
17	---	---	---	---	---	---	.00	---	---
18	---	---	---	---	---	---	.00	---	---
19	---	---	---	---	---	---	.00	---	---
20	---	---	---	---	---	---	.00	---	---
21	---	---	---	---	---	---	.00	---	---
22	---	---	---	---	---	---	.00	---	---
23	---	---	---	---	---	---	.00	---	---
24	---	---	---	---	---	---	.00	---	---
25	---	---	---	---	---	---	.00	---	---
26	---	---	---	---	---	---	.00	---	---
27	---	---	---	---	---	---	.00	---	---
28	---	---	---	---	---	---	.00	---	---
29	---	---	---	---	---	---	.00	---	---
30	---	---	---	---	---	---	.00	---	---
31	---	---	---	---	---	---	---	---	---
TOTAL	--0	---	--0	--0	---	--0	0.00	---	--0



07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT	MEAN	MEAN	SEDIMENT
	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)	DISCHARGE (CFS)	CONCEN- TRATION (MG/L)	DISCHARGE (TONS/DAY)
	JULY			AUGUST			SEPTEMBER		
1	.00	---	---	.00	---	---	.00	---	---
2	.00	---	---	.00	---	---	.00	---	---
3	.00	---	---	.00	---	---	.00	---	---
4	.00	---	---	.00	---	---	.00	---	---
5	.00	---	---	.00	---	---	.00	---	---
6	.00	---	---	4.2	852	74	.00	---	---
7	.00	---	---	.00	---	---	.00	---	---
8	.00	---	---	.00	---	---	.00	---	---
9	.00	---	---	.00	---	---	.00	---	---
10	.00	---	---	.00	---	---	.00	---	---
11	5.4	326	27	.00	---	---	.00	---	---
12	.06	---	e.12	.00	---	---	.00	---	---
13	.00	---	---	.00	---	---	.00	---	---
14	.00	---	---	.00	---	---	.00	---	---
15	.00	---	---	.00	---	---	.00	---	---
16	.00	---	---	.00	---	---	.00	---	---
17	.00	---	---	.00	---	---	.00	---	---
18	.00	---	---	.00	---	---	.00	---	---
19	.00	---	---	.00	---	---	.00	---	---
20	.00	---	---	.00	---	---	.00	---	---
21	.00	---	---	.00	---	---	.00	---	---
22	.00	---	---	.00	---	---	.00	---	---
23	.00	---	---	.00	---	---	.00	---	---
24	.00	---	---	.00	---	---	.00	---	---
25	.00	---	---	.00	---	---	.00	---	---
26	.00	---	---	.00	---	---	.00	---	---
27	.00	---	---	.00	---	---	.00	---	---
28	.00	---	---	.00	---	---	.00	---	---
29	.00	---	---	.00	---	---	.00	---	---
30	.00	---	---	.00	---	---	.00	---	---
31	.00	---	---	.00	---	---	.00	---	---
TOTAL	5.46	---	27.12	4.20	---	74	0.00	---	0

e Estimated.

07126480 BENT CANYON CREEK AT MOUTH NEAR TIMPAS, CO--Continued

## PRECIPITATION RECORDS

PERIOD OF RECORD.--June to September 2000 (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good except for Aug. 16 to Sept. 30, which are poor. Records published for period of seasonal operation include June 6 to Sept. 30. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 2.28 inches, July 11, 2000.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 2.28 inches, July 11.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.00	.00
2	---	---	---	---	---	---	---	---	---	.00	.00	.00
3	---	---	---	---	---	---	---	---	---	.00	.13	.00
4	---	---	---	---	---	---	---	---	---	.00	.00	.04
5	---	---	---	---	---	---	---	---	---	.00	.02	.01
6	---	---	---	---	---	---	---	---	e.00	.15	.47	.02
7	---	---	---	---	---	---	---	---	.00	.00	.00	.00
8	---	---	---	---	---	---	---	---	.00	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.03	.00	.00	.00
11	---	---	---	---	---	---	---	---	.01	2.28	.00	.00
12	---	---	---	---	---	---	---	---	.00	.00	.05	.00
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.00	.00	.00	.00
15	---	---	---	---	---	---	---	---	.00	.01	.01	.00
16	---	---	---	---	---	---	---	---	.00	.05	.00	.00
17	---	---	---	---	---	---	---	---	.00	.64	e.82	.00
18	---	---	---	---	---	---	---	---	.00	.03	e.01	.00
19	---	---	---	---	---	---	---	---	.00	.00	.00	.00
20	---	---	---	---	---	---	---	---	.00	.31	.00	.03
21	---	---	---	---	---	---	---	---	.00	.02	e.04	.01
22	---	---	---	---	---	---	---	---	.00	.00	.00	.00
23	---	---	---	---	---	---	---	---	.00	.00	.00	.06
24	---	---	---	---	---	---	---	---	.01	.00	.00	.02
25	---	---	---	---	---	---	---	---	.90	.00	.00	.00
26	---	---	---	---	---	---	---	---	1.56	.00	.24	.00
27	---	---	---	---	---	---	---	---	.30	.00	.01	.00
28	---	---	---	---	---	---	---	---	.00	.09	.00	.00
29	---	---	---	---	---	---	---	---	.09	.00	.00	.00
30	---	---	---	---	---	---	---	---	.00	.00	.00	.00
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	3.58	1.80	0.19
MAX	---	---	---	---	---	---	---	---	---	2.28	.82	.06

e Estimated.

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO

LOCATION.--Lat 37°37'06', long 103°35'35" in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.10, T.28 S., R.55 W., Las Animas County, Hydrologic Unit 11020010, on right bank at Rock Crossing, 2.1 mi upstream from Minnie Canyon, 2.4 mi downstream from Beaty Canyon, and 17 mi southeast of Timpas.

DRAINAGE AREA.--2,635 mi<sup>2</sup>.

WATER-DISCHARGE RECORDS

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

REVISED RECORD.--WDR CO-87-1: 1984-86 (M).

GAGE.--Water-stage recorder with satellite telemetry, and crest-stage gages. Elevation of gage is 4,350 ft above sea level, from topographic map. June 1, 1983 to July 17, 1985, at site 500 ft downstream at same datum.

REMARKS.--Records good except for discharges above 2,500 ft<sup>3</sup>/s, which are fair, and estimated daily discharges, which are poor. Natural flow of stream affected by diversions upstream from station for irrigation of about 30,000 acres. Peak flows are regulated to some extent by Trinidad Dam, 92 mi upstream.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e42	50	e44	e43	e38	34	55	67	16	39	11	22
2	e42	48	e45	e42	e40	35	116	108	15	35	11	21
3	e43	47	e45	e41	e39	38	215	e107	16	31	11	22
4	e45	44	e44	38	e38	38	269	146	17	27	11	23
5	46	44	e45	39	e38	38	252	121	15	24	11	23
6	57	46	e45	42	e38	37	507	85	20	33	14	22
7	58	46	e45	42	e37	35	472	53	17	27	12	22
8	49	44	41	35	e38	37	381	47	17	23	7.6	22
9	45	44	e40	39	e37	36	310	47	25	21	9.0	21
10	46	44	e39	39	e36	36	241	43	23	19	13	21
11	46	43	e39	40	e37	34	165	69	22	131	10	22
12	44	43	e38	41	e37	33	143	82	20	63	7.2	21
13	43	43	e36	42	e36	33	146	69	17	55	5.8	20
14	42	43	e36	40	e36	33	205	46	23	36	4.8	19
15	44	43	e36	39	36	33	211	42	23	26	3.9	18
16	44	43	e36	39	35	34	210	41	21	90	3.5	18
17	42	43	e36	e39	35	35	206	41	21	415	3.4	16
18	44	44	e36	e38	34	42	131	37	21	42	7.4	16
19	47	e45	e37	38	33	47	108	32	19	35	18	15
20	58	e45	e38	39	34	50	100	31	21	33	18	15
21	78	e44	e39	39	33	48	95	30	27	37	18	15
22	64	e43	e40	39	33	44	93	32	22	21	1040	15
23	57	e45	e41	38	35	44	96	30	18	18	69	15
24	52	e45	e41	38	34	49	102	29	15	17	35	15
25	49	e45	e43	38	33	57	104	25	18	17	28	14
26	53	e46	e45	e38	32	56	103	24	18	17	26	14
27	52	e45	e47	e39	32	52	85	21	26	14	24	15
28	49	e45	e47	e39	31	48	66	23	17	14	22	19
29	50	e44	e46	e38	32	45	51	22	65	22	22	20
30	49	e45	e45	e37	---	45	53	20	49	15	27	20
31	49	---	e44	e38	---	57	---	18	---	12	25	---
TOTAL	1529	1339	1279	1216	1027	1283	5291	1588	664	1409	1528.6	561
MEAN	49.3	44.6	41.3	39.2	35.4	41.4	176	51.2	22.1	45.5	49.3	18.7
MAX	78	50	47	43	40	57	507	146	65	415	1040	23
MIN	42	43	36	35	31	33	51	18	15	12	3.4	14
AC-FT	3030	2660	2540	2410	2040	2540	10490	3150	1320	2790	3030	1110

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1983 - 2000, BY WATER YEAR (WY)

	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
MEAN	43.1	41.2	34.7	32.7	35.2	46.8	94.4	138	107	78.7	127	45.2
MAX	89.1	68.3	43.4	41.4	56.0	139	330	585	836	186	468	98.6
(WY)	1999	1999	1998	1984	1988	1998	1993	1987	1983	1992	1999	1993
MIN	13.0	20.5	15.6	17.4	22.7	19.7	16.8	5.81	9.65	11.2	39.1	12.5
(WY)	1990	1990	1991	1991	1991	1991	1989	1991	1990	1989	1985	1990

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1983 - 2000
ANNUAL TOTAL	41781	18714.6	
ANNUAL MEAN	114	51.1	65.1
HIGHEST ANNUAL MEAN			123
LOWEST ANNUAL MEAN			29.6
HIGHEST DAILY MEAN	4190	May 2	4190
LOWEST DAILY MEAN	22	Apr 13	a.00
ANNUAL SEVEN-DAY MINIMUM	25	Mar 28	.00
INSTANTANEOUS PEAK FLOW		2810	Aug 22
INSTANTANEOUS PEAK STAGE		12.47	Aug 22
ANNUAL RUNOFF (AC-FT)	82870	37120	c17.90
10 PERCENT EXCEEDS	207	79	124
50 PERCENT EXCEEDS	44	38	36
90 PERCENT EXCEEDS	29	16	15

e Estimated.  
a Also occurred Jul 1-9, 1990.  
b From slope-area measurement of peak flow.  
c From floodmarks.

## 07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1982 to September 1992. June 1997 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: July 1983 to September 1992.

WATER TEMPERATURE: July 1983 to September 1992.

SUSPENDED SEDIMENT: August 1983 to September 1992, June 1997 to current year (seasonal peaks only).

INSTRUMENTATION.--Pumping sediment sampler since June 1997.

REMARKS.--Records for daily sediment are poor. Daily sediment records are published for days when instantaneous discharge exceeds 100 ft<sup>3</sup>/s. Daily maximum and minimum specific conductance and daily mean water temperature data for July 1983 to September 1992 are available in the district office.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 5,590 microsiemens, July 13, 1991; minimum, 202 microsiemens, Aug. 11, 1991.

WATER TEMPERATURE: Maximum, 36.8°C, June 27, 1990; minimum 0.0°C, many days.

SEDIMENT CONCENTRATIONS: Maximum daily, 54,900 mg/L, Aug. 16, 1986; minimum daily, 5 mg/L, Mar. 22, 1988, and Feb. 10, 1989.

SEDIMENT LOADS: Maximum daily (occurred during period of seasonal record), 287,000 tons (estimated), May 2, 1999; minimum daily, 0.0 ton (estimated), several days during 1989 and 1990.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS (seasonal peaks only): Maximum daily mean, 8,240 mg/L, July 17; minimum daily mean, 456 mg/L, July 16.

SEDIMENT LOADS (seasonal peaks only): Maximum daily, 19,200 tons, Aug. 22; minimum daily, 71 tons (estimated), May 6.

## MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					MAY				
18...	1545	44	3160	11.1	03...	1605	147	3020	20.7
JAN					JUN				
25...	1130	38	3390	3.0	08...	1815	18	3650	25.2
MAR					AUG				
15...	1450	33	3410	12.7	16...	1120	3.6	3160	24.4
APR					30...	0950	27	1340	24.5
27...	1800	82	1560	20.4					

## SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT					
18...	1545	44	11.1	14	1.7
APR					
27...	1800	82	20.4	74	16
MAY					
03...	1605	147	20.7	96	38
JUN					
08...	1815	18	25.2	76	3.7
21...	1220	28	23.9	32	2.4
AUG					
16...	1120	3.6	24.4	20	.19
30...	0950	27	24.5	67	4.9

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	e42	---	---	50	---	---	e44	---	---
2	e42	---	---	48	---	---	e45	---	---
3	e43	---	---	47	---	---	e45	---	---
4	e45	---	---	44	---	---	e44	---	---
5	46	---	---	44	---	---	e45	---	---
6	57	---	---	46	---	---	e45	---	---
7	58	---	---	46	---	---	e45	---	---
8	49	---	---	44	---	---	41	---	---
9	45	---	---	44	---	---	e40	---	---
10	46	---	---	44	---	---	e39	---	---
11	46	---	---	43	---	---	e39	---	---
12	44	---	---	43	---	---	e38	---	---
13	43	---	---	43	---	---	e36	---	---
14	42	---	---	43	---	---	e36	---	---
15	44	---	---	43	---	---	e36	---	---
16	44	---	---	43	---	---	e36	---	---
17	42	---	---	43	---	---	e36	---	---
18	44	---	---	44	---	---	e36	---	---
19	47	---	---	e45	---	---	e37	---	---
20	58	---	---	e45	---	---	e38	---	---
21	78	---	---	e44	---	---	e39	---	---
22	64	---	---	e43	---	---	e40	---	---
23	57	---	---	e45	---	---	e41	---	---
24	52	---	---	e45	---	---	e41	---	---
25	49	---	---	e45	---	---	e43	---	---
26	53	---	---	e46	---	---	e45	---	---
27	52	---	---	e45	---	---	e47	---	---
28	49	---	---	e45	---	---	e47	---	---
29	50	---	---	e44	---	---	e46	---	---
30	49	---	---	e45	---	---	e45	---	---
31	49	---	---	---	---	---	e44	---	---
TOTAL	1529	---	0	1339	---	0	1279	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	e43	---	---	e38	---	---	34	---	---
2	e42	---	---	e40	---	---	35	---	---
3	e41	---	---	e39	---	---	38	---	---
4	38	---	---	e38	---	---	38	---	---
5	39	---	---	e38	---	---	38	---	---
6	42	---	---	e38	---	---	37	---	---
7	42	---	---	e37	---	---	35	---	---
8	35	---	---	e38	---	---	37	---	---
9	39	---	---	e37	---	---	36	---	---
10	39	---	---	e36	---	---	36	---	---
11	40	---	---	e37	---	---	34	---	---
12	41	---	---	e37	---	---	33	---	---
13	42	---	---	e36	---	---	33	---	---
14	40	---	---	e36	---	---	33	---	---
15	39	---	---	36	---	---	33	---	---
16	39	---	---	35	---	---	34	---	---
17	e39	---	---	35	---	---	35	---	---
18	e38	---	---	34	---	---	42	---	---
19	38	---	---	33	---	---	47	---	---
20	39	---	---	34	---	---	50	---	---
21	39	---	---	33	---	---	48	---	---
22	39	---	---	33	---	---	44	---	---
23	38	---	---	35	---	---	44	---	---
24	38	---	---	34	---	---	49	---	---
25	38	---	---	33	---	---	57	---	---
26	e38	---	---	32	---	---	56	---	---
27	e39	---	---	32	---	---	52	---	---
28	e39	---	---	31	---	---	48	---	---
29	e38	---	---	32	---	---	45	---	---
30	e37	---	---	---	---	---	45	---	---
31	e38	---	---	---	---	---	57	---	---
TOTAL	1216	---	0	1027	---	0	1283	---	0

## ARKANSAS RIVER BASIN

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	55	---	---	67	---	---	16	---	---
2	116	---	e217	108	---	e109	15	---	---
3	215	---	e882	e107	---	e107	16	---	---
4	269	---	e1470	146	---	e231	17	---	---
5	252	---	e1260	121	---	e145	15	---	---
6	507	---	e6190	85	---	e71	20	---	---
7	472	---	e5260	53	---	---	17	---	---
8	381	---	e3230	47	---	---	17	---	---
9	310	---	e2020	47	---	---	25	---	---
10	241	---	e1140	43	---	---	23	---	---
11	165	---	e483	69	---	---	22	---	---
12	143	---	e349	82	---	---	20	---	---
13	146	---	e366	69	---	---	17	---	---
14	205	---	e791	46	---	---	23	---	---
15	211	---	e845	42	---	---	23	---	---
16	210	---	e836	41	---	---	21	---	---
17	206	---	e800	41	---	---	21	---	---
18	131	---	e286	37	---	---	21	---	---
19	108	---	e185	32	---	---	19	---	---
20	100	---	e155	31	---	---	21	---	---
21	95	---	---	30	---	---	27	---	---
22	93	---	---	32	---	---	22	---	---
23	96	---	e141	30	---	---	18	---	---
24	102	---	e162	29	---	---	15	---	---
25	104	---	e169	25	---	---	18	---	---
26	103	---	e166	24	---	---	18	---	---
27	85	---	---	21	---	---	26	---	---
28	66	---	---	23	---	---	17	---	---
29	51	---	---	22	---	---	65	---	---
30	53	---	---	20	---	---	49	---	---
31	---	---	---	18	---	---	---	---	---
TOTAL	5291	---	27403	1588	---	663	664	---	0

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN- TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	39	---	---	11	---	---	22	---	---
2	35	---	---	11	---	---	21	---	---
3	31	---	---	11	---	---	22	---	---
4	27	---	---	11	---	---	23	---	---
5	24	---	---	11	---	---	23	---	---
6	33	---	---	14	---	---	22	---	---
7	27	---	---	12	---	---	22	---	---
8	23	---	---	7.6	---	---	22	---	---
9	21	---	---	9.0	---	---	21	---	---
10	19	---	---	13	---	---	21	---	---
11	131	1320	2530	10	---	---	22	---	---
12	63	1580	537	7.2	---	---	21	---	---
13	55	---	---	5.8	---	---	20	---	---
14	36	---	---	4.8	---	---	19	---	---
15	26	---	---	3.9	---	---	18	---	---
16	90	456	1670	3.5	---	---	18	---	---
17	415	8240	14100	3.4	---	---	16	---	---
18	42	---	---	7.4	---	---	16	---	---
19	35	---	---	18	---	---	15	---	---
20	33	---	---	18	---	---	15	---	---
21	37	---	---	18	---	---	15	---	---
22	21	---	---	1040	6630	19200	15	---	---
23	18	---	---	69	---	e110	15	---	---
24	17	---	---	35	---	---	15	---	---
25	17	---	---	28	---	---	14	---	---
26	17	---	---	26	---	---	14	---	---
27	14	---	---	24	---	---	15	---	---
28	14	---	---	22	---	---	19	---	---
29	22	---	---	22	---	---	20	---	---
30	15	---	---	27	---	---	20	---	---
31	12	---	---	25	---	---	---	---	---
TOTAL	1409	---	18837	1528.6	---	19310	561	---	0

e Estimated.

07126485 PURGATOIRE RIVER AT ROCK CROSSING NEAR TIMPAS, CO--Continued

PRECIPITATION RECORDS

PERIOD OF RECORD.--April 1999 to current year (seasonal records only).

GAGE.--Tipping-bucket rain gage with satellite telemetry.

REMARKS.--Records good. Records published for period of seasonal operation only (Oct 1-18 and Apr. 27 to Sept. 30). Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum daily precipitation, 1.83 inches, Apr. 30, 1999.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum daily precipitation, 1.69 inches, Aug. 17.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
2	e.00	---	---	---	---	---	---	.00	.00	.00	.00	.04
3	e.00	---	---	---	---	---	---	.00	1.08	.00	.01	.00
4	e.00	---	---	---	---	---	---	.00	.00	.00	.01	.43
5	.00	---	---	---	---	---	---	.00	.00	.00	.04	.00
6	.00	---	---	---	---	---	---	.00	.00	.01	.14	.00
7	.05	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	.00	---	---	---	---	---	---	.59	.00	.00	.00	.00
9	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
10	.00	---	---	---	---	---	---	.00	.11	.00	.00	.00
11	.00	---	---	---	---	---	---	.00	.04	.06	.00	.00
12	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
13	.00	---	---	---	---	---	---	.00	.00	.00	.76	.00
14	.00	---	---	---	---	---	---	.00	.00	.00	.00	.00
15	.00	---	---	---	---	---	---	.00	.02	.00	.01	.00
16	.02	---	---	---	---	---	---	.00	.00	.01	.10	.00
17	.28	---	---	---	---	---	---	.00	.00	.04	1.69	.00
18	e.00	---	---	---	---	---	---	.00	.00	.02	.01	.00
19	---	---	---	---	---	---	---	.03	.00	.00	.00	.00
20	---	---	---	---	---	---	---	.01	.00	.23	.00	.03
21	---	---	---	---	---	---	---	.00	.00	.00	.00	.28
22	---	---	---	---	---	---	---	.00	.01	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.07
24	---	---	---	---	---	---	---	.00	.33	.00	.00	.04
25	---	---	---	---	---	---	---	.02	.26	.00	.00	.00
26	---	---	---	---	---	---	---	.00	.61	.00	.49	.00
27	---	---	---	---	---	---	e.00	.00	.03	.00	.00	.00
28	---	---	---	---	---	---	.03	.00	.00	.06	.00	.00
29	---	---	---	---	---	---	.23	.95	.06	.00	.00	.00
30	---	---	---	---	---	---	.55	.00	.00	.00	.00	.00
31	---	---	---	---	---	---	---	.00	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	1.60	2.55	0.43	3.26	0.89
MAX	---	---	---	---	---	---	---	.95	1.08	.23	1.69	.43

e Estimated.

## 07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO

LOCATION.--Lat 38°02'02", long 103°12'00", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.23, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020010, on right bank at downstream side of bridge on State Highway 101, 2.3 mi southeast of courthouse in Las Animas, and 4.5 mi upstream from mouth.

DRAINAGE AREA.--3,318 mi<sup>2</sup>.

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. Statistical summary computed for 1978 to current year, subsequent to completion of Trinidad Reservoir. Water-quality data available, December 1985 to September 1996.

REVISED RECORDS.--WSP 1241: 1927(M); WDR CO-84-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 3,878.04 ft above 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 higher. Supplementary water-stage recorder at site 1.6 mi downstream at different datum July 12 to Nov. 17, 1966. Nov. 18, 1966 to May 4, 1982, at datum 3.1 ft lower.

REMARKS.--Records fair except Jan. 10-18, Feb. 28 to Mar. 9, and estimated daily discharges, which are poor. Natural flow of stream regulated to some extent since January 1975 by Trinidad Lake near Trinidad, upstream. Diversions for irrigation of about 36,000 acres upstream from station. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report. Instantaneous discharge and selected water-quality data collected as part of a basin-wide water-quality assessment of the lower Arkansas River basin in Colorado are published elsewhere in this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1860 occurred Oct. 1, 1904, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	86	56	e41	e40	31	93	59	16	47	9.3	16
2	84	86	56	e40	42	35	102	68	31	36	6.9	18
3	84	88	55	e40	40	42	125	89	17	26	6.1	16
4	85	84	57	e43	38	42	232	104	24	26	4.0	13
5	85	83	e55	e37	41	43	266	120	29	20	2.8	11
6	79	81	e54	e37	43	39	269	107	28	16	3.2	11
7	82	80	e50	e40	42	41	533	93	18	10	13	11
8	97	83	e45	e42	41	46	455	63	15	11	55	10
9	93	79	e45	e45	39	42	378	50	14	18	20	5.2
10	78	76	e45	42	36	36	314	41	10	13	15	6.7
11	75	69	e45	44	38	40	247	31	12	9.2	10	4.1
12	71	65	e48	43	e38	40	174	26	16	39	7.9	4.1
13	69	68	e48	43	41	37	147	54	12	81	11	2.7
14	69	70	e45	41	41	36	130	60	16	44	9.6	5.7
15	65	69	e40	42	39	74	156	46	8.1	39	6.9	4.2
16	70	68	e40	40	42	70	164	41	5.6	32	5.6	3.2
17	81	65	e45	41	40	72	171	43	5.6	155	4.8	2.8
18	79	63	e43	36	43	66	161	55	5.2	627	4.6	2.3
19	73	72	e40	e35	38	62	123	50	6.4	101	4.8	2.1
20	77	71	e40	e37	35	70	115	35	4.2	60	3.8	1.9
21	79	82	e40	e35	34	76	113	25	3.6	53	3.3	2.5
22	95	80	e42	e35	36	85	98	22	3.2	55	125	2.4
23	99	77	e42	e38	37	78	89	21	3.4	37	419	1.8
24	93	54	e40	e40	39	67	89	24	3.1	23	93	2.2
25	87	e55	e40	e42	38	64	90	35	3.1	17	45	1.9
26	80	e55	e42	e37	37	62	84	39	7.0	14	27	2.1
27	78	54	e44	e40	37	69	79	37	10	13	23	1.8
28	79	55	e45	e40	36	64	72	31	14	6.9	17	2.2
29	76	55	e43	e44	31	54	66	27	19	6.6	18	2.4
30	81	56	e44	e44	---	53	60	19	17	7.2	16	1.5
31	87	---	e42	e43	---	62	---	13	---	4.6	15	---
TOTAL	2515	2129	1416	1247	1122	1698	5195	1528	376.5	1647.5	1005.6	171.8
MEAN	81.1	71.0	45.7	40.2	38.7	54.8	173	49.3	12.6	53.1	32.4	5.73
MAX	99	88	57	45	43	85	533	120	31	627	419	18
MIN	65	54	40	35	31	31	60	13	3.1	4.6	2.8	1.5
AC-FT	4990	4220	2810	2470	2230	3370	10300	3030	747	3270	1990	341

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1978 - 2000, BY WATER YEAR (WY)

	1978	1979	1998	1999	2000	1978	1979	1998	1999	2000		
MEAN	39.4	39.2	30.9	32.8	32.9	44.2	86.8	142	107	75.0	137	48.3
MAX	125	88.4	57.5	57.4	61.9	169	418	614	724	263	761	224
(WY)	1999	1999	1998	1998	1998	1998	1983	1987	1983	1981	1981	1981
MIN	1.58	1.90	2.38	4.72	5.65	5.26	3.53	5.41	8.76	7.67	3.76	3.14
(WY)	1978	1979	1979	1979	1979	1978	1978	1991	1990	1994	1980	1978

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1978 - 2000
ANNUAL TOTAL	52057	20051.4	
ANNUAL MEAN	143	54.8	a68.2
HIGHEST ANNUAL MEAN			166
LOWEST ANNUAL MEAN			22.7
HIGHEST DAILY MEAN	3890	May 3	b3890
LOWEST DAILY MEAN	19	Jul 7	c1.2
ANNUAL SEVEN-DAY MINIMUM	26	Feb 28	c1.3
INSTANTANEOUS PEAK FLOW			d6680
INSTANTANEOUS PEAK STAGE		8.46	Jul 18
ANNUAL RUNOFF (AC-FT)	103300	39770	f10.09
10 PERCENT EXCEEDS	246	93	Jul 5 1981
50 PERCENT EXCEEDS	65	42	f10.09
90 PERCENT EXCEEDS	34	5.5	Jul 5 1981

e Estimated.

a Average discharge for 37 years (water years 1923-31, 1949-76), 116 ft<sup>3</sup>/s; 84040 acre-ft/yr, prior to completion of Trinidad Reservoir.

b Maximum daily discharge for period of record, 46300 ft<sup>3</sup>/s, May 20, 1955.

c No flow at times in 1924-25, 1927, 1949, and 1974.

d From rating curve extended above 4,460 ft<sup>3</sup>/s; maximum discharge and stage for period of record, 70000 ft<sup>3</sup>/s, May 20, 1955, gage height, 20.00 ft, from rating curve extended above 38000 ft<sup>3</sup>/s, at different datum.

f Maximum gage height for statistical period, 12.00 ft, May 3, 1999.



07130000 JOHN MARTIN RESERVOIR AT CADDOA, CO

LOCATION.--Lat 38°04'05", long 102°56'13", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.8, T.23 S., R.49 W., Bent County, Hydrologic Unit 11020009, in north parapet of dam on Arkansas River at Caddoa, 3.2 mi southeast of Hasty, and 58 mi upstream from Colorado-Kansas State line.

DRAINAGE AREA.--18,915 mi<sup>2</sup>, of which 785 mi<sup>2</sup> is probably noncontributing.

PERIOD OF RECORD.--January 1943 to current year. Month-end contents only prior to November 1943, published in WSP 1311.

GAGE.--Water-stage recorder with satellite telemetry for elevations above 3,784 ft (48 acre-feet), and nonrecording gage read once daily for those below. Datum of gage is 3,760.00 ft above sea level, (levels by U.S. Corps of Engineers); gage readings have been reduced to elevations above sea level.

REMARKS.--No estimated midnight contents. Records good. Reservoir is formed by concrete and earthfill dam. Storage began while dam was under construction prior to 1943, and record of contents began Jan. 1, 1943. Capacity (based on 1999 resurvey used from Nov. 1, 1999) 603,500 acre-ft, at elevation 3,870.00 ft, top of spillway gates, of which 344,000 acre-ft between elevations 3780.00 ft, elevation of no contents, and 3851.87 ft, is reserved for flood control. Capacity at spillway crest, 222,400 acre-ft, at elevation 3,840.00 ft. Contents table shown is from the latest survey of 1999. No dead storage. Figures given represent total contents.

COOPERATION.--Capacity tables provided by U.S. Army, Corps of Engineers.

EXTREMES (AT 2400) FOR PERIOD OF RECORD.--Maximum contents, 450,000 acre-ft, May 6-15, 1999, maximum elevation, 3,860.45, May 9, 1999; no contents at times many years.

EXTREMES (AT 2400) FOR CURRENT YEAR.--Maximum contents, 349,000 acre-ft, Feb. 21-22, maximum elevation, 3,852.29 ft, Feb. 22; minimum contents, 122,000 acre-ft, Sept. 30, minimum elevation, 3,826.58 ft, Sept. 30.

Capacity table (elevation, in feet, and contents, in acre-feet)

3,785.0	235	3,820.0	86,400
3,790.0	2,410	3,830.0	144,000
3,795.0	8,300	3,840.0	222,000
3,800.0	17,800	3,850.0	323,000
3,810.0	46,200	3,860.0	448,000

RESERVOIR STORAGE (ACRE-FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	326000	324000	326000	335000	344000	347000	338000	324000	300000	233000	187000	139000
2	325000	324000	326000	335000	344000	347000	338000	323000	299000	231000	185000	139000
3	325000	324000	326000	336000	343000	347000	338000	322000	297000	229000	183000	138000
4	325000	325000	327000	336000	343000	347000	338000	322000	296000	227000	181000	137000
5	325000	325000	327000	336000	343000	347000	338000	321000	295000	225000	179000	136000
6	325000	325000	327000	336000	344000	347000	338000	321000	294000	223000	176000	136000
7	326000	325000	328000	337000	344000	347000	338000	320000	293000	221000	174000	135000
8	326000	325000	328000	337000	344000	346000	338000	319000	290000	218000	172000	135000
9	326000	325000	328000	337000	344000	345000	339000	318000	288000	216000	169000	134000
10	326000	325000	328000	338000	344000	344000	339000	318000	285000	214000	167000	134000
11	326000	325000	329000	338000	345000	343000	338000	316000	282000	212000	165000	133000
12	326000	325000	329000	338000	345000	342000	338000	316000	279000	210000	163000	132000
13	326000	324000	330000	338000	346000	342000	337000	315000	276000	208000	162000	132000
14	326000	324000	330000	339000	347000	342000	337000	314000	273000	206000	160000	131000
15	326000	324000	330000	339000	347000	341000	336000	314000	271000	205000	159000	131000
16	326000	324000	330000	339000	347000	341000	335000	313000	268000	203000	157000	130000
17	326000	324000	330000	340000	348000	341000	334000	313000	266000	202000	156000	130000
18	326000	324000	331000	340000	348000	340000	334000	311000	263000	200000	155000	129000
19	326000	324000	331000	340000	348000	340000	333000	311000	260000	200000	153000	129000
20	326000	324000	331000	341000	348000	340000	332000	310000	258000	198000	152000	128000
21	326000	324000	332000	341000	349000	339000	331000	310000	256000	197000	151000	128000
22	326000	324000	332000	341000	349000	339000	330000	309000	253000	197000	149000	127000
23	326000	324000	332000	341000	348000	339000	330000	308000	251000	195000	149000	127000
24	326000	324000	333000	342000	348000	339000	329000	308000	249000	194000	148000	127000
25	326000	324000	333000	342000	348000	339000	328000	306000	246000	194000	146000	126000
26	325000	325000	333000	342000	348000	339000	327000	306000	244000	194000	145000	126000
27	325000	324000	333000	343000	347000	339000	326000	304000	242000	193000	144000	125000
28	325000	325000	334000	343000	348000	338000	325000	304000	240000	192000	143000	124000
29	325000	325000	334000	344000	348000	338000	324000	303000	237000	191000	142000	123000
30	325000	325000	334000	344000	---	338000	324000	302000	235000	190000	141000	122000
31	325000	---	335000	344000	---	338000	---	301000	---	188000	140000	---
MEAN	326000	324000	330000	339000	346000	342000	334000	313000	270000	207000	160000	131000
MAX	326000	325000	335000	344000	349000	347000	339000	324000	300000	233000	187000	139000
MIN	325000	324000	326000	335000	343000	338000	324000	301000	235000	188000	140000	122000
CAL YR 1999	MEAN 334000	MAX 450000	MIN 272000									
WTR YR 2000	MEAN 285000	MAX 349000	MIN 122000									



07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: December 1985 to current year.

WATER TEMPERATURE: December 1985 to current year.

INSTRUMENTATION.--Water-quality monitor with satellite telemetry.

REMARKS.--Records for daily specific conductance are fair. Records for daily water temperature are good. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 3,540 microsiemens, Feb. 26, 1986; minimum, 1,060 microsiemens, several days in 1995.

WATER TEMPERATURE: Maximum, 27.9°C, June 10, 1989; minimum, 0.0°C, many days.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum, 2,320 microsiemens, Sept. 29-30; minimum, 1,600 microsiemens, Oct. 5.

WATER TEMPERATURE: Maximum, 24.8°C, Aug. 17; minimum, 1.4°C, Jan. 4, 7.

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1690	1640	1670	1740	1720	1730	---	---	---	2060	1960	2000
2	1680	1650	1670	1730	1720	1720	---	---	---	2090	2050	2070
3	1680	1660	1680	1720	1720	1720	---	---	---	2110	2030	2070
4	1660	1610	1630	1730	1720	1720	---	---	---	2090	2020	2060
5	1680	1600	1650	1730	1720	1720	---	---	---	2040	2000	2020
6	1690	1670	1680	1720	1720	1720	---	---	---	2060	1970	2000
7	1690	1670	1680	1730	1710	1720	---	---	---	2120	2010	2050
8	1690	1670	1680	1740	1720	1720	1970	1910	1940	2050	2000	2030
9	1690	1670	1670	1780	1740	1770	1990	1960	1970	2020	2000	2010
10	1680	1650	1670	1780	1760	1770	1990	1940	1950	2050	2000	2020
11	1700	1670	1680	1820	1780	1790	2000	1970	1980	2080	2030	2050
12	1700	1680	1690	1820	1770	1800	---	---	---	2090	2060	2080
13	1690	1680	1690	1820	1730	1770	---	---	---	2110	2050	2070
14	1690	1680	1690	1850	1750	1800	2040	2000	2020	---	---	---
15	1700	1680	1690	1870	1830	1840	2010	1980	2000	---	---	---
16	1690	1670	1670	1870	1760	1800	1980	1940	1960	---	---	---
17	1710	1660	1680	1820	1740	1770	2030	1910	1950	---	---	---
18	1720	1700	1710	1810	1740	1770	---	---	---	---	---	---
19	1710	1700	1710	1810	1750	1770	---	---	---	---	---	---
20	1720	1700	1710	1760	1750	1760	2060	2040	2040	2130	2080	2110
21	1710	1690	1700	1760	1750	1760	2040	2000	2010	2140	2080	2110
22	1710	1670	1680	1780	1760	1770	---	---	---	2130	2100	2120
23	1700	1660	1680	1780	1760	1770	---	---	---	2130	2100	2120
24	1710	1680	1700	1780	1770	1770	---	---	---	2140	2110	2130
25	1720	1670	1700	1780	1770	1770	---	---	---	2140	2090	2110
26	1770	1660	1710	1780	1770	1770	---	---	---	2140	2120	2120
27	1790	1770	1780	1780	1770	1770	---	---	---	2130	2110	2120
28	1820	1770	1790	1780	1770	1770	---	---	---	2130	2050	2100
29	1820	1700	1740	1800	1770	1780	2030	1990	2010	2050	1940	1990
30	1730	1700	1710	1790	1720	1750	2040	1990	2020	1940	1920	1930
31	1740	1710	1730	---	---	---	2020	1960	1980	1930	1870	1900
MONTH	1820	1600	1690	1870	1710	1760	---	---	---	---	---	---

## ARKANSAS RIVER BASIN

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO--Continued

SPECIFIC CONDUCTANCE (MICROSIEMENS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1870	1860	1870	1930	1930	1930	2170	2120	2150	2050	2010	2030
2	1870	1860	1870	1930	1920	1930	2120	2010	2060	2050	2010	2030
3	1870	1860	1870	1930	1920	1920	2010	1990	2000	2030	2010	2020
4	---	---	---	1920	1920	1920	2000	1990	2000	2020	2010	2020
5	---	---	---	1920	1900	1910	2000	1990	2000	2010	1980	2000
6	---	---	---	1910	1870	1890	2010	1990	2000	1990	1940	1970
7	---	---	---	1880	1850	1860	2010	1990	2000	1950	1910	1930
8	---	---	---	1850	1830	1840	2010	1990	2000	1950	1920	1940
9	2150	2060	2120	---	---	---	2010	2000	2000	1960	1920	1940
10	2220	2120	2170	---	---	---	2010	1990	2000	1960	1930	1950
11	2220	2200	2210	---	---	---	2000	1990	1990	1980	1940	1960
12	2220	2200	2210	---	---	---	2000	1970	1990	1970	1930	1950
13	2210	2180	2200	---	---	---	1990	1970	1980	2000	1920	1960
14	2180	2140	2160	---	---	---	1980	1970	1970	2020	1950	1990
15	2140	2120	2130	---	---	---	1990	1960	1980	2050	2010	2030
16	2120	2110	2120	---	---	---	2010	1980	1980	2080	2050	2070
17	2110	1970	2050	---	---	---	2040	2000	2020	2090	2070	2080
18	1970	1950	1960	---	---	---	2030	2020	2030	2090	2060	2080
19	1980	1960	1970	---	---	---	2060	2030	2040	2090	2050	2070
20	1970	1930	1950	---	---	---	2050	2000	2030	2090	2050	2070
21	1930	1920	1920	---	---	---	2030	2020	2030	2090	2050	2070
22	1920	1900	1910	---	---	---	2040	2020	2030	2080	2040	2070
23	1900	1890	1900	---	---	---	2020	1970	2000	2090	2000	2060
24	1910	1890	1900	---	---	---	2000	1970	1990	2070	2000	2050
25	1900	1890	1900	---	---	---	2010	1980	2000	2090	2070	2070
26	1900	1890	1900	---	---	---	2010	1990	2000	2090	2080	2080
27	1900	1890	1900	---	---	---	2030	1990	2010	2080	2060	2080
28	1920	1890	1900	---	---	---	2040	2010	2020	2080	2040	2060
29	1930	1900	1910	---	---	---	2050	2010	2030	2070	2030	2050
30	---	---	---	---	---	---	2050	2010	2030	2050	2010	2030
31	---	---	---	---	---	---	---	---	---	2040	2020	2030
MONTH	---	---	---	---	---	---	2170	1960	2010	2090	1910	2020
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2050	2020	2040	2070	2030	2050	---	---	---	2250	2210	2230
2	2050	2020	2040	2070	2030	2050	2190	2160	2180	2250	2220	2240
3	2050	2020	2030	2090	2030	2060	2200	2180	2190	2250	2200	2240
4	2040	2020	2030	2090	2040	2070	2210	2200	2200	2260	2210	2240
5	2050	2010	2030	2080	2060	2070	2210	2190	2200	2260	2220	2240
6	2020	2000	2010	2140	2030	2060	2210	2160	2200	2250	2220	2240
7	2020	2000	2010	2140	2100	2130	2210	2190	2200	2250	2200	2240
8	2050	2010	2030	2110	2070	2090	2210	2200	2200	2240	2210	2230
9	---	---	---	2110	2050	2080	2210	2180	2200	2240	2200	2220
10	---	---	---	2080	2050	2070	2210	2190	2200	2250	2210	2230
11	---	---	---	2110	2050	2080	2210	2180	2200	2250	2220	2240
12	---	---	---	2130	2060	2090	2200	2190	2200	2240	2220	2230
13	---	---	---	2120	2070	2090	2220	2190	2200	2250	2220	2240
14	2100	2050	2080	2120	2060	2080	2210	2170	2200	2240	2230	2240
15	2060	2020	2030	2120	2060	2090	2210	2180	2200	2240	2230	2240
16	2020	1970	1990	2200	2080	2170	2210	2140	2170	2270	2240	2260
17	2010	1970	1980	2190	2160	2180	2210	2190	2200	2260	2240	2240
18	2010	1970	1990	2160	2130	2150	2210	2150	2180	2270	2250	2260
19	2020	1980	2000	2160	2120	2130	2220	2200	2210	2270	2240	2250
20	2020	1990	2000	2150	2120	2140	2220	2200	2210	2260	2250	2260
21	2020	1990	2010	2150	2140	2140	2220	2200	2210	2280	2240	2260
22	2030	2000	2010	2150	2140	2140	2220	2200	2210	2300	2250	2270
23	2030	1990	2010	2140	2130	2140	2240	2210	2230	2290	2280	2280
24	2040	1990	2020	2140	2130	2130	2250	2210	2230	2300	2280	2290
25	2040	2010	2030	2160	2120	2140	2260	2240	2250	2300	2280	2290
26	2050	2010	2030	---	---	---	2250	2230	2240	2300	2290	2290
27	2040	2010	2020	---	---	---	2240	2210	2230	2290	2280	2290
28	2050	2010	2030	---	---	---	2250	2210	2240	2310	2290	2300
29	2060	2020	2030	---	---	---	2250	2240	2250	2320	2300	2310
30	2050	2020	2040	---	---	---	2250	2220	2240	2320	2300	2310
31	---	---	---	---	---	---	2250	2220	2230	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	2320	2200	2260

