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Water Resources Data Arizona Water Year 1986



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT AZ-86-1
Prepared in cooperation with the State of Arizona
and with other agencies

CALENDAR FOR WATER YEAR 1986

1985

OCTOBER

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1986

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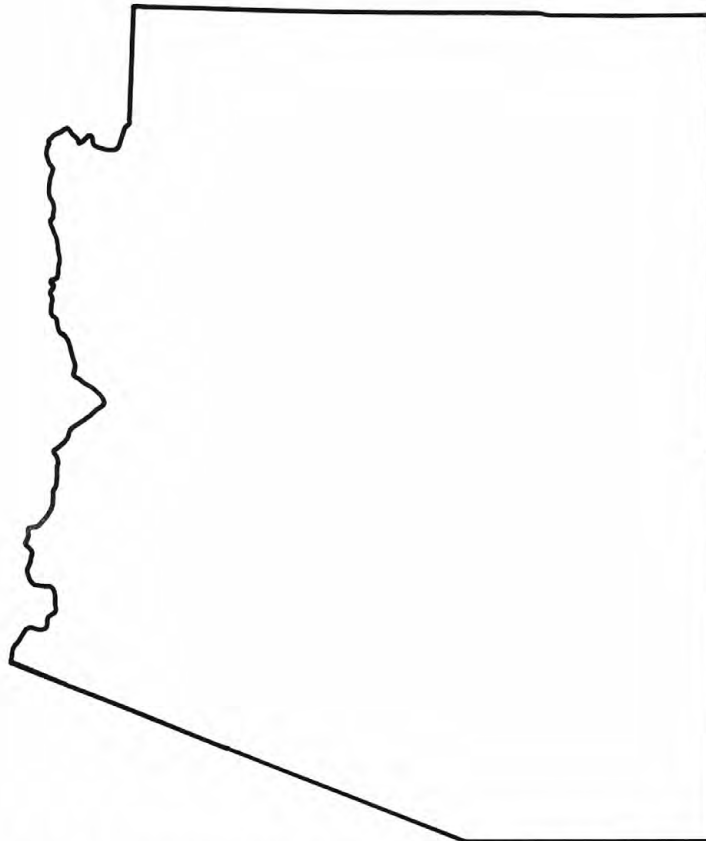
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Water Resources Data Arizona Water Year 1986

by Richard P. Wilson and W.B. Garrett



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT AZ-86-1
Prepared in cooperation with the State of Arizona
and with other agencies

UNITED STATES DEPARTMENT OF THE INTERIOR

DONALD PAUL HODEL, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For information on the water program in Arizona write to
District Chief, Water Resources Division
U.S. Geological Survey
300 W. Congress Street, FB-44
Tucson, Arizona 85701-1393

1988

PREFACE

This volume of the annual hydrologic data report of Arizona 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.

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

G. L. Pope
George W. Hill

Edmund G. Nassar
Howard F. McCormack

Patricia D. Rigas typed the text of the report.

This report was prepared in cooperation with the State of Arizona and with other agencies under the general supervision of R. D. Mac Nish, District Chief, Arizona.

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15. Supplementary Notes Prepared in cooperation with the State of Arizona and with other agencies.		14.	
16. Abstract (Limit: 200 words) Water discharge data for the 1986 water year for Arizona consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; water levels of observation wells; and quality of ground water. This report contains discharge records for 171 gaging stations, annual peaks for 21 crest-stage partial-record stations, and discharge measurements at 11 miscellaneous sites; contents only records for 9 lakes and reservoirs; stage and contents for 1 lake; elevation only for 1 streamflow station; 22 supplementary records, included with gaging-station records, consisting of monthend or monthly stage, contents, and evaporation of lakes and reservoirs, diversions, and return flows; water-quality records for 33 continuous-record stations and 8 miscellaneous sites; water levels for 88 observation wells; and water-quality data for water from 345 wells. The data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating Federal and State Agencies in Arizona.			
17. Document Analysis a. Descriptors *Arizona, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediment, Water temperatures, Sampling sites, Water levels, Water analyses. b. Identifiers/Open-Ended Terms c. COSATI Field/Group			
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GAGING STATIONS AND WATER-QUALITY STATIONS,
IN DOWNSTREAM ORDER, FOR WHICH
RECORDS ARE PUBLISHED

[Letters after station name designate type of data: (c) chemical; (d) discharge; (e) elevation; (g) gage height; (m) microbiological (bacteria); (p) pesticide; (q) specific sediment; (r) radio-chemical; (s) suspended sediment; (t) water temperature (daily); (v) contents]

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WATER RESOURCES DATA FOR ARIZONA, WATER YEAR 1986

INTRODUCTION

Water resources data for the 1986 water year for Arizona consist of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; measurements of ground-water levels; and quality of water from selected wells. Also included are discharge data for crest-stage partial-record stations and water-quality data for partial-record stations. Locations of the gaging stations are shown in figures 4, 6, and 7, and of water-quality stations in figures 5 and 6. Additional water data were collected at various sites, which are not part of the systematic data-collection program, and are published as miscellaneous measurements or miscellaneous water-quality analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Arizona.

Records of discharge or stage of streams and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." These water-supply papers were in an annual series through water year 1960 and then in a 5-year series for 1961-65 and 1966-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-quality papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the University of Arizona, Arizona State University, and the State of Arizona in Phoenix; principal cities in the United States; or may be purchased from the U.S. Geological Survey, Books and Open-File Reports, Federal Center, Building 41, Box 25425, Denver, Colorado 80225.

For water years 1961-74, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. For water years 1964-74, water-quality records were similarly released either in separate reports or in conjunction with streamflow records.

Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published in official Survey reports on a State-boundary basis. These official Survey reports carry an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report AZ-86-1." Water-data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, Virginia, 22161.

Information for ordering specific reports and data retrievals may be obtained from the district chief at the address given on the back of the title page or by telephone (602) 629-6671, FTS 762-6671.

NATIONAL WATER INFORMATION SYSTEM

Several components of the National Water Information System (NWIS) were installed on the Arizona District computer. Many of the data published in this report and much additional information can be retrieved from the data bases. The Ground Water Site Inventory (GWSI) data base contains station numbers, well and miscellaneous site numbers, local well numbers, locations, and other descriptive data for all Geological Survey data-collection sites. GWSI contains most of the data collected for wells except for chemical analyses. The Automated Data Processing System (ADAPS) contains most surface-water data except for site descriptions and chemical analyses. The Water Quality Data Processing System (QW) contains chemical analyses of water from ground-water and surface-water sites.

Data retrievals from the three data bases are available at cost on paper or nine-track computer tape. Some of the retrievals produce data in a format suitable for machine reading that does not contain blank lines or page headers.

COOPERATION

The U.S. Geological Survey and organizations of the State of Arizona have had cooperative agreements for the systematic collection of surface-water records since 1912, for ground-water levels since 1939, and for water-quality records since 1969. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Arizona Department of Health Services, R. L. Miller,
chief, Bureau of Water Quality Control.
Arizona Department of Water Resources, Kathleen Ferris,
director.
City of Tucson, Lewis Murphy, mayor, J. D. Valdez,
manager.
Flood Control District of Maricopa County, D. E.
Sagranso, chief engineer and general manager.
Gila Valley Irrigation District, S. L. Pace, president.
Maricopa County Municipal Water Conservation District
No. 1, H. S. Raymond, president, and J. A. Falbo,
general-manager.
Metropolitan Water District of Southern California,
Carl Boronkay, general manager.
Pima County Flood Control District, Sam Lena, chairman,
board of directors.
Salt River Valley Water Users' Association, John R.
Lassen, president, and R. W. Teeple, associate
general manager-water.

San Carlos Irrigation and Drainage District, E. R.
 Wildermuth, president.
 Show Low Irrigation Company, Chester Adams,
 secretary-treasurer.

Assistance in the form of funds or services was given by the Bureau of Land Management, Bureau of Reclamation, and National Park Service, U.S. Department of the Interior; by the Corps of Engineers, U.S. Army; by the Forest Service, U.S. Department of Agriculture; by the International Boundary and Water Commission, U.S. Department of State; and by the Federal Power Commission. Assistance in collecting records was furnished by the Arizona Public Service Co. Organizations that supplied data are acknowledged in station descriptions.

HYDROLOGIC CONDITIONS

As is common in Arizona, streamflow varied greatly in the 1985 water year--from month to month throughout the year and from place to place in the State. The variations are related to differences in precipitation, temperature, topography, and geology. The yearly discharge at six key gaging stations ranged from 65 to 208 percent of the median of yearly discharges. The median of the yearly discharges is defined as the middle value of discharge when arranged in order of size. For the index stations, the median is computed from the yearly discharges for the 1951-80 period of record.

The yearly discharge for the 1986 water year was excessive at one index station and within the normal range at five stations. Excessive discharge is defined as a discharge greater than the 75 percent quartile, i.e., greater than 75 percent of the values arranged in order of magnitude; deficient discharge is less than the 25 percent quartile.

The yearly discharge for the 1986 water year and the relation to the median of yearly discharges for the period 1951-80 for the six index gaging stations are given below.

<u>Station</u>	<u>Discharge (acre-feet)</u>	<u>Percent of median</u>
Little Colorado River near Cameron	96,840	65
Virgin River at Littlefield	143,300	123
Gila River at head of Safford Valley, near Solomon	413,200	*208
San Pedro River at Charleston	30,700	120
Salt River near Roosevelt	597,300	164
Verde River below Tangle Creek, above Horseshoe Dam	366,200	120

*Excessive

The discharge of the Colorado River near Grand Canyon was 17,240,000 acre-ft; the flow of the Colorado River at this point is affected by storage in upstream reservoirs, and this gaging station is no longer used as an index station.

The discharge of the Santa Cruz River at Continental was 619 acre-ft for the 1986 water year, which is about 9 percent of the median flow for the period of record, 1952-86. The Santa Cruz River is an intermittent stream that is subject to large variations in flow--from place to place along the river and from time to time. For example, the flow for 1965 was only about 3 percent of median but for 1984 was about 2,173 percent of median.

Storage decreased in four of the major reservoirs and increased in one during the 1986 water year. Change in contents during the year and percentage of average contents on September 30 for the period of record for several reservoirs are given below.

<u>Reservoir</u>	<u>Change in contents, 1986 water year (acre-feet)</u>	<u>Average contents on September 30 (percent)</u>
Lake Powell	+605,000	---
Lakes Mead-Mohave	-825,000	125
San Carlos Reservoir.....	-92,000	350
Salt-Verde system	-26,000	200
Lake Pleasant	-13,700	151

Diversions of streamflow for irrigation of Arizona lands in the 1986 water year was 3,098,000 acre-ft. About 1,768,000 acre-ft was diverted from the Colorado River for use by the Colorado River Indian Reservation, the Gila Project, and the Yuma Project. About 595,000 acre-ft of the water diverted from the Colorado River was returned to the river or was discharged across the Arizona-Sonora international boundary. About 1,330,000 acre-ft of streamflow was diverted from the Gila River basin for use in Safford Valley, the San Carlos Project, and the Salt River Project.

Figure 1 shows the discharge for the 1986 water year compared with the median runoff for the period 1951-80 at three representative gaging stations for which long-term records are available.

DEFINITION OF TERMS

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

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

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

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

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

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria, which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms that produce colonies within 24 hours when incubated at 35°C±1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warmblooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5°C±0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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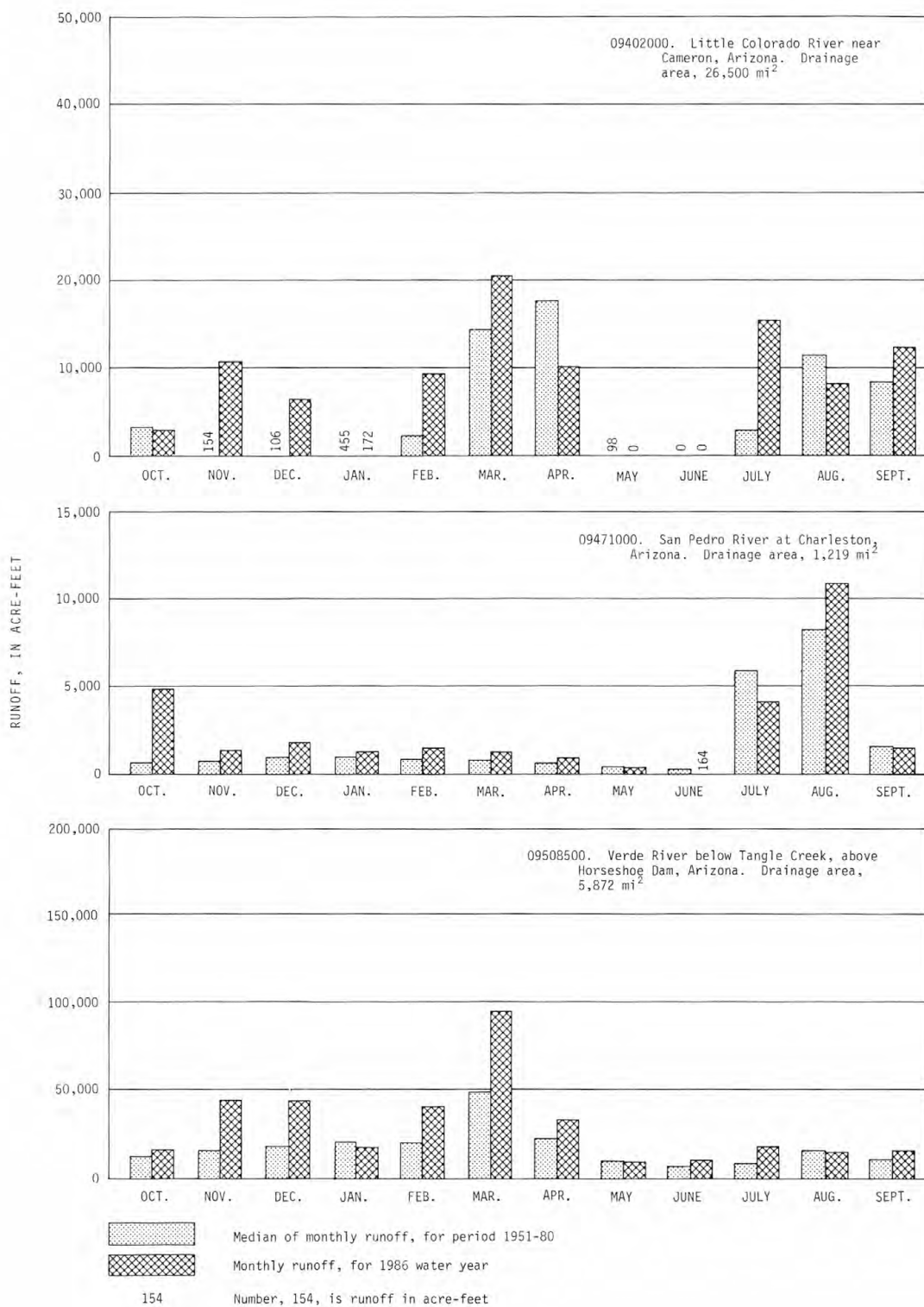


Figure 1.--Runoff during 1986 water year compared with median runoff for period 1951-80 for three representative gaging stations.

Fecal streptococcal bacteria are bacteria found also in the intestines of warmblooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth; in the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at $35^{\circ}\text{C} \pm 1.0^{\circ}\text{C}$ on M-enterococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as numbers of colonies per 100 mL of sample.

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

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

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

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

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

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

Bottom material: See Bed material.

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

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

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

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

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

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

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

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

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

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

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

Dissolved refers to that material in a representative water sample which passes through a 0.45 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.

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

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

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

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

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

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 equivalent calcium carbonate (CaCO_3).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Micrograms per gram ($\mu\text{g/g}$) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

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

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

Miscellaneous site is a location other than continuous- or partial-record stations where random discharge measurements are made or samples are collected to give better areal coverage of unusual flow events or water-quality conditions in a river basin.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (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.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle size is the diameter, in millimeters (mm), of suspended sediment or bed material determined either by sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

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

The classification is as follows:

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

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

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

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

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

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

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

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

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

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

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

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye.

Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifiers.

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

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 only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestive 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.

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

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

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

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

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

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

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

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

Seston is the total suspended particulate matter in water. The concentration of particulate matter has profound effect upon the optical properties of the water, and upon the concentration of dissolved materials in the water. Their concentrations are expressed as number of colonies per 100 mL of sample.

Sodium-adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. 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 derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in microsiemens per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may even vary in the same source with changes in the composition of the water.

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

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

Substrate is the physical surface upon which an organism lives.

Natural substrates refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lived.

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.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-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 would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total." Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a 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	<u>Hexageria</u>
Species	<u>Hexagenia limbata</u>

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

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

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

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

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, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that

is, less than 95 percent of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

WRD is used as an abbreviation for "Water Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

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

DOWNSTREAM ORDER AND STATION NUMBERS

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 main-stream station are listed before that station. A station on a tributary that enters between two main-stream 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 on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and 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 8-digit number for each station such as 09402500, which appears just to the left of the station name, includes the 2-digit part number "09" plus the 6-digit downstream order number "402500."

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid (see fig. 2). In addition to the well number based on latitude and longitude, a local well number is given based on the Gila and Salt River meridian and base line (see fig. 3). A different numbering system is used on the Navajo and Hopi Indian Reservations. The Navajo Indian Reservation is divided into 17 administrative districts, numbered 1 to 5 and 7 to 18, and the Hopi Indian Reservation comprises district 6. The area is further divided into 15-minute quadrangles arbitrarily numbered from 1 to 151 starting in the northeast corner of the area and numbering consecutively in rows from east to west. Within the 15-minute quadrangle the well is located in miles south and west from the northeast corner of the quadrangle. The first two numbers in the well number represent the district, the next three numbers are the quadrangle, the decimal numbers are miles west by (X) miles south of the northeast corner of the quadrangle. Thus, the number 02 021-05.28X10.68 states that the well is in district 2, quadrangle 21, and is 5.28 miles west by 10.68 miles south of the northeast corner of the quadrangle.

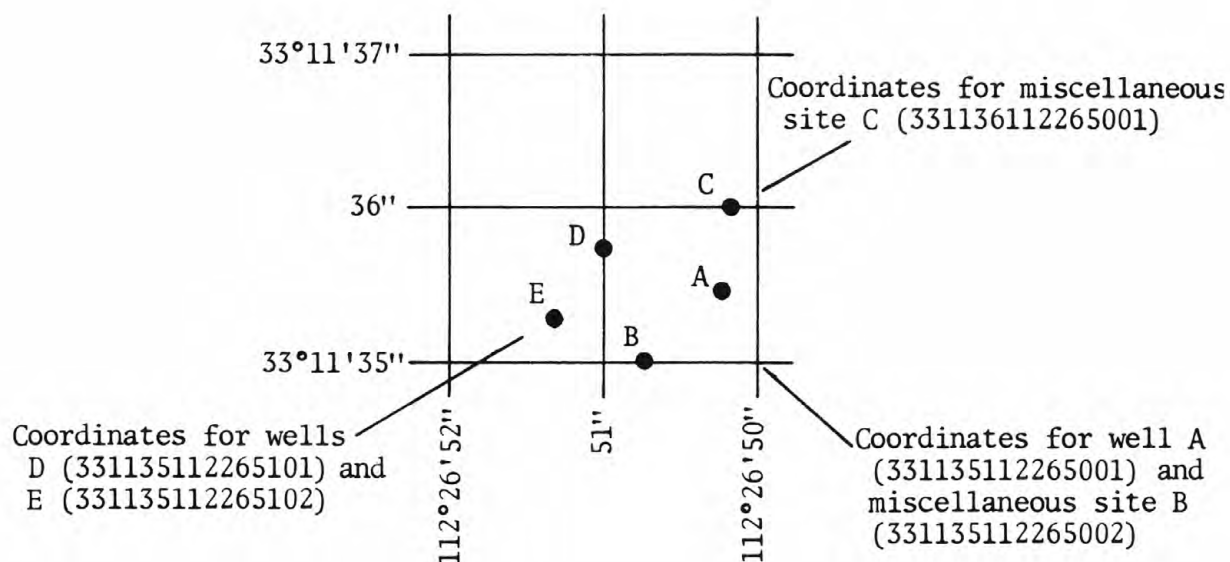
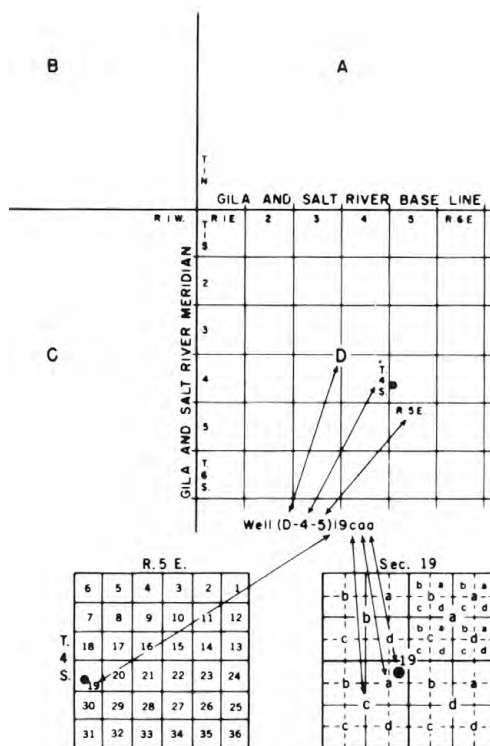


Figure 2.--System for numbering wells and miscellaneous sites (latitude and longitude)



The well numbers used by the Geological Survey in Arizona are in accordance with the Bureau of Land Management's system of land subdivision. The land survey in Arizona is based on the Gila and Salt River meridian and base line, which divide the State into four quadrants. These quadrants are designated counterclockwise by the capital letters A, B, C, and D. All land north and east of the point of origin is in A quadrant, that north and west in B quadrant, that south and west in C quadrant, and that south and east in D quadrant. The first digit of a well number indicates the township, the second the range, and the third the section in which the well is situated. The lowercase letters a, b, c, and d after the section number indicate the well location within the section. The first letter denotes a particular 160-acre tract, the second the 40-acre tract, and the third the 10-acre tract. These letters also are assigned in a counterclockwise direction, beginning in the northeast quarter. If the location is known within the 10-acre tract, three lowercase letters are shown in the well number. In the example shown, well number (D-4-5)19caa designates the well as being in the NE $\frac{1}{4}$ NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 19, T. 4 S., R. 5 E. Where more than one well is within a 10-acre tract, consecutive numbers beginning with 1 are added as suffixes.

Figure 3.--Well-numbering system in Arizona.

SPECIAL NETWORKS AND PROGRAMS

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

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins that have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Included in this program in Arizona is station 09508300, Wet Bottom Creek near Childs.

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

Arizona fixed station network is part of the State water-pollution control program and includes a network of water-quality stations that build upon the NASQAN network. This network provides essential data for State water-quality assessment programs including the biennial report required by the Federal Clean Water Act. Included in this network of nine stations are six NASQAN stations with expanded parametric coverage. The stations are: 09380000, Colorado River at Lees Ferry (expanded NASQAN); 09427520, Colorado River below Parker Dam; 09466500, Gila River at Calva (expanded NASQAN); 09498500, Salt River near Roosevelt; 09502000, Salt River below Stewart Mountain Dam (NASQAN); 09508500, Verde River below Tangle Creek, above Horseshoe Dam; 09510000, Verde River below Bartlett Dam (expanded NASQAN); 09518000, Gila River above diversions, at Gillespie Dam (expanded NASQAN); and 09522000, Colorado River at northerly international boundary, above Morelos Dam, near Andrade, CA (expanded NASQAN).

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity, however, there were no Arizona stations operated in this network during 1985.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radio-isotopes. The streams that are sampled represent major drainage basins in the conterminous United States. Included in this network in Arizona are stations 09522000, Colorado River at Northerly International Boundary above Morelos Dam, near Andrade, CA.; and 09508300, Wet Bottom Creek near Childs.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States. Included in this network in Arizona is station 09429490, Colorado River above Imperial Dam, AZ-CA.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geographical Survey. 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 A-6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions

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

At some stream-gaging stations the stage-discharge relation is affected by 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.

At some stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

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

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

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such

periods they daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

Publication of data

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes or reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

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

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge were affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a

revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum of 1929; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum of 1929 is explained in "Definition of Terms."

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

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a non-recording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

Skeleton rating tables are published, immediately following EXTREMES, for stream-gaging stations where they serve a useful purpose and the dates of applicability can be easily identified.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in 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 are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

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

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

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage 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. Occasionally a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

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

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

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft³/s; to tenths between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures above 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

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. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for change 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 data available

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

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

Records of discharge collected by agencies other
than the Geological Survey

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, Va. 22092, maintains an index of records of discharge not published by the Geological Survey. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

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

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

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

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and

methods of analysis. In the rare case where an apparent inconsistency exists between 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 district office.

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 daily 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, maximum, minimum, and mean temperatures for each day are published.

Sediment

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

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

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

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

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection and publication of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude (see figure 2) and (2) a local number that is provided for local needs (see figure 3).

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to land-surface datum (lsd). Land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum referenced to National Geodetic Vertical Datum of 1929 (NGVD) is given. National Geodetic Vertical Datum of 1929 is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada.

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or larger unit.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

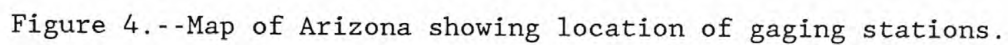
The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of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

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

- 1-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, Chapter D1. 1975. 65 pages.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. *Measurement of time of travel and dispersion in streams by dye tracing*, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. *Discharge ratings at gaging stations*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. *Computation of continuous records of streamflow*, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. *Use of flumes in measuring discharge*, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. *Computation of water-surface profiles in open channels*, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.
- 3-B2. *Introduction to ground-water hydraulics, a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. *Type curves for selected problems of flow to wells in confined aquifers*, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS--Continued

- 3-C1. *Fluvial sediment concepts* by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. *Field methods for measurement of fluvial sediment*. by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. *Computation of rate and volume of stream depletion by wells* by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. *Methods for determination of inorganic substances in water and fluvial sediments* by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 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, Chapter A2. 1971. 31 pages.
- 5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greenson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 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, Chapter 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, Chapter A6. 1982. 181 pages.
- 5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. *Computer model of two-dimensional solute transport and dispersion in ground water*, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 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, Chapter C3. 1981. 110 pages.
- 8-A1. *Methods of measuring water levels in deep wells* by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. *Installation and service manual for U.S. Geological Survey manometers* by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.



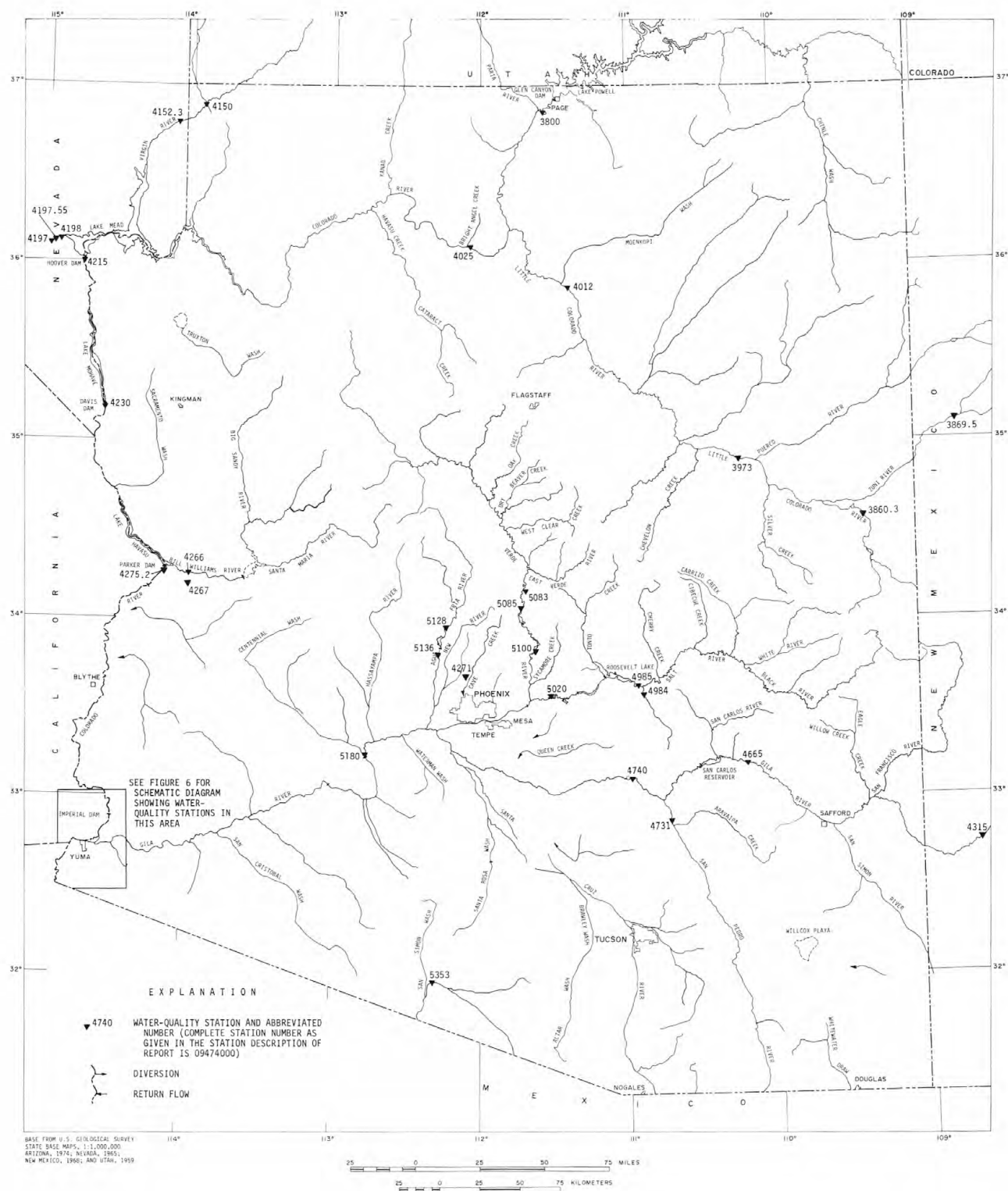


Figure 5.--Map of Arizona showing location of water-quality stations.

SAN JUAN RIVER BASIN

09379200 CHINLE CREEK NEAR MEXICAN WATER, AZ

LOCATION.--Lat 36°56'38", long 109°42'36", in sec.19, T.41 N., R.25 E. (unsurveyed), Apache County, Hydrologic Unit 1400204, in Navajo Indian Reservation, on right bank 150 ft upstream from bridge on U.S. Highway 160, 3 mi upstream from Walker Creek, 4 mi southwest of Mexican Water, 5 mi downstream from confluence of Chinle Wash and Laguna Creek, and 6 mi upstream from Arizona-Utah State line.

DRAINAGE AREA.--3,660 mi², approximately, of which 360 mi² is noncontributing.

PERIOD OF RECORD.--October 1964 to current year (monthly discharge only for 1979). Prior to October 1970 published as Chinle Wash near Mexican Water.

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Datum of gage is 4,720 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 1-24, Dec. 29, 30, Jan. 15-21, Feb. 7-19, Apr. 16-22, May 4-12. Records fair except for periods of estimated record, which are poor. Some diversions upstream for irrigation, stock tanks and domestic use. Many Farms Reservoir, above 25 mi upstream, was built in 1939 with an original capacity of 25,000 acre-ft and provides off-channel storage for irrigation of about 1,600 acres.

AVERAGE DISCHARGE.--22 years, 32.3 ft³/s, 23,400 acre-ft/yr; median of yearly mean discharges, 24 ft³/s, 17,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s Aug. 24, 1982, gage height, 13.87 ft, from rating curve extended above 3,100 ft³/s on basis of slope-area measurement at gage height 12.50 ft; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	unknown	1,240	5.74	Aug. 25	0800	1,460	6.03
July 22	1100	1,130	5.58	Sept. 9	1000	*1,720	6.34
Aug. 13	0800	1,220	5.70	Sept. 25	0930	1,480	6.05

No flow June 3 to July 4, 11-15, July 28 to Aug. 12, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	5.7	171	14	3.4	2.0	19	6.5	.20	.00	.00	157
2	.50	5.7	110	20	.20	1.4	15	9.6	.10	.00	.00	176
3	.40	6.2	52	11	.30	1.4	41	14	.00	.00	.00	133
4	.40	6.2	36	13	.20	1.5	171	12	.00	.00	.00	110
5	.40	5.3	24	8.4	.00	1.2	123	8.0	.00	46	.00	17
6	.30	5.7	21	8.4	1.0	1.4	119	6.0	.00	17	.00	21
7	.10	6.2	19	11	1.0	1.2	106	4.0	.00	1.8	.00	44
8	5.0	6.2	18	15	1.0	1.5	73	2.0	.00	.40	.00	147
9	5.0	5.7	18	13	1.0	1.2	50	1.0	.00	.90	.00	580
10	20	5.7	10	15	1.0	1.4	40	.50	.00	.40	.00	771
11	600	4.8	7.2	18	1.0	2.0	21	.50	.00	.00	.00	189
12	200	6.5	4.1	19	1.0	2.0	18	.50	.00	.00	.00	62
13	100	6.2	4.8	15	3.0	4.1	5.3	.30	.00	.00	147	21
14	60	11	3.4	10	5.0	4.8	2.0	.30	.00	.00	74	15
15	20	17	2.8	10	5.0	6.5	1.1	.20	.00	.00	20	8.4
16	10	6.5	1.8	10	5.0	5.7	1.5	2.2	.00	19	7.2	5.7
17	5.0	7.6	1.4	10	5.0	8.8	1.5	14	.00	9.6	.40	1.0
18	4.0	9.2	2.5	10	5.0	7.2	1.5	2.2	.00	.50	.20	1.0
19	4.0	12	4.4	10	5.0	6.9	2.0	1.4	.00	10	.10	1.0
20	4.0	6.9	3.4	10	5.0	9.2	2.0	.60	.00	142	.00	1.0
21	4.0	4.4	3.7	10	3.1	5.3	2.0	.40	.00	30	10	.90
22	4.0	3.7	1.5	10	2.0	3.7	2.5	.20	.00	191	8.0	.90
23	4.0	4.8	3.7	5.3	4.4	2.0	3.0	.30	.00	160	.90	1.8
24	4.0	11	5.7	12	2.0	.90	8.0	.40	.00	488	19	150
25	3.7	15	12	13	2.5	.80	8.0	.30	.00	124	436	768
26	3.7	14	14	11	1.2	.50	4.8	.30	.00	12	25	110
27	3.7	74	12	12	2.0	2.5	17	.20	.00	.10	7.2	82
28	3.7	52	9.6	17	2.2	1.2	20	.20	.00	.00	62	39
29	4.1	38	5.0	9.2	---	1.0	8.0	.20	.00	.00	134	15
30	4.1	127	3.0	8.4	---	.30	4.8	.10	.00	.00	255	12
31	4.8	---	15	14	---	.30	---	.20	---	.00	74	---
TOTAL	1083.40	490.2	600.0	372.7	68.50	89.90	891.0	88.60	.30	1252.70	1280.00	3640.70
MEAN	34.9	16.3	19.4	12.0	2.45	2.90	29.7	2.86	.010	40.4	41.3	121
MAX	600	127	171	20	5.0	9.2	171	14	.20	488	436	771
MIN	.10	3.7	1.4	5.3	.00	.30	1.1	.10	.00	.00	.00	.90
AC-FT	2150	972	1190	739	136	178	1770	176	.6	2480	2540	7220

CAL YR	1985	TOTAL	25713.71	MEAN	70.4	MAX	2280	MIN	.00	AC-FT	51000
WTR YR	1986	TOTAL	9858.00	MEAN	27.0	MAX	771	MIN	.00	AC-FT	19550

COLORADO RIVER MAIN STEM

09379900 LAKE POWELL AT GLEN CANYON DAM, AZ

LOCATION.--Lat 36°56'12", long 111°29'00", in sec.24, T.41 N., R.8 E., Coconino County, Hydrologic Unit 14070006, at Glen Canyon Dam on Colorado River, 900 ft upstream from bridge on U.S. Highway 89, 1.4 mi downstream from Wahweap Creek, 2 mi northwest of Page, and 12 mi downstream from Utah-Arizona State line.

DRAINAGE AREA.--111,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Sept. 1, 1964, nonrecording gage at same site and datum.

REMARKS.--No estimated daily contents. Reservoir is formed by concrete-arch gravity dam; storage began Mar. 13, 1963; dam completed September 1963. Total capacity, 27,000,000 acre-ft consisting of the following: dead storage, 1,998,000 acre-ft below elevation 3,370 ft-sill of outlet gates; usable contents, 25,002,000 acre-ft between elevations 3,370 ft and 3,700 ft-top of conservation pool. Reservoir is used for power development, to provide storage replacement for upstream irrigation development, and to meet downstream requirements under the Colorado River Compact of 1922. Figures given herein represent usable contents; prior to Oct. 1, 1968, figures of total contents were published (prior to sealing of diversion tunnel July 7, 1965, all storage was usable).

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 26,373,000 acre-ft July 14, 1983, elevation, 3,708.34 ft; minimum since power pool level was reached (Aug. 16, 1964), 4,166,000 acre-ft Mar. 18, 1965, elevation, 3,490.76 ft.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 25,004,000 acre-ft July 27, elevation, 3,700.02 ft; minimum, 22,015,000 acre-ft Mar. 31, elevation, 3,680.68 ft.

Capacity table (elevation, in feet, and usable contents, in acre-feet)

3,680	21,916,000	3,700	25,002,000
3,685	22,662,000	3,705	25,818,000
3,690	23,424,000	3,710	26,653,000
3,695	24,204,000		

RESERVOIR STORAGE, IN THOUSANDS OF ACRE FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22760	22847	22903	22997	22733	22446	22024	22238	22703	24233	24927	24137
2	22762	22845	22907	23002	22714	22440	22017	22262	22729	24279	24904	24115
3	22762	22857	22913	22996	22698	22425	22045	22281	22788	24314	24875	24083
4	22760	22857	22926	22997	22683	22411	22072	22310	22813	24353	24872	24060
5	22760	22857	22926	22996	22659	22396	22098	22359	22876	24393	24869	24033
6	22763	22857	22926	23005	22649	22383	22113	22410	22936	24431	24846	23997
7	22759	22853	22941	23002	22626	22366	22125	22495	23000	24475	24843	23967
8	22766	22851	22944	22999	22605	22343	22133	22539	23066	24506	24832	23934
9	22759	22851	22951	22999	22582	22338	22143	22570	23160	24534	24800	23925
10	22771	22848	22955	22986	22569	22326	22137	22596	23242	24568	24774	23881
11	22782	22844	22941	22990	22543	22305	22136	22602	23331	24603	24739	23853
12	22791	22835	22926	22991	22530	22292	22137	22602	23408	24648	24712	23827
13	22812	22835	22918	22991	22516	22277	22136	22596	23473	24699	24684	23800
14	22822	22835	22918	22991	22500	22313	22136	22591	23527	24737	24649	23764
15	22833	22830	22929	22985	22486	22284	22128	22585	23586	24784	24635	23738
16	22841	22833	22923	22973	22470	22260	22141	22563	23635	24803	24595	23705
17	22847	22839	22923	22953	22458	22252	22140	22548	23691	24835	24563	23676
18	22850	22833	22913	22942	22446	22234	22137	22546	23730	24856	24531	23641
19	22859	22833	22918	22938	22428	22217	22136	22537	23778	24898	24488	23604
20	22865	22829	22918	22932	22425	22199	22146	22524	23823	24919	24464	23575
21	22860	22822	22918	22923	22420	22182	22147	22534	23872	24962	24426	23536
22	22865	22824	22938	22913	22425	22164	22146	22527	23917	24964	24406	23513
23	22869	22822	22945	22903	22446	22145	22138	22524	23961	24978	24363	23486
24	22869	22819	22945	22880	22453	22118	22140	22530	24005	24991	24330	23473
25	22869	22830	22965	22856	22455	22104	22140	22546	24036	24996	24295	23448
26	22869	22829	22976	22833	22450	22081	22140	22564	24069	24986	24268	23437
27	22869	22839	22976	22809	22450	22064	22152	22579	24109	25004	24238	23417
28	22862	22857	22976	22783	22446	22051	22174	22600	24135	25001	24231	23408
29	22853	22874	22979	22771	---	22041	22193	22615	24162	24983	24209	23389
30	22850	22883	22986	22754	---	22027	22220	22652	24201	24973	24189	23365
31	22847	---	22993	22750	---	22015	---	22674	---	24954	24159	---
MAX	22869	22883	22993	23005	22733	22446	22220	22674	24201	25004	24927	24137
MIN	22759	22819	22903	22750	22420	22015	22017	22238	22703	24233	24159	23365
(*)	3686.23	3686.47	3687.19	3685.59	3683.57	3680.68	3682.06	3685.09	3694.99	3699.71	3694.72	3689.62
(**)	+87000	+36000	+110000	-243000	-304000	-431000	+205000	+454000	+1527000	+753000	-795000	-794000

CAL YR 1985 MAX 25020 MIN 21160 (**) +368000
WTR YR 1986 MAX 25004 MIN 22015 (**) +605000

* Elevation, in feet, at end of month.

** Change in contents, in acre-feet.

COLORADO RIVER MAIN STEM

35

09380000 COLORADO RIVER AT LEES FERRY, AZ
(National stream-quality accounting network)

LOCATION.--Lat 36°51'53", Long 111°35'15", in NE¼SE¼ sec.13, T.40 N., R.7 E., Coconino County, Hydrologic Unit 14070006, in Navajo Indian Reservation, on left bank at head of Marble Gorge at Lees Ferry, just upstream from Paria River, 16 mi downstream from Glen Canyon Dam, 28 mi downstream from Utah-Arizona State line, and 61.5 mi upstream from Little Colorado River.

DRAINAGE AREA.--111,800 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1895 to current year. Estimates of monthly and annual discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 859: 1921-23. WSP 1313: 1914-21.

GAGE.--Water-stage recorder. Datum of gage is 3,106.16 ft above National Geodetic Vertical Datum of 1929. Prior to Jan. 19, 1923, nonrecording gages or reference points within 400 ft of present gage, at different datums.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated since Mar. 13, 1963, by Lake Powell, 16 mi upstream. Many diversions above Lake Powell for irrigation, municipal, and industrial use. No diversions or inflow between Lake Powell and the gage.

AVERAGE DISCHARGE.--51 years (water years 1912-62), 17,850 ft³/s, 12,923,000 acre-ft/yr; 22 years (water years 1965-86), 14,600 ft³/s, 10,578,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1895-1962: Maximum discharge, 220,000 ft³/s June 18, 1921, gage height, 26.5 ft, from floodmarks, from rating curve extended above 120,000 ft³/s on basis of discharge computed for station near Grand Canyon; minimum, 750 ft³/s Dec. 27, 1924.
1963-86: Maximum discharge, 97,300 ft³/s June 29, 1983, gage height, 18.14 ft; minimum daily, 700 ft³/s Jan. 23, 24, 1963, result of closing coffer dam at Glen Canyon Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1868, about 300,000 ft³/s July 7, 1884, gage height, 31.5 ft, present site and datum, from floodmark at mouth of Paria River, from rating curve extended above 120,000 ft³/s on basis of discharge computed for flood of June 18, 1921, for station near Grand Canyon.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53,200 ft³/s May 13, gage height, 14.50 ft; minimum daily, 3,690 ft³/s Dec. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12900	12800	4920	8020	20600	17600	26200	27700	51600	27100	28700	28000
2	12100	11600	10100	12500	21100	20100	27700	27300	48400	21000	28200	26300
3	13400	7970	12100	14900	22100	24300	25800	27200	44500	21800	28700	23500
4	11700	11400	12600	13600	21300	23800	26300	27100	40700	20500	18300	25100
5	9430	11300	15000	10300	23100	23900	27800	27100	41200	19000	17300	26200
6	9000	13300	13800	9490	22400	23500	27700	27800	40300	18200	18200	28300
7	12100	13000	10200	10800	23000	23900	27700	27800	40700	20400	16900	28500
8	11300	12600	8380	11700	23100	24800	27700	31800	40900	20500	19200	28500
9	11700	13500	12000	13000	22000	23000	29400	40700	38500	21100	21900	27500
10	11800	11600	13300	14700	22000	25600	30700	46800	31900	21400	27500	28000
11	10800	13300	15200	14000	22200	24700	31200	47100	31800	20400	27400	28800
12	10200	13600	15900	13200	20600	26000	31500	47800	32000	16300	27500	29200
13	6420	12200	16400	13100	21000	27000	31500	52400	31900	11700	27500	29600
14	12400	13300	12200	14100	19900	23300	31500	51400	31900	15100	27500	29300
15	11000	13900	8370	13400	20700	19500	28700	51000	31200	16300	24400	27000
16	11000	12800	11400	18000	20200	25100	27700	52200	32600	18000	27500	27300
17	11300	12000	12300	20600	17400	25000	28400	51700	32900	20800	26600	27400
18	12800	13100	11500	19100	20200	26400	30900	52100	32900	21100	27500	27700
19	10100	14300	12800	16100	19500	26300	29100	52100	33100	14300	26900	27800
20	11200	14400	11100	16600	19000	26900	26000	52200	33200	15800	27500	27700
21	12400	14400	10600	17400	20600	25700	30200	50500	33200	23400	27700	27400
22	11900	12700	3690	17500	20300	26000	30200	50800	32700	23400	20800	27000
23	10700	12300	9070	18900	18400	26600	30500	51800	30900	27400	27600	23500
24	12700	9950	11100	20600	19400	26200	31300	52000	32300	28600	27200	26300
25	13300	12000	3790	22700	20400	26400	31600	51900	31500	29300	27600	27400
26	10600	10900	7820	23800	20400	26600	31500	51900	28900	29700	25200	26500
27	11400	9170	11900	24000	18500	25900	31400	51900	28700	18200	23500	25700
28	15600	6680	11600	22500	20900	26600	28000	51900	30700	24400	26300	25100
29	15600	8750	9030	20100	---	24600	27700	51900	30000	28800	26400	26500
30	12900	8270	10800	20700	---	27100	27900	51900	30200	27900	27900	26500
31	13100	---	10400	17300	---	26600	---	52000	---	28800	28200	---
TOTAL	362850	357090	339370	502710	580300	769000	873800	1389800	1051300	670700	783600	813600
MEAN	11700	11900	10950	16220	20720	24810	29130	44830	35040	21640	25280	27120
MAX	15600	14400	16400	24000	23100	27100	31600	52400	51600	29700	28700	29600
MIN	6420	6680	3690	8020	17400	17600	25800	27100	28700	11700	16900	23500
AC-FT	719700	708300	673100	997100	1151000	1525000	1733000	2757000	2085000	1330000	1554000	1614000
CAL YR 1985	TOTAL	8514110	MEAN	23330	MAX	47400	MIN	3690	AC-FT	16890000		
WTR YR 1986	TOTAL	8494120	MEAN	23270	MAX	52400	MIN	3690	AC-FT	16850000		

COLORADO RIVER MAIN STEM

09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January to July 1926, October 1926 to June 1927, October 1928 to December 1933, November 1942 to October 1945, October 1947 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1981, February 1982 to current year.

WATER TEMPERATURE: July 1949 to September 1981, February 1982 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1928 to December 1933, November 1942 to September 1944, October 1947 to September 1965.

INSTRUMENTATION.--Specific conductance and water temperature recorder March 1977 to September 1981, February 1982 to current year.

REMARKS.--Unpublished daily specific conductance measurements for period November 1942 to October 1945, October 1947 to September 1964 available from district office in Tucson, Ariz.

Because of the permanent change in stream characteristics owing to the regulation of flow by Glen Canyon Dam since Mar. 13, 1963, and the subsequent initial filling of Lake Powell, extreme values for the period of daily record now include only those obtained after July 31, 1965, at which time a normal flow release pattern was begun.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (August 1965 to September 1981, February 1982 to current year): Maximum, 1,260 microsiemens Apr. 20, 21, 1967; minimum, 460 microsiemens Aug. 10, 1965.

WATER TEMPERATURES (August 1965 to September 1981, February 1982 to current year): Maximum 21.0°C on several days during August, September, and October, 1965, 1967, 1968; minimum, 2.0°C on Jan. 29, 30, 1970.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 927 microsiemens Mar. 16; minimum recorded, 588 microsiemens July 14.

WATER TEMPERATURE: Maximum recorded, 12.2°C Aug. 28, Sept. 12, 16, 19, 20; minimum recorded, 7.1°C Feb. 21.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (FTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
NOV 1985											
06...	1400	14700	630	8.20	13.0	10.5	1.3	686	7.6	76	--
JAN 1986											
09...	1800	16400	642	8.20	--	10.0	1.5	694	8.2	80	--
FEB											
27...	1900	25400	737	8.10	--	7.5	<1.6	--	--	--	--
MAY											
08...	1800	37400	755	8.20	15.0	9.0	--	681	11.2	109	11
JUL											
02...	1630	24500	667	8.20	--	11.5	1.5	--	--	--	--
AUG											
27...	1830	19100	650	8.20	23.0	12.0	--	--	9.2	--	--

DATE	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)
NOV 1985											
06...	<1	<1	230	91	57	20	49	1	2.6	163	133
JAN 1986											
09...	<1	<1	210	96	52	20	50	2	2.7	142	113
FEB											
27...	<1	<1	240	0	60	22	59	2	3.1	E166	E132
MAY											
08...	<1	K9	250	120	61	24	62	2	3.1	E153	E124
JUL											
02...	<1	K5	230	100	56	21	51	2	3.0	E166	E131
AUG											
27...	<1	K2	--	--	--	--	--	--	--	149	120

K Based on non-ideal colony count.

E Estimated

< Actual value is known to be less than value shown.