ARKANSAS RIVER BASIN

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	17.9	16.9	17.3	12.2	11.7	11.9	---	---	---	7.0	3.1	4.7
2	17.5	16.7	17.0	12.1	11.2	11.6	---	---	---	6.7	3.8	5.2
3	16.9	16.2	16.6	12.1	11.2	11.5	---	---	---	4.6	1.8	3.7
4	16.9	16.0	16.3	12.0	11.1	11.4	---	---	---	4.8	1.4	2.9
5	16.9	15.8	16.2	11.9	11.2	11.4	---	---	---	4.2	2.2	3.1
6	16.6	15.4	16.0	11.7	11.0	11.3	---	---	---	4.7	2.5	3.3
7	16.3	15.3	15.8	11.7	10.9	11.2	---	---	---	4.7	1.4	3.2
8	16.1	15.3	15.6	11.7	11.0	11.2	5.5	3.5	4.5	4.9	1.6	3.2
9	16.3	15.2	15.6	11.1	10.5	10.8	6.1	3.5	4.6	5.0	2.1	3.3
10	16.3	15.1	15.6	11.0	10.3	10.6	5.4	3.3	4.3	5.3	2.5	3.8
11	16.3	15.2	15.6	10.9	10.2	10.5	5.8	4.0	4.7	6.1	2.2	4.2
12	16.3	15.1	15.5	11.0	10.2	10.5	---	---	---	7.1	3.3	5.2
13	16.1	15.1	15.4	10.9	10.3	10.5	---	---	---	---	---	---
14	16.2	15.0	15.5	11.0	10.3	10.6	3.8	---	---	---	---	---
15	15.8	14.9	15.3	11.0	10.3	10.5	4.3	2.1	3.0	---	---	---
16	15.1	14.5	14.8	10.8	10.2	10.4	4.8	2.3	3.4	---	---	---
17	15.0	13.8	14.4	10.7	10.1	10.3	4.8	3.0	3.8	---	---	---
18	14.5	13.7	14.1	10.7	10.1	10.3	---	---	---	---	---	---
19	14.4	13.7	14.0	10.4	9.7	10.0	---	---	---	---	---	---
20	14.5	13.5	13.9	10.3	9.6	9.8	5.1	3.1	3.9	6.7	4.0	5.3
21	14.5	13.6	13.9	10.1	9.4	9.7	4.1	2.5	3.4	6.5	4.1	5.1
22	14.3	13.4	13.8	9.6	9.3	9.5	---	---	---	6.0	3.6	4.8
23	14.2	13.5	13.8	9.6	8.8	9.1	---	---	---	6.7	3.2	4.9
24	14.1	13.2	13.6	9.4	8.6	8.9	---	---	---	6.3	3.2	4.7
25	13.7	12.9	13.3	9.1	8.3	8.6	---	---	---	4.8	3.3	4.0
26	13.6	12.9	13.2	9.3	8.2	8.6	---	---	---	6.0	3.3	4.4
27	13.2	12.6	12.9	9.4	8.4	8.7	---	---	---	4.7	2.8	3.7
28	13.0	12.4	12.6	8.8	8.2	8.5	---	---	---	4.6	2.4	3.6
29	12.8	12.3	12.5	8.7	8.1	8.3	5.6	3.1	4.1	4.4	2.7	3.3
30	12.6	12.0	12.2	---	---	---	5.7	2.7	3.9	4.2	2.4	3.0
31	12.5	11.8	12.1	---	---	---	5.2	2.0	3.7	3.0	2.1	2.5
MONTH	17.9	11.8	14.7	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	2.4	2.0	2.1	5.2	4.2	4.7	7.7	7.1	7.3	12.4	11.9	12.2
2	2.5	1.8	2.1	5.0	4.5	4.7	7.9	7.0	7.3	12.9	11.9	12.3
3	2.8	2.0	2.3	5.1	4.4	4.6	7.7	7.0	7.3	13.0	12.0	12.3
4	---	---	---	5.5	4.5	4.9	8.1	7.1	7.6	12.9	12.0	12.4
5	---	---	---	5.6	4.5	5.1	8.7	7.5	8.0	13.0	12.2	12.5
6	---	---	---	5.9	5.0	5.4	8.3	7.6	7.9	13.1	12.1	12.5
7	---	---	---	6.0	5.4	5.6	8.6	7.8	8.2	13.0	12.2	12.5
8	---	---	---	6.2	5.5	5.7	9.0	8.0	8.4	13.0	12.4	12.6
9	3.1	2.8	2.9	6.0	5.5	5.7	9.1	8.2	8.5	13.4	12.5	12.9
10	4.3	2.8	3.3	5.7	5.5	5.6	9.2	8.4	8.8	13.5	12.6	13.0
11	3.1	2.7	2.9	6.1	5.3	5.6	9.2	8.5	8.8	16.3	12.9	14.3
12	3.9	2.8	3.2	6.1	5.3	5.6	9.3	8.6	8.8	14.4	13.6	14.1
13	4.3	2.9	3.4	6.2	5.5	5.8	10.0	8.6	9.3	14.5	13.4	13.9
14	5.2	2.7	3.6	6.4	5.7	5.9	9.8	9.1	9.4	15.2	13.8	14.5
15	5.0	3.2	3.9	6.3	5.8	6.0	9.6	9.1	9.4	15.3	14.3	14.7
16	4.8	3.0	3.8	6.5	5.8	6.1	10.2	9.3	9.7	14.9	14.4	14.6
17	3.6	3.1	3.3	6.7	5.8	6.2	10.2	9.4	9.7	16.2	14.3	15.1
18	3.5	2.9	3.1	6.5	6.1	6.3	11.0	9.6	10.3	15.1	14.5	14.7
19	3.7	2.9	3.2	6.8	5.9	6.3	11.3	10.3	10.8	15.4	14.5	14.8
20	3.3	2.9	3.1	6.5	6.0	6.2	11.1	10.6	10.8	15.3	14.4	14.8
21	3.8	2.8	3.3	6.3	6.1	6.2	11.2	10.5	10.8	15.5	14.6	14.9
22	3.7	3.3	3.4	6.3	6.2	6.3	11.2	10.6	10.7	15.4	14.6	14.9
23	4.4	3.5	3.9	6.9	6.3	6.5	11.3	10.6	10.9	15.4	14.6	14.9
24	4.8	3.9	4.3	7.4	6.3	6.7	11.8	11.0	11.3	15.2	14.6	14.8
25	4.5	3.9	4.2	7.4	6.4	6.8	11.8	11.0	11.4	15.2	14.7	14.9
26	4.6	4.0	4.2	7.7	6.6	7.0	11.8	11.2	11.4	15.4	14.7	14.9
27	4.6	3.8	4.1	7.8	6.6	7.0	11.9	11.1	11.4	15.5	14.7	15.0
28	4.7	3.9	4.3	7.4	6.6	7.0	12.0	11.3	11.6	15.5	14.7	15.0
29	5.0	4.3	4.5	7.7	7.0	7.3	12.3	11.5	11.9	15.6	14.8	15.1
30	---	---	---	7.2	7.0	7.1	12.3	12.1	12.1	15.6	14.8	15.1
31	---	---	---	7.1	7.0	7.1	---	---	---	16.1	15.0	15.4
MONTH	---	---	---	7.8	4.2	6.0	12.3	7.0	9.7	16.3	11.9	14.1

## ARKANSAS RIVER BASIN

07130500 ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	15.8	15.2	15.5	20.3	19.9	20.1	---	---	---	24.0	23.1	23.5
2	15.6	15.1	15.3	20.3	19.9	20.1	23.4	22.9	23.1	23.5	23.0	23.2
3	15.8	15.2	15.4	20.7	20.2	20.4	23.5	23.0	23.2	23.6	22.9	23.2
4	15.7	15.2	15.4	21.1	20.3	20.6	23.8	23.3	23.6	23.8	22.9	23.3
5	15.7	15.2	15.4	20.8	20.4	20.6	24.0	23.4	23.6	23.7	22.8	23.2
6	15.8	15.4	15.6	20.8	20.4	20.5	23.9	23.4	23.7	23.6	22.7	23.0
7	15.8	15.5	15.6	20.8	20.3	20.5	24.0	23.5	23.7	23.4	22.6	22.9
8	15.8	15.5	15.6	21.2	20.5	20.9	24.0	23.6	23.8	23.4	22.6	22.8
9	---	---	---	21.1	20.7	20.9	24.1	23.7	23.9	23.5	22.6	22.9
10	---	---	---	21.3	20.8	21.0	24.4	23.8	24.1	23.5	22.6	22.9
11	---	---	---	21.7	20.8	21.3	24.3	23.7	24.1	23.5	22.6	22.9
12	---	---	---	21.4	20.9	21.2	24.2	23.8	24.0	23.1	22.3	22.7
13	---	---	---	21.8	21.2	21.4	24.6	23.9	24.3	23.0	22.2	22.5
14	19.4	18.3	18.9	21.6	21.2	21.4	24.7	24.2	24.4	22.7	22.0	22.3
15	19.5	18.9	19.1	21.8	21.2	21.4	24.6	24.1	24.3	22.5	21.8	22.0
16	19.7	19.4	19.5	21.7	21.2	21.4	24.6	24.2	24.4	22.5	21.5	21.9
17	19.4	19.2	19.3	21.9	21.5	21.7	24.8	24.1	24.4	22.1	21.2	21.6
18	19.6	19.2	19.3	22.6	21.6	22.0	24.4	24.1	24.2	21.7	21.0	21.3
19	19.9	19.4	19.6	22.4	21.7	22.1	24.4	23.8	24.1	21.9	20.9	21.3
20	19.7	19.4	19.5	22.5	21.8	22.1	24.3	23.8	23.9	20.9	20.1	20.6
21	19.8	19.3	19.5	22.8	22.0	22.4	24.4	23.7	24.0	20.7	19.7	20.1
22	19.8	19.5	19.6	22.9	22.2	22.5	24.6	24.0	24.2	20.7	19.7	20.1
23	19.8	19.6	19.7	23.2	22.4	22.8	24.4	23.8	24.1	19.7	19.0	19.4
24	19.9	19.5	19.6	23.4	22.5	22.9	24.2	23.7	23.9	19.0	18.1	18.6
25	19.9	19.5	19.7	23.4	22.6	23.1	24.4	23.7	24.0	18.6	17.5	18.0
26	20.0	19.5	19.8	---	---	---	24.4	23.7	24.0	18.0	16.9	17.3
27	19.9	19.5	19.7	---	---	---	24.5	23.7	24.1	17.2	16.6	16.9
28	20.0	19.5	19.8	---	---	---	24.5	23.7	24.0	16.9	16.4	16.6
29	20.6	19.8	20.2	---	---	---	24.3	23.6	23.9	16.7	16.2	16.4
30	20.5	20.0	20.2	---	---	---	24.0	23.5	23.7	16.9	16.3	16.5
31	---	---	---	---	---	---	24.1	23.4	23.7	---	---	---
MONTH	---	---	---	---	---	---	---	---	---	24.0	16.2	21.0

07133000 ARKANSAS RIVER AT LAMAR, CO

LOCATION.--Lat 38°06'21", long 102°37'05", in NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.30, T.22 S., R.46 W., Prowers County, Hydrologic Unit 11020009, on left bank at left upstream end of upstream bridge on U.S. Highways 50 and 287, and 1.3 mi north of courthouse in Lamar.

DRAINAGE AREA.--19,780 mi<sup>2</sup>, of which 950 mi<sup>2</sup> is probably noncontributing.

PERIOD OF RECORD.--Streamflow records, May 1913 to September 1955, April 1959 to current year. Monthly discharge only for some periods, published in WSP 1311. Statistical summary computed for 1949 to current year (subsequent to regulation of flow by John Martin Reservoir). Water-quality data available, November 1963 to September 1965, September 1969 to August 1972.

REVISED RECORDS.--WSP 1341: 1921(M), 1945-46(M), drainage area; WDR CO-86-1: 1985.

GAGE.--Water-stage recorder with satellite telemetry and crest stage gage. Elevation of gage is 3,597.39 ft above 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 upstream at datum 2.42 ft higher. Mar. 27, 1968 to Nov. 17, 1982, at site 450 ft downstream, at datum 4.00 ft lower. Nov. 18, 1982 to Mar. 17, 1987, at site 75 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by John Martin Reservoir (station 07130000) 21 mi upstream since Oct. 1948. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 487,000 acres, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	22	82	42	157	111	100	129	29	572	650	49
2	35	22	68	45	208	63	101	84	47	647	668	45
3	36	22	63	49	215	66	87	64	328	667	646	44
4	32	23	62	46	210	63	79	45	345	461	683	41
5	28	22	59	48	214	49	73	34	372	466	844	34
6	35	22	58	46	232	53	66	33	496	515	854	30
7	29	22	57	45	274	89	57	32	590	548	880	26
8	31	23	55	44	574	152	56	32	653	632	849	32
9	29	25	56	44	654	161	49	37	762	640	884	27
10	27	29	54	43	537	505	39	36	1100	653	875	23
11	25	29	53	41	205	429	39	54	1140	774	706	22
12	26	29	53	42	173	107	36	51	1160	710	476	20
13	29	32	52	42	152	82	37	74	943	651	446	20
14	29	31	50	44	140	64	31	75	815	611	428	19
15	30	31	56	54	126	56	41	66	767	646	411	18
16	33	29	61	57	114	71	64	50	744	664	402	17
17	42	27	53	58	100	62	59	43	787	771	352	16
18	35	27	56	57	181	60	53	41	797	888	95	16
19	31	29	56	57	219	66	35	41	767	667	280	16
20	32	27	54	56	226	59	35	43	718	600	276	18
21	32	26	51	53	218	64	35	39	662	558	286	15
22	33	26	47	55	248	76	32	35	615	461	296	14
23	28	25	44	57	424	77	66	30	613	465	276	14
24	25	38	43	58	408	80	94	31	599	395	282	14
25	25	60	45	56	285	64	79	31	591	163	279	13
26	25	59	45	56	281	57	62	31	604	71	237	12
27	25	55	42	55	264	51	54	32	639	65	241	211
28	24	49	46	57	177	42	49	30	654	70	232	275
29	27	48	46	58	149	41	38	30	650	342	201	298
30	30	56	43	73	---	41	423	29	633	383	181	350
31	26	---	45	76	---	77	---	31	---	422	69	---
TOTAL	930	965	1655	1614	7365	3038	2069	1413	19620	16178	14285	1749
MEAN	30.0	32.2	53.4	52.1	254	98.0	69.0	45.6	654	522	461	58.3
MAX	42	60	82	76	654	505	423	129	1160	888	884	350
MIN	24	22	42	41	100	41	31	29	29	65	69	12
AC-FT	1840	1910	3280	3200	14610	6030	4100	2800	38920	32090	28330	3470

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2000, BY WATER YEAR (WY)

	1949	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998	1998
MEAN	36.6	21.5	30.3	41.2	42.4	43.0	169	207	287	314	223	92.7
MAX	233	117	350	796	507	516	1089	2143	2087	2457	1547	689
(WY)	1949	1998	1998	1998	1998	1998	1987	1987	1987	1995	1965	1965
MIN	.84	1.81	.56	.47	.73	1.11	5.90	6.41	3.80	10.2	10.9	1.37
(WY)	1978	1978	1978	1978	1978	1965	1995	1963	1954	1964	1974	1974

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1949 - 2000

ANNUAL TOTAL	170878	70881										
ANNUAL MEAN	468	194								a126		
HIGHEST ANNUAL MEAN										537		1987
LOWEST ANNUAL MEAN										27.0		1975
HIGHEST DAILY MEAN			2700	Jun 7		1160	Jun 12		b25000		Jun 18	1965
LOWEST DAILY MEAN			11	Mar 12		12	Sep 26		c.00		Dec 5	1953
ANNUAL SEVEN-DAY MINIMUM			13	Mar 6		14	Sep 20		.21		Jan 10	1965
INSTANTANEOUS PEAK FLOW						1210	Jul 18		d73800		Jun 18	1965
INSTANTANEOUS PEAK STAGE						8.33	Jul 18		f16.48		Jun 18	1965
ANNUAL RUNOFF (AC-FT)	338900					140600			90970			
10 PERCENT EXCEEDS			2220			648			423			
50 PERCENT EXCEEDS			52			57			24			
90 PERCENT EXCEEDS			22			26			4.2			

- a Average discharge for 30 years (water years 1914-43), 298 ft<sup>3</sup>/s; 215900 acre-ft/yr, prior to and during construction of John Martin Dam.
- b Maximum daily discharge for period of record, 87300 ft<sup>3</sup>/s, Jun 6, 1921.
- c Minimum daily discharge for period of record, no flow at times in 1913-15.
- d Maximum discharge and stage for period of record, 130000 ft<sup>3</sup>/s, Jun 5, 1921, gage height, 14.55 ft, datum then in use, from rating curve extended above 10000 ft<sup>3</sup>/s.
- f Datum then in use, from Floodmarks.

## 07134100 BIG SANDY CREEK NEAR LAMAR, CO

LOCATION.--Lat 38°06'51", long 102°29'00", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec. 21, T.22 S., R.45 W., Prowers County, Hydrologic Unit 11020011, on right bank 35 ft upstream from State Highway 196, 950 ft upstream from mouth, and 7.5 mi east of Lamar.

DRAINAGE AREA.--3,248 mi<sup>2</sup>.

PERIOD OF RECORD.-- February 1968 to September 1982, July 1995 to current year.

REVISED RECORDS.--WDR CO-71-1: Drainage area.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,545 ft above sea level, from topographic map. Feb. 1968 to June 30, 1977 at datum 1.0 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions above station for irrigation, return flow from irrigated areas, and backwater from the Arkansas River at times. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Aug. 21, 1965, reached a stage of 9.93 ft from floodmarks, discharge not determined.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	11	13	51	33	50	25	178	20	20	14	17
2	18	11	13	52	34	60	21	33	19	25	15	12
3	18	11	12	50	33	27	20	23	17	28	12	13
4	19	12	12	36	33	31	19	20	12	17	12	11
5	19	12	12	52	32	220	18	20	14	15	12	15
6	19	11	12	62	33	50	15	21	13	18	17	19
7	19	12	12	55	32	22	14	22	15	13	20	18
8	16	13	12	52	32	23	19	20	14	12	15	18
9	12	12	12	52	32	17	21	21	17	18	19	16
10	11	12	12	52	33	16	26	20	16	21	28	13
11	11	12	12	51	50	17	22	19	16	22	28	11
12	12	12	12	51	46	16	23	20	16	22	21	15
13	13	12	12	50	46	15	20	18	17	23	19	15
14	15	11	12	49	45	14	22	18	18	21	17	15
15	17	11	11	50	46	15	21	20	16	15	20	15
16	18	11	28	38	43	16	24	17	12	20	20	15
17	18	11	57	36	42	17	23	17	19	24	19	18
18	18	11	49	37	41	15	24	18	19	25	20	17
19	18	12	47	37	e41	15	22	15	18	22	21	16
20	19	12	48	36	e42	14	20	15	22	24	20	16
21	20	12	46	36	42	15	17	16	21	24	21	13
22	18	12	46	36	41	16	15	15	20	24	25	11
23	14	13	49	36	e41	16	22	16	18	23	25	10
24	14	13	52	34	e41	15	27	17	16	19	23	13
25	17	13	53	34	e41	14	19	15	15	20	22	16
26	19	13	51	33	e41	14	20	16	16	18	21	15
27	19	12	51	35	e41	14	12	16	17	20	16	15
28	18	12	51	34	e42	15	13	19	18	21	14	15
29	19	12	51	32	43	17	13	18	19	16	12	14
30	15	13	50	33	---	17	136	17	20	15	12	13
31	11	---	50	36	---	24	---	17	---	16	13	---
TOTAL	514	357	960	1328	1142	847	713	737	510	621	573	440
MEAN	16.6	11.9	31.0	42.8	39.4	27.3	23.8	23.8	17.0	20.0	18.5	14.7
MAX	20	13	57	62	50	220	136	178	22	28	28	19
MIN	11	11	11	32	32	14	12	15	12	12	12	10
AC-FT	1020	708	1900	2630	2270	1680	1410	1460	1010	1230	1140	873

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1968 - 2000, BY WATER YEAR (WY)

MEAN	8.32	15.5	20.3	22.4	21.8	22.0	21.6	23.0	11.4	10.8	15.4	10.3
MAX	28.4	58.9	63.0	75.5	55.6	59.0	70.6	166	42.9	41.6	85.3	41.8
(WY)	1997	1998	1998	1998	1998	1998	1999	1999	1999	1998	1997	1976
MIN	.087	.41	.34	.50	2.23	2.10	.81	2.14	1.77	.21	.027	.084
(WY)	1979	1978	1978	1978	1978	1977	1978	1975	1976	1978	1976	1978

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1968 - 2000	
ANNUAL TOTAL	16131.4		8742			
ANNUAL MEAN	44.2		23.9		17.2	
HIGHEST ANNUAL MEAN					45.6	
LOWEST ANNUAL MEAN					2.23	
HIGHEST DAILY MEAN	1460	May 4	220	Mar 5	1460	May 4 1999
LOWEST DAILY MEAN	6.3	Sep 9	10	Sep 23	a.00	Aug 13 1976
ANNUAL SEVEN-DAY MINIMUM	9.9	Sep 4	11	Oct 31	.00	Sep 1 1976
INSTANTANEOUS PEAK FLOW			278	Apr 30	b2850	May 4 1999
INSTANTANEOUS PEAK STAGE			4.57	Apr 30	9.66	May 4 1999
ANNUAL RUNOFF (AC-FT)	32000		17340		12470	
10 PERCENT EXCEEDS	57		46		43	
50 PERCENT EXCEEDS	29		18		8.8	
90 PERCENT EXCEEDS	12		12		.90	

e Estimated.

a Also occurred on many days during 1976-79 water years.

b From rating curve extended above 2520 ft<sup>3</sup>/s.



07134180 ARKANSAS RIVER NEAR GRANADA, CO

LOCATION.--Lat 38°05'44", long 102°18'37", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.36, T.22 S., R.44 W., Prowers County, Hydrologic Unit 11020009, on left bank at upstream side at end of bridge on U.S. Highway 385, 1.2 mi downstream from headgate of Buffalo Canal, and 2.3 mi north of Granada.

DRAINAGE AREA.--23,707 mi<sup>2</sup>.

PERIOD OF RECORD.--January 1899 to December 1901, gage heights only at different site and datum, August to October 1903 at different datum, December 1980 to current year at present site and datum.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,480 ft above sea level, from topographic map.

REMARKS.--No estimated daily discharges. Record good. Flow regulated by John Martin Reservoir (station 07130000) 38 mi upstream since October 1948. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation of about 500,000 acres, and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	126	137	176	210	183	257	193	544	108	662	466	151
2	120	133	186	221	252	234	200	276	99	702	536	110
3	119	134	178	227	326	190	187	205	176	943	557	93
4	120	129	174	207	351	176	173	179	329	691	554	91
5	119	125	169	201	365	247	167	157	369	565	671	91
6	117	121	167	221	377	229	159	136	450	557	753	88
7	121	122	166	211	390	179	153	113	528	556	788	84
8	118	127	163	193	593	207	148	101	604	607	800	81
9	122	130	161	198	795	227	149	85	685	637	791	80
10	129	129	165	177	810	349	145	81	809	661	843	75
11	128	131	163	174	531	559	139	78	886	762	865	72
12	125	131	159	170	318	374	139	81	918	740	624	67
13	129	131	157	167	266	219	133	83	915	686	503	66
14	131	132	156	166	239	184	126	94	848	633	466	65
15	132	131	152	166	226	164	125	118	822	612	439	66
16	137	153	159	167	214	159	144	118	781	608	425	60
17	148	157	196	162	208	166	149	112	801	685	418	41
18	152	148	196	163	223	153	123	108	832	966	306	41
19	150	142	195	164	296	153	111	113	830	760	241	59
20	149	143	195	161	320	154	101	112	792	643	308	64
21	149	142	192	162	321	151	97	111	747	593	307	64
22	144	140	189	161	319	160	96	109	713	534	322	64
23	140	143	187	162	423	164	103	108	696	501	311	63
24	139	141	191	162	562	165	146	107	675	472	304	67
25	131	153	188	162	497	158	155	105	663	372	305	68
26	134	163	185	161	434	149	145	110	655	202	283	68
27	134	164	184	163	429	150	134	108	691	123	262	71
28	132	165	183	162	356	143	123	110	713	104	259	175
29	140	164	187	160	305	140	119	111	721	160	233	231
30	139	165	183	165	---	137	356	90	692	325	220	262
31	140	---	189	170	---	157	---	97	---	356	200	---
TOTAL	4114	4226	5491	5516	10929	6254	4438	4060	19548	17418	14360	2678
MEAN	133	141	177	178	377	202	148	131	652	562	463	89.3
MAX	152	165	196	227	810	559	356	544	918	966	865	262
MIN	117	121	152	160	183	137	96	78	99	104	200	41
AC-FT	8160	8380	10890	10940	21680	12400	8800	8050	38770	34550	28480	5310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1981 - 2000, BY WATER YEAR (WY)

	MEAN	MAX	(WY)	MIN	(WY)
85.2	106	132	147	137	132
211	345	442	484	287	121
184	306	479	886	495	608
1984	1998	1998	1998	1998	1998
1987	1999	1999	1999	1999	1999
4.15	9.68	35.4	39.8	55.9	22.7
1993	1982	1982	1994	1982	1994
1992	1992	1992	1992	1992	1981
1990	1990	1990	1990	1990	1990

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1981 - 2000

ANNUAL TOTAL	215610	99032	
ANNUAL MEAN	591	271	226
HIGHEST ANNUAL MEAN			597
LOWEST ANNUAL MEAN			59.3
HIGHEST DAILY MEAN	4070	May 5	4070
LOWEST DAILY MEAN	84	Apr 11	2.7
ANNUAL SEVEN-DAY MINIMUM	104	Apr 7	3.0
INSTANTANEOUS PEAK FLOW		a1060	Jul 3
INSTANTANEOUS PEAK STAGE		a8.85	Jul 3
ANNUAL RUNOFF (AC-FT)	427700	196400	164100
10 PERCENT EXCEEDS	2430	678	526
50 PERCENT EXCEEDS	163	166	106
90 PERCENT EXCEEDS	119	100	7.7

a Also occurred July 18.  
b From rating curve extended above 4050 ft<sup>3</sup>/s.  
c Maximum gage height, 12.38 ft, May 27, 1996.

07134990 WILD HORSE CREEK ABOVE HOLLY, CO

LOCATION.--Lat 38°03'24", long 102°08'16", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec. 16, T.23 S., R.42 W., Prowers County, Hydrologic Unit 11020009, on left bank 1,000 ft downstream from County Road No. 34, 0.7 mi northwest of Holly, and 0.7 mi upstream from mouth.

DRAINAGE AREA.--270 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June 1995 to current year (seasonal records only).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 3,405 ft above sea level, from topographic map. Prior to Apr. 29, 1997, at site 1,050 ft upstream at datum 3.00 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by diversions above station for irrigation and return flow from irrigated areas. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD (seasonal only).--Maximum discharge, 1,270 ft<sup>3</sup>/s, May 26, 1996, from slope-area measurement of peak flow, gage height, 6.90 ft, from flood mark, site and datum then in use; maximum gage height, 8.63 ft, Aug. 7, 1997, from flood mark; minimum daily, 3.1 ft<sup>3</sup>/s, Sept. 19, 1995.

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 164 ft<sup>3</sup>/s at 1245 May 3, gage height, 5.03 ft; maximum gage height, 5.35 ft, July 18; minimum daily, 13 ft<sup>3</sup>/s, Apr. 28.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	41	55	---	---	---	---	35	29	20	16	22	15
2	39	52	---	---	---	---	32	45	20	17	22	15
3	40	52	---	---	---	---	30	101	19	32	20	15
4	39	53	---	---	---	---	30	79	18	35	27	15
5	41	48	---	---	---	---	26	50	20	30	41	16
6	54	47	---	---	---	---	23	35	25	24	21	17
7	57	49	---	---	---	---	19	23	31	14	26	15
8	78	46	---	---	---	---	20	21	32	30	33	22
9	65	40	---	---	---	---	21	22	24	41	33	35
10	49	35	---	---	---	---	19	24	17	25	35	34
11	53	28	---	---	---	---	17	23	16	55	25	29
12	51	22	---	---	---	---	20	23	16	27	24	20
13	32	21	---	---	---	---	18	20	16	30	19	18
14	30	20	---	---	---	---	19	40	16	31	18	17
15	30	21	---	---	---	---	18	33	15	25	18	16
16	30	23	---	---	---	---	23	35	15	20	17	16
17	31	e27	---	---	---	---	19	33	16	28	16	18
18	42	---	---	---	---	---	22	35	18	88	20	24
19	58	---	---	---	---	---	20	38	16	45	17	19
20	58	---	---	---	---	---	18	39	15	43	16	16
21	54	---	---	---	---	---	27	35	15	45	17	20
22	57	---	---	---	---	---	22	35	15	46	20	17
23	55	---	---	---	---	---	23	37	14	40	17	15
24	55	---	---	---	---	---	19	37	14	31	16	18
25	54	---	---	---	---	---	15	31	15	30	16	28
26	44	---	---	---	---	---	16	40	15	21	15	30
27	46	---	---	---	---	---	14	31	14	19	15	27
28	46	---	---	---	---	---	13	27	16	18	15	36
29	49	---	---	---	---	---	14	26	18	17	16	29
30	51	---	---	---	---	---	24	34	17	18	16	26
31	52	---	---	---	---	---	---	24	---	21	16	---
TOTAL	1481	---	---	---	---	---	636	1105	538	962	649	638
MEAN	47.8	---	---	---	---	---	21.2	35.6	17.9	31.0	20.9	21.3
MAX	78	---	---	---	---	---	35	101	32	88	41	36
MIN	30	---	---	---	---	---	13	20	14	14	15	15
AC-FT	2940	---	---	---	---	---	1260	2190	1070	1910	1290	1270

e Estimated

07137000 FRONTIER DITCH NEAR COOLIDGE, KS

LOCATION.--Lat 38°02'18", long 102°02'19", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.21, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on left bank 0.3 mi east of Colorado-Kansas State line, 0.5 mi downstream from Holly drain diversion, 1.5 mi west of Coolidge, and 2.3 mi downstream from diversion of the Arkansas River.

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

REVISED RECORDS.--WSP 1731: 1951.

GAGE.--Water-stage recorders and Parshall flume. Datum of gage is 3,343.14 ft above sea level.

REMARKS.--Records good except those for estimated daily discharges, which are fair. This ditch diverts water from the Arkansas River in Colorado for use in Kansas. These records and records for the Arkansas River near Coolidge represent total flow of the Arkansas River at the Colorado-Kansas State line. Satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 84 ft<sup>3</sup>/sec Aug. 1, 1975; no flow many days each year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.51	.00	.00	.00	.00	.00	.00	35	31	26	30	32
2	.11	.00	.00	.00	.00	.00	.00	27	30	22	31	31
3	.00	.00	.00	.00	.00	.00	.00	25	28	7.8	29	28
4	.00	.00	.00	.00	.00	.00	.00	28	5.6	27	30	25
5	.00	.00	.00	.00	.00	.00	.00	30	37	28	30	24
6	.00	.00	.00	.00	.00	.00	.00	30	35	29	30	27
7	.00	.00	e.00	.00	.00	.00	.00	30	35	34	30	28
8	.00	.00	e.00	.00	.00	.00	.00	29	38	34	30	28
9	.00	.00	e4.0	.00	.00	.00	.00	29	41	32	32	28
10	.00	.00	e4.0	.00	.00	.00	.00	30	47	32	35	28
11	.00	.00	e4.0	.00	.00	.00	.00	29	48	30	36	28
12	.00	.00	e4.0	.00	.00	.00	.00	31	47	29	32	27
13	.00	.00	e4.0	.00	.00	.00	.00	30	47	27	33	26
14	.00	.00	e4.0	.00	.00	.00	.00	29	47	26	33	25
15	.00	.00	e4.0	.00	.00	.00	.00	28	47	26	32	26
16	.00	.00	e4.0	.00	.00	.00	.00	30	39	28	35	27
17	.00	.00	e4.0	.00	.00	.00	.00	29	29	30	35	26
18	.00	.00	e4.0	.00	.00	.00	.00	29	25	24	35	28
19	.00	.00	e4.0	.00	.00	.00	.00	30	23	27	34	28
20	.00	.00	e4.4	.00	.00	.00	.00	27	23	31	36	28
21	.00	.00	4.6	.00	.00	.00	.00	26	18	31	22	29
22	.00	.00	4.4	.00	.00	.00	.00	25	18	31	34	27
23	.00	.00	4.3	.00	.00	.00	.00	28	23	30	30	27
24	.00	.00	4.3	.00	.00	.00	.00	30	24	29	30	28
25	.00	.00	4.2	.00	.00	.00	.00	30	29	29	30	28
26	.00	.00	4.2	.00	.00	.00	20	31	29	28	31	27
27	.00	.00	3.1	.00	.00	.00	37	32	28	29	31	27
28	.00	.00	.13	.00	.00	.00	38	31	26	30	31	27
29	.00	.00	.00	.00	.00	.00	38	31	26	30	31	27
30	.00	.00	.00	.00	---	.00	39	29	26	30	32	28
31	.00	---	.00	.00	---	.00	---	29	---	30	31	---
MEAN	.020	.000	2.50	.000	.000	.000	5.73	29.3	31.7	28.3	31.6	27.4
MAX	.51	.00	4.6	.00	.00	.00	39	35	48	34	36	32
MIN	.00	.00	.00	.00	.00	.00	.00	25	5.6	7.8	22	24
AC-FT	1.2	.00	154	.00	.00	.00	341	1800	1880	1740	1950	1630
CAL YR 1999	MEAN 12.0	MAX 53	MIN .00	AC-FT 8690								
WTR YR 2000	MEAN 13.1	MAX 48	MIN .00	AC-FT 9500								

e Estimated

## ARKANSAS RIVER BASIN

07137500 ARKANSAS RIVER NEAR COOLIDGE, KS

LOCATION.--Lat 38°01'34", long 102°00'41", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.26, T.23 S., R.43 W., Hamilton County, Hydrologic Unit 11030001, on right bank at downstream side of county highway bridge, 1.0 mi south of Coolidge, 1.9 mi downstream from Colorado-Kansas State line, and at mile 1,099.3.

DRAINAGE AREA.--25,410 mi<sup>2</sup>, of which 1,708 mi<sup>2</sup> 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. Water-Quality data available, 1964 to 1968, 1970 to 1973, and 1975 to 1995.

REVISED RECORDS.--WSP 1341: 1903, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,330.84 ft above 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 datum. Oct. 1, 1950, to Mar. 31, 1966, water-stage recorder at site 0.3 mi upstream at datum 3.00 ft higher.

REMARKS.--Records good. Combined flow of river and Frontier Ditch (station 07137000) represents entire flow that enters Kansas. Flow regulated since Oct. 1948 by John Martin Reservoir (station 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, and return flow from irrigated areas. Satellite telemeter at station.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	350	313	280	261	240	388	370	668	218	789	415	232
2	350	317	294	270	263	380	417	572	214	777	545	204
3	362	311	282	281	304	374	419	459	213	1040	584	197
4	365	286	264	277	331	438	414	397	345	876	592	192
5	369	282	239	271	349	455	390	356	401	675	633	184
6	356	264	245	277	361	427	357	329	459	613	747	178
7	358	265	249	280	376	409	327	324	542	618	815	162
8	353	279	245	274	405	496	316	302	575	656	867	155
9	330	255	237	260	596	485	315	276	613	706	834	167
10	316	242	253	251	666	488	301	250	680	744	881	161
11	293	225	264	247	614	713	278	224	777	881	983	161
12	269	224	262	246	429	756	276	224	866	887	791	160
13	254	245	252	241	363	546	279	237	903	815	607	164
14	255	266	257	241	332	480	270	255	823	750	549	150
15	260	281	242	243	314	445	258	298	814	674	542	132
16	253	314	233	241	299	441	287	302	776	671	506	126
17	255	317	248	237	290	427	291	306	824	698	481	131
18	264	311	258	234	283	396	285	268	899	1250	457	131
19	283	304	258	236	318	372	278	260	891	992	326	121
20	267	297	253	233	363	387	270	281	846	775	362	117
21	268	321	252	234	382	391	323	280	807	703	439	119
22	254	337	249	234	380	429	291	291	775	680	403	120
23	248	355	246	234	397	454	293	279	761	618	387	114
24	252	346	246	234	511	467	320	232	755	618	361	118
25	283	319	248	233	554	428	363	212	729	588	363	135
26	269	318	247	232	485	405	330	219	726	436	355	142
27	263	334	250	232	474	372	272	229	764	329	330	134
28	256	311	252	230	461	308	242	223	819	284	319	147
29	255	300	255	228	415	294	244	237	828	255	300	212
30	277	286	257	229	---	289	299	243	799	322	274	253
31	306	---	254	240	---	314	---	208	---	393	266	---
MEAN	293	294	254	247	398	434	312	298	681	681	526	157
MAX	369	355	294	281	666	756	419	668	903	1250	983	253
MIN	248	224	233	228	240	289	242	208	213	255	266	114
AC-FT	18040	17500	15610	15200	22920	26690	18600	18330	40550	41880	32360	9360

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2000, BY WATER YEAR (WY)

	134	122	127	135	141	136	222	330	501	363	340	186
MEAN	134	122	127	135	141	136	222	330	501	363	340	186
MAX	332	424	534	972	602	658	1221	2478	8221	2255	1979	1079
(WY)	1998	1998	1998	1998	1966	1998	1987	1999	1965	1995	1965	1965
MIN	1.97	1.53	3.94	3.14	5.52	5.63	9.43	6.61	4.20	3.59	1.94	.90
(WY)	1979	1979	1979	1979	1978	1978	1979	1963	1954	1974	1964	1960

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1951 - 2000
ANNUAL MEAN	729	382	228
HIGHEST ANNUAL MEAN			1012
LOWEST ANNUAL MEAN			19.8
HIGHEST DAILY MEAN	3310	May 6	101000
LOWEST DAILY MEAN	181	Mar 7	.00
ANNUAL SEVEN-DAY MINIMUM	189	Mar 5	.00
INSTANTANEOUS PEAK FLOW			1450
INSTANTANEOUS PEAK STAGE		6.18	Jul 18
ANNUAL RUNOFF (AC-FT)	527800	277000	165500
10 PERCENT EXCEEDS	2620	748	463
50 PERCENT EXCEEDS	306	304	129
90 PERCENT EXCEEDS	209	224	10

08217500 RIO GRANDE AT WAGON WHEEL GAP, CO

LOCATION.--Lat 37°46'01", long 106°49'51", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.35, T.41 N., R.1 E., Mineral County, Hydrologic Unit 13010001, on right bank 250 ft upstream from private bridge, 0.4 mi upstream from Goose Creek, and 0.4 mi west of town of Wagon Wheel Gap.

DRAINAGE AREA.--780 mi<sup>2</sup>.

PERIOD OF RECORD.--May 1951 to September 1999. October 1999 to September 2000 (seasonal records only)(discontinued).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,430 ft above sea level, from topographic map.

REMARKS.--Records good except for estimated daily discharges, which are poor. Natural flow of stream regulated by Santa Maria, Rio Grande, and Continental Reservoirs (combined capacity, 121,400 acre-ft), and affected by diversions upstream from station for irrigation and transmountain diversions to drainage area upstream from station from Colorado River basin (see elsewhere in this report). Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,190 ft<sup>3</sup>/s, June 9, 1985, from rating curve extended above 4,460 ft<sup>3</sup>/s, gage height, 6.10 ft, from floodmarks; minimum daily, 46 ft<sup>3</sup>/s, Dec. 9, 1956

EXTREMES FOR CURRENT YEAR (seasonal only).--Maximum discharge, 3,010 ft<sup>3</sup>/s at 0300 May 24, gage height, 4.36 ft; minimum daily, 110 ft<sup>3</sup>/s, Dec. 9-16, Mar. 23.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	505	495	e161	---	---	---	153	1040	1960	364	188	248
2	458	401	e165	---	---	---	160	979	1930	333	198	229
3	465	324	e142	---	---	---	160	1240	1720	334	208	220
4	463	302	e135	---	---	---	159	1700	1340	313	224	210
5	593	304	e130	---	---	---	226	2290	1610	373	222	223
6	595	281	e125	---	---	---	289	2330	1670	359	194	233
7	617	255	e120	---	---	---	321	2140	1560	343	173	246
8	587	255	e115	---	---	---	340	2180	1530	344	161	247
9	539	221	e110	---	---	---	345	1920	1550	335	151	256
10	525	180	e110	---	---	---	402	1780	1420	331	145	239
11	509	179	e110	---	---	---	376	1880	1350	304	150	233
12	500	175	e110	---	---	---	341	1750	1250	281	155	228
13	516	275	e110	---	---	---	367	1430	879	288	184	224
14	506	281	e110	---	---	---	384	1220	712	278	195	224
15	486	305	e110	---	---	---	372	1010	689	277	232	207
16	489	191	e110	---	---	---	322	1070	683	291	247	203
17	478	168	---	---	---	---	341	1080	660	304	233	202
18	471	187	---	---	---	---	459	1110	651	325	236	225
19	364	145	---	---	---	---	628	1300	653	322	278	236
20	335	140	---	---	---	---	544	1230	519	306	313	221
21	389	e135	---	---	---	---	598	1330	496	283	294	212
22	391	e130	---	---	---	---	628	1820	465	262	302	249
23	388	e120	---	---	---	e110	571	2430	429	236	340	249
24	382	e130	---	---	---	---	121	646	2680	423	216	308
25	376	e140	---	---	---	---	128	688	2820	431	198	317
26	393	e155	---	---	---	---	141	762	2300	421	187	328
27	391	e170	---	---	---	---	161	979	1800	407	186	313
28	407	e170	---	---	---	---	200	1210	1790	409	180	296
29	476	e165	---	---	---	---	184	1460	2190	383	184	282
30	480	e158	---	---	---	---	184	1260	2400	383	191	286
31	515	---	---	---	---	---	153	---	1990	---	196	279
TOTAL	14589	6537	---	---	---	---	15491	54229	28583	8724	7432	6822
MEAN	471	218	---	---	---	---	516	1749	953	281	240	227
MAX	617	495	---	---	---	---	1460	2820	1960	373	340	266
MIN	335	120	---	---	---	---	153	979	383	180	145	200
AC-FT	28940	12970	---	---	---	---	30730	107600	56690	17300	14740	13530

e Estimated.

08219500 SOUTH FORK RIO GRANDE AT SOUTH FORK, CO

LOCATION.--Lat 37°39'25", long 106°38'55", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.3, T.39 N., R.3 E., Rio Grande County, Hydrologic Unit 13010001, on left bank near U.S. Highway 160, 0.1 mi downstream from Church Creek, 0.9 mi southwest of village of South Fork, and 1.5 mi upstream from mouth.

DRAINAGE AREA.--216 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1910 to September 1922, May 1936 to September 1995, and October 1998 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 898: 1911(M). WSP 1312: 1912, 1944(M). WSP 1632: 1956-58(P).

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is 8,221.79 ft above 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 downstream at different datums.