09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

WATER QUALITY DATA

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)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	RESIDUE TOTAL AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
NOV 1985 06...	160	28	0.30	8.8	426	407	0.58	5	--	--	--
JAN 1986 09...	170	28	0.30	8.3	404	401	0.55	--	<0.010	0.300	0.340
FEB 27...	180	35	0.30	9.2	454	--	0.62	--	<0.010	0.400	0.440
MAY 08...	170	43	0.20	9.3	493	453	0.67	7	<0.010	0.400	0.400
JUL 02...	170	31	0.20	8.6	428	417	0.58	--	<0.010	0.400	0.360
AUG 27...	--	--	--	--	--	--	--	--	<0.010	<0.100	0.360
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHOROUS TOTAL (MG/L AS P) (00665)	PHOS- PHOROUS DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 1985 06...	--	--	--	--	--	--	--	--	--	--	20
JAN 1986 09...	0.020	0.030	0.38	0.40	0.70	3.1	0.030	<0.010	<0.010	--	--
FEB 27...	0.030	0.040	0.37	0.40	0.80	3.5	0.020	0.020	0.010	0.03	10
MAY 08...	<0.010	<0.010	--	0.30	0.70	3.1	0.020	--	<0.010	--	--
JUL 02...	0.050	0.060	0.35	0.40	0.80	3.5	0.020	0.010	<0.010	--	30
AUG 27...	<0.010	<0.010	--	0.30	--	--	0.020	0.010	<0.010	--	--
DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
NOV 1985 06...	1	1	91	<0.5	--	1	<1	10	4	<3	14
JAN 1986 09...	1	1	100	--	--	1	2	7	<1	--	8
FEB 27...	2	1	82	<0.5	--	1	<1	--	--	--	--
MAY 08...	1	1	78	--	80	<1	<1	6	1	--	14
JUL 02...	2	2	76	<0.5	--	1	1	25	1	<3	75
AUG 27...	1	--	--	--	--	2	--	6	--	--	49
DATE	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)	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)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
NOV 1985 06...	6	--	<3	3	2	24	<10	<1	<0.10	--	<10
JAN 1986 09...	4	100	20	2	3	--	10	<10	--	--	--
FEB 27...	--	--	7	6	--	28	--	<1	--	<0.1	<10
MAY 08...	5	20	<3	3	3	--	10	<1	--	--	--
JUL 02...	13	--	5	17	5	25	20	1	0.10	--	<10
AUG 27...	--	--	--	7	--	--	20	--	--	--	--

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

WATER QUALITY DATA

DATE	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, 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, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985										
06...	2	<1	2	<1.0	630	<6	30	7	5	198
JAN 1986										
09...	--	3	2	<1.0	--	--	30	20	--	--
FEB										
27...	--	2	3	--	--	<6	--	10	13	892
MAY										
08...	--	3	3	<1.0	--	--	10	5	10	1010
JUL										
02...	1	1	2	<1.0	620	<6	40	14	13	860
AUG										
27...	--	2	--	--	--	--	60	--	96	4950

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	655	---	---	694	761	895	837	729	670	---	689
2	---	656	---	---	673	770	904	830	724	673	---	690
3	---	---	677	---	683	769	891	836	715	705	---	749
4	---	---	672	---	690	781	907	843	715	666	---	722
5	---	---	669	---	694	790	894	862	705	659	---	691
6	---	---	663	---	703	795	888	872	718	664	---	674
7	---	648	---	---	713	803	881	823	699	659	---	671
8	---	650	---	---	715	822	875	888	681	658	---	675
9	---	658	---	---	719	843	885	773	670	663	---	671
10	---	658	---	---	718	852	882	744	652	668	---	671
11	---	666	647	---	729	856	871	755	647	671	---	---
12	---	664	634	---	734	857	877	764	649	673	---	---
13	---	668	639	---	725	860	908	764	641	660	---	---
14	---	670	---	---	719	867	877	756	644	673	---	---
15	---	677	---	---	718	920	883	748	648	661	---	---
16	---	682	---	639	727	927	877	746	653	677	---	---
17	---	683	---	637	740	914	877	731	662	677	---	---
18	665	684	---	648	742	907	893	739	664	691	---	---
19	---	689	633	664	740	894	895	725	678	678	---	---
20	---	691	---	668	749	900	876	727	673	681	---	---
21	---	692	---	689	749	901	855	726	680	682	---	---
22	---	697	---	669	735	893	852	722	679	680	---	---
23	---	701	---	664	738	896	858	728	666	676	---	---
24	651	702	---	665	735	907	855	712	660	675	---	---
25	646	710	---	659	728	906	874	709	671	693	---	---
26	649	705	---	659	736	889	861	720	660	677	---	---
27	648	---	---	662	736	895	857	720	658	670	---	---
28	642	---	---	667	745	899	855	720	667	663	687	---
29	646	---	---	669	---	900	829	723	662	665	699	---
30	652	---	---	670	---	895	831	723	654	---	687	---
31	654	---	---	681	---	897	---	724	---	---	700	---

MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	650	---	---	663	744	889	825	708	651	---	663
2	---	649	---	---	663	762	893	813	696	646	---	661
3	---	---	668	---	671	764	833	798	696	653	---	682
4	---	---	666	---	682	770	854	806	703	655	---	675
5	---	---	662	---	686	782	882	775	685	641	---	660
6	---	---	655	---	691	787	847	807	677	647	---	653
7	---	638	---	---	706	793	857	756	675	643	---	644
8	---	641	---	---	709	800	861	751	660	643	---	651
9	---	647	---	---	710	823	853	610	653	643	---	646
10	---	651	---	---	709	834	857	604	637	645	---	629
11	---	656	631	---	711	841	843	690	628	640	---	---
12	---	655	627	---	711	849	837	731	638	623	---	---
13	---	658	632	---	702	850	856	757	635	607	---	---
14	---	663	---	---	706	850	842	740	628	588	---	---
15	---	667	---	---	714	868	860	733	616	611	---	---
16	---	673	---	633	716	903	855	721	616	639	---	---
17	---	677	---	632	728	901	831	717	650	649	---	---
18	641	677	---	637	730	879	861	720	653	657	---	---
19	---	682	626	649	730	885	850	708	666	663	---	---
20	---	681	---	655	742	892	853	719	660	660	---	---
21	---	683	---	657	720	888	843	709	667	658	---	---
22	---	689	---	655	720	888	835	703	643	657	---	---
23	---	693	---	654	723	880	828	703	650	663	---	---
24	640	693	---	652	721	894	832	701	645	661	---	---
25	635	700	---	653	718	880	832	700	650	662	---	---
26	637	696	---	652	720	879	809	708	644	650	---	---
27	636	---	---	655	732	886	802	713	647	641	---	---
28	634	---	---	656	734	891	814	714	646	631	677	---
29	639	---	---	656	---	889	804	709	645	642	680	---
30	646	---	---	653	---	891	806	714	643	---	671	---
31	643	---	---	654	---	887	---	716	---	---	684	---

COLORADO RIVER MAIN STEM

09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	652	---	---	679	754	892	832	720	660	---	680
2	---	653	---	---	670	766	897	820	716	662	---	680
3	---	---	673	---	678	766	871	822	705	666	---	721
4	---	624	669	---	686	777	881	827	709	661	---	699
5	---	---	666	---	691	786	887	822	693	651	---	676
6	---	---	659	---	697	791	879	833	697	657	---	663
7	---	644	---	---	711	798	869	779	688	653	---	657
8	---	645	---	---	712	808	867	770	673	650	---	659
9	---	653	---	---	715	833	874	733	663	652	---	657
10	---	654	---	---	713	847	873	649	644	655	---	647
11	---	661	641	---	719	852	861	741	634	656	---	---
12	---	660	631	---	724	852	858	750	645	651	---	---
13	---	663	634	---	713	855	883	760	639	638	---	---
14	---	665	---	---	713	856	858	746	639	622	---	---
15	---	670	---	---	716	891	872	740	634	639	---	---
16	---	678	---	637	720	913	864	734	639	660	---	---
17	---	680	---	635	736	907	861	723	657	664	---	---
18	645	680	---	643	738	892	872	729	659	672	---	---
19	---	685	630	656	732	890	868	716	671	669	---	---
20	---	687	---	664	746	896	864	724	666	668	---	---
21	---	689	---	671	735	894	849	716	674	670	---	---
22	---	693	---	663	726	890	843	712	666	668	---	---
23	---	697	---	658	729	886	843	718	659	669	---	---
24	645	699	---	659	728	902	844	706	652	666	---	---
25	642	703	---	656	723	894	852	704	661	678	---	---
26	644	700	---	655	727	883	839	714	654	664	---	---
27	641	---	---	659	734	890	836	717	652	656	---	---
28	639	---	---	663	740	894	839	718	655	652	683	---
29	642	---	---	661	---	894	817	717	653	655	689	---
30	650	---	---	661	---	893	820	719	650	---	679	---
31	649	---	---	670	---	893	---	720	---	---	692	---

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.4	---	---	8.9	8.3	8.8	9.7	9.7	11.1	---	11.7
2	---	10.5	---	---	8.8	8.4	8.5	9.8	9.9	11.3	---	11.6
3	---	10.6	10.4	---	8.7	8.5	9.3	9.8	9.9	11.2	---	12.0
4	---	10.6	10.4	---	8.6	8.4	8.7	9.8	10.0	11.3	---	12.1
5	---	10.6	10.6	---	8.5	8.6	9.4	10.2	10.5	11.6	---	12.0
6	---	10.6	10.6	---	8.4	8.7	9.5	9.4	10.3	11.2	---	11.8
7	---	10.5	---	---	8.3	8.7	9.3	9.5	10.2	11.2	---	11.9
8	---	10.7	---	---	8.3	8.6	9.6	9.3	10.1	10.9	---	11.7
9	---	10.4	---	---	8.4	8.6	9.2	9.1	10.1	11.2	---	11.8
10	10.6	10.4	---	---	8.4	8.6	9.0	9.5	10.5	11.5	---	12.1
11	10.9	10.0	11.3	---	8.5	8.5	9.2	9.5	10.9	11.7	---	11.7
12	10.7	10.1	11.3	---	8.6	8.6	9.4	9.5	10.6	11.6	---	12.2
13	10.3	10.1	11.0	---	8.6	8.7	8.9	9.2	10.6	12.0	---	11.6
14	10.5	10.3	---	---	8.4	8.7	9.2	9.4	10.7	11.8	---	11.9
15	10.7	10.1	---	---	8.2	9.0	9.3	9.1	10.7	11.4	---	12.0
16	10.9	10.4	---	9.7	8.3	8.7	9.5	9.3	10.8	11.3	---	12.2
17	10.7	10.5	---	9.6	8.4	8.6	9.1	9.6	10.3	11.7	---	11.9
18	10.8	10.2	---	9.4	8.2	8.7	9.0	9.5	10.8	11.2	---	12.1
19	10.8	10.0	10.9	9.2	8.3	8.9	9.2	9.6	10.6	12.0	---	12.2
20	10.7	10.4	---	9.2	7.7	8.9	9.5	9.4	10.9	11.8	---	12.2
21	10.7	10.6	---	9.1	8.1	9.0	9.8	9.5	10.9	11.1	---	11.9
22	10.4	10.5	---	9.2	7.9	9.0	9.6	9.5	10.6	11.0	---	12.0
23	10.5	10.7	---	9.2	8.0	9.0	9.3	9.3	10.8	11.2	---	11.8
24	10.6	10.5	---	9.2	8.1	8.8	9.3	9.6	11.0	11.5	---	11.9
25	10.4	10.8	---	9.1	8.1	9.1	9.4	9.8	10.7	11.1	---	---
26	10.5	10.7	---	9.0	8.1	9.1	9.2	9.7	11.0	11.5	---	---
27	10.7	---	---	8.9	8.0	9.1	9.5	9.6	11.1	11.7	---	---
28	10.6	---	---	8.9	8.1	9.0	9.7	9.3	10.7	11.5	12.2	---
29	10.6	---	---	9.0	---	8.9	9.9	9.6	10.7	11.5	11.8	---
30	10.6	---	---	8.8	---	9.1	9.8	9.8	11.0	---	11.6	---
31	10.7	---	---	8.9	---	8.9	---	9.8	---	---	11.5	---

COLORADO RIVER MAIN STEM

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09380000 COLORADO RIVER AT LEES FERRY, AZ--Continued

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	9.7	---	---	8.6	7.6	8.4	8.7	9.2	10.1	---	10.9
2	---	9.9	---	---	8.5	7.8	8.1	8.9	9.2	10.3	---	11.2
3	---	9.7	10.2	---	8.4	7.9	8.1	8.7	9.2	10.5	---	11.1
4	---	10.1	10.0	---	8.3	7.8	8.2	8.5	9.1	10.3	---	10.9
5	---	10.2	10.2	---	8.1	8.0	8.3	8.2	9.3	10.5	---	11.2
6	---	10.2	10.3	---	7.9	8.0	8.6	8.3	9.0	10.1	---	11.0
7	---	9.9	---	---	7.6	8.1	8.4	8.2	9.2	10.3	---	11.1
8	---	10.1	---	---	8.1	8.2	8.5	8.4	9.3	10.5	---	11.3
9	---	9.8	---	---	8.0	7.9	8.2	8.5	9.2	10.4	---	10.7
10	10.3	9.6	---	---	8.1	8.0	8.3	8.6	9.3	10.3	---	10.8
11	10.3	9.5	10.2	---	8.0	8.1	8.5	8.6	9.6	10.2	---	10.4
12	10.2	9.6	10.7	---	8.3	8.0	8.5	8.6	9.5	10.0	---	11.4
13	9.9	9.7	10.5	---	8.2	8.2	8.1	8.6	9.5	10.7	---	11.3
14	9.9	10.0	---	---	7.8	8.2	8.2	8.6	9.5	10.9	---	11.1
15	9.8	9.6	---	---	8.0	8.1	8.2	8.6	9.5	10.6	---	11.1
16	10.2	9.7	---	9.3	7.9	8.1	8.5	8.7	9.6	10.6	---	11.2
17	10.1	10.2	---	9.4	7.5	8.0	8.3	8.8	9.7	10.5	---	11.2
18	10.0	9.6	---	9.2	7.8	8.2	8.3	8.7	9.7	10.6	---	11.2
19	10.2	9.0	10.4	9.0	7.5	8.1	8.3	8.9	9.7	10.5	---	10.9
20	10.1	9.5	---	8.9	7.2	8.1	8.5	8.8	9.7	10.9	---	11.0
21	10.1	9.9	---	8.8	7.1	8.2	8.7	8.8	9.7	10.4	---	11.2
22	10.0	10.0	---	8.9	7.4	8.3	8.8	8.7	9.7	10.6	---	11.2
23	10.0	10.1	---	8.9	7.6	8.3	8.6	8.8	9.9	10.5	---	11.3
24	9.8	10.3	---	8.9	7.6	8.3	8.6	8.9	10.0	10.6	---	11.2
25	10.0	10.3	---	8.8	7.6	8.2	8.3	9.0	9.9	10.4	---	---
26	9.8	10.5	---	8.7	7.6	8.2	8.4	9.0	9.9	10.7	---	---
27	10.1	---	---	8.6	7.6	8.3	8.4	9.1	10.0	10.6	---	---
28	10.2	---	---	8.6	7.5	8.3	8.3	9.0	10.0	10.6	11.1	---
29	10.2	---	---	8.6	---	8.4	8.9	9.0	10.1	10.7	10.9	---
30	10.2	---	---	8.7	---	8.4	8.7	9.1	10.1	---	11.0	---
31	10.1	---	---	8.6	---	8.4	---	9.1	---	---	10.7	---

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	10.1	---	---	8.8	7.9	8.6	9.1	9.4	10.6	---	11.3
2	---	10.2	---	---	8.7	8.1	8.4	9.3	9.5	10.7	---	11.4
3	---	10.4	10.4	---	8.6	8.2	8.7	9.2	9.5	10.8	---	11.4
4	---	10.4	10.2	---	8.4	8.2	8.4	9.0	9.5	10.8	---	11.4
5	---	10.5	10.4	---	8.3	8.3	8.8	9.1	9.8	11.0	---	11.5
6	---	10.4	10.5	---	8.3	8.3	9.0	8.8	9.6	10.7	---	11.3
7	---	10.2	---	---	8.0	8.4	8.9	9.0	9.6	10.8	---	11.4
8	---	10.4	---	---	8.2	8.4	9.0	8.8	9.7	10.7	---	11.5
9	---	10.2	---	---	8.2	8.3	8.6	8.8	9.6	10.8	---	11.4
10	10.4	10.0	---	---	8.3	8.3	8.6	8.9	9.8	10.7	---	11.3
11	10.6	9.8	10.8	---	8.2	8.3	8.8	9.0	10.2	10.8	---	11.1
12	10.4	9.8	11.1	---	8.4	8.4	8.9	9.0	9.9	10.9	---	11.9
13	10.2	10.0	10.9	---	8.5	8.5	8.5	8.8	10.0	11.3	---	11.4
14	10.3	10.2	---	---	8.1	8.4	8.7	8.9	10.0	11.4	---	11.4
15	10.2	9.9	---	---	8.1	8.6	8.7	8.9	10.0	11.0	---	11.5
16	10.5	10.0	---	9.5	8.1	8.5	9.0	9.0	10.1	11.0	---	11.6
17	10.4	10.4	---	9.5	8.0	8.3	8.7	9.1	10.0	11.0	---	11.4
18	10.4	9.9	---	9.3	8.0	8.4	8.7	9.0	10.2	10.9	---	11.6
19	10.5	9.5	10.7	9.2	8.0	8.4	8.7	9.2	10.1	11.3	---	11.4
20	10.4	10.0	---	9.1	7.5	8.5	9.0	9.1	10.2	11.3	---	11.5
21	10.4	10.3	---	9.0	7.6	8.5	9.1	9.1	10.2	10.8	---	11.5
22	10.2	10.3	---	9.1	7.7	8.6	9.1	9.1	10.1	10.8	---	11.6
23	10.3	10.4	---	9.1	7.8	8.6	8.9	9.1	10.3	10.9	---	11.6
24	10.1	10.4	---	9.0	7.8	8.5	8.9	9.2	10.4	11.0	---	11.5
25	10.2	10.5	---	9.0	7.9	8.6	8.8	9.4	10.3	10.8	---	---
26	10.1	10.6	---	8.9	7.9	8.6	8.8	9.3	10.4	11.0	---	---
27	10.5	---	---	8.8	7.8	8.6	8.8	9.3	10.5	11.1	---	---
28	10.4	---	---	8.8	7.8	8.6	8.9	9.2	10.4	11.0	11.6	---
29	10.4	---	---	8.8	---	8.6	9.3	9.3	10.4	11.0	11.3	---
30	10.4	---	---	8.8	---	8.7	9.2	9.4	10.6	---	11.3	---
31	10.4	---	---	8.8	---	8.6	---	9.4	---	---	11.1	---

PARIA RIVER BASIN

09382000 PARIA RIVER AT LEES FERRY, AZ

LOCATION.--Lat 36°52'20", long 111°35'3", in NW¼NE¼ sec.13, T.40 N., R.7 E., Coconino County, Hydrologic Unit 14070007, on left bank 0.6 mi northwest of Lees Ferry, and 1.1 mi upstream from mouth.

DRAINAGE AREA.--1,410 mi².

PERIOD OF RECORD.--October 1923 to current year.

REVISED RECORDS.--WSP 1925: 1958(M), drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,123.68 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 5, 1925 nonrecording gage at site 2,000 ft upstream at different datum. Oct. 13, 1925, to Sept. 11, 1929, nonrecording gage at present site and datum.

REMARKS.--Estimated daily discharges: Oct. 1, 16, Mar. 26-31, Apr. 6, July 16, 26-29, Aug. 17, 18, and Sept. 5-7. Records fair. Diversions above station for irrigation of about 3,300 acres, mostly in southern Utah.

AVERAGE DISCHARGE.--63 years, 29.7 ft³/s, 21,520 acre-ft/yr; median of yearly mean discharges, 26 ft³/s, 18,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,100 ft³/s Oct. 5, 1925, gage height, 16.3 ft, from floodmark, from rating curve extended above 2,000 ft³/s on basis of float-area measurement of peak flow; maximum gage height, 16.65 ft Sept. 9, 1980; minimum daily discharge, 1 ft³/s in most years prior to 1931.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 10	2200	1,450	9.56	Sept. 9	0115	1,890	10.31
July 15	2100	*3,520	12.46	Sept. 24	0900	1,400	9.47

Minimum daily discharge, 2.0 ft³/s July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	55	28	28	17	20	4.5	3.7	3.5	3.6	120
2	13	16	32	23	29	17	52	4.4	3.9	3.4	3.4	40
3	12	16	28	22	27	15	102	4.3	3.8	3.3	3.5	57
4	12	15	26	24	24	16	51	4.0	7.2	3.6	3.6	32
5	12	12	26	21	21	15	35	3.9	14	3.5	3.6	14
6	13	12	29	20	19	15	28	4.2	6.7	3.3	3.9	10
7	15	14	29	19	24	16	21	6.8	4.9	3.3	5.6	7.8
8	15	16	25	14	21	16	17	7.3	4.1	3.6	12	7.1
9	86	17	22	14	21	23	13	5.0	3.6	3.7	12	372
10	269	16	18	18	15	36	12	4.6	3.6	3.2	50	43
11	334	14	17	25	10	35	11	4.8	3.8	3.1	14	18
12	52	33	18	28	22	42	8.9	4.5	3.8	3.1	7.3	10
13	20	46	11	24	25	41	8.0	4.2	3.7	3.1	119	7.8
14	37	34	8.1	22	40	31	8.5	4.2	3.4	3.1	113	6.9
15	17	23	11	22	31	39	9.0	4.3	3.4	149	36	6.4
16	13	23	22	27	54	32	8.6	5.1	3.4	100	18	6.0
17	12	30	20	27	54	46	7.0	4.3	3.5	26	11	5.4
18	13	40	21	24	44	38	6.4	4.2	3.8	6.1	6.1	5.2
19	13	27	30	23	43	31	6.1	4.2	3.4	2.7	4.4	4.9
20	13	15	29	22	63	26	5.9	4.1	3.4	2.0	41	4.9
21	14	18	29	22	51	26	6.0	3.9	3.3	45	197	4.8
22	14	31	28	21	26	27	7.8	3.7	3.3	33	54	4.9
23	15	21	25	21	22	29	13	3.8	3.4	115	82	5.7
24	17	24	26	21	22	27	11	4.1	3.3	47	17	400
25	17	26	32	21	22	25	9.3	4.0	3.5	41	59	139
26	17	30	26	18	23	22	7.2	3.9	3.8	9.1	40	256
27	18	26	22	19	23	20	9.9	3.8	3.6	6.8	26	75
28	18	20	21	20	18	20	8.1	4.1	3.4	5.2	24	33
29	19	20	22	21	---	19	6.0	4.3	3.6	4.1	30	39
30	19	94	23	22	---	19	4.9	3.9	3.7	3.7	102	26
31	18	---	36	23	---	19	---	3.7	---	3.6	36	---
TOTAL	1171	746	767.1	676	822	800	513.6	136.1	126.0	646.1	1138.0	1761.8
MEAN	37.8	24.9	24.7	21.8	29.4	25.8	17.1	4.39	4.20	20.8	36.7	58.7
MAX	334	94	55	28	63	46	102	7.3	14	149	197	400
MIN	12	12	8.1	14	10	15	4.9	3.7	3.3	2.0	3.4	4.8
AC-FT	2320	1480	1520	1340	1630	1590	1020	270	250	1280	2260	3490

CAL YR	1985	TOTAL	8168.1	MEAN	22.4	MAX	334	MIN	2.7	AC-FT	16200
WTR YR	1986	TOTAL	9303.7	MEAN	25.5	MAX	400	MIN	2.0	AC-FT	18450

09383000 COLORADO RIVER AT COMPACT POINT, NEAR LEES FERRY, AZ

LOCATION.--Lat 36°51'05", long 111°36'21", in NE¼SE¼ sec.23, T.40 N., R.7 E., Coconino County, Hydrologic Units 14070006, 15010001, (see REMARKS), 1.0 mi downstream from Paria River, 1.4 mi downstream from gage on Colorado River at Lees Ferry, and 29 mi downstream from Utah-Arizona State line.

DRAINAGE AREA.--112,000 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--October 1913 to current year (monthly discharge only). Prior to October 1950, published in WSP 1313.

DETERMINATION OF DISCHARGE.--There is no gage. Monthly and yearly discharge computed as the sum of flow at stations on Colorado River and Paria River at Lees Ferry.

REMARKS.--This point on the Colorado River is the dividing point between the Upper Basin and Lower Basin, as defined in the Colorado River Compact of 1922. Flow substantially regulated by Lake Powell beginning Mar. 13, 1963. (See elsewhere in this report.)

AVERAGE DISCHARGE.--49 years (water years 1914-62), 17,760 ft³/s, 12,870,000 acre-ft/yr; 22 years (water years 1965-86), 14,630 ft³/s, 10,599,000 acre-ft/yr.

MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Mean	Runoff in acre-feet
October	11,740	722,000
November	11,930	709,800
December	10,970	674,700
CAL YR 1985	23,350	16,904,000
January	16,240	998,500
February	20,750	1,153,000
March	24,830	1,527,000
April	29,140	1,734,000
May	44,830	2,757,000
June	35,050	2,086,000
July	21,660	1,332,000
August	25,310	1,557,000
September	27,180	1,617,000
WTR YR 1986	23,300	16,866,000

NOTE.--Record shown is sum of flow at stations on Colorado River and Paria River at Lees Ferry.

LITTLE COLORADO RIVER BASIN

09384000 LITTLE COLORADO RIVER ABOVE LYMAN LAKE, NEAR ST. JOHNS, AZ

LOCATION.--Lat 34°18'52", long 109°21'42", in SW¼SE¼ sec.27, T.11 N., R.28 E., Apache County, Hydrologic Unit 15020001, on left bank 0.75 mi downstream from Coyote Creek, 6 mi upstream from Lyman Dam, and 15 mi south of St. Johns. Prior to Dec. 7, 1976, at site 0.4 mi downstream.

DRAINAGE AREA.--747 mi².

PERIOD OF RECORD.--April 1940 to current year. Prior to October 1975 published as "above Lyman Reservoir."

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 6,010 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to December 7, 1976, water-stage recorder at site 0.4 mi downstream at datum approximately 20 ft lower, reactivated March 21, 1980. See WSP 1313 for history of changes prior to 1950.

REMARKS.--Estimated daily discharge: Nov. 19, 20, Dec. 13-19, Jan. 8-10, Apr. 22. Records good except for periods of estimated daily discharge and periods of ice effect, Dec. 1-3, 8-12, 21-30, Jan. 5-7, 11-20, 25-29, and Feb. 9, 11, which are fair. Flow regulated by many small reservoirs - combined capacity, about 15,500 acre-ft. Diversions for irrigation of about 6,700 acres above station.

AVERAGE DISCHARGE.--46 years, 23.2 ft³/s, 16,810 acre-ft/yr; median of yearly mean discharges, 16 ft³/s, 11,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft³/s July 25, 1940, gage height, 17.1 ft, datum then in use, from floodmarks, by slope-area measurement of peak flow and reservoir in flow studies; maximum gage height, 18.6 ft, Sept. 12, 1975, at previous site (from graph recorded to 18.4 ft; no flow at times).

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 26	2000	*292	*10.91

Minimum daily discharge, 1.0 ft³/s Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	41	22	11	17	52	96	4.3	7.9	3.4	5.0	19
2	7.3	36	21	11	21	54	101	3.4	11	4.6	6.4	16
3	7.3	36	23	16	18	46	107	4.3	12	8.6	5.9	13
4	7.0	36	23	17	15	39	104	4.0	9.4	12	5.9	12
5	5.9	34	22	14	14	37	106	4.0	5.0	4.3	6.4	10
6	4.6	35	22	14	12	36	101	6.7	7.3	3.4	5.9	6.4
7	5.4	34	21	13	12	36	96	7.3	6.2	5.0	4.3	2.6
8	5.4	33	19	13	13	38	93	7.3	6.7	3.7	3.7	2.9
9	5.4	35	17	13	12	56	84	7.3	5.4	9.4	3.1	5.4
10	6.7	35	20	13	13	62	75	6.4	2.6	10	3.7	3.1
11	9.4	36	17	12	11	59	52	6.2	2.4	7.6	7.8	4.6
12	9.0	33	17	12	12	56	33	6.4	3.4	5.4	16	6.7
13	8.6	33	17	12	11	59	29	9.8	5.4	4.6	6.0	7.0
14	7.0	31	17	10	11	45	23	9.4	5.4	2.3	1.5	7.3
15	7.3	26	16	10	11	39	21	9.8	6.7	4.6	4.0	8.6
16	7.9	28	16	9.8	14	38	17	9.1	3.1	9.0	3.1	7.6
17	9.0	29	16	8.3	21	38	15	7.9	3.4	11	2.3	4.6
18	9.4	27	15	7.6	21	34	15	6.7	3.1	12	1.8	2.6
19	12	27	15	7.3	18	36	12	4.0	3.2	19	1.4	2.1
20	10	29	14	8.3	19	35	11	3.4	2.9	18	1.3	4.3
21	9.0	30	9.4	8.6	18	35	8.6	3.1	3.7	14	8.0	4.0
22	7.6	26	7.3	8.6	17	36	6.5	2.6	3.1	14	4.6	4.3
23	19	25	9.0	8.7	17	36	6.2	4.3	3.1	14	1.8	8.6
24	41	22	9.4	8.3	16	49	5.9	6.2	5.0	13	1.6	8.6
25	45	21	7.6	7.9	16	60	5.4	6.7	12	11	4.6	2.4
26	46	23	7.3	7.0	21	74	4.6	6.7	15	9.4	32	2.4
27	46	23	8.3	6.2	37	77	4.6	5.4	8.6	7.3	90	1.6
28	46	22	7.3	6.2	47	83	5.0	1.8	7.0	6.7	67	1.4
29	46	22	7.0	7.3	---	90	5.0	3.7	3.4	6.7	48	1.4
30	49	24	8.3	11	---	95	4.6	7.6	2.6	5.9	48	1.0
31	47	---	9.0	13	---	86	---	8.3	---	3.6	24	---
TOTAL	554.1	892	459.9	325.1	485	1616	1247.4	184.1	176.0	263.5	425.1	181.5
MEAN	17.9	29.7	14.8	10.5	17.3	52.1	41.6	5.94	5.87	8.50	13.7	6.05
MAX	49	41	23	17	47	95	107	9.8	15	19	90	19
MIN	4.6	21	7.0	6.2	11	34	4.6	1.8	2.4	2.3	1.3	1.0
AC-FT	1100	1770	912	645	962	3210	2470	365	349	523	843	360
CAL YR	1985	TOTAL	21012.2	MEAN	57.6	MAX	506	MIN	3.4	AC-FT	41680	
WTR YR	1986	TOTAL	6809.7	MEAN	18.7	MAX	107	MIN	1.0	AC-FT	13510	

LITTLE COLORADO RIVER BASIN

45

09386030 LITTLE COLORADO RIVER ABOVE ZION RESERVOIR, NEAR ST. JOHNS, AZ

LOCATION.--Lat 34°35'01", long 109°24'23", in SE¼SE¼ sec.30, T.14 N., R.28 E., Apache County, Hydrologic Unit 15020002, on downstream side of center pier of bridge on private road, 1.5 mi upstream from Carrizo Creek, 4 mi upstream from Zion Reservoir, and 5.8 mi northwest of St. Johns.

DRAINAGE AREA.--975 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 5,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: Dec. 13-20. Records good. Diversions above station for irrigation of about 10,200 acres, including 1,500 acres served by Lyman Canal. Regulation by many reservoirs above station (combined capacity, 46,900 acre-ft), the largest of which is Lyman Lake. Records do not include flow bypassing the station through an abandoned irrigation ditch during higher stages.

AVERAGE DISCHARGE.--11 years, 11.8 ft³/s, 8,550 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 582 ft³/s Aug. 4, 1983, gage height, 3.66 ft; minimum daily, 0.04 ft³/s Aug. 2, Sept. 7, Oct. 16-20, 1978.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 191 ft³/s Aug. 12, gage height, 2.87 ft; minimum daily, 0.68 ft³/s Sept. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	14	14	13	14	12	3.8	2.2	3.6	1.4	2.2	5.1
2	3.0	12	13	12	14	12	5.6	2.3	3.6	1.6	2.3	3.0
3	2.7	11	12	12	13	12	8.0	3.0	4.1	1.7	2.7	1.7
4	2.7	11	12	12	15	12	11	2.1	5.1	2.0	2.0	1.0
5	2.6	11	12	12	15	12	10	3.3	5.4	2.2	1.5	.89
6	2.5	10	12	12	16	12	11	4.3	6.4	2.1	2.2	.68
7	2.9	9.8	12	11	17	11	11	4.5	5.8	1.9	2.5	.68
8	2.9	10	12	11	15	11	9.4	4.6	3.0	2.1	1.4	1.7
9	3.6	9.9	11	11	17	11	13	4.7	1.7	2.2	1.8	1.1
10	4.5	9.5	12	11	18	11	18	4.4	1.5	3.0	1.4	2.0
11	5.0	9.0	11	11	14	13	20	4.2	1.7	2.8	2.4	4.3
12	4.6	10	11	11	14	16	14	4.0	2.5	2.5	54	5.1
13	4.2	11	11	11	14	16	8.1	4.2	3.4	3.1	12	5.4
14	3.8	12	11	12	13	18	5.3	4.7	2.6	2.5	42	5.0
15	4.1	12	11	12	12	20	4.5	5.0	2.3	3.8	11	4.0
16	4.8	12	11	12	13	16	3.0	4.7	2.4	8.0	6.0	5.1
17	7.5	12	11	12	13	15	2.3	5.1	3.8	8.0	3.9	4.5
18	7.3	11	11	12	12	18	2.7	5.5	6.3	7.4	3.5	2.6
19	6.6	9.7	11	12	11	15	2.1	5.5	5.2	7.7	3.7	2.3
20	6.6	8.9	12	12	11	13	1.4	5.1	3.0	6.6	4.0	1.7
21	6.9	10	12	12	11	12	2.4	4.4	3.0	7.6	5.3	1.9
22	7.8	10	12	12	11	12	2.6	3.6	2.3	9.6	3.0	2.7
23	6.5	10	12	12	11	13	2.3	4.1	1.5	8.2	2.7	3.7
24	8.9	11	11	13	11	12	2.4	3.4	3.5	15	3.0	11
25	9.1	11	11	12	11	12	2.5	3.4	8.8	5.6	3.3	11
26	7.5	13	11	12	12	7.2	2.4	3.4	7.0	3.7	17	5.6
27	9.2	13	11	12	12	5.9	2.4	2.7	3.5	3.0	17	4.5
28	8.7	12	11	12	12	7.1	2.0	2.9	1.6	3.4	9.3	4.1
29	11	11	11	12	---	7.4	1.7	3.0	.74	4.2	8.2	4.0
30	11	12	11	12	---	7.9	2.0	3.8	.84	4.6	8.1	3.2
31	11	---	12	13	---	5.9	---	3.8	---	3.4	6.4	---
TOTAL	182.8	328.8	358	368	372	378.4	186.9	121.9	106.18	140.9	245.8	109.55
MEAN	5.90	11.0	11.5	11.9	13.3	12.2	6.23	3.93	3.54	4.55	7.93	3.65
MAX	11	14	14	13	18	20	20	5.5	8.8	15	54	11
MIN	2.5	8.9	11	11	11	5.9	1.4	2.1	.74	1.4	1.4	.68
AC-FT	363	652	710	730	738	751	371	242	211	279	488	217
CAL YR	1985	TOTAL	9494.52	MEAN	26.0	MAX	170	MIN	.07	AC-FT	18830	
WTR YR	1986	TOTAL	2899.23	MEAN	7.94	MAX	54	MIN	.68	AC-FT	5750	

LITTLE COLORADO RIVER BASIN

09386030 LITTLE COLORADO RIVER ABOVE ZION RESERVOIR, NEAR ST. JOHNS, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--1980 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
OCT 1985 23...	1430	6.8	3100	8.50	--	18.5	740	430	180	70
MAR 1986 24...	1510	8.6	3120	8.10	24.0	14.5	710	360	180	63

DATE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LILITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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)
OCT 1985 23...	450	7	21	--	17	304	750	450	1.8
MAR 1986 24...	380	6	19	427	--	348	680	370	2.3

DATE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT 1985 23...	16	2200	2.9	0.190	0.100	0.31	760	20	70
MAR 1986 24...	18	1900	2.6	0.580	0.300	0.92	730	40	40

LITTLE COLORADO RIVER BASIN

47

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM

LOCATION.--Lat 35°06'03", long 108°45'03", in NE¼ sec.17, T.10 N., R.18 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank downstream from highway bridge on State Highway 36, 0.8 mi upstream from flow line of Black Rock Reservoir, 2.3 mi northeast of Black Rock, and 5.9 mi northeast of Zuni Pueblo.

DRAINAGE AREA.--810 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1974 published as "above Zuni Reservoir."

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 6,480 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 5-14, Jan. 23-27 and Feb. 3-15, 17-25. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--17 years, 14.1 ft³/s, 10,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft³/s Aug. 4, 1974, gage height, 6.61 ft, from rating curve extended above 670 ft³/s on basis of slope-area measurements at gage heights, 4.05 ft, 3.94 ft, 5.16 ft, and 6.61 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 150 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 28	1715	*5.0	*3.01

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.77	1.5	1.5	1.2	1.2	2.0	1.5	.00	.00	.00	.00
2	.21	.83	1.6	1.2	1.2	1.1	2.7	1.5	.22	.00	.00	.00
3	.22	.81	1.6	1.3	1.2	1.2	3.6	1.8	.66	.00	.00	.00
4	.20	.79	1.5	1.2	1.1	1.2	3.6	1.6	.64	.00	.00	.00
5	.13	.82	1.2	1.1	1.2	1.2	2.9	1.4	.42	.00	.00	.00
6	.11	.82	1.1	1.1	1.1	1.6	2.1	1.3	.25	.00	.00	.00
7	.25	.80	1.1	1.1	1.2	1.4	1.9	1.4	.06	.00	.00	.00
8	.46	.92	1.0	1.1	1.3	1.4	1.9	1.4	.00	.00	.00	.00
9	.42	.67	1.0	1.0	1.2	1.2	1.9	1.1	.00	.00	.00	.00
10	.40	.75	.98	1.0	1.1	1.3	1.9	1.1	.00	.00	.00	.00
11	.55	.76	.96	1.1	1.2	3.0	1.9	.92	.00	.00	.00	.00
12	.63	.90	.94	1.3	1.3	3.1	1.8	.73	.00	.00	.00	.00
13	.63	.99	.90	1.6	1.2	2.9	1.8	.68	.00	.00	.00	.00
14	.54	1.1	.88	1.7	1.2	3.2	1.7	.71	.00	.00	.00	.00
15	.52	1.1	.86	1.2	1.1	2.9	1.7	.59	.00	.00	.00	.00
16	.52	1.2	.85	1.3	2.6	2.5	1.7	.47	.00	.00	.00	.00
17	.75	1.5	.84	1.3	2.2	2.7	1.7	.94	.00	.00	.00	.00
18	1.2	1.3	.85	1.2	1.8	2.8	1.5	1.1	.00	.15	.00	.00
19	.89	1.3	.90	1.2	1.6	2.5	1.8	.92	.00	2.0	.00	.00
20	.76	1.2	.92	1.2	1.4	1.8	1.9	.65	.00	1.2	.00	.00
21	.70	1.2	.98	1.2	1.3	1.6	1.8	.50	.00	1.0	.00	.00
22	.72	1.3	1.0	1.2	1.2	1.7	1.9	.36	.00	.99	.00	.00
23	.70	1.3	1.0	1.1	1.2	1.8	2.1	.26	.00	1.0	.00	.01
24	.79	1.3	1.0	1.1	1.2	1.7	2.3	.14	.00	.76	.00	.56
25	.61	1.3	1.1	1.0	1.2	1.7	1.8	.04	.00	.62	.00	1.7
26	.54	1.4	1.1	1.0	1.3	1.6	1.8	.00	.00	.49	.00	.95
27	.55	1.3	1.0	1.1	1.4	1.6	2.4	.00	.00	.38	.00	.53
28	.58	1.2	1.0	1.2	1.4	2.8	2.3	.00	.00	.30	.00	.30
29	.64	1.4	.99	1.2	---	3.4	2.0	.00	.00	.22	.00	.22
30	.56	1.6	1.0	1.2	---	2.2	1.5	.00	.00	.09	.00	.18
31	.64	---	1.4	1.2	---	1.9	---	.00	---	.00	.00	---
TOTAL	16.69	32.63	33.05	37.2	37.6	62.2	61.9	23.11	2.25	9.20	.00	4.45
MEAN	.54	1.09	1.07	1.20	1.34	2.01	2.06	.75	.07	.30	.00	.15
MAX	1.2	1.6	1.6	1.7	2.6	3.4	3.6	1.8	.66	2.0	.00	1.7
MIN	.11	.67	.84	1.0	1.1	1.1	1.5	.00	.00	.00	.00	.00
AC-FT	33	65	66	74	75	123	123	46	4.5	18	.00	8.8

CAL YR	1985	TOTAL	12424.45	MEAN	34.0	MAX	1530	MIN	.00	AC-FT	24640
WTR YR	1986	TOTAL	320.28	MEAN	.88	MAX	3.6	MIN	.00	AC-FT	635

LITTLE COLORADO RIVER BASIN

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Field and sediment data collected and analyzed by USGS. Chemical analyses performed on USGS collected samples by BIA Laboratory in Gallup, New Mexico.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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 1985 29...	1223	0.65	12.0	220	0	44	26	76	2	6.6
JAN 1986 28...	1203	1.3	1.0	260	0	60	26	80	2	3.1
MAR 12...	1200	3.3	7.0	390	0	90	40	92	2	8.6
APR 29...	1345	1.9	12.5	--	--	--	--	--	--	--
JUL 10...	1400	<1.0	13.0	--	--	--	--	--	--	--
DATE	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3 (00440)	CAR- BONATE WH WAT TOTAL FIELD MG/L AS CO3 (00445)	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)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	BORON, DIS- SOLVED (UG/L AS B) (01020)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1985 29...	290	12	100	27	0.30	439	650	72	5	0.01
JAN 1986 28...	370	0	120	20	0.40	479	280	78	4	0.01
MAR 12...	370	0	250	28	0.30	686	240	41	25	0.22
APR 29...	--	--	--	--	--	--	--	66	15	0.08
JUL 10...	--	--	--	--	--	--	--	80	25	--

< Actual value is known to be less than value shown.

LITTLE COLORADO RIVER BASIN

49

09390500 SHOW LOW CREEK NEAR LAKESIDE, AZ

LOCATION.--Lat 34°10'46", long 109°59'14", in SW¼NW¼ sec.14, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on left bank 1 mi upstream from pumping plant on Show Low Lake, 1.9 mi northwest of Lakeside, 2.2 mi upstream from Jaques Dam, and 6 mi southeast of Show Low.

DRAINAGE AREA.--68.6 mi².

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

REVISED RECORDS.--WSP 1513: 1954-56. WSP 1926: Drainage area. WRD Ariz. 1971: 1970(M).

GAGE.--Water-stage recorder and concrete-dam control with V-notch sharp-crested weir. Elevation of gage is 6,610 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 5-7, Oct. 12 to Nov. 5, Jan. 5-6, and Sept. 4. Records good except for estimated periods Oct. 5-7, Jan. 5-6, and Sept. 4, which are fair and Oct. 12-31, Nov. 1-5, which are poor. Record shows inflow to Show Low Lake. Flow partly regulated by several small reservoirs, largest of which are Rainbow Lake and Scott Reservoir, combined capacity, 2,400 acre-ft. Diversions for irrigation of about 250 acres above station.

AVERAGE DISCHARGE.--33 years, 14.7 ft³/s, 10,650 acre-ft/yr; median of yearly mean discharges, 10.0 ft³/s, 7,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,550 ft³/s Dec. 18, 1978, gage height, 9.16 ft, from rating curve extended above 2,500 ft³/s; maximum gage height, 9.53 ft Dec. 26, 1971; no flow Oct. 5, 6, Dec. 10-19, 1964, Jan. 4-15, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	2200	*345	*3.68
Mar. 22	0330	123	3.11

Minimum daily discharge, 1.9 ft³/s Sept. 22-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	10	16	6.2	5.7	9.4	13	5.2	7.3	7.9	8.3	7.9
2	11	10	17	6.1	7.0	9.0	15	5.4	5.4	8.5	8.1	5.9
3	11	10	26	6.1	7.1	9.0	28	5.5	4.2	9.2	8.0	3.9
4	10	10	28	5.8	7.7	8.7	23	4.9	4.4	9.6	8.0	4.7
5	10	10	28	5.8	7.3	7.6	17	4.8	3.9	9.0	7.9	5.3
6	10	10	17	5.6	7.1	7.0	14	4.8	3.3	8.2	8.2	5.5
7	12	10	16	5.5	7.1	6.2	13	4.9	3.6	8.4	8.1	5.2
8	11	9.9	14	5.3	7.3	6.9	13	5.6	3.6	8.5	8.2	4.9
9	15	9.6	14	5.2	7.7	8.3	9.7	4.8	3.3	9.1	7.4	4.8
10	24	9.5	13	5.2	7.1	9.1	9.2	4.7	3.1	9.2	8.5	6.2
11	57	9.8	13	5.0	7.1	11	8.9	4.4	3.0	9.2	7.1	4.5
12	30	12	13	4.8	7.2	9.8	8.7	4.3	3.0	9.1	11	3.7
13	15	12	11	5.0	6.9	12	8.4	3.9	3.7	8.3	6.8	3.3
14	10	11	11	5.0	6.9	14	8.3	3.7	3.7	8.3	6.1	3.0
15	10	11	11	5.0	7.7	14	7.9	3.6	3.7	8.5	6.3	2.6
16	10	11	11	5.0	192	15	7.7	3.6	3.8	8.6	6.9	2.7
17	10	11	11	4.9	144	37	7.3	3.7	3.7	9.5	7.2	2.6
18	10	10	11	5.0	78	49	6.8	3.7	3.5	9.1	7.6	2.6
19	10	9.7	11	4.9	59	50	6.5	3.9	3.0	9.1	7.5	2.4
20	10	9.7	11	4.9	49	56	6.5	4.0	2.8	9.5	7.5	2.2
21	10	9.7	11	4.8	37	75	6.0	3.9	3.0	8.7	8.1	2.1
22	10	9.7	11	4.8	18	100	5.6	3.9	2.8	8.5	8.0	1.9
23	10	9.7	11	4.8	15	90	6.1	3.7	2.8	9.1	8.1	1.9
24	10	9.7	11	4.7	12	70	6.5	4.0	3.2	8.8	8.2	11
25	10	10	11	4.6	9.7	55	5.9	3.8	5.6	8.8	8.4	4.9
26	10	16	11	4.6	9.1	44	5.6	5.0	8.0	8.5	7.9	5.1
27	10	17	11	4.6	9.9	34	5.2	7.1	7.9	8.0	8.4	4.6
28	10	14	8.3	4.6	9.8	22	4.8	6.7	8.3	7.9	13	4.2
29	10	13	6.3	4.6	---	17	4.6	5.8	8.4	8.2	11	4.1
30	10	16	6.3	4.6	---	16	4.5	7.8	8.2	8.4	9.9	3.7
31	10	---	7.3	5.3	---	14	---	7.0	---	8.5	8.8	---
TOTAL	408	331.0	408.2	158.3	749.4	886.0	286.7	148.1	134.2	270.2	254.5	127.4
MEAN	13.2	11.0	13.2	5.11	26.8	28.6	9.56	4.78	4.47	8.72	8.21	4.25
MAX	57	17	28	6.2	192	100	28	7.8	8.4	9.6	13	11
MIN	10	9.5	6.3	4.6	5.7	6.2	4.5	3.6	2.8	7.9	6.1	1.9
AC-FT	809	657	810	314	1490	1760	569	294	266	536	505	253
CAL YR	1985	TOTAL	10996.5	MEAN	30.1	MAX	1270	MIN	3.3	AC-FT	21810	
WTR YR	1986	TOTAL	4162.0	MEAN	11.4	MAX	192	MIN	1.9	AC-FT	8260	

LITTLE COLORADO RIVER BASIN

09391000 SHOW LOW LAKE NEAR SHOW LOW, AZ

LOCATION.--Lat 34°11'35", long 110°00'15", in NW¼ sec.10, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on upstream side of left end of Jaques Dam on Show Low Creek, 3.4 mi northwest of Lakeside, and 4.5 mi southeast of Show Low.

DRAINAGE AREA.--73.0 mi².

PERIOD OF RECORD.--June 1953 to current year. Periodic readings of elevation and contents only, 1953-1985, published with record of Show Low Creek below Jaques Dam near Show Low, AZ (09392000).

GAGE.--Water-stage recorder, with periodic supplemental lake elevation readings. Altitude of gage is 6500.0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by an earthen-rock dam; storage began in spring of 1953. The spillway is a concrete, broad-crested Ogee weir. Total capacity to spillway, 6,176 acre-ft, consisting of 1,070 acre-ft dead storage below elevation 6,535.0 ft (sill of outlet structure) and 5,106 acre-ft usable storage between elevation 6,535.0 ft and 6,570.0 ft (sill of overflow spillway). Capacity table prepared by Leeds, Hill, and Jewett, consulting engineers, from surveys by the firm. Water cannot be pumped when lake elevation is below 6,538.5 ft (sill of intake to pumping plant), but can be released to stream channel down to elevation 6,535.0 ft.

COOPERATION.--Periodic observations of lake elevation furnished by Navapache Electric Company.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 6,920 acre-ft Dec. 18, 1978 and Dec. 27, 1984; maximum elevation, 6,573.72 ft Dec. 27, 1984; minimum contents, not determined.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 4,340 acre-ft Apr. 8, elevation 6,559.87 ft; minimum, 1,890 acre-ft June 25, elevation 6,542.76 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2550	2560	2510	3230	3080	---	4170	3580	2540	1910	2040	2180
2	2550	2550	2550	3240	3060	---	4190	3550	2530	1920	2040	2190
3	2550	2540	2600	3240	3040	---	4230	3520	2500	1920	2040	2190
4	2540	2530	2660	3250	3020	3530	4270	3480	2460	1930	2040	2190
5	2530	2520	2700	3260	3000	3500	4290	3450	2430	1930	2040	2200
6	2530	2510	2720	3260	2980	3470	4310	3410	2390	1930	2040	2200
7	2530	2510	2750	3270	2950	3440	4320	3370	2360	1940	2050	2200
8	2520	2500	2780	3280	2940	3410	4330	3340	---	1940	2050	2200
9	2530	2480	2800	3280	2920	3380	4320	3300	---	1950	2050	2200
10	2560	2470	2820	3290	2900	3360	4280	3270	---	1950	2060	2200
11	2640	2460	2850	3300	2870	3340	4250	3230	---	1960	2070	2200
12	2660	2460	2880	3300	2850	3330	4220	3200	---	1960	2080	2190
13	2660	2460	2900	3310	2830	3310	4180	3160	---	1960	2080	2180
14	2660	2450	2920	3310	2810	3300	4150	3120	---	1970	2080	2170
15	2660	2440	2940	3320	2790	3290	4110	3080	---	1970	2070	2160
16	2660	2440	2960	3320	3150	3280	4070	3050	---	1980	2070	2160
17	2660	2430	2980	3330	3430	3300	4030	3010	2000	1980	2070	2140
18	2670	2420	3000	3340	3560	3330	4000	2970	1970	1990	2070	2140
19	2660	2410	3020	3340	3650	3390	3970	2940	1950	2000	2080	2130
20	2660	2400	3040	3350	3700	3480	3940	2900	1930	2010	2080	2110
21	2650	2390	3060	3350	3720	3590	3910	2860	1920	2020	2080	2100
22	2640	---	3080	3360	3730	3740	3880	2820	1910	2020	2090	2090
23	2630	---	3100	3340	3720	3880	3850	2790	1900	2030	2090	2090
24	2620	---	3120	3310	---	3970	3820	2750	1890	2030	2090	2100
25	2610	---	3130	3280	---	4030	3780	2720	1890	2040	2100	2100
26	2610	---	3150	3250	---	4080	3740	2680	1890	2040	2100	2100
27	2600	---	3170	3220	---	4070	3710	2640	1900	2040	2120	2100
28	2590	2410	3190	3200	3640	4090	3680	2610	1900	2040	2140	2100
29	2580	2440	3200	3160	---	4120	3640	2570	1900	2040	2150	2100
30	2570	2480	3210	3140	---	4140	3610	2560	1910	2040	2160	2110
31	2570	---	3220	3110	---	4160	---	2550	---	2040	2170	---
MAX	2670	---	3220	3360	---	---	4330	3580	---	2040	2170	2200
MIN	2520	---	2510	3110	---	---	3610	2550	---	1910	2040	2090
(*)	6548.14	6547.47	6552.76	6552.00	6555.46	6558.76	6555.35	6548.03	6543.15	6544.02	6545.06	6544.56

* Elevation, in feet, at end of month.

Note.--No gage-height record on days when no values of contents are listed except at monthend, when contents are estimated.

LITTLE COLORADO RIVER BASIN

51

09392000 SHOW LOW CREEK BELOW JAKUES DAM, NEAR SHOW LOW, AZ

LOCATION.--Lat 34°11'47", long 110°00'13", in NW¼ sec.10, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on right bank just downstream from Jaques Dam, 3.5 mi northwest of Lakeside, and 4.5 mi southeast of Show Low.

DRAINAGE AREA.--73.0 mi².

PERIOD OF RECORD.--November 1941 to January 1945, June 1953 to September 1955 (monthly discharge only), October 1955 to current year. Monthly discharge only November 1941 to January 1945, published in WSP 1313. Published as "at Jaques damsite, near Lakeside" 1941-45.

REVISED RECORDS.--WSP 1926: Drainage area. WDR AZ-81-1: 1979 (M).

GAGE.--Water-stage recorder and sharp-crested weir, with supplementary water-stage recorder on lake for recording flow over concrete spillway. Elevation of gage is 6,530 ft above National Geodetic Vertical Datum of 1929, from topographic map. November 1941 to January 1945 nonrecording gage at site 100 ft upstream at different datum.

REMARKS.--No estimated daily discharge. Records good. Record since 1953 shows release from Show Low Lake. Flow regulated by several reservoirs, largest of which are Show Low Lake, completed in 1953; Rainbow Lake, completed prior to 1941; and Scott Reservoir, completed in 1946 (combined capacity, 8,800 acre-ft). Diversions for irrigation of about 250 acres above Show Low Lake and diversion by pumping of floodwater stored in Show Low Lake to Forestdale Creek in Salt River basin (see record for Forestdale Creek diversion from Show Low Creek, near Show Low, elsewhere in this report).

AVERAGE DISCHARGE.--33 years (water years 1954-86), 8.81 ft³/s, 6,380 acre-ft/yr; median of yearly mean discharges, 3.4 ft³/s, 2,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,800 ft³/s, spillway flow entering 0.2 mi downstream from station, Dec. 27, 1984, lake elevation, 6,573.72 ft, from rating curve extended above 270 ft³/s; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 18, 1952, discharge, 6,250 ft³/s at site 5 mi downstream at Show Low, is the largest since at least 1940.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7.1 ft³/s May 13-15, Aug. 10, 12, 22-26; minimum daily, 1.0 ft³/s Dec. 13, Sept. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	1.1	1.1	1.1	1.1	2.8	5.8	6.0	6.6	6.4	6.8	2.5
2	1.1	1.1	1.1	1.1	1.1	2.8	5.8	6.0	6.6	6.4	7.0	1.0
3	1.1	1.1	1.1	1.1	1.1	2.9	5.8	6.0	6.6	6.4	7.0	1.0
4	1.1	1.1	1.1	1.1	1.1	2.9	5.9	6.0	6.6	6.4	7.0	2.2
5	1.1	1.1	1.1	1.1	1.1	2.9	6.0	6.0	6.6	6.4	7.0	2.8
6	1.1	1.1	1.1	1.1	1.1	2.9	6.0	6.4	6.6	6.4	7.0	3.2
7	1.1	1.1	1.1	1.1	1.1	2.9	6.0	6.8	6.6	6.4	7.0	4.8
8	1.1	1.1	1.1	1.1	1.1	2.9	6.0	6.8	6.6	6.4	7.0	4.8
9	1.1	1.1	1.1	1.1	1.1	2.9	6.0	6.8	6.5	6.4	7.0	4.8
10	1.1	1.1	1.1	1.1	1.1	2.9	6.0	6.8	6.4	6.4	7.1	4.8
11	1.1	1.1	1.1	1.1	1.1	2.9	6.0	6.8	6.4	6.4	7.0	4.8
12	1.1	1.1	1.1	1.1	1.1	2.9	6.0	7.0	6.4	6.4	7.1	6.0
13	1.1	1.1	1.0	1.1	1.1	2.9	6.0	7.1	6.4	6.4	7.0	6.6
14	1.1	1.1	1.1	1.1	1.1	2.9	6.0	7.1	6.4	6.4	7.0	6.6
15	1.1	1.1	1.2	1.1	1.1	2.9	6.0	7.1	6.5	6.4	7.0	6.6
16	1.1	1.1	1.2	1.1	1.1	2.9	6.0	7.0	6.8	6.4	7.0	6.6
17	1.1	1.1	1.2	1.1	1.1	2.9	6.0	6.9	6.8	6.4	7.0	6.6
18	1.1	1.1	1.3	1.1	1.1	2.9	6.0	6.8	6.8	6.4	7.0	6.6
19	1.1	1.1	1.3	1.1	1.1	2.9	6.0	6.8	6.8	6.4	7.0	6.6
20	1.1	1.1	1.2	1.1	1.1	2.9	6.0	6.8	6.8	6.4	7.0	6.6
21	1.1	1.1	1.1	1.1	1.1	3.0	6.0	6.8	6.8	6.4	7.0	6.6
22	1.1	1.1	1.1	1.1	1.1	3.1	6.0	6.8	6.8	6.4	7.1	6.6
23	1.1	1.1	1.1	1.1	1.1	3.1	6.0	6.8	6.8	6.4	7.1	6.6
24	1.1	1.1	1.1	1.1	1.1	3.2	6.0	6.8	6.8	6.4	7.1	6.6
25	1.1	1.1	1.1	1.1	1.1	3.2	6.0	6.8	6.4	6.6	7.1	5.2
26	1.1	1.1	1.1	1.1	1.7	3.2	6.0	6.7	6.4	6.8	7.1	4.2
27	1.1	1.1	1.1	1.1	2.8	3.2	6.0	6.6	6.4	6.8	6.6	4.2
28	1.1	1.1	1.1	1.1	2.8	4.9	6.0	6.6	6.4	6.8	5.6	4.2
29	1.1	1.1	1.1	1.1	---	5.8	6.0	6.6	6.4	6.8	5.6	2.7
30	1.1	1.1	1.1	1.1	---	5.8	6.0	6.6	6.4	6.8	5.6	2.1
31	1.1	---	1.1	1.1	---	5.8	---	6.6	---	6.8	5.6	---
TOTAL	34.1	33.0	34.8	34.1	34.8	102.1	179.3	206.7	197.4	201.0	211.5	144.5
MEAN	1.10	1.10	1.12	1.10	1.24	3.29	5.98	6.67	6.58	6.48	6.82	4.82
MAX	1.1	1.1	1.3	1.1	2.8	5.8	6.0	7.1	6.8	6.8	7.1	6.6
MIN	1.1	1.1	1.0	1.1	1.1	2.8	5.8	6.0	6.4	6.4	5.6	1.0
AC-FT	68	65	69	68	69	203	356	410	392	399	420	287
CAL YR 1985	TOTAL	10057.0	MEAN	27.6	MAX	1130	MIN	1.0	AC-FT	19950		
WTR YR 1986	TOTAL	1413.3	MEAN	3.87	MAX	7.1	MIN	1.0	AC-FT	2800		

LITTLE COLORADO RIVER BASIN

09393500 SILVER CREEK NEAR SNOWFLAKE, AZ

LOCATION.--Lat 34°40'00", long 110°02'30", in SW¼NW¼ sec.29, T.15 N., R.22 E., Navajo County, Hydrologic Unit 15020005, on left bank 6 mi upstream from mouth and 11 mi north of Snowflake.

DRAINAGE AREA.--886 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 5,204.1 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Diversions for irrigation above station of about 6,600 acres. Flow regulated by several reservoirs - combined capacity, about 13,700 acre-ft, excluding Lone Pine Reservoir, but including 6,176 acre-ft in Show Low Lake.