REMARKS.--Records good except for estimated daily discharges, which are poor. Transmountain diversions from Colorado River Basin to drainage area upstream from station through Treasure Pass ditch. Natural flow of stream affected by a few small diversions for irrigation, slight regulation by Beaver Creek Reservoir, capacity, 4,760 acre-ft, and several smaller storage reservoirs.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, exceeds all other observed floods at this location since at least 1873. Flood of June 29, 1927, reached a stage about 1 ft lower than that of Oct. 5, 1911, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	67	e32	e39	e31	e37	71	316	293	70	35	40
2	123	59	e36	e33	e31	e39	67	304	267	66	35	37
3	116	48	e33	e30	e33	e36	67	421	249	61	37	37
4	110	49	e31	e30	e31	e35	80	559	215	56	41	35
5	107	49	e31	e32	e31	e38	116	667	196	51	40	35
6	101	48	e30	e33	e34	e44	137	667	197	47	39	35
7	124	47	e32	e32	e34	e45	153	596	186	47	40	35
8	113	46	e31	e34	e33	47	160	676	168	49	42	34
9	110	39	e32	e35	e34	44	163	532	166	46	39	39
10	109	36	e32	e36	e34	46	188	527	149	44	38	36
11	103	37	e34	e37	e34	44	185	624	128	40	38	34
12	100	36	e32	e37	e33	45	168	532	115	41	42	32
13	99	36	e31	e34	e33	44	196	425	106	48	41	32
14	95	35	e31	e34	e34	46	220	372	95	47	44	32
15	91	38	e28	e34	e35	47	219	373	89	47	48	32
16	87	37	e30	e34	e33	47	188	380	84	48	44	32
17	81	39	e33	e38	e34	49	193	328	77	57	42	32
18	81	39	e31	e38	e33	49	223	284	73	54	44	33
19	82	29	e33	e37	e33	48	208	274	78	46	56	34
20	78	44	e33	e35	e33	48	187	273	81	40	57	33
21	77	39	e32	e35	e33	51	230	295	88	37	58	32
22	76	e36	e32	e34	e36	48	264	385	79	36	46	49
23	76	e30	e31	e32	e34	49	238	485	71	36	44	53
24	76	e32	e34	e32	e35	54	268	509	70	35	44	67
25	77	e31	e34	e37	e33	61	291	481	70	36	51	49
26	74	e32	e35	e40	e32	67	326	460	64	37	49	43
27	71	e33	e35	e36	e33	78	431	395	64	40	43	40
28	70	e34	e35	e33	e40	83	491	394	68	41	41	39
29	71	e34	e37	e31	e37	77	473	411	68	40	40	43
30	62	e34	e35	e29	---	75	398	384	70	39	42	48
31	69	---	e34	e30	---	73	---	335	---	37	44	---
TOTAL	2841	1193	1010	1061	974	1594	6599	13664	3724	1419	1344	1152
MEAN	91.6	39.8	32.6	34.2	33.6	51.4	220	441	124	45.8	43.4	38.4
MAX	132	67	37	40	40	83	491	676	293	70	58	67
MIN	62	29	28	29	31	35	67	273	64	35	35	32
AC-FT	5640	2370	2000	2100	1930	3160	13090	27100	7390	2810	2670	2280

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2000, BY WATER YEAR (WY)

MEAN	91.9	58.5	44.2	37.8	40.7	63.8	217	691	838	259	113	87.5
MAX	569	152	106	88.6	78.3	131	479	1282	1746	794	264	358
(WY)	1912	1987	1912	1986	1986	1989	1962	1984	1979	1957	1957	1970
MIN	32.1	23.9	18.0	13.6	18.2	21.5	85.2	211	113	45.8	43.1	23.6
(WY)	1956	1961	1977	1977	1955	1955	1955	1977	1977	2000	1978	1956

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1910 - 2000	
ANNUAL TOTAL	87746		36575			
ANNUAL MEAN	240		99.9		213	
HIGHEST ANNUAL MEAN					359	
LOWEST ANNUAL MEAN					68.9	
HIGHEST DAILY MEAN	1290	May 23	676	May 8	2980	May 24 1984
LOWEST DAILY MEAN	e28	Dec 15	e28	Dec 15	10	Jan 6 1977
ANNUAL SEVEN-DAY MINIMUM	e31	Dec 12	e31	Dec 12	11	Dec 31 1976
INSTANTANEOUS PEAK FLOW			820	May 5	a8000	Oct 5 1911
INSTANTANEOUS PEAK STAGE			3.92	May 5	b9.70	Oct 5 1911
ANNUAL RUNOFF (AC-FT)	174000		72550		154200	
10 PERCENT EXCEEDS	855		277		619	
50 PERCENT EXCEEDS	132		44		72	
90 PERCENT EXCEEDS	35		32		34	

e Estimated.

a Present site and datum, from rating curve extended above 1500 ft<sup>3</sup>/s.

b From floodmarks.

08220000 RIO GRANDE NEAR DEL NORTE, CO

LOCATION.--Lat 37°41'22", long 106°27'38", in NW<sup>1</sup>/<sub>4</sub> sec.29, T.40 N., R.5 E., Rio Grande County, Hydrologic Unit 13010001, on right bank 20 ft downstream from county highway bridge, 5.0 mi upstream from Pinos Creek, and 6.0 mi west of Del Norte.

DRAINAGE AREA.--1,320 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--June 1889 to current year. Monthly discharge only for some periods, published in WSP 1312. Water-quality data available, April 1993 to July 1996.

REVISED RECORDS.--WSP 763: Drainage area. WSP 1312: 1889, 1901, 1913-14.

GAGE.--Water-stage recorder with satellite telemetry. Datum of gage is 7,980.25 ft above sea level. Prior to May 16, 1908, nonrecording gage at site 4 mi downstream at different datum. May 16, 1908 to Nov. 8, 1910, nonrecording gages on bridge at present site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Small diversions upstream from station for irrigation. Flow regulated by Beaver Creek Reservoir since 1910, Santa Maria Reservoir since 1912, Rio Grande Reservoir since 1912, and Continental Reservoir since 1925, combined capacity, 126,100 acre-ft, and by several smaller reservoirs. Transmountain diversions to drainage area upstream from 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.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1873, that of Oct. 5, 1911, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	737	651	266	e190	e190	202	268	1550	2430	443	207	274
2	685	555	281	e170	e200	204	265	1390	2360	413	202	246
3	664	460	247	e160	e200	199	272	1720	2250	395	218	233
4	649	416	237	e160	e190	207	281	2340	1620	366	230	220
5	720	418	e220	e170	e190	219	369	3110	1860	387	248	226
6	763	413	e200	e180	e200	206	468	3280	1970	404	227	250
7	829	359	e210	e170	e200	208	533	2930	1830	375	205	251
8	787	356	e210	e190	e200	205	573	3060	1760	386	197	263
9	740	350	e210	e190	e210	208	571	2760	1700	374	180	275
10	712	287	e210	e200	e210	192	680	2510	1670	367	173	268
11	688	273	e220	e210	e210	181	668	2720	1520	367	173	246
12	672	268	e210	e210	e200	197	600	2580	1490	303	185	243
13	677	259	e200	e190	e200	199	637	2100	1110	330	201	236
14	674	388	e200	e190	e210	200	700	1790	908	325	219	236
15	649	409	e180	e190	e210	216	713	1530	842	320	250	231
16	648	316	e200	e190	e200	212	591	1570	824	324	281	222
17	635	254	e220	e200	e200	215	584	1530	794	354	265	222
18	622	276	e200	e200	e190	212	727	1460	775	360	258	223
19	561	239	e220	e210	e190	193	906	1670	790	344	304	250
20	477	220	e220	e190	194	220	820	1620	681	320	367	239
21	506	246	e200	e200	211	221	884	1630	619	285	362	231
22	535	344	e200	e190	216	216	980	2230	582	264	314	260
23	531	323	e200	e180	200	217	886	2960	525	246	356	308
24	523	191	e220	e190	209	224	966	3350	520	238	346	339
25	520	e350	e220	e200	191	243	1080	3400	508	227	347	296
26	524	e340	e220	e200	189	258	1180	3110	507	212	362	254
27	531	e330	e220	e190	197	287	1480	2500	487	212	352	236
28	531	e330	e220	e180	214	335	1810	2310	492	212	324	222
29	603	e290	e220	e170	205	318	2090	2680	459	208	302	226
30	611	e270	e200	e170	---	310	1870	3090	458	213	298	254
31	650	---	e190	e180	---	309	---	2530	---	217	318	---
TOTAL	19654	10181	6671	5810	5826	7033	24452	73010	34341	9791	8271	7480
MEAN	634	339	215	187	201	227	815	2355	1145	316	267	249
MAX	829	651	281	210	216	335	2090	3400	2430	443	367	339
MIN	477	191	180	160	189	181	265	1390	458	208	173	220
AC-FT	38980	20190	13230	11520	11560	13950	48500	144800	68120	19420	16410	14840

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1890 - 2000, BY WATER YEAR (WY)

	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	489	288	207	190	197	273	767	2515	3152	1436	795	518																																																																																																			
MAX	2451	804	420	340	300	646	1999	4449	6240	3451	1800	2001																																																																																																			
(WY)	1912	1917	1926	1912	1928	1910	1895	1922	1921	1957	1999	1927																																																																																																			
MIN	134	114	105	89.8	111	153	317	747	475	239	190	135																																																																																																			
(WY)	1957	1957	1957	1977	1977	1965	1951	1977	1934	1956	1956	1956																																																																																																			

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	WATER YEARS 1890 - 2000
ANNUAL TOTAL	463273	212520	
ANNUAL MEAN	1269	581	907
HIGHEST ANNUAL MEAN			1482
LOWEST ANNUAL MEAN			311
HIGHEST DAILY MEAN	4960	Jun 10	3400
LOWEST DAILY MEAN	180	Feb 11	160
ANNUAL SEVEN-DAY MINIMUM	193	Feb 10	171
INSTANTANEOUS PEAK FLOW			3740
INSTANTANEOUS PEAK STAGE			3.72
ANNUAL RUNOFF (AC-FT)	918900	421500	657400
10 PERCENT EXCEEDS	3690	1620	2460
50 PERCENT EXCEEDS	648	278	365
90 PERCENT EXCEEDS	210	191	166

e Estimated.  
a From rating curve extended above 12900 ft<sup>3</sup>/s.





CLOSED BASIN IN SAN LUIS VALLEY, CO

08227000 SAGUACHE CREEK NEAR SAGUACHE, CO

LOCATION.--Lat 38°09'48", long 106°17'24", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.10, T.45 N., R.6 E., Saguache County, Hydrologic Unit 13010004, on left bank 0.2 mi downstream from Middle Creek and 10 mi northwest of Saguache.

DRAINAGE AREA.--595 mi<sup>2</sup>.

PERIOD OF RECORD.--August 1910 to September 1912, June 1914 to current year. Monthly discharge only for some periods, published in WSP 1312. Water-quality data available, April 1993 to September 1995.

REVISED RECORDS.--WSP 1242: 1948-49. WSP 1312: 1912, 1934(M), 1942(M). WSP 1923: 1951.

GAGE.--Water-stage recorder with satellite telemetry. Elevation of gage is about 8,030 ft above sea level, from topographic map. Prior to Apr. 9, 1934, at sites 0.8 mi downstream at different datums. Apr. 10, 1934 to Nov. 20, 1966, at present site at datum 1.00 ft higher.

REMARKS.--Records good except for estimated daily discharges, 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.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	46	38	e27	e28	36	42	108	96	43	25	39
2	60	44	40	e25	e28	34	42	96	98	41	24	35
3	59	39	36	e25	e30	36	47	114	99	44	25	33
4	58	39	31	e26	e28	32	47	119	90	42	32	32
5	58	41	37	e27	e28	36	56	135	84	36	28	31
6	59	40	32	e27	e29	38	72	153	82	33	25	33
7	65	39	26	e27	e29	36	75	146	75	32	23	33
8	69	39	30	e28	e29	38	72	165	72	36	22	35
9	60	43	33	e28	e30	36	70	181	74	40	21	36
10	56	36	33	e32	e29	34	81	150	75	38	20	33
11	53	35	32	e33	e28	33	78	146	67	34	21	29
12	51	37	34	e32	e27	36	68	144	64	38	25	28
13	49	35	34	e30	e26	40	69	125	59	42	27	27
14	49	35	36	e29	e29	38	79	113	57	39	35	26
15	48	35	30	e30	e31	40	83	108	54	43	29	25
16	48	34	e27	e31	32	41	70	107	51	44	28	25
17	46	33	e28	e33	32	38	68	108	49	47	30	24
18	46	40	e30	e34	33	36	82	106	48	57	35	25
19	48	28	e28	e35	33	37	82	108	52	50	37	27
20	47	27	e26	e32	e32	42	69	100	51	39	38	26
21	47	34	e24	e31	34	42	72	96	47	34	41	26
22	46	27	e24	e29	33	42	82	105	43	31	47	26
23	47	25	e25	e28	35	42	75	133	44	29	56	27
24	46	24	e27	e29	35	48	75	153	49	30	60	32
25	46	27	e29	e33	e32	50	76	149	51	31	42	33
26	46	30	e29	e32	e32	52	79	130	53	31	44	31
27	46	39	e28	e29	e33	52	90	113	52	32	53	30
28	46	37	e27	e27	35	59	106	110	50	27	48	29
29	46	37	e27	e25	34	57	104	116	46	25	43	30
30	43	37	e27	e26	---	53	112	116	43	26	46	30
31	42	---	e29	e26	---	51	---	108	---	26	43	---
TOTAL	1591	1062	937	906	894	1285	2223	3861	1875	1140	1073	896
MEAN	51.3	35.4	30.2	29.2	30.8	41.5	74.1	125	62.5	36.8	34.6	29.9
MAX	69	46	40	35	35	59	112	181	99	57	60	39
MIN	42	24	24	25	26	32	42	96	43	25	20	24
AC-FT	3160	2110	1860	1800	1770	2550	4410	7660	3720	2260	2130	1780

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1910 - 2000, BY WATER YEAR (WY)

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	44.5	35.8	26.0	23.4	26.7	38.6	68.5	156	174	94.1	73.5	51.3																																																																															
MAX	108	60.1	40.0	40.3	41.4	70.0	257	437	474	299	198	194																																																																															
(WY)	1912	1930	1928	1986	1986	1924	1924	1957	1957	1929	1929	1929																																																																															
MIN	20.6	16.4	13.9	12.2	13.4	21.5	34.2	34.8	19.4	20.5	23.3	15.0																																																																															
(WY)	1979	1978	1978	1978	1966	1964	1978	1981	1963	1940	1940	1956																																																																															

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	(a)WATER YEARS 1910 - 2000
ANNUAL TOTAL	29858	17743	
ANNUAL MEAN	81.8	48.5	67.7
HIGHEST ANNUAL MEAN			122
LOWEST ANNUAL MEAN			28.0
HIGHEST DAILY MEAN	269	Jul 25	181
LOWEST DAILY MEAN	20	Feb 11	20
ANNUAL SEVEN-DAY MINIMUM	23	Feb 11	22
INSTANTANEOUS PEAK FLOW			193
INSTANTANEOUS PEAK STAGE			2.58
ANNUAL RUNOFF (AC-FT)	59220	35190	49050
10 PERCENT EXCEEDS	188	96	148
50 PERCENT EXCEEDS	48	37	41
90 PERCENT EXCEEDS	27	27	21

e Estimated.

a Water years 1983-1990 were published by Colorado Division of Water Resources.

b Present datum, from rating curve extended above 1090 ft<sup>3</sup>/s.



CLOSED BASIN IN SAN LUIS VALLEY, CO

372833105455800 CLOSED BASIN PROJECT CANAL NEAR ALAMOSA, CO

LOCATION.--Lat 37°28'33", long 105°45'58", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec. 3, T.37 N., R.11 E., Alamosa County, Hydrologic Unit 13010002, on right bank of Closed Basin Project Canal, 400 ft north of State Highway 160, and 5.5 mi east of Alamosa.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1998 to current year.

GAGE.--Water-stage recorders with satellite telemetry, and 12 ft Parshall flume. Elevation of gage is 7531.15 ft (levels by U.S. Bureau of Reclamation).

REMARKS.--Records good except for estimated daily discharges, which are poor. The Closed Basin Project Canal delivers water from the Closed Basin in the San Luis Valley to the Rio Grande just downstream from Alamosa. Shallow (unconfined) aquifer water is pumped into the canal by a system of pumps.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	17	16	33	37	33	32	30	17	15	11	21
2	37	12	14	35	37	35	32	30	15	21	11	22
3	37	16	15	e33	e36	35	32	30	17	22	13	21
4	37	17	16	36	e36	35	33	29	19	21	13	20
5	36	23	21	35	e36	34	33	27	23	19	13	18
6	34	20	28	34	e36	34	33	28	24	17	13	16
7	37	20	21	35	e36	34	33	29	24	17	13	14
8	42	20	24	34	e35	35	34	29	22	16	13	16
9	40	19	29	34	e35	33	33	31	19	16	11	15
10	37	19	32	33	e35	35	33	31	20	17	11	14
11	36	19	37	35	e35	33	31	29	21	17	9.7	13
12	35	19	37	33	e35	32	31	31	22	17	8.9	16
13	35	19	36	35	e34	30	31	31	22	16	11	21
14	36	19	36	36	e34	27	28	28	22	17	12	20
15	34	19	35	35	e34	27	30	26	22	17	13	16
16	32	18	35	35	35	28	30	22	22	17	12	11
17	35	20	36	35	33	30	30	23	21	16	10	9.5
18	35	18	35	35	34	32	28	25	19	19	11	9.3
19	35	17	35	35	31	32	33	26	17	21	14	8.8
20	38	16	35	35	34	30	34	27	17	21	17	7.6
21	41	16	32	33	33	30	32	26	18	22	17	6.5
22	38	16	29	33	33	31	31	25	18	22	19	6.5
23	32	16	30	33	34	31	32	24	18	23	14	6.1
24	31	15	33	33	33	31	31	23	18	23	14	6.7
25	32	15	35	32	34	31	31	23	18	23	15	6
26	32	15	35	33	35	31	30	23	16	23	14	7.3
27	34	17	35	36	35	31	28	23	18	16	12	7.7
28	33	17	37	37	33	31	28	23	18	13	11	10
29	32	17	36	36	33	31	29	23	17	15	11	8.4
30	27	18	36	36	---	31	30	22	15	16	14	7.6
31	26	---	35	36	---	31	---	19	---	13	21	---
TOTAL	1084	529	946	1069	1001	984	936	816	579	568	402.6	382.0
MEAN	35.0	17.6	30.5	34.5	34.5	31.7	31.2	26.3	19.3	18.3	13.0	12.7
MAX	42	23	37	37	37	35	34	31	24	23	21	22
MIN	26	12	14	32	31	27	28	19	15	13	8.9	6.0
AC-FT	2150	1050	1880	2120	1990	1950	1860	1620	1150	1130	799	758

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1999 - 2000, BY WATER YEAR (WY)

	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000	1999	2000
MEAN	31.2	24.6	33.1	38.5	36.3	32.1	33.0	30.3	26.1	26.7	20.5	22.9
MAX	35.0	31.6	35.7	42.4	38.1	32.5	34.7	34.3	32.9	35.1	28.1	33.0
(WY)	2000	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999	1999
MIN	27.5	17.6	30.5	34.5	34.5	31.7	31.2	26.3	19.3	18.3	13.0	12.7
(WY)	1999	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	2000

SUMMARY STATISTICS

	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR	FOR 1999 CALENDAR YEAR	FOR 2000 WATER YEAR
ANNUAL TOTAL	11987	9296.6		
ANNUAL MEAN	32.8	25.4		
HIGHEST ANNUAL MEAN			29.6	
LOWEST ANNUAL MEAN			33.8	1999
HIGHEST DAILY MEAN	51	Jun 9	25.4	2000
LOWEST DAILY MEAN	12	Nov 2	e63	Dec 21 1998
ANNUAL SEVEN-DAY MINIMUM	16	Nov 20	6.0	Sep 25 2000
INSTANTANEOUS PEAK FLOW			6.7	Sep 20 2000
INSTANTANEOUS PEAK STAGE			44	Oct 21
ANNUAL RUNOFF (AC-FT)	23780	18440	a.99	Oct 21
10 PERCENT EXCEEDS	41	35	101	Dec 21 1998
50 PERCENT EXCEEDS	34	28	b1.70	Dec 21 1998
90 PERCENT EXCEEDS	22	13		

e Estimated.

a Maximum gage height, 1.54 ft, Jan 3, backwater from ice.

b Maximum gage height, 1.86 ft, Jan 27, 1990, due to submergence of flume.

08242500 UTE CREEK NEAR FORT GARLAND, CO

LOCATION.--Lat 37°26'50", long 105°25'30", Costilla County, Hydrologic Unit 13010002, in Sangre de Cristo Grant, on left bank 2,300 ft upstream from Newton ditch, 1.4 mi north of Fort Garland, and 5.7 mi upstream from mouth.

DRAINAGE AREA.--32 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--March to October 1916, May 1923 to September 1981, October 1998 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.--Water-stage recorder with satellite telemetry, and concrete control. Elevation of gage is 8,045 ft above sea level, from topographic map. Mar. 18 to Oct. 9, 1916, nonrecording gage and Cippoletti weir at different datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

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

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	8.9	e5.6	e5.0	e4.5	e5.2	e7.4	16	16	5.5	4.5	3.9
2	11	8.4	e5.2	e4.7	e4.3	e5.0	e8.0	13	17	4.5	3.9	3.7
3	9.2	8.1	e3.8	e4.4	e4.8	e5.0	e8.8	17	16	4.3	3.6	3.7
4	8.1	8.2	e3.6	e4.5	e4.8	e5.4	10	23	15	3.6	4.0	3.6
5	7.9	8.0	e3.6	e4.5	e5.0	e5.0	13	26	14	2.9	1.9	4.1
6	7.4	7.9	e3.9	e4.3	e5.0	e5.4	14	23	14	2.7	1.7	3.2
7	12	7.8	e4.0	e4.3	e4.3	e5.4	13	18	14	2.6	1.9	3.1
8	9.9	7.8	e3.9	e4.7	e5.6	e5.2	12	21	11	2.7	2.2	3.5
9	9.2	7.7	e3.9	e4.6	e5.4	5.2	12	17	11	2.3	1.8	5.7
10	9.1	7.1	e4.6	e5.0	e5.4	4.5	13	15	10	2.3	.93	4.1
11	10	7.6	e4.5	e5.4	e5.2	e4.8	13	20	8.4	2.1	1.2	3.4
12	10	7.3	e4.4	e5.4	e5.2	e5.4	12	19	8.2	2.8	3.9	3.4
13	9.8	7.4	e4.4	e5.2	e5.0	e5.4	12	15	8.0	4.3	6.8	3.4
14	9.7	7.2	e4.2	e5.0	e5.4	e5.8	13	13	7.3	5.8	4.2	2.8
15	9.5	7.3	e4.2	e5.2	e5.6	e5.6	14	14	6.7	5.5	7.5	2.7
16	9.5	7.2	e4.6	e5.6	e5.4	e5.0	12	15	6.4	4.9	3.9	2.4
17	9.7	6.8	e5.0	e5.6	e5.0	e5.4	12	11	6.8	6.3	2.7	2.2
18	11	7.0	e5.2	e5.6	e5.0	e4.8	13	9.5	6.7	6.2	4.7	2.2
19	12	4.5	e4.8	e5.6	e5.0	e5.4	14	10	9.5	5.8	25	2.4
20	11	6.3	e4.6	e5.4	e5.4	e5.2	12	11	8.0	4.4	7.2	2.3
21	11	6.3	e4.2	e5.2	e5.8	e4.8	13	12	6.6	3.7	5.7	2.7
22	10	6.1	e4.4	e5.0	e5.4	e5.2	14	16	5.8	3.1	10	11
23	10	5.0	e4.4	e4.8	e5.4	e5.8	14	20	5.3	3.5	8.1	6.9
24	9.9	4.3	e4.8	e5.0	e5.4	e6.6	12	24	5.0	3.3	9.6	6.5
25	9.8	e2.1	e5.2	e5.2	e4.6	e6.8	10	22	5.3	2.7	7.8	5.1
26	9.6	e6.0	e5.2	e5.2	e4.8	e7.2	11	19	4.8	4.3	6.0	2.9
27	9.5	e7.0	e4.9	e4.8	e5.4	e7.8	16	17	7.3	16	4.9	2.6
28	9.2	e6.2	e4.9	e4.3	e5.4	e7.4	26	16	7.4	9.4	4.0	2.4
29	9.2	e5.4	e5.0	e4.0	e5.0	e7.2	24	18	6.1	3.7	4.0	3.4
30	7.9	e5.0	e5.0	e4.0	---	e6.8	23	17	5.4	6.1	4.2	3.3
31	9.2	---	e5.2	e4.3	---	e6.6	---	16	---	5.3	4.3	---
TOTAL	302.3	201.9	141.2	151.8	148.5	176.3	401.2	523.5	273.0	142.6	162.13	112.6
MEAN	9.75	6.73	4.55	4.90	5.12	5.69	13.4	16.9	9.10	4.60	5.23	3.75
MAX	12	8.9	5.6	5.6	5.8	7.8	26	26	17	16	25	11
MIN	7.4	2.1	3.6	4.0	4.3	4.5	7.4	9.5	4.8	2.1	.93	2.2
AC-FT	600	400	280	301	295	350	796	1040	541	283	322	223

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1923 - 2000, BY WATER YEAR (WY)

	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
MEAN	10.1	7.76	5.15	4.62	5.03	7.30	21.9	53.9	56.2	29.7	20.6	12.8																																																																		
MAX	34.8	25.3	10.5	9.50	10.0	12.6	66.9	220	150	97.0	65.5	45.7																																																																		
(WY)	1924	1924	1971	1962	1962	1960	1932	1941	1941	1941	1936	1929																																																																		
MIN	.91	.78	.50	1.60	2.00	3.16	4.69	8.57	5.87	1.01	2.13	.070																																																																		
(WY)	1957	1952	1957	1957	1956	1957	1955	1950	1963	1956	1956	1956																																																																		

SUMMARY STATISTICS	FOR 1999 CALENDAR YEAR		FOR 2000 WATER YEAR		WATER YEARS 1923 - 2000	
ANNUAL TOTAL	7658.5		2737.03			
ANNUAL MEAN	21.0		7.48		19.6	
HIGHEST ANNUAL MEAN					50.2	
LOWEST ANNUAL MEAN					5.12	
HIGHEST DAILY MEAN	97	Jun 17	26	Apr 28	630	May 15 1941
LOWEST DAILY MEAN	2.1	Nov 25	.93	Aug 10	.00	Jul 28 1956
ANNUAL SEVEN-DAY MINIMUM	3.8	Dec 3	1.7	Aug 5	.00	Sep 6 1956
INSTANTANEOUS PEAK FLOW			44	Aug 19	a630	May 15 1941
INSTANTANEOUS PEAK STAGE			2.13	Aug 19		
ANNUAL RUNOFF (AC-FT)	15190		5430		14210	
10 PERCENT EXCEEDS	64		14		53	
50 PERCENT EXCEEDS	9.7		5.4		8.6	
90 PERCENT EXCEEDS	4.6		3.4		4.0	

e Estimated.

a Maximum daily discharge.











08249000 CONEJOS RIVER NEAR LASAUSES, CO

LOCATION.--Lat 37°18'01", long 105°44'47", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.2, and SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.10 (two channels), T.35 N., R.11 E., Conejos County, Hydrologic Unit 13010005, on left bank of main channel 125 ft downstream from bridge on State Highway 158 and on left bank of secondary channel 230 ft upstream from bridge on State Highway 158, 1.0 mi upstream from mouth, 2.1 mi north of Lasauses, and 13 mi southeast of Alamosa.

DRAINAGE AREA.--887 mi<sup>2</sup>.

PERIOD OF RECORD.--March 1921 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1, 1966, published as "near La Sauses." Water-quality data available, April 1993 to September 1995.

REVISED RECORDS.--WSP 1312: 1934(M).

GAGE.--Two water-stage recorders with satellite telemetry. Datum of gage on main (north) channel is 7,495.02 ft above sea level, and on secondary (south) channel is 7,496.89 ft above sea level (levels by U.S. 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 downstream at datum 0.56 ft lower; Oct. 23, 1934 to May 3, 1936, at site 250 ft downstream, and May 4, 1936 to Oct. 13, 1965, at site 280 ft downstream, at datum 1.00 ft lower.

REMARKS.--Records good except for estimated daily discharges, which are poor. Diversions for irrigation of about 75,000 acres upstream from station.

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

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 5, 1911, is the greatest since at least 1854, from information by local residents.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	40	29	49	48	67	74	22	72	3.8	.2	.00	.38
2	34	29	48	e48	64	76	24	41	7.2	.21	.00	.22
3	29	29	51	e46	64	75	21	27	6.9	.1	.00	.14
4	30	28	47	e45	67	72	24	24	5.3	.03	.00	.09
5	29	28	45	e46	69	74	21	21	4.4	.00	.00	.05
6	29	28	42	e46	71	80	18	18	4.6	.00	.00	.00
7	30	28	42	e47	71	82	9.3	23	4.2	.00	.00	.00
8	31	29	45	51	70	83	7.6	22	5.4	.00	.00	.00
9	31	29	44	51	77	79	15	22	5.4	.00	.00	.00
10	36	29	44	52	77	78	22	16	6.5	.00	.00	.00
11	30	29	45	53	78	71	30	12	14	.00	.00	.00
12	22	29	45	56	74	69	34	9.3	6.0	.00	.00	.00
13	20	31	45	56	68	63	21	8.0	3.8	.01	.00	.00
14	21	31	e42	55	67	62	12	8.6	2.2	.01	.00	.00
15	21	32	e38	60	74	49	27	11	1.4	.01	.00	.00
16	20	31	e40	61	76	47	31	11	.98	.00	.00	.00
17	21	32	41	65	75	42	19	9.7	1.0	.00	.00	.00
18	22	32	40	70	73	41	11	19	1.6	.00	.00	.00
19	24	32	42	73	68	39	6.2	24	1.8	.00	.00	.00
20	25	34	41	71	68	37	6.2	11	3.1	.00	.00	.00
21	21	34	e38	72	71	36	5.4	9.3	1.8	.00	.00	.00
22	14	35	e39	74	79	38	6.5	9.0	1.2	.00	.00	.00
23	15	37	e41	71	76	39	6.9	8.8	1.1	.00	.00	.00
24	17	37	40	65	72	22	9.8	10	.94	.00	.00	.00
25	18	35	39	75	71	20	19	26	.87	.00	.00	.00
26	19	35	42	86	66	18	35	44	1.1	.00	.00	.00
27	21	35	42	83	63	18	33	23	.75	.00	.00	.00
28	22	37	43	74	69	18	28	9.1	.55	.00	.00	.00
29	23	40	44	64	78	17	62	7.9	.52	.00	.18	.00
30	23	50	46	65	---	19	84	6.3	.35	.00	.56	.00
31	25	---	46	64	---	20	---	4.0	---	.00	.74	---
TOTAL	763	974	1336	1893	2063	1558	670.9	567.0	98.76	0.57	1.48	0.88
MEAN	24.6	32.5	43.1	61.1	71.1	50.3	22.4	18.3	3.29	.018	.048	.029
MAX	40	50	51	86	79	83	84	72	14	.21	.74	.38
MIN	14	28	38	45	63	17	5.4	4.0	.35	.00	.00	.00
AC-FT	1510	1930	2650	3750	4090	3090	1330	1120	196	1.1	2.9	1.7

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1921 - 2000, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	(WY)	(WY)	(WY)
MEAN	48.3	82.8	59.3	62.0	78.7	104	247
MAX	307	424	140	146	186	261	1177
(WY)	1942	1976	1986	1986	1983	1989	1924
MIN	.11	8.92	16.7	24.0	29.6	24.9	1.49
(WY)	1978	1978	1978	1964	1964	1957	1990

SUMMARY STATISTICS FOR 1999 CALENDAR YEAR FOR 2000 WATER YEAR WATER YEARS 1921 - 2000

ANNUAL TOTAL	47923.2	9926.59	
ANNUAL MEAN	131	27.1	182
HIGHEST ANNUAL MEAN			451
LOWEST ANNUAL MEAN			17.2
HIGHEST DAILY MEAN	846	May 25	86
LOWEST DAILY MEAN	6.1	Apr 10	.00
ANNUAL SEVEN-DAY MINIMUM	7.6	Apr 10	.00
INSTANTANEOUS PEAK FLOW			Not determined
ANNUAL RUNOFF (AC-FT)	95060	19690	132100
10 PERCENT EXCEEDS	371	71	518
50 PERCENT EXCEEDS	72	22	57
90 PERCENT EXCEEDS	26	.00	1.4

e Estimated.  
a Also occurred Jun 28 to Jul 1, Jul 3, and Jul 21 to Sep 8, 1934, and some days during 1994, 1996, 1998, 2000.  
b Also occurred in 1996, 1998, and 2000.  
c Gage height not determined.





08251500 RIO GRANDE NEAR LOBATOS, CO--Continued

## WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1969 to September 1993 (also see REMARKS). February 1996 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1975 to September 1981.

WATER TEMPERATURE: October 1975 to September 1981.

REMARKS.--Periodic water-quality data available, Sept. 1969 to Sept. 1993, under the National Stream-Quality Accounting Network (NASQAN), and Apr. 1993 to Sept. 1996, under the Rio Grande National Water-Quality Assessment Program.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum, 1,040 microsiemens, Sept. 17-18, 1977; minimum, 89 microsiemens, May 9, 1979.

WATER TEMPERATURE: Maximum, 30.0°C, July 17, 1977; minimum, 0.0°C, many days.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
OCT											
15...	1115	420	241	8.4	11.0	8.5	72	21.7	4.38	18.9	3.6
FEB											
24...	1415	385	250	8.3	4.1	10.0	79	24.1	4.65	19.1	3.9
MAY											
24...	1415	195	635	8.6	22.4	7.9	170	50.8	11.4	65.4	9.1
JUN											
23...	1045	73	396	8.8	17.8	9.1	110	31.1	6.96	41.1	5.7
JUL											
27...	1130	27	464	8.9	21.5	9.3	110	29.4	8.02	57.3	7.1
AUG											
24...	1100	13	449	8.8	21.0	8.4	92	24.2	7.76	55.3	6.8

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L AS N) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)
OCT										
15...	--	--	--	24.0	--	<.010	<.050	<.020	.29	.13
FEB										
24...	31.6	5.2	.3	30.4	172	<.010	.243	<.020	.43	.14
MAY										
24...	134	14.9	.8	24.9	431	<.010	<.050	<.020	.74	.57
JUN										
23...	54.7	9.6	.5	21.2	264	<.010	<.050	<.020	.65	.30
JUL										
27...	61.3	12.8	.7	19.2	301	<.010	<.050	<.020	.71	.35
AUG										
24...	65.6	12.9	1.0	9.3	276	<.010	<.050	<.020	.61	.37

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00665)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ANTI- MONY, DIS- SOLVED (UG/L AS SB) (01095)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
OCT										
15...	.068	.043	.040	1	<1	E1.5	23	<1	<1.0	<.8
FEB										
24...	.126	.048	.036	15	<1	2.8	28	<1	<1.0	<1.0
MAY										
24...	.133	.073	.053	15	<1	3.2	50	<1	<1.0	<.8
JUN										
23...	.123	.030	.021	17	<1	4.0	28	<1	<1.0	<.8
JUL										
27...	.094	.014	<.010	7	<1	4.5	40	<1	<1.0	<.8
AUG										
24...	.061	.011	<.010	--	--	--	--	--	--	--

08251500 RIO GRANDE NEAR LOBATOS, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 15...	<1	<1	30	<1	12	1	<1	<2.4	<1	<1
FEB 24...	<1	<1	50	<1	30	2	<1	<2.4	<1	2
MAY 24...	<1	2	60	<1	76	5	1	<2.4	<1	3
JUN 23...	<1	<1	20	<1	23	4	<1	<2.4	<1	3
JUL 27...	<1	1	10	<1	19	7	<1	<2.4	<1	2
AUG 24...	--	--	<10	--	7	--	--	--	--	--

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**TRANSMOUNTAIN DIVERSIONS FROM COLORADO RIVER BASIN IN COLORADO THAT ARE NO LONGER PUBLISHED**

Following is a list of Transmountain Diversions no longer being published in this report. Diversions, in acre-feet, for these sites are available from the State of Colorado, Division of Water Resources.

TO PLATTE RIVER BASIN	TO ARKANSAS RIVER BASIN	TO RIO GRANDE RIVER BASIN
09010000 Grand River Ditch	09042000 Hoosier Pass Tunnel	09118200 Tarbell Ditch
09012000 Eureka Ditch	09061500 Columbine Ditch	09121000 Tabor Ditch
09013000 Alva B. Adams Tunnel	09062500 Wurtz Ditch	09341000 Treasure Pass Ditch
09021500 Berthoud Pass Ditch	09063700 Homestake Tunnel	09347000 Don LaFont Ditches 1 & 2
09022500 Moffat Water Tunnel	09073000 Twin Lakes Tunnel	09348000 Williams Creek Squaw Pass
09046000 Boreas Pass Ditch	09077160 Charles H. Boustead Tunnel	Ditch
09047300 Vidler Tunnel	09077500 Busk-Ivanhoe Tunnel	09351000 Pine River-Weminuche Pass
09050590 Harold D. Roberts Tunnel	09115000 Larkspur Ditch	Ditch
		09351500 Weminuche Pass

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at crest-stage partial-record stations are presented in the following table. Discharge measurements made at low-flow partial-record sites and at miscellaneous sites and for special studies are given in separate tables.

## CREST-STAGE PARTIAL-RECORD STATIONS

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device that will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, but is not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

## MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS

Station name and number	Location and drainage area	Period of record	Water year 2000 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
PLATTE RIVER BASIN								
Lee Gulch at Littleton, CO (06709740)	Lat 39°35'47", long 105°00'57", in SW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.21, T.5 S., R.68W., Arapahoe County, on right bank 30 ft upstream from culvert under Prince St. and 0.6 mi upstream from mouth in Littleton. Drainage area not determined.	1980-2000	7-16-00	12.51	232	a1983	16.00	444
Dutch Creek at Platte Canyon Drive, near Littleton, CO (06709910)	Lat 39°36'01", long 105°02'28", in NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.19, T.5 S., R.69 W., Arapahoe County, on left bank 150 ft down-stream from bridge on Platte Canyon Road. Drainage area not determined.	1985-2000	7-16-00	11.31	not determined	6-01-91	11.51	1,090
Weaver Creek near Lakewood, CO (06711305)	Lat 39°38'12", long 105°07'47", in NE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.8, T.5 S., R.69 W., Jefferson County, 500 ft upstream from Simms St., and 700 ft south of West Quincy Ave. Drainage area not determined.	1982-2000	8-17-00	11.35	89	a1985	13.93	1,010
Little Dry Creek near Arapahoe Road, CO (06711515)	Lat 39°35'38", long 104°54'23", in NE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.29, T.5 S., R.67 W., Arapahoe County, on right bank, 800 ft downstream from Quebec St. (formerly published as Inflow to Holly Reservoir, 1985-86). Drainage area not determined.	1985-2000	8-17-00	8.89	255	a1985	10.52	800
Willow Creek at Dry Creek Road, near Englewood, CO (06711535)	Lat 39°34'49", long 104°54'42", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.32, T.5 S., R.67 W., Arapahoe County, on left bank, upstream wingwall of bridge on Dry Creek Road over Willow Creek. Drainage area not determined.	1985-2000	8-17-00	12.97	1831	a1985	14.28	3,470
Little Dry Creek above Englewood, CO (06711555)	Lat 39°38'57", long 104°58'42", in SE <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.3, T.5 S., R.68 W., Arapahoe County, on right bank 250 ft downstream from bridge on Clarkson St., and 800 ft south of Hampton Ave., in Cherry Hills Village. Drainage area not determined. Prior to April 2, 1992, gage was located at a site 300 ft upstream from the present location.	1982-2000	7-16-00	7.69	512	a1983	15.64	1,060

## MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station name and number	Location and drainage area	Period of record	Date	Water year 2000 maximum		Period of record maximum		
				Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
PLATTE RIVER BASIN--Continued								
Harvard Gulch at Colorado Blvd., at Denver, CO (06711570)	Lat 39°40'08", long 104°56'32", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.25, T.4 S., R.67 W., Denver County, on left bank, 100 ft upstream from S. Jackson St., and 400 ft north of E. Yale Ave. Drainage area not determined.	1979-2000	5-17-00	12.86	441	7-20-92	13.50	750
Harvard Gulch below University Blvd. at Denver, CO (06711572)	Lat 39°40'10", long 104°57'33", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.26, T.4 S., R.68 W., Denver County, 200 ft, downstream from University Blvd., and 600 ft north of East Yale Ave., in Denver. REVISED RECORDS.--WDR-CO-92-1: 1989-91. Drainage area not determined.	1979-2000	8-17-00	13.48	469	7-12-96	14.55	981
Harvard Gulch at Harvard Park at Denver, CO (06711575)	Lat 39°40'21", long 104°58'35", in NW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.26, T.4 S., R.68 W., Denver County, on left bank, 200 ft north of E. Harvard Ave. and 300 ft west of S. Ogden St., directly north of Porter Hospital. Drainage area not determined.	1979-2000	8-17-00	14.06	350	7-12-96	16.25	1,100
Sanderson Gulch tributary at Lakewood, CO (06711600)	Lat 39°41'19", long 105°04'54", in NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.23, T.4 S., R.68 W., Jefferson County, 300 ft upstream from S. Wadsworth Blvd., 300 ft south of W. Florida Ave. in Lakewood. Drainage area is 0.38 mi <sup>2</sup> .	1969-2000	8-17-00	12.40	53	6-06-77	4.91	422
Weir Gulch upstream from 1st Avenue, at Denver, CO (06711618)	Lat 39°43'03", long 105°02'30", in NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.7, T.4 S., R.68 W., Denver County, 250 ft upstream from 1st Ave., in Denver. Drainage area not determined.	1985-2000	7-16-00	11.18	315	8-01-91	11.91	523
Dry Gulch at Denver, CO (06711770)	Lat 39°44'03", long 105°02'20", in SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.6, T.4 S., R.68 W., Denver County, 800 ft upstream from confluence with Lakewood Gulch, north of West 10th Ave., at Perry St., in Denver. Drainage area not determined.	1980-2000	7-16-00	13.46	263	a1981	16.00	445
Lakewood Gulch at Denver, CO (06711780)	Lat 39°44'06", long 105°01'54", in SW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.5, T.4 S., R.68 W., Denver County, 2,000 ft downstream from confluence with Dry Gulch, near intersection of Knox Ct., and West 12th Ave., in Denver. Drainage area not determined.	1980-2000	7-16-00	14.31	962	8-19-98	14.80	1,180
Sloans Lake, south Tributary at Denver, CO (06711820)	Lat 39°44'44", long 105°03'28", in NW <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.36, T.3 S., R.69 W., Jefferson County, 50 ft south of 18th Ave., at Depew St. REVISED RECORDS.--WDR CO-90-1: 1985-89. Drainage area not determined.	1985-2000	7-16-00	4.62	52	6-01-91	14.00	451
Westerly Creek at Aurora, CO (06714260)	Lat 39°44'43", long 104°52'48", in NW <sup>1</sup> / <sub>4</sub> SW <sup>1</sup> / <sub>4</sub> sec.34, T.3 S., R.67 W., Adams County, 50 ft upstream from footbridge. 800 ft upstream from Montview Blvd., and 100 ft east of Boston St., in Aurora. REVISED RECORDS.--WDR CO-90-1: 1983-85, 1987-88. Drainage area not determined.	1982-2000	7-16-00	13.34	872	a1983	14.45	1,530

## DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

## MAXIMUM DISCHARGE AT CREST-STAGE PARTIAL-RECORD STATIONS--Continued

Station name and number	Location and drainage area	Period of record	Water year 2000 maximum			Period of record maximum		
			Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)	Date	Gage height (ft)	Dis- charge (ft <sup>3</sup> /s)
PLATTE RIVER BASIN--Continued								
Lena Gulch at Lakewood, CO (06719560)	Lat 39°44'27", long 105°08'49", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> sec.31, T.3 S., R.69 W., Jefferson County, on right bank 200 ft north of West 15th Drive at Arbutus. Prior to July 6, 1988, at site approx. 500 ft downstream (formerly published as Lena Gulch at Alkire at Golden, CO, 1986-87). Drainage area is approximately 9.0 mi <sup>2</sup> .	1974-79 1986-2000	8-17-00	12.41	263	7-20-75	14.41	641
Little Dry Creek at Westminster, CO (06719840)	Lat 39°49'34", long 105°02'25", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.6, T.3 S., R.68 W., Adams County, 400 ft downstream from 72nd Ave. in Westminster. REVISED RECORDS.--WDR CO-89-1: 1986. Drainage area not determined.	1982-2000	8-17-00	12.10	646	6-01-91	13.09	1,280
ARKANSAS RIVER BASIN								
North Rockrimmon Creek above Delmonico Dr. at Colorado Springs, CO (07104050)	Lat 38°54'56", long 104°49'35", in SW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> sec.18, T.13 S., R.66 W., El Paso County, on both banks, 0.2 mi west of Interstate 25, 0.3 mi upstream from mouth, and 2.0 mi downstream from Woodmen Road. Drainage area 1.82 mi <sup>2</sup> .	1998-2000	7-18-00	4.16	277	5-25-99	4.95	414
Big Arroyo near Thatcher, CO (07120620)	Lat 37°33'17", long 104°01'16"(revised), in NW <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.4, T.29 S., R.59 W., Las Animas County, on left bank 2.4 mi from U.S. Route 350, 3.2 mi upstream from mouth, and 4.8 mi east of Thatcher. REVISED RECORDS.--WDR CO-97-1:1987(M). Drainage area is 15.5 mi <sup>2</sup> .	1983-90b 1991-2000	no peaks during year			8-11-97	5.78	1,780
Big Sandy Creek above Amity Canal Diversion, near Kornman, CO (07134000)	Lat 38°12'52", long 102°28'45", in NE <sup>1</sup> / <sub>4</sub> NW <sup>1</sup> / <sub>4</sub> sec.21, T.21 S., R.45 W., Prowers County, on left bank 106 ft upstream from Amity Canal Diversion 7.0 mi upstream from mouth, and 9.0 mi northeast of Kornman. Drainage area is 3,426 mi <sup>2</sup> .	1941-46b 1996-2000	a	11.70	e50	5-04-99	14.00	3,580
Two Butte Creek near Holly, CO (07135000)	Lat 38°01'40", long 102°08'19", in SE <sup>1</sup> / <sub>4</sub> SE <sup>1</sup> / <sub>4</sub> Sec.21,T.23 S., R.42 W., Prowers County, on left bank 200 ft downstream from road DD, approximately 1 mi upstream from mouth, and 2.9 mi southwest of Holly. Drainage area is 817 mi <sup>2</sup> .	1942-46bc 1995-99b 2000-	a	unknown	e3	5-02-44	4.77c	1,800

a-Month or day of occurrence is unknown or not exact.

b-Previously operated as a continuous-record gaging station.

c-At different datum.

e-Estimated.



## SPECIAL STUDY AND MISCELLANEOUS SITES

Discharge measurements in the following table were made at a miscellaneous site. Several measurements of specific conductance and water temperature were obtained and are published in the "Supplemental Water-Quality Data For Gaging Stations" section of this report.

DISCHARGE MEASUREMENTS MADE AT SPECIAL STUDY AND MISCELLANEOUS SITES DURING WATER YEAR 2000.

## ARKANSAS RIVER BASIN

Station no	Station name	Location and drainage area	Date	Discharge (ft <sup>3</sup> /s)
07079195	East Fork Arkansas River at Highway 91 near Leadville, CO	Lat 39°17'09", long 106°16'45", in NW <sup>1</sup> / <sub>4</sub> NE <sup>1</sup> / <sub>4</sub> , Sec.12, T.9 S., R.80 W. Lake County, Hydrologic Unit 11020001, on right bank, 20 ft. upstream of State Highway 91, 1.6 mi north of Leadville.  Drainage area is 35.0 mi <sup>2</sup> .	10-06-99	20
			11-03-99	12
			12-01-99	9.2
			1-05-00	7.9
			2-02-00	8.5
			3-01-00	7.4
			4-05-00	6.8
			5-03-00	38
			5-31-00	214
			6-07-00	152
			7-05-00	46
			8-02-00	27
			9-06-00	26

## PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION

A network of meteorological stations is operated on the Fort Carson Military Reservation to provide precipitation data for land condition trend analysis, long-term climatic analysis, storm-runoff modeling, and operations management during military training exercises. Other meteorological data are available upon request.

## 382731104473701 MPRC METEOROLOGICAL STATION AT FORT CARSON, CO

LOCATION.--Lat 38°27'31", long 104°47'37", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.29, T.18 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, 0.1 mi northeast of Military Route 1, 2.1 mi northeast of Teller Reservoir, and 16 mi southwest of Fountain.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,800 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good except for May 5 to July 20, which are poor. Records for 2000 water year are good except for Nov. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.17 inches, July 17, 2000.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation during period March to September, 0.70 inch, Aug. 1, but may have been greater during periods of missing record, Mar. 22 to May 4 and Sept. 2-30.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.17 inches, July 17, but may have been higher during periods of missing record, Oct. 1-10 and July 20 to Sept. 30.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.70	e.00
2	---	---	---	---	---	---	---	---	.00	.00	.08	---
3	---	---	---	---	---	---	---	---	.00	.00	.01	---
4	---	---	---	---	---	---	---	---	.00	.00	.29	---
5	---	---	---	---	---	---	---	e.00	.00	.00	.04	---
6	---	---	---	---	---	---	---	.00	.00	.26	.15	---
7	---	---	---	---	---	---	---	.00	.00	.00	.00	---
8	---	---	---	---	---	---	---	.00	.00	.04	.00	---
9	---	---	---	---	---	---	---	.00	.08	.01	.15	---
10	---	---	---	---	---	---	---	.00	.00	.00	.03	---
11	---	---	---	---	---	---	---	.00	.03	.08	.00	---
12	---	---	---	---	---	---	---	.00	.21	.00	.00	---
13	---	---	---	---	---	---	---	.00	.00	.00	.00	---
14	---	---	---	---	---	---	---	.00	.04	.00	.00	---
15	---	---	---	---	---	---	---	.00	.06	.01	.00	---
16	---	---	---	---	---	---	---	.00	.14	.31	.00	---
17	---	---	---	---	---	---	---	.00	.10	.30	.06	---
18	---	---	---	---	---	---	---	.00	.03	.00	.00	---
19	---	---	---	---	---	---	---	.00	.20	.02	.01	---
20	---	---	---	---	---	---	---	.00	.00	.00	.00	---
21	---	---	---	---	---	---	---	.00	.00	.00	.12	---
22	---	---	---	---	---	---	---	.09	.00	.00	.00	---
23	---	---	---	---	---	---	---	.00	.01	.00	.00	---
24	---	---	---	---	---	---	---	.01	.33	.00	.00	---
25	---	---	---	---	---	---	---	.50	.00	.00	.00	---
26	---	---	---	---	---	---	---	.00	.00	.08	.00	---
27	---	---	---	---	---	---	---	.62	.00	.00	.00	---
28	---	---	---	---	---	---	---	.01	.00	.03	.00	---
29	---	---	---	---	---	---	---	.02	.00	.00	.00	---
30	---	---	---	---	---	---	---	.00	.00	.02	.00	---
31	---	---	---	---	---	---	---	.00	---	.01	.00	---
TOTAL	---	---	---	---	---	---	---	---	1.23	1.17	1.64	---
MAX	---	---	---	---	---	---	---	---	.33	.31	.70	---

e Estimated.

PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

382731104473701 MPRC METEOROLOGICAL STATION AT FORT CARSON, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	.00	.00	e.00	.00	.00	.04	.00	.00	.00	---	---
2	---	.00	.00	.14	.00	.35	.07	.00	.00	.12	---	---
3	---	.00	.01	.00	.00	.01	.04	.00	.01	.00	---	---
4	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---
5	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---
6	---	.00	.00	.06	.00	.00	.00	.00	.00	.00	---	---
7	---	.00	.00	.00	.00	.46	.00	.01	.00	.00	---	---
8	---	.00	.00	.00	.00	.00	.00	.41	.00	.00	---	---
9	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---
10	---	.00	.00	.00	.01	.00	.00	.00	.00	.00	---	---
11	e.00	.00	.00	.00	.00	.00	.04	.00	.01	.00	---	---
12	.00	.00	.00	.00	.02	.04	.00	.00	.00	.00	---	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---
15	.00	.00	.00	.00	.00	.08	.00	.00	.00	.01	---	---
16	.03	.00	.00	.00	.00	.08	.00	.00	.00	.32	---	---
17	.04	.00	.00	.00	.00	.06	.00	.00	.00	1.17	---	---
18	.07	.00	.00	.00	.03	.00	.00	.01	.00	.00	---	---
19	.02	.00	.00	.00	.00	.00	.00	.00	.04	e.00	---	---
20	.00	.00	.01	.00	.00	.00	.00	.02	.13	---	---	---
21	.00	.01	.00	.00	.00	.07	.00	.00	.00	---	---	---
22	.00	.00	.01	.00	.00	.16	.00	.00	.00	---	---	---
23	.00	.03	.00	.00	.00	.00	.02	.00	.00	---	---	---
24	.00	.00	.00	.00	.00	.00	.00	.03	.00	---	---	---
25	.00	.00	.00	.00	.00	.00	.00	.04	.13	---	---	---
26	.00	.00	e.00	.00	.00	.00	.00	.00	.45	---	---	---
27	.00	.00	e.00	.06	.00	.00	.00	.00	.02	---	---	---
28	.00	.00	e.00	.01	.01	.01	.00	.00	.00	---	---	---
29	.00	.00	e.00	.16	.00	.09	.01	.00	.00	---	---	---
30	.00	.00	e.00	.00	---	.05	.16	.00	.00	---	---	---
31	.00	---	e.00	.00	---	.05	---	.00	---	---	---	---
TOTAL	---	0.04	0.03	0.43	0.07	1.51	0.38	0.52	0.79	---	---	---
MAX	---	.03	.01	.16	.03	.46	.16	.41	.45	---	---	---

e Estimated.

## PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

384339104461201 RANGE ONE METEOROLOGICAL STATION AT FORT CARSON, CO

LOCATION.--Lat 38°43'39", long 104°46'12", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.22, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, 0.1 mi southeast of intersection of Military Route 5 and Specker Ave., 1.5 mi southwest of Interstate 25, and 7.9 mi south of Colorado Springs.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,760 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are poor. Records for 2000 water year are good except for Nov. 1 to Feb. 29, and Mar. 20 to May 25, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.50 inches, July 31, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period March to September, 1.50 inches, July 31, but may have been greater during periods of missing record, Mar. 22-29, and Apr. 7 to May 4.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.30 inchs, Aug. 28, but may have been greater during period of missing record, Sept. 7-24.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.05	---	.00	.00	.00	.00
2	---	---	---	---	---	---	.00	---	.00	.05	.00	.00
3	---	---	---	---	---	---	.15	---	.00	.00	.00	.00
4	---	---	---	---	---	---	.07	---	.00	.00	.00	.00
5	---	---	---	---	---	---	.02	e.00	.00	.01	.00	.00
6	---	---	---	---	---	---	e.00	.00	.00	.07	.00	.00
7	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	---	.00	.00	.56	.00	.00
9	---	---	---	---	---	---	---	.00	.11	.00	.00	.00
10	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	---	.00	.12	.00	.00	.13
12	---	---	---	---	---	---	---	.00	.23	.00	.00	.02
13	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	---	.00	.02	.00	.00	.01
15	---	---	---	---	---	---	---	.00	.10	.00	.00	.01
16	---	---	---	---	---	---	---	.05	.08	.53	.00	.00
17	---	---	---	---	---	---	---	.00	.20	.25	.00	.06
18	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
19	---	---	---	---	---	---	---	.00	.14	.00	.00	.10
20	---	---	---	---	---	---	---	.01	.00	.00	.00	.18
21	---	---	---	---	---	---	---	.13	.00	.00	.00	.00
22	---	---	---	---	---	---	---	.11	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	---	.13	.15	.00	.00	.00
25	---	---	---	---	---	---	---	.88	.00	.00	.00	.00
26	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
27	---	---	---	---	---	---	---	.47	.00	.06	.00	.01
28	---	---	---	---	---	---	---	.00	.00	.01	.00	.11
29	---	---	---	---	---	---	---	.11	.00	.00	.00	.00
30	---	---	---	---	---	e.00	---	.00	.00	.10	.00	.00
31	---	---	---	---	---	.00	---	.05	---	1.50	.00	---
TOTAL	---	---	---	---	---	---	---	---	1.15	3.14	0.00	0.63
MAX	---	---	---	---	---	---	---	---	.23	1.50	.00	.18

e Estimated.

ARKANSAS RIVER BASIN

395

PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

384339104461201 RANGE ONE METEOROLOGICAL STATION AT FORT CARSON, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.01	.00	.00	.06	.00	.00	.21	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.39	e.00
7	.13	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	---
8	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00	---
9	.00	.00	.00	.00	.00	.00	.00	.01	.00	.01	.02	---
10	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	---
11	.00	.00	.00	.00	.00	.00	.04	.00	.27	.07	.01	---
12	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	---
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.09	---
14	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	---
15	.00	.00	.00	.00	.00	.09	.02	.00	.00	.05	.08	---
16	.04	.00	.00	.00	.00	.23	.00	.00	.00	.03	.03	---
17	.03	.00	.00	.00	.00	.10	.00	.01	.13	.35	.88	---
18	.11	.00	.00	.00	.01	.00	.00	.00	.02	.00	.15	---
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	---
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	---
21	.00	.06	.00	.00	.00	.00	.00	.00	.00	.02	.05	---
22	.00	.01	.00	.00	.00	.12	.00	.00	.00	.00	.09	---
23	.00	.12	.00	.00	.00	.00	.05	.00	.00	.00	.00	---
24	.00	.00	.00	.00	.00	.00	.01	.01	.00	.01	.00	---
25	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.30	e.00
26	.00	.00	.00	.01	.00	.00	.00	.00	.79	.00	.38	.00
27	.00	.00	.00	.13	.00	.00	.00	.00	.25	.19	.00	.00
28	.00	.00	.00	.01	.00	.01	.00	.00	.00	.10	1.30	.00
29	.00	.00	.00	.25	.00	.09	.00	.00	.07	.00	.06	.00
30	.00	.00	.00	.01	---	.08	.01	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.03	---	.00	---	.00	.05	---
TOTAL	0.32	0.19	0.00	0.52	0.03	0.93	0.19	0.14	1.61	1.08	4.03	---
MAX	.13	.12	.00	.25	.02	.23	.06	.11	.79	.35	1.30	---

e Estimated.

## PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

384053104492001 ROD AND GUN METEOROLOGICAL STATION AT FORT CARSON, CO

LOCATION.--Lat 38°40'53", long 104°49'20", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.6, T.16 S., R.66 W., El Paso County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, 0.4 mi north of Military Route 4, 1.2 mi east of State Highway 115, and 9.1 mi south of Colorado Springs.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 6,120 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year good except for May 5 to July 5, which are poor. Records for 2000 water year are good except for Oct. 1, to Mar. 14 and Mar. 21 to May 17, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 2.97 inches, Aug. 4, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation during period March to September, 2.97 inches, Aug. 4, but may have been higher during periods of missing record, Mar. 22 to May 20 and July 6-19.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 2.00 inches, Aug.17, but may have been higher during periods of missing record, Nov. 20 to Jan. 20, Mar. 15-19, and May 18-24.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.02	.01	.18	.07
2	---	---	---	---	---	---	---	---	.00	.01	.07	.00
3	---	---	---	---	---	---	---	---	.00	.00	.03	.00
4	---	---	---	---	---	---	---	---	.00	.00	2.97	.00
5	---	---	---	---	---	---	---	---	.00	.00	.73	.00
6	---	---	---	---	---	---	---	---	.00	---	.24	.00
7	---	---	---	---	---	---	---	---	.00	---	.00	.00
8	---	---	---	---	---	---	---	---	.00	---	.00	.00
9	---	---	---	---	---	---	---	---	.06	---	.03	.00
10	---	---	---	---	---	---	---	---	.00	---	.05	.00
11	---	---	---	---	---	---	---	---	.08	---	.00	.04
12	---	---	---	---	---	---	---	---	.02	---	.00	.02
13	---	---	---	---	---	---	---	---	.01	---	.00	.01
14	---	---	---	---	---	---	---	---	.02	---	.00	.03
15	---	---	---	---	---	---	---	---	.01	---	.00	.00
16	---	---	---	---	---	---	---	---	.01	---	.00	.01
17	---	---	---	---	---	---	---	---	.00	---	.00	.01
18	---	---	---	---	---	---	---	---	.00	---	.00	.00
19	---	---	---	---	---	---	---	---	.00	---	.15	.11
20	---	---	---	---	---	---	---	---	.00	.14	.06	.20
21	---	---	---	---	---	---	---	e.07	.00	.00	.03	.00
22	---	---	---	---	---	---	---	.01	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	---	.01	.25	.00	.00	.01
25	---	---	---	---	---	---	---	.38	.02	.00	.00	.00
26	---	---	---	---	---	---	---	.01	.00	.00	.00	.00
27	---	---	---	---	---	---	---	.06	.00	.31	.00	.00
28	---	---	---	---	---	---	---	.00	.00	.00	.05	.18
29	---	---	---	---	---	---	---	.03	.00	.00	.04	.00
30	---	---	---	---	---	---	---	.00	.00	.13	.03	.00
31	---	---	---	---	---	---	---	.03	---	.93	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.50	---	4.66	0.69
MAX	---	---	---	---	---	---	---	---	.25	---	2.97	.20

e Estimated.

ARKANSAS RIVER BASIN

PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued  
 384053104492001 ROD AND GUN METEOROLOGICAL STATION AT FORT CARSON, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	.00	.00	.01	.01	.00	.19	.00	.00
2	.00	.00	---	---	.00	.04	.04	.00	.00	.99	.00	.00
3	.00	.00	---	---	.00	.00	.01	.00	.00	.10	.01	.00
4	.00	.00	---	---	.00	.00	.00	.00	.00	.02	.32	.00
5	.00	.00	---	---	.00	.00	.00	.00	.02	.03	.02	.00
6	.00	.00	---	---	.00	.00	.00	.00	.00	.24	.05	.00
7	.18	.00	---	---	.00	.32	.00	.00	.00	.07	.00	.00
8	.00	.00	---	---	.00	.00	.00	.08	.01	.01	.00	.00
9	.00	.00	---	---	.00	.00	.00	.00	.00	.03	.01	.00
10	.00	.00	---	---	.00	.00	.00	.00	.00	.03	.00	.00
11	.00	.00	---	---	.00	.00	.06	.00	.04	.08	.00	.00
12	.00	.00	---	---	.02	.01	.00	.00	.02	.00	.00	.00
13	.00	.00	---	---	.00	.00	.00	.00	.03	.09	.13	.00
14	.00	.00	---	---	.00	.00	.00	.00	.00	.40	.00	.00
15	.00	.00	---	---	.00	---	.01	.00	.00	.50	.17	.00
16	.02	.00	---	---	.00	---	.00	.00	.00	.20	.10	.00
17	.09	.00	---	---	.00	---	.00	.00	.02	.14	2.00	.00
18	.02	.00	---	---	.02	---	.00	---	.02	.26	.11	.00
19	.09	e.00	---	---	.00	---	.00	---	.00	.02	.00	.00
20	.00	---	---	---	.00	.00	.00	---	.00	.00	.00	.00
21	.00	---	---	e.00	.00	.02	.00	---	.06	.00	.10	.02
22	.00	---	---	.00	.00	.15	.00	---	.02	.03	.08	.01
23	.00	---	---	.00	.00	.01	.02	---	.01	.00	.00	.25
24	.00	---	---	.00	.00	.00	.00	---	.00	.00	.00	.38
25	.00	---	---	.00	.00	.00	.00	.03	.02	.00	.58	.00
26	.00	---	---	.02	.00	.00	.00	.00	.02	.02	.23	.00
27	.00	---	---	.10	.00	.00	.00	.00	.25	.01	.03	.00
28	.00	---	---	.01	.03	.00	.00	.00	.06	.11	.55	.00
29	.00	---	---	.28	.00	.12	.00	.00	.37	.00	.04	.00
30	.00	---	---	.05	---	.05	.01	.00	.00	.00	.00	.00
31	.00	---	---	.00	---	.01	---	.00	---	.00	.02	---
TOTAL	0.40	---	---	---	0.07	---	0.16	---	0.97	3.57	4.55	0.66
MAX	.18	---	---	---	.03	---	.06	---	.37	.99	2.00	.38

e Estimated.

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

383159104540701 SULLIVAN PARK METEOROLOGICAL STATION AT FORT CARSON, CO

LOCATION.--Lat 38°31'59", long 104°54'07", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.33, T.17 S., R.67 W., El Paso County, Hydrologic Unit 11020002, on Fort Carson Military Reservation, 0.4 mi east of Military Route 11, 1.0 mi north of Military Route 8, 1.1 mi northeast of Camp Red Devil, and 9 mi northeast of Penrose.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 6,010 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good except for Sept. 1-30, which are poor. Records for 2000 water year are good except for Oct. 1 to Feb. 29, and July 19 to Sept. 6, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 2.92 inches, Aug. 4, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation during period March to September, 2.92 inches, Aug. 4, but may have been higher during period of missing record, Mar. 22 to May 4.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.67 inch, May 8, but may have been higher during period of missing record, Jan. 25 to Feb. 13.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.11	.02
2	---	---	---	---	---	---	---	---	.00	.00	.01	.00
3	---	---	---	---	---	---	---	---	.00	.00	.60	.00
4	---	---	---	---	---	---	---	---	.00	.00	2.92	.00
5	---	---	---	---	---	---	---	e.00	.00	.01	.23	.00
6	---	---	---	---	---	---	---	.00	.00	.23	.69	.00
7	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	---	.00	.00	.02	.00	.00
9	---	---	---	---	---	---	---	.00	.26	.00	.02	.00
10	---	---	---	---	---	---	---	.00	.00	.00	.08	.00
11	---	---	---	---	---	---	---	.00	.00	.09	.00	.33
12	---	---	---	---	---	---	---	.00	.00	.01	.00	.01
13	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	---	.00	.03	.02	.01	.11
15	---	---	---	---	---	---	---	.00	.17	.00	.00	.13
16	---	---	---	---	---	---	---	.00	.20	.16	.00	.00
17	---	---	---	---	---	---	---	.00	.02	.64	.00	.06
18	---	---	---	---	---	---	---	.00	.00	.00	.03	.00
19	---	---	---	---	---	---	---	.00	.00	.02	.04	.10
20	---	---	---	---	---	---	---	.00	.00	.12	.01	.08
21	---	---	---	---	---	---	---	.00	.02	.00	.47	.01
22	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	---	.00	.18	.02	.00	.00
25	---	---	---	---	---	---	---	.88	.00	.00	.00	.00
26	---	---	---	---	---	---	---	.00	.00	.03	.00	.00
27	---	---	---	---	---	---	---	.42	.00	.00	.00	.00
28	---	---	---	---	---	---	---	.01	.00	.03	.00	.03
29	---	---	---	---	---	---	---	.14	.00	.00	.00	.00
30	---	---	---	---	---	---	---	.00	.00	.04	.00	.00
31	---	---	---	---	---	---	---	.00	---	.58	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.88	2.02	5.22	0.88
MAX	---	---	---	---	---	---	---	---	.26	.64	2.92	.33

e Estimated.



PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

383159104540701 SULLIVAN PARK METEOROLOGICAL STATION AT FORT CARSON, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	---	.00	.09	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	---	.24	.04	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	---	.09	.06	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	---	.00	.00	.00	.01	.00	.13	.00
5	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.11	---	.00	.00	.00	.00	.00	.02	.00
7	.02	.00	.00	.00	---	.17	.00	.00	.00	.01	.00	.00
8	.00	.00	.00	.00	---	.00	.00	.67	.00	.00	.00	.00
9	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	---	.00	.04	.00	.00	.00	.16	.00
12	.00	.00	.00	.00	---	.00	.01	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	---	.01	.00	.00	.00	.00	.01	.00
14	.00	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.02	.00
15	.00	.00	.00	.00	.00	.09	.00	.00	.00	.00	.01	.00
16	.00	.00	.00	.00	.00	.13	.00	.00	.00	.18	.00	.00
17	.06	.00	.00	.00	.00	.14	.00	.00	.02	.31	.01	.00
18	.01	.00	.00	.00	.04	.00	.00	.09	.00	.00	.00	.00
19	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.02	.38	.00	.00	.00
21	.00	.02	.01	.00	.00	.18	.00	.00	.00	.00	.00	.02
22	.00	.05	.00	.00	.00	.21	.00	.00	.00	.03	.00	.02
23	.00	.09	.00	.00	.00	.01	.05	.00	.00	.00	.00	.27
24	.00	.00	.00	e.00	.00	.00	.01	.02	.01	.00	.00	.24
25	.00	.00	.00	---	.00	.00	.00	.02	.11	.00	.00	.00
26	.00	.00	.00	---	.00	.00	.00	.00	.57	.00	.00	.00
27	.00	.00	.00	---	.00	.00	.00	.00	.05	.02	.00	.00
28	.00	.00	.00	---	.02	.00	.00	.00	.00	.05	.00	.00
29	.00	.00	.00	---	.00	.10	.00	.00	.02	.00	.00	.00
30	.00	.00	.00	---	---	.01	.15	.00	.00	.44	.00	.00
31	.00	---	.00	---	---	.02	---	.00	---	.00	.00	---
TOTAL	0.12	0.16	0.01	---	---	1.40	0.45	0.82	1.17	1.04	0.36	0.55
MAX	.06	.09	.01	---	---	.24	.15	.67	.57	.44	.16	.27

e Estimated.

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

383109104431301 YOUNG HOLLOW METEOROLOGICAL STATION AT FORT CARSON, CO

LOCATION.--Lat 38°31'09", long 104°43'13", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.1, T.18 S., R.66 W., Pueblo County, Hydrologic Unit 11020003, on Fort Carson Military Reservation, 1.1 mi east of Military Route 1, 4.8 mi west of Interstate 25, and 5.5 mi south of Fountain.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,350 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are poor. Records for 2000 water year are good except for Oct. 1-31, which are fair, and Nov. 1 to Feb. 29, Mar. 20 to May 25, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 0.93 inch, July 11, 2000.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation during period March to September, 0.36 inch, Aug. 1, but may have been higher during period of missing record, Mar. 23 to May 4.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.93 inch, July 11, but may have been higher during periods of missing record, Jan. 25 to Feb. 28 and Apr. 28 to May 24.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.36	.00
2	---	---	---	---	---	---	---	---	.00	.00	.00	.04
3	---	---	---	---	---	---	---	---	.00	.00	.00	.00
4	---	---	---	---	---	---	---	---	.00	.00	.15	.00
5	---	---	---	---	---	---	---	e.00	.00	.00	.03	.00
6	---	---	---	---	---	---	---	.00	.00	.00	.05	.00
7	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
8	---	---	---	---	---	---	---	.00	.00	.00	.02	.00
9	---	---	---	---	---	---	---	.00	.00	.00	.01	.00
10	---	---	---	---	---	---	---	.00	.00	.00	.02	.00
11	---	---	---	---	---	---	---	.00	.00	.00	.00	.25
12	---	---	---	---	---	---	---	.00	.15	.00	.00	.00
13	---	---	---	---	---	---	---	.00	.01	.00	.00	.00
14	---	---	---	---	---	---	---	.00	.00	.00	.00	.04
15	---	---	---	---	---	---	---	.00	.00	.00	.00	.02
16	---	---	---	---	---	---	---	.00	.00	.00	.00	.01
17	---	---	---	---	---	---	---	.00	.00	.00	.01	.02
18	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
19	---	---	---	---	---	---	---	.00	.00	.00	.01	.08
20	---	---	---	---	---	---	---	.00	.00	.00	.00	.06
21	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
22	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
24	---	---	---	---	---	---	---	.00	.00	.00	.00	.07
25	---	---	---	---	---	---	---	.00	.00	.04	.00	.00
26	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
27	---	---	---	---	---	---	---	.00	.00	.00	.00	.01
28	---	---	---	---	---	---	---	.00	.00	.07	.00	.05
29	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
30	---	---	---	---	---	---	---	.00	.00	.05	.00	.00
31	---	---	---	---	---	---	---	.00	---	.17	.02	---
TOTAL	---	---	---	---	---	---	---	---	0.16	0.33	0.68	0.65
MAX	---	---	---	---	---	---	---	---	.15	.17	.36	.25

e Estimated.

ARKANSAS RIVER BASIN

PRECIPITATION DATA AT SITES ON FORT CARSON MILITARY RESERVATION--Continued

383109104431301 YOUNG HOLLOW METEOROLOGICAL STATION AT FORT CARSON, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.07	---	.00	.02	---	.00	.00	.00	.00
2	.00	.00	.00	.00	---	.15	.26	---	.00	.01	.00	.00
3	.00	.00	.09	.00	---	.00	.00	---	.03	.00	.00	.00
4	.00	.00	.00	.00	---	.00	.01	---	.00	.00	.00	.00
5	.00	.00	.00	.00	---	.00	.00	---	.00	.00	.00	.00
6	.02	.00	.00	.04	---	.00	.00	---	.00	.00	.32	.00
7	.52	.00	.00	.00	---	.56	.00	---	.00	.00	.00	.00
8	.00	.00	.00	.00	---	.00	.00	---	.00	.00	.00	.00
9	.00	.00	.00	.00	---	.00	.00	---	.00	.00	.00	.00
10	.00	.00	.00	.00	---	.01	.00	---	.00	.00	.00	.00
11	.00	.00	.00	.00	---	.00	.06	---	.00	.93	.01	.00
12	.00	.00	.00	.00	---	.00	.00	---	.00	.00	.00	.00
13	.00	.00	.00	.00	---	.00	.00	---	.00	.00	.06	.00
14	.00	.00	.00	.00	---	.00	.00	---	.00	.00	.00	.00
15	.00	.00	.00	.00	---	.09	.00	---	.00	.03	.03	.00
16	.03	.00	.00	.00	---	.27	.00	---	.01	.18	.00	.00
17	.12	.00	.00	.00	---	.05	.00	---	.01	.16	.66	.00
18	.10	.00	.00	.00	---	.01	.00	---	.00	.00	.02	.00
19	.01	.00	.00	.00	---	.00	.00	---	.00	.00	.00	.00
20	.00	.00	.01	.00	---	.00	.00	---	.06	.00	.00	.00
21	.00	.09	.00	.00	---	.03	.00	---	.00	.00	.04	.03
22	.00	.03	.00	.00	---	.13	.00	---	.00	.00	.01	.01
23	.00	.00	.00	.00	---	.00	.07	---	.00	.00	.00	.35
24	.00	.00	.00	e.00	---	.00	.01	---	.00	.00	.00	.42
25	.00	.00	.00	---	---	.00	.00	e.00	.17	.00	.02	.00
26	.00	.00	.00	---	---	.00	.00	.00	.50	.00	.10	.00
27	.00	.00	.00	---	---	.00	e.00	.00	.62	.00	.00	.00
28	.00	.00	.00	---	---	.01	---	.00	.00	.02	.44	.00
29	.01	.00	.00	---	e.00	.06	---	.00	.01	.00	.01	.00
30	.00	.01	.00	---	---	.03	---	.00	.00	.00	.00	.00
31	.00	---	.00	---	---	.05	---	.00	---	.00	.01	---
TOTAL	0.81	0.13	0.10	---	---	1.45	---	---	1.41	1.33	1.73	0.81
MAX	.52	.09	.09	---	---	.56	---	---	.62	.93	.66	.42

e Estimated.

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE

A network of meteorological stations is operated on the Pinon Canyon Maneuver Site to provide precipitation data for land condition trend analysis, long-term climatic analysis, storm-runoff modeling, and operations management during military training exercises. Other meteorological data are available upon request.

373232103555201 BEAR SPRINGS METEOROLOGICAL STATION NEAR HOUGHTON, CO

LOCATION (REVISED).--Lat 37°32'32", long 103°55'55", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.5, T.29 S., R.58 W, Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site approximately 100 ft north of Military Supply Road 1, 5.8 mi east of Pipeline Road, 6.7 mi southeast of Houghton, and 37 mi southwest of La Junta.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--October 1993 to October 1998, March 1999 to current year. Site was part of a hydrologic study 1985-92, data published elsewhere.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,200 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good. Records for 2000 water year are good except for Nov. 1 to Feb. 29 and Apr. 26 to Aug. 15, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 2.82 inches, May 3, 1987.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period Oct. 1-6 and March to September, 0.89 inch, Aug. 4, but may have been higher during period of instrument failure, Apr. 21 to July 7.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.86 inch, June 26.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	e.00	---	---	---	.43	.00
2	.00	---	---	---	---	---	e.00	---	---	---	.01	.01
3	.00	---	---	---	---	---	.00	---	---	---	.09	.00
4	.00	---	---	---	---	---	.00	---	---	---	.89	.00
5	.00	---	---	---	---	---	.00	---	---	---	.00	.00
6	e.00	---	---	---	---	---	.00	---	---	---	.00	.00
7	---	---	---	---	---	---	.00	---	---	---	.00	.00
8	---	---	---	---	---	---	.00	---	---	e.73	.01	.00
9	---	---	---	---	---	---	.00	---	---	.02	.01	.00
10	---	---	---	---	---	---	.00	---	---	.00	.00	.00
11	---	---	---	---	---	---	.00	---	---	.00	.00	.05
12	---	---	---	---	---	---	.00	---	---	.00	.00	.00
13	---	---	---	---	---	---	.10	---	---	.00	.00	.00
14	---	---	---	---	---	---	.00	---	---	.00	.00	.01
15	---	---	---	---	---	e.00	.00	---	---	.00	.02	.77
16	---	---	---	---	---	.00	.00	---	---	.15	.00	.00
17	---	---	---	---	---	.00	.00	---	---	.11	.00	.01
18	---	---	---	---	---	.01	.00	---	---	.00	.13	.00
19	---	---	---	---	---	.17	.00	---	---	.07	.00	.00
20	---	---	---	---	---	.00	.00	---	---	.02	.00	.00
21	---	---	---	---	---	.00	---	---	---	.00	.10	.00
22	---	---	---	---	---	.00	---	---	---	.00	.00	.00
23	---	---	---	---	---	.01	---	---	---	.00	.00	.00
24	---	---	---	---	---	.08	---	---	---	.00	.00	.00
25	---	---	---	---	---	.00	---	---	---	.00	.00	.00
26	---	---	---	---	---	e.02	---	---	---	.00	.00	.00
27	---	---	---	---	---	e.00	---	---	---	.00	.05	.00
28	---	---	---	---	---	e.00	---	---	---	.00	.00	.01
29	---	---	---	---	---	e.00	---	---	---	.00	.00	.00
30	---	---	---	---	---	e.00	---	---	---	.07	.00	.00
31	---	---	---	---	---	e.00	---	---	---	.31	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	---	1.74	0.86
MAX	---	---	---	---	---	---	---	---	---	---	.89	.77

e Estimated.

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373232103555201 BEAR SPRINGS METEOROLOGICAL STATION NEAR HOUGHTON, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.13	.06	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.05	.02	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.03	.13	.00	.00	.00	.00	.00
4	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.02	.01
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.02	.00
7	.14	.00	.00	.00	.00	.51	.00	.00	.00	.01	.00	.00
8	.00	.00	.00	.00	.00	.01	.00	.48	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.03	.12	.00	.00	.02	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.20	.00	.00	.00	.00	.01	.00
16	.04	.00	.00	.00	.00	.04	.00	.00	.00	.05	.00	.00
17	.08	.00	.00	.00	.00	.04	.00	.00	.00	.07	.43	.00
18	.11	.00	.00	.00	.00	.06	.00	.00	.00	.00	.01	.00
19	.24	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.01
20	.01	.00	.00	.00	.00	.00	.00	.00	.00	.02	.10	.02
21	.00	.00	.00	.00	.00	.03	.00	.00	.00	.02	.21	.03
22	.00	.00	.00	.00	.05	.16	.00	.00	.00	.00	.00	.01
23	.00	.03	.00	.00	.21	.00	.06	.00	.00	.00	.00	.32
24	.00	.00	.00	.00	.00	.00	.01	.05	.00	.00	.00	.02
25	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.86	.00	.29	.00
27	.00	.00	.00	.06	.00	.00	.00	.00	.17	.00	.00	.00
28	.00	.00	.00	.09	.00	.02	.00	.00	.01	.02	.00	.00
29	.16	.00	.00	.01	.43	.12	.14	.06	.06	.00	.00	.00
30	.00	.00	.00	.00	---	.30	.25	.00	.11	.00	.00	.00
31	.00	---	.00	.00	---	.12	---	.00	---	.00	.00	---
TOTAL	0.78	0.03	0.02	0.16	0.69	1.85	0.79	0.75	1.21	0.23	1.13	0.42
MAX	.24	.03	.02	.09	.43	.51	.25	.48	.86	.07	.43	.32

WTR YR 2000 TOTAL 8.06 MAX .86

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372319104073301 BROWN SHEEP CAMP METEOROLOGICAL STATION NEAR TYRONE, CO

LOCATION.--Lat 37°23'19", long 104°07'33", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.33, T.30 S., R.60 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site, approximately 50 ft west of Military Supply Road, 0.9 mi southwest of Brown Sheep Camp, 6.4 mi southeast of Tyrone, and 23 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,390 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good. Records for 2000 water year are good except for Nov. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.44 inches, July 17, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period June to September, 1.44 inches, July 17, but may have been higher during instrument failure, Mar. 17 to June 8.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.42 inch, July 16, but may have been higher during instrument failure, Jan. 28 to Mar. 9.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.14	.00
2	---	---	---	---	---	---	---	---	---	.00	.02	.00
3	---	---	---	---	---	---	---	---	---	.00	.13	.00
4	---	---	---	---	---	---	---	---	---	.09	.49	.00
5	---	---	---	---	---	---	---	---	---	.00	.00	.00
6	---	---	---	---	---	---	---	---	---	.00	.09	.00
7	---	---	---	---	---	---	---	---	---	.00	.00	.00
8	---	---	---	---	---	---	---	---	---	1.32	.02	.00
9	---	---	---	---	---	---	---	---	e.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.00
11	---	---	---	---	---	---	---	---	.48	.02	.00	.00
12	---	---	---	---	---	---	---	---	.07	.00	.00	.02
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.13	.00	.00	.03
15	---	---	---	---	---	---	---	---	.01	.00	.00	.65
16	---	---	---	---	---	---	---	---	.01	.03	.00	.00
17	---	---	---	---	---	---	---	---	.01	1.44	.00	.01
18	---	---	---	---	---	---	---	---	.01	.04	.01	.00
19	---	---	---	---	---	---	---	---	.00	.00	.00	.00
20	---	---	---	---	---	---	---	---	.00	.00	.00	.00
21	---	---	---	---	---	---	---	---	.00	.00	.00	.00
22	---	---	---	---	---	---	---	---	.00	.00	.01	.00
23	---	---	---	---	---	---	---	---	.00	.25	.00	.00
24	---	---	---	---	---	---	---	---	.00	.39	.00	.00
25	---	---	---	---	---	---	---	---	.00	.01	.00	.00
26	---	---	---	---	---	---	---	---	.00	.00	.00	.00
27	---	---	---	---	---	---	---	---	.00	.00	.00	.01
28	---	---	---	---	---	---	---	---	.00	.00	.01	.02
29	---	---	---	---	---	---	---	---	.00	.00	.03	.00
30	---	---	---	---	---	---	---	---	.03	.78	.00	.00
31	---	---	---	---	---	---	---	---	---	1.05	.00	---
TOTAL	---	---	---	---	---	---	---	---	---	5.42	0.95	0.74
MAX	---	---	---	---	---	---	---	---	---	1.44	.49	.65

e Estimated.

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372319104073301 BROWN SHEEP CAMP METEOROLOGICAL STATION NEAR TYRONE, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.03	.00	---	---	.10	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	---	---	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	---	---	.05	.00	.00	.00	.00	.00
4	.00	.00	.01	.00	---	---	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	---	---	.00	.00	.00	.00	.05	.00
7	.07	.00	.00	.00	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	---	---	.00	.54	.00	.00	.00	.01
9	.00	.00	.00	.00	---	---	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	---	e.00	.00	.00	.00	.02	.00	.00
11	.00	.00	.00	.00	---	.03	.19	.00	.00	.01	.00	.00
12	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.01	.00
13	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	---	.22	.00	.00	.00	.00	.00	.00
16	.02	.00	.00	.00	---	.12	.00	.00	.00	1.42	.00	.00
17	.08	.00	.01	.00	---	.01	.00	.00	.00	.18	.02	.00
18	.10	.02	.00	.00	---	.07	.00	.00	.00	.00	.03	.00
19	.28	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
20	.01	.00	.00	.00	---	.00	.00	.18	.00	.00	.00	.00
21	.00	.00	.00	.00	---	.04	.00	.00	.00	.01	.64	.02
22	.00	.00	.00	.00	---	.38	.00	.00	.00	.08	.00	.03
23	.00	.02	.00	.00	---	.00	.00	.00	.00	.00	.00	.20
24	.00	.00	.00	.00	---	.00	.00	.02	.00	.00	.00	.01
25	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	---	.00	.00	.00	.17	.05	.18	.00
27	.00	.00	.00	e.09	---	.00	.00	.00	.38	.00	.00	.00
28	.00	.00	.00	---	---	.06	.00	.00	.00	.02	.00	.00
29	.07	.00	.00	---	---	.06	.01	.00	.14	.00	.00	.00
30	.00	.00	.00	---	---	.06	.10	.00	.00	.00	.00	.00
31	.00	---	.00	---	---	.10	---	.00	---	.00	.00	---
TOTAL	0.63	0.04	0.05	---	---	---	0.45	0.74	0.69	1.79	0.93	0.27
MAX	.28	.02	.03	---	---	---	.19	.54	.38	1.42	.64	.20

e Estimated.