AVERAGE DISCHARGE.--36 years, 19.2 ft³/s, 13,910 acre-ft/yr; median of yearly mean discharges, 14 ft³/s, 10,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s Jan. 19, 1952, gage height, 18.0 ft, from rating curve extended above 4,400 ft³/s on basis of peak discharge for former station near Woodruff; no flow for several days in water years 1971, 1974-78, 1980-82, 1984, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharges (ft ³ /s)	Gage Height (ft)
Aug. 28	2015	*409	*4.27

No flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	4.6	7.8	4.5	.74	2.4	.20	.81	1.4	.65	3.2	42
2	14	3.2	7.1	4.6	.62	1.3	.06	1.4	3.8	1.9	5.9	8.8
3	13	3.0	6.0	5.6	.75	.72	.01	.53	1.9	2.5	3.4	6.9
4	17	2.6	5.4	5.7	2.7	.62	.00	.14	1.7	5.3	3.1	5.8
5	14	2.4	5.9	4.1	3.1	.33	.06	.02	2.6	4.1	1.9	3.0
6	14	1.7	5.9	3.5	3.5	.26	.10	.03	3.7	2.3	1.9	2.1
7	14	1.7	5.7	3.4	2.3	.23	.08	.62	1.4	1.8	2.4	5.4
8	11	1.4	5.0	4.2	1.0	.13	.03	2.6	2.7	1.8	2.8	2.5
9	9.8	1.7	5.6	4.3	1.8	.09	.00	2.7	1.9	1.7	2.3	3.4
10	12	1.3	5.4	4.7	3.5	.05	.00	2.9	.44	7.4	.97	8.6
11	21	1.1	5.5	3.8	4.2	.01	.00	3.2	.12	7.7	.83	8.7
12	17	1.2	6.0	3.7	4.3	.00	.00	1.6	.91	4.8	.84	7.9
13	11	1.5	4.2	3.9	4.0	.00	.00	.52	1.8	5.7	2.5	5.3
14	8.6	6.1	3.4	5.4	3.9	.30	.00	.19	.97	4.5	1.4	4.3
15	9.1	8.1	3.4	4.1	4.0	.65	.27	.39	.62	3.5	2.8	4.4
16	6.9	6.9	3.4	4.3	3.6	2.3	.84	.87	.35	17	1.4	2.4
17	6.0	6.2	3.4	3.0	3.6	1.3	.87	2.0	.21	8.4	1.0	2.7
18	7.1	5.5	3.6	2.0	2.1	.71	.57	1.3	2.1	7.1	2.3	3.7
19	8.7	5.1	3.8	1.4	1.7	.32	.40	.58	2.7	29	1.8	3.6
20	8.0	4.5	4.2	.75	2.9	.15	.17	2.8	3.2	25	3.5	3.6
21	8.7	7.4	4.3	.49	3.6	.02	.05	1.3	2.5	27	3.4	2.7
22	9.0	7.1	4.4	.45	3.2	.52	.19	.67	1.6	18	28	2.8
23	8.6	5.4	4.5	.39	3.0	.50	.32	.55	.84	6.6	4.6	2.0
24	8.1	5.7	4.8	.23	2.4	.31	.10	.66	.56	5.0	8.3	39
25	8.8	5.3	4.6	.62	2.2	.12	.01	.90	.78	7.2	38	15
26	8.5	5.4	4.5	.57	2.0	.05	.00	.64	2.1	5.0	28	12
27	7.5	6.1	4.3	.35	2.3	.01	.00	.52	2.1	4.4	9.4	11
28	5.2	6.4	4.5	.35	3.3	.00	.05	.10	2.1	1.6	55	5.0
29	7.0	6.2	5.3	.22	---	.00	1.1	2.0	2.3	4.2	56	3.4
30	4.7	7.2	4.7	.64	---	.03	.70	2.8	1.6	2.6	17	5.1
31	4.2	---	4.5	.71	---	.22	---	3.5	---	2.8	32	---
TOTAL	321.5	132.0	151.1	81.97	76.31	13.65	6.18	38.84	51.00	226.55	325.94	233.1
MEAN	10.4	4.40	4.87	2.64	2.73	.44	.21	1.25	1.70	7.31	10.5	7.77
MAX	21	8.1	7.8	5.7	4.3	2.4	1.1	3.5	3.8	29	56	42
MIN	4.2	1.1	3.4	.22	.62	.00	.00	.02	.12	.65	.83	2.0
AC-FT	638	262	300	163	151	27	12	77	101	449	647	462
CAL YR	1985	TOTAL	12125.03	MEAN	33.2	MAX	543	MIN	.36	AC-FT	24050	
WTR YR	1986	TOTAL	1658.14	MEAN	4.54	MAX	56	MIN	.00	AC-FT	3290	

09394500 LITTLE COLORADO RIVER AT WOODRUFF, AZ

LOCATION.--Lat 34°46'58", long 110°02'37", in NE¼SW¼ sec.17, T.16 N., R.22 E., Navajo County, Hydrologic Unit 15020002, on left bank at abandoned county road bridge in Woodruff, 3.7 mi downstream from Silver Creek.

DRAINAGE AREA.--8,100 mi², approximately.

PERIOD OF RECORD.--March to May 1905; June to July 1905 (gage heights only); August 1905 to May 1907; July 1907 to April 1908, July to October 1908, December 1908, and December 1915 to September 1916 (gage heights only); October 1916 to August 1917 (monthly discharge only); September 1917 to March 1918, December 1918 to December 1919, April 1929 to December 1933, September 1935 to current year. Published as "near Woodruff" 1916-19, 1929-48.

REVISED RECORDS.--WSP 1049: 1917. WSP 1213: 1906, 1919(M).

GAGE.--Water-stage recorder. Datum of gage is 5,130.3 ft above National Geodetic Vertical Datum of 1929. See WSP 1733 for history of changes prior to Sept. 22, 1949.

REMARKS.--Estimated daily discharges: Oct. 13 to Nov. 5, Mar. 16-20, Mar. 25 to Apr. 4, 23-24, Apr. 29 to May 14, June 24 to July 1, 5-16, 25-29, Aug. 29-31, and Sept. 28-30. Records good except for estimated daily discharges, which are fair. Diversions above station for irrigation of about 22,000 acres including a pump installation 1,000 ft upstream installed in spring of 1973. Some regulation by reservoirs above station; combined capacity, about 73,000 acre-ft, excluding Lone Pine Reservoir.

AVERAGE DISCHARGE.--57 years (water years 1906, 1917, 1930-33, 1936-86), 53.5 ft³/s, 38,760 acre-ft/yr; median of yearly mean discharges, 44 ft³/s, 31,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined, occurred Jan. 19, 1916; maximum discharge recorded, 25,000 ft³/s Dec. 5, 1919; maximum gage height, 22.9 ft from high-water mark in gage well, Dec. 19, 1978; no flow at times in most years prior to 1960 and in 1974, 1976, and 1983.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 4	1420	*1,420	*9.94

Minimum daily discharge, 0.92 ft³/s Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	5.5	39	13	7.5	7.6	7.4	.95	4.9	2.6	3.8	124
2	20	5.4	24	11	7.4	7.2	7.2	1.6	4.1	2.1	4.3	50
3	13	5.3	15	11	6.9	6.4	7.0	1.7	4.0	1.8	5.4	12
4	18	5.2	10	10	7.5	6.1	6.8	1.5	4.1	402	4.1	8.8
5	15	5.1	8.2	9.4	8.5	6.3	6.8	1.4	3.5	12	4.0	6.1
6	16	5.0	7.5	9.1	9.1	6.0	5.8	1.3	4.3	1.6	2.6	4.9
7	16	4.6	7.4	9.4	9.2	5.8	5.3	1.2	3.9	1.6	2.6	5.4
8	16	4.2	7.2	11	7.4	5.6	5.3	2.7	2.9	1.6	2.9	8.5
9	13	4.0	6.6	12	8.3	5.6	5.0	4.3	3.3	29	3.4	9.5
10	57	4.3	6.7	13	9.1	5.3	5.0	4.7	2.5	61	3.8	7.7
11	257	4.1	6.8	11	11	5.8	4.4	5.3	2.6	2.4	1.9	9.1
12	84	4.5	6.5	12	10	6.3	3.9	4.6	2.1	1.8	2.5	8.5
13	40	4.8	14	10	14	7.1	4.4	3.5	2.7	1.8	3.4	7.2
14	20	6.1	15	11	16	22	4.4	2.6	3.3	1.8	3.5	6.5
15	10	10	15	12	16	77	4.6	2.2	2.5	1.8	2.5	4.7
16	9.0	9.7	15	11	15	76	3.3	3.2	1.6	6.0	3.4	4.7
17	8.0	8.8	15	10	25	48	3.9	3.9	1.8	192	2.9	3.6
18	7.0	7.7	13	8.5	22	23	3.3	4.3	1.6	34	2.5	4.6
19	6.8	7.1	19	8.0	12	17	3.7	3.8	1.9	120	3.0	4.9
20	6.7	6.7	27	7.4	9.0	13	2.0	3.3	2.0	223	3.2	4.8
21	6.6	6.8	29	6.8	8.8	10	2.0	4.8	2.1	218	4.8	4.6
22	6.5	8.8	21	6.4	8.8	9.4	2.6	3.3	2.0	511	23	4.5
23	6.4	7.6	12	6.1	8.7	8.9	2.6	2.9	1.7	257	8.6	4.5
24	6.3	6.9	13	5.7	7.7	8.8	2.6	2.2	.97	328	5.8	140
25	6.2	6.2	11	5.0	7.3	8.8	2.6	2.3	1.2	57	42	161
26	6.1	6.5	10	5.2	7.0	8.6	2.0	2.1	2.6	18	69	32
27	6.0	6.9	11	5.3	6.9	8.4	1.2	1.8	3.8	6.2	113	19
28	5.9	8.4	11	5.8	7.3	8.2	.92	1.6	3.8	3.6	147	8.7
29	5.8	8.8	12	6.1	---	8.0	1.1	1.2	4.0	3.6	178	6.6
30	5.7	10	11	6.3	---	7.8	1.1	3.4	3.5	4.2	11	6.6
31	5.6	---	13	7.2	---	7.6	---	4.5	---	3.3	7.9	---
TOTAL	725.6	195.0	431.9	275.7	293.4	451.6	118.22	88.15	85.27	2509.8	675.8	683.0
MEAN	23.4	6.50	13.9	8.89	10.5	14.6	3.94	2.84	2.84	81.0	21.8	22.8
MAX	257	10	39	13	25	77	7.4	5.3	4.9	511	178	161
MIN	5.6	4.0	6.5	5.0	6.9	5.3	.92	.95	.97	1.6	1.9	3.6
AC-FT	1440	387	857	547	582	896	234	175	169	4980	1340	1350

CAL YR	1985	TOTAL	33195.11	MEAN	90.9	MAX	874	MIN	.72	AC-FT	65840
WTR YR	1986	TOTAL	6533.44	MEAN	17.9	MAX	511	MIN	.92	AC-FT	12960

LOCATION.--Lat 35°10'42", long 109°27'15", in SW¼NW¼ sec.35, T.21 N., R.27 E., Apache County, Hydrologic Unit 15020007, on upstream side of right abutment of Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.5 mi southwest of Chambers.

PERIOD OF RECORD.--Water years 1971-72 (annual maximums only), January 1973 to current year (daily mean discharge above 500 ft³/s only).

REMARKS.--No estimated daily discharges. Records poor. Only daily mean discharges above 500 ft³/s are published. Small diversions above station for irrigation and livestock. Red Lake, near the headwaters of Black Creek, was built in 1954; the capacity was 9,700 acre-ft, but capacity may have been reduced by silting.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

No flow for several days.

[illegible]

LITTLE COLORADO RIVER BASIN

09397300 LITTLE COLORADO RIVER NEAR JOSEPH CITY, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1979 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since October 1981.

REMARKS.--Suspended-sediment load computed from load-discharge relation curves. Published record includes only those days on which instantaneous discharge exceeds 500 ft³/s. See remarks for water-discharge records.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT DISCHARGE: Maximum daily, 344,000 tons July 21.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

[illegible]

LITTLE COLORADO RIVER BASIN

57

09398300 BLUE RIDGE RESERVOIR NEAR PINE, AZ

LOCATION.--Lat 34°33'19", long 111°11'00", in NE¼SE¼ sec.33, T.14 N., R.11 E., Coconino County, Hydrologic Unit 15020008, in Coconino National Forest, on upstream side of left end of spillway structure of Blue Ridge Dam on East Clear Creek, at mouth of General Springs Canyon, 7.3 mi east of Clints Well and 20 mi northeast of Pine.

DRAINAGE AREA.--71.1 mi².

PERIOD OF RECORD.--December 1964 to March 1965 (periodic elevations only), April 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,620 ft above National Geodetic Vertical Datum of 1929; gage readings have been reduced to elevations NGVD. Prior to Apr. 2, 1965, nonrecording-gage readings (at intervals of 3 to 8 days) at NGVD.

REMARKS.--Reservoir is formed by a concrete arch dam. Dam completed and storage began in December 1964. Total capacity is 19,500 acre-ft at elevation 6,735 ft, of which 15,000 acre-ft is usable storage below 6,720 ft, the spillway crest. Drawdown below 6,646.3 ft, 2,620 acre-ft restricted by sill at mouth of diversion tunnel since November 1981. Reservoir serves as a basin from which water is pumped to the East Verde River. (See records for East Verde River diversion from East Clear Creek, near Pine.) Release is possible through valve in base of dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 16,200 acre-ft Feb. 19, 1980, elevation, 6,724.12 ft; minimum contents since reservoir filled (April 1965), 1,450 acre-ft Nov. 18-27, 1981; minimum elevation, 6,630.75 ft Nov. 26, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 15,310 acre-ft Mar. 27, elevation, 6,721.17 ft; minimum, 7,000 acre-ft Sept. 30, elevation, 6,682.64 ft.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on surveys by Leeds, Hill, and Jewett, Inc., January 1962)

6,680	6,580	6,720	15,000
6,700	10,260	6,730	17,960

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	13930	14650	14200	15050	15170	14620	13180	11630	9860	---
2	---	---	14050	14650	14190	15040	15240	14570	13140	11580	9800	---
3	---	---	14200	14630	14180	15040	15210	14520	13100	11520	9750	---
4	---	---	14350	14620	14180	15040	15160	14470	13060	11470	9710	---
5	---	---	14470	14610	14160	15030	15130	14420	13040	11410	9660	---
6	---	---	14550	14590	14160	15020	15100	14370	12990	11350	9620	---
7	---	---	14630	14570	14150	15020	15080	14320	12940	11290	9550	8000
8	---	---	14680	14560	14140	15010	15060	14280	12890	11230	9490	7940
9	---	---	14720	14540	14130	15020	15050	14230	12840	11170	9440	7880
10	---	---	14740	14530	14130	15040	15040	14180	12800	11110	9380	7830
11	10150	---	14770	14510	14110	15040	15030	14130	12750	11040	9350	7780
12	10120	---	14790	14490	14100	15050	15020	14090	12710	10990	9280	7720
13	10090	---	14800	14480	14080	15060	15020	14040	12660	10920	9230	7670
14	10060	---	14820	14470	14080	15070	15010	14000	12610	10870	9170	7610
15	10020	---	14810	14450	14090	15080	15000	13950	12560	10820	9120	7550
16	10000	---	14810	14440	14130	15080	15000	13910	12530	10750	9050	7500
17	9960	---	14810	14420	14290	15080	14990	13850	12490	10690	9010	7440
18	9930	---	14790	14400	14580	15080	14980	13810	12440	10630	8950	7390
19	9900	---	14780	14390	14940	15080	14980	13760	12390	10590	8890	7330
20	9860	---	14780	14370	15190	15100	14970	13710	12330	10540	8830	7280
21	9820	---	14780	14360	15170	15140	14960	13660	12260	10490	8780	7230
22	9790	---	14760	14350	15130	15190	14950	13620	12200	10440	8720	7180
23	9750	---	14750	14330	15100	15250	14930	13570	12140	10390	8670	7150
24	9720	---	14750	14320	15080	15270	14920	13520	12070	10330	8620	7100
25	9680	---	14730	14300	15070	15280	14890	13480	12010	10270	8570	7110
26	9640	---	14720	14290	15070	15310	14840	13440	11950	10210	8510	7140
27	9610	13310	14710	14270	15060	15310	14800	13390	11890	10150	8470	7120
28	9570	13520	14700	14250	15050	15270	14760	13340	11820	10090	---	7080
29	9540	13650	14690	14230	---	15250	14700	13290	11750	10030	---	7040
30	9500	13810	14680	14220	---	15180	14660	13250	11690	9980	---	7000
31	9460	---	14670	14200	---	15140	---	13220	---	9920	8280	---
*	6696.00	6715.44	6718.72	6716.94	6720.21	6720.54	6718.69	6713.00	6706.64	6698.28	6690.00	6682.64
**	-200	+3720	+1490	-470	+850	+90	-480	-1440	-1530	-1770	-1640	-1280
MAX	---	---	14820	14650	15190	15310	15240	14620	13180	11630	9860	---
MIN	9460	---	13930	14200	14080	15010	14660	13220	11690	9920	8280	7000
CAL YR	1985	**	+2470									
WTR YR	1986	**	-2660									

* Elevation, in feet, at monthend.

** Change in content, in acre-feet.

Note.--No gage-height record on days when no values of content are listed except at monthend, when contents are estimated.

LITTLE COLORADO RIVER BASIN

09398500 CLEAR CREEK BELOW WILLOW CREEK, NEAR WINSLOW, AZ

LOCATION.--Lat 34°40'03", long 111°00'25", in SW¼SE¼ sec.19, T.15 N., R.13 E., Coconino County, Hydrologic Unit 15020008, in Apache-Sitgreaves National Forest, on right bank 2 mi downstream from Willow Creek and 30 mi southwest of Winslow.

DRAINAGE AREA.--321 mi².

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

GAGE.--Water-stage recorder. Altitude of gage is 5,957 ft above National Geodetic Vertical Datum of 1929, from Topographic Division by photogrammetry.

REMARKS.--Estimated daily discharges: Oct. 18, Dec. 11-31, Jan. 1, 8-16, 25-27, Feb. 5, 7-12. Records good except for the following periods when there was ice effect in the well, Dec. 11, 12, 25-31, Jan. 1, 9-16, 25-27, Feb. 5, 7-12, which are fair and Dec. 13-24, Jan. 8, which are poor. Flow is partially controlled by Blue Ridge Reservoir (usable capacity, 15,000 acre-ft) about 20 mi upstream. (See sta 09398300.) Diversion to East Verde River from Blue Ridge Reservoir. (See sta 09507580.)

AVERAGE DISCHARGE (unadjusted for diversion or storage).--39 years, 86.7 ft³/s, 62,810 acre-ft/yr; median of yearly mean discharges, 57 ft³/s, 41,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft³/s Dec. 18, 1978, gage height, 22.32 ft, from rating curve extended above 6,000 ft³/s; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0900	*2,570	*10.75	Mar. 27	0900	1,020	8.08
Feb. 21	0700	625	7.07	Apr. 2	1800	609	7.02

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.36	139	9.7	4.2	106	290	2.0	.00	.00	.00	.00
2	.00	.32	114	9.0	5.8	90	488	1.7	.00	.00	.00	.00
3	.00	.28	112	9.4	14	87	510	1.6	.00	.00	.00	.00
4	.00	.40	133	8.5	22	82	341	1.3	.00	.00	.00	.00
5	.00	.42	125	8.5	20	75	238	1.0	.00	.00	.00	.00
6	.00	.41	105	8.6	18	66	173	.80	.00	.00	.00	.00
7	.00	.42	91	6.3	16	57	131	.63	.00	.00	.00	.00
8	.00	.38	78	5.7	16	50	104	.54	.00	.00	.00	.00
9	.00	.40	68	5.6	17	47	85	.55	.00	.00	.00	.00
10	.00	.35	57	5.2	17	53	70	.59	.00	.00	.00	.00
11	.00	.40	47	4.9	16	59	58	.52	.00	.00	.00	.00
12	.00	.47	36	4.4	15	61	48	.45	.00	.00	.00	.00
13	.00	213	32	4.8	14	64	40	.42	.00	.00	.00	.00
14	.00	112	30	4.2	14	71	34	.34	.00	.00	.00	.00
15	.00	72	29	4.5	17	87	29	.26	.00	.00	.00	.00
16	.00	57	28	4.1	31	88	24	.21	.00	.00	.00	.00
17	.00	52	27	4.2	123	108	20	.16	.00	.00	.00	.00
18	.00	56	26	3.8	246	105	17	.12	.00	.00	.00	.00
19	.00	46	25	3.6	449	103	14	.07	.00	.00	.00	.00
20	.00	37	24	3.8	532	100	12	.02	.00	.00	.00	.00
21	.01	34	23	3.7	574	131	10	.00	.00	.00	.00	.00
22	1.8	27	22	3.4	363	247	8.9	.00	.00	.00	.00	.00
23	2.5	23	22	3.5	244	455	7.6	.00	.00	.00	.00	.00
24	2.0	23	21	3.4	177	662	6.4	.00	.00	.00	.00	.00
25	1.6	163	20	3.0	145	725	5.5	.00	.00	.00	.00	.00
26	1.2	1960	19	2.5	134	844	4.8	.00	.00	.00	.00	.00
27	.93	828	18	2.4	130	924	3.9	.00	.00	.00	.00	.00
28	.72	358	16	2.4	120	909	3.4	.00	.00	.00	.00	.00
29	.54	204	14	2.2	---	809	2.9	.00	.00	.00	.00	.00
30	.43	169	13	2.3	---	649	2.5	.00	.00	.00	.00	.84
31	.38	---	10	2.9	---	417	---	.00	---	.00	.00	---
TOTAL	12.11	4485.14	1524	150.5	3494.0	8331	2781.9	13.28	.00	.00	.00	.84
MEAN	.39	150	49.2	4.85	125	269	92.7	.43	.00	.00	.00	.028
MAX	2.5	1960	139	9.7	574	924	510	2.0	.00	.00	.00	.84
MIN	.00	.28	10	2.2	4.2	47	2.5	.00	.00	.00	.00	.00
AC-FT	24	8900	3020	299	6930	16520	5520	26	.0	.0	.0	1.7
CAL YR	1985	TOTAL	49529.96	MEAN	136	MAX	3540	MIN	.00	AC-FT	98240	
WTR YR	1986	TOTAL	20792.77	MEAN	57.0	MAX	1960	MIN	.00	AC-FT	41240	

LITTLE COLORADO RIVER BASIN

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09401200 LITTLE COLORADO RIVER AT CAMERON, AZ
(National stream-quality accounting network)

LOCATION.--Lat 35°52'40", long 111°24'40", in NE&SE& sec.22, T.29 N., R.9 E. (unsurveyed), Coconino County, Hydrologic Unit 15020016, at bridge on U.S. Highway 89 at Cameron, in Navajo Indian Reservation, 2.5 mi upstream from Moenkopi Wash, 12 mi upstream from gaging station 09402000 Little Colorado River near Cameron, and 57.5 mi upstream from mouth.

DRAINAGE AREA.--24,000 mi², approximately.

PERIOD OF RECORD.--October 1947 to September 1970, October 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1970.

WATER TEMPERATURE: October 1951 to September 1970.

SUSPENDED-SEDIMENT DISCHARGE: October 1947 to September 1970.

REMARKS.--Streamflow ungaged.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	
MAR 1986													
14...	1315	28	708	8.20	10.0	12.0	250	655	<1	--	94	24	
APR 08...	1630	305	290	8.30	25.5	20.0	1200	--	K67	K120	20	0	
JUL 31...	1000	16	930	7.30	26.0	20.0	--	--	K980	K590	31	0	
DATE		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)	BICAR- BONATE WH WAT TOTAL FIELD (MG/L AS HCO3 (00440)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3 (00410)	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)
MAR 1986													
14...	28	5.5	97	5	2.2	--	85	0	70	29	150	0.10	
APR 08...	5.2	1.7	45	5	2.1	72	--	--	59	14	33	0.20	
JUL 31...	9.2	1.8	190	16	2.8	--	195	0	162	130	74	1.2	
DATE		SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
MAR 1986													
14...	5.5	366	360	0.50	0.120	0.010	0.130	0.020	<0.010	0.38	0.40	0.250	
APR 08...	6.8	142	140	0.19	--	<0.010	0.150	0.090	0.080	1.3	1.4	0.980	
JUL 31...	14	550	520	0.75	--	<0.010	1.80	--	<0.010	--	0.90	--	
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)
MAR 1986													
14...	0.030	0.010	0.03	40	1	140	<0.5	<1	<1	<3	2	22	
APR 08...	0.050	0.040	0.12	230	2	16	<0.5	<1	2	<3	15	140	
JUL 31...	0.120	0.110	0.34	60	5	56	<0.5	<1	<1	<3	7	32	
DATE		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)	SEDI- MENT, SUS- PEN- DED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PEN- DED (T/DAY) (80155)
MAR 1986													
14...	<1	7	3	<10	<1	1	1	800	<6	48	24500	1840	
APR 08...	3	<4	56	<10	4	<1	<1	85	9	32	3980	3280	
JUL 31...	<5	16	12	20	3	1	<1	220	21	10	65600	2900	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

LITTLE COLORADO RIVER BASIN

09401260 MOENKOPI WASH AT MOENKOPI, AZ

LOCATION.--Lat 36°06'18", long 111°12'04", in NW¼NE¼ sec.3, T.31 N., R.11 E. (unsurveyed), Coconino County, Hydrologic Unit 15020018, in Hopi Indian Reservation on right bank 100 ft upstream from bridge on State Highway 264, 1.3 mi southeast of Moenkopi, 2.5 mi downstream from former gaging station 09401250, and 12.5 mi downstream from Begashibito Wash.

DRAINAGE AREA.--1,660 mi², approximately.

PERIOD OF RECORD.--July 1976 to current year. Records for October 1973 to July 1976 at site 2.5 mi upstream, not equivalent below 1.5 ft³/s due to channel losses.

GAGE.--Water-stage recorder and crest stage gages. Elevation of gage is 4,610 ft above National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--10 years, 10.5 ft³/s, 7,610 acre-ft/yr.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 5, 19-21, 26-29, Dec. 1 to May 9, 13-15, July 22 to Aug. 29, Sept. 1-4. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,100 ft³/s Sept. 30, 1983, gage height, 15.10 ft, from rating curve extended above 220 ft³/s on basis of step-backwater computation at gage heights 12.2 ft, 15.0 ft, and 17.8 ft. No flow at times each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 15,100 ft³/s occurred Aug. 4, 1929, at former gaging station site 3.5 mi downstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 30	0130	2,060	7.00
Sept. 9	0430	*7,970	*12.50

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.2	13	16	5.6	3.0	2.8	3.6	3.6	.36	.00	.00	1.6
2	1.2	2.2	10	5.6	3.0	2.8	3.6	2.5	.20	.00	.00	.17
3	1.0	2.2	5.6	5.6	3.0	2.8	3.6	2.5	.17	.00	.00	.15
4	.36	2.2	3.6	5.6	3.0	2.8	3.6	2.8	.20	.00	.00	.10
5	.20	2.2	4.4	16	3.0	2.8	3.6	2.5	.20	.08	.00	.00
6	.12	1.6	4.4	3.6	3.0	2.8	3.6	2.5	.17	2.2	.00	.00
7	.12	1.6	3.6	3.0	3.0	2.8	3.6	2.0	.02	.02	.00	.00
8	.12	2.2	3.6	3.0	3.0	2.8	3.6	2.0	.00	.00	.00	.00
9	.12	2.8	3.6	3.0	3.0	2.8	3.0	1.8	.00	.00	.00	1070
10	3.6	2.8	3.6	3.0	2.0	2.2	2.8	1.6	.00	.00	.00	238
11	2.8	2.8	3.6	3.0	2.5	2.2	2.8	1.6	.00	.00	.36	38
12	2.2	2.8	3.6	3.0	3.0	2.2	2.8	1.6	.00	.00	1.0	16
13	1.6	2.8	3.6	3.0	3.0	2.2	2.8	1.2	.00	.00	.20	8.4
14	1.6	2.8	3.6	3.0	3.0	2.2	2.8	1.0	.00	.00	6.8	2.2
15	1.6	2.8	4.4	3.0	3.0	2.2	2.5	1.0	.00	.00	6.8	1.0
16	1.6	2.8	10	3.0	3.5	2.2	2.5	1.0	.00	23	.36	1.0
17	1.6	4.4	3.6	3.0	4.0	2.2	2.5	1.2	.00	24	.00	.80
18	1.6	8.4	3.6	3.0	4.0	2.2	2.5	1.2	.00	4.4	.00	.80
19	1.6	5.6	3.6	3.0	4.5	1.6	2.5	1.0	.00	.27	.00	.80
20	1.6	3.6	3.6	3.0	4.4	1.6	2.5	1.0	.00	83	.00	.47
21	1.6	3.6	3.6	3.0	4.0	1.6	2.5	.80	.00	155	.00	.47
22	1.6	2.2	3.6	2.8	3.5	1.6	2.5	.80	.00	134	.00	.47
23	1.6	2.2	3.6	3.0	3.0	1.6	2.2	.80	.00	34	.00	16
24	1.6	2.2	3.6	3.0	3.0	1.6	2.0	.80	.00	47	11	499
25	1.6	4.4	3.6	3.0	3.0	1.6	2.0	.80	.00	47	240	88
26	1.6	36	3.6	3.0	2.8	1.6	2.0	.80	.00	4.4	127	16
27	1.6	8.0	3.6	3.0	2.8	1.6	2.0	.60	.00	2.2	10	8.4
28	1.6	2.8	3.6	3.0	2.8	10	2.0	.60	.00	.47	112	2.8
29	1.6	2.8	3.6	3.0	---	3.6	2.0	.60	.00	.17	100	2.8
30	1.6	182	3.6	3.0	---	3.6	2.0	.60	.00	.00	170	2.2
31	1.6	---	4.4	3.0	---	3.6	---	.47	---	.00	8.4	---
TOTAL	43.44	317.8	142.0	116.8	88.8	80.2	82.0	43.27	1.32	561.21	793.92	2015.63
MEAN	1.40	10.6	4.58	3.77	3.17	2.59	2.73	1.40	.044	18.1	25.6	67.2
MAX	3.6	182	16	16	4.5	10	3.6	3.6	.36	155	240	1070
MIN	.12	1.6	3.6	2.8	2.0	1.6	2.0	.47	.00	.00	.00	.00
AC-FT	86	630	282	232	176	159	163	86	2.6	1110	1570	4000

CAL YR	1985	TOTAL	1563.84	MEAN	4.28	MAX	182	MIN	.00	AC-FT	3100
WTR YR	1986	TOTAL	4286.39	MEAN	11.7	MAX	1070	MIN	.00	AC-FT	8500

LITTLE COLORADO RIVER BASIN

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09402000 LITTLE COLORADO RIVER NEAR CAMERON, AZ

LOCATION.--Lat 35°55'35", long 111°34'00", in NW¼ sec.5, T.29 N., R.8 E. (unsurveyed), Coconino County, Hydrologic Unit 15020016, in Navajo Indian Reservation, on left bank 3 mi downstream from Coconino damsite, 9.5 mi downstream from Moenkopi Wash, 9.5 mi northwest of Cameron, and 45 mi upstream from mouth.

DRAINAGE AREA.--26,500 mi², approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 3,979.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 11, 26, 27, Dec. 19-29, Mar. 3, 4, Apr. 9-25, Sept. 13-23, 25, 28-30. Records good except for estimated daily discharges, which are poor. Diversions above station for irrigation of about 32,000 acres. Some regulation by reservoirs above station (combined capacity of principal reservoirs, about 127,000 acre-ft).

AVERAGE DISCHARGE.--39 years, 245 ft³/s, 177,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,900 ft³/s Jan. 21, 1952, gage height, 20.7 ft; no flow at times in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 120,000 ft³/s occurred on Sept. 19 or 20, 1923, based on discharge at Grand Falls.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0700	6,530	10.62

No flow Nov. 10, 11, Apr. 14 to July 15, 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	2.2	682	10	2.9	170	999	.00	.00	.00	11	300
2	5.1	.93	358	9.1	2.9	152	814	.00	.00	.00	4.9	135
3	3.9	.32	259	5.6	2.6	129	574	.00	.00	.00	1.5	175
4	3.0	.21	252	3.9	2.0	116	410	.00	.00	.00	.32	121
5	2.0	.10	208	3.6	1.3	100	445	.00	.00	.00	.10	150
6	1.6	.10	161	2.6	.15	91	628	.00	.00	.00	272	88
7	1.2	.09	130	.72	.06	72	481	.00	.00	.00	147	69
8	2.2	.08	184	.54	.04	56	334	.00	.00	.00	3.1	62
9	1.6	.08	202	.10	1.7	45	203	.00	.00	.00	.14	823
10	1.3	.00	166	.54	1.3	38	113	.00	.00	.00	.08	910
11	1.0	.00	114	1.1	.90	36	51	.00	.00	.00	.06	203
12	9.0	79	108	2.9	.27	29	14	.00	.00	.00	.05	108
13	344	49	100	3.1	1.3	27	2.4	.00	.00	.00	.04	100
14	252	12	98	2.9	.32	23	.00	.00	.00	.00	5.0	80
15	108	6.4	96	2.6	1.6	21	.00	.00	.00	.00	3.9	60
16	69	3.9	114	3.9	33	17	.00	.00	.00	.73	2.3	40
17	54	3.6	29	4.6	10	103	.00	.00	.00	.68	2.5	20
18	35	2.4	6.8	3.4	6.4	212	.00	.00	.00	.00	.72	10
19	53	1.2	7.0	2.9	3.6	236	.00	.00	.00	.00	.10	5.0
20	241	.62	7.2	2.6	14	488	.00	.00	.00	195	.08	2.0
21	106	.93	7.4	2.4	111	385	.00	.00	.00	1190	.05	2.0
22	60	1.1	7.6	2.2	999	264	.00	.00	.00	1630	.04	2.0
23	48	.93	7.8	2.2	1100	210	.00	.00	.00	1910	7.2	2.0
24	30	1.7	8.0	2.0	922	196	.00	.00	.00	1300	1.3	696
25	22	1.7	8.2	1.6	622	197	.00	.00	.00	970	46	300
26	16	457	8.4	1.1	425	756	.00	.00	.00	341	220	812
27	13	100	8.6	.98	307	1100	.00	.00	.00	148	77	538
28	10	64	8.8	1.4	233	1260	.00	.00	.00	65	494	270
29	6.8	1620	9.0	1.8	---	1300	.00	.00	.00	52	821	120
30	4.9	3080	10	2.0	---	1290	.00	.00	.00	29	1320	60
31	2.9	---	11	2.3	---	1130	---	.00	---	19	677	---
TOTAL	1514.6	5489.59	3376.8	86.68	4805.34	10249	5068.40	.00	.00	7850.41	4118.48	6263.0
MEAN	48.9	183	109	2.80	172	331	169	.00	.00	253	133	209
MAX	344	3080	682	10	1100	1300	999	.00	.00	1910	1320	910
MIN	1.0	.00	6.8	.10	.04	17	.00	.00	.00	.00	.04	2.0
AC-FT	3000	10890	6700	172	9530	20330	10050	.0	.0	15570	8170	12420
CAL YR	1985	TOTAL	127387.90	MEAN	349	MAX	5350	MIN	.00	AC-FT	252700	
WTR YR	1986	TOTAL	48822.30	MEAN	134	MAX	3080	MIN	.00	AC-FT	96840	

COLORADO RIVER MAIN STEM

09402500 COLORADO RIVER NEAR GRAND CANYON, AZ

LOCATION.--Lat 36°06'05", long 112°05'08", in sec.5, T.31 N., R.3 E. (unsurveyed), Coconino County, Hydrologic Unit 15010001, in Grand Canyon National Park, on left bank 0.2 mi upstream from Kaibab Bridge, 0.4 mi upstream from Bright Angel Creek, 4.5 mi northeast of village of Grand Canyon, 26 mi downstream from Little Colorado River, and 267 mi upstream from Hoover Dam.

DRAINAGE AREA.--141,600 mi² approximately, including 3,959 mi² in Great Divide basin in southern Wyoming which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1922 to current year. Prior to 1944, published as "Colorado River at Bright Angel Creek, near Grand Canyon." Gage-height records collected 1.5 mi downstream 1908-13, published in reports of U.S. Weather Bureau.

GAGE.--Water-stage recorder with supplementary water-stage recorder on right bank 700 ft downstream (prior to Oct. 1, 1934, supplementary gage was the only gage). Datum of both gages is 2,418.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Flow completely regulated by Lake Powell, 104 mi upstream, since Mar. 13, 1963. (See elsewhere in this report.) Many diversions above station for irrigation, municipal, and industrial uses.

AVERAGE DISCHARGE (unadjusted for storage in Lake Powell).--40 years (water years 1923-62), 16,930 ft³/s, 12,260,000 acre-ft/yr; 22 years (water years 1965-86) 15,110 ft³/s, 10,950,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1922-62: Maximum discharge, 127,000 ft³/s July 2, 1927, gage height, 29.25 ft; minimum, 700 ft³/s Dec. 28, 1924, gage height, -0.70 ft.
1963-86: Maximum discharge, 96,200 ft³/s June 29, 1983, gage height, 26.26 ft; minimum, 850 ft³/s Jan. 26, 1963, gage height, -0.55 ft, result of closing coffer dam at Glen Canyon Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1884, 300,000 ft³/s about July 8, 1884 (computed on basis of flood studies at Lees Ferry). Crest discharge of flood of June 19, 1921, was 220,000 ft³/s, gage height, 37.5 ft from floodmarks, from rating curve extended above 120,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53,500 ft³/s May 31, gage height, 19.15 ft; minimum daily, 4,260 ft³/s Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19200	13100	9700	11600	18100	21400	27600	28600	52200	30300	28900	28600
2	12800	13000	5550	7960	23000	18200	28500	28200	52500	21600	28600	29400
3	12800	11700	11600	13900	22200	23500	28100	28000	43800	20500	28400	23600
4	13200	8010	13100	15800	22900	24700	26900	27200	41400	21800	24000	25900
5	12300	11800	13500	14000	23700	25300	27800	27700	41500	19300	17800	25500
6	10100	11900	15600	10700	24600	25100	28900	28200	41300	18300	17600	28800
7	9200	13400	14100	9650	23600	23800	28900	28400	41300	17500	18200	28200
8	12600	13300	10500	11400	24200	26800	28700	28300	41200	20100	17400	29700
9	11200	12600	8620	12400	23600	22900	28700	36400	41300	20200	20100	28800
10	12300	14800	13000	14100	22800	26200	31800	44900	34600	21000	25800	28700
11	12400	10900	14700	15300	22600	25800	31500	47000	32100	20300	28000	29900
12	11400	14100	15300	14900	23200	26600	32300	47300	32200	19700	27700	30200
13	10300	13700	17300	13900	21700	27900	32300	50600	32100	15000	27800	29800
14	6880	13000	16800	13900	21400	27500	32500	52100	32000	11100	28000	30100
15	13500	13700	12800	14600	20800	23500	31600	50700	31300	15400	27900	29100
16	11300	14900	8290	15700	22200	19700	28400	52500	31900	15600	24600	27600
17	11400	12800	12600	19700	20700	27900	28300	52100	32900	17800	27200	27900
18	11600	11900	12600	21600	17900	25600	30500	52200	33000	20500	27500	28000
19	13300	13900	11800	19900	20700	28000	31600	52500	32900	20300	27600	28300
20	10200	15000	13200	16800	20600	27300	28000	52400	33000	13100	27400	28100
21	11300	14600	11500	16500	20600	26900	28300	51600	33100	17100	28400	27800
22	12900	14900	11200	19300	21700	27100	31400	50600	32600	23900	23000	27900
23	11700	12700	4350	18700	21700	27300	30500	51900	32100	27200	26300	26400
24	11200	13200	9830	19900	19900	27100	31500	52500	31100	29900	27900	24200
25	13200	9570	11500	23400	21100	27700	32300	52400	31900	29500	27900	28300
26	13400	12500	4260	24100	21800	26900	32300	52300	28800	31200	28100	27500
27	10700	11200	8630	26000	20500	27800	32200	52100	29100	24800	24800	28300
28	12700	9550	12800	23800	20800	27800	31000	52500	28100	17800	24200	25300
29	15400	7060	11700	23000	---	27400	28300	52400	30300	27600	27300	26700
30	15400	12400	9300	20900	---	27500	28600	52500	29100	28700	29100	27100
31	13200	---	11200	21500	---	29000	---	52600	---	28300	29300	---
TOTAL	379080	375190	356930	524910	608600	800200	899300	1388700	1060700	665400	796800	835700
MEAN	12230	12510	11510	16930	21740	25810	29980	44800	35360	21460	25700	27860
MAX	19200	15000	17300	26000	24600	29000	32500	52600	52500	31200	29300	30200
MIN	6880	7060	4260	7960	17900	18200	26900	27200	28100	11100	17400	23600
AC-FT	751900	744200	708000	1041000	1207000	1587000	1784000	2754000	2104000	1320000	1580000	1658000
CAL YR	1985	TOTAL	8634300	MEAN	23660	MAX	46700	MIN	4260	AC-FT	17130000	
WTR YR	1986	TOTAL	8691510	MEAN	23810	MAX	52600	MIN	4260	AC-FT	17240000	

COLORADO RIVER MAIN STEM

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09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1925 to November 1942, September 1943 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to March 1974, April 1983 to current year.

WATER TEMPERATURES: October 1940 to October 1942, September 1943 to September 1976, April 1983 to current year.

SUSPENDED-SEDIMENT DISCHARGE: October 1925 to November 1942, September 1943 to September 1972.

INSTRUMENTATION.--Water-temperature recorder from October 1952 to September 1976. Specific conductance and water temperature recorder April 1983 to current year.

REMARKS.--Unpublished chemical analyses for period October 1930 to September 1940, daily specific conductance measurements for period October 1937 to November 1942, September 1943 to September 1964, and daily water temperatures for period October 1936 to September 1940, available from district office in Tucson, Ariz.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE (April 1983 to current year): Maximum recorded, 1,440 microsiemens on Mar. 20, 1986; minimum recorded, 635 microsiemens Nov. 19, 1985.

WATER TEMPERATURE (April 1983 to current year): Maximum recorded, 16.0°C on Aug. 26, 1984; minimum recorded, 7.5°C on Mar. 5, 1985.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,440 microsiemens on Mar. 20; minimum recorded, 635 microsiemens on Nov. 19.

WATER TEMPERATURE: Maximum recorded, 14.5°C on July 14, 15; minimum recorded, 8.1°C on Mar. 19.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	HARD- NESS TOTAL (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(00020)	(00010)	(00900)	(00902)	(00915)	(00925)	
NOV 1985 20...	1330	18100	670	8.30	12.0	9.5	230	100	57	21	
MAR 1986 19...	1330	28000	900	--	18.5	8.0	270	130	65	25	
JUN 17...	1530	32800	--	8.00	30.0	11.0	230	93	58	21	
AUG 21...	1400	28000	720	8.20	35.0	13.0	240	110	61	22	
DATE		SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WAT WH TOT FET FIELD MG/L AS CACO3 (00410)	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)
NOV 1985 20...	63	2	3.0	145	0	128	170	51	0.30	8.8	
MAR 1986 19...	70	2	3.2	--	--	--	220	60	0.30	9.3	
JUN 17...	56	2	2.9	168	--	--	160	40	0.30	8.7	
AUG 21...	59	2	4.8	161	--	132	150	42	0.30	8.9	
DATE		SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS AC-FT) (70303)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHOROUS ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEDED (T/DAY) (80155)
NOV 1985 20...	443	446	0.60	0.420	0.010	0.03	90	13	--	--	
MAR 1986 19...	539	536	0.73	0.470	<0.010	--	80	8	154	11600	
JUN 17...	446	430	0.61	0.360	<0.010	--	70	8	131	11600	
AUG 21...	476	427	0.65	0.370	<0.010	--	80	8	201	15200	

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	702	695	---	---	---	---	904	858	777	721	731	743
2	754	711	---	---	---	---	910	875	782	746	737	725
3	777	715	---	---	---	---	932	857	776	763	732	754
4	758	---	---	---	---	---	944	862	775	751	738	759
5	787	731	---	---	---	---	949	862	769	763	785	742
6	---	730	---	---	---	---	949	891	762	764	785	730
7	---	694	---	---	---	---	907	884	774	752	933	712
8	766	710	---	---	---	---	917	878	767	764	910	712
9	765	709	---	---	---	---	917	847	754	759	780	711
10	770	714	---	---	---	---	928	853	778	759	769	906
11	751	702	---	---	---	---	940	836	778	771	746	819
12	768	725	---	---	---	---	916	829	741	760	752	729
13	973	682	---	---	---	---	910	840	758	778	746	706
14	---	740	---	---	---	---	950	840	746	807	782	711
15	1060	680	---	---	---	---	914	821	751	797	759	711
16	758	679	---	---	---	---	931	820	745	767	759	706
17	759	778	---	---	---	---	913	814	738	779	748	710
18	740	718	---	---	---	---	912	802	723	755	742	705
19	731	694	---	---	---	918	924	813	718	762	737	705
20	748	701	---	---	---	1440	923	800	724	804	743	710
21	805	---	---	---	---	930	917	812	718	810	753	705
22	740	---	---	---	---	914	887	800	725	875	756	705
23	744	---	---	---	---	904	874	799	731	775	785	699
24	767	---	---	---	---	895	874	804	719	781	726	698
25	720	---	---	---	---	891	885	787	714	782	726	833
26	713	---	---	---	---	908	908	786	738	741	731	751
27	787	---	---	---	---	918	884	786	738	753	760	751
28	733	---	---	---	---	897	906	785	726	771	760	721
29	686	---	---	---	---	923	895	785	727	759	755	698
30	685	---	---	---	---	912	865	784	715	742	808	704

MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	679	665	---	---	---	---	887	829	759	703	719	708
2	690	664	---	---	---	---	898	840	752	703	719	701
3	700	664	---	---	---	---	898	828	745	710	713	689
4	693	---	---	---	---	---	890	833	739	704	720	701
5	693	661	---	---	---	---	866	844	750	716	744	707
6	---	660	---	---	---	---	907	785	732	729	732	695
7	---	659	---	---	---	---	877	802	737	723	733	695
8	694	649	---	---	---	---	871	784	737	717	721	695
9	683	646	---	---	---	---	864	796	736	706	715	694
10	692	644	---	---	---	---	864	824	736	706	716	694
11	687	655	---	---	---	---	899	817	729	712	711	697
12	691	648	---	---	---	---	886	811	724	719	716	706
13	736	648	---	---	---	---	880	804	728	725	717	682
14	---	651	---	---	---	---	885	815	727	760	700	688
15	682	645	---	---	---	---	867	803	722	726	729	694
16	682	638	---	---	---	---	896	792	726	732	730	694
17	699	637	---	---	---	---	877	791	705	714	730	687
18	698	648	---	---	---	---	877	784	705	721	724	687
19	681	635	---	---	---	874	865	784	695	715	724	681
20	681	660	---	---	---	885	894	771	700	727	725	681
21	705	---	---	---	---	905	881	789	695	722	714	687
22	680	---	---	---	---	893	857	782	695	722	703	681
23	679	---	---	---	---	892	851	776	707	734	703	681
24	679	---	---	---	---	885	845	769	701	728	691	680
25	672	---	---	---	---	882	850	762	691	723	697	674
26	671	---	---	---	---	880	849	762	691	717	696	704
27	671	---	---	---	---	888	854	762	702	711	708	695
28	674	---	---	---	---	882	843	773	708	747	708	692
29	650	---	---	---	---	894	871	767	709	712	696	680
30	649	---	---	---	---	899	829	766	703	712	678	680

COLORADO RIVER MAIN STEM

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09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	693	676	---	---	---	---	896	842	770	709	725	726
2	719	678	---	---	---	---	905	854	767	719	729	716
3	722	684	---	---	---	---	911	839	767	733	723	713
4	712	---	---	---	---	---	927	845	753	722	728	718
5	719	697	---	---	---	---	907	854	759	735	754	717
6	---	679	---	---	---	---	929	846	745	740	749	707
7	---	672	---	---	---	---	890	853	758	734	778	705
8	717	670	---	---	---	---	895	839	753	734	759	703
9	711	668	---	---	---	---	893	826	745	726	736	699
10	715	665	---	---	---	---	907	836	755	725	732	752
11	709	675	---	---	---	---	918	827	750	733	728	731
12	720	680	---	---	---	---	902	819	732	738	732	717
13	837	665	---	---	---	---	896	818	744	755	730	694
14	---	684	---	---	---	---	920	827	735	783	733	701
15	771	660	---	---	---	---	887	811	736	761	740	703
16	712	656	---	---	---	---	914	805	735	743	742	702
17	717	671	---	---	---	---	898	800	719	752	738	700
18	711	674	---	---	---	---	897	793	712	735	732	697
19	699	659	---	---	---	895	902	798	707	730	729	693
20	709	674	---	---	---	919	908	789	713	767	734	697
21	736	---	---	---	---	914	902	799	710	761	733	696
22	703	---	---	---	---	905	870	791	712	773	730	694
23	696	---	---	---	---	897	860	787	715	755	729	692
24	703	---	---	---	---	891	860	790	708	751	709	692
25	689	---	---	---	---	887	863	775	705	741	711	748
26	687	---	---	---	---	888	874	772	714	733	712	718
27	701	---	---	---	---	902	872	778	716	733	732	714
28	704	---	---	---	---	890	873	778	715	756	726	707
29	670	---	---	---	---	908	881	777	715	728	722	693
30	663	---	---	---	---	905	840	773	710	725	726	693
31	677	---	---	---	---	894	---	770	---	729	726	---

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.4	11.4	10.9	---	9.9	---	9.8	11.0	10.8	12.5	12.9	12.7
2	12.2	11.2	11.2	---	9.8	---	9.6	11.0	10.6	12.7	12.9	12.7
3	12.7	11.4	11.2	10.3	9.4	---	9.0	11.2	11.0	12.9	12.9	12.9
4	12.4	11.6	11.3	---	9.5	---	9.8	11.0	11.0	12.9	13.1	13.1
5	12.5	11.8	11.4	---	9.6	---	9.8	10.6	11.4	13.1	13.3	13.1
6	13.7	11.4	---	---	9.8	---	10.2	10.8	11.8	12.9	13.3	13.1
7	---	11.4	---	10.5	9.8	---	10.4	10.2	11.2	12.9	13.3	12.9
8	13.3	11.4	---	---	9.4	---	10.2	10.2	11.2	12.5	13.3	12.7
9	12.5	11.2	10.4	10.4	9.5	---	10.6	10.0	11.2	12.9	12.9	12.9
10	12.9	10.8	11.2	10.6	9.4	---	10.2	9.8	11.4	13.1	12.7	12.7
11	12.0	10.8	---	10.4	9.8	---	10.0	10.4	11.8	12.9	12.5	12.7
12	11.8	10.6	---	10.3	9.9	---	10.0	10.4	12.2	13.1	12.7	12.5
13	13.3	10.2	---	10.0	9.9	---	10.2	10.2	12.0	13.7	12.9	13.1
14	---	9.8	---	10.1	9.8	---	9.8	10.0	12.2	14.5	12.9	12.5
15	12.4	10.0	---	10.1	9.8	---	10.2	10.2	12.2	14.5	12.9	12.5
16	11.4	10.2	---	10.0	9.9	---	10.0	9.8	12.2	14.1	13.1	12.5
17	11.8	10.2	---	9.9	10.2	---	10.0	10.0	11.8	13.9	13.1	12.7
18	12.1	10.1	---	9.9	10.2	---	9.8	10.2	12.0	13.3	12.9	12.5
19	11.9	10.2	---	9.9	10.3	9.2	9.8	10.2	12.2	13.1	13.1	12.7
20	12.0	9.9	---	9.8	10.3	9.5	10.2	10.4	11.8	13.3	12.9	12.7
21	12.1	10.4	---	10.1	---	9.6	10.6	10.2	12.2	13.3	12.9	12.9
22	12.0	10.9	---	10.1	---	9.7	10.8	10.4	12.2	13.3	12.9	12.7
23	11.8	11.3	---	10.1	---	9.8	10.4	10.2	12.0	13.1	13.1	12.2
24	11.6	11.3	---	10.0	---	9.6	10.2	10.0	12.2	13.3	12.5	12.4
25	11.6	11.7	---	9.8	---	9.6	10.4	10.4	12.4	13.7	12.7	12.2
26	11.8	11.6	---	9.2	---	9.9	10.2	10.8	12.2	12.9	12.5	12.2
27	11.8	12.7	---	9.2	---	10.1	10.0	10.6	12.5	12.7	12.9	12.5
28	11.6	13.7	---	9.0	---	10.2	10.6	10.2	12.4	12.9	12.9	12.5
29	11.8	10.9	---	9.2	---	10.2	10.8	10.2	12.2	13.1	13.3	12.7
30	11.6	13.3	---	9.2	---	10.2	11.2	10.6	12.2	12.9	13.3	12.9
31	11.6	---	---	9.4	---	10.0	---	10.8	---	12.7	13.3	---

COLORADO RIVER MAIN STEM

09402500 COLORADO RIVER NEAR GRAND CANYON, AZ--Continued

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.6	10.6	9.4	---	9.2	---	9.0	9.4	9.6	10.8	11.2	11.6
2	11.2	10.4	10.4	---	9.5	---	8.8	9.4	9.8	11.4	11.6	11.6
3	11.6	10.4	10.9	9.6	9.0	---	8.2	9.4	9.8	12.0	11.6	11.8
4	11.6	9.8	10.8	---	9.2	---	8.4	9.6	10.0	12.0	11.6	12.0
5	11.8	11.0	8.7	---	9.4	---	8.8	9.0	9.6	12.2	12.5	11.6
6	11.8	10.8	---	---	9.3	---	8.4	8.6	10.0	12.4	12.5	12.0
7	---	10.6	---	9.9	9.3	---	9.0	8.8	9.6	12.2	12.0	11.6
8	11.6	10.6	---	---	8.5	---	9.0	8.4	9.8	12.0	12.7	11.6
9	11.6	10.4	9.5	10.1	8.3	---	8.8	8.8	9.8	12.0	12.4	12.0
10	11.2	10.0	10.1	10.1	8.8	---	8.8	8.6	9.6	12.2	12.0	12.0
11	10.8	10.2	---	9.9	9.2	---	8.4	8.8	10.0	12.0	11.6	11.2
12	11.0	10.0	---	9.7	9.1	---	8.8	9.0	10.2	12.4	11.6	11.0
13	11.6	9.0	---	9.7	9.2	---	8.6	9.0	10.4	12.7	11.6	12.0
14	---	8.8	---	9.6	9.0	---	8.4	8.8	10.2	12.7	11.8	11.6
15	10.8	9.0	---	9.6	9.0	---	8.6	9.2	10.4	13.1	11.8	11.6
16	10.8	9.4	---	9.4	9.4	---	8.6	9.0	10.4	13.1	11.8	11.6
17	11.2	9.6	---	9.2	9.2	---	8.8	8.8	10.4	12.7	11.6	11.6
18	11.5	9.6	---	9.2	9.2	---	8.4	9.2	10.2	12.4	12.0	11.6
19	11.3	9.2	---	9.2	9.3	8.1	8.4	9.0	10.4	12.5	11.8	11.6
20	11.5	9.0	---	9.4	9.4	8.2	8.4	9.4	10.4	12.9	12.0	11.2
21	11.8	9.5	---	9.8	---	8.4	9.0	9.2	10.4	12.7	11.6	11.2
22	11.2	10.1	---	9.7	---	8.5	9.2	9.0	10.4	12.0	11.6	11.6
23	11.0	10.7	---	9.5	---	8.6	9.2	9.2	10.4	12.2	12.0	11.4
24	10.6	10.9	---	9.4	---	8.7	9.2	9.0	11.0	12.0	11.4	11.6
25	11.0	11.3	---	9.0	---	8.6	8.8	9.2	10.8	11.8	11.6	11.6
26	10.8	11.2	---	8.7	---	8.7	8.4	9.6	10.8	11.6	11.6	11.0
27	11.0	10.9	---	8.5	---	8.8	8.4	9.6	10.8	11.4	12.0	11.5
28	11.0	8.8	---	8.3	---	9.0	8.8	9.2	10.8	12.4	12.4	11.2
29	11.2	9.8	---	8.3	---	9.0	9.0	9.2	10.6	12.0	12.2	11.8
30	11.0	9.2	---	8.3	---	9.0	9.2	9.6	11.0	11.6	12.2	11.6
31	11.0	---	---	8.7	---	9.0	---	9.6	---	11.4	12.2	---

MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.1	11.0	10.4	---	9.5	---	9.3	10.3	10.1	11.7	12.1	12.2
2	11.5	10.8	10.8	---	9.7	---	9.1	10.1	10.2	12.1	12.2	12.1
3	12.0	10.7	11.0	10.0	9.2	---	8.7	10.4	10.3	12.4	12.3	12.3
4	12.0	10.9	11.1	---	9.4	---	8.9	10.3	10.5	12.5	12.4	12.5
5	12.0	11.2	10.9	---	9.5	---	9.3	10.0	10.5	12.7	12.8	12.4
6	12.3	11.2	---	---	9.6	---	9.3	9.7	10.8	12.7	12.9	12.5
7	---	11.0	---	10.3	9.6	---	9.7	9.5	10.6	12.7	12.7	12.2
8	12.0	10.9	---	---	9.0	---	9.6	9.3	10.5	12.2	13.1	12.3
9	11.8	10.7	10.0	10.3	8.9	---	9.7	9.4	10.5	12.4	12.7	12.4
10	11.5	10.5	10.8	10.3	9.2	---	9.4	9.2	10.5	12.6	12.3	12.4
11	11.3	10.5	---	10.2	9.5	---	9.2	9.5	10.9	12.5	12.0	12.0
12	11.6	10.2	---	10.0	9.6	---	9.4	9.6	11.2	12.7	12.0	11.7
13	12.0	9.5	---	9.9	9.6	---	9.4	9.6	11.2	13.2	12.2	12.5
14	---	9.3	---	9.9	9.5	---	8.9	9.4	11.2	13.4	12.4	12.1
15	11.4	9.4	---	9.9	9.4	---	9.4	9.6	11.3	13.9	12.3	12.1
16	11.1	9.9	---	9.7	9.7	---	9.3	9.4	11.3	13.6	12.4	12.1
17	11.4	9.9	---	9.6	9.8	---	9.4	9.5	11.1	13.2	12.4	12.2
18	11.8	9.7	---	9.6	9.8	---	9.0	9.6	11.0	12.8	12.5	12.1
19	11.7	9.6	---	9.6	9.8	8.6	9.1	9.6	11.3	12.8	12.4	12.2
20	11.7	9.5	---	9.6	9.9	8.8	9.4	9.8	11.2	13.2	12.5	11.9
21	11.9	10.0	---	9.9	---	9.0	9.7	9.7	11.3	12.9	12.3	12.0
22	11.7	10.6	---	9.9	---	9.1	10.0	9.7	11.3	12.8	12.4	12.0
23	11.4	11.0	---	9.8	---	9.2	9.9	9.7	11.2	12.6	12.6	11.9
24	11.2	11.2	---	9.7	---	9.2	9.6	9.6	11.6	12.6	12.1	11.9
25	11.3	11.5	---	9.4	---	9.1	9.5	9.9	11.6	12.5	12.2	11.8
26	11.2	11.4	---	9.0	---	9.3	9.4	10.1	11.6	12.2	12.2	11.6
27	11.3	11.4	---	8.9	---	9.5	9.2	10.1	11.7	12.1	12.5	12.0
28	11.3	11.3	---	8.7	---	9.6	9.5	9.8	11.6	12.7	12.6	11.9
29	11.4	10.4	---	8.8	---	9.6	9.8	9.6	11.4	12.6	12.8	12.2
30	11.3	10.4	---	8.7	---	9.7	10.2	10.0	11.6	12.2	12.9	12.2
31	11.4	---	---	9.0	---	9.5	---	10.1	---	12.2	12.7	---

KANAB CREEK BASIN

67

09403600 KANAB CREEK NEAR KANAB, UT

LOCATION.--Lat 37°06'02", long 112°32'50", in NE¼NE¼SW¼ sec.5, T.43 S., R.6 W., Kane County, Hydrologic Unit 15010003, at upstream edge of left bridge pier on U.S. Highway 89, 300 ft upstream from Tiny Canyon and 3.5 mi north of Kanab.