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373004104032001 BURSON WELL METEOROLOGICAL STATION NEAR THATCHER, CO

LOCATION.--Lat 37°30'04", long 104°03'20", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.19, T.29 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site 0.3 mi south of Military Supply Road 1, 4.2 mi southeast of Thatcher, and 33 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,630 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good except for June 30 to Sept. 22, which are poor. Records for 2000 water year are good except for Oct. 1 to Feb. 29, and June 20 to Aug. 15, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.29 inches, July 20, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period March to September, 1.29 inches, July 20, but may have been higher during periods of missing record, Mar. 25 to May 10.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.64 inches, Aug. 21, but may have been higher during periods of missing record Nov. 25 to Dec. 22, Apr. 26 to June 7, June 21 to July 4, and Aug. 27 to Sept. 30.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.53	.00
2	---	---	---	---	---	---	---	---	.00	.08	.03	.01
3	---	---	---	---	---	---	---	---	.00	.00	.07	.00
4	---	---	---	---	---	---	---	---	.00	.03	.69	.00
5	---	---	---	---	---	---	---	---	.00	.00	.00	.00
6	---	---	---	---	---	---	---	---	.00	.00	.02	.00
7	---	---	---	---	---	---	---	---	.00	.00	.01	.00
8	---	---	---	---	---	---	---	---	.00	.21	.00	.00
9	---	---	---	---	---	---	---	---	.05	.00	.12	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.00
11	---	---	---	---	---	---	---	e.12	.01	.00	.00	.06
12	---	---	---	---	---	---	---	.00	.25	.00	.00	.01
13	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	---	.00	.21	.01	.00	.01
15	---	---	---	---	---	---	---	.00	.01	.01	.00	.02
16	---	---	---	---	---	---	---	.00	.00	.13	.00	.01
17	---	---	---	---	---	---	---	.00	.02	.29	.00	.00
18	---	---	---	---	---	---	---	.00	.00	.00	.00	.01
19	---	---	---	---	---	---	---	.00	.01	.00	.00	.00
20	---	---	---	---	---	---	---	.00	.00	1.29	.00	.00
21	---	---	---	---	---	---	---	.06	.00	.00	.00	.00
22	---	---	---	---	---	---	---	.00	.00	.00	.00	.00
23	---	---	---	---	---	---	---	.00	.00	.06	.00	.00
24	---	---	---	---	---	---	---	.00	.00	.03	.00	.00
25	---	---	---	---	---	---	---	.00	.05	.00	.00	.00
26	---	---	---	---	---	---	---	.03	.00	.02	.00	.00
27	---	---	---	---	---	---	---	.00	.00	.00	.00	.01
28	---	---	---	---	---	---	---	.00	.00	.00	.00	.02
29	---	---	---	---	---	---	---	.00	.00	.00	.02	.00
30	---	---	---	---	---	---	---	.00	.00	.57	.00	.00
31	---	---	---	---	---	---	---	.00	---	1.09	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.61	3.82	1.49	0.16
MAX	---	---	---	---	---	---	---	---	.25	1.29	.69	.06

e Estimated.



ARKANSAS RIVER BASIN

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373004104032001 BURSON WELL METEOROLOGICAL STATION NEAR THATCHER, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	.00	.00	.07	.07	---	---	---	.00	---
2	.00	.00	---	.00	.00	.07	.00	---	---	---	.00	---
3	.00	.00	---	.00	.00	.03	.04	---	---	---	.00	---
4	.00	.00	---	.00	.00	.00	.00	---	---	---	.06	---
5	.00	.00	---	.00	.00	.00	.00	---	---	e.00	.00	---
6	.00	.00	---	.00	.00	.00	.00	---	---	.03	.00	---
7	.09	.00	---	.00	.00	.49	.00	---	---	.01	.00	---
8	.00	.00	---	.00	.00	.00	.00	---	e.00	.00	.00	---
9	.00	.00	---	.00	.00	.00	.00	---	.00	.00	.00	---
10	.00	.00	---	.00	.00	.00	.00	---	.00	.00	.00	---
11	.00	.00	---	.00	.00	.03	.15	---	.00	.37	.00	---
12	.00	.00	---	.00	.00	.00	.00	---	.00	.00	.11	---
13	.00	.00	---	.00	.00	.00	.00	---	.00	.00	.00	---
14	.00	.00	---	.00	.00	.00	.00	---	.00	.00	.00	---
15	.00	.00	---	.00	.00	.20	.00	---	.00	.00	.07	---
16	.02	.00	---	.00	.00	.10	.00	---	.00	.34	.00	---
17	.08	.00	---	.00	.00	.00	.00	---	.03	.02	.04	---
18	.05	.00	---	.00	.00	.07	.00	---	.00	.02	.02	---
19	.05	.00	---	.00	.00	.00	.00	---	.00	.00	.00	---
20	.00	.00	---	.00	.00	.00	.00	---	e.00	.00	.04	---
21	.00	.00	---	.00	.00	.03	.00	---	---	.16	.64	---
22	.00	.00	---	.00	.07	.26	.01	---	---	.00	.00	---
23	.00	.03	e.00	.00	.04	.00	.05	---	---	.00	.00	---
24	.00	e.00	.00	.00	.00	.00	.01	---	---	.00	.00	---
25	.00	---	.00	.00	.00	.00	e.00	---	---	.00	.00	---
26	.00	---	.00	.00	.00	.00	---	---	---	.51	e.13	---
27	.00	---	.00	.06	.00	.00	---	---	---	.00	---	---
28	.00	---	.00	.07	.01	.05	---	---	---	.15	---	---
29	.03	---	.00	.06	.17	.07	---	---	---	.00	---	---
30	.00	---	.00	.00	---	.14	---	---	---	.00	---	---
31	.00	---	.00	.00	---	.03	---	---	---	.00	---	---
TOTAL	0.32	---	---	0.19	0.29	1.64	---	---	---	---	---	---
MAX	.09	---	---	.07	.17	.49	---	---	---	---	---	---

e Estimated.

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372959104092201 CANTONMENT METEOROLOGICAL STATION NEAR CEMETARY AT SIMPSON, CO

LOCATION.--Lat 37°29'59", long 104°09'35", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.19, T.29 S., R.60 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site approximately 200 ft north of military supply road 1, 250 ft west of Simpson Cemetery, 0.4 mi east of Highway 350, and 32 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--July 1993 to October 1998, March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,630 ft above sea level, from topographic map. Prior to Mar. 25, 1999 at site 780 ft east.

REMARKS.--Records for 1999 water year are poor. Records for 2000 water year are good except for Nov. 1 to Feb. 29 and Apr. 25 to June 20, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.44 inches, Apr. 26, 1998.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period March to September, 0.41 inch, July 8, but may have been higher during instrument failure, Mar. 25 to May 11 and July 16 to Sept. 23.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.90 inch, July 16, but may have been higher during missing period Nov. 25 to Jan. 23.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	---	---	---	---	---	---	---	.00	.00	---	---
2	.00	---	---	---	---	---	---	---	.00	.02	---	---
3	.00	---	---	---	---	---	---	---	.00	.20	---	---
4	.00	---	---	---	---	---	---	---	.00	.08	---	---
5	.00	---	---	---	---	---	---	---	.00	.00	---	---
6	.00	---	---	---	---	---	---	---	.00	.00	---	---
7	e.00	---	---	---	---	---	---	---	.00	.00	---	---
8	---	---	---	---	---	---	---	---	.00	.41	---	---
9	---	---	---	---	---	---	---	---	.05	.00	---	---
10	---	---	---	---	---	---	---	---	.01	.00	---	---
11	---	---	---	---	---	---	---	e.08	.03	.00	---	---
12	---	---	---	---	---	---	---	.00	.16	.00	---	---
13	---	---	---	---	---	---	---	.00	.00	.00	---	---
14	---	---	---	---	---	---	---	.00	.31	.00	---	---
15	---	---	---	---	---	---	---	.00	.04	.01	---	---
16	---	---	---	---	---	---	---	.00	.01	---	---	---
17	---	---	---	---	---	---	---	.00	.01	---	---	---
18	---	---	---	---	---	---	---	.00	.01	---	---	---
19	---	---	---	---	---	---	---	.00	.00	---	---	---
20	---	---	---	---	---	---	---	.00	.00	---	---	---
21	---	---	---	---	---	---	---	.07	.00	---	---	---
22	---	---	---	---	---	---	---	.00	.00	---	---	---
23	---	---	---	---	---	---	---	.00	.00	---	---	---
24	---	---	---	---	---	---	---	.00	.00	---	---	.00
25	---	---	---	---	---	---	---	.00	.14	---	---	.00
26	---	---	---	---	---	---	---	.10	.00	---	---	.00
27	---	---	---	---	---	---	---	.01	.00	---	---	.01
28	---	---	---	---	---	---	---	.00	.00	---	---	.00
29	---	---	---	---	---	---	---	.00	.00	---	---	.00
30	---	---	---	---	---	---	---	.00	.00	---	---	.00
31	---	---	---	---	---	---	---	.00	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	0.77	---	---	---
MAX	---	---	---	---	---	---	---	---	.31	---	---	---

e Estimated.

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372959104092201 CANTONMENT METEOROLOGICAL STATION NEAR CEMETARY AT SIMPSON, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	.00	.09	.06	.00	.02	.01	.00	.00
2	.00	.00	---	---	.00	.04	.00	.00	.00	.00	.00	.00
3	.00	.00	---	---	.00	.02	.09	.00	.00	.00	.00	.00
4	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.13	.00
5	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.01	.00
6	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.00
7	.04	.00	---	---	.00	.58	.00	.00	.00	.00	.00	.00
8	.00	.00	---	---	.00	.00	.00	.44	.00	.00	.00	.14
9	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	---	---	.01	.00	.00	.00	.00	.14	.00	.00
11	.00	.00	---	---	.00	.04	.16	.00	.00	.00	.00	.00
12	.00	.00	---	---	.00	.00	.00	.00	.02	.00	.10	.00
13	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	---	---	.00	.17	.00	.00	.00	.10	.00	.00
16	.04	.00	---	---	.00	.09	.00	.00	.00	.90	.00	.00
17	.12	.00	---	---	.00	.00	.00	.00	.02	.02	.00	.00
18	.06	.00	---	---	.00	.13	.00	.00	.00	.08	.02	.00
19	.31	.00	---	---	.00	.01	.00	.00	.00	.00	.00	.01
20	.00	.00	---	---	.00	.00	.00	.02	.00	.00	.00	.02
21	.00	.00	---	---	.00	.06	.00	.00	.00	.00	.06	.02
22	.00	.00	---	---	.06	.30	.00	.00	.00	.00	.00	.02
23	.00	.06	---	---	.02	.00	.06	.00	.00	.00	.00	.37
24	.00	e.00	---	e.00	.00	.00	.00	.01	.00	.00	.00	.02
25	.00	---	---	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	---	---	.00	.00	.00	.00	.00	.73	.46	.53	.00
27	.00	---	---	.09	.00	.00	.00	.00	.20	.00	.00	.00
28	.00	---	---	.07	.00	.02	.07	.00	.01	.19	.00	.00
29	.13	---	---	.10	.16	.10	.01	.00	.27	.00	.00	.00
30	.00	---	---	.00	---	.15	.17	.00	.00	.00	.00	.00
31	.00	---	---	.00	---	.13	---	.05	---	.00	.00	---
TOTAL	0.70	---	---	---	0.25	1.93	0.62	0.52	1.27	1.90	0.85	0.60
MAX	.31	---	---	---	.16	.58	.17	.44	.73	.90	.53	.37

e Estimated.

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372532104093001 CANTONMENT WINDMILL METEOROLOGICAL STATION NEAR TYRONE, CO

LOCATION.--Lat 37°25'32", long 104°09'32", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.18, T.30 S., R.60 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site 0.2 mi south of military supply road 2, 3.5 mi east of Tyrone, and 25 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,460 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good except for Mar. 17 to June 30 and Sept. 22-30, which are poor. Records for 2000 water year are good except for Oct. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.35 inches, July 17, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period March to September, 1.35 inches, July 17.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.90 inch, July 16.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	.02	.00	.00	.30	.00
2	---	---	---	---	---	---	.05	.00	.00	.09	.02	.00
3	---	---	---	---	---	---	.00	.00	.00	.00	.20	.00
4	---	---	---	---	---	---	.00	.00	.00	.06	1.22	.00
5	---	---	---	---	---	---	.00	.03	.00	.00	.12	.00
6	---	---	---	---	---	---	.00	.00	.00	.00	.12	.00
7	---	---	---	---	---	---	.08	.00	.00	.00	.09	.00
8	---	---	---	---	---	---	.00	.00	.00	.59	.00	.00
9	---	---	---	---	---	---	.00	.00	.20	.01	.05	.00
10	---	---	---	---	---	---	.00	.00	.00	.00	.00	.00
11	---	---	---	---	---	---	.00	.04	.10	.07	.03	.00
12	---	---	---	---	---	---	.02	.00	.04	.00	.00	.01
13	---	---	---	---	---	---	.69	.00	.00	.00	.00	.00
14	---	---	---	---	---	---	.00	.00	.03	.00	.00	.06
15	---	---	---	---	---	---	.00	.00	.05	.01	.00	.63
16	---	---	---	---	---	---	.00	.00	.01	.08	.00	.01
17	---	---	---	---	---	e.00	.00	.00	.15	1.35	.00	.00
18	---	---	---	---	---	.00	.00	.01	.01	.11	.00	.00
19	---	---	---	---	---	.00	.00	.03	.00	.00	.00	.00
20	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.01
21	---	---	---	---	---	.00	.12	.00	.00	.00	.01	.00
22	---	---	---	---	---	.00	.39	.07	.00	.00	.01	.00
23	---	---	---	---	---	.00	.00	.00	.00	.02	.00	.00
24	---	---	---	---	---	.00	.23	.00	.00	.01	.00	.00
25	---	---	---	---	---	.00	.10	.02	.00	.01	.00	.00
26	---	---	---	---	---	.00	.00	.02	.00	.00	.00	.00
27	---	---	---	---	---	.00	.01	.00	.00	.00	.00	.01
28	---	---	---	---	---	.00	.18	.00	.00	.00	.01	.01
29	---	---	---	---	---	.00	.15	.00	.00	.00	.01	.00
30	---	---	---	---	---	.00	.07	.00	.00	.36	.02	.00
31	---	---	---	---	---	.00	---	.00	---	.43	.00	---
TOTAL	---	---	---	---	---	---	2.09	0.24	0.59	3.20	2.21	0.74
MAX	---	---	---	---	---	---	.69	.07	.20	1.35	1.22	.63

e Estimated.

ARKANSAS RIVER BASIN

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372532104093001 CANTONMENT WINDMILL METEOROLOGICAL STATION NEAR TYRONE, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.11	.04	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.04	.00	.00	.00	.00	.44	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.44	.00	.00	.00	.06
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.02	.00	.00	.00	.00	.29	.00	.00
11	.00	.00	.00	.00	.00	.02	.18	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.16	.00	.00	.00	.00	.00	.00
16	.01	.00	.00	.00	.00	.08	.00	.00	.01	.90	.00	.00
17	.03	.00	.01	.00	.00	.00	.00	.00	.00	.09	.06	.00
18	.01	.00	.00	.00	.00	.04	.00	.00	.00	.02	.03	.00
19	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.22	.00	.01	.00	.00
21	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.75	.01
22	.00	.00	.00	.00	.05	.32	.00	.00	.00	.14	.00	.03
23	.00	.00	.00	.00	.01	.00	.01	.00	.00	.00	.00	.18
24	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.01
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.30	.05	.08	.00
27	.00	.00	.00	.02	.00	.00	.00	.00	.21	.00	.00	.00
28	.00	.00	.00	.03	.00	.04	.00	.00	.00	.05	.00	.00
29	.02	.00	.00	.08	.08	.08	.00	.01	.04	.00	.00	.00
30	.00	.00	.00	.00	---	.08	.11	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.06	---	.00	.00	---
TOTAL	0.16	0.00	0.01	0.13	0.16	1.40	0.39	0.76	0.56	1.55	0.94	0.29
MAX	.05	.00	.01	.08	.08	.44	.18	.44	.30	.90	.75	.18

WTR YR 2000 TOTAL 6.35 MAX .90

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372721103595601 CIG PIPELINE SOUTH METEOROLOGICAL STATION NEAR SIMPSON, CO  
(Formerly published as Taylor Arroyo Rain Gage at Pipeline near Simpson, CO)

LOCATION.--Lat 37°27'21", long 103°59'56", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.3, T.30 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site, approximately 100 ft south of gas pipeline, 0.8 mi southwest of Taylor Arroyo, 3.4 mi northwest of Rock Crossing, 10 mi southeast of Simpson, and 36 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--October 1992 to October 1998, March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,220 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are poor. Records for 2000 water year are good except for Nov. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 4.59 inches, July 27, 1998.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period October 1-7 and March to September, 0.50 inch, July 16, but may have been higher during instrument failure, Mar. 17 to May 10 and July 20 to Sept. 22.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.77 inch, Aug. 21, but may have been higher during missing period, Jan. 28 to Mar. 7.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.26	---	---	---	---	---	---	---	.00	.00	---	---
2	.01	---	---	---	---	---	---	---	.00	.00	---	---
3	.00	---	---	---	---	---	---	---	.00	.02	---	---
4	.01	---	---	---	---	---	---	---	.00	.25	---	---
5	.00	---	---	---	---	---	---	---	.00	.00	---	---
6	.00	---	---	---	---	---	---	---	.00	.00	---	---
7	e.00	---	---	---	---	---	---	---	.00	.00	---	---
8	---	---	---	---	---	---	---	---	.00	.21	---	---
9	---	---	---	---	---	---	---	---	.00	.00	---	---
10	---	---	---	---	---	---	---	---	.01	.00	---	---
11	---	---	---	---	---	---	---	e.08	.00	.00	---	---
12	---	---	---	---	---	---	---	.00	.00	.00	---	---
13	---	---	---	---	---	---	---	.00	.00	.00	---	---
14	---	---	---	---	---	---	---	.00	.00	.00	---	---
15	---	---	---	---	---	---	---	.00	.00	.00	---	---
16	---	---	---	---	---	---	---	.00	.00	.50	---	---
17	---	---	---	---	---	---	---	.00	.00	.10	---	---
18	---	---	---	---	---	---	---	.00	.00	.06	---	---
19	---	---	---	---	---	---	---	.03	.01	.00	---	---
20	---	---	---	---	---	---	---	.00	.00	---	---	---
21	---	---	---	---	---	---	---	.00	.00	---	---	---
22	---	---	---	---	---	---	---	.00	.00	---	---	---
23	---	---	---	---	---	---	---	.00	.00	---	---	e.00
24	---	---	---	---	---	---	---	.00	.00	---	---	.00
25	---	---	---	---	---	---	---	.00	.00	---	---	.00
26	---	---	---	---	---	---	---	.00	.00	---	---	.00
27	---	---	---	---	---	---	---	.01	.00	---	---	.00
28	---	---	---	---	---	---	---	.00	.00	---	---	.01
29	---	---	---	---	---	---	---	.00	.00	---	---	.00
30	---	---	---	---	---	---	---	.00	.00	---	---	.00
31	---	---	---	---	---	---	---	.00	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	0.02	---	---	---
MAX	---	---	---	---	---	---	---	---	.01	---	---	---

e Estimated.

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372721103595601 CIG PIPELINE SOUTH METEOROLOGICAL STATION NEAR SIMPSON, CO--Continued  
 (Formerly published as Taylor Arroyo Rain Gage at Pipeline near Simpson, CO)

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	---	---	.04	.00	.00	.03	.00	.00
2	.00	.00	.00	.00	---	---	.03	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	---	---	.03	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	---	---	.00	.00	.00	.00	.02	.03
5	.00	.00	.00	.00	---	---	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	---	---	.00	.00	.00	.01	.00	.00
7	.04	.00	.00	.00	---	---	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	---	e.00	.00	.44	.00	.00	.00	.00
9	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	---	.00	.00	.00	.01	.02	.00	.00
11	.00	.00	.00	.00	---	.00	.15	.00	.00	.19	.11	.00
12	.00	.00	.00	.00	---	.00	.00	.00	.00	.01	.02	.00
13	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	---	.27	.00	.00	.00	.00	.13	.00
16	.03	.00	.00	.00	---	.03	.00	.00	.00	.22	.00	.00
17	.07	.00	.01	.00	---	.02	.00	.00	.00	.48	.08	.00
18	.06	.00	.00	.00	---	.04	.00	.00	.00	.00	.02	.00
19	.24	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.01
20	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	---	.01	.00	.00	.00	.03	.77	.02
22	.00	.00	.00	.00	---	.22	.00	.00	.00	.00	.00	.00
23	.00	.02	.00	.00	---	.00	.06	.00	.00	.00	.00	.21
24	.00	.00	.00	.00	---	.00	.00	.03	.00	.00	.00	.01
25	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	---	.00	.00	.00	.33	.10	.05	.00
27	.00	.00	.00	e.00	---	.00	.00	.00	.20	.00	.00	.00
28	.00	.00	.00	---	---	.03	.00	.00	.00	.20	.00	.00
29	.14	.00	.00	---	---	.06	.13	.00	.07	.00	.00	.00
30	.00	.00	.00	---	---	.19	.17	.00	.00	.00	.00	.00
31	.00	---	.00	---	---	.10	---	.00	---	.00	.00	---
TOTAL	0.58	0.02	0.01	---	---	---	0.61	0.47	0.61	1.29	1.20	0.28
MAX	.24	.02	.01	---	---	---	.17	.44	.33	.48	.77	.21

e Estimated.

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372249103573302 GUTIERREZ WINDMILL METEOROLOGICAL STATION NEAR MODEL, CO

LOCATION.--Lat 37°22'49", long 103°57'33", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.36, T.30 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site 0.9 mi south of military supply road 2, 16 mi east of Model, and 33 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,130 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good except for May 20 to June 30, which are poor. Records for 2000 water year are fair except for Oct. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.43 inches, Aug. 21, 2000.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period March to September, 1.20 inches, May 1, but may have been higher during periods of missing record, May 21 to June 2 and July 26 to Sept. 20.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.43 inches, Aug. 21.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	.00	1.20	---	.00	---	---
2	---	---	---	---	---	---	.00	.01	---	.00	---	---
3	---	---	---	---	---	---	.03	.00	e.00	.03	---	---
4	---	---	---	---	---	---	.00	.01	.00	.00	---	---
5	---	---	---	---	---	---	.00	.09	.00	.00	---	---
6	---	---	---	---	---	---	.00	.03	.00	.00	---	---
7	---	---	---	---	---	---	.00	.00	.00	.00	---	---
8	---	---	---	---	---	---	.00	.00	.00	.10	---	---
9	---	---	---	---	---	---	.00	.00	.60	.00	---	---
10	---	---	---	---	---	---	.00	.00	.00	.00	---	---
11	---	---	---	---	---	---	.00	.18	.01	.00	---	---
12	---	---	---	---	---	---	.00	.00	.09	.00	---	---
13	---	---	---	---	---	---	.83	.00	.00	.00	---	---
14	---	---	---	---	---	---	.27	.00	.01	.00	---	---
15	---	---	---	---	---	---	.00	.00	.01	.00	---	---
16	---	---	---	---	---	---	.00	.00	.00	.07	---	---
17	---	---	---	---	---	---	.01	.00	.03	.07	---	---
18	---	---	---	---	---	---	.00	.00	.01	.02	---	---
19	---	---	---	---	---	---	.00	.01	.00	.00	---	---
20	---	---	---	---	---	---	.00	e.00	.00	.00	---	---
21	---	---	---	---	---	---	.01	---	.00	.00	---	.00
22	---	---	---	---	---	---	.42	---	.00	.00	---	.00
23	---	---	---	---	---	---	.07	---	.00	.00	---	.00
24	---	---	---	---	---	e.00	.33	---	.00	.00	---	.00
25	---	---	---	---	---	.00	.08	---	.00	.00	---	.00
26	---	---	---	---	---	.00	.00	---	.00	---	---	.00
27	---	---	---	---	---	.00	.00	---	.00	---	---	.01
28	---	---	---	---	---	.00	.18	---	.00	---	---	.00
29	---	---	---	---	---	.00	.07	---	.00	---	---	.00
30	---	---	---	---	---	.00	.99	---	.00	---	---	.00
31	---	---	---	---	---	.00	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	3.29	---	---	---	---	---
MAX	---	---	---	---	---	---	.99	---	---	---	---	---

e Estimated.



PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372249103573302 GUTIERREZ WINDMILL METEOROLOGICAL STATION NEAR MODEL, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.08	.06	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.03	.01	.00	.00	.01	.00	.00
3	.00	.00	.00	.00	.00	.02	.06	.00	.00	.00	.00	.00
4	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.03
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00
7	.10	.00	.00	.00	.00	.52	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.51	.00	.03	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00
11	.00	.00	.00	.00	.01	.01	.20	.00	.02	.01	.06	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.03	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00	.04	.00
16	.02	.00	.00	.00	.00	.10	.00	.00	.00	.38	.00	.00
17	.03	.00	.01	.00	.00	.00	.00	.00	.00	.08	.19	.00
18	.01	.00	.00	.00	.00	.07	.00	.00	.01	.00	.04	.00
19	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
20	.01	.00	.00	.00	.00	.00	.00	.02	.00	.00	.01	.05
21	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	1.43	.00
22	.00	.01	.00	.00	.07	.23	.00	.00	.00	.00	.00	.01
23	.00	.03	.00	.00	.03	.00	.02	.00	.01	.00	.00	.19
24	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.05
25	.00	.00	.00	.00	.00	.00	.00	.03	.10	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.02	.09	.00	.00
27	.00	.00	.00	.09	.00	.00	.00	.00	.30	.00	.00	.00
28	.00	.00	.00	.06	.01	.02	.00	.00	.00	.16	.00	.00
29	.02	.00	.00	.02	.29	.02	.37	.00	.02	.00	.00	.00
30	.00	.00	.00	.00	---	.28	.27	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.22	---	.00	---	.00	.00	---
TOTAL	0.20	0.04	0.04	0.17	0.41	2.03	0.99	0.57	0.50	0.82	1.81	0.33
MAX	.10	.03	.03	.09	.29	.52	.37	.51	.30	.38	1.43	.19

WTR YR 2000 TOTAL 7.91 MAX 1.43

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372701103514501 MINCIC METEOROLOGICAL STATION NEAR HOUGHTON, CO

LOCATION.--Lat 37°27'01", long 103°51'45", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.11, T.30 S., R.58 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site, approximately 0.1 mi west of Military Supply Road 4A, 0.7 mi south of Military Supply Road 4, 14 mi southeast of Houghton, and 40 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,078 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good. Records for 2000 water year are good except for Nov. 21 to Feb. 29, and Mar. 1 to Apr. 25, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.08 inches, Aug. 3, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period March to September, 1.08 inches, Aug. 3, but may have been higher during periods of missing record, Mar. 17 to May 14 and Sept. 22-30.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.48 inch, July 17, but may have been higher during periods of missing record, Oct. 1 to Nov. 20, Mar. 17 to Apr. 20, Apr. 26 to June 21, and Aug. 19 to Sept. 24.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.70	.00
2	---	---	---	---	---	---	---	---	.00	.00	.00	.09
3	---	---	---	---	---	---	---	---	.00	.00	1.08	.00
4	---	---	---	---	---	---	---	---	.00	.00	.63	.00
5	---	---	---	---	---	---	---	---	.00	.00	.00	.00
6	---	---	---	---	---	---	---	---	.00	.00	.05	.00
7	---	---	---	---	---	---	---	---	.00	.00	.00	.00
8	---	---	---	---	---	---	---	---	.00	.02	.00	.00
9	---	---	---	---	---	---	---	---	.23	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.00
11	---	---	---	---	---	---	---	---	.01	.00	.03	.00
12	---	---	---	---	---	---	---	---	.43	.00	.00	.00
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.01	.00	.00	.01
15	---	---	---	---	---	---	---	e.00	.00	.00	.00	.76
16	---	---	---	---	---	---	---	.00	.00	.13	.00	.01
17	---	---	---	---	---	---	---	.00	.11	.03	.00	.00
18	---	---	---	---	---	---	---	.00	.01	.00	.02	.00
19	---	---	---	---	---	---	---	.08	.00	.01	.00	.00
20	---	---	---	---	---	---	---	.00	.00	.53	.02	.00
21	---	---	---	---	---	---	---	.00	.00	.08	.00	e.00
22	---	---	---	---	---	---	---	.00	.00	.00	.00	---
23	---	---	---	---	---	---	---	.00	.00	.02	.00	---
24	---	---	---	---	---	---	---	.00	.00	.04	.00	---
25	---	---	---	---	---	---	---	.04	.00	.21	.00	---
26	---	---	---	---	---	---	---	.24	.00	.00	.00	---
27	---	---	---	---	---	---	---	.00	.00	.00	.00	---
28	---	---	---	---	---	---	---	.00	.00	.00	.02	---
29	---	---	---	---	---	---	---	.00	.00	.00	.02	---
30	---	---	---	---	---	---	---	.00	.00	.24	.00	---
31	---	---	---	---	---	---	---	.00	---	.97	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.80	2.28	2.57	---
MAX	---	---	---	---	---	---	---	---	.43	.97	1.08	---

e Estimated.

ARKANSAS RIVER BASIN

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued  
 372701103514501 MINCIC METEOROLOGICAL STATION NEAR HOUGHTON, CO--Continued  
 PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
 DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	.00	.00	.00	.04	---	---	---	.01	.00	---
2	---	---	.00	.00	.00	.05	---	---	---	.00	.00	---
3	---	---	.00	.00	.00	.03	---	---	---	.00	.14	---
4	---	---	.01	.00	.00	.00	---	---	---	.00	.01	---
5	---	---	.01	.00	.00	.00	---	---	---	.00	.00	---
6	---	---	.00	.00	.00	.00	---	---	---	.07	.00	---
7	---	---	.00	.00	.00	.45	---	---	---	.00	.00	---
8	---	---	.00	.00	.00	.00	---	---	---	.00	.00	---
9	---	---	.00	.00	.00	.00	---	---	---	.03	.00	---
10	---	---	.00	.00	.01	.00	---	---	---	.00	.00	---
11	---	---	.00	.00	.00	.01	---	---	---	.07	.00	---
12	---	---	.00	.00	.00	.00	---	---	---	.01	.03	---
13	---	---	.00	.00	.00	.00	---	---	---	.00	.00	---
14	---	---	.00	.00	.00	.00	---	---	---	.00	.00	---
15	---	---	.00	.00	.00	.22	---	---	---	.00	.00	---
16	---	---	.00	.00	.00	e.00	---	---	---	.46	.00	---
17	---	---	.00	.00	.00	---	---	---	---	.48	.19	---
18	---	---	.00	.00	.00	---	---	---	---	.00	e.00	---
19	---	---	.00	.00	.00	---	---	---	---	.00	---	---
20	---	---	.00	.00	.00	---	---	---	---	.00	---	---
21	---	e.00	.00	.00	.00	---	e.00	---	---	.07	---	---
22	---	.00	.00	.00	.05	---	.00	---	e.00	.00	---	---
23	---	.02	.00	.00	.14	---	.04	---	.00	.00	---	---
24	---	.00	.00	.00	.00	---	.01	---	.00	.00	---	---
25	---	.00	.00	.00	.00	---	e.00	---	.14	.00	---	e.00
26	---	.00	.00	.00	.00	---	---	---	.12	.07	---	.00
27	---	.00	.00	.00	.00	---	---	---	.21	.00	---	.00
28	---	.00	.00	.08	.01	---	---	---	.02	.20	---	.00
29	---	.00	.00	.01	.34	---	---	---	.03	.00	---	.00
30	---	.00	.00	.00	---	---	---	---	.27	.00	---	.00
31	---	---	.00	.00	---	---	---	---	---	.00	---	---
TOTAL	---	---	0.02	0.09	0.55	---	---	---	---	1.47	---	---
MAX	---	---	.01	.08	.34	---	---	---	---	.48	---	---

e Estimated.

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373706103410701 ROURKE METEOROLOGICAL STATION NEAR HIGBEE, CO

LOCATION.--Lat 37°37'06", long 103°41'07", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.9, T.28 S., R.56 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site, 0.8 mi south of Military Supply Road 1A, 3.1 mi northwest of Rourke Ranch, 16 mi southwest of Higbee, and 26 mi south of La Junta.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 4,700 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are poor. Records for 2000 water year are good except for Nov. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 2.05 inches, July 11, 2000.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period March to September, 0.43 inch, Aug. 22, but may have been higher during periods of missing record, Mar. 16 to May 18, June 9 to July 14, and Aug. 29 to Sept. 20.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 2.05 inches, July 11.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	---	.00	---
2	---	---	---	---	---	---	---	---	.00	---	.00	---
3	---	---	---	---	---	---	---	---	.00	---	.00	---
4	---	---	---	---	---	---	---	---	.00	---	.00	---
5	---	---	---	---	---	---	---	---	.00	---	.07	---
6	---	---	---	---	---	---	---	---	.00	---	.14	---
7	---	---	---	---	---	---	---	---	.00	---	.00	---
8	---	---	---	---	---	---	---	---	.00	---	.00	---
9	---	---	---	---	---	---	---	---	---	---	.05	---
10	---	---	---	---	---	---	---	---	---	---	.00	---
11	---	---	---	---	---	---	---	---	---	---	.00	---
12	---	---	---	---	---	---	---	---	---	---	.00	---
13	---	---	---	---	---	---	---	---	---	---	.00	---
14	---	---	---	---	---	---	---	---	---	---	.00	---
15	---	---	---	---	---	---	---	---	---	e.00	.00	---
16	---	---	---	---	---	---	---	---	---	.00	.00	---
17	---	---	---	---	---	---	---	---	---	.00	.00	---
18	---	---	---	---	---	---	---	---	---	.00	.00	---
19	---	---	---	---	---	---	---	e.21	---	.00	.03	---
20	---	---	---	---	---	---	---	.00	---	.00	.00	---
21	---	---	---	---	---	---	---	.00	---	.00	.00	e.00
22	---	---	---	---	---	---	---	.00	---	.00	.43	.00
23	---	---	---	---	---	---	---	.00	---	.00	.01	.00
24	---	---	---	---	---	---	---	.00	---	.00	.24	.01
25	---	---	---	---	---	---	---	.06	---	.38	.00	.00
26	---	---	---	---	---	---	---	.03	---	.00	.00	.00
27	---	---	---	---	---	---	---	.00	---	.05	.00	.00
28	---	---	---	---	---	---	---	.00	---	.00	e.02	.11
29	---	---	---	---	---	---	---	.00	---	.02	---	.00
30	---	---	---	---	---	---	---	.00	---	.00	---	.00
31	---	---	---	---	---	---	---	.00	---	.00	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated.

ARKANSAS RIVER BASIN

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373706103410701 ROURKE METEOROLOGICAL STATION NEAR HIGBEE, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.06	.00	.02	.19	.00	.01	.00	.00	.00
2	.00	.00	.00	.01	.00	.12	.00	.00	.00	.00	.00	.00
3	.00	.00	.01	.00	.00	.05	.10	.00	.10	.00	.01	.00
4	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.11	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.81	.00
7	.25	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.08	.00	.52	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00
11	.00	.00	.00	.00	.00	.01	.31	.00	.00	2.05	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.04	.00	.00	.00	.14	.00	.00
16	.02	.00	.00	.00	.00	.07	.00	.00	.00	.03	.00	.00
17	.15	.00	.00	.00	.00	.02	.00	.00	.00	.57	.26	.00
18	.24	.00	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00
19	.16	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.09	.00	.03
21	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00	.02
22	.00	.00	.00	.00	.04	.17	.00	.00	.01	.00	.00	.00
23	.00	.23	.00	.00	.38	.00	.09	.00	.00	.00	.00	.14
24	.00	.00	.00	.00	.00	.00	.00	.01	.01	.00	.00	.04
25	.00	.00	.00	.00	.00	.00	.00	.00	.71	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.83	.00	.16	.00
27	.00	.00	.00	.07	.00	.00	.00	.00	.69	.00	.00	.00
28	.00	.00	.00	.05	.01	.00	.03	.00	.00	.05	.00	.00
29	.19	.01	.00	.00	.16	.02	.12	.00	.21	.00	.00	.00
30	.00	.00	.00	.00	---	.71	.39	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.32	---	.00	---	.00	.00	---
TOTAL	1.01	0.24	0.04	0.19	0.59	1.98	1.23	0.57	2.59	2.97	1.38	0.23
MAX	.25	.23	.02	.07	.38	.71	.39	.52	.83	2.05	.81	.14

WTR YR 2000 TOTAL 13.02 MAX 2.05

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372329104020501 ROUTE TWO WINDMILL METEOROLOGICAL STATION NEAR TYRONE, CO

LOCATION.--Lat 37°23'29", long 104°02'05", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.32, T.30 S., R.59 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site, 0.3 mi south of Military Supply Road 2, 4.6 mi east of Brown Sheep Camp, 10 mi southeast of Tyrone, and 30 mi northeast of Trinidad.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--March 1999 to current year.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 5,255 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good except for May 20 to June 30, which are poor. Records for 2000 water year are good except for Jan. 25 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 1.44 inches, July 31, 1999.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation during period March to September, 1.44 inches, July 31, but may have been greater during periods of missing record, Mar. 17 to May 19 and Sept. 22-30.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 0.63 inch, May 8, but may have been greater during periods of missing record, Oct. 1 to Nov. 22, Nov. 24 to Jan. 25, and June 21 to Aug. 27.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	.00	.00	.23	.00
2	---	---	---	---	---	---	---	---	.00	.00	.01	.00
3	---	---	---	---	---	---	---	---	.00	.13	1.24	.00
4	---	---	---	---	---	---	---	---	.00	.00	.35	.00
5	---	---	---	---	---	---	---	---	.00	.00	.01	.00
6	---	---	---	---	---	---	---	---	.00	.00	.03	.00
7	---	---	---	---	---	---	---	---	.00	.00	.00	.00
8	---	---	---	---	---	---	---	---	.00	.35	.04	.00
9	---	---	---	---	---	---	---	---	.28	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.03
11	---	---	---	---	---	---	---	---	.88	.00	.00	.01
12	---	---	---	---	---	---	---	---	.38	.00	.00	.00
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.07	.00	.00	.02
15	---	---	---	---	---	---	---	---	.01	.00	.00	1.14
16	---	---	---	---	---	---	---	---	.00	.04	.00	.01
17	---	---	---	---	---	---	---	---	.03	.16	.00	.00
18	---	---	---	---	---	---	---	---	.00	.00	.04	.00
19	---	---	---	---	---	---	---	---	.00	.01	.00	.00
20	---	---	---	---	---	---	---	e.00	.00	.00	.00	.00
21	---	---	---	---	---	---	---	.00	.00	.00	.08	e.00
22	---	---	---	---	---	---	---	.00	.00	.00	.00	---
23	---	---	---	---	---	---	---	.00	.00	.03	.00	---
24	---	---	---	---	---	---	---	.00	.00	.01	.00	---
25	---	---	---	---	---	---	---	.00	.00	.00	.00	---
26	---	---	---	---	---	---	---	.01	.00	.00	.00	---
27	---	---	---	---	---	---	---	.00	.00	.00	.00	---
28	---	---	---	---	---	---	---	.00	.00	.00	.00	---
29	---	---	---	---	---	---	---	.00	.00	.00	.08	---
30	---	---	---	---	---	---	---	.00	.00	.35	.00	---
31	---	---	---	---	---	---	---	.00	---	1.44	.00	---
TOTAL	---	---	---	---	---	---	---	---	1.65	2.52	2.11	---
MAX	---	---	---	---	---	---	---	---	.88	1.44	1.24	---

e Estimated.

ARKANSAS RIVER BASIN

421

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

372329104020501 ROUTE TWO WINDMILL METEOROLOGICAL STATION NEAR TYRONE, CO--Continued

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	.00	.05	.07	.00	.00	---	---	.00
2	---	---	---	---	.00	.01	.00	.00	.00	---	---	.00
3	---	---	---	---	.00	.01	.04	.00	.00	---	---	.00
4	---	---	---	---	.00	.00	.00	.00	.00	---	---	.08
5	---	---	---	---	.00	.00	.00	.00	.00	---	---	.00
6	---	---	---	---	.00	.00	.00	.00	.00	---	---	.00
7	---	---	---	---	.00	.55	.00	.00	.00	---	---	.00
8	---	---	---	---	.00	.00	.00	.63	.00	---	---	.00
9	---	---	---	---	.00	.00	.00	.00	.00	---	---	.00
10	---	---	---	---	.00	.00	.00	.00	.11	---	---	.00
11	---	---	---	---	.01	.01	.17	.00	.00	---	---	.00
12	---	---	---	---	.00	.00	.00	.00	.00	---	---	.00
13	---	---	---	---	.00	.00	.00	.00	.00	---	---	.00
14	---	---	---	---	.00	.00	.00	.00	.00	---	---	.00
15	---	---	---	---	.00	.35	.00	.00	.00	---	---	.00
16	---	---	---	---	.00	.12	.00	.00	.00	---	---	.00
17	---	---	---	---	.00	.01	.00	.00	.00	---	---	.00
18	---	---	---	---	.00	.06	.00	.00	.01	---	---	.00
19	---	---	---	---	.00	.00	.00	.00	.00	---	---	.00
20	---	---	---	---	.00	.00	.00	.03	e.00	---	---	.02
21	---	---	---	---	.00	.03	.00	.01	---	---	---	.02
22	---	---	---	---	.08	.30	.00	.00	---	---	---	.02
23	---	.00	---	---	.02	.00	.03	.00	---	---	---	.21
24	---	---	---	---	.00	.00	.00	.04	---	---	---	.02
25	---	---	---	---	.00	.00	.00	.00	---	---	---	.00
26	---	---	---	e.00	.00	.00	.00	.00	---	---	---	.00
27	---	---	---	.12	.00	.00	.00	.00	---	---	---	.00
28	---	---	---	.04	.01	.03	.00	.00	---	---	e.00	.00
29	---	---	---	.06	.20	.05	.12	.00	---	---	.00	.00
30	---	---	---	.00	---	.23	.14	.00	---	---	.00	.00
31	---	---	---	.00	---	.14	---	.00	---	---	.00	---
TOTAL	---	---	---	---	0.32	1.95	0.57	0.71	---	---	---	0.37
MAX	---	---	---	---	.20	.55	.17	.63	---	---	---	.21

e Estimated.

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373823103465601 UPPER BENT CANYON METEOROLOGICAL STATION NEAR DELHI, CO  
(Formerly published as Bent Canyon Rain Gage above Stage Canyon near Delhi, CO.)