DRAINAGE AREA.--198 mi².

PERIOD OF RECORD.--July 1959 to September 1968 (annual maximum only). January 1979 to current year.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,060 ft above National Geodetic Vertical Datum of 1929, from topographic map. A crest-stage gage was in operation at this site from July 22, 1959 to Sept. 30, 1968, at different datum.

REMARKS.--Estimated daily discharges: Oct. 3, 13-28, Oct. 30 to Dec. 2, Dec. 5, 7, 8, 10-30, Jan. 1-3, Feb. 21-23, Feb. 25 to Mar. 4, Apr. 20, 22-24, 29, May 2 to June 2, 5-24, July 2, 3, 5, 6, 9-11, 13-30, Aug. 2-6, 12-20, 22, 26-28, Sept. 1, 8-22. Records poor. No diversion above station for irrigation.

AVERAGE DISCHARGE.--7 years, 16.9 ft³/s, 12,240 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft³/s Aug. 20, 1984, gage height, 8.50 ft; minimum recorded, 0.90 ft³/s June 23, 26, 29, 1983.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge recorded by crest-stage gage, 3,030 ft³/s Sept. 8, 1961, gage height, 19.80 ft at different datum.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 19	2130	* about 350	*4.86

Minimum daily discharge, 3.0 ft³/s June 15-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	e9.0	e18	e15	20	e17	18	11	e4.1	7.6	6.2	e15
2	12	e8.7	e16	e15	19	e18	21	e10	e4.2	e8.0	e7.0	15
3	e13	e8.2	17	e16	18	e18	18	e9.5	4.1	e8.2	e7.4	14
4	15	e8.0	15	15	16	e19	18	e9.1	4.6	6.5	e8.0	16
5	12	e8.0	e18	14	18	18	18	e8.8	e5.5	e6.9	e8.2	18
6	12	e8.0	19	14	18	17	17	e8.4	e5.0	e7.2	e9.0	18
7	13	e8.0	e20	13	21	16	16	e8.3	e4.0	7.9	12	20
8	21	e8.0	e19	15	21	17	15	e8.2	e3.8	6.8	14	e28
9	16	e8.0	18	14	21	23	15	e8.2	e3.5	e8.2	14	e17
10	21	e8.0	e23	14	21	14	14	e8.2	e3.4	e9.2	16	e18
11	25	e8.0	e22	15	21	19	15	e8.1	e3.3	e9.8	8.2	e17
12	20	e21	e20	16	22	21	14	e8.0	e3.2	7.5	e7.8	e17
13	e24	e16	e22	17	22	14	14	e8.0	e3.1	e7.4	e7.5	e17
14	e23	e14	e25	17	23	17	14	e8.0	e3.1	e8.0	e7.1	e17
15	e23	e13	e23	16	25	16	15	e8.0	e3.0	e18	e6.7	e16
16	e22	e12	e26	16	26	16	15	e8.0	e3.0	e16	e6.0	e16
17	e20	e12	e22	18	28	18	14	e8.0	e3.0	e13	e4.9	e16
18	e20	e12	e16	17	36	19	14	e7.8	e3.0	e13	e4.2	e16
19	e21	e12	e18	16	81	17	16	e7.6	e3.0	e13	e5.5	e16
20	e19	e12	e22	18	42	18	e15	e7.5	e3.8	e18	e7.3	e16
21	e18	e12	e18	18	e19	17	15	e7.3	e4.4	e18	7.0	e16
22	e16	e12	e18	19	17	19	e16	e7.2	e4.7	e17	e9.4	e16
23	e17	e12	e18	17	16	19	e16	e6.9	e5.2	e13	9.7	22
24	e15	e12	e18	17	15	19	e16	e6.6	e5.6	e10	11	26
25	e13	e19	e20	18	e16	19	15	e6.3	5.8	e9.2	8.5	19
26	e12	e16	e20	16	e16	19	14	e5.7	6.3	e8.2	e9.0	16
27	e13	e15	e19	16	e16	19	15	e5.3	6.9	e7.4	e9.6	16
28	e11	e15	e15	18	e17	19	13	e4.9	6.3	e7.0	e10	16
29	9.8	e22	e18	18	---	18	e13	e4.2	5.6	e6.6	16	15
30	e10	e23	e16	17	---	19	12	e4.2	6.4	e6.3	15	15
31	e9.5	---	15	18	---	18	---	e4.0	---	5.8	15	---
TOTAL	506.3	371.9	594	503	651	557	461	231.3	130.9	308.7	287.2	520
MEAN	16.3	12.4	19.2	16.2	23.3	18.0	15.4	7.46	4.36	9.96	9.26	17.3
MAX	25	23	26	19	81	23	21	11	6.9	18	16	28
MIN	9.5	8.0	15	13	15	14	12	4.0	3.0	5.8	4.2	14
ACFT	1000	738	1180	998	1290	1100	914	459	260	612	570	1030

CAL YR 1985	TOTAL	5444.0	MEAN	14.9	MAX	65	MIN	5.4	ACFT	10800
WTR YR 1986	TOTAL	5122.3	MEAN	14.0	MAX	81	MIN	3.0	ACFT	10160

e Estimated.

COLORADO RIVER BASIN

VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ

LOCATION.--Lat 36°53'30", long 113°55'25", in SW¼SW¼ sec.4, T.40 N., R.15 W., Mohave County, Hydrologic Unit 15010010, on right bank 0.5 mi downstream from Beaver Dam Wash, 0.4 mi upstream from Littlefield, and 36 mi upstream from waterline of Lake Mead at elevation 1,221 ft, National Geodetic Vertical Datum of 1929.

DRAINAGE AREA.--5,090 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year.

REVISED RECORDS.--WSP 959: 1932. WSP 979: 1930-31, 1933-37. WSP 1313: 1940 (M).

GAGE.--Water-stage recorder. Datum of gage is 1,763.68 ft above National Geodetic Vertical Datum of 1929. Prior to May 28, 1933, nonrecording gage at site 300 ft upstream, and May 28, 1933, to Nov. 7, 1939, at same site, both at datum 2.53 ft higher. Nov. 8, 1939, to Mar. 31, 1942, nonrecording gage at same site at datum 2.00 ft higher. Apr. 1, 1942, to Sept. 30, 1970, water-stage recorder at same site at same datum. Oct. 1, 1970, to Aug. 7, 1979, at site 300 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 7-18, Oct. 29 to Nov. 1, 10-25, Dec. 16-30, Feb. 11-24, May 20-27. Records good except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--57 years, 242 ft³/s, 175,300 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,200 ft³/s, Dec. 6, 1966, gage height, 15.66 ft, for site then in use, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement of peak flow; minimum, 38 ft³/s, May 1, 10, 1975.

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1100	*1,970	*7.09

Minimum daily discharge, 57 ft³/s, July 2, 4, 7, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	105	474	241	288	256	275	199	195	63	96	167
2	116	96	330	237	216	226	554	202	202	57	81	139
3	100	102	244	230	186	223	648	186	131	60	77	139
4	109	102	321	230	189	216	344	176	83	57	70	197
5	96	164	292	230	189	237	288	189	81	60	67	219
6	107	189	279	230	176	216	256	164	83	65	74	212
7	122	199	292	230	170	212	248	153	74	57	74	199
8	140	199	267	226	180	199	275	147	68	61	70	199
9	163	205	264	223	176	334	308	159	68	57	67	202
10	195	220	252	226	176	348	317	186	72	60	70	199
11	190	220	252	248	150	368	296	216	65	61	120	170
12	180	220	252	252	152	362	291	199	72	60	91	173
13	169	290	256	248	160	353	219	180	67	60	77	183
14	162	260	248	241	210	335	170	176	81	58	123	186
15	160	225	252	244	450	252	159	180	131	60	129	176
16	156	190	250	241	780	233	164	180	136	61	100	173
17	154	170	250	241	450	317	173	202	134	63	81	192
18	136	173	250	241	490	288	159	205	134	70	79	189
19	119	178	250	248	560	252	183	180	139	68	79	173
20	111	183	250	241	840	241	170	180	102	74	89	209
21	114	160	210	226	540	244	170	180	65	72	105	216
22	107	150	220	233	410	244	161	180	63	101	132	226
23	111	175	250	241	250	248	159	180	70	230	105	230
24	114	215	245	230	270	271	186	180	68	195	100	541
25	111	255	242	226	292	264	186	180	68	205	105	602
26	96	358	240	223	264	244	170	180	70	136	167	802
27	96	296	235	233	256	252	176	180	65	107	183	367
28	107	264	230	237	264	241	167	180	65	85	153	300
29	121	264	230	237	---	260	167	189	63	83	131	292
30	130	889	225	237	---	279	186	189	58	85	150	279
31	118	---	233	256	---	321	---	202	---	96	153	---
TOTAL	4010	6716	8085	7327	8734	8336	7225	5679	2773	2627	3198	7551
MEAN	129	224	261	236	312	269	241	183	92.4	84.7	103	252
MAX	195	889	474	256	840	368	648	216	202	230	183	802
MIN	96	96	210	223	150	199	159	147	58	57	67	139
AC-FT	7950	13320	16040	14530	17320	16530	14330	11260	5500	5210	6340	14980
CAL YR	1985	TOTAL	86222	MEAN	236	MAX	936	MIN	66	AC-FT	171000	
WTR YR	1986	TOTAL	72261	MEAN	198	MAX	889	MIN	57	AC-FT	143300	

VIRGIN RIVER BASIN

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09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: July 1949 to September 1969, once daily (composited); October 1969 to current year, monthly.

SPECIFIC CONDUCTANCES AND WATER TEMPERATURES: October 1947 to current year, once daily.

BIOLOGICAL DATA: October 1977 to September 1979, twice yearly.

MICROBIOLOGICAL DATA: November 1977 to October 1979, monthly.

SEDIMENT DATA: October 1947 to September 1968, once daily; September 1977 to November 1979, monthly.

REMARKS.--Streamflow is not completely homogenous chemically from bank to bank. Flow adjacent to north (right) bank is generally somewhat more dilute than average, particularly at times of low streamflow; monthly data collected during June 1975-September 1976 indicate that specific conductance off north bank was 93 to 100 percent of streamwide average (range of discharge, 60-230 ft³/s. This doubtless affects specific conductance of daily samples, which are collected off north bank. Water temperature characteristically shows little or no variation from bank to bank. Much of day-to-day fluctuation in water temperature prior to August 1975 was due to measurement at different times of day (rather than at about the same time each day). Detailed sampling information for period since June 1975 is available from U.S. Geological Survey, Carson City, Nev.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 4,650 microsiemens Aug. 21, 1966; minimum, 615 microsiemens May 27, 28, 30, 31, 1983.

FECAL STREPTOCOCCI: Maximum, 46,000 colonies/100 mL (non-ideal colony count) Jan. 25, 1978; minimum, 100 colonies/100 mL Aug. 28, 1979.

WATER TEMPERATURES: Maximum, 33.5°C July 7, 1953; minimum, 2.0°C Jan. 4, 1949, Jan. 4, 1950, Jan. 4, 5, 1971.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum, 247,000 mg/L Aug. 14, 1964; minimum, 40 mg/L June 16, 20, 1962.

EXTREMES FOR CURRENT YEAR (MEASUREMENTS AT LEAST ONCE DAILY).--

SPECIFIC CONDUCTANCES: Maximum, 4,030 microsiemens Nov. 5; minimum, 1,230 microsiemens Nov. 30.

WATER TEMPERATURES: Maximum, 32.0°C July 2, 3; minimum, 8.0°C Dec. 11, 12.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH, FIELD (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE, WATER (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	HARD- NESS (MG/L AS CaCO ₃)	CALCIUM DIS- SOLVED (MG/L AS Ca)
OCT 18...	1015	121	3590	7.90	23.0	20.0	9.0	106	1200	310
NOV 25...	1300	256	2660	8.00	13.0	13.5	9.2	95	840	220
DEC 30...	1315	227	--	7.90	14.5	12.0	10.2	102	880	230
JAN 27...	1215	230	2600	7.60	20.0	13.0	--	--	880	220
FEB 25...	1145	287	2490	7.60	26.0	17.0	8.9	98	860	220
MAR 26...	1300	258	2580	7.90	26.0	19.5	8.7	101	860	230
APR 28...	1145	174	2710	8.00	28.5	20.5	9.0	108	850	210
MAY 27...	1045	179	2720	7.80	33.0	24.0	8.4	108	850	210
JUN 11...	1200	65	3410	7.80	32.0	27.5	8.0	109	1400	360
JUL 28...	1200	85	--	7.60	33.0	26.5	7.4	100	1200	330
AUG 26...	1300	333	3600	7.70	32.5	27.0	6.5	88	1000	280
SEP 25...	1400	597	1780	7.70	22.0	18.0	8.6	98	730	220

VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	ALKA- LINITY LAB (MG/L AS CACO3)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)
OCT 18...	100	360	5	39	237	1100	490	0.90	20
NOV 25...	71	260	4	20	234	720	360	0.70	18
DEC 30...	75	280	4	22	270	800	390	0.80	18
JAN 27...	81	250	4	20	268	760	350	0.70	19
FEB 25...	75	220	3	19	253	660	310	0.70	20
MAR 26...	69	250	4	22	--	680	340	0.80	17
APR 28...	80	250	4	20	240	720	320	0.80	17
MAY 27...	79	250	4	21	157	840	350	0.70	18
JUN 11...	110	280	3	29	212	1100	360	1.0	20
JUL 28...	100	270	3	27	235	1100	400	1.0	20
AUG 26...	80	380	5	30	198	1200	510	0.80	15
SEP 25...	44	140	2	13	181	590	160	0.50	11

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE TOTAL (MG/L AS N)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE TOTAL (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)
OCT 18...	2580	2600	3.5	--	0.620	--	0.010	--	0.630
NOV 25...	1810	1800	2.5	--	--	--	--	--	--
DEC 30...	1990	2000	2.7	--	--	--	--	--	--
JAN 27...	1840	1900	2.5	0.670	--	0.030	--	0.700	--
FEB 25...	1730	1700	2.4	--	--	--	--	--	--
MAR 26...	--	--	--	--	--	--	--	--	--
APR 28...	1970	1800	2.7	0.590	--	0.010	--	0.600	--
MAY 27...	1970	1900	2.7	--	--	--	--	--	--
JUN 11...	2510	2400	3.4	--	--	--	--	--	--
JUL 28...	2510	2400	3.4	--	--	<0.010	--	0.500	--
AUG 26...	2660	2600	3.6	--	--	--	--	--	--
SEP 25...	1440	1300	2.0	--	--	--	--	--	--

< Actual value is known to be less than value shown.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

[illegible]

VIRGIN RIVER BASIN

09415000 VIRGIN RIVER AT LITTLEFIELD, AZ--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25°C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3350	3560	1870	2660	2590	2720	---	2370	2540	3170	3110	3160
2	3350	3560	2230	2580	3060	2700	1790	2390	2560	3110	3120	3190
3	3350	3560	2330	2630	3110	2860	1320	2390	2760	3100	3200	3270
4	3370	3400	2160	2640	3180	2850	1910	2450	3060	3070	3210	2980
5	3290	4030	2500	2590	3300	2820	2070	2360	3250	3110	3080	2730
6	3400	2970	2460	2620	3290	2880	---	2550	3180	3310	3260	2580
7	3500	2970	2550	2620	3310	2890	2170	2870	3090	3170	3100	2780
8	3290	2930	2500	2630	3510	2940	1930	2880	3160	3200	3070	2780
9	3350	2890	2500	2680	---	3160	2040	2890	3090	3100	3110	2780
10	2970	2720	2590	2640	---	1840	1890	2470	3190	3030	3190	2720
11	3180	2760	2590	3160	---	2180	2090	2420	3080	3070	3220	2970
12	3250	2690	2670	2530	3390	1950	1970	2580	3270	3100	3070	2950
13	3290	2550	2610	2480	3280	2020	2240	2570	3260	3070	3090	2950
14	3290	2650	2760	2480	3490	2430	2340	2650	3410	3040	3700	2760
15	3370	2970	2670	2630	3000	2470	2550	2700	2970	3180	3400	2910
16	3500	3180	2550	2520	1070	2320	2750	2680	2970	3180	3400	2820
17	3500	3290	2630	2530	1210	2290	2740	2590	2830	3030	3290	2880
18	3500	3290	2630	2510	1630	2310	2610	2580	2900	3190	3140	2830
19	3500	3290	2720	2550	1950	2610	2340	2680	2790	3080	3100	2870
20	3660	3290	2720	2540	1030	2730	2480	2670	2930	3060	3300	2860
21	3610	3290	2800	2640	1800	2740	2590	2870	3030	3170	3110	2640
22	3610	3560	3250	2630	2300	2640	2730	2670	3180	3240	3270	2580
23	3610	3180	2670	2550	2320	2550	2820	2640	3290	2380	3270	2590
24	3610	2720	2670	2600	2490	2370	2450	2640	3160	2480	3100	2370
25	3400	2720	2590	2600	2460	2390	2480	2600	3170	2590	3100	1890
26	3400	2330	2590	2650	2780	2440	2660	2690	3290	2900	3590	1420
27	3480	2160	2630	2640	2750	2390	2610	2670	3190	3070	3090	1990
28	3560	2590	2630	2530	2760	2400	2740	2620	3090	3130	3010	2120
29	3560	1270	2800	2540	---	2230	2860	2740	3090	3270	3070	2140
30	3610	1230	2760	2560	---	2230	2820	2700	3180	3260	3090	2220
31	3610	---	2630	2550	---	1960	---	2600	---	3360	3170	---
MEAN	3430	2920	2589	2604	---	2494	---	2619	3065	3072	3195	2658
MAX	3660	4030	3250	3160	---	3160	---	2890	3410	3360	3700	3270
MIN	2970	1230	1870	2480	---	1840	---	2360	2540	2380	3010	1420

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.0	19.0	11.0	11.0	15.0	19.0	---	21.0	26.0	31.0	30.0	25.5
2	23.0	18.0	11.0	11.5	16.0	19.0	14.0	24.0	28.0	32.0	30.0	25.0
3	23.0	19.0	14.0	12.0	18.0	19.0	15.0	22.0	28.0	32.0	30.0	27.0
4	23.0	19.0	15.0	12.0	15.0	19.0	18.0	19.0	27.0	27.0	28.0	26.0
5	22.0	17.0	15.0	11.5	16.0	19.0	20.0	21.0	25.0	26.0	28.0	26.0
6	20.0	16.0	14.0	10.0	14.0	19.0	---	17.0	25.0	27.0	28.0	25.0
7	20.0	16.0	12.0	10.0	13.0	19.0	20.0	20.0	25.0	27.0	27.0	25.0
8	15.0	15.5	10.0	10.0	12.0	16.0	18.0	20.0	24.0	27.0	29.0	23.0
9	15.0	15.0	10.0	10.0	---	15.0	18.0	20.0	28.0	26.0	30.0	23.0
10	17.0	14.0	9.0	11.0	---	14.0	17.0	22.0	28.0	27.0	31.0	23.0
11	20.0	12.0	8.0	11.5	---	14.0	22.0	24.0	28.0	27.0	27.0	28.0
12	20.0	10.5	8.0	11.0	14.0	13.0	17.0	24.0	26.0	27.0	27.0	23.0
13	19.0	12.0	9.0	10.5	15.0	13.0	19.0	24.0	27.0	27.0	27.0	24.0
14	18.0	11.0	9.0	11.0	14.0	15.0	18.0	24.0	25.0	27.0	29.0	23.0
15	18.0	12.0	9.0	13.0	15.0	15.0	19.0	24.0	26.0	28.0	26.0	21.0
16	20.0	13.0	19.0	13.0	10.0	14.0	16.0	22.0	26.0	27.0	28.0	21.0
17	20.0	14.0	10.0	13.0	13.0	14.0	18.0	25.0	27.0	28.0	28.0	23.0
18	20.0	11.0	10.0	11.0	13.0	15.0	19.0	25.0	27.0	28.0	25.0	22.0
19	21.0	10.0	11.0	13.0	14.0	17.0	20.0	23.0	26.0	28.0	30.0	21.0
20	20.0	11.0	11.0	13.0	12.0	18.0	22.0	24.0	25.0	26.0	27.0	21.0
21	20.0	12.0	11.5	12.0	11.0	19.0	24.0	24.0	26.0	26.0	28.0	20.0
22	19.0	13.0	11.0	12.0	14.0	19.0	22.0	24.0	27.0	25.0	27.0	20.0
23	19.0	12.0	10.0	12.5	15.5	19.0	21.0	24.0	27.0	27.0	27.0	18.0
24	19.0	13.0	11.0	12.0	17.0	18.0	19.0	27.0	27.0	27.0	26.0	17.0
25	20.5	14.0	11.0	12.0	17.0	19.0	18.0	27.0	29.0	27.0	29.0	17.0
26	20.0	13.0	10.5	11.0	19.0	20.0	17.0	27.0	29.0	27.0	27.0	17.0
27	20.0	13.0	10.0	12.0	19.0	21.0	20.0	26.0	29.0	27.0	26.0	17.0
28	20.0	14.0	10.0	15.0	19.0	19.0	22.0	25.0	27.0	25.0	27.0	16.0
29	20.0	11.0	10.5	15.0	---	20.5	23.0	27.0	25.0	26.0	29.0	17.0
30	19.0	11.0	11.0	16.0	---	21.0	21.0	27.0	30.0	28.0	25.0	17.0
31	18.0	---	11.0	16.0	---	19.0	---	27.0	---	28.0	27.0	---
MEAN	19.7	13.7	11.0	12.1	---	17.4	---	23.5	26.8	27.4	27.8	21.7
MAX	23.0	19.0	19.0	16.0	---	21.0	---	27.0	30.0	32.0	30.0	28.0
MIN	15.0	10.0	8.0	10.0	---	13.0	---	17.0	24.0	25.0	25.0	16.0

VIRGIN RIVER BASIN

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09415230 VIRGIN RIVER ABOVE HALFWAY WASH NEAR RIVERSIDE, NV
(National stream-quality accounting network station)

LOCATION.--Lat 36°40'28", long 114°17'54", in NE¼SW¼NE¼ sec.32, T.14 S., R.69 E., Clark County, Hydrologic Unit 15010010, on left bank, 1.3 mi upstream from Halfway Wash, 6.1 mi southeast of Riverside, and 7.5 mi upstream from waterline of Lake Mead at altitude 1,221 ft, National Geodetic Vertical Datum of 1929.

DRAINAGE AREA.--5,980 mi², approximately.

PERIOD OF RECORD.--December 1977 to September 1986 (discontinued).

CHEMICAL ANALYSES, MICROBIOLOGICAL AND SEDIMENT DATA: January 1978 to September 1980, monthly; October 1980 to September 1986, every 2 months.

SPECIFIC CONDUCTANCES AND WATER TEMPERATURES: December 1977 to April 1978, monthly; May 1978 to September 1982, once daily; October 1982 to September 1986, every two months.

BIOLOGICAL DATA: March 1978 to September 1980, monthly (seasonal); October 1980 to September 1981, every two months.

REMARKS.--Listed frequencies of measurement apply except during summer periods of no flow.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 5,260 microsiemens Sept. 16, 1978; minimum, 770 microsiemens May 26, 1983.

PHYTOPLANKTON: Maximum, 8,200 cells/mL May 28, 1981; minimum, 27 cells/mL Mar. 30, 1978.

FECAL STREPTOCOCCI: Maximum, 41,000 colonies/100 mL (non-ideal colony count) July 29, 1982; minimum, 48 colonies/100 mL Sept. 16, 1986.

WATER TEMPERATURES: Maximum, 36.5°C July 31, 1982; minimum, 3.5°C Jan. 1, 1979.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum, 12,000 mg/L July 29, Sept. 29, 1982; minimum, 166 mg/L Sept. 27, 1978.

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (FT ³ /S)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH, FIELD (STAND- ARD UNITS)	TEMPER- ATURE, AIR (DEG C)	TEMPER- ATURE, WATER (DEG C)	TUR- BID- ITY (NTU)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CaCO ₃)
NOV												
26...	1430	260	2900	8.20	18.0	16.5	180	8.8	95	K89	600	940
FEB												
11...	1230	137	3600	7.80	17.0	8.5	34	11.1	100	K40	K80	1300
MAR												
24...	1230	277	2780	8.10	26.0	21.0	150	8.4	100	K290	1200	1000
MAY												
30...	0900	110	3080	8.00	30.0	24.0	60	7.6	96	1300	1600	1200
JUL												
23...	1115	191	3900	7.80	31.0	32.0	3500	6.7	98	470	450	1400
SEP												
16...	1200	105	3390	7.80	27.5	23.0	80	8.3	103	130	48	1300

DATE	CALCIUM DIS- SOLVED (MG/L AS Ca)	MAGNE- SIUM, DIS- SOLVED (MG/L AS Mg)	SODIUM, DIS- SOLVED (MG/L AS Na)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO ₃)	ALKA- LINITY, CARBON- ATE IT-FLD (MG/L AS CaCO ₃)	ALKA- LINITY CARBON- ATE FET-FLD (MG/L AS CaCO ₃)	SULFATE DIS- SOLVED (MG/L AS SO ₄)	CHLO- RIDE, DIS- SOLVED (MG/L AS Cl)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO ₂)
NOV												
26...	220	94	280	4	22	295	242	237	850	400	0.80	19
FEB												
11...	350	100	340	4	27	332	272	267	1200	500	0.90	23
MAR												
24...	250	100	270	4	25	298	245	243	810	360	0.80	19
MAY												
30...	320	100	270	3	22	211	173	170	1100	370	0.70	18
JUL												
23...	350	130	360	4	36	220	180	180	1400	500	0.90	18
SEP												
16...	320	120	330	4	28	223	183	182	1000	430	0.80	18

K Based on non-ideal colony count.

VIRGIN RIVER BASIN

09415230 VIRGIN RIVER ABOVE HALFWAY WASH NEAR RIVERSIDE, NV--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)
NOV 26...	2040	2000	2.8	0.610	0.010	0.620	0.170	0.160	0.53	0.70	0.170	0.020
FEB 11...	2630	2700	3.6	0.590	0.020	0.610	0.190	0.180	0.21	0.40	0.080	0.020
MAR 24...	1990	2000	2.7	--	<0.010	0.580	0.100	0.070	0.70	0.80	0.310	0.040
MAY 30...	2410	2300	3.3	--	<0.010	0.380	0.120	0.110	0.48	0.60	0.080	0.010
JUL 23...	3090	2900	4.2	--	<0.010	<0.100	0.200	0.150	2.7	2.9	0.400	<0.010
SEP 16...	2440	2400	3.3	--	<0.010	0.270	0.160	0.140	0.44	0.60	0.120	0.010
DATE	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	IRON, DIS- SOLVED (UG/L AS FE)	LEAD, DIS- SOLVED (UG/L AS PB)	LITHIUM DIS- SOLVED (UG/L AS LI)
NOV 26...	0.020	10	7	100	<10	<1	<1	1	<1	30	<1	390
FEB 11...	0.020	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	0.030	20	8	100	<10	<1	<1	<1	1	30	<1	390
MAY 30...	<0.010	20	4	100	<10	<1	<1	<1	<1	40	1	390
JUL 23...	<0.010	--	--	--	--	--	--	--	--	--	--	--
SEP 16...	0.010	20	5	<100	<10	<1	<1	1	<1	40	<5	470
DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN)	MERCURY DIS- SOLVED (UG/L AS HG)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO)	NICKEL, DIS- SOLVED (UG/L AS NI)	SELE- NIUM, DIS- SOLVED (UG/L AS SE)	SILVER, DIS- SOLVED (UG/L AS AG)	STRON- TIUM, DIS- SOLVED (UG/L AS SR)	VANA- DIUM, DIS- SOLVED (UG/L AS V)	ZINC, DIS- SOLVED (UG/L AS ZN)	SEDI- MENT, SUS- PENDE (MG/L)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM
NOV 26...	20	<0.1	1	3	2	<1	3500	6	20	1440	1010	40
FEB 11...	--	--	--	--	--	--	--	--	--	--	--	--
MAR 24...	10	<0.1	6	3	1	<1	3400	6	10	1000	748	45
MAY 30...	20	<0.1	3	2	1	<1	4500	4	<10	430	128	--
JUL 23...	--	--	--	--	--	--	--	--	--	2190	1130	58
SEP 16...	20	<0.1	14	1	1	<1	4200	<5	20	686	194	37

< Actual value is known to be less than value shown.

LAS VEGAS VALLEY

75

09419700 LAS VEGAS WASH NEAR HENDERSON, NV

LOCATION.--Lat 36°05'20", long 114°59'05", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.30, T.21 S., R.63 E., Clark County, Hydrologic Unit 15010015, on right bank at upstream end of 4.5-ft pipe culvert on road, 3.5 mi north of Henderson, and 6.0 mi upstream from high-water line of Lake Mead at elevation 1,221.4 ft, National Geodetic Vertical Datum of 1929.

DRAINAGE AREA.--2,125 mi², of which 1,518 mi² contribute directly to surface runoff. Prior to Apr. 4, 1961, 2,179 mi², of which 1,571 mi² contributed directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1957 to September 1983 and October 1984 to current year.

REVISED RECORDS.--WSP 1926: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,540 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Apr. 4, 1961, at site 2.5 mi downstream at various datums.

REMARKS.--Estimated daily discharges: Dec. 6-10, Dec. 18 to Jan. 1, Feb. 14 to Mar. 4, May 28 to June 8. Records fair except for estimated daily discharges, which are poor. In closed basin above station, 2,150 acres are irrigated, mostly by pumping from ground water. Discharge includes wastewater from industrial plants and sewage effluent.

AVERAGE DISCHARGE.--28 years (1958-83, 1985-86), 51.7 ft³/s, 37,460 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,510 ft³/s, July 4, 1975, gage height, 10.67 ft, from floodmarks, from rating curve extended above 3,340 ft³/s on basis of area-velocity computation to determine peak flow; maximum gage height, 12.15 ft, Aug. 11, 1983; minimum daily discharge, 4.8 ft³/s, Aug. 17, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 168 ft³/s, Mar. 11, gage height, 11.40 ft; minimum daily, 95 ft³/s, Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	124	120	132	130	126	124	122	120	108	109	120	122
2	120	122	128	132	125	123	117	116	106	111	120	126
3	122	125	129	132	125	120	117	107	108	113	119	119
4	117	125	128	130	126	95	120	110	103	111	116	121
5	114	126	127	129	124	126	119	113	105	106	117	121
6	117	123	128	127	126	123	118	112	103	113	118	105
7	119	122	128	122	125	122	137	111	100	115	122	123
8	119	123	128	121	124	122	123	114	105	112	119	123
9	122	121	129	120	124	121	118	105	113	109	118	121
10	111	123	128	122	125	120	114	105	108	108	121	118
11	128	129	124	123	127	149	116	107	111	111	122	119
12	129	129	125	125	127	127	120	107	112	115	121	115
13	127	126	125	125	125	124	121	105	116	116	122	115
14	125	121	121	125	125	124	119	106	120	118	118	116
15	125	125	121	126	155	124	123	108	125	123	116	124
16	123	127	120	110	129	126	122	109	123	122	115	123
17	120	128	121	130	123	129	119	106	120	112	116	123
18	120	126	123	129	122	127	118	114	122	115	123	122
19	118	124	123	129	122	124	118	110	115	111	121	125
20	118	123	122	128	122	119	123	109	114	116	123	126
21	118	123	122	130	122	119	124	109	110	127	127	126
22	119	125	122	128	122	125	124	109	106	116	123	124
23	123	125	123	129	122	122	124	111	105	112	126	124
24	123	127	124	127	122	114	124	117	112	120	127	121
25	118	129	124	126	122	121	120	119	112	120	128	120
26	115	130	123	127	123	124	122	116	114	122	128	117
27	117	129	125	127	123	129	125	114	118	125	128	118
28	121	126	125	127	123	128	125	111	113	124	124	120
29	122	126	126	126	---	124	124	109	116	115	122	124
30	120	142	126	132	---	123	122	113	118	114	120	129
31	119	---	130	143	---	121	---	112	---	114	119	---
TOTAL	3733	3770	3880	3937	3506	3819	3638	3434	3361	3575	3759	3630
MEAN	120	126	125	127	125	123	121	111	112	115	121	121
MAX	129	142	132	143	155	149	137	120	125	127	128	129
MIN	111	120	120	110	122	95	114	105	100	106	115	105
AC-FT	7400	7480	7700	7810	6950	7570	7220	6810	6670	7090	7460	7200
CAL YR 1985	TOTAL	42014	MEAN	115	MAX	187	MIN	86	AC-FT	83330		
WTR YR 1986	TOTAL	44042	MEAN	121	MAX	155	MIN	95	AC-FT	87360		

09419700 LAS VEGAS WASH NEAR HENDERSON, NV--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--February 1957 to October 1961, September and October 1962, May 1963 to June 1965, and December 1965 to current year.

CHEMICAL ANALYSES: January 1964 to January 1965, twice monthly; October 1967 to January 1969, weekly; February 1969 to January 1970 and July 1970 to September 1985, monthly (discontinued).

SPECIFIC CONDUCTANCES: January 1964 to January 1965, twice monthly; October to November 1967 and April 1968 to January 1969, weekly; February 1969 to January 1970 and July 1970 to September 1985, monthly; November 1985 to current year, hourly.

WATER TEMPERATURES: February 1957 to October 1961, September and October 1962, May 1963 to June 1965, and December 1965 to September 1985, monthly; November 1985 to current year, hourly.

SEDIMENT DATA: January 1977 to September 1985, monthly (discontinued).

INSTRUMENTATION.--Specific-conductance and temperature recorder since November 1985.

REMARKS.--Discharge includes sewage effluent and some wastewater from industrial plants. City and County sewage treatment plants implemented chemical removal of phosphorus from effluent during water year 1981. Periods of no record for daily specific conductance and water temperature are due to recorder malfunctions and periodic burial of the probes by sediment deposits. Records are poor due to variable accumulation of sediment near the recorder probes.

COOPERATION.--All water-quality sampling and analyses prior to July 1970, plus nutrient analyses for period July 1970 to September 1972, from U.S. Environmental Protection Agency. Data in addition to those listed under "Period of Record" for January 1964 to June 1970 may exist in files of U.S. Environmental Protection Agency.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 6,960 microsiemens Sept. 19, 1968; minimum, 1,470 microsiemens July 23, 1986.

WATER TEMPERATURES: Maximum, 28.0°C July 30, Sept. 3, 1958 and several days in August 1986; minimum, 2.0°C Jan. 31, 1972.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum, 1,580 mg/L Jan. 14 and Feb. 13, 1985; minimum, 1 mg/L Aug. 1, 1983.

EXTREMES FOR CURRENT YEAR (MEASUREMENTS AT LEAST ONCE DAILY).--

SPECIFIC CONDUCTANCES: Maximum, 3,050 microsiemens Feb. 16; minimum, 1,470 microsiemens July 23.

WATER TEMPERATURES: Maximum, 28.0°C on several days in August; minimum, 11.5°C Feb. 11.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1				---	---	---	2470	2380	2440	2650	2420	2510
2				---	---	---	2550	2220	2470	2630	2420	2490
3				---	---	---	2640	2400	2500	2710	2440	2540
4				---	---	---	2510	2410	2450	2720	2440	2550
5				---	---	---	2510	2280	2420	2690	2440	2540
6				---	---	---	2520	2310	2440	---	---	---
7				---	---	---	2530	2320	2440	---	---	---
8				2390	2190	2250	2510	2280	2400	---	---	---
9				2350	2190	2240	2520	2260	2360	---	---	---
10				2360	2170	2230	2510	2260	2380	---	---	---
11				2340	2140	2220	2540	2290	2410	---	---	---
12				2520	2170	2350	2500	2270	2350	---	---	---
13				2380	2190	2260	2510	2290	2370	---	---	---
14				2600	2180	2340	2560	2290	2410	---	---	---
15				2470	2250	2330	2520	2290	2380	---	---	---
16				2430	2270	2350	2560	2300	2420	---	---	---
17				2470	2280	2370	2580	2360	2460	---	---	---
18				2450	2270	2350	2580	2340	2460	---	---	---
19				2420	2240	2320	2590	2350	2480	---	---	---
20				2480	2260	2370	2620	2400	2540	---	---	---
21				2480	2290	2380	2620	2390	2510	---	---	---
22				2490	2350	2410	2630	2360	2470	---	---	---
23				2510	2350	2430	2640	2350	2470	---	---	---
24				2540	2350	2430	2640	2390	2520	---	---	---
25				2560	2340	2430	2640	2400	2520	---	---	---
26				2620	2400	2490	2660	2370	2480	---	---	---
27				2520	2400	2460	2780	2420	2550	---	---	---
28				2560	2360	2470	2680	2400	2550	---	---	---
29				2520	2360	2460	2680	2390	2520	---	---	---
30				2850	2410	2600	2660	2400	2500	---	---	---
31				---	---	---	2670	2410	2520	2790	2400	2610
MONTH				2850	2140	2370	2780	2220	2460	2790	2400	2540

LAS VEGAS VALLEY

09419700 LAS VEGAS WASH NEAR HENDERSON, NV--Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1				---	---	---	17.0	15.0	16.0	15.5	14.0	15.0
2				---	---	---	17.0	16.0	16.5	15.5	14.0	15.0
3				---	---	---	16.5	16.0	16.0	15.5	14.0	15.0
4				---	---	---	16.5	15.0	16.0	16.5	15.0	15.5
5				---	---	---	16.5	15.0	16.0	16.5	16.0	16.0
6				---	---	---	16.5	15.0	16.0	16.0	14.0	15.0
7				---	---	---	16.0	15.0	15.5	14.5	13.0	14.0
8				19.5	18.0	19.0	16.0	14.5	15.0	13.5	12.0	13.0
9				19.0	18.0	18.0	14.5	13.0	14.0	14.0	12.0	13.0
10				18.0	17.0	17.5	14.5	13.0	14.0	14.5	12.0	13.5
11				17.0	16.5	16.5	14.5	13.0	13.5	15.0	13.0	14.5
12				16.5	15.0	15.5	13.5	12.0	13.0	15.0	13.0	14.5
13				16.0	14.5	15.5	13.5	12.0	13.0	15.0	13.0	14.5
14				16.0	14.5	15.5	13.5	12.0	13.0	15.0	13.5	14.5
15				16.0	15.0	15.5	14.5	12.5	13.5	15.0	15.0	15.0
16				16.5	15.0	15.5	14.5	12.5	14.0	15.0	14.0	15.0
17				16.5	15.0	16.0	14.5	12.0	14.0	15.0	14.0	15.0
18				16.5	14.5	15.5	14.5	13.0	14.0	16.0	14.0	15.5
19				14.5	13.5	14.0	14.5	13.0	14.0	16.0	14.0	15.5
20				14.5	13.0	14.0	14.5	13.0	14.0	16.0	15.0	16.0
21				15.0	13.5	14.5	14.5	13.0	14.0	16.0	14.0	15.0
22				15.5	14.0	15.0	14.5	12.5	14.0	15.0	14.0	14.5
23				16.5	14.5	15.5	14.5	12.5	14.0	15.0	14.0	14.5
24				17.0	16.5	16.5	15.0	13.0	14.0	15.0	14.0	14.5
25				18.0	17.0	17.5	15.0	13.5	14.5	15.0	14.0	14.5
26				17.5	17.0	17.5	14.5	13.0	14.0	15.0	13.0	14.0
27				17.5	16.0	17.0	14.5	13.0	14.0	15.0	13.0	14.5
28				17.0	16.5	17.0	14.5	13.0	14.0	15.0	13.0	14.5
29				17.0	16.0	16.5	15.5	13.0	14.5	15.5	13.0	14.5
30				16.0	14.5	15.0	15.5	14.0	15.0	15.5	15.0	15.0
31				---	---	---	15.5	14.0	15.0	16.5	14.0	15.5
MONTH				19.5	13.0	16.0	17.0	12.0	14.5	16.5	12.0	14.5
	FEBRUARY			MARCH			APRIL			MAY		
1	16.5	15.0	16.0	18.5	16.5	18.0	21.5	19.5	20.5	22.5	20.0	21.5
2	16.5	15.0	16.0	19.0	17.5	18.5	19.5	17.0	18.0	22.5	20.0	21.5
3	16.5	15.0	16.0	19.5	18.0	19.0	18.5	16.5	17.5	22.5	21.0	21.5
4	16.5	15.0	16.0	19.0	17.5	18.0	19.5	17.5	18.5	21.5	19.5	20.5
5	15.5	14.0	15.0	19.5	17.5	18.5	19.5	18.0	19.0	21.5	19.0	20.5
6	15.5	14.0	15.0	19.5	17.5	18.5	20.0	18.0	19.0	20.0	18.5	19.5
7	14.5	13.5	14.0	19.0	17.5	18.5	19.0	17.5	18.5	20.0	18.0	19.0
8	14.5	13.5	14.0	18.5	17.0	18.0	20.5	18.5	19.5	21.0	18.5	20.0
9	14.5	13.5	13.5	17.5	16.0	17.0	21.0	18.0	19.5	21.5	18.5	20.0
10	13.5	12.5	13.0	17.0	16.0	16.5	20.5	19.0	20.0	21.5	19.5	20.5
11	13.5	11.5	12.5	16.5	14.0	15.5	21.0	18.5	20.0	21.5	20.0	20.5
12	14.5	12.5	13.5	17.0	16.0	16.5	20.5	18.5	19.5	22.5	20.0	21.0
13	16.0	14.5	15.0	16.5	15.0	16.0	19.0	17.5	18.0	23.0	20.0	21.5
14	16.0	15.5	16.0	17.0	15.5	16.5	19.0	17.5	18.5	23.5	21.0	22.0
15	16.0	14.5	15.5	17.0	15.5	16.5	20.5	18.0	19.0	23.5	21.5	22.5
16	16.0	13.5	14.5	16.5	15.5	16.0	19.5	18.0	18.5	23.0	21.0	22.0
17	17.0	16.0	16.5	17.0	15.5	16.0	19.5	17.5	18.5	21.5	19.5	20.5
18	18.0	16.5	17.5	16.5	15.0	16.0	19.5	18.0	19.0	22.5	19.5	21.5
19	18.5	17.0	17.5	17.0	15.0	16.5	20.0	18.0	19.0	23.0	20.0	22.0
20	17.5	16.0	17.0	18.0	16.0	16.5	21.0	18.5	20.0	23.0	21.5	22.0
21	17.5	16.0	16.5	19.0	16.5	18.0	22.5	19.5	21.0	22.0	20.5	21.0
22	17.0	15.5	16.5	19.0	17.0	18.0	22.0	20.5	21.0	21.5	19.5	20.5
23	17.5	15.5	16.5	19.0	17.0	18.0	21.5	20.0	20.5	22.5	20.0	21.5
24	18.5	16.0	17.5	19.5	17.5	18.5	21.0	19.5	20.0	23.0	20.5	22.0
25	19.0	17.0	18.0	19.5	17.5	18.5	20.5	19.0	20.0	23.5	21.0	22.5
26	19.0	17.0	18.5	20.0	18.0	19.0	20.5	19.0	19.5	24.0	21.5	23.0
27	19.0	17.5	18.5	20.5	18.0	19.5	20.5	17.5	19.5	24.0	21.5	23.0
28	18.5	17.0	18.0	21.0	18.5	20.0	21.5	18.5	20.5	24.5	22.0	23.0
29	---	---	---	21.0	19.5	20.5	22.0	20.0	21.0	24.5	22.0	23.5
30	---	---	---	21.0	19.0	20.0	22.0	20.5	21.0	25.0	22.5	24.0
31	---	---	---	21.0	19.5	20.0	---	---	---	---	---	---
MONTH	19.0	11.5	16.0	21.0	14.0	18.0	22.5	16.5	19.5	25.0	18.0	21.5

09419755 LAS VEGAS WASH AT POWERLINE CROSSING BELOW HENDERSON, NV

WATER-QUALITY RECORDS

LOCATION.--Lat 36°06'55", long 114°56'16", in SW¼SW¼ sec.22, T.21 S., R.63 E., Clark County, Hydrologic Unit 15010015, on right bank, about 3 mi upstream from high-water line of Lake Mead, about 3 mi downstream from Pabco Road, and about 4.5 mi northeast of Henderson.

DRAINAGE AREA.--2,185 mi², approximately.

PERIOD OF RECORD.--February to September 1986.

SPECIFIC CONDUCTANCES: February to September 1986, hourly.

WATER TEMPERATURES: February to September 1986, hourly.

INSTRUMENTATION.--Specific conductance and temperature recorder since February 1986.

REMARKS.--Discharge includes sewage effluent and wastewater from industrial plants. Periods of no record for daily specific conductance and temperature are due to recorder malfunctions and periodic burial of the probes by sediment deposits. Records are poor due to variable accumulation of sediment near the recorder probes.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 3,430 microsiemens June 4, 1986; minimum, 1,940 microsiemens May 19, 1986.

WATER TEMPERATURES: Maximum, 28.0°C on several days during July and August 1986; minimum, 14.0°C Mar. 11, 1986.

EXTREMES FOR CURRENT YEAR (MEASUREMENTS AT LEAST ONCE DAILY).--

SPECIFIC CONDUCTANCES: Maximum, 3,430 microsiemens June 4; minimum, 1,940 microsiemens May 19.

WATER TEMPERATURES: Maximum, 28.0°C on several days during July and August; minimum, 14.0°C Mar. 11.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	2750	2560	2650	---	---	---	2660	2390	2490
2	---	---	---	2660	2490	2590	2770	2480	2580	2720	2430	2520
3	---	---	---	2730	2510	2590	2690	2480	2550	2830	2410	2580
4	---	---	---	3280	2580	2920	2690	2440	2510	2660	2390	2500
5	---	---	---	2730	2560	2630	2690	2400	2510	2680	2410	2490
6	---	---	---	2880	2560	2640	2700	2360	2500	2740	2440	2540
7	---	---	---	2810	2540	2630	2680	2410	2550	2780	2490	2590
8	---	---	---	2780	2510	2620	2600	2400	2500	2800	2500	2580
9	---	---	---	2790	2490	2600	2680	2400	2510	2900	2520	2680
10	---	---	---	2780	2480	2580	2750	2440	2530	2940	2570	2690
11	---	---	---	2930	2540	2660	2720	2430	2530	2840	2520	2640
12	---	---	---	2740	2510	2590	2710	2390	2520	2880	2540	2650
13	---	---	---	2760	2520	2600	2670	2390	2480	2910	2440	2670
14	---	---	---	2800	2580	2670	2690	2390	2490	2920	2440	2650
15	---	---	---	---	---	---	2690	2430	2540	2740	2490	2600
16	---	---	---	---	---	---	2680	2480	2550	2730	2470	2570
17	---	---	---	---	---	---	2760	2460	2550	2800	2410	2570
18	---	---	---	---	---	---	2730	2490	2560	2650	2170	2410
19	---	---	---	---	---	---	2780	2490	2590	2370	1940	2160
20	2860	2680	2750	---	---	---	2700	2430	2530	2710	1990	2310
21	2980	2720	2820	---	---	---	2700	2420	2510	2650	2350	2430
22	2950	2450	2810	---	---	---	2700	2450	2520	2490	2170	2300
23	2940	2720	2820	---	---	---	2730	2440	2520	2400	2020	2180
24	2890	2640	2780	---	---	---	2730	2470	2540	2250	2050	2130
25	2960	2770	2860	---	---	---	2820	2480	2580	2570	2170	2340
26	2970	2640	2850	---	---	---	2710	2420	2530	2600	2280	2390
27	2940	2710	2850	---	---	---	2640	2270	2440	2680	2300	2420
28	2770	2580	2670	---	---	---	2610	2300	2410	2760	2360	2520
29	---	---	---	---	---	---	2770	2420	2560	2720	2430	2530
30	---	---	---	---	---	---	2730	2450	2540	2820	2440	2590
31	---	---	---	---	---	---	---	---	---	2730	2420	2530
MONTH	2980	2450	2800	3280	2480	2640	2820	2270	2530	2940	1940	2490

09419755 LAS VEGAS WASH AT POWERLINE CROSSING BELOW HENDERSON, NV--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	JUNE			JULY			AUGUST			SEPTEMBER		
1	2660	2420	2510	2580	2310	2420	2660	2470	2540	2400	2230	2310
2	2620	2390	2470	2490	2260	2360	2680	2470	2540	2390	2230	2290
3	2670	2340	2490	2470	2240	2330	2670	2450	2530	2480	2280	2350
4	3430	2420	2860	2440	2210	2300	2670	2450	2540	2460	2250	2340
5	2610	2360	2450	2530	2190	2310	2680	2470	2540	2460	2270	2350
6	2740	2360	2510	2420	2180	2280	2680	2480	2540	2670	2280	2470
7	2710	2430	2530	2440	2200	2300	2660	2480	2550	2450	2250	2320
8	2720	2270	2470	2540	2220	2360	2690	2530	2600	2400	2260	2320
9	2470	2270	2350	2560	2310	2400	2740	2540	2620	2520	2300	2380
10	2360	2080	2220	2690	2320	2420	2700	2550	2600	2510	2280	2360
11	2370	2030	2180	2490	2270	2350	2760	2560	2640	2460	2250	2330
12	2420	2230	2330	2490	2240	2330	2750	2590	2650	2480	2270	2350
13	2720	2350	2470	2450	2210	2300	2770	2590	2670	2460	2240	2330
14	2620	2360	2440	2440	2230	2310	2760	2610	2650	2440	2220	2300
15	2540	2300	2400	2500	2310	2370	2760	2570	2630	2350	2170	2230
16	2580	2290	2390	2570	2370	2430	2710	2510	2590	2360	2190	2260
17	2690	2400	2500	2680	2430	2520	2700	2470	2560	2380	2200	2270
18	2570	2370	2460	2650	2480	2530	2580	2420	2470	2380	2170	2270
19	2760	2420	2530	2760	2480	2590	2620	2440	2500	2400	2180	2240
20	2640	2370	2490	2730	2480	2590	2560	2380	2440	2310	2170	2240
21	2660	2340	2490	2710	2470	2550	2520	2370	2410	2320	2110	2190
22	2690	2370	2510	2620	2360	2490	2530	2240	2380	2330	2120	2230
23	2730	2450	2560	2670	2290	2420	2460	2320	2370	2400	2250	2310
24	2760	2390	2530	2470	2300	2360	2430	2280	2330	2480	2270	2340
25	2770	2440	2550	2520	2310	2370	2420	2270	2320	2430	2230	2310
26	2720	2440	2570	2630	2380	2460	2410	2260	2320	2440	2230	2330
27	2650	2390	2490	2570	2350	2440	2420	2260	2320	2440	2250	2320
28	2710	2400	2530	2570	2350	2430	2450	2290	2340	2420	2210	2290
29	2730	2440	2540	---	---	---	2450	2260	2340	2370	2200	2260
30	2670	2430	2510	2660	2420	2530	2460	2280	2350	2340	2170	2240
31	---	---	---	2720	2490	2580	2440	2240	2330	---	---	---
MONTH	3430	2030	2480	2760	2180	2410	2770	2240	2490	2670	2110	2300
YEAR	3430	1940	2480									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	---	---	---	19.5	16.5	18.0	22.5	19.0	20.5	23.0	19.5	21.0
2	---	---	---	20.5	17.5	18.5	20.5	17.0	18.0	24.0	19.0	21.0
3	---	---	---	21.0	18.0	19.0	21.0	16.5	18.0	24.0	19.5	21.0
4	---	---	---	21.5	17.0	18.5	21.5	16.5	18.5	---	---	---
5	---	---	---	21.0	17.0	18.5	21.0	17.5	19.0	---	---	---
6	---	---	---	20.5	17.0	18.5	21.5	17.0	19.0	---	---	---
7	---	---	---	20.0	17.0	18.5	20.0	17.0	18.5	21.0	17.0	18.5
8	---	---	---	19.0	16.0	17.5	21.5	17.5	19.5	21.5	17.5	19.0
9	---	---	---	19.0	15.5	17.0	22.5	17.5	20.0	22.5	17.5	20.0
10	---	---	---	16.5	15.5	16.0	22.0	18.5	20.0	23.0	18.5	20.0
11	---	---	---	16.5	14.0	15.5	23.0	18.0	20.0	22.5	18.5	20.0
12	---	---	---	18.0	15.5	16.0	22.0	17.5	19.5	23.5	19.0	21.0
13	---	---	---	17.0	14.5	15.5	20.5	17.0	18.0	24.0	19.0	20.5
14	---	---	---	19.0	15.5	16.5	20.0	17.0	18.5	24.5	18.5	21.5
15	---	---	---	18.5	15.0	16.5	22.0	17.5	19.5	24.5	16.5	20.0
16	---	---	---	17.5	15.5	16.0	20.0	17.0	18.0	25.5	17.5	22.0
17	---	---	---	18.0	15.0	16.0	20.5	16.5	18.0	24.0	19.5	21.5
18	---	---	---	17.5	14.5	16.0	21.0	17.0	18.0	25.0	19.5	22.0
19	---	---	---	18.5	14.5	16.0	21.0	16.5	18.5	26.0	20.5	23.0
20	18.5	15.5	16.5	19.5	15.0	17.0	22.0	17.0	19.5	25.5	22.0	23.0
21	18.0	15.0	16.5	20.0	15.5	17.5	23.5	18.0	20.5	23.0	18.5	21.0
22	18.0	14.5	16.0	20.0	16.0	18.0	23.5	19.0	20.5	---	---	---
23	18.5	15.0	16.5	19.5	16.0	18.0	22.0	18.5	20.0	---	---	---
24	19.5	15.5	17.5	21.0	17.0	18.5	21.5	18.5	19.5	24.5	20.5	21.5
25	20.0	16.5	18.0	21.0	17.0	18.5	21.5	18.0	19.5	26.0	20.5	22.5
26	20.5	16.5	18.5	21.5	17.0	19.0	21.5	17.5	19.0	---	---	---
27	20.0	17.0	18.5	22.0	17.5	19.5	21.5	16.5	19.0	---	---	---
28	20.0	16.5	18.0	22.0	18.0	20.0	23.0	17.5	20.0	---	---	---
29	---	---	---	22.0	19.0	20.5	24.0	19.5	21.5	---	---	---
30	---	---	---	22.5	18.5	20.0	24.0	19.5	21.5	---	---	---
31	---	---	---	22.5	19.0	20.0	---	---	---	---	---	---
MONTH	20.5	14.5	17.5	22.5	14.0	18.0	24.0	16.5	19.5	26.0	16.5	21.0

09419800 LAS VEGAS WASH NEAR BOULDER CITY, NV

LOCATION.--Lat 36°07'20", Long 114°54'15", in NE¼SE¼ sec.14, T.21 S., R.63 E., Clark County, Hydrologic Unit 15010015, in Lake Mead Recreation Area, on left bank near mouth, on upstream side of North Shore Road, about 0.8 mi upstream from high waterline of Lake Mead at altitude 1,221.4 ft, National Geodetic Vertical Datum of 1929, and 11 mi north-northwest of Boulder City.

DRAINAGE AREA.--2,193 mi², of which 1,586 mi² contribute directly to surface runoff.

PERIOD OF RECORD.--January 1964 to January 1965, September 1966 to February 1986 (discontinued).

CHEMICAL ANALYSES: January 1964 to January 1965, twice monthly; September 1966 to January 1969, weekly; February to October 1969, monthly; November 1969 to January 1970, twice monthly; February 1970 to July 1974, monthly; August 1974 to September 1980, twice monthly; October 1980 to September 1985, monthly.

SPECIFIC CONDUCTANCES: January 1964 to January 1965, twice monthly; September 1966 to December 1967 and May 1968 to January 1969, weekly; February to October 1969, monthly; November 1969 to January 1970, twice monthly; February 1970 to July 1974, monthly; August 1974 to May 1975, twice monthly; June 1975 to March 1976, 4 times per hour (incomplete record due to recorder malfunctions) and twice monthly; April to October 1976, twice monthly; November 1976 to September 1977, 4 times per hour (incomplete record due to recorder malfunctions) and twice monthly; October 1977 to May 1978, 2-4 times per month; June 1978 to January 1979, 3-5 times per week; February to August 1979, twice monthly; September and October 1979, four times per hour; November 1979 to February 1986, hourly.

MICROBIOLOGICAL DATA: October 1977 to September 1980, twice monthly (data prior to October 1977 unpublished); October 1980 to September 1985, monthly.

WATER TEMPERATURES: January to December 1968, weekly; August 1969 to July 1974, monthly; August 1974 to May 1978, twice monthly; June 1978 to January 1979, 3-5 times per week; February to October 1979, twice monthly; November 1979 to February 1986, hourly.

SEDIMENT DATA: January 1974 to December 1976, monthly; January 1977 to August 1979, twice monthly; September 1979 to December 1980, monthly; January 1981 to September 1981, twice monthly; October 1981 to September 1985, monthly.

INSTRUMENTATION.--Specific-conductance recorder from June 1975 to March 1976, November 1976 to April 1978, and August 1979 to February 1986. Temperature recorder from November 1979 to February 1986.

REMARKS.--Discharge includes sewage effluent and wastewater from industrial plants. City and county sewage treatment plants implemented chemical removal of phosphorus from effluent during water year 1981. Records are poor due to variable accumulations of sediment near the recorder probes.

COOPERATION.--Microbiological analyses prior to October 1978 by Nevada Bureau of Laboratories and Research. All water-quality sampling and analyses to October 1969, plus nutrient and trace-metal analyses for period, October 1969 to September 1972, from U.S. Environmental Protection Agency. Data in addition to those listed under "Period of Record" for January 1964 to September 1969 may exist in files of U.S. Environmental Protection Agency.

EXTREMES MEASURED FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCES: Maximum, 9,120 microsiemens Sept. 8, 1964; minimum, 1,390 microsiemens July 7, 1985.

FECAL STREPTOCOCCI: Maximum, 22,000 colonies/100 mL (non-ideal colony count) Dec. 1, 1982; minimum, 55 colonies/100 mL Jan. 10, 1977.

WATER TEMPERATURES: Maximum, 30.5°C July 5, 11-12, 1985; minimum, 3.0°C Jan. 7, 1970.

SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum, 113,000 mg/L Aug. 11, 1983 (hand-dipped sample; not depth integrated); minimum, 111 mg/L Jan. 28, 1975.

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	2390	2270	2320	2530	2360	2410	2680	2600	2650	2670	2540	2600
2	2510	2310	2350	2550	2370	2440	2700	2600	2650	2650	2530	2570
3	2460	2290	2350	2560	2370	2440	2790	2630	2690	2700	2480	2580
4	2470	2300	2350	2550	2350	2440	2700	2600	2650	2620	2500	2570
5	2450	2250	2340	2610	2450	2500	2700	2590	2640	2660	2390	2570
6	2400	2230	2300	2610	2420	2490	2650	2540	2590	2850	2520	2680
7	2440	2220	2310	2630	2440	2500	2650	2520	2570	2800	2630	2710
8	2450	2300	2340	2580	2400	2480	2630	2500	2550	2870	2720	2770
9	2680	2270	2340	2560	2430	2480	2600	2500	2540	2950	2730	2860
10	---	---	---	2580	2420	2480	2590	2490	2530	3060	2860	2940
11	2500	2310	2370	2580	2420	2470	2700	2490	2570	3110	2930	3000
12	2450	2310	2360	2730	2500	2590	2530	2450	2490	3170	3000	3070
13	2490	2320	2370	2620	2460	2510	2530	2420	2470	3210	2970	3110
14	2450	2290	2340	2830	2420	2540	2580	2470	2520	3340	2970	3210
15	2510	2330	2400	2550	2350	2480	2540	2460	2490	3390	3080	3280
16	2550	2370	2420	2630	2450	2530	2520	2460	2490	3950	3330	3750
17	2520	2390	2440	2580	2440	2510	2640	2500	2560	4100	3650	3820
18	2490	2390	2430	2580	2390	2500	2610	2530	2560	3710	3260	3530
19	2540	2370	2440	2570	2430	2500	2670	2540	2590	3320	2940	3120
20	2550	2350	2420	2650	2500	2570	2710	2590	2650	2980	2770	2850
21	2540	2320	2390	2610	2520	2550	2720	2600	2660	2850	2620	2770
22	2490	2320	2360	2630	2510	2550	2740	2580	2650	2790	2610	2670
23	2450	2320	2380	2630	2530	2580	2740	2550	2640	2770	2600	2650
24	2540	2330	2420	2680	2490	2570	2780	2600	2680	2770	2610	2670
25	2540	2380	2430	2680	2500	2570	2740	2550	2650	2780	2600	2670
26	2570	2390	2460	2720	2520	2630	2760	2530	2640	2750	2570	2640
27	2590	2370	2450	2700	2580	2630	2820	2610	2700	2770	2590	2650
28	2570	2370	2430	2770	2620	2690	2750	2600	2670	2820	2580	2680
29	2520	2380	2420	2730	2610	2660	2720	2480	2610	2790	2610	2670
30	2570	2380	2430	2950	2650	2780	2690	2530	2610	2820	2590	2690
31	2520	2370	2430	---	---	---	2690	2500	2580	2800	2630	2730
MONTH	2680	2220	2390	2950	2350	2540	2820	2420	2600	4100	2390	2870

09419800 LAS VEGAS WASH NEAR BOULDER CITY, NV--Continued

SPECIFIC CONDUCTANCE, MICROSIEMENS PER CENTIMETER AT 25°C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	FEBRUARY			MARCH			APRIL			MAY		
1	2770	2590	2670									
2	2770	2590	2670									
3	2730	2540	2630									
4	2720	2560	2630									
5	2750	2550	2650									
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	---	---	---									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
1	24.5	20.5	22.0	20.0	17.0	18.0	16.0	14.5	15.0	14.5	14.0	14.5
2	24.5	19.5	21.5	20.5	16.0	17.5	16.0	15.5	16.0	14.5	14.0	14.5
3	24.5	19.0	21.5	20.5	16.5	18.0	17.0	15.5	16.0	15.0	14.5	14.5
4	24.5	19.5	21.5	19.5	17.0	18.0	16.5	14.5	15.5	15.5	14.5	15.0
5	24.5	19.0	21.5	20.5	17.0	18.5	16.0	15.0	15.5	16.0	15.5	15.5
6	24.0	20.0	21.5	19.5	16.0	17.5	16.0	14.5	15.0	16.5	13.5	15.0
7	24.0	20.0	21.0	19.5	15.5	17.0	16.0	14.0	15.0	14.5	13.0	13.5
8	21.0	18.5	20.0	19.5	16.0	17.5	15.0	14.0	14.5	14.5	12.0	13.0
9	21.5	18.5	19.5	18.5	16.0	16.5	14.5	13.0	13.5	14.0	12.0	13.0
10	23.0	18.5	20.0	17.0	15.0	16.0	14.0	13.0	13.5	14.5	12.0	13.0
11	22.5	18.0	20.0	16.0	15.0	15.0	13.5	12.5	13.0	15.0	13.0	14.0
12	22.5	18.5	20.0	15.0	13.5	14.5	13.0	12.0	12.5	15.0	13.5	14.0
13	21.0	18.0	19.5	16.0	13.0	14.0	13.0	11.5	12.0	15.0	13.5	14.0
14	20.5	17.5	18.5	16.0	13.0	14.0	13.0	11.5	12.5	15.0	14.0	14.5
15	20.5	16.5	18.0	16.0	13.0	14.5	13.5	12.5	13.0	15.5	15.0	15.0
16	21.5	16.5	18.5	15.5	13.5	14.5	13.5	12.5	13.0	16.0	15.0	15.5
17	22.0	17.5	19.0	16.0	13.5	14.5	14.0	12.5	13.0	15.5	14.5	15.0
18	22.5	18.0	20.0	15.5	13.0	14.0	14.0	13.0	13.5	16.0	15.0	15.5
19	22.5	18.0	20.0	14.5	12.0	12.5	14.0	13.0	13.5	16.0	15.0	15.5
20	22.0	18.0	20.0	14.0	11.0	12.5	14.0	13.0	13.5	16.5	15.5	16.0
21	21.5	18.5	19.5	15.5	12.0	13.5	14.0	13.0	13.5	16.0	14.0	15.5
22	21.0	17.5	18.5	16.0	12.5	14.0	14.0	13.0	13.5	16.0	13.0	14.0
23	20.5	16.5	18.0	16.0	13.5	15.0	14.0	13.0	13.5	16.0	13.0	14.0
24	21.0	16.5	18.5	16.0	15.5	16.0	14.0	13.0	13.5	16.0	13.0	14.0
25	21.5	17.0	19.0	17.5	16.0	16.5	14.5	13.5	14.0	16.0	13.0	14.0
26	22.0	17.0	19.0	18.5	16.0	16.5	14.5	13.5	14.0	16.0	12.5	14.0
27	22.0	17.0	19.0	17.0	15.0	16.0	14.0	13.5	13.5	16.0	12.5	14.0
28	20.5	18.0	19.0	17.5	15.5	16.0	14.0	13.0	13.5	15.5	12.5	14.0
29	21.5	17.5	19.0	16.5	14.5	15.5	14.0	13.5	14.0	15.0	13.0	14.0
30	21.0	17.5	19.0	16.0	14.0	14.5	14.5	14.0	14.5	15.0	14.5	15.0
31	20.5	18.0	19.0	---	---	---	14.5	14.0	14.5	17.0	14.0	15.5
MONTH	24.5	16.5	19.5	20.5	11.0	15.5	17.0	11.5	14.0	17.0	12.0	14.5

COLORADO RIVER MAIN STEM

101

09423500 COLORADO RIVER AT NEEDLES, CA

LOCATION.--Lat 34°51'06", long 114°36'33", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.19, T.9 N., R.23 E., San Bernardino meridian, San Bernardino County, Hydrologic Unit 15030101, on right bank at Needles, 15 mi upstream from gaging station near Topock, Ariz., 30 mi downstream from Davis Dam, and 97 mi downstream from Hoover Dam.

DRAINAGE AREA.--174,500 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--April 1931 to current year (elevations only).

REVISED RECORDS.--WSP 1119: 1931-47.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 15, 1942, at site 550 ft downstream and May 15, 1942 to Feb. 16, 1969, at site 200 ft upstream.

REMARKS.--No record Aug. 15 to Sept. 14. Flow regulated by Lake Mead since Feb. 1, 1935, and by Lake Mohave since Jan. 17, 1950.

EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 475.77 ft Nov. 30, 1944; minimum, 453.30 ft Feb. 2, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum elevation recorded, 464.20 ft May 22; minimum, 453.30 ft Feb. 2.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	458.21	457.31	456.63	460.25	456.96	460.14	460.27	460.13	464.08	461.36	460.97	---
2	458.21	457.32	456.60	460.20	455.32	460.15	460.25	460.14	461.72	461.33	461.02	---
3	458.21	457.35	456.55	460.14	455.47	459.54	460.24	460.12	463.50	461.33	461.08	---
4	458.23	457.39	456.64	460.09	455.78	459.47	460.24	460.08	464.07	461.43	461.14	---
5	458.22	457.39	456.47	460.05	455.79	459.64	460.23	460.59	464.10	461.47	461.22	---
6	458.30	457.26	456.45	459.69	456.74	459.51	460.24	461.79	463.27	461.44	461.26	---
7	457.64	457.27	456.45	458.44	457.48	459.54	460.27	461.87	461.16	461.43	461.26	---
8	457.24	457.15	456.47	458.34	458.95	460.11	460.19	461.91	461.05	461.44	461.25	---
9	457.22	457.14	456.46	458.34	459.08	460.26	460.00	461.92	461.20	461.42	461.25	---
10	458.14	457.15	456.45	459.69	458.70	460.32	460.01	461.89	461.59	461.44	461.26	---
11	457.27	457.30	456.42	459.71	458.83	460.40	459.98	461.90	461.57	461.46	461.37	---
12	457.97	457.21	456.37	459.71	458.50	460.30	459.99	462.37	461.56	461.50	460.79	---
13	458.19	457.17	456.73	459.34	458.47	460.32	460.01	463.56	461.55	461.47	459.98	---
14	458.21	457.13	458.08	458.16	458.44	460.36	460.00	463.38	461.55	461.48	459.98	---
15	458.25	457.11	458.16	458.09	458.69	460.36	460.03	463.37	461.56	461.55	---	459.58
16	457.34	457.12	458.16	458.03	458.23	460.38	460.02	463.36	461.55	461.45	---	459.61
17	457.29	457.16	457.64	458.79	458.49	460.27	459.51	463.33	461.57	461.31	---	459.49
18	456.40	457.23	457.99	459.26	458.42	460.31	459.64	463.33	461.57	461.33	---	458.55
19	456.78	457.20	458.95	459.24	458.36	460.28	459.98	463.54	461.58	461.33	---	458.77
20	456.92	457.19	460.55	458.23	458.33	460.27	460.03	464.03	461.55	461.31	---	459.61
21	456.95	457.20	460.65	459.22	458.34	460.24	460.06	464.07	461.32	461.30	---	459.56
22	456.85	457.17	460.75	459.19	458.29	460.24	460.08	464.11	461.30	461.40	---	459.59
23	456.82	457.07	460.68	459.29	458.28	460.21	460.08	464.11	461.28	461.42	---	459.64
24	456.83	457.17	460.14	459.48	458.28	460.18	460.09	464.10	461.32	461.39	---	459.66
25	456.88	457.21	459.17	459.79	457.71	460.18	460.10	464.10	461.30	461.37	---	459.62
26	456.78	457.17	458.61	459.81	458.64	460.14	460.11	464.08	461.30	461.39	---	459.55
27	456.97	457.06	459.11	459.31	458.37	460.10	460.12	464.09	461.31	461.42	---	459.41
28	455.50	457.03	460.97	457.98	459.97	460.09	460.13	464.09	461.31	461.32	---	459.29
29	457.32	457.05	461.04	457.91	---	460.09	460.13	464.09	461.28	461.01	---	459.50
30	457.70	457.05	461.00	457.33	---	460.10	460.14	464.06	461.32	461.00	---	458.12
31	457.24	---	460.31	456.87	---	460.11	---	464.05	---	460.99	---	---
MAX	458.30	457.39	461.04	460.25	459.97	460.40	460.27	464.11	464.10	461.55	---	---
MIN	455.50	457.03	456.37	456.87	455.32	459.47	459.51	460.08	461.05	460.99	---	---

DIVERSIONS AND RETURN FLOWS BETWEEN DAVIS DAM AND PARKER DAM

09423550 TOPOCK MARSH INLET NEAR NEEDLES, CA

LOCATION.--Lat 34°50'10", long 114°35'03", in NE¼NW¼ sec.33, T.9 N., R.23 E., San Bernardino meridian, in Arizona, Mohave County, Hydrologic Unit 15030101, on left bank of Colorado River on north side of intake structure, 1.3 mi east of Needles.

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

GAGE.--Water-stage recorders above and below intake gates to record head and to record gate openings. Datum of gages is 400.00 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records good. Topock Marsh inlet diverts water from the Colorado River into Topock Marsh, an area of 4,260 acres. This water flows through the marsh and returns to the Colorado River through the Topock Marsh outlet. The Bureau of Sport Fisheries and Wildlife maintains two other gates to the same opening as the recording gate. Monthly total return flows through the outlet, sta 09423650, Topock Marsh Outlet near Topock, AZ, are shown in the table below. Prior to June 1978, daily flows for this station were published separately.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 249 ft³/s Mar. 5, 1976; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	31	27	42	26	33	21	24	16	105	106	.00
2	22	30	27	42	18	33	21	24	15	106	106	35
3	22	30	27	42	19	32	21	24	17	105	107	82
4	21	30	28	42	22	31	21	23	17	105	56	20
5	20	30	27	42	21	32	21	21	17	105	.00	.00
6	20	30	27	41	25	30	21	23	16	104	.00	.00
7	18	30	27	37	27	32	21	23	14	106	.00	.00
8	16	29	27	37	31	33	21	23	13	108	.00	.00
9	16	29	29	37	31	33	21	23	14	108	.00	54
10	18	29	31	41	31	30	21	23	73	108	.00	99
11	5.3	30	27	41	32	24	21	23	103	109	.00	46
12	.00	28	27	41	31	24	21	23	107	108	.00	.00
13	.00	28	29	40	31	23	21	24	108	108	.00	.00
14	.00	29	35	37	31	23	21	24	107	108	.00	.00
15	.00	28	34	36	32	23	21	24	107	109	.00	.00
16	10	28	34	36	31	23	21	24	108	108	.00	.00
17	34	28	32	39	32	23	20	24	107	107	.00	37
18	23	29	33	40	34	24	20	22	108	107	.00	73
19	26	29	37	40	34	24	21	18	108	108	.00	75
20	27	28	42	39	34	24	21	18	107	107	.00	81
21	27	29	41	39	34	24	21	18	105	107	.00	80
22	27	28	41	39	34	24	21	18	105	107	.00	80
23	26	27	41	40	34	24	21	18	105	108	.00	80
24	25	30	39	40	34	24	21	18	105	108	.00	80
25	25	30	36	41	32	24	21	18	105	108	.00	80
26	24	30	35	41	35	24	21	18	105	107	.00	107
27	25	29	39	40	34	23	21	18	105	107	.00	105
28	18	29	44	36	39	24	21	18	105	107	.00	105
29	27	29	44	36	---	23	21	17	105	106	.00	106
30	32	29	44	32	---	23	21	17	105	106	.00	94
31	32	---	42	31	---	23	---	17	---	107	.00	---
TOTAL	608.30	873	1053	1207	849	814	628	650	2332	3317	375.00	1519.00
MEAN	19.6	29.1	34.0	38.9	30.3	26.3	20.9	21.0	77.7	107	12.1	50.6
MAX	34	31	44	42	39	33	21	24	108	109	107	107
MIN	.00	27	27	31	18	23	20	17	13	104	.00	.00
AC-FT	1210	1730	2090	2390	1680	1610	1250	1290	4630	6580	744	3010
(*)	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR	1985	TOTAL	7601.30	MEAN	20.8	MAX	88	MIN	.00	AC-FT	15080	(*)	0
WTR YR	1986	TOTAL	14225.30	MEAN	39.0	MAX	109	MIN	.00	AC-FT	28220	(*)	0

* Return flow, in acre-feet, to Colorado River.

DIVERSIONS FROM LAKE HAVASU

103

09424150 COLORADO RIVER AQUEDUCT NEAR PARKER DAM, AZ-CA

LOCATION.--Lat 34°18'58", long 114°09'23", in NW¼SW¼ sec.28, T.3 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, Hydrologic Unit 15030101, at intake pumping plant of Metropolitan Water District of Southern California on Lake Havasu, 1.8 mi upstream from Parker Dam and 149 mi downstream from Hoover Dam.

PERIOD OF RECORD.--January 1939 to current year (monthly diversions only since October 1942). Published as a supplement to records for Colorado River below Parker Dam, 1942-50. Percolation return flow (monthly flow only) October 1964 to September 1973; prior to October 1964 miscellaneous measurements only.

GAGE.--Venturi meters in pressure lines at intake pumping plant.

REMARKS.--Pumping began Jan. 7, 1939. Figures of monthly diversion shown represent water pumped from Lake Havasu less return surface flow from Gene and Copper Basin Reservoirs. No water returned as surface flow from these reservoirs this year. Percolation return flow from Gene and Copper Basin Reservoirs is estimated by the U.S. Bureau of Reclamation as 10 acre-ft/day for a yearly total of 3,650 acre-ft, which is used for accounting purposes.

COOPERATION.--Diversion records furnished by Metropolitan Water District of Southern California.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily diversion, 3,986 acre-ft, 2,010 ft³/s Oct. 25, 1970 and Oct. 29, 1977; no diversion at times.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Diversion			
	Maximum	Minimum	Mean	Total
October.....	3,777	3,319	3,637	112,734
November.....	3,773	3,336	3,717	111,509
December.....	3,800	2,447	3,370	104,466
CAL YR 1985.....	3,960	1,706	3,489	1,273,537
January.....	3,840	1,373	2,686	83,252
February.....	3,843	3,243	3,538	99,057
March.....	3,897	2,075	3,529	109,392
April.....	3,777	3,537	3,688	110,652
May.....	3,885	3,409	3,730	115,628
June.....	3,833	3,393	3,697	110,912
July.....	3,861	1,491	3,632	112,603
August.....	3,800	2,144	3,647	113,051
September.....	3,771	3,421	3,682	110,472
WTR YR 1986.....	3,897	1,373	3,544	1,293,728

BILL WILLIAMS RIVER BASIN

09424432 FRANCIS CREEK NEAR BAGDAD, AZ

LOCATION.--Lat 34°45'42", long 113°15'54", in NW¼ sec.1, T.16 N., R.10 W., Yavapai County, Hydrologic Unit 15030202, on left bank, 13.1 mi northwest of Bagdad.

DRAINAGE AREA.--134 mi².

PERIOD OF RECORD.--December 1984 to current year (operated as a low flow station only).

GAGE.--Water-stage recorder. Elevation of gage is 3,260 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 15-18, Dec. 13-16, Feb. 12-15, Apr. 26 to May 2, and June 12 to July 30. Records good except those for periods of estimated daily discharges which are poor. Daily discharges above 20 cfs are not published. Diversion upstream from station for municipal supply of Bagdad.

COOPERATION.--Gage-height record was collected in cooperation with Bureau of Land Management.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	1.5	---	2.1	2.1	1.9	3.6	1.4	.00	1.1	1.5	1.9
2	1.6	1.6	---	2.1	1.7	1.9	3.5	1.3	.00	1.1	1.5	1.6
3	1.7	1.6	12	2.1	1.7	1.8	3.3	1.3	.00	1.1	1.6	1.4
4	1.6	1.6	7.5	2.0	1.8	1.8	3.2	1.3	.00	1.1	1.7	1.7
5	1.6	1.6	5.4	2.0	1.7	1.8	3.1	1.3	.00	1.1	1.7	1.4
6	1.6	1.6	4.1	2.0	1.7	2.1	2.9	1.3	.00	1.1	1.6	1.4
7	1.7	2.1	3.3	2.0	1.7	1.8	2.8	1.3	.00	1.1	1.7	1.4
8	1.6	2.0	2.7	2.0	1.7	1.8	2.7	1.2	.00	1.1	1.5	1.6
9	1.6	2.0	2.4	2.2	1.8	1.8	2.6	1.2	.94	1.1	1.5	1.5
10	1.6	1.9	2.0	2.0	1.7	2.4	2.5	1.2	.94	1.1	1.5	1.6
11	1.5	2.1	1.9	1.9	1.7	---	2.4	1.2	.94	1.1	1.3	1.8
12	1.5	2.2	1.8	1.8	2.2	---	2.3	1.2	.94	1.1	1.3	1.7
13	1.4	1.9	2.4	1.9	1.8	---	2.3	1.2	.90	1.2	1.3	1.8
14	1.5	1.8	1.8	2.0	1.8	---	2.2	1.2	.90	1.2	1.8	1.7
15	1.9	1.8	1.8	1.9	---	---	2.1	1.2	.90	1.2	1.5	1.7
16	1.5	1.8	1.6	1.8	---	---	2.1	1.2	.90	1.2	1.4	1.6
17	1.5	1.8	1.5	1.8	---	---	2.0	1.2	1.0	1.2	1.3	1.5
18	1.4	1.8	1.5	1.8	---	---	2.0	1.2	1.0	1.3	1.3	1.7
19	1.5	1.8	1.6	1.8	15	---	1.9	1.2	1.0	1.3	1.3	1.7
20	1.5	1.8	1.5	1.9	9.7	---	1.9	1.2	1.0	1.3	1.3	1.7
21	1.5	1.8	1.5	1.8	6.8	---	1.8	1.2	1.0	1.4	1.8	1.7
22	1.4	1.8	1.5	1.8	5.4	---	1.7	1.2	1.0	1.4	1.4	1.7
23	1.4	1.8	1.5	2.4	4.5	---	1.7	1.2	1.0	1.4	1.4	2.1
24	1.7	1.8	1.6	1.8	3.6	17	1.6	1.1	1.0	1.5	1.5	1.5
25	1.7	1.8	1.6	1.9	3.3	13	1.6	1.1	1.0	1.5	1.4	1.5
26	1.7	---	1.8	1.9	2.7	9.7	1.6	1.1	1.0	1.5	2.0	1.5
27	1.7	---	2.1	1.9	2.9	7.5	1.5	1.1	1.0	1.6	1.4	1.4
28	1.7	11	2.0	1.9	2.1	5.9	1.5	1.1	1.0	1.6	13	1.4
29	1.7	---	2.9	1.8	---	5.0	1.4	1.1	1.0	1.7	15	1.3
30	1.7	---	2.0	2.4	---	4.3	1.4	1.1	1.0	1.8	4.1	1.2
31	1.7	---	2.0	1.8	---	3.6	---	1.1	---	1.8	2.0	---
TOTAL	49.3	---	---	60.5	---	---	67.2	37.2	21.36	40.3	74.6	47.7
MEAN	1.59	---	---	1.95	---	---	2.24	1.20	.71	1.30	2.41	1.59
MAX	1.9	---	---	2.4	---	---	3.6	1.4	1.0	1.8	15	2.1
MIN	1.4	---	---	1.8	---	---	1.4	1.1	.00	1.1	1.3	1.2
AC-FT	98	---	---	120	---	---	133	74	42	80	148	95

BILL WILLIAMS RIVER BASIN

105

09424447 BURRO CREEK AT OLD U.S. 93 BRIDGE NEAR BAGDAD, AZ

LOCATION.--Lat 34°32'30", long 113°26'40", in SW¼ sec.19, T.14 N., R.11 W., Mohave County, Hydrologic Unit 15030202, on left bank 15 mi upstream from confluence with Big Sandy River, and 15 mi southwest of Bagdad.

DRAINAGE AREA.--612 mi².

PERIOD OF RECORD.--August 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,880 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 18, Nov. 27-29, Dec. 24 to Jan. 2, Jan. 27 to Feb. 4, 10-12, Feb. 23 to Mar. 5, Mar. 30 to Apr. 1, 12-15, and Aug. 14-19. Records fair except for periods of estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--6 years, 85.8 ft³/s, 62,160 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft³/s Mar. 3, 1983, gage height, 13.70 ft; minimum daily, 0.10 ft³/s July 16-20, 1984 and Nov. 14, 15, 1985.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 47,400 ft³/s Feb. 14, 1980, from slope-area measurement of peak flow at present site and datum, gage height, 15.6 ft, from high-water mark in vicinity of gage.

EXTREMES FOR CURRENT Year.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0630	*6,210	8.63	Mar. 13	0530	3,420	7.47
Feb. 16	0200	5,700	8.45	Mar. 18	0330	2,880	7.18
Mar. 11	1000	4,020	7.76	Aug. 29	0630	775	5.45

Minimum daily, 0.10 ft³/s Nov. 14, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.58	.28	867	13	12	18	22	3.6	.58	.24	.17	42
2	.58	.28	349	11	12	16	22	3.6	.52	.24	.20	17
3	.52	.24	154	11	11	14	23	3.1	.45	.17	.20	7.4
4	.52	.28	77	11	9.9	13	38	2.7	.45	.20	.20	4.3
5	.58	.28	47	11	10	11	40	2.4	.40	.17	.20	2.7
6	.58	.24	32	9.4	9.9	11	35	2.4	.31	.20	.17	1.6
7	.58	.24	25	9.4	10	10	27	2.2	.31	.20	.14	1.0
8	.52	.24	22	9.4	11	9.9	23	2.2	.34	.20	.14	.91
9	.66	.31	20	9.4	11	9.4	19	2.2	.31	.28	.14	.82
10	.66	.24	17	9.4	11	11	18	2.0	.28	.28	.14	.66
11	.52	.52	17	8.6	11	1670	17	2.0	.31	.31	3.3	.58
12	.45	.82	17	8.6	11	1740	15	1.9	.31	.34	28	.58
13	.34	.20	16	8.6	11	1700	13	1.9	.31	.31	2.4	.52
14	.31	.10	16	9.4	11	1140	11	1.7	.34	.28	.66	.52
15	.34	.10	16	10	258	1050	11	1.6	.31	.31	.58	.40
16	.45	.14	16	10	3090	533	10	1.6	.31	.28	.52	.40
17	.52	.17	14	10	704	703	9.4	1.5	.34	.28	.40	.40
18	.52	.17	14	9.9	206	1660	9.0	1.6	.31	.24	.34	.40
19	.40	.17	14	9.4	101	829	8.6	1.3	.24	.24	.31	.34
20	.40	.17	14	8.6	59	446	8.6	1.3	.28	.34	.31	.40
21	.40	.20	14	8.6	43	336	8.2	1.2	.28	.52	.31	.34
22	.34	.45	14	8.2	38	246	7.4	1.3	.28	.74	.40	.34
23	.34	1.1	14	8.6	33	175	7.1	1.1	.28	.66	.52	.74
24	.40	1.5	14	8.6	31	146	6.4	1.0	.34	3.4	.52	.45
25	.34	3.6	13	8.2	28	122	6.0	1.0	.31	1.6	.52	.40
26	.31	.98	13	7.8	26	103	5.4	.91	.28	.74	11	.34
27	.34	250	13	7.8	22	87	5.1	.91	.20	.31	33	.40
28	.40	.95	13	8.0	21	74	5.1	.82	.20	.24	3.8	.52
29	.40	.50	13	8.0	---	61	4.6	.74	.20	.20	291	.66
30	.40	2370	13	8.0	---	44	4.3	.74	.24	.17	103	.82
31	.34	---	13	8.0	---	32	---	.66	---	.17	61	---
TOTAL	14.04	2875.04	1911	286.9	4811.8	13020.3	439.2	53.18	9.62	13.86	543.59	87.94
MEAN	.45	95.8	61.6	9.25	172	420	14.6	1.72	.32	.45	17.5	2.93
MAX	.66	2370	867	13	3090	1740	40	3.6	.58	3.4	291	42
MIN	.31	.10	13	7.8	9.9	9.4	4.3	.66	.20	.17	.14	.34
AC-FT	28	5700	3790	569	9540	25830	871	105	19	27	1080	174

CAL YR	1985	TOTAL	29953.38	MEAN	82.1	MAX	2560	MIN	.10	AC-FT	59410
WTR YR	1986	TOTAL	24066.47	MEAN	65.9	MAX	3090	MIN	.10	AC-FT	47740

BILL WILLIAMS RIVER BASIN

09424450 BIG SANDY RIVER NEAR WIKIEUP, AZ

LOCATION.--Lat 34°27'45", long 113°37'25", in SE¼ sec.16, T.13 N., R.13 W., Mohave County, Hydrologic Unit 15030201, on left bank 7 mi downstream from Burro Creek, 15 mi upstream from confluence with Santa Maria River, and 17 mi south of Wikieup.

DRAINAGE AREA.--2,800 mi², approximately.

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

GAGE.--Water-stage recorder. Elevation of gage is 1,400 ft, above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1970, at datum 3.06 ft higher. Oct. 1, 1970, to Oct. 10, 1973, at datum 2.06 ft higher. Supplementary water-stage recorder for low flows at site 75 ft upstream at same datum from Apr. 10, 1975 to Mar. 1, 1978; Mar. 28 to Dec. 7, 1966, Apr. 2, 1969, to Apr. 9, 1975, at site 0.8 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 11 and Mar. 21, 26, 30, 31. Records fair. Diversions above station for irrigation of about 3,800 acres, mostly by pumping from ground water.

AVERAGE DISCHARGE.--20 years, 89.1 ft³/s, 64,550 acre-ft/yr; median of yearly mean discharges, 52 ft³/s, 37,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,500 ft³/s Feb. 20, 1980, gage height, 12.51 ft, from high-water mark in gage well; minimum daily, 1.3 ft³/s July 13, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0915	*7,680	6.39	Mar. 13	0900	3,660	5.01
Feb. 16	0500	7,420	6.31	Mar. 18	0730	3,050	4.75
Mar. 11	1500	3,850	5.09				

Minimum daily, 2.3 ft³/s Sept. 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	4.9	498	11	13	33	37	8.3	6.1	4.5	4.1	5.2
2	5.8	5.0	202	11	13	29	35	8.3	6.1	4.6	4.2	4.3
3	5.4	5.0	89	11	14	26	34	7.9	6.1	4.3	4.2	4.0
4	5.0	5.1	77	11	15	21	36	7.4	6.0	4.3	4.0	3.5
5	4.9	5.2	63	11	14	19	39	7.7	6.1	4.3	4.3	3.7
6	4.7	5.2	53	11	14	15	36	7.2	6.6	4.7	4.6	3.7
7	4.7	5.5	42	10	14	15	31	6.5	6.6	4.5	4.5	3.7
8	4.7	5.7	35	11	15	15	29	6.2	6.6	4.3	4.6	3.8
9	4.8	5.7	26	11	15	14	28	6.2	5.9	3.9	4.6	3.9
10	4.8	6.0	21	11	15	18	26	6.3	5.7	3.6	4.6	4.0
11	4.8	6.9	15	11	14	1080	23	6.4	5.8	3.8	5.8	4.9
12	4.7	8.8	13	11	14	1930	23	6.6	5.0	3.8	4.6	4.5
13	4.7	8.7	12	11	15	1490	21	6.7	4.8	3.6	4.4	4.2
14	4.3	8.7	12	12	15	984	20	6.7	4.6	3.7	4.6	3.8
15	4.1	8.7	12	13	21	874	19	7.0	4.7	3.7	4.6	3.8
16	4.1	8.7	12	12	2700	333	18	7.2	5.1	3.8	4.4	4.0
17	4.6	8.7	11	12	514	365	17	6.7	4.9	3.9	4.6	3.9
18	4.6	8.7	11	12	215	1520	15	6.6	4.8	4.1	4.7	3.4
19	4.3	8.7	11	12	104	571	15	6.7	4.7	4.1	4.3	3.1
20	4.6	8.7	11	12	71	342	15	6.7	5.1	4.3	4.3	2.7
21	4.3	8.7	11	12	60	270	15	6.3	4.3	4.4	4.2	2.4
22	4.0	8.7	11	12	55	230	14	6.1	4.0	4.2	4.0	2.3
23	4.1	8.7	11	12	52	200	13	6.1	4.1	4.1	4.3	2.3
24	4.2	8.7	11	12	48	170	12	6.1	4.3	4.2	4.4	2.3
25	4.3	9.0	11	12	44	150	12	6.1	4.4	4.2	4.4	2.6
26	4.4	9.2	11	11	42	130	11	6.1	4.4	4.2	4.5	2.8
27	4.4	8.7	11	11	38	110	10	6.1	4.4	4.2	4.0	3.2
28	4.5	8.7	11	11	34	90	9.9	6.1	4.4	4.2	15	3.7
29	4.6	8.7	11	12	---	70	9.5	6.0	4.4	4.3	16	3.7
30	4.7	1870	11	13	---	60	8.8	6.0	4.4	4.3	26	3.7
31	4.8	---	11	13	---	50	---	6.1	---	4.3	7.4	---
TOTAL	143.9	2087.7	1347	358	4198	11224	632.2	206.4	154.4	128.4	184.2	107.1
MEAN	4.64	69.6	43.5	11.5	150	362	21.1	6.66	5.15	4.14	5.94	3.57
MAX	6.0	1870	498	13	2700	1930	39	8.3	6.6	4.7	26	5.2
MIN	4.0	4.9	11	10	13	14	8.8	6.0	4.0	3.6	4.0	2.3
AC-FT	285	4140	2670	710	8330	22260	1250	409	306	255	365	212

CAL YR	1985	TOTAL	28953.5	MEAN	79.3	MAX	2120	MIN	4.0	AC-FT	57430
WTR YR	1986	TOTAL	20771.3	MEAN	56.9	MAX	2700	MIN	2.3	AC-FT	41200

09426000 BILL WILLIAMS RIVER BELOW ALAMO DAM, AZ

LOCATION.--Lat 34°13'51", long 113°36'29", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.4, T.10 N., R.13 W., La Paz County, Hydrologic Unit 15030204, on left bank 0.6 mi downstream from Alamo Dam, 3.7 mi downstream from Bullard Wash, and 8 mi downstream from confluence of Santa Maria and Big Sandy Rivers.

DRAINAGE AREA.--4,730 mi², approximately, of which 400 mi² is below confluence of Santa Maria and Big Sandy Rivers.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for October and November 1939, published in WSP 1313. Prior to October 1943, published as "Williams River near Alamo. October 1943 to September 1967, published as "Bill Williams River near Alamo."

REVISED RECORDS.--WSP 1213: 1939(M). 1941(P).

GAGE.--Water-stage recorder. Elevation of gage is 967 ft above National Geodetic Vertical Datum of 1929, from construction data. Prior to Apr. 9, 1968, at site 1.7 mi upstream at datum 1,002.95 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Diversions above station for irrigation of about 9,100 acres, mostly by pumping from ground water. Flow regulated by Alamo Lake, beginning Mar. 2, 1969. Temporary storage and slight regulation of releases through uncontrolled rectangular conduit through Alamo Dam June 23, 1968, to Mar. 27, 1969. Alamo Lake is formed by an earthfill and rockfill dam, completed in 1968. Total capacity of lake is 1,043,000 acre-ft. See table below for monthend contents.

EXTREMES FOR PERIOD OF RECORD.--1940-68: Maximum discharge, 65,100 ft³/s Aug. 29, 1951, gage height, 30.8 ft, site and datum then in use; minimum daily, 1.1 ft³/s Sept. 4, 1958.
1969-86: Maximum discharge, 4,950 ft³/s Jan. 26, 1969, gage height, 10.20 ft; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--The history of floods that occurred prior to October 1939 is published in WSP 1683. The peak discharges have been correlated with those for Bill Williams River at Planet. The peak discharge for February 1937 has been determined as 105,000 ft³/s at a stage of 46 ft, site and datum then in use, from rating curve extended above 50,000 ft³/s on basis of slope-area measurement for flood of Sept. 6, 1939, at a stage of 39.6 ft, discharge of 86,000 ft³/s and known stable high-water control.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 379 ft³/s Oct. 15; minimum daily, 6.4 ft³/s June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	367	364	352	367	323	322	313	337	352	36	56	66
2	367	364	352	355	323	322	328	296	352	50	56	118
3	367	364	355	352	323	322	331	322	352	50	58	148
4	370	367	355	352	323	322	331	322	352	50	113	148
5	370	367	355	352	323	74	331	322	352	50	142	148
6	367	364	355	352	323	63	331	322	306	50	143	148
7	367	358	355	352	323	278	334	322	343	103	143	148
8	370	358	355	352	323	282	334	322	340	131	143	166
9	367	358	355	358	323	285	334	322	340	130	143	213
10	373	358	355	358	322	285	334	322	337	132	143	244
11	370	361	358	358	322	285	334	322	337	132	165	272
12	373	361	355	358	322	280	334	325	337	134	179	293
13	376	361	355	358	322	280	334	325	334	136	179	293
14	376	361	358	358	322	280	337	325	334	192	179	296
15	379	361	358	358	322	280	334	325	334	220	179	298
16	373	361	361	358	322	280	334	325	334	218	179	298
17	373	361	364	358	322	280	334	325	114	217	178	298
18	373	361	367	358	322	282	334	322	7.3	215	78	298
19	373	361	367	358	322	298	334	322	6.7	213	18	298
20	373	358	376	358	322	298	337	322	6.7	187	18	298
21	373	358	376	358	322	298	337	325	6.4	80	18	298
22	373	358	373	358	322	298	337	322	11	21	18	298
23	373	349	364	358	322	298	334	322	15	21	18	298
24	373	349	364	358	322	298	334	319	15	20	18	298
25	373	349	370	358	322	300	331	319	15	22	47	298
26	373	349	367	358	322	302	334	316	14	21	66	298
27	376	203	367	358	322	316	334	316	14	20	68	298
28	376	29	364	358	322	316	331	216	14	45	68	301
29	346	128	364	340	---	316	297	346	14	57	67	301
30	364	352	364	323	---	316	334	346	14	57	66	298
31	364	---	373	323	---	316	---	349	---	56	66	---
TOTAL	11488	10053	11209	10980	9025	8772	9950	9943	5703.1	3066	3012	7475
MEAN	371	335	362	354	322	283	332	321	190	98.9	97.2	249
MAX	379	367	376	367	323	322	337	349	352	220	179	301
MIN	346	29	352	323	322	63	297	216	6.4	20	18	66
AC-FT	22790	19940	22230	21780	17900	17400	19740	19720	11310	6080	5970	14830
(*)	210800	200700	194300	178200	174600	188500	170800	153000	141000	134900	127500	111800
CAL YR 1985	TOTAL	113078.4	MEAN	310	MAX	2000	MIN	8.8	AC-FT	224300	(**)	-121900
WTR YR 1986	TOTAL	100676.1	MEAN	276	MAX	379	MIN	6.4	AC-FT	199700	(**)	-117500

* Storage, in acre-feet, at end of month for Alamo Lake, furnished by U.S. Army Corps of Engineers.

** Change in contents, in acre-feet.

09426600 BILL WILLIAMS RIVER AT MINERAL WASH NEAR PLANET, AZ

LOCATION.--Lat 34°15'18", long 114°00'32", in SE¼NE¼ sec.34, T.11 N., R.17 W., (revised), on boundary between Mohave and La Paz Counties, Hydrologic Unit 15030204, at convergence with Mineral Wash, 4.0 mi west of Planet Ranch, 6.1 mi upstream from waterline of Havasu Lake at elevation 450 ft above National Geodetic Vertical Datum of 1929, and approximately 30 mi downstream from Alamo Lake.

DRAINAGE AREA.--5,140 mi² approximately, of which approximately 410 mi² is below Alamo Dam.

PERIOD OF RECORD.--January 1970 to January 1972, October 1974 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to September 1981.

WATER TEMPERATURES: October 1974 to September 1981.

REMARKS.--Streamflow ungaged.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
NOV 1985 20...	1300	E300	600	8.20	15.0	7.5	4.5	758	11.4	96	26	
MAR 1986 19...	1000	E300	655	8.00	16.5	11.0	3.9	758	10.7	98	20	
MAY 15...	0930	E300	650	7.80	28.0	18.0	3.1	747	9.1	98	46	
AUG 12...	1630	106	660	8.00	32.0	35.0	9.4	748	5.8	85	150	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3) (00900)	HARD- NESS WH WAT DIS- SOLVED MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD MG/L HCO3) (99440)	CAR- BONATE IT-FLD MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD CACO3 (00410)
NOV 1985 20...	77	170	0	43	14	62	2	4.3	222	0	176	
MAR 1986 19...	120	170	0	42	16	72	2	5.2	217	0	170	
MAY 15...	880	160	0	40	15	68	2	5.3	212	0	171	
AUG 12...	1000	160	2	40	14	72	3	6.7	190	0	147	
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)	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 TOTAL MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)
NOV 1985 20...	53	57	0.90	23	352	370	0.48	--	--	--	--	
MAR 1986 19...	65	59	1.0	20	383	390	0.52	<0.010	0.260	<0.010	<0.010	
MAY 15...	62	53	0.80	20	373	370	0.51	<0.010	0.220	0.030	0.020	
AUG 12...	59	59	0.90	25	384	370	0.52	<0.010	0.520	<0.010	<0.010	
DATE		NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)	
NOV 1985 20...	--	--	--	--	--	--	--	20	7	67	<0.5	
MAR 1986 19...	--	0.20	0.040	0.030	0.020	0.06	10	7	69	<0.5		
MAY 15...	0.27	0.30	0.040	0.030	0.020	0.06	20	8	67	<0.5		
AUG 12...	--	0.60	0.060	0.050	0.040	0.12	--	8	68	--		

E Estimated

< Actual value is known to be less than value shown.

BILL WILLIAMS RIVER BASIN

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09426600 BILL WILLIAMS RIVER AT MINERAL WASH NEAR PLANET, AZ--Continued

WATER QUALITY DATA

DATE	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)	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)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
NOV 1985										
20...	--	<1	<1	<3	2	11	1	28	9	--
MAR 1986										
19...	--	<1	<1	<3	1	5	1	33	9	<0.1
MAY										
15...	--	<1	<1	<3	2	3	2	29	8	<0.1
AUG										
12...	280	<1	<10	--	<10	--	<5	--	--	0.1
DATE	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985										
20...	<10	1	<1	<1	480	<6	15	--	--	--
MAR 1986										
19...	<10	<1	1	<1	540	<6	12	--	--	--
MAY										
15...	<10	<1	<1	<1	490	<6	14	--	--	--
AUG										
12...	6	2	<1	<1	--	7	3	49	38	11

PESTICIDE ANALYSES

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)
AUG 1986								
12...	<0.1	<1.0	1.2	5.2	<0.1	<0.1	<0.1	<0.1
DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)
AUG 1986								
12...	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10

RADIOCHEMICAL ANALYSES

DATE	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. SOLVED (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. SOLVED (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. SOLVED (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1986								
12...	4.5	0.6	8.9	2.8	6.9	2.7	0.2	3.6

< Actual value is known to be less than value shown.

DIVERSIONS FROM LAKE HAVASU

09426650 CAP CANAL HAVASU PUMPING PLANT NEAR PARKER, AZ

LOCATION.--Lat 34°17'20", long 114°06'37", in NW¼NW¼ sec.23, T.11 N., R.18 W., La Paz County, Hydrologic Unit 15030204, on left bank of Bill Williams River arm of Lake Havasu, 2 mi upstream from Parker Dam and 19 mi northeast of Parker.

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

REMARKS.--Figures of monthly diversion shown represent water pumped from Lake Havasu for delivery to the Central Arizona Project. Pumps were tested starting on Mar. 8, 1985 but the actual delivery of water was started in May 1986.

COOPERATION.--Diversion records furnished by U. S. Bureau of Reclamation, Central Arizona Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily diversion, 2,321 acre-ft, 1,170 ft³/s, July 27, 1986; no diversion on many days.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Diversion			
	Maximum	Minimum	Mean	Total
October.....	297	0	75	2,336
November.....	550	0	37	1,110
December.....	220	0	25	782
CAL YR 1985.....	1,125	0	92	33,502
January.....	10	0	.5	15
February.....	16	0	.6	16
March.....	284	0	41	1,279
April.....	2,307	0	319	9,585
May.....	2,178	0	333	10,318
June.....	2,306	0	563	16,900
July.....	2,321	1.0	721	22,348
August.....	2,250	0	1,041	32,265
September.....	2,166	0	497	14,910
WTR YR 1986.....	2,321	0	306	111,864

WATER QUALITY RECORDS

LOCATION.--Lat 34°10'43", long 114°03'04", in NE&SE¼ sec.29, T.10 N., R.17 W., La Paz County, Hydrologic Unit 15030104, 7.9 mi southeast of CAP Havasu Pumping Plant, and approximately 18 mi from Parker, AZ.

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

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)
		(00061)	(00095)	(00400)	(00020)	(00010)	(00080)	(00025)	(00300)	(00301)	(00340)	(31625)
NOV 1985												
20...	0945	0.0	870	8.20	7.0	11.0	5	740	10.7	100	11	--
MAR 1986												
17...	1200	550	860	7.90	16.5	18.0	5	765	9.9	104	27	--
MAY												
12...	1400	0.0	830	8.30	31.5	23.0	--	732	11.7	143	<10	--
AUG												
11...	1600	0.0	840	8.00	40.0	30.0	--	735	8.2	113	--	28
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD AS HCO3)	CAR- BONATE IT-FLD AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
		(31673)	(00900)	(00902)	(00915)	(00925)	(00930)	(00931)	(00935)	(99440)	(99445)	(00410)
NOV 1985												
20...	--	--	260	120	66	23	73	2	4.3	165	0	133
MAR 1986												
17...	--	--	260	130	65	23	78	2	4.0	156	0	125
MAY												
12...	--	--	240	130	60	23	72	2	3.9	145	0	113
AUG												
11...	K20	--	260	150	65	24	72	2	3.6	137	0	108
DATE		SULFIDE TOTAL (MG/L AS S)	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SiO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)
		(00745)	(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(70303)	(00630)	(00631)	(00608)
NOV 1985												
20...	<0.5	220	65	0.30	9.0	562	540	0.76	0.100	0.120	0.010	
MAR 1986												
17...	<0.5	200	58	0.40	9.0	537	510	0.73	0.200	0.240	0.020	
MAY												
12...	--	220	53	0.30	8.9	530	510	0.72	<0.100	<0.100	0.030	
AUG												
11...	--	210	58	0.30	8.9	532	510	0.72	0.100	0.120	--	
DATE		NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS N)	NITRO- GEN, TOTAL (MG/L AS NO3)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ARSENIC TOTAL (UG/L AS AS)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA)	BARIUM, DIS- SOLVED (UG/L AS BA)
		(00625)	(00600)	(71887)	(00665)	(00666)	(00671)	(00660)	(01002)	(01000)	(01007)	(01005)
NOV 1985												
20...	0.30	0.40	1.8	0.010	<0.010	0.010	0.03	2	2	100	100	
MAR 1986												
17...	0.30	0.50	2.2	0.020	<0.010	<0.010	--	3	3	100	200	
MAY												
12...	0.30	--	--	0.020	<0.010	<0.010	--	3	2	200	86	
AUG												
11...	--	--	--	0.040	0.010	--	--	2	2	100	110	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

WATER QUALITY DATA

DATE	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)	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)
NOV 1985 20...	120	110	<1	5	<1	4	3	60	10	<100	2
MAR 1986 17...	100	110	1	18	<1	3	1	120	4	<100	2
MAY 12...	--	120	<1	6	<1	--	3	--	<3	100	2
AUG 11...	--	110	<1	<1	<1	--	4	--	<3	<100	<5
DATE	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	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)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)
NOV 1985 20...	<10	<0.10	1	<1	<1	10	10	22	<0.010	<1	0.03
MAR 1986 17...	20	<0.10	4	<1	<1	10	<10	32	<0.010	1	0.03
MAY 12...	--	<0.10	--	<1	<1	--	6	22	<0.010	<1	--
AUG 11...	--	0.20	--	<1	<1	--	8	--	--	<1	--

PESTICIDE ANALYSES

DATE	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
NOV 1985 20...	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
MAR 1986 17...	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APHENE, TOTAL (UG/L) (39400)
NOV 1985 20...	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1
MAR 1986 17...	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

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09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 33°42'07", long 112°03'54", in NE&SE&SE& sec.8, T.4 N., R.3 E., Maricopa County, Hydrologic Unit 15060106, on upstream side of 7th Street Bridge in Phoenix.

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

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	COLOR (PLAT- INUM- COBALT UNITS)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00080)	(00025)	(00300)	(00301)	(00340)	(31625)	
OCT 1985													
31...	1100	0.0	1040	8.30	21.0	21.0	--	714	8.3	100	--	--	
NOV													
27...	0915	0.0	1030	8.52	13.5	13.5	--	725	9.8	99	--	--	
DEC													
17...	0930	0.0	1010	8.50	9.5	10.0	--	729	10.6	98	43	--	
JAN 1986													
27...	0920	0.0	1010	8.39	13.0	13.0	--	724	10	100	--	--	
FEB													
24...	1020	0.0	972	8.18	21.5	16.0	--	728	7.3	78	--	--	
MAR													
24...	1035	0.0	435	8.19	24.5	18.0	--	727	5.8	64	68	--	
APR													
28...	0900	0.0	994	8.36	28.0	21.5	--	723	7.8	94	--	--	
MAY													
28...	1510	0.0	1020	8.70	40.5	27.0	--	717	9.8	132	--	--	
JUN													
27...	0850	0.0	972	8.58	38.0	29.0	--	721	8.4	116	35	--	
JUL													
25...	1200	0.0	870	8.40	33.0	29.0	--	720	9.2	127	--	--	
AUG													
20...	0835	0.0	824	8.49	34.0	30.0	10	721	7.3	103	22	44	
SEP													
30...	0855	0.0	822	8.49	25.0	23.0	--	721	8.9	110	--	--	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS AS CACO3 (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFIDE TOTAL (MG/L AS S) (00745)
OCT 1985													
31...	--	280	190	62	31	110	3	8.0	--	--	91	--	--
NOV													
27...	--	260	170	55	31	100	3	7.9	103	5.0	92	--	--
DEC													
17...	--	270	180	58	31	110	3	8.1	101	4.0	90	--	--
JAN 1986													
27...	--	260	170	51	31	110	3	8.1	105	1.0	86	--	--
FEB													
24...	--	270	160	59	29	100	3	7.8	128	0	104	--	--
MAR													
24...	--	130	14	33	11	35	1	6.8	139	0	112	--	--
APR													
28...	--	270	170	60	29	97	3	6.8	118	4.0	104	--	--
MAY													
28...	--	250	160	50	30	100	3	7.4	98	2.0	86	--	--
JUN													
27...	--	260	150	56	29	98	3	6.7	134	2.0	109	--	--
JUL													
25...	--	240	140	54	26	84	2	5.7	112	7.0	103	--	--
AUG													
20...	35	250	130	57	25	76	2	3.9	132	2.0	113	<0.5	--
SEP													
30...	--	230	130	53	24	70	2	4.2	118	1.0	100	--	--

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ-Continued

WATER QUALITY DATA

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	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, TOTAL (MG/L AS N) (00600)
OCT 1985												
31...	310	90	0.40	9.3	696	680	0.95	<0.100	<0.100	--	0.50	--
NOV												
27...	240	74	0.40	8.1	622	580	0.85	<0.100	<0.100	--	0.50	--
DEC												
17...	280	76	0.40	7.7	644	630	0.88	<0.100	<0.100	0.040	0.50	--
JAN 1986												
27...	310	87	0.40	3.5	646	650	0.88	<0.100	<0.100	--	0.60	--
FEB												
24...	290	81	0.40	3.8	630	630	0.86	<0.100	<0.100	--	0.60	--
MAR												
24...	77	21	0.30	3.2	284	260	0.39	0.100	0.110	1.40	2.8	2.9
APR												
28...	290	78	0.40	2.6	654	630	0.89	<0.100	<0.100	--	0.50	--
MAY												
28...	270	79	0.40	4.4	665	590	0.90	<0.100	<0.100	--	0.50	--
JUN												
27...	270	74	0.40	9.2	651	610	0.89	<0.100	<0.100	0.020	0.50	--
JUL												
25...	210	63	0.30	9.4	579	520	0.79	<0.100	<0.100	--	0.50	--
AUG												
20...	220	61	0.30	7.8	516	520	0.70	<0.100	<0.100	0.020	0.60	--
SEP												
30...	220	59	0.30	6.3	520	500	0.71	<0.100	<0.100	--	0.80	--

DATE	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)
OCT 1985											
31...	--	0.020	--	<0.010	--	--	--	--	--	--	170
NOV											
27...	--	0.020	--	<0.010	--	--	--	--	--	--	160
DEC											
17...	--	0.010	<0.010	<0.010	--	2	2	<100	98	--	150
JAN 1986											
27...	--	0.020	--	0.010	0.03	--	--	--	--	--	150
FEB											
24...	--	0.010	--	<0.010	--	--	--	--	--	--	150
MAR											
24...	13	0.040	0.010	<0.010	--	4	4	100	59	--	70
APR											
28...	--	0.010	--	<0.010	--	--	--	--	--	--	150
MAY											
28...	--	0.020	--	<0.010	--	--	--	--	--	--	160
JUN											
27...	--	0.010	<0.010	0.020	0.06	2	2	100	91	--	150
JUL											
25...	--	0.010	--	<0.010	--	--	--	--	--	--	120
AUG											
20...	--	0.020	0.020	<0.010	--	2	2	100	92	200	120
SEP											
30...	--	0.010	--	<0.010	--	--	--	--	--	--	110

DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	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)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)
OCT 1985											
31...	--	--	--	--	--	--	36	--	--	--	--
NOV											
27...	--	--	--	--	--	--	12	--	--	--	--
DEC											
17...	<1	10	<1	--	<1	--	<3	<100	<1	--	<0.10
JAN 1986											
27...	--	--	--	--	--	--	6	--	--	--	--
FEB											
24...	--	--	--	--	--	--	<3	--	--	--	--
MAR											
24...	<1	11	<1	--	2	--	22	100	1	--	<0.10
APR											
28...	--	--	--	--	--	--	8	--	--	--	--
MAY											
28...	--	--	--	--	--	--	9	--	--	--	--
JUN											
27...	<1	17	<1	--	1	--	4	<100	<5	--	<0.10
JUL											
25...	--	--	--	--	--	--	6	--	--	--	--
AUG											
20...	<1	<1	<1	5	<1	60	3	<100	<5	<10	<0.10
SEP											
30...	--	--	--	--	--	--	3	--	--	--	--

< Actual value is known to be less than value shown.