LOCATION (REVISED).--Lat 37°38'20", long 103°46'55", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.3, T.28 S., R.57 W, Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site approximately 80 ft north of Military Supply Road 1A, 1.2 mi above Stage Canyon, 6.7 mi west of Rourke Road, 12.9 mi east of Delhi, and 27 mi south of La Junta.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--October 1993 to October 1998, March 1999 to current year. Site was part of a hydrologic study 1985-92, data published elsewhere.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 4,860 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good. Records for 2000 water year are good except for Nov. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 2.55 inches, May 3, 1987.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period October 1-6 and March to September, 0.79 inch, June 17, but may have been higher during period of instrument failure, Mar. 15 to May 13 and July 9 to Sept. 22.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.44 inches, July 17.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.34	---	---	---	---	---	---	---	.00	.00	---	---
2	.01	---	---	---	---	---	---	---	.00	.00	---	---
3	.00	---	---	---	---	---	---	---	.00	.00	---	---
4	.01	---	---	---	---	---	---	---	.00	.16	---	---
5	.00	---	---	---	---	---	---	---	.00	.00	---	---
6	e.00	---	---	---	---	---	---	---	.00	.00	---	---
7	---	---	---	---	---	---	---	---	.00	.00	---	---
8	---	---	---	---	---	---	---	---	.00	e.00	---	---
9	---	---	---	---	---	---	---	---	.08	---	---	---
10	---	---	---	---	---	---	---	---	.00	---	---	---
11	---	---	---	---	---	---	---	---	.01	---	---	---
12	---	---	---	---	---	---	---	---	.09	---	---	---
13	---	---	---	---	---	---	---	---	.00	---	---	---
14	---	---	---	---	---	---	---	e.00	.08	---	---	---
15	---	---	---	---	---	---	---	.00	.00	---	---	---
16	---	---	---	---	---	---	---	.00	.00	---	---	---
17	---	---	---	---	---	---	---	.00	.79	---	---	---
18	---	---	---	---	---	---	---	.00	.00	---	---	---
19	---	---	---	---	---	---	---	.04	.00	---	---	---
20	---	---	---	---	---	---	---	.00	.00	---	---	---
21	---	---	---	---	---	---	---	.00	.00	---	---	---
22	---	---	---	---	---	---	---	.00	.00	---	---	---
23	---	---	---	---	---	---	---	.00	.00	---	---	.00
24	---	---	---	---	---	---	---	.00	.00	---	---	.00
25	---	---	---	---	---	---	---	.04	.00	---	---	.00
26	---	---	---	---	---	---	---	.01	.00	---	---	.00
27	---	---	---	---	---	---	---	.00	.00	---	---	.00
28	---	---	---	---	---	---	---	.00	.00	---	---	.04
29	---	---	---	---	---	---	---	.00	.00	---	---	.00
30	---	---	---	---	---	---	---	.00	.00	---	---	.00
31	---	---	---	---	---	---	---	.00	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	1.05	---	---	---
MAX	---	---	---	---	---	---	---	---	.79	---	---	---

e Estimated.



ARKANSAS RIVER BASIN

423

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373823103465601 UPPER BENT CANYON METEOROLOGICAL STATION NEAR DELHI, CO--Continued  
(Formerly published as Bent Canyon Rain Gage above Stage Canyon near Delhi, CO.)

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.05	.00	.03	.08	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.01	.00	.07	.15	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
6	.00	.00	.01	.00	.00	.00	.00	.00	.00	.01	.15	.00
7	.07	.00	.00	.00	.00	.31	.00	.00	.00	.05	.00	.00
8	.00	.00	.00	.00	.00	.04	.00	.56	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.01	.18	.00	.00	.48	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.33	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.09	.00	.00	.00	.08	.00	.00
16	.06	.00	.00	.00	.00	.07	.00	.00	.00	.02	.00	.00
17	.18	.00	.01	.00	.00	.02	.00	.00	.00	1.44	.56	.00
18	.23	.00	.00	.00	.00	.15	.00	.00	.00	.01	.01	.00
19	.19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.21	.00	.05
21	.00	.00	.00	.00	.00	.08	.00	.00	.00	.01	.02	.08
22	.00	.01	.00	.00	.05	.24	.00	.00	.04	.00	.00	.01
23	.00	.05	.00	.00	.38	.00	.06	.00	.05	.00	.00	.29
24	.00	.00	.00	.00	.00	.00	.00	.02	.01	.00	.00	.06
25	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	1.14	.00	.08	.00
27	.00	.00	.00	.04	.00	.00	.00	.00	.61	.00	.00	.00
28	.00	.00	.00	.04	.00	.00	.10	.00	.01	.04	.00	.00
29	.28	.00	.00	.00	.17	.03	.05	.03	.07	.00	.00	.00
30	.00	.00	.00	.00	---	.66	.41	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.29	---	.00	---	.00	.00	---
TOTAL	1.01	0.06	0.02	0.14	0.60	2.19	1.03	0.61	2.08	2.35	1.16	0.49
MAX	.28	.05	.01	.05	.38	.66	.41	.56	1.14	1.44	.56	.29

WTR YR 2000 TOTAL 11.74 MAX 1.44

## ARKANSAS RIVER BASIN

## PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373315103493101 UPPER RED ROCK CANYON METEOROLOGICAL STATION NEAR HOUGHTON, CO  
(Formerly published as Red Rock Canyon Rain Gage at Red Rock Road).

LOCATION (REVISED).--Lat 37°33'12", long 103°49'30", in NE<sup>1</sup>/<sub>4</sub> NE<sup>1</sup>/<sub>4</sub> sec.6, T.29 S., R.57 W., Las Animas County, Hydrologic Unit 11020010, on Pinon Canyon Maneuver Site, approximately 100 ft west of unnumbered Military Supply Road, 0.4 mi south of Military Supply Road 1, 12.2 mi southeast of Houghton, and 33 mi southwest of La Junta.

## PRECIPITATION RECORDS

PERIOD OF RECORD.--October 1992 to October 1998, March 1999 to current year. Site was part of a hydrologic study 1983-92, data published elsewhere.

GAGE.--Tipping-bucket rain gage with radio telemetry and electronic data logger. Elevation of gage is 4,860 ft above sea level, from topographic map.

REMARKS.--Records for 1999 water year are good. Records for 2000 water year are good except for Nov. 1 to Feb. 29, which are poor. Daily data that are not published are either missing or of unacceptable quality.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily precipitation, 2.75 inches, July 1, 1993.

EXTREMES FOR 1999 WATER YEAR.--Maximum daily precipitation for period Oct. 1-6 and March to September, 0.37 inch, Oct. 1, but may have been higher during instrument failure, Mar. 16 to Sept. 20.

EXTREMES FOR CURRENT YEAR.--Maximum daily precipitation, 1.33 inches, June 26.

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	---	---	---	---	---	---	---	---	---	---	---
2	.01	---	---	---	---	---	---	---	---	---	---	---
3	.00	---	---	---	---	---	---	---	---	---	---	---
4	.00	---	---	---	---	---	---	---	---	---	---	---
5	.00	---	---	---	---	---	---	---	---	---	---	---
6	e.00	---	---	---	---	---	---	---	---	---	---	---
7	---	---	---	---	---	---	---	---	---	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	---	---	---	---	---	---	---	---	---	---	---	---
10	---	---	---	---	---	---	---	---	---	---	---	---
11	---	---	---	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---	---	---	e.00
22	---	---	---	---	---	---	---	---	---	---	---	.00
23	---	---	---	---	---	---	---	---	---	---	---	.00
24	---	---	---	---	---	---	---	---	---	---	---	.00
25	---	---	---	---	---	---	---	---	---	---	---	.00
26	---	---	---	---	---	---	---	---	---	---	---	.00
27	---	---	---	---	---	---	---	---	---	---	---	.00
28	---	---	---	---	---	---	---	---	---	---	---	.01
29	---	---	---	---	---	---	---	---	---	---	---	.00
30	---	---	---	---	---	---	---	---	---	---	---	.00
31	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---

e Estimated.

ARKANSAS RIVER BASIN

PRECIPITATION DATA AT SITES ON PINON CANYON MANEUVER SITE--Continued

373315103493101 UPPER RED ROCK CANYON METEOROLOGICAL STATION NEAR HOUGHTON, CO--Continued  
(Formerly published as Red Rock Canyon Rain Gage at Red Rock Road).

PRECIPITATION, TOTAL, INCHES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY SUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.07	.10	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.09	.04	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.06	.22	.00	.00	.00	.00	.00
4	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.10
5	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.13	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.49	.43	.00
7	.11	.00	.00	.00	.00	.56	.00	.00	.00	.27	.00	.00
8	.01	.00	.00	.00	.00	.02	.00	.63	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
11	.00	.00	.00	.00	.00	.01	.46	.00	.00	.38	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.21	.00	.00	.00	.00	.00	.00
16	.03	.00	.00	.00	.00	.07	.00	.00	.00	.13	.00	.00
17	.17	.00	.00	.00	.00	.03	.00	.00	.00	.71	.84	.00
18	.14	.00	.00	.00	.00	.12	.00	.00	.00	.02	.01	.00
19	.24	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.02	.03
21	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.23	.02
22	.00	.01	.00	.00	.08	.33	.01	.00	.00	.00	.02	.00
23	.00	.24	.00	.00	.39	.01	.06	.00	.00	.00	.00	.26
24	.00	.00	.00	.00	.00	.00	.00	.04	.01	.06	.00	.05
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	1.33	.00	.51	.00
27	.00	.00	.00	.09	.00	.00	.00	.00	.36	.00	.00	.00
28	.00	.00	.00	.09	.00	.00	.00	.00	.01	.10	.00	.00
29	.38	.00	.00	.00	.41	.05	.13	.07	.03	.00	.00	.00
30	.00	.00	.00	.00	---	.70	.43	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.23	---	.00	---	.00	.00	---
TOTAL	1.08	0.25	0.04	0.18	0.88	2.59	1.45	0.74	1.75	2.36	2.52	0.46
MAX	.38	.24	.02	.09	.41	.70	.46	.63	1.33	.71	.84	.26

WTR YR 2000 TOTAL 14.30 MAX 1.33

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

## MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

06614800 MICHIGAN RIVER NEAR CAMERON PASS, CO (LAT 40 29 46N LONG 105 51 52W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 04...	1230	1.4	54	4.5	MAY 11...	1420	4.1	38	.5
NOV 03...	1038	.46	54	2.0	JUN 08...	1120	20	27	3.0
JAN 04...	1455	.34	55	1.0	JUL 24...	1613	1.8	39	13.0
FEB 28...	1334	.31	52	1.5	AUG 22...	1536	1.2	43	10.0
APR 04...	1424	.33	51	1.5	SEP 14...	1555	.94	52	11.0

06693800 MOSQUITO CREEK NEAR ALMA, CO (LAT 39 16 12N LONG 106 03 02W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 07...	1130	13	226	4.0	MAY 25...	1305	74	105	7.5
NOV 30...	1340	8.5	283	.2	JUN 22...	1305	40	138	6.3
JAN 14...	1400	5.2	314	.0	JUL 31...	1400	14	202	14.5
FEB 28...	1450	4.4	311	.2	SEP 07...	1300	14	206	11.5
MAR 23...	1345	4.0	317	.9					

06701970 SPRING CREEK ABOVE MOUTH NEAR SOUTH PLATTE, CO (LAT 39 23 37N LONG 105 11 01W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 13...	1050	1.8	210	11.0	JUN 22...	1020	.93	219	19.5
MAR 27...	1155	1.4	204	12.0	AUG 02...	1220	1.1	213	22.0
APR 18...	1105	1.5	204	13.0	31...	1020	.99	221	18.5
MAY 16...	1130	1.1	210	16.5					

06706800 BUFFALO CREEK AT MOUTH AT BUFFALO CREEK, CO (LAT 39 23 27N LONG 105 16 15W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 13...	1445	9.0	142	12.5	JUN 22...	1430	6.2	110	21.5
MAR 27...	1435	6.8	140	12.5	28...	1435	8.8	102	19.5
APR 18...	1345	11	111	13.5	AUG 03...	1145	21	71	17.5
20...	1145	11	115	12.0	31...	1315	5.4	140	16.0
MAY 16...	1430	14	87	17.5					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06708800 EAST PLUM CREEK BELOW HASKINS GULCH NEAR CASTLE ROCK, CO (LAT 39 25 28N LONG 104 54 27W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 07...	1547	11	371	13.0	APR 07...	1231	32	256	10.0
NOV 04...	1105	14	340	10.5	MAY 02...	1103	28	235	15.5
DEC 06...	1128	14	339	1.0	JUN 30...	1423	5.4	367	21.0
JAN 06...	1435	14	386	.0	JUL 26...	1345	1.7	447	24.0
FEB 18...	1124	7.3	357	2.5	AUG 10...	1132	.95	469	26.0
MAR 13...	1035	11	333	9.0	SEP 12...	1102	5.3	424	20.5

06709000 PLUM CREEK NEAR SEDALIA, CO (LAT 39 26 18N LONG 104 58 57W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 08...	1057	21	381	12.0	APR 03...	1250	62	321	10.0
NOV 04...	1310	26	380	13.5	MAY 02...	1328	88	198	20.0
DEC 06...	1356	33	340	3.5	JUN 06...	1425	21	309	25.1
JAN 06...	1613	25	406	.0	JUL 03...	1215	7.7	401	21.0
FEB 18...	1338	24	380	7.5	AUG 27...	1130	3.4	463	26.5
MAR 13...	1252	22	389	13.5	AUG 10...	1328	1.9	498	28.5

06709530 PLUM CREEK AT TITAN RD NEAR LOUVIERS, CO (LAT 39 30 27N LONG 105 01 23W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 08...	1403	16	396	12.0	APR 07...	1425	74	278	13.5
NOV 04...	1530	23	389	12.0	MAY 02...	1550	80	224	22.0
DEC 07...	1430	24	375	3.0	JUN 06...	1236	16	317	22.3
JAN 03...	1513	22	401	.0	JUN 30...	1205	6.7	386	24.0
FEB 18...	1540	20	386	5.0	SEP 12...	1450	4.4	442	20.5
MAR 13...	1455	18	396	12.5					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06710247 SOUTH PLATTE RIVER BELOW UNION AVE, AT ENGLEWOOD, CO (LAT 39 37 58N LONG 105 00 54W)									
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 06...	1320	70	546	15.7	APR 10...	1140	135	437	11.8
NOV 23...	1520	137	426	7.6	MAY 04...	1105	237	494	15.9
JAN 11...	1115	55	751	4.8	JUN 20...	1430	276	487	21.5
MAR 01...	1540	52	567	11.0					
06710385 BEAR CREEK ABOVE EVERGREEN, CO (LAT 39 37 58N LONG 105 19 59W)									
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	1020	31	64	4.1	MAY 04...	1210	58	63	11.5
NOV 24...	1040	10	91	.0	JUN 06...	1332	28	62	15.5
JAN 21...	1020	15	83	.0	JUL 11...	1115	20	62	18.0
MAR 01...	1140	15	95	.8	SEP 13...	1305	18	61	15.5
APR 04...	1413	21	128	8.7					
06710605 BEAR CREEK ABOVE BEAR CREEK LAKE NEAR MORRISON, CO (LAT 39 39 08N LONG 105 10 23W)									
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	1400	27	164	8.9	MAY 04...	0923	47	167	10.5
NOV 26...	1430	34	194	2.1	JUN 06...	1340	6.1	190	16.5
JAN 13...	1140	17	286	.2	JUL 11...	0940	8.9	175	17.6
MAR 01...	1311	17	260	4.5	SEP 13...	1519	5.1	166	17.8
APR 06...	1120	29	242	7.0					
06710995 TURKEY CREEK AT MOUTH OF CANYON, NEAR MORRISON, CO (LAT 39 37 13N LONG 105 11 41W)									
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	1215	1.6	467	5.7	APR 06...	0940	23	392	3.6
28...	1345	.33	494	4.0	MAY 04...	1425	10	337	15.0
NOV 26...	1305	1.9	454	.0	JUN 06...	1525	1.5	485	18.0
JAN 13...	1020	2.1	472	.0	SEP 13...	1445	.03	683	16.8
MAR 03...	1400	2.6	472	1.5					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06712000 CHERRY CREEK NEAR FRANKTOWN, CO (LAT 39 21 21N LONG 104 45 46W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 07...	0950	9.8	219	10.5	APR 07...	1026	32	243	6.5
NOV 01...	1050	12	220	4.5	MAY 04...	1157	10	249	15.5
DEC 08...	1215	14	240	.0	JUN 01...	1115	6.6	238	16.5
JAN 06...	1040	8.1	248	.0	JUL 26...	1115	2.0	204	18.5
FEB 16...	1116	17	209	2.0	AUG 15...	1145	1.3	196	21.0
MAR 14...	1055	14	227	4.5	SEP 11...	1150	3.0	220	16.5

393109104464500 CHERRY CREEK NEAR PARKER, CO (LAT 39 31 09N LONG 104 46 45W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 07...	1240	10	554	14.0	APR 14...	1145	28	408	13.0
NOV 01...	1318	12	517	12.0	MAY 04...	1447	14	461	23.0
DEC 08...	1515	20	408	3.5	JUN 01...	1403	7.4	487	18.5
JAN 06...	1230	10	543	7.0	JUL 26...	1545	5.2	653	20.5
FEB 16...	1416	25	400	10.0	AUG 15...	1358	4.8	305	21.5
MAR 14...	1251	19	385	12.0	SEP 11...	1350	6.3	706	20.0

06713000 CHERRY CREEK BELOW CHERRY CREEK LAKE, CO (LAT 39 39 12N LONG 104 51 41W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
NOV 01...	1537	28	732	9.0	MAY 03...	1248	11	749	16.0
DEC 07...	1105	22	742	3.0	MAY 25...	0900	30	744	13.8
JAN 03...	1239	22	770	3.5	JUN 01...	1600	22	746	17.5
FEB 16...	1617	35	747	4.5	JUL 21...	1100	28	746	23.0
MAR 14...	1510	22	755	7.0	AUG 11...	1405	.20	728	30.0
MAR 31...	1640	53	757	7.5	SEP 11...	1527	2.7	744	21.5

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

## 06713300 CHERRY CREEK AT GLENDALE, CO (LAT 39 42 22N LONG 104 56 13W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					APR				
06...	1020	11	1290	13.0	11...	1021	92	798	10.0
NOV					MAY				
02...	1130	34	395	9.5	10...	1202	23	990	19.1
DEC					JUN				
10...	1145	28	978	4.0	07...	1053	24	971	20.5
JAN					JUL				
10...	1510	29	969	5.6	21...	1410	32	914	26.5
FEB					AUG				
11...	1056	42	858	3.6	02...	1710	16	1030	23.5
24...	1455	41	854	9.5	14...	1540	8.1	1180	27.0
MAR					18...	1027	90	592	19.5
01...	1129	57	823	7.5	SEP				
14...	1042	28	801	8.6	13...	1005	14	1110	16.0

## 06713500 CHERRY CREEK AT DENVER, CO (LAT 39 44 58N LONG 105 00 08W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					MAY				
06...	1150	20	1050	16.0	03...	1430	30	962	21.5
DEC					31...	1442	46	873	23.5
10...	1412	33	1040	5.0	JUL				
JAN					27...	1355	24	1020	24.5
03...	1025	33	1240	3.5	AUG				
FEB					14...	1115	19	969	23.0
15...	1040	44	913	6.5	SEP				
MAR					13...	1155	18	1020	20.5
15...	0940	32	961	6.5					
APR									
06...	1515	64	810	15.0					

## 06714215 SOUTH PLATTE RIVER AT 64TH AVE. COMMERCE CITY, CO (LAT 39 48 44N LONG 104 57 28W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					APR				
06...	1715	146	848	17.7	10...	1545	100	834	14.4
NOV					MAY				
23...	1225	48	901	7.2	04...	1655	23	1080	24.2
JAN					JUN				
11...	1420	199	899	7.3	19...	1430	96	857	22.0
19...	1436	205	935	8.6	AUG				
MAR					30...	1334	20	1080	24.0
01...	1035	32	919	8.7					



SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

394839104570300 SAND CREEK AT MOUTH NEAR COMMERCE CITY, CO (LAT 39 48 39N LONG 104 57 03W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	1540	44	1080	19.6	APR 27...	1655	116	752	19.5
NOV 23...	1035	30	1610	5.2	MAY 17...	1430	48	906	14.0
JAN 11...	1605	15	--	10.3	JUN 19...	1700	17	1460	22.6
FEB 04...	0935	16	1830	5.0	AUG 30...	1205	49	765	24.0
MAR 01...	1105	18	1640	11.7					
MAR 21...	1555	105	3330	10.2					

06714800 LEAVENWORTH CREEK AT MOUTH NEAR GEORGETOWN, CO (LAT 39 41 14N LONG 105 41 59W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	1145	9.0	100	3.6	JUN 27...	1050	38	66	5.4
NOV 17...	0900	4.2	126	.4	JUL 11...	0845	26	67	8.0
DEC 28...	1305	4.0	138	.5	AUG 24...	1200	9.7	116	9.2
APR 13...	1110	3.4	143	2.2	SEP 05...	1230	10	125	9.0
MAY 02...	1150	7.6	110	4.5					
MAY 26...	1115	39	63	3.0					
MAY 31...	1250	60	32	7.3					

394308105413800 CLEAR CREEK ABOVE GEORGETOWN LAKE NEAR GEORGETOWN, CO (LAT 39 43 08N LONG 105 41 38W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 14...	1415	54	134	7.8	JUN 27...	1200	205	84	7.3
NOV 17...	1045	26	144	.7	JUL 26...	1125	95	113	10.7
DEC 28...	1130	24	152	1.3	AUG 24...	1250	60	142	11.8
APR 10...	0950	30	268	2.3	SEP 19...	1050	42	152	8.4
MAY 02...	1310	71	190	7.8					

394359105411900 CLEAR CREEK BELOW GEORGETOWN LAKE NEAR GEORGETOWN, CO (LAT 39 43 59N LONG 105 41 19W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 14...	0925	57	136	6.2	MAY 02...	1425	69	210	9.8
NOV 17...	1145	33	143	5.4	JUN 27...	0850	207	183	9.3
DEC 28...	1025	23	161	2.6	JUL 26...	1020	96	110	12.5
FEB 23...	1030	18	180	2.4	AUG 24...	1405	59	141	13.8
APR 10...	1115	27	230	5.8	SEP 21...	1120	59	153	11.1

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06715000 CLEAR CREEK ABOVE WEST FORK CLEAR CREEK NEAR EMPIRE, CO (LAT 39 45 07N LONG 105 39 41W)									
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 13...	1355	50	148	9.4	MAY 02...	1110	83	216	8.2
NOV 17...	0755	33	161	2.3	JUN 20...	0900	283	85	9.0
DEC 28...	0855	29	178	.9	JUL 26...	0910	96	118	12.8
FEB 23...	0845	19	197	1.3	AUG 24...	1045	55	148	13.0
APR 07...	1105	27	231	3.3	SEP 19...	0940	43	168	4.6
06716100 WEST FORK CLEAR CREEK ABOVE MOUTH NEAR EMPIRE, CO (LAT 39 45 32N LONG 105 39 34W)									
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 13...	1250	41	258	6.4	JUN 08...	1115	437	80	7.7
DEC 06...	1150	24	133	.0	JUL 25...	1050	82	120	8.0
MAR 27...	1045	18	433	2.6	AUG 24...	1520	42	220	13.8
APR 25...	1010	40	373	3.6	SEP 21...	1250	41	280	7.3
06716500 CLEAR CREEK NEAR LAWSON, CO (LAT 39 45 57N LONG 105 37 32W)									
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 14...	1050	91	202	6.1	MAY 02...	1015	157	255	6.0
NOV 15...	1020	57	226	1.0	JUN 06...	1145	564	83	8.5
JAN 28...	1205	28	296	.0	JUL 25...	0940	200	90	8.2
FEB 23...	1150	35	201	2.0	AUG 21...	1405	103	183	13.6
APR 04...	1125	37	327	3.0	SEP 19...	1155	69	223	7.7
06717400 CHICAGO CREEK BELOW DEVILS CANYON NEAR IDAHO SPRINGS, CO (LAT 39 42 58N LONG 105 34 15W)									
DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 13...	1455	8.8	63	5.9	JUN 08...	1235	25	53	10.0
NOV 15...	1210	1.2	69	.8	JUN 23...	0935	15	57	9.0
DEC 06...	1035	1.9	68	.0	JUL 11...	1305	13	64	13.1
APR 04...	1225	7.1	84	2.0	AUG 24...	0915	6.6	82	3.5
MAY 04...	0925	23	65	3.7	SEP 21...	1400	11	75	8.2
MAY 09...	1015	40	56	2.7					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06718300 CLEAR CREEK ABOVE JOHNSON GULCH NEAR IDAHO SPRINGS, CO (LAT 39 44 47N LONG 105 26 08W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 14...	1205	127	218	7.6	MAY 23...	1315	418	130	10.0
NOV 17...	1300	78	248	3.0	JUN 06...	1350	789	83	10.9
DEC 06...	1250	72	282	.0	JUL 25...	0815	228	110	8.5
MAR 14...	1430	55	349	7.2	AUG 21...	1035	155	184	13.0
APR 25...	1215	115	307	6.7	SEP 19...	0845	103	217	5.4

06718550 NORTH CLEAR CREEK ABOVE MOUTH NEAR BLACKHAWK, CO (LAT 39 44 56N LONG 105 23 57W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	1015	13	417	4.9	APR 25...	1305	22	253	8.7
NOV 15...	1310	7.5	484	4.8	MAY 09...	1250	68	320	8.1
DEC 06...	1355	7.4	524	.0	JUN 07...	1145	44	119	12.0
JAN 28...	1400	3.3	760	.0	JUL 05...	1145	11	266	14.8
FEB 22...	1400	6.6	559	3.3	AUG 17...	1105	4.1	535	14.0
MAR 28...	1040	9.5	448	4.0	SEP 05...	1035	4.3	570	13.5

06719505 CLEAR CREEK AT GOLDEN, CO (LAT 39 45 11N LONG 105 14 05W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 07...	1325	130	235	8.8	APR 24...	1100	166	284	7.8
NOV 16...	1250	94	247	2.7	MAY 23...	0945	434	134	10.9
DEC 17...	1455	89	313	.0	JUN 05...	1110	786	200	5.0
JAN 12...	0945	89	304	.0	JUL 13...	0915	282	120	14.6
FEB 03...	0950	86	<332	.0	JUL 21...	1145	263	134	15.9
FEB 23...	1320	57	347	3.6	AUG 22...	0915	139	212	9.1
MAR 28...	0935	74	383	6.0	SEP 08...	1100	137	231	3.6

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06720820 BIG DRY CREEK AT WESTMINSTER, CO (LAT 39 54 20N LONG 105 02 04W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 04...	1120	13	754	10.0	APR 12...	1450	1.8	1810	16.2
NOV 10...	1505	2.2	1730	10.4	MAY 26...	1200	41	377	14.6
DEC 01...	1022	1.7	1700	4.5	JUN 19...	1314	63	411	17.6
JAN 07...	1010	2.4	2490	.6	JUL 19...	1007	26	442	18.0
FEB 14...	0830	1.6	1930	2.1	AUG 25...	1220	24	415	20.6
MAR 08...	1400	2.1	1970	12.6	SEP 29...	1216	3.2	1340	16.3

06720990 BIG DRY CREEK AT MOUTH NEAR FORT LUPTON, CO (LAT 40 04 09N LONG 104 49 52W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 14...	1445	43	1220	15.5	APR 12...	0955	11	1220	11.0
NOV 10...	0845	27	1550	7.0	MAY 10...	0935	34	893	14.0
DEC 08...	1120	15	1610	3.0	JUL 12...	1310	30	911	24.5
JAN 12...	1305	25	1490	5.5	AUG 09...	1010	13	1230	24.5
FEB 09...	1250	23	1360	4.0	SEP 20...	1001	9.8	1090	15.0
MAR 08...	1315	27	1220	11.5					

06725450 ST. VRAIN CREEK BELOW LONGMONT, CO (LAT 40 09 29N LONG 105 00 53W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 28...	0950	108	905	8.5	MAR 08...	1120	41	1220	9.0
NOV 10...	1230	62	1400	9.5	MAY 10...	1235	106	732	17.0
DEC 08...	1020	59	1450	4.0	JUN 07...	1015	166	702	18.0
JAN 12...	0900	60	1220	3.0	AUG 09...	1245	174	1280	24.0
FEB 09...	1135	57	1220	4.0	SEP 20...	1240	119	830	16.0

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

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MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06730200 BOULDER CREEK AT NORTH 75TH STREET NEAR BOULDER, CO (LAT 40 03 06N LONG 105 10 42W)									
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 12...	1330	61	722	19.4	MAY 03...	1115	117	704	16.2
NOV 16...	1055	51	633	17.2	JUN 21...	1020	197	436	17.3
DEC 17...	1305	44	750	.0	JUL 13...	1355	244	383	21.8
JAN 12...	1150	55	612	12.5	AUG 22...	1130	156	465	23.0
MAR 09...	1010	45	757	14.7	SEP 25...	1245	82	604	14.1
APR 03...	1030	64	652	13.4					

06730400 COAL CREEK NEAR LOUISVILLE, CO (LAT 39 58 34N LONG 105 07 00W)									
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 04...	1255	4.2	590	13.0	MAY 03...	0935	2.8	682	14.0
NOV 16...	0935	2.1	975	10.1	JUN 01...	1245	7.8	335	17.0
DEC 17...	1120	3.3	730	6.3	JUN 21...	1215	.41	704	21.0
JAN 12...	1255	2.6	794	5.5	JUL 24...	1130	2.1	825	23.0
FEB 03...	1140	2.2	945	5.9	AUG 22...	1340	.33	835	22.0
MAR 09...	1220	1.8	1070	7.0	AUG 29...	0945	1.2	880	--
APR 03...	1150	5.4	668	6.4	SEP 25...	1405	3.3	780	13.2

06730500 BOULDER CREEK AT MOUTH, NEAR LONGMONT, CO (LAT 40 09 08N LONG 105 00 52W)									
DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 28...	1045	75	705	9.3	APR 12...	1300	37	830	15.0
NOV 10...	1130	66	501	8.5	MAY 10...	1120	47	515	16.5
DEC 08...	0917	78	519	3.0	JUN 07...	0910	155	387	17.5
JAN 12...	1150	61	693	5.0	JUL 12...	1000	17	552	22.0
FEB 09...	1010	64	654	3.5	AUG 09...	1120	--	896	23.5
MAR 08...	1020	64	656	9.0	SEP 20...	1058	148	456	15.0

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

06746095 JOE WRIGHT CREEK ABOVE JOE WRIGHT RESERVOIR, CO (LAT 40 32 24N LONG 105 52 56W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 04...	1407	3.7	59	7.5	JUN 09...	0945	113	31	3.0
NOV 03...	1243	5.8	68	.0	JUL 24...	1353	12	44	14.5
FEB 29...	0915	.78	--	.0	AUG 23...	1025	7.5	50	8.0
APR 05...	0913	.66	78	.0	SEP 15...	1208	5.0	54	9.5
MAY 11...	1602	11	46	.0					

06746110 JOE WRIGHT CREEK BELOW JOE WRIGHT RESERVOIR, CO (LAT 40 33 43N LONG 105 52 09W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	1055	2.3	40	5.0	MAY 12...	1010	5.9	47	1.5
NOV 03...	1517	2.3	42	2.5	JUN 08...	1500	90	37	5.0
JAN 05...	1248	1.9	47	1.0	JUL 25...	1112	19	37	7.0
FEB 29...	1047	2.0	50	1.5	AUG 23...	1212	9.6	39	7.5
APR 05...	1237	2.1	50	3.0	SEP 14...	1400	39	41	10.0

06751150 NORTH FORK CACHE LA POUDE RIVER BELOW HALLIGAN RESERVOIR NEAR VIRGINIA DALE, CO (LAT 40 52 42N LONG 105 20 15W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
NOV 09...	1340	5.4	174	16.8	JUN 06...	1600	152	90	16.0
DEC 07...	1504	5.6	170	3.0	JUL 11...	1510	53	112	20.0
FEB 08...	1417	39	161	3.5	AUG 08...	1550	59	85	19.0
APR 11...	1410	79	152	7.0	SEP 19...	1535	8.5	138	15.5
MAY 09...	1405	133	120	11.5					

06751490 NORTH FORK CACHE LA POUDE R. AT LIVERMORE, CO (LAT 40 47 15N LONG 105 15 06W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
NOV 09...	1200	17	336	7.5	MAY 09...	1220	16	319	13.0
DEC 07...	1245	17	333	2.0	JUN 06...	1400	12	339	22.0
JAN 11...	1400	45	226	.0	JUL 11...	1330	7.2	371	22.5
FEB 08...	1255	51	252	3.0	AUG 08...	1400	6.0	412	22.5
MAR 07...	1300	45	207	6.5	SEP 19...	1356	3.4	452	15.7
APR 11...	1225	14	296	11.5					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07079195 EAST FORK ARKANSAS RIVER AT HWY 91 NEAR LEADVILLE, CO (LAT 39 17 09N LONG 106 16 45W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 06...	1245	20	177	5.5	APR 05...	1530	6.8	234	5.0
NOV 03...	1555	12	190	3.5	MAY 03...	0900	38	173	2.2
DEC 01...	1630	9.2	191	.3	JUN 07...	1700	152	101	12.2
JAN 05...	1130	7.9	199	.0	JUL 05...	1720	46	134	14.6
FEB 02...	1015	8.5	206	.0	AUG 02...	1430	27	163	15.0
MAR 01...	1550	7.4	200	.5	SEP 06...	1800	26	162	10.0

07079300 EAST FORK ARKANSAS RIVER AT US HWY 24, NEAR LEADVILLE, CO (LAT 39 16 21N LONG 106 18 21W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 06...	1015	25	260	5.0	MAY 03...	1000	44	222	4.6
NOV 03...	1615	17	298	4.5	30...	1445	316	99	9.6
DEC 02...	0940	13	315	1.0	JUN 07...	1845	173	118	11.0
JAN 05...	1315	11	352	1.3	19...	1720	92	147	9.7
FEB 02...	1110	12	367	2.0	JUL 05...	1825	54	180	14.9
MAR 01...	1635	9.8	354	2.7	AUG 02...	1530	29	201	17.2
APR 05...	1650	14	364	8.0	SEP 06...	1900	28	225	10.2

07081200 ARKANSAS RIVER NEAR LEADVILLE, CO (LAT 39 15 26N LONG 106 20 35W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 06...	0820	34	214	4.0	MAY 02...	1850	125	113	11.1
NOV 04...	0755	15	228	.5	30...	1230	759	65	8.5
DEC 02...	1120	25	249	1.1	JUN 08...	0840	275	82	7.7
JAN 05...	1435	15	266	.5	JUL 05...	2005	80	134	15.0
FEB 02...	1225	20	276	.5	AUG 02...	1715	42	181	16.9
MAR 02...	0825	16	257	.3	SEP 06...	1600	41	207	12.9
APR 06...	1040	19	238	4.1					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

## 07083000 HALFMOON CREEK NEAR MALTA, CO (LAT 39 10 20N LONG 106 23 19W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	1545	23	86	8.0	JUN 08...	1030	131	45	5.4
NOV 03...	1400	15	88	1.0	JUL 05...	1600	48	62	14.4
DEC 01...	1510	8.1	93	.0	JUL 24...	1420	35	70	13.7
MAR 01...	1350	5.1	96	.1	AUG 03...	0740	22	78	8.0
MAY 02...	1630	25	73	11.8	SEP 06...	1400	24	87	13.5
MAY 30...	0800	168	38	2.0					

## 07087050 ARKANSAS RIVER BELOW GRANITE, CO (LAT 38 59 42N LONG 106 13 11W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	1310	281	147	9.0	JUN 08...	1130	2180	69	10.8
APR 06...	1345	163	168	7.7	JUN 19...	2020	1240	76	11.7
MAY 02...	1430	437	121	10.8	JUL 06...	1120	915	88	13.9
MAY 19...	1530	1420	87	10.0	AUG 04...	0820	671	87	14.0
MAY 25...	1135	2440	87	10.0	SEP 07...	1000	201	160	11.0
MAY 31...	1320	3260	77	12.0					

## 07096250 FOURMILE CREEK BELOW CRIPPLE CREEK NEAR VICTOR, CO (LAT 38 39 52N LONG 105 13 37W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 07...	1120	24	338	11.6	JUN 07...	1220	29	320	19.1
JAN 07...	1250	13	400	.5	JUL 14...	1040	13	437	18.5
MAR 14...	1300	9.9	232	8.9	SEP 20...	1000	7.2	447	11.0
MAY 08...	1025	84	288	8.5					

## 07099050 BEAVER CREEK ABOVE UPPER BEAVER CEMETERY NEAR PENROSE, CO (LAT 38 33 42N LONG 105 01 17W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 06...	1335	34	84	11.5	JUN 09...	1330	33	63	18.4
NOV 17...	1255	11	103	8.5	JUL 06...	0910	26	79	14.0
FEB 28...	1050	8.5	129	4.5	AUG 07...	1210	18	83	19.5
APR 04...	0920	16	102	.5	SEP 07...	1010	17	90	14.5
APR 17...	0925	65	87	4.5					
MAY 11...	0940	132	81	9.5					



SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07099060 BEAVER CREEK ABOVE HIGHWAY 115 NEAR PENROSE, CO (LAT 38 29 21N LONG 104 59 49W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	1105	5.3	115	9.0	MAY 02...	1355	20	104	9.5
NOV 17...	1020	.47	173	6.0	MAY 11...	1220	86	90	12.5
APR 04...	1320	18	360	6.0	MAY 31...	1310	51	656	16.5
APR 17...	1150	26	102	7.5	JUN 28...	1110	12	93	16.0

07099215 TURKEY CREEK NEAR FOUNTAIN, CO (LAT 38 36 42N LONG 104 53 39W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	0915	1.3	342	10.6	APR 05...	1335	1.3	228	12.0
MAR 24...	0950	.79	262	6.5	SEP 01...	0930	.26	360	15.5

07099230 TURKEY CREEK ABOVE TELLER RESERVOIR NEAR STONE CITY, CO (LAT 38 27 54N LONG 104 49 33W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 07...	1330	3.1	764	17.0	MAY 03...	1305	1.9	952	19.9
NOV 05...	1125	3.3	820	11.0	JUN 12...	1255	.72	949	19.9
JAN 05...	1235	2.7	897	7.2	JUN 30...	1055	.48	1010	17.0
MAR 27...	1050	2.2	950	11.5					

07099235 TURKEY CREEK NEAR STONE CITY, CO (LAT 38 26 22N LONG 104 49 34W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
DEC 06...	1450	11	703	5.5	FEB 29...	1120	2.2	1010	7.0
DEC 10...	1615	14	724	3.5	APR 06...	1350	2.7	1040	13.0
JAN 05...	1040	5.8	866	2.5					

07103703 CAMP CREEK AT GARDEN OF THE GODS, CO (LAT 38 52 37N LONG 104 52 20W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
MAR 16...	1025	.09	861	2.0					

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07103785 DEADMANS CR ABV DEADMANS LAKE AT USAF ACADEMY, CO (LAT 39 01 27N LONG 104 54 03W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
MAR 28...	1525	.41	93	5.5	JUL 11...	1355	.05	153	17.0
MAY 01...	1405	.90	74	7.5	AUG 29...	1205	.18	94	15.6
JUN 06...	1335	.23	102	13.8					

07103790 MONUMENT CR BELOW SEWAGE TREATMENT PLANT AT USAF ACADEMY, CO (LAT 38 58 53N LONG 104 49 50W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
MAR 16...	1205	22	291	5.0	JUN 06...	1605	12	285	21.9
MAR 28...	1500	28	272	11.0	JUL 11...	1255	7.2	318	24.0
APR 04...	1455	31	280	15.5	AUG 03...	1330	5.4	331	26.2
MAY 24...	1120	22	226	16.0	AUG 29...	1235	21	326	21.9

07103797 WEST MONUMENT CREEK BELOW RAMPART RESERVOIR, CO (LAT 38 58 30N LONG 104 57 18W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 05...	0900	6.2	67	9.0	APR 05...	1550	4.6	81	6.0
NOV 02...	1130	3.4	74	7.0	MAY 23...	1330	3.8	80	10.0
DEC 13...	1200	6.2	68	3.5	JUN 27...	0900	5.1	94	7.2
JAN 12...	0830	6.3	69	2.5	JUL 18...	1200	3.7	71	9.0
FEB 09...	0900	7.0	71	2.5	AUG 09...	1100	4.2	70	8.9
MAR 17...	0830	4.1	75	2.7	SEP 19...	1040	3.7	70	13.1

07103800 WEST MONUMENT CREEK AT AIR FORCE ACADEMY, CO (LAT 38 58 14N LONG 104 54 08W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 06...	0840	1.3	97	6.0	APR 05...	1055	7.9	81	4.5
NOV 01...	1405	1.2	97	3.5	MAY 02...	1310	2.5	79	8.0
DEC 14...	1005	1.1	94	.5	JUN 07...	1255	.90	94	12.6
JAN 12...	1550	.83	96	1.0	JUL 11...	1125	.60	97	14.5
FEB 09...	1205	.98	94	2.0	AUG 22...	1330	.64	95	14.9
MAR 16...	1420	1.0	93	.5	SEP 15...	1410	2.8	92	14.1

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07103930 WEST MONUMENT CR AT MOUTH AT USAF ACADEMY, CO (LAT 38 57 32N LONG 104 50 08W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
MAR 28...	1400	1.5	195	9.5	JUN 06...	1710	1.5	177	17.9
APR 05...	1140	10	126	9.5	AUG 22...	1405	.71	218	21.2
MAY 09...	1235	4.2	132	12.4	SEP 15...	1535	.37	213	18.9

07103940 MONUMENT CR AT SOUTH BOUNDARY USAF ACADEMY, CO (LAT 38 57 15N LONG 104 50 00W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
MAR 28...	1120	31	269	9.0	JUL 10...	1550	9.0	319	24.0
APR 04...	1610	39	270	16.5	25...	0910	7.6	353	16.7
MAY 24...	1240	27	226	15.2	AUG 03...	1410	5.6	315	23.9
JUN 07...	1420	13	269	20.5	24...	1020	8.3	320	18.3
					29...	1335	23	334	22.6

07103960 KETTLE CREEK ABOVE USAF ACADEMY, CO (LAT 38 58 34N LONG 104 47 55W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
MAR 24...	1105	1.7	393	11.0	JUL 11...	1235	.34	523	25.0
APR 04...	0820	1.1	345	1.5	21...	0925	.57	512	18.0
MAY 22...	1105	1.1	411	19.5	AUG 02...	1015	.30	576	20.5
JUN 14...	0910	.54	489	13.0	16...	1355	.09	621	25.5
28...	1730	.77	456	17.8	21...	2125	3.2	349	16.0
					25...	1005	.32	553	18.6
					SEP 06...	1240	.28	552	19.9
					28...	1005	.51	536	9.0

07104000 MONUMENT CREEK AT PIKEVIEW, CO (LAT 38 55 04N LONG 104 49 05W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	1350	37	429	15.5	MAY 22...	0950	41	365	14.5
NOV 23...	1310	36	462	3.5	31...	1145	38	383	22.0
DEC 15...	1455	35	525	.5	JUN 14...	0750	23	493	11.0
JAN 05...	1035	30	515	.5	JUL 12...	1305	24	472	27.0
FEB 02...	1015	27	524	1.0	AUG 02...	1210	18	527	26.0
MAR 15...	1045	35	420	5.5	07...	1505	19	528	25.0
APR 26...	1230	70	264	14.5	23...	1225	25	501	24.0
					30...	1205	32	496	22.5
					SEP 21...	1230	18	574	17.5

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07105000 BEAR CREEK NEAR COLORADO SPRINGS, CO (LAT 38 49 21N LONG 104 53 17W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					MAY				
04...	1510	2.9	91	8.0	31...	1440	2.2	84	14.0
NOV					JUL				
02...	1205	2.7	89	2.5	06...	1215	1.8	89	14.1
JAN					AUG				
14...	1355	1.9	87	1.8	02...	1340	1.2	95	15.5
FEB					09...	1555	1.3	94	15.5
08...	1340	2.2	86	2.5	25...	1320	1.4	96	14.2
MAR					SEP				
17...	1050	1.9	92	.5	26...	1325	1.5	93	9.0
APR									
18...	1255	4.1	77	7.5					