09427100 CAP CANAL AT MP 162.3 AT 7TH STREET AT PHOENIX, AZ--Continued

WATER QUALITY DATA

DATE	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	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)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, INOR- GANIC, TOTAL (MG/L AS C) (00685)	CYANIDE TOTAL (MG/L AS CN) (00720)	PHENOLS TOTAL (UG/L) (32730)	METHY- LENE BLUE ACTIVE SUB- STANCE (MG/L) (38260)	SEDI- MENT, SUS- PENDE (MG/L) (80154)
OCT 1985											
31...	--	--	--	--	--	--	--	--	--	--	12
NOV											
27...	--	--	--	--	--	--	--	--	--	--	6
DEC											
17...	--	<1	<1	--	13	--	13	<0.010	<1	--	6
JAN 1986											
27...	--	--	--	--	--	--	--	--	--	--	3
FEB											
24...	--	--	--	--	--	--	--	--	--	--	2
MAR											
24...	--	<1	<1	--	11	--	--	--	<1	--	478
APR											
28...	--	--	--	--	--	--	--	--	--	--	9
MAY											
28...	--	--	--	--	--	--	--	--	--	--	1
JUN											
27...	--	<1	<1	--	10	8.6	19	<0.010	2	--	--
JUL											
25...	--	--	--	--	--	--	--	--	--	--	3
AUG											
20...	8	<1	<1	20	10	5.3	20	<0.010	1	0.05	6
SEP											
30...	--	--	--	--	--	--	--	--	--	--	3

PESTICIDE ANALYSES

DATE	ALDRIN, TOTAL (UG/L) (39330)	CHLOR- DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI- ELDRIN TOTAL (UG/L) (39380)	ENDO- SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	HEPTA- CHLOR, TOTAL (UG/L) (39410)
AUG 1986									
20...	<0.010	<0.1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010

DATE	HEPTA- CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH- OXY- CHLOR, TOTAL (UG/L) (39480)	MIREX, TOTAL (UG/L) (39755)	NAPH- THA- LENES, POLY- CHLOR. TOTAL (UG/L) (39250)	PER- THANE TOTAL (UG/L) (39034)	PCB, TOTAL (UG/L) (39516)	TOX- APHENE, TOTAL (UG/L) (39400)
AUG 1986								
20...	<0.010	<0.010	<0.01	<0.01	<0.10	<0.1	<0.1	<1

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427500 LAKE HAVASU NEAR PARKER DAM, AZ-CA

LOCATION.--Lat 34°18'58", long 114°09'23", in NW¼SW¼ sec.28, T.3 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, Hydrologic Unit 15030101, at intake pumping plant for Colorado River aqueduct of Metropolitan Water District of Southern California, 1.8 mi upstream from Parker Dam on Colorado River, and 149 mi downstream from Hoover Dam.

DRAINAGE AREA.--182,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--July 1938 to current year. Published as "Parker Reservoir near Parker Dam" 1938.

REVISED RECORDS.--WRD Ariz. 1975: 1974 (elevation).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by concrete-arch dam; dam was completed and storage began July 1, 1938. Usable capacity - based on April 1957 re-survey by Bureau of Reclamation between elevations 430.54 ft and 450.54 ft - 619,400 acre-ft between elevations 400.54 ft, sill of regulating gates, and 450.54 ft, top of regulating gates. Prior to Oct. 1, 1956, different capacity table used. Dead storage, 28,600 acre-ft below elevation 400.54 ft, based on original survey. About 0.07 ft fall indicated between gage and Parker Dam under normal operating conditions. drawdown below elevation 440.54 ft not legally permissible except by consent of the Metropolitan Water District of Southern California or in an emergency affecting the safety of the dam. Lake is used for flood control, power development, re-regulation of river for irrigation demand, and as a basin from which water is pumped by Metropolitan Water District of Southern California to Colorado River aqueduct. Figures given herein represent usable contents. For record of diversion to Colorado River aqueduct, see record for Colorado River aqueduct near Parker Dam elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum storage, 693,000 acre-ft, by temporary use of flashboards, Apr. 18, 1943, June 4, 1953; maximum elevation, 451.13 ft June 1, 1982, affected by wind; minimum storage, 71,400 acre-ft June 25, 1942, elevation, 412.09 ft.

EXTREMES FOR CURRENT YEAR.--Maximum storage, not determined, maximum elevation, 449.94 ft Aug. 11, affected by wind; minimum storage, 535,500 acre-ft July 2, elevation, 446.14 ft.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	542300	557300	567700	593400	572200	581500	559400	594400	578100	540200	595400	582500
2	541800	558100	572400	595800	571800	582100	557300	597000	572000	538400	594200	583000
3	541600	559200	578500	598200	578100	586100	555400	598200	561100	538000	593800	584200
4	541800	560200	581900	600200	587200	584900	554300	599000	560700	539500	593400	585900
5	541800	561500	584200	602200	595400	585100	552100	599800	564400	541800	594200	587000
6	540900	562900	581700	603800	592400	585300	549000	603000	574700	544100	597400	586100
7	539300	562000	578500	599400	591400	584000	547000	601600	575600	545400	598600	585300
8	539300	562500	577200	593800	592200	583000	546100	603000	571100	548600	600600	583600
9	542200	562000	574700	587600	595400	586500	547700	604200	567800	550300	600800	586500
10	545000	562200	572800	586500	595600	591000	551200	604200	566900	553000	601000	587000
11	547900	562900	572000	587200	596000	593000	553500	605400	566900	555000	604200	587000
12	551000	564800	567100	588000	596200	591200	557300	599400	566500	555200	606200	587000
13	556000	565800	563300	593400	595200	589300	557500	597000	565900	555800	603600	585300
14	561100	565200	563900	594200	593800	588200	559400	595200	563300	558400	601400	584000
15	565200	565200	565200	599400	595000	584200	561800	593200	561800	561600	597800	583800
16	567500	567500	561100	600400	593600	585300	565600	591600	561800	563900	591800	584600
17	567800	567500	553900	596200	595000	584000	567300	588200	561500	567100	584800	585700
18	565600	566700	547200	596400	594600	583400	566300	585500	561500	570300	581000	583600
19	565200	565200	543100	597000	594200	581500	568600	584200	561100	571500	577000	578300
20	564800	564400	547700	597000	591000	580400	569700	582100	560300	573400	577200	576400
21	564400	565200	553500	596400	589500	579600	571600	581700	556400	577500	578500	576600
22	563500	565200	559400	596400	588400	577700	574300	583800	554100	579800	578500	577000
23	562500	565200	565800	596200	587200	576000	576600	584600	553100	582100	577300	579600
24	561100	564800	569700	596600	585900	576000	579200	584600	551000	582500	577000	580800
25	560900	567700	570900	598000	583000	572600	582300	582300	552100	586800	577000	581900
26	559800	568600	567800	599800	582700	570700	583400	581500	550300	589100	578700	583400
27	559000	569600	565000	601600	579600	568400	585300	581500	548500	589700	581500	583800
28	556200	568600	569700	599000	578900	566300	586800	580800	544500	591600	581900	584900
29	553900	569000	577000	593200	---	564000	589100	580400	541800	592800	584000	584400
30	555800	568600	585100	585300	---	562000	590300	580400	540900	593800	581100	580800
31	557700	---	590100	575300	---	559600	---	580400	---	594800	582300	---
MAX	567800	569600	590100	603800	596200	593000	590300	605400	578100	594800	606200	587000
MIN	539300	557300	543100	575300	571800	559600	546100	580400	540900	538000	577000	576400
**	+15400	+10900	+21500	-14800	+3600	-19300	+30700	-9900	-39500	+53900	-12500	-1500
CAL YR 1985	MAX	603800	MIN	539300	**	+6100						
WTR YR 1986	MAX	606200	MIN	538000	**	+38500						

** Change in storage in acre-feet.

COLORADO RIVER MAIN STEM

09427500 LAKE HAVASU NEAR PARKER DAM, AZ-CA--Continued

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	446.52	447.34	447.89	449.24	448.13	448.62	447.45	449.29	448.44	446.40	449.34	448.67
2	446.49	447.38	448.14	449.36	448.11	448.65	447.34	449.42	448.12	446.30	449.28	448.70
3	446.48	447.44	448.46	449.48	448.44	448.86	447.24	449.48	447.54	446.28	449.26	448.76
4	446.49	447.49	448.64	449.58	448.92	448.80	447.18	449.52	447.52	446.36	449.24	448.85
5	446.49	447.56	448.76	449.68	449.34	448.81	447.06	449.56	447.72	446.49	449.28	448.91
6	446.44	447.64	448.63	449.76	449.19	448.82	446.89	449.72	448.26	446.62	449.44	448.86
7	446.35	447.59	448.46	449.54	449.14	448.75	446.78	449.65	448.31	446.69	449.50	448.82
8	446.35	447.62	448.39	449.26	449.18	448.70	446.73	449.72	448.07	446.87	449.60	448.73
9	446.51	447.59	448.26	448.94	449.34	448.88	446.82	449.78	447.90	446.96	449.61	448.88
10	446.67	447.60	448.16	448.88	449.35	449.12	447.01	449.78	447.85	447.11	449.62	448.91
11	446.83	447.64	448.12	448.92	449.37	449.22	447.14	449.84	447.85	447.22	449.78	448.91
12	447.00	447.74	447.86	448.96	449.38	449.13	447.34	449.54	447.83	447.23	449.88	448.91
13	447.27	447.79	447.66	449.24	449.33	449.03	447.35	449.42	447.80	447.26	449.75	448.82
14	447.54	447.76	447.69	449.28	449.26	448.97	447.45	449.33	447.66	447.40	449.64	448.75
15	447.76	447.76	447.76	449.54	449.32	448.76	447.58	449.23	447.58	447.57	449.46	448.74
16	447.88	447.79	447.54	449.59	449.25	448.82	447.78	449.15	447.58	447.69	449.16	448.78
17	447.90	447.79	447.16	449.38	449.32	448.75	447.87	448.97	447.56	447.86	448.79	448.84
18	447.78	447.84	446.79	449.39	449.30	448.72	447.82	448.83	447.56	448.03	448.59	448.73
19	447.76	447.76	446.56	449.42	449.28	448.62	447.94	448.76	447.54	448.09	449.42	448.45
20	447.74	447.72	446.82	449.42	449.12	448.56	448.00	448.65	447.50	448.19	448.39	448.35
21	447.72	447.76	447.14	449.39	449.04	448.52	448.10	448.63	447.29	448.41	448.46	448.36
22	447.67	447.76	447.45	449.39	448.98	448.42	448.24	448.74	447.17	448.53	448.46	448.38
23	447.62	447.76	447.79	449.38	448.92	448.33	448.36	448.78	447.12	448.65	448.40	448.52
24	447.54	447.74	448.00	449.40	448.85	448.33	448.50	448.78	447.00	448.67	448.38	448.58
25	447.53	447.89	448.06	449.47	448.70	448.15	448.66	448.66	447.06	448.90	448.38	448.64
26	447.47	447.94	447.90	449.56	448.68	448.05	448.72	448.62	446.96	449.02	448.47	448.72
27	447.43	447.99	447.75	449.65	448.52	447.93	448.82	448.62	446.86	449.05	448.62	448.74
28	447.28	447.94	448.00	449.52	448.48	447.82	448.90	448.58	446.64	449.15	448.64	448.80
29	447.16	447.96	448.38	449.23	---	447.70	449.02	448.56	446.49	449.21	448.75	448.77
30	447.26	447.94	448.81	448.82	---	447.59	449.08	448.56	446.44	449.26	448.60	448.58
31	447.36	---	449.07	448.29	---	447.46	---	448.56	---	449.31	448.66	---
MAX	447.90	447.99	449.07	449.76	449.38	449.22	449.08	449.84	448.44	449.31	449.88	448.91
MIN	446.35	447.34	446.56	448.29	448.11	447.46	446.73	448.56	446.44	446.28	448.38	448.35
CAL YR	1985	MAX	449.76	MIN	446.35							
WTR YR	1986	MAX	449.88	MIN	446.28							

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA

LOCATION.--Lat 34°17'44", long 114°08'22", in NW¼NW¼ sec.3, T.2 N., R.27 E., San Bernardino meridian, in California, San Bernardino County, Hydrologic Unit 15030104, on north end of powerplant at Parker Dam, 13 mi northeast of Parker, Ariz., and 14 mi upstream from Headgate Rock Dam.

DRAINAGE AREA.--182,700 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to September 1934 (gage heights and fragmentary discharge records), October 1934 to current year. Prior to October 1937, published as "near Parker, Ariz."

REVISED RECORDS.--WSP 1313: 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 300.54 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1967, at site 3.8 mi downstream at datum 346.23 ft above NGVD.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Mead since Feb. 1, 1935, by Lake Mohave since Jan. 17, 1950, and by Lake Havasu since July 1, 1938. Many diversions above station. For record of diversion to Colorado River aqueduct and return flows, see record for Colorado River aqueduct near Parker Dam, elsewhere in this report.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,400 ft³/s Feb. 8, 1937; no flow at Parker Dam for parts of several days in 1942 when gates in dam were closed; minimum daily discharge, 920 ft³/s Jan. 11, 1978.
An unregulated discharge of probably less than 1,350 ft³/s occurred Aug. 18, 1934 (lowest unregulated discharge since 1917 and probably since a much earlier date).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 32,900 ft³/s May 20, May 24 to June 2; minimum daily, 9,090 ft³/s Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18700	16700	16800	22100	18700	21800	23600	21500	32900	25800	24600	21800
2	18900	16600	13600	22100	15200	21900	23600	21500	32900	25400	24600	21800
3	18800	16600	12300	22100	10400	21900	23600	21600	32800	25100	24600	21800
4	18800	16600	14300	22100	9090	21900	23600	21600	32800	24900	24500	21800
5	18800	16700	14300	22200	9130	21900	23600	21700	32100	24900	24600	21800
6	18800	16600	16700	22100	17000	22000	23600	24700	28600	24900	24600	21800
7	18800	16700	16800	22100	17000	22000	23500	26100	26600	24900	24600	21800
8	17400	16900	16800	22100	19200	22100	23500	26200	26600	24900	24700	21800
9	16600	16900	16800	22000	19300	22000	22000	26400	26500	25000	24600	21800
10	16600	16900	16700	22000	19300	22100	21300	26700	26500	25000	24600	21800
11	16600	16900	16700	22000	19900	23400	21300	26800	26500	25000	24600	21800
12	16600	16800	16600	22000	19900	24100	21400	30000	26500	25100	24600	21800
13	16600	16800	17200	20500	19900	24000	21300	31800	26500	25100	24600	21800
14	16700	16800	18400	20000	19800	24000	21300	31900	26500	25000	24000	21800
15	16700	16800	18400	16800	19800	24000	21400	31800	26500	24700	24600	21800
16	16700	16800	21400	18300	19800	24000	21400	31800	26400	24800	24500	21700
17	16700	16800	21700	22100	19800	23900	21300	31700	26400	24400	24400	21700
18	16700	16900	21700	22100	19800	23900	21300	31800	26400	24000	24300	21700
19	16700	17000	21600	22100	19900	23900	21300	31700	26400	24100	24300	21700
20	16700	17000	21600	22200	19900	23900	21300	32900	26500	24100	22800	21700
21	16700	16800	21600	22200	19900	23800	21300	32700	26400	24200	21900	21700
22	16700	16900	21600	21800	19800	23800	21400	32100	26400	24300	21900	21700
23	16700	16800	21700	22200	19800	23800	21400	32600	26300	24300	21900	21700
24	16700	16800	21700	22200	19800	23800	21400	32900	26300	24400	21900	21700
25	16700	16800	21700	22200	19800	23800	21400	32900	25300	24400	21900	21800
26	16600	16800	21700	22200	19900	23700	21300	32900	26300	24400	21800	21700
27	16600	16300	21700	22300	20600	23700	21400	32900	26300	24500	21900	21700
28	16600	16800	21700	21200	21800	23600	21400	32900	26200	24500	21800	21700
29	16600	16900	21700	22300	---	23700	21500	32900	26200	24500	21900	21600
30	16600	16800	21800	22300	---	23700	21500	32900	26200	24500	21800	21600
31	16600	---	22000	22300	---	23700	---	32900	---	24500	21800	---
TOTAL	532000	503500	589300	672200	514220	719800	659200	910800	824800	765600	729200	652400
MEAN	17160	16780	19010	21680	18360	23220	21970	29380	27490	24700	23520	21750
MAX	18900	17000	22000	22300	21800	24100	23600	32900	32900	25800	24700	21800
MIN	16600	16300	12300	16800	9090	21800	21300	21500	25300	24000	21800	21600
AC-FT	1055000	998700	1169000	1333000	1020000	1428000	1308000	1807000	1636000	1519000	1446000	1294000
CAL YR 1985	TOTAL	8220900	MEAN	22520	MAX	26900	MIN	12300	AC-FT	16310000		
WTR YR 1986	TOTAL	8073020	MEAN	22120	MAX	32900	MIN	9090	AC-FT	16010000		

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: September 1982 to current year.

WATER TEMPERATURES: February 1954 to August 1970; September 1982 to current year.

EXTREMES FOR PERIOD OF DAILY RECORDS.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,170 microsiemens Jan. 17, 1983; minimum recorded, 800 microsiemens several days in August 1986.

WATER TEMPERATURE: Maximum recorded, 28.5°C Aug. 12, 13, 18, 1955; minimum recorded, 7.5°C Jan. 11, 1983.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 890 microsiemens on several days in Oct., Feb., Aug., and Sept.; minimum recorded, 800 microsiemens several days in Aug.

WATER TEMPERATURE: Maximum recorded, 25.3°C Aug. 27; minimum recorded, 10.9°C Dec. 21 and 22.

INSTRUMENTATION.--Water temperature recorder from February 1954 to August 1970. Specific conductance and water temperature recorder from September 1982 to current year.

REMARKS.--Prior to October 1968, published as 09428000.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
OCT 1985												
02...	1245	18900	880	8.00	32.0	22.0	756	8.7	101	--	--	
NOV												
19...	1400	17700	870	8.20	11.5	15.0	765	9.4	93	15	--	
DEC												
03...	1430	14000	870	8.20	18.0	13.5	768	10.2	97	--	--	
JAN 1986												
09...	1330	22100	860	8.00	18.5	12.0	767	10.6	98	<10	--	
FEB												
05...	1400	9120	880	8.00	15.5	12.5	767	10.4	97	--	--	
MAR												
18...	1330	24300	860	7.60	22.0	15.5	756	9.9	100	23	--	
APR												
11...	1030	21300	880	7.70	22.5	18.0	758	9.6	102	--	--	
MAY												
14...	1330	31800	850	7.90	33.0	17.0	750	10.0	105	12	--	
JUN												
26...	1230	27400	850	7.80	42.0	23.0	753	8.8	104	--	--	
JUL												
15...	1200	24400	840	7.90	39.5	23.0	755	8.6	102	<10	--	
AUG												
12...	1200	24700	840	8.00	38.0	24.5	755	8.3	101	--	K6	
DATE		STREP- TOCOCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)
OCT 1985												
02...	--	270	130	69	24	74	2	4.0	171	0	127	
NOV												
19...	--	270	140	69	24	--	--	3.9	163	0	131	
DEC												
03...	--	270	140	69	24	75	2	3.5	159	0	128	
JAN 1986												
09...	--	280	150	71	25	--	--	4.2	159	0	128	
FEB												
05...	--	270	140	67	25	76	2	3.9	161	0	127	
MAR												
18...	--	270	140	67	24	72	2	3.8	159	0	122	
APR												
11...	--	250	120	64	23	74	2	3.6	168	0	130	
MAY												
14...	--	270	140	69	24	74	2	3.8	156	0	126	
JUN												
26...	--	260	140	66	24	71	2	3.7	151	0	120	
JUL												
15...	--	270	140	67	24	70	2	3.6	156	0	121	
AUG												
12...	81	260	150	66	24	69	2	3.7	139	0	111	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

WATER QUALITY DATA

DATE	SULFATE DIS- SOLVED (MG/L AS SO ₄) (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 SiO ₂) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO ₂ +NO ₃ TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO ₂ +NO ₃ DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 1985											
02...	220	60	0.30	8.5	568	540	0.77	--	0.190	--	--
NOV											
19...	220	--	0.30	--	556	--	--	0.200	--	0.050	0.15
DEC											
03...	220	61	0.30	8.7	564	540	0.77	--	0.260	--	--
JAN 1986											
09...	--	--	0.30	--	539	--	--	0.300	--	0.030	0.27
FEB											
05...	230	63	0.40	9.0	545	550	0.74	--	0.310	--	--
MAR											
18...	200	--	0.30	--	543	--	--	0.300	--	<0.010	--
APR											
11...	230	58	0.30	8.5	536	540	0.73	--	0.260	--	--
MAY											
14...	220	--	0.30	--	543	--	--	0.200	--	0.040	0.26
JUN											
26...	220	57	0.20	8.8	543	530	0.74	--	0.260	--	--
JUL											
15...	220	--	0.30	--	538	--	--	0.200	--	0.040	0.26
AUG											
12...	210	56	0.30	8.8	531	510	0.72	--	0.210	--	--
DATE	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO ₃) (71887)	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)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
OCT 1985											
02...	--	--	--	--	<0.010	--	--	--	110	--	--
NOV											
19...	0.20	0.40	1.8	<0.010	--	2	2	110	110	<1	<1
DEC											
03...	--	--	--	--	<0.010	--	--	--	110	--	--
JAN 1986											
09...	0.30	0.60	2.7	<0.010	--	2	2	110	100	<1	<1
FEB											
05...	--	--	--	--	<0.010	--	--	--	120	--	--
MAR											
18...	0.20	0.50	2.2	0.010	--	3	3	110	110	1	<1
APR											
11...	--	--	--	--	<0.010	--	--	--	110	--	--
MAY											
14...	0.30	0.50	2.2	<0.010	--	3	2	110	110	<1	<1
JUN											
26...	--	--	--	--	<0.010	--	--	--	100	--	--
JUL											
15...	0.30	0.50	2.2	<0.010	--	2	2	110	100	<1	<1
AUG											
12...	--	--	--	--	<0.010	--	2	100	100	--	<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)
OCT 1985											
02...	--	--	--	--	--	<3	--	--	--	--	--
NOV											
19...	8	1	8	3	360	<3	2	2	<10	<1	<0.10
DEC											
03...	--	--	--	--	--	5	--	--	--	--	--
JAN 1986											
09...	4	<1	3	2	130	5	1	1	20	<1	<0.10
FEB											
05...	--	--	--	--	--	<3	--	--	--	--	--
MAR											
18...	9	<1	7	2	80	<3	<1	1	10	2	<0.10
APR											
11...	--	--	--	--	--	3	--	--	--	--	--
MAY											
14...	<1	<1	8	3	10	6	3	1	<10	2	<0.10
JUN											
26...	--	--	--	--	--	6	--	--	--	--	--
JUL											
15...	9	<1	6	2	50	5	<5	<5	10	<1	<0.10
AUG											
12...	--	<10	--	<10	--	6	--	<5	--	--	--

< Actual value is known to be less than value shown.

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

WATER QUALITY DATA

DATE	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	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, DIS- SOLVED (UG/L AS AG) (01075)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1985											
02...	--	--	--	--	--	--	--	--	--	2	122
NOV											
19...	--	--	--	3	3	<1	--	30	4	5	258
DEC											
03...	--	--	--	--	--	--	--	--	--	2	68
JAN 1986											
09...	--	--	--	3	3	<1	--	10	17	2	131
FEB											
05...	--	--	--	--	--	--	--	--	--	3	69
MAR											
18...	--	--	--	3	3	<1	--	10	8	3	184
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
MAY											
14...	--	--	--	3	2	<1	--	10	42	2	137
JUN											
26...	--	--	--	--	--	--	--	--	--	8	592
JUL											
15...	--	--	--	2	2	<1	--	20	21	8	514
AUG											
12...	0.1	6	2	--	2	<1	3	--	<3	6	427

RADIOCHEMICAL ANALYSES

DATE	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1986								
12...	5.4	<0.4	5.5	2.0	4.1	2.0	0.1	4.8

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	890	880	870	860	860	879	869	870	840	849	850	890
2	890	880	870	860	860	878	880	870	870	860	850	890
3	890	880	870	860	860	878	870	870	841	860	850	880
4	890	870	870	860	860	877	869	870	831	860	850	860
5	890	870	870	860	870	887	869	870	832	860	870	870
6	890	870	870	860	870	876	879	870	843	860	860	870
7	890	880	870	860	870	876	868	870	843	860	860	871
8	880	880	870	860	870	885	868	870	854	860	870	861
9	880	870	870	860	870	885	878	870	845	860	890	861
10	880	870	870	860	870	884	877	860	845	860	880	862
11	880	870	870	860	870	884	877	860	836	860	890	862
12	880	870	870	860	870	873	877	850	837	860	860	862
13	880	870	860	860	870	873	876	860	847	860	860	862
14	880	880	860	860	870	872	866	850	858	860	860	863
15	880	880	860	860	860	872	866	850	849	860	860	863
16	880	870	860	860	870	861	865	850	849	860	860	863
17	880	870	870	860	870	860	875	850	850	860	860	854
18	880	870	870	860	870	860	865	850	851	860	860	854
19	880	870	860	860	870	861	864	850	861	860	860	854
20	880	870	860	860	870	861	874	850	862	860	850	854
21	880	870	860	860	870	862	874	850	863	860	870	855
22	880	870	860	860	870	863	873	850	863	860	870	865
23	880	870	860	860	870	863	873	840	864	860	890	855
24	880	870	860	860	880	864	873	840	865	850	880	856
25	880	860	860	860	880	865	872	840	855	850	890	866
26	880	870	860	870	880	875	872	840	856	850	890	856
27	880	870	860	870	890	876	872	840	857	850	890	856
28	880	870	860	860	890	877	871	840	847	860	890	857
29	880	870	860	870	---	867	871	840	848	860	830	857
30	880	870	860	860	---	878	871	840	839	860	850	857
31	880	---	860	860	---	869	---	840	---	860	860	---

W.Y. 1986 MAXIMUM 890

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	880	870	860	850	850	869	859	860	830	839	820	810
2	880	870	860	850	850	858	860	860	830	840	810	820
3	880	870	860	850	850	858	860	860	821	850	820	820
4	880	860	860	850	850	867	859	860	801	850	810	850
5	880	860	860	850	850	867	859	860	802	850	810	860
6	880	860	860	850	860	856	859	860	823	850	840	850
7	870	860	860	850	860	866	868	850	833	850	830	851
8	870	860	860	850	860	865	858	860	834	850	810	851
9	850	870	860	850	860	875	858	840	835	850	800	851
10	870	860	860	850	860	864	867	850	825	850	800	852
11	870	840	860	850	860	864	857	850	826	850	800	852
12	870	850	850	850	860	843	857	840	827	850	810	852
13	870	850	850	850	860	853	856	840	827	850	850	852
14	870	860	850	850	860	852	856	840	838	850	850	843
15	870	860	850	850	840	852	856	840	839	850	850	853
16	870	860	850	850	860	841	855	840	839	850	850	853
17	870	860	850	850	860	850	855	840	840	850	850	844
18	860	860	860	850	850	850	855	840	841	840	850	844
19	870	860	850	850	860	851	854	840	841	850	840	844
20	870	860	850	840	860	851	864	840	852	840	840	834
21	870	860	850	850	860	852	864	840	843	810	820	845
22	860	860	850	850	860	853	863	840	843	840	800	845
23	870	860	850	850	860	853	853	830	844	840	800	815
24	870	860	850	850	870	854	863	830	845	830	820	846
25	860	840	850	850	870	855	852	830	835	830	810	846
26	870	850	850	850	860	855	862	830	836	840	800	846
27	870	850	850	850	870	856	852	830	837	830	800	846
28	860	850	850	850	869	867	851	830	827	840	800	847
29	860	860	850	850	---	867	861	830	828	840	800	847
30	870	860	850	850	---	858	861	830	829	840	820	847
31	860	---	850	850	---	859	---	830	---	840	800	---

W.Y. 1986 MINIMUM 800

COLORADO RIVER MAIN STEM

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09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	883	875	864	856	859	870	867	863	834	843	842	849
2	884	873	864	856	858	868	869	861	838	854	837	848
3	882	871	867	854	855	869	868	863	829	857	836	853
4	883	869	863	856	859	871	866	862	815	859	835	850
5	885	867	863	853	862	871	866	862	824	860	836	---
6	883	868	865	855	863	868	867	861	835	858	853	---
7	880	870	864	857	864	871	868	862	835	859	851	---
8	879	871	863	855	864	873	865	861	839	857	845	---
9	873	870	866	857	863	877	869	858	842	857	837	---
10	879	868	864	860	864	876	869	854	838	856	841	---
11	878	865	860	858	865	872	867	855	832	857	846	---
12	874	862	859	857	863	861	867	848	832	859	840	---
13	875	863	860	858	865	864	866	852	842	858	852	---
14	878	869	858	859	865	862	864	848	846	855	857	---
15	877	868	855	860	855	861	864	844	846	854	856	---
16	876	869	860	856	860	859	864	842	843	851	855	---
17	874	868	861	859	862	858	865	843	846	853	857	---
18	869	866	861	858	860	858	863	843	851	852	854	---
19	872	868	858	858	863	860	863	843	852	853	849	---
20	874	865	859	850	864	859	867	843	854	851	847	---
21	872	868	858	855	865	859	864	844	856	850	842	---
22	870	869	857	857	866	862	864	842	855	850	839	---
23	872	867	857	858	870	861	867	833	851	847	838	---
24	873	862	858	858	872	860	864	833	854	846	840	---
25	871	855	858	859	875	863	861	834	850	842	846	---
26	873	862	858	860	871	865	863	833	844	847	831	---
27	874	860	855	860	882	867	863	835	845	847	835	---
28	868	861	855	859	875	867	861	833	838	848	820	---
29	870	865	856	860	---	867	862	832	832	850	813	---
30	874	865	856	858	---	868	864	834	837	848	843	---
31	871	---	855	859	---	867	---	832	---	850	825	---

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.1	19.5	13.5	11.5	12.8	15.8	17.7	19.6	23.5	22.9	23.6	24.8
2	22.2	19.3	13.5	11.5	13.0	15.9	17.6	19.7	23.9	23.5	23.3	24.9
3	22.1	19.2	13.7	11.6	12.9	16.1	17.5	19.6	23.7	23.3	23.6	25.2
4	22.1	19.1	13.7	11.8	12.9	16.6	17.6	20.3	23.5	22.9	23.9	25.0
5	22.2	18.9	13.8	11.8	13.1	16.8	17.5	20.3	23.2	22.9	23.4	24.7
6	22.1	18.8	13.9	11.8	13.0	17.0	17.4	19.8	23.1	22.9	23.4	24.6
7	21.4	18.7	13.9	11.6	12.8	16.8	17.6	19.9	23.0	23.1	23.8	24.7
8	21.3	18.5	13.8	11.5	12.7	16.7	17.7	20.1	22.9	23.0	23.7	23.9
9	21.4	18.2	13.6	11.5	12.6	17.1	17.9	20.1	23.8	22.9	24.0	23.3
10	21.4	18.0	13.4	11.6	12.5	16.8	18.1	20.2	23.7	22.8	23.9	24.2
11	21.2	17.8	13.2	11.7	12.4	16.6	17.9	20.1	23.2	22.8	24.2	24.2
12	21.1	17.5	12.9	11.7	12.4	16.5	17.6	20.2	22.9	22.5	24.0	23.8
13	21.1	17.1	12.3	11.7	12.4	16.5	17.7	20.6	22.8	22.3	23.9	23.2
14	21.0	16.7	12.2	11.7	12.5	16.5	17.9	20.4	22.7	22.2	23.8	23.1
15	20.4	16.4	12.0	11.8	12.6	16.5	17.8	20.8	23.0	22.6	23.8	22.8
16	20.5	16.1	11.9	12.0	12.5	16.3	17.8	21.2	23.3	22.5	23.6	22.6
17	20.3	15.9	11.8	12.0	12.6	16.0	17.9	21.4	23.3	22.7	23.7	22.1
18	20.0	15.7	11.5	12.1	12.7	15.8	17.7	21.5	23.3	22.9	24.3	22.0
19	20.0	15.3	11.3	12.2	12.8	15.7	18.1	21.6	23.4	23.0	24.6	21.6
20	20.1	14.8	11.2	12.3	13.1	15.7	18.2	21.5	23.3	24.0	25.1	21.3
21	19.8	14.5	11.1	12.3	13.6	15.7	18.3	21.6	23.3	23.2	24.7	21.2
22	19.7	14.2	11.2	12.3	13.8	15.9	18.2	21.8	23.4	23.0	24.9	21.0
23	19.9	13.9	11.2	12.3	14.0	16.0	18.2	21.7	23.7	23.3	24.8	20.7
24	19.9	13.8	11.2	12.4	14.5	16.2	18.4	22.3	23.8	23.3	24.9	20.2
25	19.9	13.7	11.3	12.5	14.7	16.2	18.5	22.4	23.5	23.3	24.8	20.0
26	20.0	13.7	11.4	12.6	15.1	16.5	18.7	22.6	23.1	23.3	24.8	19.7
27	20.0	13.7	11.4	12.7	15.8	16.8	19.2	22.6	23.1	23.5	25.3	19.6
28	19.9	13.6	11.4	12.7	15.8	17.2	19.2	22.6	23.2	23.5	25.1	19.4
29	19.9	13.5	11.5	12.7	---	17.0	18.9	22.9	22.8	23.5	24.8	19.1
30	19.9	13.5	11.5	12.7	---	17.4	19.2	23.1	23.0	23.6	24.0	19.2
31	19.8	---	11.5	12.7	---	17.3	---	23.5	---	23.7	24.4	---

W.Y. 1986 MAXIMUM 25.3

COLORADO RIVER MAIN STEM

09427520 COLORADO RIVER BELOW PARKER DAM, AZ-CA--Continued

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.3	19.2	13.4	11.3	12.6	15.6	17.2	19.1	22.8	22.7	22.9	24.0
2	21.8	19.0	13.5	11.3	12.7	15.6	16.9	19.3	23.0	22.4	22.8	24.3
3	21.8	19.0	13.5	11.4	12.6	15.8	17.4	19.0	23.0	22.4	23.1	24.4
4	21.8	18.9	13.6	11.4	12.6	16.0	17.3	19.3	22.9	21.9	23.3	24.3
5	22.0	18.8	13.7	11.5	12.8	16.4	17.3	19.7	22.7	22.5	23.0	24.4
6	21.4	18.6	13.7	11.6	12.7	16.6	17.2	19.2	22.8	22.7	23.1	24.3
7	21.1	18.5	13.8	11.4	12.6	16.6	17.3	19.3	22.4	22.9	23.5	23.7
8	21.0	18.3	13.6	11.3	12.6	16.4	17.3	19.8	22.5	22.7	23.4	22.8
9	21.0	18.0	13.4	11.3	12.4	16.7	17.4	19.8	22.7	22.5	23.5	21.8
10	21.2	17.8	13.3	11.4	12.3	16.6	17.6	19.7	23.1	22.5	23.5	22.7
11	21.1	17.5	12.9	11.4	12.2	16.2	17.3	19.7	22.8	22.5	23.4	23.8
12	20.9	17.1	12.4	11.5	12.2	16.4	17.1	19.8	22.4	22.1	23.6	23.1
13	20.8	16.8	12.2	11.6	12.3	16.3	17.2	20.1	22.5	22.0	23.6	23.0
14	20.4	16.4	12.1	11.6	12.2	16.2	17.5	20.1	22.2	21.7	23.2	22.9
15	20.2	16.1	11.8	11.6	12.4	16.2	17.5	20.2	22.5	22.2	23.4	22.4
16	20.1	15.9	11.7	11.7	12.3	16.0	17.4	20.6	22.9	22.2	23.3	22.1
17	19.9	15.7	11.5	11.7	12.4	15.8	17.5	21.1	23.1	22.2	23.3	21.9
18	19.8	15.4	11.4	11.7	12.5	15.5	17.4	21.1	23.0	22.6	23.5	21.5
19	19.6	14.9	11.1	11.8	12.6	15.3	17.4	21.1	23.1	22.7	24.3	21.2
20	19.6	14.5	11.0	12.0	12.7	15.3	17.5	21.0	23.0	22.8	24.1	21.1
21	19.2	14.2	10.9	12.0	13.1	15.5	17.9	21.3	23.0	22.6	24.3	20.9
22	19.1	13.9	10.9	12.1	13.3	15.6	17.6	21.5	22.8	22.7	24.2	20.8
23	19.4	13.7	11.0	12.2	13.6	15.5	17.6	21.6	22.8	22.7	24.2	20.2
24	19.7	13.5	11.0	12.3	13.8	15.8	17.6	21.8	23.1	23.1	23.3	20.0
25	19.7	13.6	11.1	12.3	14.1	15.6	18.1	21.9	22.8	23.0	24.2	19.6
26	19.7	13.5	11.1	12.3	14.6	15.8	18.3	22.1	22.7	23.1	23.9	19.5
27	19.8	13.5	11.2	12.4	15.0	16.3	18.5	22.2	22.8	23.2	24.7	19.2
28	19.6	13.5	11.2	12.5	14.9	16.8	18.9	22.3	22.6	23.3	24.2	19.1
29	19.6	13.4	11.3	12.5	---	16.7	18.8	22.3	22.1	23.2	24.0	19.0
30	19.7	13.4	11.3	12.5	---	16.8	18.8	22.4	22.6	23.4	23.4	18.9
31	19.5	---	11.3	12.5	---	17.1	---	22.7	---	23.5	23.6	---

W.Y. 1986 MINIMUM 10.9

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.7	19.4	13.5	11.4	12.7	15.7	17.4	19.4	23.1	22.8	23.2	24.4
2	22.1	19.2	13.5	11.4	12.8	15.8	17.2	19.5	23.2	22.7	23.1	24.6
3	21.9	19.1	13.6	11.5	12.8	16.0	17.5	19.4	23.2	22.8	23.3	24.8
4	22.0	19.0	13.7	11.5	12.8	16.3	17.4	19.7	23.2	22.4	23.5	24.7
5	22.1	18.8	13.7	11.7	12.9	16.6	17.4	20.0	22.9	22.6	23.1	---
6	21.8	18.7	13.8	11.7	12.9	16.8	17.3	19.6	22.9	22.8	23.2	---
7	21.3	18.6	13.8	11.5	12.7	16.7	17.4	19.6	22.7	23.0	23.7	---
8	21.2	18.4	13.7	11.4	12.6	16.6	17.5	19.9	22.7	22.9	23.5	---
9	21.2	18.1	13.5	11.4	12.5	16.8	17.6	19.9	23.2	22.7	23.7	---
10	21.3	17.9	13.4	11.5	12.4	16.7	17.8	20.0	23.3	22.6	23.7	---
11	21.1	17.7	13.1	11.5	12.3	16.5	17.6	19.9	23.0	22.6	23.6	---
12	21.0	17.3	12.6	11.6	12.3	16.5	17.4	20.0	22.7	22.3	23.8	---
13	20.9	17.0	12.3	11.7	12.3	16.4	17.5	20.3	22.6	22.2	23.7	---
14	20.7	16.6	12.1	11.7	12.3	16.4	17.7	20.2	22.5	22.0	23.5	---
15	20.3	16.2	11.9	11.7	12.5	16.3	17.6	20.5	22.7	22.4	23.6	---
16	20.3	16.0	11.8	11.8	12.4	16.1	17.6	20.9	23.0	22.4	23.5	---
17	20.1	15.8	11.6	11.8	12.5	15.9	17.7	21.2	23.2	22.4	23.5	---
18	19.9	15.6	11.4	11.9	12.6	15.6	17.6	21.3	23.1	22.8	23.8	---
19	19.8	15.1	11.2	12.0	12.7	15.5	17.7	21.4	23.2	22.8	24.4	---
20	19.8	14.6	11.1	12.1	12.8	15.5	17.9	21.3	23.1	23.2	24.6	---
21	19.6	14.3	11.0	12.1	13.3	15.6	18.1	21.4	23.1	22.9	24.5	---
22	19.4	14.1	11.0	12.2	13.5	15.7	17.9	21.6	23.0	22.9	24.5	---
23	19.7	13.8	11.1	12.2	13.8	15.8	17.9	21.7	23.2	22.9	24.5	---
24	19.8	13.6	11.1	12.3	14.1	15.9	18.1	22.0	23.4	23.2	24.1	---
25	19.8	13.6	11.2	12.4	14.4	15.9	18.3	22.2	23.0	23.2	24.6	---
26	19.8	13.6	11.2	12.4	14.8	16.1	18.5	22.3	22.9	23.2	24.3	---
27	19.9	13.6	11.2	12.5	15.3	16.6	18.8	22.5	23.0	23.3	25.0	---
28	19.8	13.5	11.3	12.6	15.4	17.0	19.0	22.4	22.9	23.4	24.6	---
29	19.7	13.4	11.4	12.6	---	16.8	18.8	22.5	22.6	23.3	24.3	---
30	19.8	13.5	11.4	12.6	---	17.1	19.0	22.7	22.8	23.5	23.7	---
31	19.6	---	11.4	12.6	---	17.2	---	22.9	---	23.6	24.1	---

DIVERSIONS AND RETURN FLOWS BETWEEN PARKER DAM AND PALO VERDE DAM

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09428500 COLORADO RIVER INDIAN RESERVATION MAIN CANAL NEAR PARKER, AZ

LOCATION.--Two gages, lat 34°10'04", long 114°16'33", in SE¼NW¼ sec.31, T.10 N., R.19 W., Gila and Salt River meridian, La Paz County, Hydrologic Unit 15030104. Forebay gage, on left wall of canal intake, 90 ft upstream from diversion gates at Arizona end of Headgate Rock Dam. Tailrace gage, on right bank of canal 250 ft downstream from gates. Both gages are on Colorado River Indian Reservation 1.7 mi northeast of Parker and 14 mi downstream from Parker Dam.

PERIOD OF RECORD.--January 1915 to current year (prior to January 1937, fiscal year diversions only; January 1937 to September 1954, monthly diversions only).

REVISED RECORDS.--WSP 1513: 1915-36.

GAGE.--Water-stage recorders above and below intake gates to record head and recorder to show gate openings (since Oct. 1, 1972), with supplementary tape gages read daily and at time of each gate change (prior to Oct. 1, 1972, tape gages only). Datum of gages is 350.00 ft, datum in use locally, or 350.51 ft above National Geodetic Vertical Datum of 1929. Normal operating level of forebay is 364.3 ft; prior to July 9, 1962, normal operating level of forebay was 362.9 ft, datum in use locally. Prior to October 1954, discharge computed by various methods as described in WSP 1313.

REMARKS.--No estimated daily discharges. Records good. Daily diversions computed on basis of head on intake gates and gate openings. Records show water diverted to project and surface return flows to Colorado River through two wasteways and two drains; three of these are equipped with water-stage recorders.

COOPERATION.--Log of canal intake gate opening (supplementary record) furnished by Bureau of Indian Affairs.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,940 ft³/s May 26, 1982; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	335	573	27	508	.00	1080	945	1130	1130	1290	1320	591
2	342	654	169	557	.00	1020	1000	1130	1100	1310	1350	719
3	428	636	125	828	80	1020	990	1100	1110	1330	1360	911
4	515	551	74	785	.00	1060	1000	1030	1090	1240	1360	1000
5	481	645	74	585	.00	1070	1000	1080	1150	1170	1380	1020
6	443	618	76	606	.00	1120	961	1150	1200	1100	1380	1060
7	484	621	74	676	274	1070	959	1080	1210	1200	1390	1150
8	481	587	74	648	346	1040	986	1010	1180	1270	1390	1160
9	414	463	74	671	338	882	1040	893	1160	1280	1380	1150
10	259	353	73	375	799	723	1060	739	1200	1300	1340	1140
11	278	374	148	.00	972	563	1060	648	1240	1330	1320	1190
12	272	438	272	.00	1020	669	983	715	1280	1350	1360	1210
13	254	398	270	.00	1040	773	737	908	1280	1300	1400	987
14	251	347	233	.00	1040	708	825	1010	1280	1260	1380	899
15	350	312	296	.00	694	661	958	1070	1250	1330	1400	980
16	387	331	372	.00	485	615	1010	1040	1230	1320	1310	893
17	529	325	397	.00	471	648	1050	1000	1260	1280	1210	886
18	592	337	487	.00	630	675	1060	995	1270	1350	1240	952
19	371	343	473	.00	773	777	1080	1040	1290	1340	1280	933
20	390	419	428	.00	785	842	1070	1120	1290	1300	1280	866
21	494	471	341	.00	765	951	1070	1170	1290	1280	1280	698
22	515	521	330	.00	756	1000	1080	1180	1280	1270	1270	692
23	526	402	316	.00	687	889	1020	1120	1280	1070	1170	475
24	517	206	274	.00	704	916	965	1020	1280	992	1050	254
25	475	133	193	.00	884	983	913	952	1260	941	980	313
26	366	46	271	.00	1050	977	937	916	1300	744	882	370
27	320	.00	464	.00	1020	953	959	1050	1300	775	389	398
28	377	.00	580	.00	1030	949	943	1140	1300	894	329	397
29	413	.00	576	.00	---	907	969	1160	1290	1070	362	416
30	476	.00	584	.00	---	826	1070	1180	1300	1210	416	510
31	596	---	674	.00	---	828	---	1170	---	1270	570	---
TOTAL	12931	11104.00	8819	6239.00	16643.00	27195	29700	31946	37080	37166	35528	24220
MEAN	417	370	284	201	594	877	990	1031	1236	1199	1146	807
MAX	596	654	674	828	1050	1120	1080	1180	1300	1350	1400	1210
MIN	251	.00	27	.00	.00	563	737	648	1090	744	329	254
AC-FT	25650	22020	17490	12380	33010	53940	58910	63360	73550	73720	70470	48040
(*)	20850	19240	16840	16240	15150	22160	23250	24470	22010	28670	28220	26130
CAL YR 1985	TOTAL	282226.00	MEAN	773	MAX	1500	MIN	.00	AC-FT	559800	(*)	272900
WTR YR 1986	TOTAL	278571.00	MEAN	763	MAX	1400	MIN	.00	AC-FT	552500	(*)	263200

* Return surface flow, in acre-feet, to Colorado River.

DIVERSIONS AND RETURN FLOWS BETWEEN PARKER DAM AND PALO VERDE DAM

09429000 PALO VERDE CANAL NEAR BLYTHE, CA

LOCATION.--Lat 33°43'55", long 114°30'40", in NW¼NE¼ sec.19, T.5 S., R.24 E., San Bernardino meridian, Riverside County, Hydrologic Unit 15030104, at canal intake structure on west side of Palo Verde diversion dam, 10 mi northeast of Blythe and 44 mi downstream from Headgate Rock Dam.

PERIOD OF RECORD.--January 1922 to December 1923, January 1925 to current year (prior to October 1950, monthly discharge only).

REVISED RECORD.--WSP 1213: 1946-48.

GAGE.--Recording gages above and below intakes to record head. Since May 18, 1964, recorder to show gate openings. Datum of gage is: Forebay gage, National Geodetic Vertical Datum of 1929; tailrace gage, 274.13 ft, NGVD. Aug. 7, 1950, to Nov. 30, 1952, water-stage recorder on tailrace and auxiliary recorder 0.5 mi downstream and Dec. 1, 1952, to Oct. 28, 1957, recording gage above and below former intake structure 0.2 mi upstream, at different datums.

REMARKS.--No estimated daily discharge. Records good. Daily diversions computed on basis of head on intake gates and gate openings. Records published herein represent flow diverted from Colorado River for irrigation. Return flows to Colorado River are measured by 10 wasteways and drains extending throughout the project; 5 of these are equipped with water stage recorder and Parshall flume, 3 are equipped with Sparling flowmeters. Return flows have not been subtracted; combined monthly return flows are given in table below.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,360 ft³/s July 30, 1981; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	631	1090	368	771	730	1420	1410	1710	1400	1590	2010	1300
2	623	967	371	906	704	1220	1320	1680	1510	1630	2060	1530
3	665	874	364	876	779	1360	1380	1640	1580	1650	1990	1670
4	741	933	366	66	658	1450	1470	1470	1740	1720	1890	1790
5	827	922	383	.00	820	1420	1350	1560	1730	1680	1830	1860
6	757	971	454	.00	880	1440	1200	1600	1730	1580	1860	1570
7	718	959	466	.00	946	1480	1430	1670	1590	1590	2000	1570
8	816	1030	483	.00	803	1510	1470	1710	1420	1580	2010	1900
9	751	925	470	189	711	1320	1640	1480	1640	1720	1920	1840
10	661	812	498	121	744	1330	1680	1200	1670	1760	1730	1890
11	584	852	488	246	869	1300	1650	1110	1680	1800	1760	1830
12	540	769	483	361	993	1190	1600	1400	1640	1830	1730	1750
13	498	750	566	508	1090	1270	1630	1470	1740	1710	1870	1510
14	554	701	507	397	1070	1280	1730	1560	1720	1830	1810	1320
15	577	703	470	421	835	1160	1770	1500	1490	1790	1730	1540
16	613	669	517	527	694	965	1770	1530	1550	1720	1670	1600
17	670	587	565	587	777	1070	1730	1370	1590	1820	1430	1650
18	736	667	613	701	917	1210	1670	1100	1550	1770	1650	1610
19	758	744	669	776	896	1320	1580	1300	1550	1560	1580	1630
20	712	892	607	968	948	1320	1460	1400	1610	1440	1710	1470
21	785	1020	670	913	1000	1430	1540	1290	1570	1520	1850	1270
22	733	949	651	848	1160	1390	1640	1400	1590	1580	1940	1360
23	734	823	644	1090	1100	1200	1760	1420	1770	1410	1840	932
24	898	615	626	1090	1270	1270	1740	1500	1710	1430	1500	720
25	884	515	444	1040	1310	1390	1580	1510	1780	1490	1700	697
26	893	452	645	900	1340	1520	1660	1560	1750	1560	1690	627
27	874	446	885	810	1300	1440	1520	1560	1760	1590	1630	630
28	918	394	967	912	1350	1470	1740	1470	1690	1720	1620	605
29	980	396	951	961	---	1360	1800	1620	1430	1870	1450	723
30	1020	388	1140	880	---	1160	1750	1490	1590	1930	1410	690
31	1040	---	1020	778	---	1390	---	1450	---	1970	1220	---
TOTAL	23191	22815	18351	18643.00	26694	41055	47670	45730	48770	51840	54090	41084
MEAN	748	760	592	601	953	1324	1589	1475	1626	1672	1745	1369
MAX	1040	1090	1140	1090	1350	1520	1800	1710	1780	1970	2060	1900
MIN	498	388	364	.00	658	965	1200	1100	1400	1410	1220	605
AC-FT	46000	45250	36400	36980	52950	81430	94550	90710	96740	102800	107300	81490
(*)	45760	38700	38170	32480	31070	38070	39180	42530	41560	43690	44910	44780
CAL YR 1985	TOTAL	443607.00	MEAN	1215	MAX	2160	MIN	.00	AC-FT	879900	(*)	492900
WTR YR 1986	TOTAL	439933.00	MEAN	1205	MAX	2060	MIN	.00	AC-FT	872600	(*)	480900

* Return flows, in acre-feet, to Colorado River.

COLORADO RIVER MAIN STEM

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09429010 COLORADO RIVER AT PALO VERDE DAM, AZ-CA

LOCATION.--Lat 33°43'55", long 114°30'40", in NW¼NE¼ sec.19, T.5 S., R.24 E., San Bernardino meridian, in California, Riverside County, Hydrologic Unit 15030104, on west side of Palo Verde Diversion Dam, 10 mi northeast of Blythe, CA., and 44 mi downstream from Headgate Rock Dam.

DRAINAGE AREA.--186,200 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--April 1969 to current year. If records for the two Colorado River Indian Reservation drains entering below Palo Verde Dam are added to records for this station, records equivalent to those published 1956-69 as "Colorado River below Palo Verde Dam" can be obtained.

GAGE.--Two water-stage recorders, one above and one below dam, to record head on gates, and water-stage recorder to record gate opening. Supplementary water-stage recorder above dam operated by Geological Survey and supplementary water-stage recorder below dam operated by Palo Verde Irrigation District. Datum of gages is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records good. Many diversions above station for irrigation, municipal, and industrial uses. Flow regulated by Lake Mead, Lake Mohave, and Lake Havasu.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 42,300 ft³/s June 30, 1983; minimum daily, 1,060 ft³/s Nov. 25, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 30,500 ft³/s June 4; minimum daily, 8,600 ft³/s Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18100	13800	14800	21000	17400	18500	21200	18700	29900	22100	20800	19100
2	17400	14100	14200	21000	13800	18800	20400	18800	30300	21400	20700	18800
3	17600	14300	11800	20900	12000	18800	20400	18800	30200	21000	20800	18600
4	17300	14700	12500	22000	10100	18600	20300	19000	30500	20900	20600	18400
5	17300	14700	13100	20300	8640	18800	20400	18900	30300	20900	20600	18300
6	17300	14500	13600	21200	8980	18800	20600	19100	28100	21000	20600	18300
7	17200	14500	14700	22000	14200	18600	20500	22300	24300	21200	20500	18300
8	16900	14600	14600	20000	17600	18500	20400	22800	24000	21200	20500	18100
9	15300	14500	14500	19600	17900	18800	20100	23200	23600	20600	20600	18200
10	15300	14500	14500	19900	17700	19000	18600	24000	22900	20700	21000	18100
11	15400	14500	14500	20700	17500	19200	18500	24500	22900	20800	21000	18100
12	15300	14700	14300	21000	17600	21100	18600	24700	22900	20700	21200	18200
13	15400	14600	14200	20700	17500	21000	18800	27400	22700	21100	21100	18500
14	15400	14900	15100	20300	17600	21000	18800	27800	22500	21200	20800	19000
15	15300	15000	15500	20300	17900	21100	18400	28000	22900	21000	21100	18800
16	15100	14900	16200	18600	18300	21300	18300	28000	22800	21000	21300	18700
17	15000	15000	18400	20200	18200	21300	18400	28500	22600	20800	21100	18700
18	15100	15000	18300	21100	18100	21100	18400	28900	22600	20300	20800	18800
19	15100	14900	18200	21000	17900	21100	18600	28800	22700	20500	20700	18900
20	15200	14600	18200	20800	17900	21200	18700	27900	22600	20700	20300	18900
21	15000	14500	18300	20800	17700	21000	18700	29600	22500	21100	18800	19100
22	15000	14300	18300	20800	17800	20900	18500	28600	22500	23000	18700	19100
23	14900	14600	19200	20400	17700	21000	18400	28400	22100	23400	18400	19500
24	14600	14900	20900	20600	17800	21100	18500	29200	21800	22500	18900	19600
25	14600	15200	21100	20700	17600	20800	18600	29700	22500	21300	18800	19500
26	14700	15100	21000	20800	17400	20500	18700	29600	23100	21500	19000	19600
27	14700	14600	20700	20900	17400	20600	18800	29600	23800	21500	19700	19600
28	14700	14800	20400	20400	18300	20700	18800	29500	22800	21300	19400	19600
29	14500	14800	20400	20200	---	20300	18600	29300	22400	21200	19400	19600
30	14000	14800	20400	20900	---	20800	18600	29500	22300	20700	19200	19600
31	13800	---	20400	20200	---	20600	---	29700	---	20500	19100	---
TOTAL	482500	439900	522300	639300	458520	624900	574600	802800	727100	657100	625500	565600
MEAN	15560	14660	16850	20620	16380	20160	19150	25900	24240	21200	20180	18850
MAX	18100	15200	21100	22000	18300	21300	21200	29700	30500	23400	21300	19600
MIN	13800	13800	11800	18600	8640	18500	18300	18700	21800	20300	18400	18100
AC-FT	957000	872500	1036000	1268000	909500	1239000	1140000	1592000	1442000	1303000	1241000	1122000
CAL YR 1985	TOTAL	7216600	MEAN	19770	MAX	25100	MIN	11800	AC-FT	14310000		
WTR YR 1986	TOTAL	7120120	MEAN	19510	MAX	30500	MIN	8640	AC-FT	14120000		

09429280. CIBOLA LAKE INLET NEAR CIBOLA, AZ.

LOCATION.--Lat 33°15'11", long 114°40'05", in SW¼NE¼ sec.18, T.2 S., R.23 W., La Paz County, Hydrologic Unit 15030104, in Cibola National Wildlife Refuge, below levee on left bank Colorado River at north end of Cibola Lake, 4.4 mi south of Cibola.

PERIOD OF RECORD.--December 1974 to current year (monthly discharge only).

GAGE.--None. Prior to July 30, 1982, two water-stage recorders; one recorded stage and the other recorded deflection-meter readings from deflection vane located in concrete flume.

REMARKS.--Records good. Record shows amount of water diverted from Colorado River to Cibola Lake.

09429290. CIBOLA LAKE OUTLET NEAR CIBOLA, AZ.

LOCATION.--Lat 33°13'19", long 114°40'16", in NW¼SE¼ sec.30, T.2 S., R.23 W., La Paz County, Hydrologic Unit 15030104, in Cibola National Wildlife Refuge, at south end of Cibola Lake outlet to Colorado River, 6.5 mi south of Cibola.

PERIOD OF RECORD.--December 1974 to current year (monthly discharge only).

GAGE.--Water-stage recorder and cippolletti weir or stop logs in 6-ft concrete flume. Datum of gage is 204.17 ft, National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Record shows amount of water returned to Colorado River through controlled outlet. In water years 1976, 1977, and 1979 part of the return flow included in the record was from local runoff.

MONTHLY DISCHARGE, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Cibola Lake Inlet 09429280	Cibola Lake Outlet 09429290
October	0	0
November	0	0
December	0	0
CAL YR 1985	0	0
January	0	0
February	0	0
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	0	0
WTR YR 1986	0	0

COLORADO RIVER MAIN STEM

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09429300 COLORADO RIVER BELOW CIBOLA VALLEY, AZ

LOCATION.--Lat 33°13'16", long 114°40'18", in NE¼SW¼ sec.30, T.2 S., R.23 W., Gila and Salt River meridian, La Paz County, Hydrologic Unit 15030104, on left bank 6.7 mi south of Cibola, 38 mi upstream from Imperial Dam, 39.7 mi downstream from Ehrenberg, Ariz., 52.1 mi downstream from Palo Verde diversion dam near Blythe, Calif., and at mile 620 on Colorado River Profile Survey map.

DRAINAGE AREA.--187,800 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

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

GAGE.--Water-stage recorder. Datum of gage is 200.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lakes Mead, Mohave, and Havasu. Many diversions above station for irrigation, municipal, and industrial uses. See sta 09429000 for return flows from Palo Verde Irrigation District, which enter between sta 09429010 and this station. A portion of the return flows from Colorado River Indian Reservation also enters between these two stations.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,700 ft³/s Aug. 18, 1983, gage height, 16.57 ft; minimum daily discharge, 1,900 ft³/s Jan. 18, 1974; minimum gage height, about 4.1 ft, Jan. 18, 1974, based on minimum observed gage height of 4.25 ft Jan. 14, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 29,200 ft³/s May 28, gage height, 15.97 ft; minimum daily, 10,700 ft³/s Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21000	15700	16800	20500	21100	20000	22400	19500	28800	24200	21400	20500
2	19900	15600	16800	21000	20100	20400	22200	19500	29000	24100	21400	20400
3	19400	15700	16100	21000	17400	20600	22100	19500	28900	23700	21300	20100
4	19500	15800	13500	20900	14800	20300	22100	19500	28800	23400	21300	19900
5	19300	15900	14100	21400	12500	20100	22000	19800	28600	23300	21300	19800
6	19200	15800	14600	21700	10700	20100	22000	19600	28500	23300	21200	19700
7	19300	15700	15100	21500	11400	20000	22200	20400	27100	23300	21200	19800
8	19200	15700	16400	21400	15000	19900	22000	22600	25200	23200	21100	19600
9	18700	15800	16600	21300	16800	19800	21900	23300	24900	23000	21100	19500
10	17500	15700	16600	21100	17800	20100	21400	23800	24700	22800	21200	19500
11	17400	15800	16600	21200	17600	20200	20000	24200	24500	22800	21500	19400
12	17300	15900	16600	21600	17600	20600	19800	24500	24400	22800	21500	19500
13	17200	15900	16500	21700	17800	21700	19800	25000	24300	22700	21500	19700
14	17100	15700	16400	21100	18000	21700	19900	27000	24200	22800	21300	20100
15	17000	15900	17300	20400	18200	21700	19800	27600	24200	22800	21100	20200
16	16900	15900	17900	19200	18900	21800	19400	27600	24400	22600	21300	19900
17	16700	16100	18600	17600	19100	22000	19300	27600	24300	22500	21600	19900
18	16700	16200	20400	19500	19000	21800	19300	27900	24300	22400	21800	20000
19	16500	16100	20800	21000	19000	21600	19300	28100	24300	22100	21800	20000
20	16600	16000	20800	21200	18900	21500	19400	28000	24200	22100	21700	20000
21	16600	16000	20800	21000	19000	21600	19700	28100	24200	22300	21100	20200
22	16300	15900	20800	21000	18800	21500	19500	29000	24200	23000	19800	20500
23	16200	15800	20900	21100	19200	21700	19300	28600	24200	22700	19600	20700
24	16100	16000	21000	20800	19200	22000	19200	28400	24100	22300	19600	21300
25	15900	16300	21100	20900	19100	21900	19300	28800	24100	22300	19900	21400
26	15900	16900	21200	20900	19000	21800	19300	29100	23800	22200	19900	21400
27	16000	17000	21000	21000	18800	21800	19400	29100	23700	22200	20200	21400
28	16000	16600	20700	21000	18900	22300	19800	29000	24000	22200	20400	21400
29	15900	16800	20500	20600	---	22200	19600	28700	24100	22000	20300	21400
30	15800	16800	20500	20400	---	22200	19400	28600	24300	21700	20500	21300
31	15700	---	20500	21000	---	22500	---	28700	---	21500	20400	---
TOTAL	538800	481000	567500	646000	493700	657400	610800	791100	758300	704300	649300	608500
MEAN	17380	16030	18310	20840	17630	21210	20360	25520	25280	22720	20950	20280
MAX	21000	17000	21200	21700	21100	22500	22400	29100	29000	24200	21800	21400
MIN	15700	15600	13500	17600	10700	19800	19200	19500	23700	21500	19600	19400
AC-FT	1069000	954100	1126000	1281000	979300	1304000	1212000	1569000	1504000	1397000	1288000	1207000
CAL YR	1985	TOTAL	7642500	MEAN	20940	MAX	25000	MIN	13500	AC-FT	15160000	
WTR YR	1986	TOTAL	7506700	MEAN	20570	MAX	29100	MIN	10700	AC-FT	14890000	

COLORADO RIVER MAIN STEM

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA
(National stream-quality accounting network, radiochemical, and tritium network station)

LOCATION.--Lat 32°52'59", long 114°27'55", at Imperial Dam. The Arizona end of the dam is in SW¼NW¼ sec.30, T.6 S., R.21 W., Gila and Salt River meridian, Yuma County, Hydrologic Unit 15030104; the California end is in NW¼SW¼ sec.9, T.15 S., R.24 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030104. Imperial Dam is 5 mi upstream from Laguna Dam, 15 mi northeast of Yuma, Ariz., 90 mi downstream from Palo Verde Dam, and 147 mi downstream from Parker Dam.

DRAINAGE AREA.--188,500 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--1903-34 (yearly discharge only, published in WSP 1313), July 1934 to current year (monthly discharge only October 1942 to September 1979). Prior to October 1942 published as "near Picacho, Calif." October 1942 to September 1971 published as "at Imperial Dam" (monthly discharge shown as "flow reaching Imperial Dam," listed as supplement to "flow passing Imperial Dam").

GAGE.--None. This record is synthesized from records of several other stations (see REMARKS). July 13, 1934, to Sept. 30, 1942, water-stage recorder at site 14.5 mi upstream at datum 167.38 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Records show flow of Colorado River reaching Imperial Dam, and are based on combined daily total flow of Colorado River below Imperial Dam (sta 09429500), All-American Canal near Imperial Dam (sta 09523000), Gila Gravity Main Canal at Imperial Dam (sta 09522500), and diversions to Mittry Lake (sta 09522400). Records for 1903-34 and for October 1942 to September 1960 were computed as combined flow of Colorado River at Yuma (sta 09521000) and the canals diverting at Imperial and Laguna Dams, less the flow of Gila River near Dome (sta 09520500); for some of these periods drainage and waste return flows and channel losses between the gaging stations and Imperial Dam were considered, and for other periods they were neglected. Records for October 1960 to September 1979 are based on combined monthly total flow of same stations on which daily flows are currently based. Records for July 1934 to September 1942 show daily discharge of Colorado River at gaging station near Picacho, Calif., water withdrawals, and diversions for irrigation, municipal, and industrial uses, and return flows from irrigated areas. Diversions to Mittry Lake, which began June 23, 1970, are included in river records in table below. Additional regulation, beginning Jan. 31, 1966, to equalize supplies for downstream water users, is provided by pumped storage in reservoir on Senator Wash, about 2 mi upstream from Imperial Dam. Monthend contents of Senator Wash Reservoir - capacity, 13,840 acre-ft - is given in table below.

COOPERATION.--Records of Sparling meter readings of diversion to Mittry Lake and contents of Senator Wash Reservoir furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF 1934-86.--Maximum discharge, 40,800 ft³/s Sept. 5, 1939; minimum, 538 ft³/s Aug. 3, 1934; minimum daily since regulation of Hoover Dam began, 1,450 ft³/s Feb. 17, 1935.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21100	15700	16700	20000	20700	17900	21800	19200	30600	23900	21900	20500
2	20700	15400	16600	20100	21100	18400	22200	19200	30300	23900	21400	20400
3	19700	15500	16500	20400	20300	19000	21800	18900	30300	23700	21100	20500
4	19000	15600	15400	20500	17400	19600	21700	19100	30500	23300	21300	20200
5	18700	15700	13700	20600	14200	19500	21500	19000	30400	22900	21300	19800
6	18600	15800	14300	21000	11400	19500	21600	19100	30000	22800	21300	19400
7	18500	15600	14600	21400	11000	19200	21400	19200	29600	22600	21200	19500
8	18600	15500	15100	21400	12600	19400	21400	19400	28000	22500	20900	19600
9	18500	15400	16100	21400	14600	19200	21500	20500	25400	22500	20700	19500
10	18200	15500	16000	21200	15900	19300	21300	21900	24900	22300	20700	19200
11	17300	15800	16600	20700	17300	19600	20800	23000	24800	22400	21100	19300
12	16600	16000	16000	21200	17500	19800	19700	23900	24300	21800	21400	19300
13	16600	13200	16300	21100	17500	20100	19200	24500	24200	21900	21600	19000
14	16700	15500	16000	21000	17600	20800	19000	24800	23600	22000	21400	19100
15	16600	15700	16300	20800	17400	21500	19200	26500	23600	22100	21400	19600
16	16200	15700	16600	20100	17800	22300	19500	27900	23900	22200	20900	19700
17	16300	15700	17000	18900	18100	22200	19100	29000	24000	22100	21000	19700
18	16400	15900	17700	17900	18400	22300	18900	29100	24300	21900	21300	19500
19	16100	16100	18700	18800	18400	22400	18800	29200	24000	21700	21400	19400
20	16000	16000	19600	20100	18400	22300	18800	29100	23800	21900	21800	19100
21	16400	16000	20000	20700	18100	22300	19100	29300	23500	22200	21700	19400
22	16300	15900	20300	21000	18000	22500	19300	29400	23600	22300	21200	19700
23	16100	15800	20400	20900	18100	22300	19200	30200	23900	21500	20000	20100
24	16100	15800	20700	21100	18000	21900	19100	29600	24100	22700	19300	20400
25	15800	16500	20400	20900	18100	21900	18800	29700	23900	22500	19400	20700
26	15700	16400	22500	20600	18200	22000	18700	30100	23700	21900	19400	21000
27	16000	16600	20500	20600	18000	21900	18800	30500	23400	21900	19500	20900
28	15900	16800	20400	20800	17800	21600	19000	30700	23000	22000	19500	21100
29	16000	16400	20300	20900	---	21200	19100	30700	23300	22000	20000	21000
30	15800	16700	20200	20700	---	21500	19300	30300	23600	22100	19900	21100
31	15900	---	19900	20600	---	21400	---	30000	---	21900	20000	---
TOTAL	532400	474200	551400	637400	481900	644800	599600	793000	766500	693400	645000	597700
MEAN	17170	15810	17790	20560	17210	20800	19990	25580	25550	22370	20810	19920
MAX	21100	16800	22500	21400	21100	22500	22200	30700	30600	23900	21900	21100
MIN	15700	13200	13700	17900	11000	17900	18700	18900	23000	21500	19300	19000
AC-FT	1056000	940600	1094000	1264000	955800	1279000	1189000	1573000	1520000	1375000	1279000	1186000
(*)	6494	6010	4969	6595	5775	6920	6535	6998	6755	6450	6913	6725
(**)	738	655	738	845	833	984	952	984	952	984	922	893
CAL YR 1985	TOTAL	7542500	MEAN	20660	MAX	26200	MIN	13200	AC-FT	14960000	(**)	8450
WTR YR 1986	TOTAL	7417300	MEAN	20320	MAX	30700	MIN	11000	AC-FT	14710000	(**)	10480

* Monthend contents, in acre-feet, in Senator Wash Reservoir.

** Diversions, in acre-feet, to Mittry Lake (09522400).

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

WATER-QUALITY RECORDS

LOCATION.--Water samples collected above trash racks at All-American Canal headworks at west end of Imperial Dam.

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

Prior to October 1971, published as sta 09429500, Colorado River at Imperial Dam, Ariz.-Calif.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to current year.

WATER TEMPERATURES: October 1974 to current year.

REMARKS.--Replaces water-quality station 09525500 Yuma Main Canal below Colorado River Siphon, at Yuma, Ariz.

Stream discharges reported with analyses represent total flow reaching Imperial Dam.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 1,970 microsiemens Aug. 23, 1977; minimum observed, 866 microsiemens Sept. 12, 1986.

WATER TEMPERATURES: Maximum observed, 33.0°C Aug. 20, 1977, Aug. 28, 29, 1981; minimum recorded, 7.5°C Dec. 31, 1982.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 1,040 microsiemens Dec. 5, Feb. 6, 7; minimum recorded, 866 microsiemens Sept. 12.

WATER TEMPERATURES: Maximum recorded, 28.7°C Aug. 22; minimum recorded, 10.2°C Dec. 14.

INSTRUMENTATION.--Specific conductance and water temperature recorder October 1982 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(31625)	(31673)	
NOV 1985													
13...	1500	16100	940	8.10	14.5	15.0	5.1	767	9.9	98	20	K22	
JAN 1986													
13...	0945	21200	910	7.80	15.0	12.0	7.3	765	10.6	98	K9	40	
MAR													
11...	1100	19300	930	8.00	20.0	16.0	4.4	760	9.4	96	20	K20	
MAY													
19...	1200	29300	910	7.80	38.0	22.5	6.5	758	8.1	94	19	95	
JUN													
10...	1115	24800	930	7.70	36.0	24.0	6.0	762	7.9	94	K16	59	
AUG													
19...	1330	21400	920	7.80	42.0	28.0	6.3	760	7.4	95	K16	K17	
DATE		HARD- NESS NONCARB WH WAT TOT FLD 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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	
NOV 1985													
13...	290	160	74	26	85	2	3.6	167	0	136	220	69	
JAN 1986													
13...	280	150	71	26	82	2	3.6	159	0	130	220	64	
MAR													
11...	290	140	71	26	85	2	5.0	172	0	134	210	66	
MAY													
19...	270	140	68	24	78	2	4.0	162	0	129	220	65	
JUN													
10...	280	140	71	25	86	2	3.6	171	0	131	230	68	
AUG													
19...	280	160	70	26	85	2	3.3	151	0	120	230	68	
DATE		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 CONSTITUENTS, 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) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
NOV 1985													
13...	0.40	9.4	609	570	0.83	<0.010	0.220	0.040	0.040	0.26	0.30	0.030	
JAN 1986													
13...	0.30	9.1	568	550	0.77	<0.010	0.280	0.050	0.040	0.25	0.30	0.090	
MAR													
11...	0.30	9.0	599	560	0.81	<0.010	0.280	0.020	0.020	0.38	0.40	0.020	
MAY													
19...	0.30	8.8	581	550	0.79	<0.010	0.180	0.050	0.040	0.25	0.30	0.030	
JUN													
10...	0.30	9.2	592	580	0.81	<0.010	0.220	0.020	0.030	0.38	0.40	0.030	
AUG													
19...	0.30	9.5	580	580	0.79	<0.010	0.210	<0.010	0.030	--	0.30	0.050	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

WATER QUALITY DATA

DATE	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)	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)	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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
NOV 1985 13...	<0.010	<0.010	20	2	100	<0.5	--	1	<1	<3	<1	9
JAN 1986 13...	<0.010	<0.010	--	--	--	--	--	--	--	--	--	--
MAR 11...	<0.010	<0.010	<10	2	99	<0.5	--	<1	3	<3	<1	32
MAY 19...	<0.010	<0.010	<10	2	99	<0.5	--	<1	<1	<3	2	4
JUN 10...	0.010	<0.010	--	--	--	--	--	--	--	--	--	--
AUG 19...	<0.010	<0.010	--	2	100	--	120	<1	<10	--	<10	--

DATE	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)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	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 1985 13...	1	41	3	--	<10	3	2	<1	980	<6	28
JAN 1986 13...	--	--	--	--	--	--	--	--	--	--	--
MAR 11...	1	41	3	--	<10	<1	3	<1	1000	<6	19
MAY 19...	<1	39	4	<0.1	<10	<1	3	<1	900	<6	24
JUN 10...	--	--	--	--	--	--	--	--	--	--	--
AUG 19...	<5	--	--	0.1	5	1	2	<1	--	2	5

RADIOCHEMICAL ANALYSES

DATE	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1986 19...	8.2	0.6	5.9	1.9	4.4	1.8	0.1	4.8

PESTICIDE ANALYSES

DATE	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)
JUN 1986 24...	<0.1	<1.0	0.3	4.1	<0.1	<0.1	<0.1	<0.1
DATE	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)
JUN 1986 24...	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10

< Actual value is known to be less than value shown.

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

W.Y.	1986	MAXIMUM	1040
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DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	966	970	910	938	911	918	930	930	890	935	951	969
2	968	970	920	930	911	919	930	940	890	945	942	950
3	---	970	920	939	950	929	889	940	911	945	943	950
4	---	970	950	939	991	920	929	940	912	954	944	941
5	---	970	962	928	981	920	919	930	912	954	954	941
6	---	960	944	937	1010	921	918	930	913	944	955	942
7	---	960	956	937	1030	921	908	930	904	944	946	933
8	---	960	928	936	923	921	928	900	935	944	947	923
9	---	960	950	936	894	922	927	900	936	944	948	934
10	---	940	952	925	905	902	927	920	927	953	949	905
11	---	940	954	924	925	902	937	920	928	943	950	925
12	---	940	956	924	926	903	946	910	929	943	951	866
13	---	930	959	923	917	893	936	910	919	943	952	907
14	---	940	961	932	927	903	946	890	920	933	953	917
15	---	920	933	922	928	924	935	890	911	923	954	918
16	---	930	935	931	919	914	935	900	912	932	954	929
17	---	930	937	971	920	915	945	900	903	932	945	920
18	---	930	919	900	930	915	934	900	914	922	946	920
19	---	920	931	899	921	925	934	890	905	922	947	921
20	---	940	963	909	922	926	934	900	935	932	958	912
21	---	930	955	918	922	916	933	890	936	922	969	922
22	---	940	957	927	933	926	933	890	937	891	980	913
23	---	950	959	917	924	927	933	880	938	871	981	914
24	---	940	951	926	924	927	932	900	939	901	972	914
25	---	920	953	916	935	927	932	890	950	921	963	905
26	---	920	945	915	936	928	922	890	951	921	964	916
27	---	920	947	904	946	928	931	890	961	901	964	916
28	---	930	950	904	937	928	921	890	942	920	955	917
29	---	900	952	913	---	929	921	900	943	930	966	908
30	---	910	944	902	---	939	930	890	934	940	957	909
31	---	---	936	902	---	930	---	890	---	950	958	---
MIN	---	900	910	899	894	893	889	880	890	871	942	866

W.Y.	1986	MINIMUM	866
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COLORADO RIVER MAIN STEM

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	970	978	930	943	913	935	932	942	898	946	956	973
2	986	981	922	939	926	929	936	949	909	948	952	968
3	---	979	933	942	973	941	937	943	918	954	955	---
4	---	982	985	946	999	935	933	943	918	958	957	---
5	---	973	1000	938	989	931	932	937	917	959	959	---
6	---	968	958	942	1030	926	928	934	913	952	957	---
7	---	970	966	949	1030	926	926	942	919	950	954	---
8	---	968	938	941	979	931	932	910	950	949	954	---
9	---	965	950	937	918	930	932	910	948	956	956	---
10	---	964	953	934	921	911	935	926	934	956	956	---
11	---	970	957	934	930	910	959	925	936	954	954	---
12	---	967	958	929	936	920	951	922	938	951	957	---
13	---	960	963	928	925	907	946	916	930	949	958	---
14	---	966	963	940	930	917	946	898	925	940	962	---
15	---	956	955	955	931	925	945	896	923	936	962	---
16	---	955	943	959	927	923	946	903	917	936	965	---
17	---	955	950	987	926	925	945	903	913	936	956	---
18	---	957	924	937	931	925	943	903	916	930	957	---
19	---	953	951	902	932	928	945	902	930	934	961	---
20	---	955	964	916	932	926	942	903	943	934	966	---
21	---	944	963	924	932	925	939	903	946	933	974	---
22	---	948	961	928	941	931	938	893	945	923	999	---
23	---	957	963	921	942	934	943	892	948	896	993	---
24	---	950	957	931	937	932	942	900	951	926	984	---
25	---	937	962	920	938	930	936	896	955	933	978	---
26	---	927	954	917	944	937	930	895	958	926	973	---
27	---	930	950	912	946	933	933	898	967	917	974	---
28	---	937	953	915	947	930	931	902	950	929	970	---
29	---	930	954	918	---	932	931	903	952	938	970	---
30	---	913	950	926	---	945	937	900	946	950	967	---
31	---	---	949	905	---	933	---	901	---	954	971	---
MAX	---	982	1000	987	1030	945	959	949	967	959	999	---
MIN	---	913	922	902	913	907	926	892	898	896	952	---

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MAXIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23.3	19.3	13.7	12.5	14.2	17.4	19.7	21.8	24.7	25.9	26.6	27.6
2	23.3	19.1	13.5	12.5	14.5	17.6	19.4	22.0	24.9	26.6	26.7	27.0
3	23.3	18.8	13.7	12.6	14.5	17.6	18.7	22.4	25.0	27.2	27.1	27.2
4	23.3	19.1	13.9	12.8	14.4	18.0	18.5	22.2	25.0	26.8	27.3	27.5
5	23.0	19.1	13.8	12.9	14.3	18.2	19.1	21.9	25.1	26.3	27.4	27.6
6	23.0	19.0	13.8	13.1	14.2	18.2	19.1	21.6	24.6	25.9	27.3	27.8
7	23.1	18.7	13.6	12.9	13.3	18.3	19.2	20.2	24.5	25.6	27.1	27.6
8	22.5	18.7	13.4	12.1	13.2	18.2	19.6	20.4	24.5	26.4	26.8	27.5
9	21.8	18.3	13.3	11.7	12.5	18.2	20.0	21.0	24.7	26.4	27.0	27.4
10	20.9	17.6	12.6	11.7	12.4	17.6	19.8	21.7	24.8	26.2	27.2	26.6
11	20.7	17.0	12.3	12.0	12.5	16.7	20.0	21.9	25.2	26.0	26.9	25.2
12	20.9	16.3	11.5	12.2	13.0	16.7	19.9	22.1	25.7	25.8	27.5	24.8
13	21.9	15.7	11.2	12.2	13.5	16.5	19.3	22.2	25.6	25.7	27.6	25.4
14	21.9	15.0	10.8	12.5	13.6	16.6	19.1	22.4	25.4	25.4	27.7	25.2
15	20.9	14.7	11.1	12.6	13.7	16.9	19.7	22.4	25.3	25.4	27.5	24.5
16	20.2	14.8	11.2	12.9	14.1	16.9	19.9	22.6	25.2	25.5	27.6	24.5
17	21.0	15.1	11.4	13.3	14.3	16.6	19.5	22.5	25.2	25.7	27.2	24.3
18	21.0	15.1	11.6	13.3	14.9	16.3	19.4	22.9	25.4	25.8	27.1	24.2
19	22.0	15.0	11.6	13.4	14.9	16.7	19.6	23.3	25.4	26.1	27.8	23.8
20	22.0	13.8	11.6	13.4	15.2	16.9	20.0	23.6	25.4	26.7	28.1	23.2
21	20.8	13.4	11.6	13.3	15.2	17.4	20.9	23.2	25.5	26.3	28.5	22.7
22	21.1	13.7	11.5	13.1	14.6	17.8	21.2	22.6	25.3	25.8	28.7	22.1
23	20.6	14.0	11.4	13.3	14.8	18.0	21.3	22.9	25.3	26.0	28.2	21.4
24	20.1	14.0	11.2	13.3	15.5	18.2	21.2	23.3	25.8	26.2	27.7	20.5
25	20.4	14.1	11.4	13.3	16.2	18.4	20.9	23.5	26.3	26.1	26.9	20.5
26	20.6	14.3	11.6	13.1	16.6	18.5	20.1	23.7	27.0	25.9	27.2	20.7
27	20.9	14.3	11.7	13.2	17.0	18.9	20.3	23.9	26.9	25.7	27.9	20.8
28	21.0	14.3	11.7	13.3	17.4	19.0	20.7	24.1	26.3	25.7	27.9	21.1
29	21.0	14.3	11.8	13.6	---	19.4	21.5	24.3	25.9	26.1	28.3	20.9
30	20.7	13.9	12.2	13.5	---	19.8	21.7	24.4	25.3	26.4	28.2	21.0
31	---	---	12.3	13.8	---	19.7	---	24.5	---	26.4	27.9	---
MAX	---	19.3	13.9	13.8	17.4	19.8	21.7	24.5	27.0	27.2	28.7	27.8

W.Y. 1986 MAXIMUM 28.7

09429490 COLORADO RIVER ABOVE IMPERIAL DAM, AZ-CA--Continued

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MINIMUM VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	19.0	13.2	12.0	13.5	16.9	19.0	21.1	23.8	24.8	25.6	26.8
2	22.6	18.5	13.1	12.0	13.9	16.9	18.7	21.0	24.0	25.6	25.9	26.1
3	22.7	18.1	13.1	12.2	14.0	16.8	17.9	21.4	24.1	26.2	26.2	26.2
4	22.9	18.6	13.4	12.3	14.1	17.2	17.9	21.3	24.0	26.4	26.4	26.6
5	22.5	18.7	13.7	12.5	13.8	17.5	18.1	21.2	24.3	25.7	26.6	26.6
6	22.7	18.3	13.3	12.6	13.4	17.5	18.5	19.9	23.9	25.0	26.5	27.0
7	22.5	18.3	13.2	12.2	12.8	17.6	18.3	19.1	23.7	24.9	26.5	26.9
8	21.8	18.1	13.0	11.7	12.1	17.7	18.7	19.4	23.5	25.2	26.1	26.7
9	20.1	17.6	12.7	11.3	11.9	17.3	19.0	19.9	23.8	25.5	26.1	26.7
10	20.1	16.9	12.2	11.3	11.9	16.7	19.4	20.7	23.9	25.5	26.4	25.4
11	19.6	16.3	11.6	11.4	11.8	16.1	19.1	21.0	24.2	25.3	26.3	24.3
12	20.1	15.6	11.1	11.7	12.1	16.1	19.2	21.1	24.8	24.9	26.5	24.0
13	20.2	15.1	10.7	11.8	12.7	16.2	18.7	21.3	24.7	25.0	26.9	24.5
14	20.2	14.5	10.2	12.0	13.2	15.8	18.3	21.5	24.5	24.7	26.8	24.3
15	20.2	14.3	10.7	12.2	13.3	16.0	18.6	21.6	24.3	24.2	26.6	23.9
16	19.7	14.1	11.0	12.2	13.4	16.4	19.1	21.6	24.3	24.5	26.8	23.7
17	19.7	14.7	11.0	12.7	13.6	16.0	18.6	21.7	24.2	24.7	26.6	23.6
18	20.2	14.6	11.2	12.9	14.1	15.7	18.7	21.7	24.4	24.9	26.6	23.5
19	20.3	13.9	11.1	12.9	14.5	15.9	18.4	22.2	24.4	25.1	26.7	23.1
20	20.3	13.2	11.2	13.0	14.5	15.9	18.8	22.6	24.6	25.6	27.2	22.3
21	20.3	12.7	11.2	13.0	14.4	16.4	19.7	22.6	24.5	25.5	27.5	21.9
22	20.3	13.1	11.0	12.7	14.0	16.9	20.4	21.9	24.6	25.3	27.9	21.5
23	19.8	13.4	11.0	12.7	14.1	17.2	20.4	21.9	24.4	25.2	27.5	20.6
24	19.3	13.7	10.8	12.8	14.6	17.3	20.4	22.3	24.7	25.4	26.8	20.0
25	19.4	13.9	10.9	12.8	15.2	17.4	20.0	22.6	25.3	25.3	26.5	20.0
26	19.9	13.8	11.1	12.7	15.8	17.6	19.4	22.8	25.8	25.1	26.2	19.8
27	19.9	14.1	11.2	12.6	16.2	18.0	19.3	23.0	26.1	24.9	26.7	20.1
28	20.4	14.1	11.2	12.7	16.6	18.4	19.6	23.2	25.9	24.7	27.3	20.3
29	20.4	13.9	11.4	12.9	---	18.4	20.3	23.4	25.0	25.0	27.3	20.4
30	19.9	13.6	11.6	13.2	---	18.9	20.8	23.5	24.5	25.4	27.6	20.3
31	---	---	11.9	13.1	---	19.2	---	23.6	---	25.5	27.4	---
MIN	---	12.7	10.2	11.3	11.8	15.7	17.9	19.1	23.5	24.2	25.6	19.8
W.Y.	1986	MINIMUM	10.2									

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.9	19.2	13.5	12.3	13.8	17.2	19.4	21.5	24.2	25.3	26.1	27.2
2	23.0	18.8	13.2	12.3	14.2	17.3	18.9	21.6	24.5	26.1	26.3	26.5
3	23.0	18.5	13.4	12.4	14.3	17.3	18.4	21.9	24.5	26.7	26.7	---
4	23.1	18.8	13.6	12.5	14.2	17.6	18.2	21.8	24.5	26.6	26.9	---
5	22.8	18.9	13.8	12.7	14.1	17.9	18.6	21.6	24.6	26.0	27.0	---
6	22.9	18.7	13.5	12.9	13.9	17.9	18.8	20.7	24.3	25.5	26.9	---
7	22.8	18.6	13.4	12.4	13.1	18.0	18.8	19.7	24.1	25.3	26.8	---
8	22.0	18.3	13.3	11.9	12.6	18.0	19.2	20.0	24.0	25.8	26.4	---
9	20.4	17.8	12.9	11.5	12.2	17.7	19.5	20.4	24.2	26.0	26.6	---
10	20.4	17.2	12.3	11.5	12.2	17.1	19.6	21.2	24.3	25.9	26.8	---
11	20.2	16.5	11.9	11.7	12.2	16.5	19.6	21.4	24.7	25.6	26.6	---
12	20.3	15.8	11.3	12.0	12.5	16.4	19.5	21.6	25.2	25.4	27.0	---
13	20.9	15.4	11.0	12.1	13.0	16.4	19.0	21.8	25.2	25.4	27.2	---
14	20.5	14.7	10.5	12.2	13.5	16.3	18.8	22.0	25.0	25.0	27.3	---
15	20.4	14.5	10.9	12.4	13.5	16.5	19.1	22.0	24.8	24.8	27.1	---
16	20.0	14.5	11.1	12.6	13.8	16.7	19.5	22.1	24.8	25.0	27.2	---
17	20.4	14.9	11.2	13.0	14.0	16.3	19.1	22.2	24.7	25.2	26.9	---
18	20.6	14.9	11.4	13.2	14.4	16.0	19.1	22.4	24.9	25.4	26.9	---
19	21.0	14.3	11.4	13.2	14.8	16.3	19.0	22.8	24.9	25.6	27.2	---
20	20.8	13.4	11.5	13.2	14.9	16.4	19.4	23.1	25.0	26.2	27.7	---
21	20.4	13.1	11.4	13.2	14.7	16.9	20.3	22.9	25.0	26.0	28.0	---
22	20.6	13.4	11.3	12.9	14.3	17.4	20.8	22.3	25.0	25.6	28.3	---
23	20.1	13.7	11.2	13.0	14.5	17.7	20.9	22.4	24.9	25.6	27.8	---
24	19.9	13.9	11.0	13.1	15.0	17.8	20.8	22.8	25.3	25.8	27.1	---
25	19.9	14.0	11.2	13.1	15.7	17.9	20.3	23.1	25.8	25.7	26.7	---
26	20.3	14.0	11.4	12.9	16.2	18.1	19.8	23.3	26.4	25.5	26.7	---
27	20.4	14.2	11.5	12.9	16.6	18.5	19.8	23.4	26.5	25.3	27.3	---
28	20.7	14.2	11.5	13.1	17.0	18.7	20.2	23.7	26.1	25.3	27.6	---
29	20.5	14.1	11.6	13.3	---	18.9	20.9	23.9	25.5	25.6	27.8	---
30	20.5	13.7	11.9	13.4	---	19.4	21.3	23.9	24.9	26.0	27.9	---
31	---	---	12.1	13.4	---	19.5	---	24.0	---	26.0	27.7	---
MAX	---	19.2	13.8	13.4	17.0	19.5	21.3	24.0	26.5	26.7	28.3	---
MIN	---	13.1	10.5	11.5	12.2	16.0	18.2	19.7	24.0	24.8	26.1	---

09429500 COLORADO RIVER BELOW IMPERIAL DAM, AZ-CA

LOCATION.--Forebay gage: Lat 32°52'59", long 114°27'57", in NW¼SW¼ sec.9, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, near All-American Canal headworks at west end of Imperial Dam, 5 mi upstream from Laguna Dam, 15 mi northeast of Yuma, 90 mi downstream from Palo Verde Dam, and 147 mi downstream from Parker Dam.

DRAINAGE AREA.--188,500 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--October 1960 to current year. Prior to October 1971 published as "at Imperial Dam." Records of flow reaching Imperial Dam, formerly published with this station, are now published separately as sta 09429490, "Colorado River above Imperial Dam."

GAGE.--Water-stage recorder in forebay, 12 calibrated gates on California sluiceway, 8 calibrated gates on Gila sluiceway, and calibrated manometer on each discharge pipe from desilting basin. Datum of forebay gage is 162.00 ft, U.S. Bureau of Reclamation datum.

REMARKS.--No estimated daily discharges. Records good. Records of daily discharge show flow of Colorado River passing Imperial Dam, and include water released to river through California and Gila sluiceways, sludge from desilting basins returned to river, and leakage through dam. For records of flow reaching Imperial Dam see sta 09429490. Flow of Colorado River regulated by many reservoirs, principally Lake Mead, since 1935. Many diversions from Colorado River and tributaries above station. Diversion to Mittry Lake and monthend contents of Senator Wash Reservoir also are now published with sta 09429490.

COOPERATION.--Records of gate openings and sludge return flow from desilting basins furnished by Imperial Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 30,200 ft³/s Aug. 18, 19, 1983; minimum daily, 27 ft³/s Dec. 15-18, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 17,700 ft³/s June 1; minimum daily, 1,440 ft³/s Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8310	2870	6170	8650	11400	4820	8160	5560	17700	10300	7820	7010
2	7810	2880	4980	7500	11600	5420	8390	5870	16800	10400	7510	6810
3	6790	3010	4590	7310	10600	5400	7900	5940	16900	10400	7650	6450
4	6290	2700	3550	7870	8840	5800	8270	6230	16800	9990	7560	6510
5	6040	2890	1900	8250	5320	5800	8200	5250	16400	10300	7380	5950
6	6090	2920	2360	8230	1700	5860	8660	5300	16200	9950	7300	5690
7	5500	2220	3260	8800	1440	5660	7930	5360	15900	8940	7290	6160
8	5310	2600	4190	8290	3760	6520	7870	5830	14800	8950	7170	5450
9	5360	2780	5080	8460	7400	6380	7800	7150	11800	8890	7360	5180
10	5310	2740	4430	8330	7240	5580	7650	9180	10900	8640	7610	4790
11	4970	3910	4930	8040	7340	5880	7510	10300	11000	8670	7410	4990
12	4380	6290	5010	9670	7620	6320	6790	10400	10600	8380	7570	5140
13	4400	3780	5220	11200	7620	6860	6450	10500	10400	8860	7570	5520
14	3840	3050	5130	11100	7920	8060	5220	10700	10400	8350	7590	5960
15	3660	3230	5950	11000	7820	9000	5330	12700	10600	8460	7570	5470
16	3320	3320	5540	10200	8480	9680	5520	14400	9990	8780	7720	5610
17	3570	3390	5440	9360	8040	9200	5350	15900	9950	8720	7910	5790
18	3750	3030	5880	8320	8200	9200	5280	16400	10200	8600	7510	5820
19	3610	3120	6940	9420	8040	8840	5470	15400	10000	8690	7520	5900
20	3490	2710	7880	10300	8120	8800	5560	15400	10400	8780	7590	5850
21	3520	2790	8390	10800	8140	9160	5290	15600	10600	8420	7470	6180
22	3170	3020	9020	11200	8420	9820	5480	15900	10600	9010	7580	5890
23	2950	3220	8580	11000	8740	9580	5560	16800	9870	10500	6610	6510
24	3310	3430	9790	11500	6920	8260	5090	16400	9970	9370	6390	7340
25	3030	4240	9780	11400	5140	8160	5000	17100	9870	9320	5810	7370
26	3090	4810	11100	11300	4560	8000	5220	16700	9970	9100	5770	7980
27	3300	5920	8910	10600	4200	8020	5510	16800	9850	9150	5890	7920
28	2970	6550	8480	10900	4140	7920	5360	17000	9850	8430	6190	8270
29	2800	5950	8590	10900	---	8320	5190	17100	10500	8340	6720	7280
30	2790	6050	7230	10800	---	8780	5480	16900	10100	8160	7040	7550
31	2880	---	7850	11000	---	8080	---	16800	---	7900	7280	---
TOTAL	135610	109420	196150	301700	198760	233180	192490	376870	358920	280750	223360	188340
MEAN	4375	3647	6327	9732	7099	7522	6416	12160	11960	9056	7205	6278
MAX	8310	6550	11100	11500	11600	9820	8660	17100	17700	10500	7910	8270
MIN	2790	2220	1900	7310	1440	4820	5000	5250	9850	7900	5770	4790
AC-FT	269000	217000	389100	598400	394200	462500	381800	747500	711900	556900	443000	373600
CAL YR	1985	TOTAL	2928220	MEAN	8023	MAX	16700	MIN	1900	AC-FT	5808000	
WTR YR	1986	TOTAL	2795550	MEAN	7659	MAX	17700	MIN	1440	AC-FT	5545000	

COLORADO RIVER MAIN STEM

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09429600 COLORADO RIVER BELOW LAGUNA DAM, AZ-CA

LOCATION.--Lat 32°48'44", long 114°30'51", in SE&NE& sec.35, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on right bank 1.4 mi downstream from Laguna Dam, 2.8 mi northeast of Bard, Calif., and 10 mi northeast of Yuma, Ariz.

DRAINAGE AREA.--188,600 mi², approximately, including 3,959 mi² in Great Divide basin in southern Wyoming, which is noncontributing.

PERIOD OF RECORD.--December 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is 120.84 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--No estimated daily discharges. Records fair. Natural flow of Colorado River at this point is affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals, diversions for irrigation, municipal, and industrial uses, and return flows from irrigated areas. Flow past station consists mainly of water released through Imperial Dam, sludge from the desilting basins at Imperial Dam, seepage through Imperial Dam, and seepage from the All-American Canal and the Gila Gravity Main Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 30,900 ft³/s Aug. 19, 1983; minimum daily, 71 ft³/s May 29, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 18,100 ft³/s June 1; minimum daily, 1,720 ft³/s Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8500	2960	5590	9070	11900	5300	8640	5830	18100	9740	7780	6690
2	8160	2930	5110	8190	12000	5660	8630	6040	17400	9760	7590	6900
3	7340	2760	4730	7990	11200	6000	8290	6170	17300	9740	8060	6290
4	6650	2710	4100	8390	9450	6210	8460	6450	16900	9440	7820	6440
5	6210	2620	2770	8640	5970	6160	8390	5540	16200	9590	7480	6020
6	6330	2690	2820	8520	2490	6150	8850	5590	16200	9400	7380	5620
7	5780	2360	3910	9130	1720	5920	8560	5430	15600	8700	7350	6200
8	5500	2330	4900	8580	3070	6800	8420	5940	14400	8720	7240	5550
9	5390	2700	5560	8670	6900	6740	8340	7450	11900	8730	7470	5370
10	5190	2720	5010	8570	7170	5880	8280	9570	10800	8400	7720	5040
11	5090	3200	5010	8350	7270	5880	8410	10500	10800	8210	7640	5160
12	4730	4860	5480	9640	7720	6360	7630	10700	10400	8090	7590	5280
13	4710	5290	5510	11300	7750	6540	7080	10600	10200	8480	7610	5550
14	4120	3100	5340	11400	7790	7630	5950	11100	10500	8190	7660	6260
15	3910	3320	5990	11400	7750	8470	5810	12800	10800	8270	7660	5700
16	3780	3330	5920	10500	8540	8890	6130	14300	10300	8520	7700	5870
17	3950	3550	5840	9770	8320	8550	5830	15600	10100	8490	8010	6080
18	3940	3150	6230	8810	8270	8320	5590	16100	10300	8430	7590	6080
19	3870	3320	6990	9540	8100	8110	5850	15800	10200	8270	7600	6200
20	3580	2900	7750	10500	8140	8300	6110	15800	10500	8210	7760	6120
21	3600	2940	8080	11000	8210	8580	5880	15900	10500	8010	7620	6400
22	3300	3300	8550	11600	8460	9150	6040	16000	10400	8240	7780	6100
23	3110	3520	8400	11600	8680	9030	6290	16400	9810	9580	6730	6570
24	3220	3840	9200	12000	7150	8380	5800	16600	9870	8720	6530	7340
25	3330	3810	9490	11800	5570	8290	5440	17200	9740	8810	5780	7450
26	3260	4470	9090	11800	5100	8240	5430	17000	9720	8720	5900	7830
27	3180	5200	8920	11400	4840	8330	5770	17300	9720	8740	5900	7780
28	3320	5570	8740	11600	4710	8110	5690	17800	9710	8260	6310	8160
29	2940	5460	8840	11600	---	8540	5420	17800	10200	8260	6560	7500
30	3170	5620	7880	11600	---	8990	5670	17800	9940	8120	6760	7730
31	3080	---	8310	11600	---	8640	---	17200	---	8040	7110	---
TOTAL	142240	106530	200060	314560	204240	232150	206680	384310	358510	268880	225690	191280
MEAN	4588	3551	6454	10150	7294	7489	6889	12400	11950	8674	7280	6376
MAX	8500	5620	9490	12000	12000	9150	8850	17800	18100	9760	8060	8160
MIN	2940	2330	2770	7990	1720	5300	5420	5430	9710	8010	5780	5040
AC-FT	282100	211300	396800	623900	405100	460500	409900	762300	711100	533300	447700	379400
CAL YR 1985	TOTAL	2973180	MEAN	8146	MAX	16200	MIN	2330	AC-FT	5897000		
WTR YR 1986	TOTAL	2835130	MEAN	7767	MAX	18100	MIN	1720	AC-FT	5623000		

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼NW¼ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi upstream from Mogollon Creek, 7 mi northeast of Gila, and at mile 572.5.

DRAINAGE AREA.--1,864 mi².

PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1944(M), 1949(M). WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 4,655.8 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Dec. 31, 1928, at site 5 mi upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of about 500 acres above station. Several observations of water temperature were made during the year. National Weather Service gage height and rain gage satellite telemeter at station.

AVERAGE DISCHARGE.--59 years (water years 1928-86), 148 ft³/s, 107,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s Dec. 18, 1978, gage height, 12.5 ft, from floodmark, from rating curve extended above 7,000 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 17.2 ft from floodmark, Sept. 29, 1941; minimum, 14 ft³/s July 15, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in November 1905, December 1906, and January 1916.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	0215	*9,320	*7.05	Feb. 16	2130	1,870	3.70
Oct. 17	1130	7,140	6.05	July 23	0445	1,710	3.65

Minimum discharge, 46 ft³/s June 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	166	205	100	89	288	303	122	70	72	138	164
2	74	163	183	101	93	276	290	121	69	92	146	178
3	70	155	168	100	94	265	276	127	68	83	132	154
4	69	150	160	99	93	257	260	139	68	99	129	133
5	65	145	156	99	94	250	242	131	68	94	125	125
6	64	139	149	99	94	240	221	128	69	87	133	123
7	62	136	142	99	96	228	208	123	70	83	131	114
8	133	134	138	98	96	219	196	115	62	140	136	110
9	169	130	133	96	110	210	181	111	57	155	158	113
10	1600	129	128	95	111	201	178	108	54	156	212	111
11	4560	125	125	95	105	226	177	103	52	175	211	110
12	1020	125	126	94	102	227	173	100	50	140	160	105
13	494	123	122	94	103	224	166	95	50	122	139	100
14	348	121	117	93	115	234	159	92	50	114	140	99
15	283	121	112	94	155	260	157	89	49	109	221	97
16	391	117	113	94	1040	245	155	86	48	165	183	95
17	5300	116	112	94	1530	255	153	84	49	226	162	93
18	3170	115	110	94	812	285	151	82	48	190	181	93
19	1220	110	110	94	744	282	150	81	50	202	136	90
20	759	108	109	93	731	272	146	79	51	188	121	89
21	552	111	108	93	685	270	142	77	52	172	113	87
22	429	111	107	93	587	285	135	75	50	256	107	88
23	344	110	106	92	479	306	134	72	49	1370	117	89
24	298	111	106	92	401	327	132	72	52	769	120	100
25	263	113	105	90	347	348	138	71	58	422	115	108
26	239	187	105	90	314	359	143	69	62	313	125	101
27	220	250	104	90	303	349	141	67	65	260	233	96
28	202	212	103	89	297	332	133	66	61	218	218	94
29	192	186	100	88	---	322	130	66	63	186	216	93
30	179	184	100	89	---	317	126	68	73	163	210	91
31	174	---	100	88	---	315	---	67	---	148	205	---
TOTAL	23016	4203	3862	2919	9820	8474	5296	2886	1737	6969	4873	3243
MEAN	742	140	125	94.2	351	273	177	93.1	57.9	225	157	108
MAX	5300	250	205	101	1530	359	303	139	73	1370	233	178
MIN	62	108	100	88	89	201	126	66	48	72	107	87
AC-FT	45650	8340	7660	5790	19480	16810	10500	5720	3450	13820	9670	6430
CAL YR	1985	TOTAL	130075	MEAN	356	MAX	5300	MIN	46	AC-FT	258000	
WTR YR	1986	TOTAL	77298	MEAN	212	MAX	5300	MIN	48	AC-FT	153300	

09431500 GILA RIVER NEAR REDROCK, NM

LOCATION.--Lat 32°43'37", long 108°40'30", in W½ sec.23, T.18 S., R.18 W., Grant County, Hydrologic Unit 15040002, on left bank 0.2 mi downstream from Copper Canyon, 0.2 mi upstream from lower end of box canyon, 4.7 mi northeast of Redrock, 14 mi downstream from Mangas Creek, and at mile 539.2.

DRAINAGE AREA.--2,829 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1904 to February 1905 (gage heights only). May 1905 to December 1906, January to December 1907 and July to October 1908 (gage heights only). November 1908 to December 1910, January 1911 to January 1912 and May to June 1912 (gage heights only). August 1912 to September 1955, October 1962 to current year. Monthly or annual discharge only for some periods, published in WSP 1313. Published as "near Cliff" 1904-7.

REVISED RECORDS.--WSP 1213: 1906, 1911-15, 1931, 1936-37, 1939, 1941, 1944, 1945(P), 1946(M), 1947. WSP 1283: Drainage area. WSP 1926: 1955. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Elevation of gage is 4,090 ft above National Geodetic Vertical Datum of 1929, from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Diversions for irrigation of about 5,000 acres upstream from station. Gage height and rain gage satellite telemeter at gage.

AVERAGE DISCHARGE.--70 years (water years 1906, 1909-10, 1913-55, 1963-86), 209 ft³/s, 151,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,800 ft³/s Dec. 19, 1978, gage height, 29.8 ft in gage well, 34.1 ft from floodmarks, from rating curve extended above 9,500 ft³/s on basis of slope-area measurement of peak flow; minimum, 2.2 ft³/s Aug. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	0915	*7,210	*12.75	Aug. 30	0345	3,040	10.32
Oct. 17	1230	6,130	12.04				

Minimum discharge, 36 ft³/s, June 15, 16, 21, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	93	230	385	148	121	445	447	148	60	67	237	378
2	96	218	334	154	118	428	434	148	63	65	229	270
3	108	216	305	152	116	407	428	156	62	79	216	258
4	84	214	280	152	121	395	404	160	60	105	199	231
5	77	204	264	149	122	374	365	162	75	140	204	196
6	70	191	254	142	123	354	340	144	77	125	197	186
7	72	191	250	145	134	337	320	155	69	116	199	180
8	205	189	233	143	134	319	301	125	61	123	185	170
9	328	179	220	142	174	303	283	112	55	190	237	162
10	1830	178	196	135	184	296	274	117	51	198	239	188
11	4180	178	182	132	181	325	277	122	46	230	369	160
12	1010	176	189	139	165	332	264	117	43	200	244	162
13	632	168	181	147	155	325	266	109	41	174	213	166
14	484	152	184	146	181	355	236	97	40	170	257	151
15	415	149	179	145	346	462	214	97	38	160	240	150
16	526	144	163	225	803	399	201	85	40	355	239	129
17	4530	145	161	129	1750	373	201	75	47	403	204	123
18	2220	144	160	128	1050	433	200	78	48	332	257	115
19	1180	137	162	127	893	434	196	78	47	299	195	109
20	860	139	166	126	830	402	187	77	49	310	164	89
21	689	139	166	128	759	381	188	79	43	282	134	89
22	590	137	162	127	654	396	184	71	38	375	123	101
23	527	135	155	124	582	418	189	67	39	892	138	99
24	473	137	154	123	529	448	170	66	48	840	145	118
25	403	155	152	120	497	475	167	60	55	554	144	139
26	351	224	153	115	475	485	162	59	60	468	129	148
27	316	291	158	110	468	485	161	57	63	421	189	126
28	295	323	158	126	462	480	167	64	58	367	338	117
29	275	302	154	128	---	474	156	58	58	322	398	111
30	256	289	145	128	---	462	153	57	58	282	756	99
31	242	---	145	122	---	456	---	60	---	250	426	---
TOTAL	23417	5674	6150	4257	12127	12458	7535	3060	1592	8894	7444	4720
MEAN	755	189	198	137	433	402	251	98.7	53.1	287	240	157
MAX	4530	323	385	225	1750	485	447	162	77	892	756	378
MIN	70	135	145	110	116	296	153	57	38	65	123	89
AC-FT	46450	11250	12200	8440	24050	24710	14950	6070	3160	17640	14770	9360
CAL YR	1985	TOTAL	158275	MEAN	434	MAX	5170	MIN	29	AC-FT	313900	
WTR YR	1986	TOTAL	97328	MEAN	267	MAX	4530	MIN	38	AC-FT	193100	

GILA RIVER BASIN

09431500 GILA RIVER NEAR REDROCK, NM--Continued

WATER QUALITY DATA

PERIOD OF RECORD.--Water years 1967 to current year.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
NOV 1985												
20...	0930	137	345	7.90	7.5	6.5	1.7	668	10.8	100	27	
JAN 1986												
15...	1200	145	335	8.20	10.5	7.0	4.1	665	8.9	84	K6	
MAR												
18...	1200	455	250	8.10	11.0	10.0	23	658	8.0	82	K14	
MAY												
01...	1100	149	300	9.10	25.0	18.0	2.0	660	9.0	110	6	
JUL												
16...	1000	328	220	7.90	27.5	21.0	6500	753	7.9	90	23	
AUG												
20...	1200	163	310	8.00	38.0	24.0	62	658	7.9	109	88	
DATE		STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)
NOV 1985												
20...	37	130	0	38	7.7	27	1	1.0	160	--	--	130
JAN 1986												
15...	39	130	2	38	7.7	28	1	1.8	153	--	--	125
MAR												
18...	K84	83	0	24	5.7	19	0.9	1.6	148	0	0	118
MAY												
01...	36	110	0	32	6.7	26	1	25	140	11	11	133
JUL												
16...	22	67	0	20	4.2	22	1	2.2	--	--	--	--
AUG												
20...	200	110	0	32	6.7	27	1	2.6	--	--	--	--
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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
NOV 1985												
20...	32	10	1.6	33	225	230	0.31	--	--	--	<0.010	0.280
JAN 1986												
15...	28	11	1.8	32	230	220	0.31	--	--	--	<0.010	0.310
MAR												
18...	19	7.4	1.3	30	183	180	0.25	--	--	--	<0.010	0.150
MAY												
01...	28	6.5	1.7	31	215	250	0.29	--	--	--	<0.010	<0.100
JUL												
16...	18	5.8	1.2	28	158	--	0.21	3.39	15	0.010	0.010	3.40
AUG												
20...	27	9.8	1.7	38	236	220	0.32	0.250	--	--	0.020	0.270

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09431500 GILA RIVER NEAR REDROCK, NM--Continued

WATER QUALITY DATA

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS TOTAL (MG/L AS PO4) (71886)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
NOV 1985										
20...	0.030	0.010	0.27	0.30	0.130	0.40	0.110	0.110	0.34	<10
JAN 1986										
15...	0.020	0.010	0.18	0.20	0.060	0.18	0.060	0.060	0.18	--
MAR										
18...	0.020	0.020	0.48	0.50	0.080	0.25	0.050	0.040	0.12	--
MAY										
01...	<0.010	0.020	--	0.20	0.050	0.15	0.040	0.040	0.12	--
JUL										
16...	0.100	0.020	11	11	0.260	0.80	0.230	0.190	0.58	210
AUG										
20...	0.020	0.480	0.28	0.30	0.110	--	0.150	0.120	0.37	30
DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)
NOV 1985										
20...	1	17	<0.5	1	<1	<3	2	9	<1	70
JAN 1986										
15...	--	--	--	--	--	--	--	--	--	--
MAR										
18...	--	--	--	--	--	--	--	--	--	--
MAY										
01...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	2	15	<0.5	<1	<1	<3	10	150	<5	<4
AUG										
20...	2	24	<0.5	<1	1	<3	2	20	<5	27
DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	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)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)
NOV 1985										
20...	5	<0.1	10	2	<1	<1	160	<6	4	5.0
JAN 1986										
15...	--	--	--	--	--	--	--	--	--	--
MAR										
18...	--	--	--	--	--	--	--	--	--	--
MAY										
01...	--	--	--	--	--	--	--	--	--	--
JUL										
16...	5	0.4	<10	1	<1	<1	94	19	14	--
AUG										
20...	4	<0.1	<10	<1	<1	<1	150	7	5	--
DATE	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985										
20...	<0.7	1.7	<0.6	1.7	<0.6	0.03	1.8	82	10	3.7
JAN 1986										
15...	--	--	--	--	--	--	--	49	21	8.2
MAR										
18...	--	--	--	--	--	--	--	93	78	96
MAY										
01...	--	--	--	--	--	--	--	47	23	9.3
JUL										
16...	--	--	--	--	--	--	--	100	4470	3960
AUG										
20...	--	--	--	--	--	--	--	99	252	111

< Actual value is known to be less than value shown.