07105490 CHEYENNE CREEK AT EVANS AVE AT COLORADO SPRINGS, CO (LAT 38 47 26N LONG 104 51 49W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					JUN				
05...	1520	3.3	133	10.5	01...	1020	1.1	114	11.5
NOV					JUL				
02...	1025	.52	162	4.0	06...	1040	.98	119	14.5
JAN					AUG				
14...	1255	1.3	144	2.5	02...	1510	.57	115	18.5
FEB					09...	1410	.56	133	18.5
08...	1225	.46	175	4.5	30...	1340	3.6	109	15.6
MAR					SEP				
16...	1635	1.3	145	1.0	26...	1125	.66	124	10.5
APR									
18...	1140	8.8	92	6.5					

07105900 JIMMY CAMP CREEK AT FOUNTAIN, CO (LAT 38 41 04N LONG 104 41 17W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					MAY				
13...	1615	2.1	2970	17.5	05...	0955	2.8	2850	17.0
NOV					31...	1235	1.6	2980	27.0
10...	1325	2.2	2920	16.5	JUN				
24...	0945	2.1	2930	3.5	27...	1420	5.6	1840	19.0
DEC					JUL				
15...	1140	2.4	2740	.0	17...	1310	1.5	2980	26.0
JAN					AUG				
05...	1240	1.6	2890	10.0	01...	0920	1.6	2900	16.5
FEB					24...	1335	3.0	2010	26.5
07...	1435	1.7	2870	14.5	29...	1135	17	826	19.5
MAR					SEP				
08...	1440	2.0	2800	11.0	06...	1435	1.6	3010	26.5
APR					26...	0955	1.8	2920	11.0
05...	1410	1.9	2950	26.0					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07105945 ROCK CREEK ABOVE FORT CARSON RESERVATION, CO (LAT 38 42 26N LONG 104 50 47W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 05...	1700	.85	167	10.0	MAY 09...	1050	2.5	115	8.5
08...	0920	2.0	149	8.0	JUN 06...	1110	.58	152	14.5
NOV 03...	1115	.79	167	5.0	JUL 07...	1025	.29	173	16.8
JAN 14...	1150	.58	200	2.0	AUG 08...	1325	.14	190	19.5
FEB 08...	1025	.65	165	1.0	SEP 01...	1250	.50	202	17.5
MAR 09...	0955	.89	162	1.5					
APR 05...	0925	4.2	124	3.0					

07107900 GREENHORN CREEK NEAR RYE, CO (LAT 37 55 14N LONG 104 57 21W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
DEC 17...	1205	2.5	90	1.8	JUN 28...	1212	4.5	75	10.5
FEB 03...	1135	2.9	87	.0	JUL 10...	1330	3.7	86	16.5
MAR 01...	1420	1.9	78	2.7	14...	0955	3.7	79	14.0
MAY 11...	0945	22	50	5.9	AUG 18...	1050	2.9	83	13.4

07108100 GRANEROS CREEK NEAR RYE, CO (LAT 37 54 47N LONG 104 55 31W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
DEC 17...	1300	.51	216	2.4	MAY 11...	1105	6.2	80	9.3
FEB 03...	1225	.47	200	.2	JUN 28...	1330	.64	155	12.7
MAR 01...	1520	.42	227	5.1	JUL 14...	1125	.26	159	17.5

07108900 ST. CHARLES RIVER AT VINELAND, CO (LAT 38 14 44N LONG 104 29 09W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	1045	20	2180	12.8	APR 05...	1005	70	989	8.8
NOV 04...	1505	43	1330	14.7	MAY 04...	1055	131	599	16.0
DEC 07...	1530	17	2320	7.6	JUN 01...	1410	22	1560	23.5
JAN 05...	1520	13	2360	6.8	JUL 06...	1125	11	2200	24.8
FEB 02...	1220	14	2290	7.0	AUG 03...	0925	9.5	2080	19.5
MAR 02...	1405	17	2040	6.7	SEP 07...	1120	9.9	2230	19.5

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07116500 HUERFANO RIVER NEAR BOONE, CO (LAT 38 13 30N LONG 104 15 37W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					APR				
05...	1400	25	1570	20.5	05...	1200	59	1580	14.0
25...	1720	31	2020	16.0	24...	1005	312	1590	12.1
NOV					24...	1745	439	1610	20.1
04...	1140	32	1960	11.0	MAY				
DEC					03...	1445	100	1640	20.1
07...	1325	35	2550	4.7	31...	1055	9.0	3820	19.5
JAN					JUN				
05...	1205	20	2940	2.8	06...	0900	7.7	3960	17.3
FEB					JUL				
02...	1405	24	2830	9.5	06...	0715	1.7	4940	17.0
MAR					AUG				
01...	0945	9.0	4020	6.5	02...	0815	.88	4910	18.0
13...	1815	9.2	3880	12.2					

07119500 APISHAPA RIVER NEAR FOWLER, CO (LAT 38 05 28N LONG 103 58 52W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					APR				
05...	1130	20	1690	13.5	04...	1040	35	1580	7.3
NOV					MAY				
09...	1425	20	1860	12.8	03...	1300	14	1930	21.0
DEC					JUN				
07...	1140	6.2	2870	8.6	01...	1140	16	1400	16.7
JAN					JUL				
05...	0940	7.2	2600	4.6	06...	0920	9.6	1860	20.0
FEB					AUG				
03...	1005	6.4	2450	4.5	02...	1035	6.0	2410	18.8
MAR					SEP				
01...	1200	4.6	2950	10.5	07...	1335	16	1560	23.8

07121500 TIMPAS CREEK AT MOUTH NEAR SWINK, CO (LAT 38 00 11N LONG 103 39 20W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					APR				
13...	1240	115	1820	15.0	04...	1620	55	1910	15.5
NOV					MAY				
09...	1255	100	1840	11.7	08...	1045	59	1870	15.8
30...	1625	29	3170	11.0	JUN				
DEC					02...	1000	50	1900	16.0
14...	1345	24	3180	6.3	JUL				
JAN					05...	1250	47	2210	23.5
11...	1530	18	3220	8.8	AUG				
FEB					02...	1335	48	2100	22.7
03...	1235	17	3160	9.8	SEP				
MAR					12...	1320	67	1900	20.5
03...	1235	135	1550	8.5					

SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07124200 PURGATOIRE RIVER AT MADRID, CO (LAT 37 07 46N LONG 104 38 20W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 04...	1440	48	523	17.2	MAY 04...	1550	99	364	21.6
NOV 05...	0830	38	554	2.6	JUN 13...	1020	65	392	17.0
JAN 28...	1500	28	659	1.0	JUL 11...	1540	42	437	21.2
MAR 13...	1450	22	600	12.3	AUG 14...	1040	24	486	22.3

07124410 PURGATOIRE RIVER BELOW TRINIDAD LAKE, CO (LAT 37 08 37N LONG 104 32 49W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 04...	1300	69	370	15.6	JUN 13...	1615	207	445	12.3
NOV 20...	1825	23	380	12.9	JUL 11...	1350	178	446	13.6
JAN 28...	1250	4.1	417	2.8	AUG 14...	1315	184	451	16.8
MAR 13...	1700	.33	426	7.8					
MAY 04...	1410	89	451	9.6					

07126140 VAN BREMER ARROYO NEAR TYRONE, CO (LAT 37 23 58N LONG 104 06 55W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 19...	1425	2.7	3270	9.3	AUG 28...	1610	1.5	2230	26.1
APR 10...	1710	<.01	14500	18.3					

07126300 PURGATOIRE RIVER NEAR THATCHER, CO. AT 37 21 30N LONG 103 53 44W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 19...	1700	63	3220	10.6	JUN 23...	1605	15	2490	25.1
JAN 27...	1245	35	3280	2.7	AUG 18...	1230	45	2490	21.8
APR 12...	1335	139	1590	12.8	SEP 01...	1140	18	2790	23.5

## SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO (LAT 38 02 02N LONG 103 12 00W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					APR				
07...	1825	89	2660	15.5	12...	1715	167	1190	17.0
28...	1245	83	2970	11.2	27...	1140	79	1990	17.7
28...	1300	83	2970	11.0	MAY				
NOV					30...	1630	16	3210	28.0
23...	1300	84	2920	5.5	JUN				
DEC					08...	0940	15	3480	21.0
07...	1410	54	3490	2.0	AUG				
JAN					01...	1505	7.7	3160	30.0
18...	1420	40	3650	6.5	15...	1625	7.3	2010	32.0
FEB					30...	1455	16	1700	27.0
01...	1535	36	3580	3.5	31...	1050	15	1790	21.5
MAR									
01...	1010	32	3710	7.5					
16...	1305	71	2860	9.5					

07133000 ARKANSAS RIVER AT LAMAR, CO (LAT 38 06 21N LONG 102 37 05W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					APR				
06...	1400	48	2790	19.5	12...	1210	33	2710	15.5
NOV					MAY				
16...	1505	28	2940	14.5	16...	1910	50	2680	19.5
DEC					JUN				
17...	1005	49	4160	5.0	14...	1230	836	2190	19.5
JAN					AUG				
19...	0945	51	4060	5.5	16...	1015	404	2310	22.5
FEB					SEP				
29...	1450	141	2500	10.5	21...	1610	14	3240	24.5
MAR									
22...	0950	74	2610	6.0					

07134100 BIG SANDY CREEK NEAR LAMAR, CO (LAT 38 06 51N LONG 102 29 00W)

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT					MAR				
07...	1040	18	4060	14.0	22...	1155	16	4550	7.5
NOV					MAY				
18...	1220	12	4440	12.0	17...	1110	18	4160	18.0
DEC					JUN				
16...	0945	16	4640	2.5	15...	1125	14	3390	12.5
JAN					AUG				
19...	1155	38	4210	6.5	16...	1305	21	3720	24.0
FEB									
29...	1010	45	4290	7.0					



SUPPLEMENTAL WATER-QUALITY DATA FOR GAGING STATIONS

MISCELLANEOUS STATION ANALYSES, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000--Continued

07134180 ARKANSAS RIVER NEAR GRANADA, CO (LAT 38 05 44N LONG 102 18 37W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 06...	1815	118	3770	18.5	APR 11...	1650	133	3630	15.5
NOV 18...	1015	140	3660	11.0	MAY 17...	1325	117	3580	20.0
DEC 16...	1255	162	3930	5.5	JUN 14...	1710	821	2300	21.5
JAN 19...	1350	167	3990	9.0	JUL 19...	1845	730	2500	26.0
FEB 29...	1225	311	2970	9.0	AUG 16...	1550	427	2580	27.0
MAR 22...	1350	159	3620	7.5					

07134990 WILD HORSE CREEK ABOVE HOLLY, CO (LAT 38 03 24N LONG 102 08 16W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
NOV 17...	1115	28	3610	10.0	JUN 28...	1430	17	3430	19.5
MAR 22...	1640	26	3560	8.5	JUL 19...	2025	43	3290	25.5
MAR 30...	1600	34	3910	10.0					
MAY 17...	1510	33	3110	20.0					

08217500 RIO GRANDE AT WAGON WHEEL GAP, CO (LAT 37 46 01N LONG 106 49 51W)

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 05...	1250	607	76	8.5	MAR 23...	1315	113	115	6.5
NOV 04...	1325	328	103	4.0	MAY 04...	1125	1540	57	6.1
DEC 16...	1120	119	139	.0	JUL 06...	2050	362	80	18.8
FEB 09...	1135	113	125	.0					

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER

Water-quality data and discharges collected beginning July 1998 at selected sites between Pueblo Reservoir and Las Animas, Colorado. These data will be used to: 1) provide water-quality data to evaluate spatial, temporal, and flow-related changes and trends throughout the lower Arkansas River basin between Pueblo and Las Animas; 2) to complement and help corroborate the reliability of data being collected by other data-collection programs and; 3) determine source areas for selenium and evaluate potential pathways of selenium through the aquatic ecosystem.

07099400 ARKANSAS RIVER ABOVE PUEBLO, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°16'18", long 104°43'03", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> (revised) sec.36, T.20 S., R.66 W., Pueblo County, Hydrologic Unit 11020002, on left bank 200 feet downstream from northeast corner of Arkansas River bridge, 0.4 mile downstream from Pueblo Dam, and 7.0 miles west of Pueblo.

DRAINAGE AREA.--4,670 mi<sup>2</sup>.

PERIOD OF RECORD.--October 1965 to September 1970, December 1985 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO <sub>4</sub> ) (00945)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	
OCT										
25...	0900	334	484	8.4	14.0	9.8	125	<.035	.050	
MAR										
13...	0845	327	534	8.5	5.1	11.3	150	.319	.054	
APR										
24...	0845	401	533	8.0	9.7	10.5	151	<.014	.050	
JUN										
05...	1230	2680	555	8.2	13.0	9.8	162	.282	<.032	
AUG										
28...	1000	734	399	8.3	22.0	8.0	100	.226	.084	
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT										
25...	.021	.005	71	35	4	4.5	--	--	--	
MAR										
13...	<.041	.001	<6	<6	9	6.8	.07	.17	.5	
APR										
24...	<.041	.006	<6	<6	6	6.9	.08	.09	.7	
JUN										
05...	<.041	.010	17	<6	6	6.0	--	--	--	
AUG										
28...	<.041	.017	168	137	4	3.7	.07	.09	.6	

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

381628104381700 WILDHORSE CREEK AT THE MOUTH AT PUEBLO, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°16'28", long 104°38'17", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.26, T.20 S., R.65 W., Pueblo County, Hydrologic Unit 11020002, 20 feet downstream from Union Pacific Railroad, 0.3 mi upstream from the Arkansas River, and 1.5 mi west of courthouse in Pueblo (revised).

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED WATER (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
OCT 25...	1050	2.0	4320	8.0	8.8	9.8	2100	35.2	.980
MAR 13...	1045	1.8	4340	8.0	8.0	8.8	2010	37.0	7.24
APR 24...	1030	2.0	4100	8.2	13.8	12.2	1850	30.8	6.33
JUN 05...	1505	1.8	3710	8.2	26.0	9.1	1550	28.5	9.26
AUG 28...	1125	1.2	3480	8.1	20.9	6.5	1480	27.8	.125

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, TOTAL SOLVED (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT 25...	1.50	1.41	68	65	574	540	--	--	--
MAR 13...	1.80	1.67	113	106	677	643	3.3	.28	6.1
APR 24...	2.11	2.12	114	106	617	580	3.8	.63	6.1
JUN 05...	2.29	2.23	100	75	457	416	--	--	--
AUG 28...	1.81	1.68	85	81	495	486	4.0	.75	9.5

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07099970 ARKANSAS RIVER AT MOFFAT STREET AT PUEBLO, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°15'13", long 104°36'02", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> (revised) sec.6, T.21 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, on right bank 10 feet upstream from intake of Saint Charles Mesa Water Association, 150 ft downstream from Santa Fe Avenue bridge, and 1.1 mi upstream from Fountain Creek.

DRAINAGE AREA.--4,778 mi<sup>2</sup>.

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

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	
OCT	25...	1140	321	571	8.6	13.6	10.2	180	<.035	.040
MAR	13...	1135	353	598	8.9	6.6	13.2	185	.624	<.032
APR	24...	1135	280	587	9.0	12.0	12.9	182	<.014	.040
JUN	05...	1500	2560	563	8.4	15.1	8.9	170	.353	.060
AUG	28...	1200	749	427	8.6	23.2	8.9	106	.300	<.032
DATE		PHOS- PHORUS ORTH DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTH DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT	25...	.014	.014	9	<7	10	8.5	--	--	--
MAR	13...	<.041	.002	10	<6	13	11.0	.95	1.6	3.5
APR	24...	<.041	.009	<6	<6	12	13.1	.68	.82	2.8
JUN	05...	<.041	.027	18	<6	6	5.2	--	--	--
AUG	28...	.042	.012	83	28	5	4.5	.75	.79	2.7

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07106500 FOUNTAIN CREEK AT PUEBLO, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°17'16", long 104°36'02", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.19, T.20 S., R.64 W., Pueblo County, Hydrologic Unit 11020003, on left bank at upstream side of bridge on U.S. Highway 50 at Pueblo, and 2.6 mi upstream from mouth.

DRAINAGE AREA.--926 mi<sup>2</sup>.

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

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	
OCT										
25...	1200	234	1110	8.3	11.5	9.4	340	3.07	.030	
MAR										
13...	1200	256	1110	8.5	10.0	9.7	339	4.03	<.032	
APR										
24...	1130	241	977	8.4	14.5	8.7	316	2.62	<.032	
JUN										
05...	1530	48	1300	8.6	28.5	6.7	424	3.07	.040	
AUG										
28...	1200	169	1090	8.4	25.0	6.9	306	2.34	.044	
DATE		PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-ORTHODIS-SOLVED (MG/L AS P) (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT										
25...	.211	.202	250	<7	22	15.0	--	--	--	
MAR										
13...	.271	.242	443	<6	16	12.8	.13	.12	.4	
APR										
24...	.236	.244	289	<6	15	14.1	.06	.06	.3	
JUN										
05...	.135	.139	70	<6	28	20.4	--	--	--	
AUG										
28...	.233	.186	331	7	17	16.0	.07	.07	.5	

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

381515104351900 FOUNTAIN CREEK AT MOUTH AT PUEBLO, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°15'15", long 104°35'19", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.6, T.21 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, 60 feet downstream from Arkansas River Trail walk bridge, 650 ft upstream from the mouth, and 1.8 mi southeast of courthouse in Pueblo.

PERIOD OF RECORD.--October 1997 to August 1998, March to September 2000.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	
MAR										
13...	1245	E255	1120	8.4	11.8	9.3	339	4.03	<.032	
APR										
24...	1215	E243	996	8.4	17.4	8.7	307	3.74	<.032	
JUN										
05...	1550	E48	1350	8.5	29.0	6.7	459	2.79	.040	
AUG										
28...	1215	E170	1110	8.4	26.5	6.6	319	2.28	<.032	
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
MAR										
13...	.271	.278	443	<6	16	12.8	.19	.20	.6	
APR										
24...	.594	.239	276	<6	14	14.1	.05	.07	.4	
JUN										
05...	.167	.141	69	<6	31	28.9	--	--	--	
AUG										
28...	.233	.181	369	6	20	21.0	--	--	--	

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

381534104333201 ARKANSAS RIVER AT SITE 10-A NEAR PUEBLO, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°15'34", long 104°33'32", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.33, T.20 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, 0.9 mi downstream from the Pueblo Wastewater Treatment Plant outfall, 1.8 mi downstream from Fountain Creek, and 3.0 mi southeast of courthouse in Pueblo.

PERIOD OF RECORD.--October 1997 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 25...	1310	562	881	8.3	14.5	8.5	260	1.61	1.06
MAR 13...	1330	537	757	8.6	8.9	12.3	217	1.57	.248
APR 24...	1250	509	812	8.4	15.1	9.8	242	1.23	.590
JUN 05...	1645	E2610	565	8.4	15.5	9.0	173	.410	.050
AUG 28...	1255	940	578	8.4	24.3	8.1	149	.645	.392

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT 25...	.242	.202	132	<7	18	13.0	--	--	--
MAR 13...	.112	.116	131	<6	13	11.7	.03	<.05	.2
APR 24...	.180	.193	90	<6	14	13.2	.02	<.05	.2
JUN 05...	<.041	.012	28	<6	5	4.2	--	--	--
AUG 28...	.166	.084	140	9	8	7.1	.01	.03	.2

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

381530104333200 CF&amp;I STEEL CORPORATION OUTFALL NEAR PUEBLO, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°15'30", long 104°33'46", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.4, T.21 S., R.64 W., Pueblo County, Hydrologic Unit 11020002, 200 feet upstream from the mouth, 0.9 mi northeast of Pueblo Wastewater Treatment Plant outfall, and 3.0 mi southeast of courthouse in Pueblo.

PERIOD OF RECORD.--March to September 2000.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) AS SO4 (00300)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	
MAR	13...	55	800	8.3	10.6	9.4	256	.755	.054	
APR	24...	58	852	8.3	15.9	8.7	272	.674	<.032	
JUN	05...	63	785	8.4	21.6	6.8	261	.458	.032	
AUG	28...	66	693	8.2	26.0	7.1	217	.386	.062	
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
MAR	13...	<.041	.001	121	72	13	11.1	.03	.11	.2
APR	24...	<.041	.001	134	70	17	16.4	.11	.15	.5
JUN	05...	<.041	.009	69	50	10	10.4	--	--	--
AUG	28...	.072	.009	132	56	10	8.4	.11	.22	.5



DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

381530104294600 ARKANSAS RIVER AT BAXTER ROAD NEAR BAXTER, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°15'30", long 104°29'46", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.6, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, at the upstream side of bridge of State Highway 233, 1.2 mi south of Baxter, and 2.6 mi upstream from the St. Charles River.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)
OCT 25...	1430	624	860	8.2	15.0	8.4	270	1.62	.480
MAR 13...	1450	559	826	8.4	9.3	10.5	249	2.10	.246
APR 24...	1415	582	816	8.2	18.0	7.5	283	1.87	.260
JUN 05...	1815	2630	603	8.3	17.0	8.0	185	.479	.110
AUG 28...	1445	992	657	8.2	26.0	6.3	181	1.01	.130

DATE	PHOS-PHORUS DIS-SOLVED (MG/L) AS P (00666)	PHOS-ORPHO, DIS-SOLVED (MG/L) AS P (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	SELE-NIUM, TOTAL (UG/L) AS SE (01147)	SELE-NIUM, DIS-SOLVED (UG/L) AS SE (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT 25...	.154	.146	120	<7	17	10.9	--	--	--
MAR 13...	.140	.156	164	7	14	13.5	.29	.08	.6
APR 24...	.137	.146	51	<6	13	11.8	.16	.10	.5
JUN 05...	.032	.032	33	<6	6	4.8	--	--	--
AUG 28...	.101	.070	140	6	7	6.7	.20	.07	.5

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07109000 ST. CHARLES RIVER AT MOUTH NEAR PUEBLO, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°15'42", long 104°28'03", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.32, T.20 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, 0.1 mi west of State Highway 231 bridge over the Arkansas River, 1.4 mi north of Vineland, 3.0 mi downstream from U.S. Highway 50 bridge, and 8.2 mi east of courthouse in Pueblo (revised).

DRAINAGE AREA.--475 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) AS O <sub>2</sub> (00300)	SULFATE DIS- SOLVED (MG/L) AS SO <sub>4</sub> (00945)	NITRO- GEN, NO <sub>2</sub> +NO <sub>3</sub> DIS- SOLVED (MG/L) AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)
OCT	25...	28	1660	7.8	15.5	10.2	750	<.035	.060
MAR	13...	14	2220	8.2	15.5	9.3	1160	1.95	<.032
APR	24...	81	826	8.2	19.1	8.2	325	.590	.070
JUN	05...	29	1720	8.1	23.8	6.6	814	1.09	.060
AUG	28...	11	2060	8.2	27.2	8.7	1060	.717	<.032

DATE	PHOS- PHORUS DIS- SOLVED (MG/L) AS P (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L) AS P (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L) AS MN (01055)	MANGA- NESE, DIS- SOLVED (UG/L) AS MN (01056)	SELE- NIUM, TOTAL (UG/L) AS SE (01147)	SELE- NIUM, DIS- SOLVED (UG/L) AS SE (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT	25...	.016	.016	97	70	22	19.5	--	--
MAR	13...	<.041	.026	134	109	30	23.3	1.4	.14
APR	24...	<.041	.024	359	7	9	7.7	1.6	.21
JUN	05...	.041	.040	232	100	11	10.4	--	--
AUG	28...	<.041	.009	256	246	18	13.0	.68	.12

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07109500 ARKANSAS RIVER NEAR AVONDALE, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°14'53", long 104°23'55", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.1, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on right bank 15 feet downstream from bridge on Sixmile Road, 0.3 mi upstream from Sixmile Creek, and 2.6 mi west of Avondale.

DRAINAGE AREA.--6,327 mi<sup>2</sup>.

PERIOD OF RECORD.--April to October 1976, April 1979 to September 1980, December 1985 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	
OCT										
25...	1615	660	912	8.3	15.0	9.0	300	<.035	.130	
MAR										
13...	1730	577	902	8.3	10.5	9.7	281	2.26	.119	
APR										
24...	1650	670	821	8.3	18.0	8.0	258	1.78	.070	
JUN										
05...	2000	2640	625	8.3	17.5	7.7	190	.480	.060	
AUG										
28...	1640	1000	627	8.1	26.2	6.5	178	.994	.116	
DATE		PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-ORTHODIS-SOLVED (MG/L AS P) (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT										
25...	.130	.112	111	<7	16	13.3	--	--	--	
MAR										
13...	.150	.139	133	9	13	12.9	.15	.08	.3	
APR										
24...	.199	.112	63	8	10	10.8	.12	.08	.4	
JUN										
05...	.046	.033	118	<6	5	5.6	--	--	--	
AUG										
28...	.117	.072	158	7	10	8.4	.19	.09	.3	

ARKANSAS RIVER BASIN

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07110000 SIXMILE CREEK AT MOUTH NEAR AVONDALE, CO

WATER-QUALITY RECORDS

LOCATION (REVISED).--Lat 38°14'47", long 104°23'36", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.1, T.21 S., R.63 W., Pueblo County, Hydrologic Unit 11020002, on left bank at upstream end of bridge on U.S. Highway 50 Business, 0.3 mi upstream from mouth, 2.6 mi west of Avondale, and 3.5 mi east of Vineland.

DRAINAGE AREA.--45.0 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT	25...	24	1520	8.2	15.5	8.9	700	5.60	.020
MAR	13...	6.9	2490	8.2	11.3	--	1230	12.5	<.032
APR	24...	10	1780	8.3	17.9	9.6	1020	8.60	.050
JUN	05...	12	1640	8.1	19.0	7.4	749	7.07	.040
AUG	28...	13	1810	8.2	24.1	7.5	879	7.02	.060

DATE	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT	25...	.035	.016	57	21	13	11.0	--	--
MAR	13...	<.041	.002	9	8	18	16.1	1.0	.90
APR	24...	<.041	.014	98	10	15	14.2	.46	.23
JUN	05...	.078	.055	108	10	13	12.2	--	--
AUG	28...	.089	.018	56	17	14	13.7	.33	.13

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07116500 HUERFANO RIVER NEAR BOONE, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°13'30", long 103°15'37", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.18, T.21 S., R.61 W., Pueblo County, Hydrologic Unit 11020006, at right upstream end of bridge on U.S. Highway 50, 0.8 mi upstream from mouth, and 1.6 mi south of Boone.

DRAINAGE AREA.--1,875 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 25...	1720	31	2020	8.3	16.0	8.2	950	<.035	.030
MAR 13...	1815	9.2	3880	8.4	12.2	9.2	2020	1.11	.033
APR 24...	1745	439	1610	8.5	20.1	7.7	676	.185	<.032
JUN 06...	0900	7.7	3960	8.3	17.3	8.1	2180	.518	.050

DATE	TIME	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-ORTHO, DIS-SOLVED (MG/L AS P) (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT 25...	.021	.016	81	<7	23	15.7	--	--	--	
MAR 13...	<.041	.003	77	<41	40	33.5	.14	<.05	.1	
APR 24...	.046	.012	419	<6	8	6.5	.13	<.05	.2	
JUN 06...	<.041	.011	37	18	23	14.8	--	--	--	

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 05...	1400	25	1570	20.5	APR 05...	1200	59	1580	14.0
NOV 04...	1140	32	1960	11.0	NOV 24...	1005	312	1590	12.1
DEC 07...	1325	35	2550	4.7	MAY 03...	1445	100	1640	20.1
JAN 05...	1205	20	2940	2.8	MAY 31...	1055	9.0	3820	19.5
FEB 02...	1405	24	2830	9.5	JUL 06...	0715	1.7	4940	17.0
MAR 01...	0945	9.0	4020	6.5	AUG 02...	0815	.88	4910	18.0

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07117600 CHICOSA CREEK NEAR FOWLER, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°08'57", long 104°04'47", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.11, T.22 S., R.60 W., Pueblo County, Hydrologic Unit 11020005 at U.S. Highway 50 bridge, 0.6 mi upstream from mouth, and 3.0 mi west of Fowler.

DRAINAGE AREA.--109 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	
OCT										
26...	0920	30	1270	8.3	9.3	9.9	480	2.09	.030	
MAR										
14...	0950	3.9	1820	8.2	11.5	8.9	763	4.01	.035	
APR										
25...	1020	10	1580	8.3	13.1	10.1	596	2.10	.040	
JUN										
06...	1015	11	1370	8.1	18.0	8.4	540	4.18	.090	
AUG										
29...	0850	56	775	8.3	20.8	7.6	256	1.26	.083	
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- ORTHOS, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT										
26...	.082	.073	112	21	12	11.8	--	--	--	
MAR										
14...	.047	.045	233	194	12	14.1	.43	<.05	.7	
APR										
25...	.078	.059	221	80	10	10.7	.30	.09	.6	
JUN										
06...	.188	.171	137	92	16	11.1	--	--	--	
AUG										
29...	.129	.064	248	13	9	7.8	.20	.14	.4	

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

380715103564701 APISHAPA RIVER AT HIGHWAY 50 NEAR FOWLER, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°07'15", long 103°56'47", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.19, T.22 S., R.58 W., Otero County, Hydrologic Unit 11020007, at upstream side of bridge on U.S. Highway 50, 0.8 mi upstream from mouth, and 4.1 mi east of Fowler.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)
OCT 26...	1320	22	2200	8.1	12.8	13.7	1100	4.45	.040
MAR 14...	1345	22	1600	8.3	13.5	12.8	697	3.12	<.032
APR 25...	1310	38	1800	8.1	15.3	9.8	788	2.92	.040
JUN 06...	1010	25	1710	8.0	17.2	8.4	772	2.32	.050
AUG 29...	1225	26	1660	8.2	23.3	8.6	711	2.88	.034

DATE	PHOS-PHORUS DIS-SOLVED (MG/L) AS P (00666)	PHOS-ORPHO, DIS-SOLVED (MG/L) AS P (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	SELE-NIUM, TOTAL (UG/L) AS SE (01147)	SELE-NIUM, DIS-SOLVED (UG/L) AS SE (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT 26...	.033	--	61	57	26	20.3	--	--	--
MAR 14...	.057	.049	92	56	17	10.4	1.1	.41	1.2
APR 25...	.071	.051	115	37	16	13.4	1.0	.19	.9
JUN 06...	.068	.053	180	82	21	24.1	--	--	--
AUG 29...	.080	.032	169	54	25	20.5	1.0	.15	1.1

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07119700 ARKANSAS RIVER AT CATLIN DAM NEAR FOWLER, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°07'33", long 103°54'41", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.21, T.22 S., R.58 W., Otero County, Hydrologic Unit 11020005, on right bank, 2.2 mi downstream from Catlin diversion dam (revised), 2.3 mi downstream from Apishapa River, and 6.0 mi east of Fowler.

DRAINAGE AREA.--10,901 mi<sup>2</sup>, of which 54 mi<sup>2</sup> is probably non-contributing.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	
OCT	26...	1435	400	1120	8.3	15.0	9.5	400	2.20	.050
MAR	14...	1515	390	1190	8.4	12.7	9.8	428	2.35	<.032
APR	25...	1420	475	1120	8.4	16.6	9.4	412	1.50	<.032
JUN	06...	1120	1470	665	8.3	18.6	8.3	309	.595	<.032
AUG	29...	1335	545	733	8.4	25.2	7.1	249	1.24	<.032

DATE	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	
OCT	26...	.090	.032	91	<7	13	11.3	--	--	--
MAR	14...	.104	.095	67	13	13	13.1	.19	.13	.2
APR	25...	<.041	.082	155	<6	12	13.5	.10	.08	.2
JUN	06...	.049	.045	291	<6	8	7.7	--	--	--
AUG	29...	.114	.067	281	8	8	7.3	.11	.06	.2



DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

380111103382101 TIMPAS CREEK AT HIGHWAY 50 AT SWINK, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°01'16" (revised), long 103°38'21", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.26, T.23 S., R.56 W., Otero County, Hydrologic Unit 11020005, at bridge on U.S. Highway 50, 0.1 mi upstream from mouth, 0.6 mi west of Swink, and 4.5 mi east of Rocky Ford.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)
OCT 27...	0850	108	1880	8.1	10.1	9.2	900	4.62	.030
MAR 15...	0750	57	2110	8.2	8.1	10.2	992	5.02	.236
APR 26...	0730	128	1840	8.1	11.5	10.1	837	3.81	.040
JUN 06...	1635	70	2000	7.9	25.1	6.7	1040	4.42	.060
AUG 30...	0640	141	1540	8.2	19.8	7.1	700	3.21	.083

DATE	PHOS-PHORUS DIS-SOLVED (MG/L) AS P (00666)	PHOS-ORTHODIS-SOLVED (MG/L) AS P (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	SELE-NIUM, TOTAL (UG/L) AS SE (01147)	SELE-NIUM, DIS-SOLVED (UG/L) AS SE (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT 27...	.084	.048	128	9	25	12.1	--	--	--
MAR 15...	.117	.100	289	60	16	16.6	3.1	.25	1.0
APR 26...	.069	.102	238	12	17	15.0	2.4	.37	.9
JUN 06...	.154	.060	286	12	18	12.3	--	--	--
AUG 30...	.156	.106	436	17	17	17.0	2.2	.29	.8

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

375955103351201 CROOKED ARROYO AT HIGHWAY 50 NEAR LA JUNTA, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°59'55", long 103°35'12", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.32, T.23 S., R.55 W., Otero County, Hydrologic Unit 11020005, at bridge on U. S. Highway 50, 0.8 mi upstream from mouth, 1.6 mi west northwest of La Junta, and 2.4 mi northeast of Swink.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L) AS SO4 (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L) AS N (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L) AS N (00608)	
OCT										
27...	1145	34	1780	8.1	11.3	9.3	800	3.29	.040	
MAR										
15...	1040	2.8	2480	8.2	9.8	10.6	1150	3.99	.040	
APR										
26...	0905	18	2080	8.0	11.4	10.1	1040	3.31	<.032	
JUN										
07...	0820	23	1930	8.0	15.3	8.3	--	2.94	.090	
AUG										
30...	0810	29	1480	8.2	20.1	7.5	652	2.52	.043	
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- ORTHO, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT										
27...	.104	.050	122	14	17	10.8	--	--	--	
MAR										
15...	.057	.031	179	94	13	13.6	1.2	.48	.6	
APR										
26...	<.041	.074	248	43	17	14.9	1.2	.31	.7	
JUN										
07...	.224	.078	341	<6	13	9.6	--	--	--	
AUG										
30...	.107	.065	434	20	12	8.8	1.5	.44	.7	

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07123000 ARKANSAS RIVER AT LA JUNTA, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°59'26", long 103°31'55", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.2, T.24 S., R.55 W., Otero County, Hydrologic Unit 11020005, on right bank at upstream side of bridge on State Highway 109 in La Junta, 450 feet upstream from King Arroyo.

DRAINAGE AREA.--12,210 mi<sup>2</sup>, of which 115 mi<sup>2</sup> are probably noncontributing.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	
OCT										
27...	1420	61	1910	8.3	15.4	11.0	900	--	.030	
MAR										
15...	1305	48	2050	8.4	15.9	9.9	944	3.81	.050	
APR										
26...	1130	46	2080	8.2	16.8	10.9	992	3.14	<.032	
JUN										
07...	0800	630	994	8.3	19.3	7.3	354	1.66	<.032	
AUG										
30...	1030	54	1700	8.3	22.7	7.8	742	2.73	<.032	
DATE		PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	PHOS-ORTHODIS-SOLVED (MG/L AS P) (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT										
27...	.071	.031	73	22	12	10.7	--	--	--	
MAR										
15...	.093	.080	112	41	--	18.2	.16	.11	.2	
APR										
26...	<.041	.036	127	58	17	15.9	.14	.06	.2	
JUN										
07...	.107	.047	603	25	15	10.7	--	--	--	
AUG										
30...	.097	.052	258	17	12	11.0	.11	.13	.2	

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

380421103193101 HORSE CREEK AT MOUTH NEAR LAS ANIMAS, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°04'21", long 103°20'18", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.3, T.23 S., R.53 W., Otero County, Hydrologic Unit 11020008, 1.0 mi upstream from mouth, 1.3 mi downstream from State Highway 194 (revised), and 6.3 mi northwest of Las Animas.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-	SPE-	PH	TEMPER-	OXYGEN,	SULFATE	NITRO-	NITRO-
		CHARGE,	CIFIC	WATER				GEN,	GEN,
		INST.	CON-	WHOLE	ATURE	DIS-	DIS-	NO2+NO3	AMMONIA
		CUBIC	DUCT-	FIELD	WATER	SOLVED	SOLVED	DIS-	DIS-
		FEEET	ANCE	(STAND-	TEMPER-	(MG/L)	(MG/L)	(MG/L)	(MG/L)
		PER	(US/CM)	ARD	ATURE	(AS SO4)	(AS N)	(AS N)	(AS N)
		SECOND	UNITS)	(DEG C)	SOLVED	(00945)	(00631)	(00608)	(00608)
		(00061)	(00095)	(00400)	(00010)	(00300)	(00945)	(00631)	(00608)
OCT									
28...	0755	62	3320	8.3	7.5	9.8	1600	1.13	<.020
MAR									
16...	0820	24	7280	8.3	4.5	12.0	3650	.522	<.032
APR									
27...	0800	22	5420	8.2	11.7	10.0	2730	.915	<.032
JUN									
07...	1630	39	3660	8.2	26.9	7.7	1370	.168	.040
AUG									
31...	0830	20	3630	8.1	18.1	7.7	1610	.785	.053
		PHOS-	MANGA-			SELE-			SELE-
		PHORUS	NESE,	MANGA-		NIUM,	CARBON	CARBON	NIUM
		DIS-	TOTAL	NESE,	SELE-	DIS-	INRGSED	ORG.SED	<63U WS
		SOLVED	RECOV-	DIS-	NIUM,	SOLVED	BEDMAT	BEDMAT	FIELD
		(MG/L	ERABLE	SOLVED	TOTAL	(UG/L	PERCENT	PERCENT	(UG/G)
		AS P)	(UG/L	(UG/L	(UG/L	AS SE)	(30241)	(30243)	(34950)
		(00666)	AS MN)	AS MN)	AS SE)	(01145)	(30241)	(30243)	(34950)
		(00671)	(01055)	(01056)	(01147)	(01145)	(30241)	(30243)	(34950)
OCT									
28...	.055	.016	93	16	14	12.8	--	--	--
MAR									
16...	<.041	.006	191	141	8	10.2	.19	.14	1.1
APR									
27...	<.041	.073	212	164	11	13.3	.26	.12	.9
JUN									
07...	.148	.026	323	24	13	13.6	--	--	--
AUG									
31...	.131	.024	716	36	16	15.6	.18	.10	.6

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

380506103183801 ADOBE CREEK AT HIGHWAY 194 NEAR LAS ANIMAS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°05'06", long 103°18'38", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.2, T.23 S., R.53 W., Bent County, Hydrologic Unit 11020009, at bridge on State Highway 194, 1.6 mi southwest of Cornelia, 1.7 mi upstream from mouth, and 5 mi west of Las Animas.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)	
OCT										
28...	0955	8.8	2120	8.2	8.8	10.0	1000	1.38	.040	
MAR										
16...	0945	4.9	2470	8.5	7.2	11.6	1180	.767	.059	
APR										
27...	1020	10	2100	8.3	16.8	9.6	1030	.770	.050	
JUN										
08...	0745	13	1960	8.1	20.8	6.7	--	.345	.070	
AUG										
31...	0950	6.8	2170	8.2	22.1	7.6	--	.274	<.032	
DATE		PHOS-PHORUS DIS-SOLVED (MG/L) AS P (00666)	PHOS-ORTHODIS-SOLVED (MG/L) AS P (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L) AS MN (01055)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	SELE-NIUM, TOTAL (UG/L) AS SE (01147)	SELE-NIUM, DIS-SOLVED (UG/L) AS SE (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT										
28...	.029	.014	141	56	14	7.9	--	--	--	
MAR										
16...	<.041	.001	244	142	10	6.5	.70	.35	1.5	
APR										
27...	<.041	.006	319	114	9	6.6	.41	.24	1.1	
JUN										
08...	.107	.006	427	138	7	6.2	--	--	--	
AUG										
31...	.094	.024	380	63	8	6.5	1.2	.68	3.1	

## ARKANSAS RIVER BASIN

## DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07124000 ARKANSAS RIVER AT LAS ANIMAS, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 38°04'51", long 103°13'09", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.3, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020009, on right bank at upstream side of bridge on U.S. Highway 50, 1.1 mi north of courthouse in Las Animas, and 4.2 mi upstream from mouth of Purgatoire River.

DRAINAGE AREA.--14,417 mi<sup>2</sup>, of which 441 mi<sup>2</sup> are noncontributing.

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

REMARKS.--The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS- CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	
OCT	28...	1120	122	3000	8.2	9.5	10.2	1500	.188	.020
MAR	16...	1045	85	4120	8.2	7.6	11.5	1960	1.80	.042
APR	27...	0930	62	4010	8.1	14.1	11.8	1920	1.56	.040
JUN	08...	0620	293	1530	8.2	20.1	7.7	609	1.51	<.032
AUG	31...	0730	56	3000	8.1	17.1	8.4	1440	1.58	.052
DATE		PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)
OCT	28...	.025	.018	71	17	15	11.2	--	--	--
MAR	16...	<.041	.027	228	81	15	13.7	.11	.11	.2
APR	27...	<.041	.008	101	62	12	12.6	.22	.08	.2
JUN	08...	E.030	.040	326	<6	12	8.0	--	--	--
AUG	31...	.134	.020	90	33	12	9.0	.13	.09	.3

DISCHARGES AND SELECTED WATER-QUALITY DATA AT SITES ON THE LOWER ARKANSAS RIVER--Continued

07128500 PURGATOIRE RIVER NEAR LAS ANIMAS, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 38°02'02", long 103°12'00", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.23, T.23 S., R.52 W., Bent County, Hydrologic Unit 11020010, on right bank at downstream side of bridge on State Highway 101, 2.3 mi southeast of courthouse in Las Animas, and 4.5 mi upstream from the mouth.

DRAINAGE AREA.--3,318 mi<sup>2</sup>.

PERIOD OF RECORD.--July 1998 to current year.

REMARKS.--The following remark codes may appear in ths data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT 28...	1245	83	2970	8.4	11.2	11.6	1700	<.035	.020
MAR 16...	1305	71	2860	8.4	9.5	11.3	1430	1.32	<.032
APR 27...	1140	79	1990	8.4	17.7	9.6	1080	<.014	<.032
JUN 08...	0940	15	3480	8.2	21.0	8.6	1900	<.014	<.032
AUG 31...	1050	15	1790	8.2	21.5	8.2	906	.103	<.032

DATE	TIME	PHOS-PHORUS, DIS-SOLVED (MG/L AS P) (00666)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	CARBON INRGSED BEDMAT PERCENT (30241)	CARBON ORG.SED BEDMAT PERCENT (30243)	SELE-NIUM, BOT MAT FIELD (UG/G) (34950)
OCT 28...	.029	.016	39	29	11	6.8	--	--	--	
MAR 16...	<.041	.014	86	55	11	5.2	.46	<.05	.3	
APR 27...	<.041	.006	89	25	4	3.5	.55	.32	.3	
JUN 08...	.130	.008	249	176	6	4.9	--	--	--	
AUG 31...	.090	.019	147	86	3	3.8	.53	.04	.3	

MISCELLANEOUS FIELD MEASUREMENTS, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)	DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE WATER (DEG C) (00010)
OCT 07...	1825	89	2660	15.5	MAR 01...	1010	32	3710	7.5
OCT 28...	1300	83	2970	11.0	APR 12...	1715	167	1190	17.0
NOV 23...	1300	84	2920	5.5	MAY 30...	1630	16	3210	28.0
DEC 07...	1410	54	3490	2.0	AUG 01...	1505	7.7	3160	30.0
JAN 18...	1420	40	3650	6.5	AUG 15...	1625	7.3	2010	32.0
FEB 01...	1535	36	3580	3.5	AUG 30...	1455	16	1700	27.0

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY

Water-quality data and discharges collected beginning February 1999 at selected sites at the Great Sand Dunes National Monument. These data will be used to: 1) document water-quality conditions of all monument waters including perennial streams, seasonal streams, and interdunal ponds; and 2) use the data collected, where appropriate, to demonstrate eligibility for an 'Outstanding Waters Designation' for the monument's waters.

374946105353301 SAND CREEK AT NORTH BOUNDARY, AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°49'46", long 105°35'33", in NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.31, T.25 S., R.73 W., Saguache County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument on left bank at 8 ft Parshall flume, 0.2 mi downstream from Cold Creek, about 0.2 mi upstream of Monument boundary and Ranger Station, and 8.3 mi northwest of the Monument entrance station.

PERIOD OF RECORD.--May 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, SATUR-ATION (00301)	COLI-FORM, FECCAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
MAY 25...	1320	41	--	7.7	9.5	8.7	102	<1	K6	21
SEP 06...	1300	4.6	76	8.1	15.3	7.9	104	K8	16	33

DATE	TIME	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC UNFLTRD FET TOT IT FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DIS-DEG. C (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
MAY 25...	6.37	1.18	23	0	18	19	3.2	33	<.010	.065	
SEP 06...	10.2	1.87	35	0	29	28	5.3	53	<.010	<.050	

DATE	AMMONIA DIS-SOLVED (MG/L AS N) (00608)	AMMONIA UN-IONIZED (MG/L AS N) (00619)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 25...	.007	<.001	<.1	1	<1	E2	<2.4	<1	4
SEP 06...	.002	<.001	<.1	<1	<1	E2	<2.4	<1	<1



GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374823105383901 SAND CREEK AT BACA GRANT BOUNDARY, AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°48'23", long 105°38'39", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.15, T.41 N., R.12 E., Saguache County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, just south of the Baca Grant Monument boundary, 0.3 mi east of the extreme west Monument boundary, approximately 4.5 mi downstream from Cold Creek, and 9.1 mi northwest of the Monument entrance station.

PERIOD OF RECORD.--May 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	PH WATER WHOLE FIELD (STAND-ARDS UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	COLI-FORM, FECAL, UM-MF 100 ML (31625)	STREP-TOCOCCI, FECAL, (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	
MAY 23...	1555	E5.1	7.9	25.3	6.5	100	52	20	6.15	
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC WATER UNPLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
MAY 23...	1.20	21	0	19	17	3.5	39	<.010	.059	
DATE		NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	AMMONIA UN-IONIZED (MG/L AS N) (00619)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 23...	.003	<.001	<.1	E1	<1	7	<2.4	<1	7	

## GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

08234200 MOSCA CREEK NEAR MOSCA, CO

## WATER-QUALITY RECORDS

LOCATION.--Lat 37°44'05", long 105°30'27", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.2, T.27 S., R.73 W., Alamosa County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, 0.1 mi downstream from east Monument boundary, 0.9 mi northeast of the Monument entrance station, and 21 mi east of Mosca (revised).

DRAINAGE AREA.--3.67 mi<sup>2</sup>.

PERIOD OF RECORD.--February 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL AS CACO3 (00900)	
FEB											
23...	1200	.31	192	8.0	1.7	11.1	106	--	--	83	
MAY											
22...	1635	.84	154	8.1	9.6	8.2	98	<1	K8	67	
JUN											
01...	1400	.69	152	7.8	10.6	8.2	100	<1	39	--	
13...	1400	.44	174	E7.9	11.7	8.0	100	<1	40	--	
28...	1430	.34	180	7.8	12.6	7.9	100	K5	57	--	
JUL											
10...	1650	.18	198	8.0	15.3	7.2	97	K2	52	83	
25...	1430	.15	205	7.8	11.3	9.1	111	52	260	--	
AUG											
10...	0900	.14	224	7.7	11.5	7.8	96	62	210	--	
23...	1430	.15	216	7.9	15.1	7.3	101	K12	58	--	
SEP											
07...	1225	.15	223	8.2	13.0	7.7	99	K1	K17	95	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC UNFLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DIS-DEG. C SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
FEB											
23...	24.0	5.50	107	0	88	88	12.2	119	<.010	<.050	
MAY											
22...	19.2	4.69	86	0	70	71	7.2	105	<.010	<.050	
JUN											
01...	--	--	--	--	--	--	--	--	--	--	
13...	--	--	--	--	--	--	--	--	--	--	
28...	--	--	--	--	--	--	--	--	--	--	
JUL											
10...	24.0	5.56	106	0	83	87	9.4	126	<.010	<.050	
25...	--	--	--	--	--	--	--	--	--	--	
AUG											
10...	--	--	--	--	--	--	--	--	--	--	
23...	--	--	--	--	--	--	--	--	--	--	
SEP											
07...	27.8	6.28	120	0	97	99	10.4	143	<.010	<.050	

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

08234200 MOSCA CREEK NEAR MOSCA, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
FEB 23...	<.002	<.001	<.1	<1	<1	E1	<2.4	<1	<1
MAY 22...	.002	<.001	<.1	<1	<1	3	<2.4	<1	3
JUN 01...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
JUL 10...	<.002	<.001	<.1	E1	<1	3	<2.4	<1	2
25...	--	--	--	--	--	--	--	--	--
AUG 10...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
SEP 07...	.007	<.001	<.1	<1	<1	3	<2.4	<1	<1



GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374507105300201 BUCK CREEK AT BOUNDARY, AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°45'07", long 105°30'02", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.26, T.26 S., R.73 W., Saguache County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, 0.2 mi downstream from east Monument boundary, and 2.1 mi northeast of Monument entrance station.

PERIOD OF RECORD.--February 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER FIELD (STAND-ARD WATER UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)
FEB										
22...	1610	.08	221	7.8	3.7	--	--	--	--	99
MAY										
23...	1000	.10	229	8.1	8.7	8.0	93	K4	K9	100
JUN										
01...	1315	.11	221	7.6	12.0	7.6	95	E140	60	--
13...	1330	.08	234	E7.6	12.4	7.3	93	<2	25	--
28...	1330	.05	250	7.6	13.7	7.1	93	K4	39	--
JUL										
12...	1140	.05	245	7.9	13.6	7.2	92	K10	37	110
25...	1345	.03	258	7.4	14.5	7.0	93	20	25	--
AUG										
09...	1415	.05	260	7.3	16.4	5.9	81	6	100	--
24...	1230	.02	263	7.4	14.5	6.7	88	2	42	--
SEP										
07...	1005	.02	257	7.6	10.7	7.4	89	K2	27	110

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC-WATER UNFLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
FEB										
22...	28.1	6.87	127	0	103	104	11.5	134	<.010	<.050
MAY										
23...	29.8	7.26	132	0	107	108	10.3	147	<.010	<.050
JUN										
01...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	31.5	7.58	139	0	113	114	9.3	155	<.010	<.050
25...	--	--	--	--	--	--	--	--	--	--
AUG										
09...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
SEP										
07...	32.5	7.88	142	0	117	117	7.8	163	<.010	<.050

## RIO GRANDE RIVER BASIN

## GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374507105300201 BUCK CREEK AT BOUNDARY, AT GREAT SAND DUNES NATIONAL MONUMENT, CO--Continued

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
FEB 22...	<.002	<.001	<.1	<1	<1	30	<2.4	<1	<1
MAY 23...	<.002	<.001	<.1	<1	<1	38	<2.4	<1	4
JUN 01...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
JUL 12...	.004	<.001	<.1	<1	<1	101	<2.4	<1	1
25...	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--
SEP 07...	.010	<.001	<.1	<1	<1	166	<2.4	<1	<1

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374752105300801 MEDANO CREEK NEAR MOSCA, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°47'52", long 105°30'08", in SW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.11, T.26 S., R.73 W., Saguache County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, 0.4 mi downstream from east Monument boundary, and 5.0 mi north of Monument entrance station, and 22 mi northeast of Mosca (revised).

DRAINAGE AREA.--15 mi<sup>2</sup>.

PERIOD OF RECORD.--April 1993 to September 1996 (Rio Grande National Water-Quality Assessment Program station), February 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS./100 ML) (31673)	HARD-NESS TOTAL AS CACO3 (MG/L) (00900)	
FEB											
22...	1340	1.8	94	7.2	1.0	11.8	113	--	--	42	
MAY											
22...	1300	7.2	76	8.0	14.0	7.7	102	<1	K140	33	
JUN											
01...	1200	6.6	68	7.6	13.2	7.7	100	K4	130	--	
13...	1230	4.4	84	E7.7	15.7	7.2	99	K7	400	--	
28...	1230	3.3	89	7.8	16.9	7.2	101	K9	270	--	
JUL											
11...	1545	2.0	100	8.1	23.7	6.0	97	12	90	44	
25...	1245	3.0	98	7.7	18.7	6.9	100	15	160	--	
AUG											
09...	1230	1.5	109	7.7	17.6	7.1	101	11	72	--	
23...	1330	2.4	90	7.7	17.4	7.2	100	10	77	--	
SEP											
05...	1510	1.8	105	8.0	17.0	7.1	100	K8	81	46	
DATE		CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC WATER UNFLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
FEB											
22...	11.5	3.34	56	0	46	46	3.6	59	<.010	.074	
MAY											
22...	8.58	2.69	42	0	35	34	2.7	61	<.010	<.050	
JUN											
01...	--	--	--	--	--	--	--	--	--	--	
13...	--	--	--	--	--	--	--	--	--	--	
28...	--	--	--	--	--	--	--	--	--	--	
JUL											
11...	12.0	3.39	56	0	47	46	2.3	74	<.010	<.050	
25...	--	--	--	--	--	--	--	--	--	--	
AUG											
09...	--	--	--	--	--	--	--	--	--	--	
23...	--	--	--	--	--	--	--	--	--	--	
SEP											
05...	12.4	3.56	60	0	48	49	2.5	77	<.010	<.050	

## RIO GRANDE RIVER BASIN

## GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374752105300801 MEDANO CREEK NEAR MOSCA, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00608)	AMMONIA UN- IONIZED (MG/L AS N) (00619)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
	FEB 22...	<.002	<.001	<.1	<1	<1	10	<2.4	<1
MAY 22...	<.002	<.001	<.1	<1	<1	7	<2.4	<1	3
JUN 01...	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--
JUL 11...	.023	.001	<.1	E1	<1	13	<2.4	<1	3
25...	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
SEP 05...	.005	<.001	<.1	<1	<1	7	<2.4	<1	<1





RIO GRANDE RIVER BASIN

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374416105310501 MEDANO CREEK BELOW MOSCA CREEK AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°44'16", long 105°31'05", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.3, T.27 S., R.73 W., Alamosa County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, 0.1 mi downstream from Mosca Creek, and 0.8 mi north of Monument entrance station.

PERIOD OF RECORD.--February 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (MG/L) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI, FECAL, KF AGAR (COLS./100 ML) (31673)	HARD-NESS TOTAL AS CACO3 (MG/L) (00900)	
MAY	23...	1225	4.7	95	8.1	21.0	6.5	99	K340	K1900	37
JUN	02...	0930	3.7	94	7.8	18.6	7.0	100	670	360	--
	14...	0930	.86	132	E8.0	13.0	7.8	99	470	710	--
	29...	1030	.14	192	8.0	17.3	7.1	99	K4	140	--
JUL	12...	0945	.10	202	8.1	20.0	7.1	103	88	420	84
	26...	0840	.07	207	7.8	15.7	7.4	100	470	500	--
AUG	10...	0830	.01	219	7.7	13.2	7.4	94	2500	3400	--
	23...	1215	.05	205	8.1	22.5	7.5	120	180	330	--
SEP	05...	1210	.01	225	8.4	23.4	6.7	105	80	490	94

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC WATER UNFLTRD FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	
MAY	23...	10.1	2.87	53	0	44	43	3.7	81	<.010	<.050
JUN	02...	--	--	--	--	--	--	--	--	--	--
	14...	--	--	--	--	--	--	--	--	--	--
	29...	--	--	--	--	--	--	--	--	--	--
JUL	12...	24.3	5.68	110	0	89	90	9.2	129	<.010	<.050
	26...	--	--	--	--	--	--	--	--	--	--
AUG	10...	--	--	--	--	--	--	--	--	--	--
	23...	--	--	--	--	--	--	--	--	--	--
SEP	05...	27.5	6.23	119	0	96	98	10.6	144	<.010	<.050

DATE	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	AMMONIA UN-IONIZED (MG/L AS N) (00619)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	
MAY	23...	.002	<.001	<.1	3	<1	15	<2.4	<1	3
JUN	02...	--	--	--	--	--	--	--	--	--
	14...	--	--	--	--	--	--	--	--	--
	29...	--	--	--	--	--	--	--	--	--
JUL	12...	.005	<.001	<.1	<1	<1	16	<2.4	<1	2
	26...	--	--	--	--	--	--	--	--	--
AUG	10...	--	--	--	--	--	--	--	--	--
	23...	--	--	--	--	--	--	--	--	--
SEP	05...	.007	.001	<.1	<1	<1	6	<2.4	<1	<1

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374447105301101 GARDEN CREEK AT BOUNDARY AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION (REVISED).--Lat 37°44'47", long 105°30'05", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.35, T.26 S., R.73 W., Alamosa County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, 0.2 mi east of Pinyon Flats Campground, 1.0 mi upstream from mouth, and 1.9 mi northeast of Monument entrance station.

PERIOD OF RECORD.--May 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	
MAY 24...	1020	.11	123	7.8	7.4	7.6	86	53	14.2	
DATE	TIME	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3 CO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3 CACO3) (00452)	ANC WATER UNPLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
MAY 24...	4.24	67	0	55	55	5.4	94	<.010	<.050	
DATE	TIME	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	AMMONIA UN-IONIZED (MG/L AS N) (00619)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 24...		<.002	<.001	<.1	E1	<1	<2	<2.4	<1	3

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374623105295901 CASTLE CREEK AT BOUNDARY, AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°46'23", long 105°29'59", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.23, T.26 S., R.73 W., Saguache County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, at Monument boundary, 0.4 mi east of primitive road, 0.4 mi upstream from mouth, and 3.8 mi north of Monument entrance station.

PERIOD OF RECORD.--May 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	
MAY 22...	1310	.00	140	8.1	12.1	7.9	100	63	17.5	
DATE	TIME	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3 CO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3 CACO3) (00452)	ANC WATER UNPLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
MAY 22...	4.72	70	0	58	58	9.3	96	<.010	.061	
DATE	TIME	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	AMMONIA UN-IONIZED (MG/L AS N) (00619)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 22...		.002	<.001	<.1	<1	<1	3	<2.4	<1	5

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374825105302601 LITTLE MEDANO CREEK AT MOUTH, AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°48'25" (revised), long 105°30'26", in NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.11, T.26 S., R.73 W., Saguache County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, 1.2 mi upstream from mouth, and 5.8 mi north of Monument entrance station.

PERIOD OF RECORD.--May 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE WATER (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATUR-ATION (MG/L) (00301)	HARD-NESS TOTAL (MG/L) AS CACO3 (00900)	CALCIUM DIS-SOLVED (MG/L) AS CA (00915)	
MAY 22...	1500	1.6	73	8.0	10.0	8.2	100	32	10.3	
JUL 11...	1500	.34	92	8.0	15.7	7.2	99	41	13.1	
SEP 05...	1420	.21	101	8.0	13.3	7.7	101	44	14.0	
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L) AS MG (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC WATER UNFLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L) AS SO4 (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L) AS N (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L) AS N (00631)
MAY 22...	1.60	40	0	33	33	3.0	56	<.010	.104	
JUL 11...	1.99	48	0	41	39	3.4	65	<.010	.070	
SEP 05...	2.19	54	0	44	44	3.6	74	<.010	.067	
DATE		NITRO-GEN, AMMONIA DIS-SOLVED (MG/L) AS N (00608)	AMMONIA UN-IONIZED (MG/L) AS N (00619)	CADMIUM DIS-SOLVED (UG/L) AS CD (01025)	COPPER, DIS-SOLVED (UG/L) AS CU (01040)	LEAD, DIS-SOLVED (UG/L) AS PB (01049)	MANGA-NESE, DIS-SOLVED (UG/L) AS MN (01056)	SELE-NIUM, DIS-SOLVED (UG/L) AS SE (01145)	SILVER, DIS-SOLVED (UG/L) AS AG (01075)	ZINC, DIS-SOLVED (UG/L) AS ZN (01090)
MAY 22...	.008	<.001	<.1	<1	<1	3	<2.4	<1	3	
JUL 11...	.004	<.001	<.1	<1	<1	11	<2.4	<1	2	
SEP 05...	.003	<.001	<.1	<1	<1	14	<2.4	<1	<1	

RIO GRANDE RIVER BASIN

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374927105331101 COLD CREEK AT BOUNDARY, AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION (REVISED).--Lat 37°49'27", long 105°33'11", in SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.32, T.25 S., R.73 W., Saguache County, Hydrologic Unit 13010003, Great Sand Dunes National Monument, at Monument boundary, 2.5 mi upstream from mouth, and 7.2 mi north of Monument entrance station.

PERIOD OF RECORD.--May 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED AS CA (00915)	
MAY 25...	1220	1.9	90	8.0	9.9	8.8	106	41	12.8	
DATE		MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)	ANC WATER UNPLTRD FET FIELD (MG/L AS CACO3) (00410)	ALKA-LINITY WAT DIS TOT IT FIELD (MG/L AS CACO3) (39086)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
MAY 25...	2.17	49	0	41	41	3.8	63	<.010	.214	
DATE		NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	AMMONIA UN-IONIZED (MG/L AS N) (00619)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 25...	.003	<.001	<.1	E1	<1	<2	<2.4	<1	3	

GREAT SAND DUNES NATIONAL MONUMENT WATER-QUALITY STUDY--Continued

374652105380401 WEST ELK SPRING POND AT GREAT SAND DUNES NATIONAL MONUMENT, CO

WATER-QUALITY RECORDS

LOCATION.--Lat 37°46'52", long 105°38'04", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.23, T.41 N., R.12 E., Saguache County, Hydrologic Unit 13010003, at Great Sand Dunes National Monument, 0.5 mi east of west Monument boundary, 1.1 mi northwest of Indian Spring, and 7.4 mi northwest of the Monument entrance station.

PERIOD OF RECORD.--February 1999 to September 2000 (discontinued).

REMARKS.--Un-ionized ammonia computations based on equations from U.S. Environmental Protection Agency, Quality Criteria for Water 1986 (Update 2): U.S. Environmental Protection Agency, Office of Water Regulations and Standards, EPA Report 440/5-86-001, variously paginated.

Note: The following remark codes may appear in the data tables below: e, estimated; E, estimated laboratory analysis value; K, based on non-ideal colony count.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED SATUR- ATION (MG/L) (00301)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
FEB 24...	0945	194	7.4	3.6	10.9	110	66	16.3	6.17
MAY 23...	1500	228	8.1	22.5	14.4	223	75	18.7	6.85
JUL 11...	1035	176	8.0	22.5	14.5	223	55	13.6	5.06
SEP 06...	1450	209	8.5	22.7	18.9	291	61	15.1	5.70

DATE	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER DIS IT FIELD MG/L AS CO3 (00452)	ANC WATER UNFLTRD FET FIELD MG/L AS CACO3 (00410)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SOLIDS, RESIDUE AT 180 DEG. C SOLVED (MG/L) (70300)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
FEB 24...	118	0	96	97	7.5	143	<.010	<.050	<.002
MAY 23...	133	0	110	109	5.0	175	<.010	<.050	.002
JUL 11...	94	0	77	77	5.3	150	<.010	<.050	.004
SEP 06...	96	3	83	83	9.5	143	.010	.050	.192

DATE	AMMONIA UN- IONIZED (MG/L AS N) (00619)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
FEB 24...	<.001	<.1	<1	<1	112	<2.4	<1	1
MAY 23...	<.001	<.1	<1	<1	79	<2.4	<1	3
JUL 11...	<.001	<.1	<1	<1	150	<2.4	<1	2
SEP 06...	.025	<.1	<1	<1	53	<2.4	<1	<1

GROUND-WATER LEVELS

CHEYENNE COUNTY

384100102093000 SC01604208BBB

LOCATION.--Lat 38°41'13", long 102°09'37", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.8, T.16 S., R.42 W., Cheyenne County, Hydrologic Unit 10260004, 1 mi east and 11 mi south of Arapahoe, Colo.

AQUIFER.--High Plains Aquifer.

WELL CHARACTERISTICS.--Drilled, unused well, diameter 16 in., depth 266 ft.

INSTRUMENTATION.--Water-level recorder; intermittent measurements with chalked steel tape.

DATUM.--Elevation of land-surface datum is 4065 ft above sea level, from topographic map. Measuring point: top of 1/4-in. diameter hole in steel plate that covers well casing, 1.00 ft above land-surface datum.

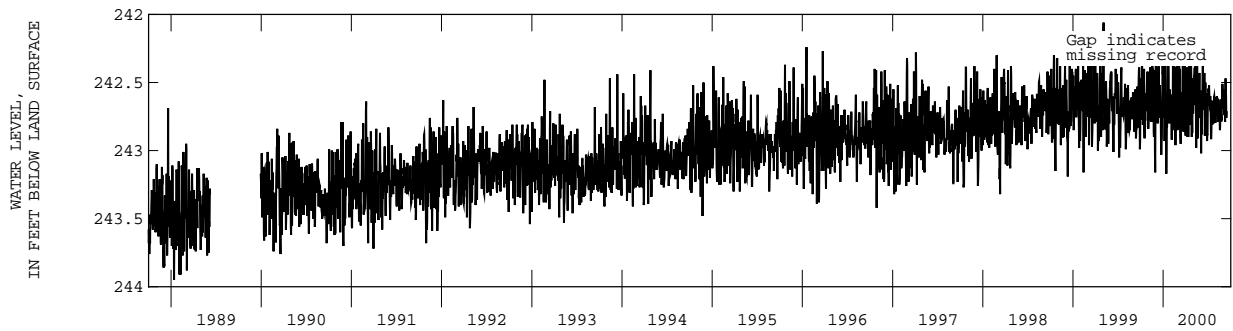
REMARKS.--Daily record is good, except for period of missing record. Missing record from Sept. 14-30, is due to the recorder being removed. This well is no longer being monitored with a continuous recorder.

PERIOD OF RECORD.--Daily record from September 1988 to September 2000 (discontinued). Intermittent measurements made from January 1970.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 241.96 ft below land-surface datum, May 4, 1999; lowest, 246.00 ft below land-surface datum, Jan. 1, 1970.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	242.47	242.84	242.35	242.13	242.79	242.81	242.75	242.72	242.84	242.55	242.71	242.69
2	242.65	242.78	242.25	242.31	242.67	242.74	242.56	242.64	243.02	242.55	242.61	242.66
3	242.75	242.51	242.36	242.60	242.77	242.84	242.85	242.56	242.84	242.57	242.65	242.68
4	242.77	242.44	242.78	242.76	242.92	242.63	242.65	242.53	242.86	242.52	242.66	242.72
5	242.66	242.67	242.76	242.57	242.59	242.37	242.39	242.45	242.88	242.58	242.60	242.74
6	242.39	242.78	242.51	242.93	242.65	242.50	242.44	242.44	242.68	242.62	242.66	242.67
7	242.35	242.70	242.39	242.76	242.85	242.40	242.72	242.39	242.59	242.67	242.62	242.79
8	242.66	242.39	242.68	242.44	242.61	242.50	242.90	242.58	242.43	242.68	242.62	242.56
9	242.70	242.43	242.80	242.29	242.32	242.80	242.46	242.66	242.30	242.60	242.76	242.47
10	242.81	242.64	242.53	242.41	242.35	242.89	242.50	242.36	242.53	242.67	242.79	242.55
11	242.77	242.70	242.57	242.50	242.52	242.95	242.90	242.27	242.69	242.76	242.72	242.60
12	242.63	242.74	242.70	242.66	242.26	242.79	242.78	242.76	242.67	242.91	242.70	242.76
13	242.78	242.63	242.38	243.17	242.37	242.76	242.54	242.98	242.54	242.91	242.69	242.71
14	242.46	242.79	242.55	242.92	242.47	242.60	242.29	242.79	242.70	242.82	242.66	---
15	242.40	242.62	242.76	242.73	242.63	242.57	242.46	242.63	242.43	242.64	242.77	---
16	242.84	242.48	242.62	242.83	242.85	242.81	242.68	242.43	242.68	242.64	242.76	---
17	242.91	242.25	242.76	242.72	242.49	242.62	242.65	242.21	242.89	242.81	242.85	---
18	242.72	242.30	242.52	242.69	242.81	242.63	242.36	242.80	242.78	242.76	242.82	---
19	242.83	242.70	242.60	242.58	242.96	242.47	242.41	242.91	242.50	242.80	242.63	---
20	242.70	242.40	242.76	242.63	242.81	242.36	242.81	242.78	242.61	242.74	242.63	---
21	242.67	242.42	242.68	242.36	242.55	242.80	242.73	242.75	242.74	242.75	242.72	---
22	242.70	242.59	242.85	242.47	242.39	242.86	242.29	242.61	242.70	242.80	242.74	---
23	242.71	242.86	243.02	242.70	242.42	242.53	242.44	242.47	242.58	242.78	242.78	---
24	242.58	242.90	243.03	242.64	242.31	242.61	242.69	242.59	242.67	242.61	242.78	---
25	242.63	242.55	242.94	242.80	242.22	242.75	242.90	242.60	242.73	242.60	242.66	---
26	242.55	242.41	242.90	242.55	242.71	242.60	242.77	242.43	242.93	242.63	242.57	---
27	242.48	242.70	242.72	242.70	242.85	242.47	242.87	242.76	242.88	242.65	242.51	---
28	242.52	243.02	242.56	242.75	242.45	242.36	242.70	242.74	242.88	242.75	242.54	---
29	242.42	243.16	242.27	242.75	242.59	242.55	242.47	242.58	242.67	242.79	242.68	---
30	242.78	242.74	242.44	242.71	---	242.77	242.72	242.56	242.63	242.79	242.55	---
31	242.73	---	242.40	242.60	---	242.89	---	242.67	---	242.79	242.63	---
MEAN	242.65	242.64	242.63	242.63	242.59	242.65	242.62	242.60	242.70	242.70	242.68	---
MAX	242.91	243.16	243.03	243.17	242.96	242.95	242.90	242.98	243.02	242.91	242.85	---
MIN	242.35	242.25	242.25	242.13	242.22	242.36	242.29	242.21	242.30	242.52	242.51	---





GROUND-WATER LEVELS

487

KIT CARSON COUNTY

391730102422000 SC00904706°CAC

LOCATION.--Lat 39°17'30", long 102°41'59", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.6, T.9 S., R.47 W., Kit Carson County, Hydrologic Unit 10250003, 2.3 mi east of Interstate Highway 70 interchange to Vona, Colo.

AQUIFER.--High Plains Aquifer.

WELL CHARACTERISTICS.--Drilled, unused well, diameter 16 in., depth 160 ft.

INSTRUMENTATION.--Water-level recorder; intermittent measurements with chalked steel tape.

DATUM.--Elevation of land-surface datum is 4475 ft above sea level, from topographic map. Measuring point: top of 1/4-in. diameter hole in steel plate that covers well casing, 1.00 ft above land-surface datum.

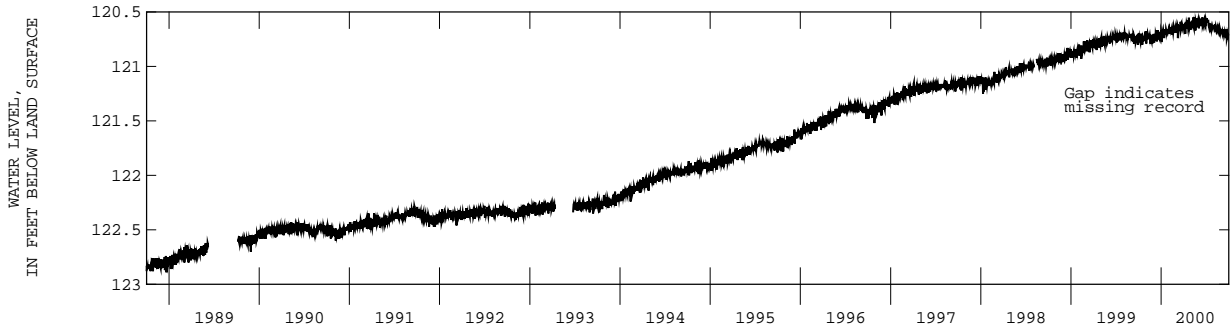
REMARKS.--Daily record is good.

PERIOD OF RECORD.--Daily record from September 1988 to current year. Intermittent measurements made from December 1968.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.45 ft below land-surface datum, Apr. 18, 2000; lowest, 125.56 ft below land-surface datum, Jan. 20, 1976.

DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET), WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	120.74	120.79	120.71	120.68	120.68	120.64	120.62	120.62	120.65	120.56	120.63	120.67
2	120.73	120.68	120.73	120.70	120.67	120.67	120.65	120.61	120.60	120.59	120.63	120.69
3	120.77	120.73	120.78	120.77	120.70	120.65	120.64	120.61	120.58	120.56	120.64	120.69
4	120.73	120.72	120.75	120.67	120.66	120.64	120.61	120.60	120.63	120.58	120.62	120.70
5	120.73	120.75	120.71	120.73	120.67	120.63	120.63	120.58	120.59	120.59	120.62	120.68
6	120.70	120.73	120.71	120.72	120.68	120.66	120.61	120.61	120.60	120.59	120.64	120.69
7	120.77	120.70	120.73	120.67	120.67	120.61	120.70	120.60	120.60	120.59	120.63	120.71
8	120.78	120.71	120.76	120.66	120.64	120.74	120.60	120.64	120.57	120.58	120.65	120.66
9	120.74	120.75	120.70	120.68	120.66	120.67	120.60	120.60	120.57	120.58	120.66	120.69
10	120.77	120.72	120.71	120.71	120.69	120.68	120.65	120.55	120.63	120.62	120.64	120.70
11	120.73	120.74	120.72	120.66	120.66	120.63	120.63	120.64	120.61	120.63	120.64	120.72
12	120.75	120.71	120.72	120.74	120.65	120.66	120.60	120.65	120.58	120.64	120.66	120.71
13	120.75	120.74	120.67	120.71	120.68	120.63	120.61	120.58	120.61	120.62	120.65	120.71
14	120.70	120.72	120.77	120.67	120.65	120.63	120.61	120.58	120.59	120.61	120.66	120.73
15	120.76	120.71	120.71	120.70	120.71	120.67	120.62	120.57	120.55	120.61	120.67	120.69
16	120.80	120.73	120.71	120.67	120.65	120.63	120.61	120.55	120.62	120.64	120.66	120.70
17	120.72	120.71	120.75	120.69	120.67	120.63	120.60	120.58	120.61	120.63	120.68	120.69
18	120.77	120.79	120.67	120.66	120.69	120.66	120.58	120.67	120.59	120.61	120.65	120.69
19	120.74	120.74	120.75	120.71	120.67	120.59	120.64	120.58	120.59	120.64	120.66	120.71
20	120.75	120.72	120.70	120.66	120.63	120.67	120.63	120.59	120.62	120.63	120.67	120.74
21	120.75	120.75	120.74	120.67	120.64	120.66	120.56	120.58	120.61	120.63	120.68	120.66
22	120.75	120.76	120.72	120.70	120.65	120.63	120.56	120.57	120.58	120.65	120.66	120.75
23	120.75	120.77	120.73	120.69	120.67	120.62	120.66	120.57	120.57	120.63	120.68	120.74
24	120.74	120.73	120.72	120.69	120.63	120.66	120.65	120.60	120.59	120.62	120.67	120.74
25	120.74	120.71	120.73	120.66	120.67	120.63	120.64	120.56	120.60	120.63	120.65	120.70
26	120.72	120.74	120.69	120.68	120.69	120.64	120.63	120.59	120.62	120.63	120.66	120.71
27	120.76	120.78	120.71	120.69	120.64	120.61	120.62	120.64	120.61	120.64	120.66	120.72
28	120.68	120.78	120.69	120.68	120.63	120.63	120.59	120.58	120.62	120.65	120.69	120.70
29	120.77	120.74	120.69	120.67	120.69	120.65	120.62	120.57	120.57	120.64	120.68	120.70
30	120.75	120.71	120.72	120.66	---	120.65	120.66	120.61	120.58	120.64	120.66	120.70
31	120.71	---	120.67	120.68	---	120.64	---	120.58	---	120.64	120.70	---
MEAN	120.74	120.74	120.72	120.69	120.67	120.65	120.62	120.60	120.60	120.62	120.66	120.70
MAX	120.80	120.79	120.78	120.77	120.71	120.74	120.70	120.67	120.65	120.65	120.70	120.75
MIN	120.68	120.68	120.67	120.66	120.63	120.59	120.56	120.55	120.55	120.56	120.62	120.66



## QUALITY OF GROUND WATER

## EL PASO COUNTY

384056104415601 - SC01606505°CCB - FOUNTAIN NO. 3

LOCATION.--Lat 38°40'56", long 104°41'56" in NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.5, T.16 S., R.65 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Fountain Creek Alluvial Aquifer.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 53 ft, screened 38 to 53 ft.

DATUM.--Elevation of land-surface datum is 5,540 ft above sea level, from topographic map.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 07...	1000	1120	7.3	12.4	<.010	3.13	<.020	.017
AUG 09...	1000	1150	7.3	12.7	<.010	2.59	<.020	.018

384108104420701 - SC01606506DAA - FOUNTAIN NO. 2

LOCATION.--Lat 38°41'08", long 104°42'07", NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.6, T.16 S., R.65 W., in El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Fountain Creek Alluvial Aquifer.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in. (24 in. prior to 1990), depth 57 ft, screened 42 to 57 ft.

DATUM.--Elevation of land-surface datum is 5,549.6 ft above sea level, from levels.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 07...	0920	1300	7.4	12.5	<.010	2.87	<.020	.018
AUG 09...	0925	1240	7.5	12.7	<.010	2.19	<.020	.023

384323104432201 - SC01506625AAB - WIDEFIELD NO. 5

LOCATION.--Lat 38°43'23", long 104°43'22", in NW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.25. T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 47 ft, screened 26.5 to 46.5 ft.

DATUM.--Elevation of land-surface datum is 5,640 ft above sea level, from topographic map.

PERIOD OF RECORD.--July 1982 and February to 1999 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 07...	1140	884	7.3	13.5	<.010	8.01	<.020	.037
AUG 09...	1145	814	7.5	13.4	<.010	8.24	<.020	.042

QUALITY OF GROUND WATER

489

EL PASO COUNTY--Continued

384345104241401 - SC01506324ABB - SWEET WATER NO. 1

LOCATION.--Lat 38°43'45", long 104°24'14", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.24, T.15 S., R.63 W., El Paso County, Hydrologic Unit 11020004.

AQUIFER.--Black Squirrel alluvial aquifer.

WELL CHARACTERISTICS.--Public-supply well, diameter 16 in., depth 158 ft, screened 111 to 115 ft.

DATUM.--Elevation of land-surface datum is 5,712 ft above sea level, from topographic map.

PERIOD OF RECORD.--February 1999 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD WATER UNITS) (00400)	TEMPERATURE (DEG C) (00010)	NITROGEN, NITRITE SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOSPHORUS, ORTHO-DIS-SOLVED (MG/L AS P) (00671)
MAR 09...	1315	298	7.6	13.2	<.010	4.50	<.020	.056
AUG 10...	1440	305	7.6	13.9	<.010	4.42	<.020	.060

384407104434801 - SC01506624BAD1 - WIDEFIELD NO. 4

LOCATION.--Lat 38°44'07", long 104°43'48", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.24, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widfield Aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 16 in., depth 71 ft, screened 41 to 71 ft.

DATUM.--Elevation of land-surface datum is 5,685 ft above sea level, from topographic map.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD WATER UNITS) (00400)	TEMPERATURE (DEG C) (00010)	NITROGEN, NITRITE SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOSPHORUS, ORTHO-DIS-SOLVED (MG/L AS P) (00671)
MAR 07...	1105	599	7.4	13.1	<.010	6.53	<.020	.015
AUG 09...	1105	578	7.1	13.1	<.010	7.43	<.020	.017

384433104440702 - SC01506613°CBD2 - U-14

LOCATION.--Lat 38°44'33", long 104°44'07", in SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.13, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widfield Aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Monitor well, diameter 2 in., depth 47 ft, screened 43 to 46 ft.

DATUM.--Elevation of land-surface datum is 5,701 ft above sea level, from levels.

PERIOD OF RECORD.--October 1992 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STANDARD WATER UNITS) (00400)	TEMPERATURE (DEG C) (00010)	NITROGEN, NITRITE SOLVED (MG/L AS N) (00613)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	PHOSPHORUS, ORTHO-DIS-SOLVED (MG/L AS P) (00671)
MAR 07...	1245	30.00	545	7.1	12.8	<.010	6.58	<.020	.018
AUG 10...	1630	34.00	563	7.1	13.2	<.010	7.35	<.020	.024

## QUALITY OF GROUND WATER

EL PASO COUNTY--Continued

384458104442601 - SC01506614AAD - SECURITY NO. 2

LOCATION.--Lat 38°44'58", long 104°44'26", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub> sec.14, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield Aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 78 ft, screened 43 to 78 ft.

DATUM.--Elevation of land-surface datum is 5,715 ft above sea level, from topographic map.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 07...	1340	491	7.2	13.3	<.010	7.74	<.020	.020
AUG 09...	1350	461	7.2	13.4	<.010	7.68	<.020	.014

384535104450801 - SC01506611BCD2 - VENETUCCI NO. 3

LOCATION.--Lat 38°45'35", long 104°45'08", in SE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.11, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield Aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Irrigation well, diameter 24 in., depth 80 ft, screening unknown.

DATUM.--Elevation of land-surface datum is 5,750 ft above sea level, from topographic map.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 09...	1435	469	7.3	12.8	<.010	8.09	<.020	.061
AUG 09...	1245	470	7.2	13.0	<.010	7.41	<.020	.060

384604104451502 - SC01506602CCC2 - U-9

LOCATION.--Lat 38°46'04", long 104°45'15", in SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.2, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield Aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Monitor well, diameter 2 in., depth 55 ft, screened 51 to 53 ft.

DATUM.--Elevation of land-surface datum is 5,773.8 ft above sea level, from levels.

PERIOD OF RECORD.--October 1992 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 07...	1525	32.27	548	7.8	12.3	<.010	9.34	<.020	.074
AUG 10...	1225	33.33	595	7.8	13.8	<.010	10.5	<.020	.117

QUALITY OF GROUND WATER

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EL PASO COUNTY--Continued

384610104453501 - SC01506603DDB - SECURITY NO. 14

LOCATION.--Lat 38°46'10", long 104°45'35", in NW<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.14, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield Aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 24 in., depth 80 ft, screened 39 to 80 ft.

DATUM.--Elevation of land-surface datum is 5,779.2 ft above sea level, from levels.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 07...	1415	603	7.3	13.3	<.010	7.07	<.020	.051
AUG 09...	1425	588	7.2	13.0	<.010	7.96	<.020	.042

384617104455901 - SC01506603CAD - STRATMOOR HILLS NO. 4

LOCATION.--Lat 38°46'17", long 104°45'59", in SE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SW<sup>1</sup>/<sub>4</sub> sec.3, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield Aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Municipal well, diameter 12 in. (16 in. prior to 1998), depth 49 ft, screened 29 to 49 ft.

DATUM.--Elevation of land-surface datum is 5,775.4 ft above sea level, from levels.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 09...	1150	720	7.5	13.3	<.010	9.44	<.020	.021
AUG 09...	1505	883	7.5	13.7	<.010	9.10	<.020	.025

384639104461401 - SC01506603BAC1 - MARS GAS

LOCATION.--Lat 38°46'39", long 104°46'14", in SW<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.3, T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Fountain Creek Alluvial Aquifer.

WELL CHARACTERISTICS.--Commercial well, diameter 6 in., depth 85 ft, screened 50 to 85 ft.

DATUM.--Elevation of land-surface datum is 5,820 ft above sea level, from topographic map.

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

WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 09...	1515	1040	7.3	12.3	<.010	5.04	<.020	.022
AUG 10...	1310	1140	7.2	12.7	<.010	7.52	<.020	.029

## QUALITY OF GROUND WATER

EL PASO COUNTY--Continued

384653104451901 - SC01506602BBB - TH-18

LOCATION.--Lat 38°46'53", long 104°45'19", in NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub>NW<sup>1</sup>/<sub>4</sub> sec.2. T.15 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Widefield aquifer of Fountain Creek Alluvium.

WELL CHARACTERISTICS.--Monitor well, diameter 2 in., depth 122 ft, screened 96 to 122 ft.

DATUM.--Elevation of land-surface datum is 5,889.6 ft above sea level, from levels.

PERIOD OF RECORD.--October 1992 to current year.

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 09...	1100	85.85	482	7.1	12.3	<.010	11.4	<.020	.071
AUG 10...	1055	85.76	472	7.1	14.0	<.010	11.4	<.020	.070

384718104463701 - SC01406633DAA - BARNES WELL

LOCATION.--Lat 38°47'18", long 104°46'37", in NE<sup>1</sup>/<sub>4</sub>NE<sup>1</sup>/<sub>4</sub>SE<sup>1</sup>/<sub>4</sub> sec.33. T.14 S., R.66 W., El Paso County, Hydrologic Unit 11020003.

AQUIFER.--Fountain Creek Alluvial Aquifer.

WELL CHARACTERISTICS.--Domestic well, diameter 6 in., depth 72 ft, screening unknown.

DATUM.--Elevation of land-surface datum is 5,830 ft above sea level, from topographic map.

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

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	PHOS- PHORUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)
MAR 09...	1550	1210	7.2	10.8	<.010	9.52	<.020	.021
AUG 09...	1315	1450	7.2	13.6	<.010	13.1	<.020	.018

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## CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
<b>Length</b>		
inch (in.)	$2.54 \times 10^1$	millimeter
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter
mile (mi)	$1.609 \times 10^0$	kilometer
<b>Area</b>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer
<b>Volume</b>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<b>Flow</b>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<b>Mass</b>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

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