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, Hydrologic Unit 15040002, on left bank at head of canyon, 1.4 mi downstream from Blue Creek, 10 mi east of Virden, and 16 mi upstream from New Mexico-Arizona State line.

DRAINAGE AREA.--3,203 mi², excluding Animas River basin.

PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi downstream, and in Sunset Canal. Published as "Gila River near Duncan, Ariz.," 1914-15 and as "Gila River at Fuller's Ranch, near Duncan, Ariz.," 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,875 ft above National Geodetic Vertical Datum of 1929, from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi downstream, 1,000 ft upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum. Since April 18, 1980, supplementary gage on left bank 800 ft downstream at same datum. Since June 1980, crest-stage gages at supplementary gage site.

REMARKS.--Estimated daily discharge: Feb. 17. Records good. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres above station.

AVERAGE DISCHARGE.--59 years (water years 1928-86), 197 ft³/s, 142,700 acre-ft/yr; median of yearly mean discharges, 139 ft³/s, 101,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,700 ft³/s Dec. 19, 1978, gage height, 29.00 ft, from rating curve extended above 38,000 ft³/s on basis of slope-area measurement of peak flow; minimum, 1 ft³/s July 14, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 11	1100	*6,670	*12.21	July 15	1315	6,300	11.99
Oct. 17	2000	6,440	12.16	Aug. 30	0715	2,440	9.16
Feb. 17	unknown	3,410	10.00				

Minimum daily discharge, 28 ft³/s June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	100	266	370	159	161	492	476	160	87	51	168	603
2	93	247	348	164	158	461	461	164	88	59	155	317
3	109	244	314	164	155	431	446	172	87	63	152	265
4	91	247	298	164	164	412	422	177	85	93	130	221
5	76	240	278	164	164	403	378	185	94	122	138	186
6	68	233	274	161	167	380	344	175	105	134	131	164
7	68	222	270	161	179	361	315	180	96	122	138	148
8	370	222	262	161	182	335	291	166	85	132	136	136
9	488	219	247	161	215	317	275	148	74	177	170	269
10	1640	212	233	161	233	304	259	143	68	203	192	163
11	5520	205	215	155	226	327	258	150	61	228	296	122
12	2490	198	226	149	219	335	246	151	54	219	235	113
13	1650	198	222	164	205	330	243	145	50	188	190	111
14	1080	167	212	164	208	375	229	139	44	191	187	103
15	960	164	219	164	471	529	209	130	39	726	262	91
16	1150	164	195	161	662	456	197	123	33	530	234	86
17	5420	164	190	158	2350	422	191	110	35	580	195	76
18	4750	164	185	152	2010	443	188	103	39	521	248	69
19	2690	161	185	149	1450	483	186	105	39	432	197	68
20	1580	158	189	149	1310	466	178	101	40	437	145	57
21	975	158	189	149	1180	420	177	102	39	409	109	47
22	691	161	189	149	1070	422	173	102	32	502	103	56
23	551	161	179	149	900	446	177	92	28	1070	113	65
24	476	161	173	149	728	485	168	88	33	1290	118	77
25	422	170	170	146	642	540	163	82	40	839	105	90
26	388	272	164	141	567	547	162	76	44	566	108	108
27	352	297	167	138	529	547	162	75	46	430	142	100
28	326	335	170	149	518	550	168	80	50	341	326	84
29	310	326	167	155	---	536	166	85	49	272	474	79
30	285	314	164	161	---	518	163	78	45	226	1120	72
31	274	---	160	158	---	499	---	79	---	189	633	---
TOTAL	35443	6450	6824	4829	17023	13572	7471	3866	1709	11342	7050	4146
MEAN	1143	215	220	156	608	438	249	125	57.0	366	227	138
MAX	5520	335	370	164	2350	550	476	185	105	1290	1120	603
MIN	68	158	160	138	155	304	162	75	28	51	103	47
AC-FT	70300	12790	13540	9580	33770	26920	14820	7670	3390	22500	13980	8220
CAL YR	1985	TOTAL	190019	MEAN	521	MAX	5520	MIN	18	AC-FT	376900	
WTR YR	1986	TOTAL	119725	MEAN	328	MAX	5520	MIN	28	AC-FT	237500	

09442000 GILA RIVER NEAR CLIFTON, AZ

LOCATION.--Lat 32°57'57", long 109°18'35", in NE¼SE¼ sec.25, T.5 S., R.29 E., Greenlee County, Hydrologic Unit 15040002, on right bank 60 ft upstream from bridge on county road, 6 mi upstream from San Francisco River, and 6 mi south of Clifton.

DRAINAGE AREA.--4,010 mi².

PERIOD OF RECORD.--November 1910 to July 1918 (published as "at Guthrie"), October 1927 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1059: 1911-12, 1915, 1917. WSP 1179: 1929(M), 1934(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,336.38 ft above National Geodetic Vertical Datum of 1929. Nov. 6, 1910, to July 11, 1918, non-recording gage or water-stage recorder at two sites about 6 mi upstream at Guthrie at different datums. March 1928 to June 1948 water-stage recorder at present site at datum 0.91 ft lower. June 1948 to Oct. 17, 1967, water-stage recorder at site 0.2 mi upstream at datum 3.12 ft higher. Oct. 18, 1967, to June 23, 1974, Apr. 10, 1978, to Feb. 6, 1979, at site 500 ft downstream at datum 0.44 ft higher. June 24, 1974 to Apr. 9, 1978, at present site and datum.

REMARKS.--Estimated daily discharges: Jan. 29 to Feb. 9. Records good except for period of estimated record, which is fair. Diversions for irrigation of about 14,300 acres above station. Station is below all Duncan Valley diversions.

AVERAGE DISCHARGE.--65 years (water years 1912-17, 1928-86), 198 ft³/s, 143,500 acre-ft/yr; median of yearly mean discharges, 141 ft³/s, 102,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 57,000 ft³/s Dec. 19, 1978, gage height, 23.80 ft, from rating curve extended above 28,000 ft³/s; minimum daily, 5 ft³/s Aug. 24, 1962.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0100	5,510	7.99
Oct. 18	0630	*6,270	*8.49

Minimum daily discharge, 29 ft³/s June 27 and July 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	300	313	178	136	373	375	99	48	32	138	529
2	118	284	350	175	141	360	368	101	47	29	116	396
3	114	276	319	165	147	347	344	106	48	32	100	298
4	112	267	304	162	151	315	334	102	49	60	97	247
5	109	264	290	164	158	312	321	106	50	84	87	223
6	102	253	284	162	162	299	298	110	49	64	78	199
7	99	245	266	158	168	281	276	108	47	76	83	175
8	213	239	263	153	173	266	258	101	49	139	164	160
9	297	236	258	153	175	258	240	106	47	160	120	193
10	487	231	255	155	178	246	229	98	44	158	128	354
11	3360	226	243	155	180	259	212	94	39	138	131	190
12	2890	216	240	151	182	260	197	91	36	132	168	131
13	1090	216	235	149	180	272	185	92	33	135	152	115
14	720	213	233	147	180	274	178	88	32	129	251	110
15	544	193	231	149	185	318	169	82	32	405	310	103
16	703	179	228	151	252	382	155	74	32	559	214	86
17	3090	179	220	149	1060	354	140	70	32	265	190	74
18	5310	170	215	145	1470	349	136	64	32	261	170	66
19	2380	164	212	141	1060	378	133	65	32	258	182	61
20	1380	151	212	139	928	382	132	66	30	253	171	61
21	1060	147	210	130	905	359	129	66	30	268	161	59
22	836	141	210	121	839	344	124	63	30	240	154	53
23	706	141	210	118	747	350	121	63	31	295	183	49
24	601	143	207	116	625	363	121	64	34	736	270	72
25	528	153	204	112	530	386	125	63	33	732	130	65
26	467	255	202	112	460	405	114	59	31	507	121	67
27	421	299	197	112	407	424	108	55	29	385	134	75
28	378	310	192	112	383	422	104	52	34	310	129	77
29	354	331	185	116	---	412	104	48	73	258	397	64
30	334	325	182	123	---	402	107	47	41	212	557	59
31	312	---	182	130	---	388	---	48	---	171	599	---
TOTAL	29244	6747	7352	4403	12162	10540	5837	2451	1174	7483	5885	4411
MEAN	943	225	237	142	434	340	195	79.1	39.1	241	190	147
MAX	5310	331	350	178	1470	424	375	110	73	736	599	529
MIN	99	141	182	112	136	246	104	47	29	29	78	49
AC-FT	58010	13380	14580	8730	24120	20910	11580	4860	2330	14840	11670	8750

CAL YR	1985	TOTAL	173135	MEAN	474	MAX	5310	MIN	31	AC-FT	343400
WTR YR	1986	TOTAL	97689	MEAN	268	MAX	5310	MIN	29	AC-FT	193800

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¼NW¼SE¼ sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft downstream from Rainbow Bridge Canyon, 1.7 mi northwest of Reserve, and at mile 563.1.

DRAINAGE AREA.--350 mi², approximately.

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

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Elevation of gage is 5,820 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Dec. 15, 1972, at site 1,800 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Apr. 21-27, Aug. 17 and Sept. 17-30. Records good except for estimated daily discharges, which are poor. Possible minor regulation by Luna Lake, 27 mi upstream. Diversions for irrigation of about 280 acres upstream from station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 27.9 ft³/s, 20,210 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,830 ft³/s Oct. 1, 1983, gage height, 11.71 ft recorded, 11.3 ft, from outside floodmarks, from rating curve extended above 1,400 ft³/s on basis of slope-area measurement of peak flow; minimum, 1.0 ft³/s Mar. 16, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 15 ft, as determined in 1962 from old floodmarks. Major floods of Nov. 26, 1905 and Dec. 3, 1906, exceeded 20,000 ft³/s at Alma (downstream). See WSP 1313.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 18	1645	*281	*2.12

Minimum discharge, 4.3 ft³/s, May 22, June 10-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	15	11	11	14	35	17	9.2	8.9	7.8	14	16
2	26	13	11	10	17	34	21	10	8.7	9.4	14	13
3	21	13	10	11	16	41	25	11	8.3	9.6	13	12
4	17	13	9.3	10	17	39	27	10	9.1	13	13	10
5	14	13	9.1	10	18	36	24	9.8	8.2	13	13	9.3
6	14	12	9.6	10	18	32	20	9.3	8.8	12	13	8.8
7	14	12	9.0	9.9	18	29	20	8.7	7.1	12	12	9.3
8	15	12	9.0	9.3	17	28	19	8.8	6.7	13	12	21
9	14	12	8.3	11	22	27	16	9.1	6.3	16	12	15
10	17	11	7.0	12	17	27	15	8.6	5.1	15	12	13
11	19	11	6.8	12	17	31	16	7.7	4.9	14	12	11
12	15	11	6.0	11	18	33	16	5.6	4.9	12	14	9.9
13	13	11	5.3	11	16	34	16	6.4	5.2	8.6	13	8.6
14	12	10	5.6	10	19	36	16	7.2	5.2	9.2	15	6.9
15	12	10	5.9	12	29	38	16	7.3	6.3	10	13	7.1
16	24	10	6.3	12	79	38	15	7.6	7.1	13	12	8.6
17	41	11	7.0	11	111	41	15	8.2	7.3	39	11	9.0
18	27	11	7.5	12	116	38	16	7.6	7.9	38	10	9.5
19	21	11	8.5	12	126	37	16	7.0	7.3	35	8.5	10
20	19	12	9.5	12	117	33	15	7.3	5.7	35	6.3	10
21	19	11	10	11	85	29	15	6.8	6.4	38	6.0	12
22	18	11	11	10	57	28	15	5.3	7.6	41	5.5	14
23	17	11	10	10	45	26	14	6.1	8.4	29	9.1	20
24	17	11	10	12	39	25	14	7.6	10	25	11	18
25	17	11	10	11	37	23	13	8.9	12	22	9.9	12
26	15	13	10	12	35	21	12	8.7	12	19	11	9.0
27	15	11	10	13	36	20	11	8.1	9.8	17	12	8.5
28	14	10	10	13	36	20	10	6.4	11	17	15	9.0
29	16	10	10	13	---	21	9.6	7.3	10	17	14	10
30	13	11	10	12	---	19	9.4	8.3	7.4	16	15	10
31	14	---	10	14	---	17	---	8.6	---	15	14	---
TOTAL	559	344	272.7	350.2	1192	936	484.0	248.5	233.6	590.6	365.3	340.5
MEAN	18.0	11.5	8.80	11.3	42.6	30.2	16.1	8.02	7.79	19.1	11.8	11.3
MAX	41	15	11	14	126	41	27	11	12	41	15	21
MIN	12	10	5.3	9.3	14	17	9.4	5.3	4.9	7.8	5.5	6.9
AC-FT	1110	682	541	695	2360	1860	960	493	463	1170	725	675

CAL YR	1985	TOTAL	21825.6	MEAN	59.8	MAX	1120	MIN	1.9	AC-FT	43290
WTR YR	1986	TOTAL	5916.4	MEAN	16.2	MAX	126	MIN	4.9	AC-FT	11740

09443000 SAN FRANCISCO RIVER NEAR ALMA, NM

LOCATION.--Lat 33°22'05", long 108°54'35", in SW¼SE¼ sec.4, T.11 S., R.20 W., Catron County, Hydrologic Unit 15040004, on right bank 1.2 mi downstream from Alma, 4 mi northwest of Glenwood, 6 mi upstream from Whitewater Creek, and at mile 523.5.

DRAINAGE AREA.--1,546 mi².

PERIOD OF RECORD.--September 1904 to January 1914, fragmentary (see WSP 1313), January 1964 to current year. Prior to October 1911, published as "at Alma."

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Elevation of gage is 4,842 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 11, 1912, nonrecording gages at various sites, within 500 ft of each other, 0.8 mi upstream, at different datums. Aug. 11, 1912, to Feb. 2, 1914, nonrecording gage at approximately present site and datum. Jan. 10, 1964, to Nov. 1, 1972, at datum 3.00 ft higher.

REMARKS.--Estimated daily discharges: Nov. 12-19, Dec. 12-17 and Feb. 17-23. Records fair except for estimated daily discharges, which are poor. Diversions for irrigation of about 1,600 acres above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years (water years 1965-86), 86.4 ft³/s, 62,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,600 ft³/s Oct. 2, 1983, gage height, 21.44 ft, present datum, from floodmark inside gage well, from rating curve extended above 9,000 ft³/s on basis of slope-area measurements at gage heights 18.16 ft and 21.44 ft; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916, when discharges of 60,000 ft³/s were computed at Clifton, AZ.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 17	0215	1,230	4.32
July 16	2315	*1,240	*4.47

No flow June 27-29, July 8, 14, Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17	49	136	34	31	112	102	12	5.7	.99	.53	22
2	11	51	73	44	36	104	89	12	6.0	.83	.53	16
3	9.4	47	53	49	37	103	100	15	7.9	.41	.12	12
4	8.3	44	46	43	41	109	97	17	6.7	.07	.12	9.2
5	8.0	42	41	38	49	104	95	15	5.6	.01	.04	7.2
6	7.5	40	40	36	46	91	82	14	5.2	.53	.03	7.1
7	8.2	37	38	32	51	79	70	14	5.6	.21	.03	6.2
8	14	37	36	29	54	68	62	14	5.7	.00	.29	4.2
9	27	36	37	29	66	61	54	13	5.2	1.2	36	6.2
10	93	36	37	29	65	58	50	16	4.5	5.1	21	13
11	120	35	36	30	55	80	48	12	4.2	3.6	14	14
12	106	35	32	29	42	74	46	7.2	4.0	1.0	7.8	10
13	75	34	26	29	48	76	44	4.2	3.5	.09	8.6	7.4
14	57	34	23	29	56	79	41	3.8	2.9	.00	19	5.6
15	48	34	23	29	95	82	39	3.7	2.3	.59	36	4.4
16	70	33	23	30	580	78	38	4.4	2.1	38	24	3.8
17	414	33	23	30	800	81	35	4.8	1.8	172	19	3.1
18	210	33	23	29	550	80	28	6.7	1.6	55	20	2.4
19	137	33	26	28	420	75	22	7.5	1.3	13	16	1.2
20	94	32	34	29	350	66	22	8.1	.98	19	13	.94
21	74	32	34	28	270	60	21	8.5	.83	35	8.8	.29
22	63	31	35	28	210	58	20	8.7	.66	43	6.5	.00
23	53	31	37	27	180	62	12	8.1	.49	144	5.6	.64
24	47	31	37	27	160	70	19	4.3	.35	137	4.4	26
25	43	35	36	26	129	87	22	4.2	.17	61	6.5	22
26	41	50	36	25	115	97	20	4.2	.02	35	21	13
27	39	51	35	25	112	98	18	4.6	.00	18	16	6.7
28	40	44	34	26	114	101	17	4.9	.00	5.6	13	4.7
29	47	40	33	26	---	108	15	4.5	.00	.87	19	3.0
30	50	196	32	26	---	117	14	5.0	.08	.49	28	2.3
31	45	---	32	27	---	113	---	5.5	---	.47	23	---
TOTAL	2076.4	1296	1187	946	4762	2631	1342	266.9	85.38	792.06	387.89	234.57
MEAN	67.0	43.2	38.3	30.5	170	84.9	44.7	8.61	2.85	25.6	12.5	7.82
MAX	414	196	136	49	800	117	102	17	7.9	172	36	26
MIN	7.5	31	23	25	31	58	12	3.7	.00	.00	.03	.00
AC-FT	4120	2570	2350	1880	9450	5220	2660	529	169	1570	769	465
CAL YR	1985	TOTAL	62508.54	MEAN	171	MAX	3640	MIN	.00	AC-FT	124000	
WTR YR	1986	TOTAL	16007.20	MEAN	43.9	MAX	800	MIN	.00	AC-FT	31750	

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE&NW& sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, on left bank 0.2 mi upstream from hot springs, 5 mi south of Glenwood, 6 mi downstream from Whitewater Creek, and at mile 511.5.

DRAINAGE AREA.--1,653 mi².

PERIOD OF RECORD.--October 1927 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1931, 1934, 1936-37, 1940-42, 1943-44(M), 1945-47. WSP 1283: Drainage area. WDR NM-78-1: 1977. WDR NM-79-1: 1973, 1975-77(P).

GAGE.--Water-stage recorder. Elevation of gage is 4,560 ft above National Geodetic Vertical Datum of 1929, from topographic map; prior to Feb. 15, 1934, at site 4.5 mi upstream at datum 98.82 ft higher.

REMARKS.--Estimated daily discharges: May 14 to June 12. Records good except for estimated daily discharges, which are fair. Diversions for irrigation of about 2,000 acres above station. Gage height and rain gage satellite telemeter at station.

AVERAGE DISCHARGE.--59 years, 82.9 ft³/s, 60,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,100 ft³/s, Oct. 2, 1983, gage height, 18.15 ft recorded, 20.80 ft from outside floodmarks, from rating curve extended above 4,200 ft³/s on basis of slope-area measurements at gage heights, 10.74 ft, 15.6 ft and 20.8 ft; minimum, 1.5 ft³/s Aug. 6, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916, when discharges of 60,000 ft³/s or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft³/s was measured (by float-area method) at station at Alma (about 12 mi upstream, drainage area, 1,560 mi²); a similar measurement of 21,000 ft³/s was made at the Alma station for peak of Dec. 3, 1906.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 17	0700	1,100	3.45	July 16	2315	*2,940	*5.67
Feb. 17	0745	1,100	3.54				

Minimum discharge, 14 ft³/s, Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	81	161	55	44	175	172	51	26	18	41	48
2	75	78	95	55	47	164	162	55	29	20	42	44
3	65	78	76	68	49	152	156	67	27	21	43	41
4	61	76	70	66	50	146	142	71	29	23	40	35
5	56	75	65	62	52	143	127	69	30	24	40	32
6	51	72	65	55	55	139	122	60	31	23	48	28
7	52	81	63	56	59	126	116	59	27	22	34	28
8	58	75	62	54	59	112	109	58	26	21	59	27
9	66	72	63	51	70	106	100	56	25	23	62	23
10	171	75	63	51	70	101	97	53	22	22	79	27
11	213	72	65	51	68	118	95	52	21	27	62	32
12	185	70	68	51	60	118	96	48	24	29	53	32
13	143	69	63	51	56	122	88	42	23	33	50	31
14	114	66	59	52	59	124	88	33	20	31	51	31
15	91	66	54	52	70	120	87	32	21	82	65	25
16	103	66	52	51	543	120	84	29	18	176	63	24
17	752	72	51	51	959	120	81	24	17	549	53	23
18	441	70	51	51	610	118	80	24	18	238	50	22
19	269	69	51	50	574	116	73	22	23	167	48	20
20	203	68	52	50	497	120	70	24	22	167	43	19
21	171	65	56	50	430	113	69	24	18	168	34	20
22	143	63	56	49	347	112	63	22	18	176	31	16
23	118	62	56	47	279	114	57	27	19	266	33	14
24	101	60	58	44	223	115	56	31	18	281	40	36
25	92	62	58	43	203	121	62	28	18	184	42	45
26	87	70	58	42	195	130	62	26	22	142	37	37
27	86	70	58	42	188	134	61	23	22	116	52	32
28	81	69	56	42	183	148	60	20	20	83	43	27
29	83	65	56	42	---	167	54	25	25	59	43	26
30	81	140	56	42	---	188	51	29	23	51	58	23
31	86	---	55	41	---	188	---	30	---	46	52	---
TOTAL	4395	2177	1972	1567	6099	4090	2740	1214	682	3288	1491	868
MEAN	142	72.6	63.6	50.5	218	132	91.3	39.2	22.7	106	48.1	28.9
MAX	752	140	161	68	959	188	172	71	31	549	79	48
MIN	51	60	51	41	44	101	51	20	17	18	31	14
AC-FT	8720	4320	3910	3110	12100	8110	5430	2410	1350	6520	2960	1720
CAL YR	1985	TOTAL	84209	MEAN	231	MAX	3730	MIN	27	AC-FT	167000	
WTR YR	1986	TOTAL	30583	MEAN	83.8	MAX	959	MIN	14	AC-FT	60660	

09444200 BLUE RIVER NEAR CLIFTON, AZ

LOCATION.--Lat 33°17'27", long 109°11'44", in sec.6, T.2 S., R.31 E. (unsurveyed), Greenlee County, Hydrologic Unit 15040004, in Apache National Forest, on right bank 0.1 mi downstream from county road crossing, 0.9 mi upstream from Clear Creek, 8 mi upstream from mouth, and 17 mi northeast of Clifton.

DRAINAGE AREA.--506 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 4,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharge: Dec. 19-26, Feb. 24 to Mar. 3, Mar. 16-20, Apr. 22 to May 22, July 8-14. Records good except for periods of estimated daily record, which are poor.

AVERAGE DISCHARGE.--18 years (water years 1969-86), 81.1 ft³/s, 58,760 acre-ft/yr; median of yearly mean discharges, 42 ft³/s, 30,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s Oct. 20, 1972, gage height, 22.56 ft, from rating curve extended above 960 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 1.4 ft³/s Oct. 18-20, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 16	2300	1,350	8.23	July 9	1645	1,850	8.91
Oct. 17	0945	932	7.57	July 16	2315	*2,040	*9.16

Minimum daily discharge, 9.0 ft³/s June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	64	41	83	28	34	69	78	27	12	12	26	44
2	54	41	51	29	34	66	73	26	12	9.7	28	27
3	48	43	43	29	36	62	76	25	12	9.5	28	20
4	37	41	41	29	42	61	69	24	12	9.8	26	17
5	22	41	37	30	45	59	63	23	12	11	24	17
6	21	40	37	30	39	57	60	22	12	9.7	26	16
7	21	40	35	30	36	55	57	22	12	9.4	25	15
8	41	40	35	30	35	54	54	21	11	15	26	20
9	32	40	35	30	48	53	52	20	11	152	100	25
10	59	39	34	30	45	52	52	20	11	37	50	38
11	82	39	34	30	40	69	51	19	11	12	45	22
12	54	40	33	30	37	69	48	19	10	12	44	18
13	47	36	34	30	38	71	46	18	10	12	58	16
14	44	31	37	30	43	74	45	17	9.8	12	112	15
15	38	29	37	30	55	79	45	16	9.6	64	82	15
16	209	28	35	30	233	77	42	16	9.5	115	45	15
17	503	28	35	31	203	77	42	16	9.5	227	39	14
18	181	28	34	31	156	77	42	15	9.5	72	46	14
19	100	27	34	31	150	76	41	15	9.4	82	47	14
20	72	26	34	31	138	76	38	14	9.2	108	41	14
21	56	26	33	32	122	74	36	14	9.1	76	34	14
22	51	26	33	32	100	77	34	13	9.1	141	26	14
23	48	26	33	32	85	84	33	12	9.2	85	26	14
24	46	27	33	32	82	88	32	13	9.2	50	38	100
25	44	44	33	32	80	89	32	12	14	43	27	28
26	43	64	32	32	78	89	31	12	11	39	28	15
27	42	42	32	32	76	87	30	11	11	34	29	12
28	41	35	31	32	74	86	29	11	12	30	30	11
29	47	32	31	32	---	88	28	11	9.4	28	33	11
30	44	233	31	33	---	87	27	11	9.0	27	50	11
31	42	---	30	33	---	85	---	12	---	27	45	---
TOTAL	2233	1273	1130	953	2184	2267	1386	527	317.5	1571.1	1284	626
MEAN	72.0	42.4	36.5	30.7	78.0	73.1	46.2	17.0	10.6	50.7	41.4	20.9
MAX	503	233	83	33	233	89	78	27	14	227	112	100
MIN	21	26	30	28	34	52	27	11	9.0	9.4	24	11
AC-FT	4430	2520	2240	1890	4330	4500	2750	1050	630	3120	2550	1240
CAL YR 1985	TOTAL	51734.9	MEAN	142	MAX	1520	MIN	6.7	AC-FT	102600		
WTR YR 1986	TOTAL	15751.6	MEAN	43.2	MAX	503	MIN	9.0	AC-FT	31240		

09444500 SAN FRANCISCO RIVER AT CLIFTON, AZ

LOCATION.--Lat 33°02'58", long 109°17'43", in SW¼SE¼ sec.30, T.4 S., R.30 E., Greenlee County, Hydrologic Unit 15040004, on downstream side of right pier at Railroad Boulevard Bridge (U.S. Highway 666), at Clifton, 9.9 mi upstream from mouth.

DRAINAGE AREA.--2,766 mi².

PERIOD OF RECORD.--October 1910 to March 1911, July 1911 to June 1912, September 1912, November 1912 to March 1913, May 1913 to July 1918, July 1927 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "San Francisco River at dam above Clifton" in 1911 and under both names in 1912.

REVISED RECORDS.--WSP 1049: 1911, 1913-15, 1917. WSP 1283: Drainage area. WSP 1313: 1927-30(M), 1932(M), 1934(M). WRD Ariz. 1972: 1917(M).

GAGE.--Water-stage recorder. Datum of gage is 3,436.16 ft above National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Apr. 7, 1959. Apr. 7, 1959, to Mar. 23, 1961, at site 1,140 ft downstream at datum 5.37 ft lower. July 18, 1980 to July 28, 1983, supplementary water-stage recorder 0.4 mi upstream on right bank at same datum and June 15, 1981 to Sept. 30, 1983, crest-stage gages at site. Since Aug. 4, 1983, supplementary water-stage recorder on right bank at main gage site at same datum.

REMARKS.--No estimated daily discharges. Records good. Diversions for mining, municipal use, and for irrigation of about 2,700 acres above station.

AVERAGE DISCHARGE.--62 years (water years 1914-15, 1917, 1928-86) 212 ft³/s, 153,600 acre-ft/yr; median of yearly mean discharges, 130 ft³/s, 94,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 90,900 ft³/s Oct. 2, 1983, gage height, 19.72 ft, from high-water mark, from rating curve extended above 30,000 ft³/s on basis of slope-area measurement at gage height 17.0 ft; minimum daily, 6.1 ft³/s June 21, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 17	1315	*3,590	*5.25	July 17	0745	2,070	4.35
Feb. 16	2000	2,460	4.60				

Minimum daily, 38 ft³/s, June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	159	524	156	128	331	325	115	84	65	72	176
2	203	151	351	156	142	314	313	118	79	62	66	141
3	175	147	277	155	144	301	308	130	78	56	73	116
4	145	144	245	157	145	294	304	143	77	63	71	104
5	127	140	224	156	206	283	284	143	69	68	79	92
6	118	136	208	155	184	269	263	138	68	67	96	86
7	112	132	194	151	182	254	246	126	62	58	78	79
8	117	131	185	147	178	242	228	123	64	69	75	75
9	114	130	182	144	207	230	217	120	60	194	134	82
10	161	128	177	143	261	222	215	116	57	261	153	90
11	291	126	173	141	217	257	216	107	56	131	160	88
12	283	126	184	141	201	296	206	111	56	116	128	82
13	230	134	184	140	192	288	193	107	53	94	115	79
14	188	131	176	129	236	306	185	100	42	83	156	76
15	160	129	171	127	286	347	189	94	40	90	199	72
16	225	129	165	129	1030	299	187	91	48	283	147	63
17	3030	127	164	137	1950	288	186	87	51	744	129	57
18	1340	128	167	138	1320	328	181	87	54	459	129	63
19	688	125	160	136	1030	338	173	86	57	327	123	61
20	466	125	157	135	860	306	165	85	55	301	110	58
21	356	124	158	134	739	281	155	83	51	322	98	54
22	292	122	160	132	608	270	151	73	42	249	88	55
23	250	121	160	131	506	273	146	70	38	408	83	49
24	221	120	160	130	429	283	136	67	50	348	90	152
25	201	128	159	126	381	294	142	73	58	292	97	151
26	186	177	157	129	352	295	150	75	67	223	87	117
27	175	191	159	127	349	296	144	72	61	176	198	97
28	168	162	159	127	342	299	139	70	60	147	152	85
29	167	149	158	125	---	312	125	70	74	122	129	76
30	169	420	156	124	---	329	127	72	76	100	127	71
31	162	---	156	126	---	340	---	82	---	87	186	---
TOTAL	10796	4392	6010	4284	12805	9065	5999	3034	1787	6065	3628	2647
MEAN	348	146	194	138	457	292	200	97.9	59.6	196	117	88.2
MAX	3030	420	524	157	1950	347	325	143	84	744	199	176
MIN	112	120	156	124	128	222	125	67	38	56	66	49
AC-FT	21410	8710	11920	8500	25400	17980	11900	6020	3540	12030	7200	5250

CAL YR	1985	TOTAL	153783	MEAN	421	MAX	3030	MIN	37	AC-FT	305000
WTR YR	1986	TOTAL	70512	MEAN	193	MAX	3030	MIN	38	AC-FT	139900

GILA RIVER BASIN

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09445000 WILLOW CREEK DIVERSION FROM BLACK RIVER, NEAR MORENCI, AZ

LOCATION.--Lat 33°24'46", long 109°43'08", in SW¼ sec.23, T.1 N., R.25 E. (unsurveyed), Graham County, Hydrologic Unit 15040005, in San Carlos Indian Reservation, on left bank just downstream from end of diversion pipeline, 3.6 mi northeast of Point of Pines, 5.0 mi southeast of pumping plant on Black River, and 29 mi northwest of Morenci.

PERIOD OF RECORD.--April 1945 to current year.

GAGE.--Water-stage recorder and steel-edged rectangular weir. Datum of gage is 5,957.16 ft above National Geodetic Vertical Datum of 1929. Prior to June 26, 1946, at end of pipeline at that time, 3.5 mi upstream at datum about 50 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. The entire flow consists of Black River (head of Salt River) water which is pumped into headwater of Willow Creek (tributary of Eagle Creek) for industrial and municipal supply in vicinity of Morenci.

AVERAGE DISCHARGE.--41 years, 11.5 ft³/s, 8,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 28 ft³/s May 18, 19, 21-26, 1970; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	15	20	15	15	18	13	18	20	18	15
2	15	15	15	20	15	15	18	17	19	20	18	15
3	15	15	15	19	15	15	18	16	19	8.2	19	15
4	15	15	15	19	7.8	15	18	16	13	19	19	15
5	15	15	15	19	15	15	18	16	13	19	19	15
6	15	15	15	19	15	15	18	16	12	19	19	15
7	15	15	14	19	14	15	19	16	19	19	19	15
8	15	15	15	18	14	15	19	16	19	13	18	15
9	15	15	15	19	15	15	18	16	19	6.3	18	15
10	15	15	15	17	15	15	19	16	19	18	19	15
11	15	15	15	18	14	13	19	16	19	19	17	15
12	15	15	13	19	15	15	19	16	20	19	16	15
13	15	15	15	19	15	14	19	15	20	20	15	15
14	15	15	.00	19	15	15	19	16	20	20	14	15
15	15	15	.00	19	15	15	17	16	19	20	15	15
16	15	15	4.0	19	13	15	15	16	19	19	15	14
17	15	15	14	19	14	13	16	16	19	19	15	14
18	15	15	19	19	14	15	16	16	19	19	15	14
19	15	15	19	19	13	15	16	16	20	19	15	14
20	15	15	19	19	13	17	16	16	19	19	15	14
21	15	15	19	19	14	19	16	16	19	19	15	14
22	15	15	19	16	15	19	16	16	19	20	13	14
23	15	15	19	15	15	18	14	16	18	20	15	15
24	15	15	19	15	15	18	15	15	19	19	15	16
25	15	15	19	15	15	18	15	15	20	19	15	16
26	15	15	19	15	15	18	15	15	20	19	15	16
27	15	15	19	15	15	18	15	16	20	19	15	16
28	15	15	19	15	15	19	11	16	20	19	14	16
29	15	15	19	15	---	18	9.7	16	20	18	15	16
30	15	15	19	15	---	18	11	16	20	19	15	16
31	15	---	19	15	---	18	---	16	---	18	15	---
TOTAL	465	450	476.00	548	400.8	498	492.7	490	559	563.5	500	450
MEAN	15.0	15.0	15.4	17.7	14.3	16.1	16.4	15.8	18.6	18.2	16.1	15.0
MAX	15	15	19	20	15	19	19	17	20	20	19	16
MIN	15	15	.00	15	7.8	13	9.7	13	12	6.3	13	14
AC-FT	922	893	944	1090	795	988	977	972	1110	1120	992	893
CAL YR	1985	TOTAL	5677.78	MEAN	15.6	MAX	23	MIN	.00	AC-FT	11260	
WTR YR	1986	TOTAL	5893.00	MEAN	16.1	MAX	20	MIN	.00	AC-FT	11690	

09447000 EAGLE CREEK ABOVE PUMPING PLANT, NEAR MORENCI, AZ

LOCATION.--Lat 33°04'18", long 109°27'10", in SE¼NE¼ sec.22, T.4 S., R.28 E., Greenlee County, Hydrologic Unit 15040005, on left bank 3 mi upstream from Phelps Dodge Corp. pumping plant, 5 mi west of Morenci, and 13 mi upstream from mouth.

DRAINAGE AREA.--613 mi².

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

REVISED RECORDS.--WSP 1850-C: 1966.

GAGE.--Water-stage recorder. Datum of gage is 3,697.6 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 25, 1984 at datum 3.4 ft higher. Jan. 30, 1978 to Sept. 1, 1980, water-stage recorder, Parshall flume and weir 200 ft downstream at same datum. April 1944 to Jan. 30, 1978, Sept. 1, 1980 to July 31, 1981, at site 1,200 ft downstream at datum 6.37 ft lower. Nov. 4, 1980 to Aug. 1, 1981, supplementary water-stage recorder at present site and datum. Nov. 15, 1952 to Nov. 4, 1980, supplementary water-stage recorder 1,100 ft downstream on right bank at datum 6.37 ft lower. Aug. 23, 1950 to Nov. 15, 1952, supplementary water-stage recorder at site 1,300 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records fair. Diversions above station for irrigation of about 500 acres, mostly above Willow Creek. Water from Black River was pumped into Eagle Creek basin, 52 mi upstream from this station, for the entire year and water was pumped from wells into Eagle Creek near Double Circle Ranch below Willow Creek for 8 months. The monthly quantities pumped are shown in table below. Diversion by pumping for industrial and municipal use in and near Morenci and Clifton are made from Eagle Creek, 3 mi downstream from this station and from San Francisco River near Clifton. Monthly quantities diverted are shown in the table below; 98 percent of the pumpage was from Eagle Creek.

AVERAGE DISCHARGE (unadjusted).--42 years, 58.7 ft³/s, 42,530 acre-ft/yr; median of yearly mean discharges, 37 ft³/s, 26,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,400 ft³/s Oct. 2, 1983, gage height, 13.04 ft, from rating curve extended above 730 ft³/s on basis of slope-area measurements at gage heights 10.5 ft and 13.04 ft; minimum, 2.9 ft³/s June 25, 1982.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 800 ft³/s and maximum (*)

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 17	1000	*1,030	*4.61

Minimum daily discharge, 23 ft³/s July 11, Aug. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	43	178	39	36	46	69	31	31	28	25	38
2	35	42	96	40	38	46	64	34	36	28	25	32
3	47	41	69	40	37	46	65	37	38	34	25	28
4	45	39	58	40	42	46	63	38	35	40	25	26
5	37	39	52	40	42	42	59	38	34	28	25	27
6	34	39	48	40	38	39	57	36	29	28	29	27
7	33	39	46	40	41	39	55	36	26	28	30	25
8	37	39	43	39	39	39	53	37	24	31	28	25
9	40	39	43	39	45	40	50	38	27	47	28	25
10	48	39	42	38	50	39	44	38	28	33	27	26
11	43	39	41	36	45	55	41	36	28	23	28	27
12	39	40	45	36	42	57	42	35	28	25	32	25
13	36	42	42	37	42	63	42	35	27	25	30	25
14	35	40	36	38	47	130	43	35	25	26	29	25
15	33	39	33	39	61	191	42	33	26	93	31	24
16	49	39	31	39	282	131	42	33	27	127	28	25
17	476	38	29	39	388	115	40	30	27	61	25	27
18	183	36	28	39	189	190	40	30	28	44	27	27
19	100	35	28	39	136	179	39	30	28	39	25	27
20	75	35	31	39	108	136	40	29	28	37	24	26
21	64	35	36	39	90	110	39	28	29	35	23	27
22	56	35	38	38	79	113	39	28	29	35	27	25
23	53	35	38	38	71	122	38	28	30	32	41	24
24	51	34	39	37	65	131	39	29	33	31	32	37
25	49	34	39	35	59	133	37	28	35	29	31	31
26	47	45	39	35	54	129	37	27	34	28	33	28
27	46	47	39	35	50	117	36	27	31	28	45	26
28	44	46	39	34	47	102	35	28	33	27	55	25
29	44	43	39	34	---	96	35	28	34	25	44	25
30	45	137	39	34	---	85	32	29	29	25	55	25
31	43	---	39	34	---	75	---	32	---	25	45	---
TOTAL	2005	1273	1443	1169	2263	2882	1357	1001	897	1145	977	810
MEAN	64.7	42.4	46.5	37.7	80.8	93.0	45.2	32.3	29.9	36.9	31.5	27.0
MAX	476	137	178	40	388	191	69	38	38	127	55	38
MIN	33	34	28	34	36	39	32	27	24	23	23	24
AC-FT	3980	2520	2860	2320	4490	5720	2690	1990	1780	2270	1940	1610
(*)	637	235	0	0	0	0	542	745	606	478	740	659
(**)	1440	1340	1360	1760	1390	1520	1500	1480	1340	1360	1510	1340

CAL YR	1985	TOTAL	35786	MEAN	98.0	MAX	1230	MIN	17	AC-FT	70980	*	4540	**	17310
WTR YR	1986	TOTAL	17222	MEAN	47.2	MAX	476	MIN	23	AC-FT	34160	*	4640	**	17340

* Pumpage, in acre-feet, into Eagle Creek from Eagle Creek Wells.

** Pumpage, in acre-feet, to Clifton and Morenci, from San Francisco River and Eagle Creek.

GILA RIVER BASIN

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09447800 BONITA CREEK NEAR MORENCI, AZ

LOCATION.--Lat 32°57'20", long 109°31'50", in SE¼NW¼ sec.36, T.5 S., R.27 E., Graham County, Hydrologic Unit 15040005, on left bank 2.0 mi upstream from intake of City of Safford water supply, 6.3 mi upstream from mouth, and 12.8 mi southwest of Morenci, Arizona.

DRAINAGE AREA.--302 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Two crest-stage gages 440 ft upstream on right and left banks.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--5 years, 12.3 ft³/s, 8,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,400 ft³/s Oct. 2, 1983, gage height, 17.3 ft, from rating curve extended above 560 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.68 ft³/s Dec. 20-23, 1982, gage height, 1.50 ft.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 20, 1972, 10,000 ft³/s, from slope-area measurement made by City of Safford at site about 2 mi downstream. Flood of June 27, 1981, 1,340 ft³/s, from slope-area measurement at present site, gage height, 5.6 ft, from floodmark.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 26	1800	*456	*3.78

Minimum discharge, 2.2 ft³/s, Mar. 9, gage height, 1.24 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.8	4.5	17	5.9	6.3	2.7	5.9	3.7	3.7	2.9	3.8	8.1
2	8.5	4.4	8.5	5.8	6.0	2.7	5.4	3.8	3.8	3.0	4.0	7.6
3	8.1	4.4	6.8	5.7	6.3	2.8	6.3	4.0	3.5	3.0	3.9	7.2
4	7.9	4.4	6.2	5.9	7.3	2.4	5.5	3.8	3.1	3.5	3.8	6.9
5	7.4	4.1	6.0	5.9	7.0	2.4	5.4	3.9	3.1	3.4	4.0	7.1
6	7.4	4.2	4.9	6.2	7.3	2.3	5.3	3.9	2.9	3.1	4.0	6.9
7	7.6	4.5	5.8	6.5	7.9	2.3	5.0	4.0	2.9	3.1	4.0	6.6
8	8.9	4.6	6.0	6.6	7.4	2.3	4.7	4.4	2.9	3.7	3.9	6.5
9	8.7	4.9	6.1	6.8	7.9	2.2	5.0	4.2	3.0	3.7	4.7	6.9
10	9.5	4.8	6.1	6.8	7.5	2.6	5.3	4.1	2.9	3.5	5.2	7.1
11	9.2	4.7	6.7	6.8	7.4	4.9	4.8	3.9	2.9	3.1	4.6	6.6
12	8.5	5.3	7.2	6.9	7.0	4.0	4.7	3.7	2.8	3.0	4.4	6.4
13	8.1	5.8	6.7	6.9	7.0	27	4.6	3.7	2.8	3.2	4.4	6.3
14	7.9	5.7	6.7	6.9	6.7	24	5.0	3.6	2.7	3.3	4.4	6.2
15	7.7	6.0	6.6	6.8	6.7	38	4.7	3.6	2.7	6.2	5.0	6.2
16	30	6.2	6.4	6.8	96	25	4.8	3.4	2.6	7.6	5.5	6.0
17	50	6.5	6.4	6.8	57	17	4.9	3.6	2.6	6.0	6.3	6.0
18	12	6.4	6.4	6.7	11	63	4.7	3.6	2.6	5.3	16	5.8
19	7.9	6.4	6.2	6.7	5.8	77	4.5	3.6	2.8	6.7	8.2	5.7
20	7.8	6.8	6.2	6.7	4.5	31	4.3	3.5	2.7	8.0	7.6	5.6
21	7.2	7.3	5.7	6.7	4.0	14	4.0	3.4	2.7	6.1	7.2	5.5
22	6.9	7.1	5.7	6.5	3.7	11	4.0	3.4	2.6	5.7	6.9	5.4
23	6.3	7.1	5.9	6.7	3.4	9.5	4.2	3.4	2.7	5.2	8.0	5.9
24	6.0	6.8	5.8	6.7	3.2	8.3	4.5	3.3	3.3	4.9	8.2	7.9
25	5.3	7.5	6.4	6.7	3.0	7.9	4.2	3.2	3.2	4.6	7.5	6.7
26	4.7	7.0	6.1	6.6	2.9	7.5	4.0	3.1	3.0	4.4	21	6.4
27	4.5	6.5	5.9	6.4	2.7	6.8	4.0	3.2	2.9	4.3	8.3	6.3
28	4.4	6.6	5.9	6.7	2.7	6.4	4.1	3.1	2.9	4.1	9.2	6.3
29	4.2	6.6	5.9	6.7	---	6.3	4.0	3.0	3.0	3.9	12	6.3
30	4.2	20	5.9	6.6	---	6.1	3.8	3.2	2.9	3.8	9.6	6.3
31	4.4	---	5.9	6.2	---	6.1	---	3.5	---	3.9	10	---
TOTAL	291.0	187.1	204.0	202.6	305.6	425.5	141.6	111.8	88.2	136.2	215.6	194.7
MEAN	9.39	6.24	6.58	6.54	10.9	13.7	4.72	3.61	2.94	4.39	6.95	6.49
MAX	50	20	17	6.9	96	77	6.3	4.4	3.8	8.0	21	8.1
MIN	4.2	4.1	4.9	5.7	2.7	2.2	3.8	3.0	2.6	2.9	3.8	5.4
AC-FT	577	371	405	402	606	844	281	222	175	270	428	386
CAL YR 1985	TOTAL	4089.5	MEAN	11.2	MAX	149	MIN	3.7	AC-FT	8110		
WTR YR 1986	TOTAL	2503.9	MEAN	6.86	MAX	96	MIN	2.2	AC-FT	4970		

09448500 GILA RIVER AT HEAD OF SAFFORD VALLEY, NEAR SOLOMON, AZ

LOCATION.--Lat 32°52'06", long 109°30'38", in SE¼NE¼ sec.31, T.6 S., R.28 E., Graham County, Hydrologic Unit 15040005, on left bank 0.6 mi downstream from intake of Brown Canal, 8 mi northeast of Solomon, and 17 mi downstream from San Francisco River. Records include flow of Brown Canal, which is measured 2,000 ft downstream from intake.

DRAINAGE AREA.--7,896 mi².

PERIOD OF RECORD.--April 1914 to current year. Monthly discharge only for some periods, published in WSP 1313. Prior to October 1932 and October 1940 to September 1949 published as "near Solomonsville" and October 1932 to October 1933 and May 1935 to September 1940 as "below Bonita Creek near Solomonsville."

REVISED RECORDS.--WSP 1059: 1914, 1916-17, 1923(M), 1924-25, 1927, 1929-31(M). WSP 1179: 1915, 1918-19(M). WSP 1313: 1934. WSP 1733: 1923.

GAGE.--Water-stage recorder. Datum of gage is 3,059.92 ft above National Geodetic Vertical Datum of 1929. Prior to July 8, 1980, at datum 4.96 ft higher. See WSP 1733 for history of changes prior to Jan. 1, 1941. Supplementary water-stage recorder and Parshall flume on Brown Canal.

REMARKS.--Estimated daily discharges: Oct. 18, Feb. 25-28, Mar. 1-3, 17-19. Records good. Records show water reaching head of Safford Valley and include water diverted to Brown Canal. Diversions above station for mining, municipal use, and for irrigation of about 17,500 acres, much of it by pumping from ground water.

COOPERATION.--Record for Brown Canal furnished by Gila Water Commissioner.

AVERAGE DISCHARGE.--72 years, 481 ft³/s, 348,500 acre-ft/yr; median of yearly mean discharges, 320 ft³/s, 232,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 132,000 ft³/s Oct. 2, 1983, gage height, 20.8 ft, from rating curve extended above 52,000 ft³/s on basis of slope-area measurements at 14.40 ft and 20.8 ft; minimum, 11 ft³/s June 25, 1956.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	0500	5,910	10.37	Feb. 18	0045	4,420	9.77
Oct. 17	1615	*7,690	*10.98				

Minimum daily discharge, 109 ft³/s June 15, 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	503	724	1170	462	344	865	849	232	150	141	267	811
2	381	697	933	454	354	845	832	223	146	128	243	722
3	325	679	789	452	370	836	808	229	148	126	227	480
4	314	664	703	453	373	817	793	238	146	142	217	391
5	304	651	661	448	404	800	757	246	144	188	210	324
6	299	641	629	446	435	774	708	248	137	157	226	288
7	297	631	609	445	423	726	662	240	133	152	215	268
8	313	657	599	423	421	694	612	229	131	166	219	257
9	494	617	597	418	461	648	561	230	129	338	253	249
10	722	610	586	418	541	617	530	225	127	401	287	450
11	2510	596	579	414	543	671	496	215	122	320	314	330
12	4560	584	595	406	507	742	468	207	121	237	305	278
13	2070	579	582	398	479	767	443	206	118	224	316	244
14	1350	586	556	394	477	821	417	199	115	217	346	214
15	1000	571	538	392	549	970	414	186	109	346	614	210
16	890	548	526	391	920	1010	399	180	109	1160	490	202
17	5600	536	513	390	3230	984	373	173	112	961	353	188
18	6530	531	499	393	3810	962	350	164	116	885	347	179
19	4170	521	486	386	2600	932	336	158	121	719	309	172
20	2620	507	473	383	1960	892	326	157	122	644	305	167
21	1760	493	470	375	1750	860	311	154	122	715	268	163
22	1420	494	479	365	1550	827	299	152	123	566	252	155
23	1190	492	480	355	1400	813	291	149	121	702	257	153
24	1050	482	479	353	1320	846	283	148	128	1160	464	167
25	968	481	467	343	1230	880	275	145	137	1250	288	278
26	918	532	470	334	1150	901	269	141	140	952	275	226
27	871	742	470	334	1080	919	260	136	139	743	357	210
28	818	679	470	339	996	903	257	133	135	594	329	203
29	779	706	468	332	---	898	256	138	150	472	490	189
30	756	782	468	323	---	895	236	132	166	377	716	182
31	739	---	463	330	---	889	---	136	---	309	1030	---
TOTAL	46521	18013	17807	12149	29677	26004	13871	5749	3917	15492	10789	8350
MEAN	1501	600	574	392	1060	839	462	185	131	500	348	278
MAX	6530	782	1170	462	3810	1010	849	248	166	1250	1030	811
MIN	297	481	463	323	344	617	236	132	109	126	210	153
AC-FT	92270	35730	35320	24100	58860	51580	27510	11400	7770	30730	21400	16560

CAL YR	1985	TOTAL	412519	MEAN	1131	MAX	7550	MIN	106	AC-FT	818200
WTR YR	1986	TOTAL	208339	MEAN	571	MAX	6530	MIN	103	AC-FT	413200

09466500 GILA RIVER AT CALVA, AZ
(National stream-quality accounting network station)

LOCATION.--Lat 33°11'08", long 110°13'10", in SW $\frac{1}{4}$ sec.8, T.3 S., R.21 E. (unsurveyed), Graham County, Hydrologic Unit 15040005, in San Carlos Indian Reservation, on Southern Pacific Railroad bridge at head of San Carlos Reservoir, 2.0 mi west of Calva.

DRAINAGE AREA.--11,470 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1929 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,517.29 ft, National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1954, and Aug. 25, 1958, to Dec. 31, 1962, at datum 2.52 ft lower. Oct. 1, 1954, to Aug. 24, 1958, at datum 5.52 ft lower. Dec. 31, 1962, to Oct. 20, 1972, at site 530 ft downstream at datum 3.65 ft lower. Oct. 20, 1972, to Sept. 30, 1974, supplementary gage at bridge on U.S. Highway 70, 6.2 mi upstream at datum 2,560.19 ft, NGVD.

REMARKS.--Estimated daily discharges: Feb. 25 to Mar. 5, 17-20, 26-31, June 4 to July 16, and Sept. 6-30. Records poor. Diversion above station for irrigation of about 69,000 acres, metallurgical treatment of ores, and municipal uses.

AVERAGE DISCHARGE.--57 years, 326 ft³/s, 236,200 acre-ft/yr; median of yearly mean discharges, 210 ft³/s, 152,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 150,000 ft³/s Oct. 3, 1983, gage height, 23.1 ft, from rating curve extended above 87,000 ft³/s on basis of area-velocity, road over flow computations of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1914, probably in excess of 100,000 ft³/s Jan. 20, 1916, determined on basis of peak discharge at stations near Solomon and at Kelvin.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 12	2030	3,820	7.93	Feb. 18	1945	3,210	7.59
Oct. 18	2400	*6,720	*8.67				

Minimum daily discharge, 27 ft³/s June 26 to July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	694	619	814	315	218	550	565	205	50	27	177	747
2	601	631	1020	289	235	545	613	188	48	27	148	503
3	545	619	856	268	217	535	590	175	47	27	99	400
4	473	629	744	256	228	520	508	159	47	27	79	330
5	412	569	680	252	233	516	503	147	46	27	70	270
6	376	487	647	261	229	505	473	143	46	27	62	230
7	341	462	640	244	251	499	453	139	45	27	55	180
8	321	493	600	225	299	482	426	138	45	27	55	120
9	374	485	580	229	283	465	398	135	44	27	48	110
10	700	478	570	213	283	449	374	127	44	27	48	200
11	704	489	487	202	296	493	363	121	43	27	46	260
12	2760	467	569	194	318	472	344	117	43	27	40	235
13	2230	495	545	189	317	479	332	117	42	28	40	200
14	1320	465	524	181	309	545	323	112	41	28	178	190
15	872	419	478	176	305	558	321	104	40	28	112	180
16	821	418	462	171	317	663	305	95	40	27	99	165
17	1990	410	461	167	858	650	293	87	37	661	101	140
18	5860	433	501	170	2600	645	284	83	37	654	116	110
19	4850	446	499	175	2420	640	282	77	35	432	116	95
20	2510	432	462	185	1750	635	282	72	35	515	109	80
21	1680	437	449	199	1320	629	282	70	33	408	75	70
22	1500	438	463	213	1110	516	282	68	33	517	59	62
23	1350	443	426	230	914	477	280	67	31	354	65	60
24	1160	426	414	240	827	441	260	65	31	331	70	100
25	958	424	433	244	720	471	248	64	30	864	80	125
26	846	471	405	248	660	760	223	62	27	922	102	200
27	778	483	388	242	620	780	223	60	27	670	114	155
28	721	665	367	244	570	780	219	58	27	448	86	135
29	818	614	353	237	---	810	222	56	27	347	107	125
30	722	660	341	221	---	830	210	54	27	273	177	120
31	636	---	326	216	---	850	---	52	---	200	273	---
TOTAL	39923	15007	16504	6896	18707	18190	10481	3217	1148	8031	3006	5897
MEAN	1288	500	532	222	668	587	349	104	38.3	259	97.0	197
MAX	5860	665	1020	315	2600	850	613	205	50	922	273	747
MIN	321	410	326	167	217	441	210	52	27	27	40	60
AC-FT	79190	29770	32740	13680	37110	36080	20790	6380	2280	15930	5960	11700
CAL YR	1985	TOTAL	365609.8	MEAN	1002	MAX	7610	MIN	7.4	AC-FT	725200	
WTR YR	1986	TOTAL	147007	MEAN	403	MAX	5860	MIN	27	AC-FT	291600	

GILA RIVER BASIN

09466500 GILA RIVER AT CALVA, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1974 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1985												
23...	1350	1390	725	--	22.0	21.0	1300	709	7.9	96	66	380
NOV												
25...	1000	412	1700	--	16.0	13.0	--	708	12.8	132	30	170
DEC												
18...	1230	505	1540	--	11.0	8.0	40	720	11.2	101	<10	K35
JAN 1986												
26...	1300	246	2240	--	20.0	11.5	43	714	13.2	130	25	K87
FEB												
11...	1200	300	2080	--	15.0	10.0	210	712	10.6	101	29	150
MAR												
11...	1130	430	1760	8.25	14.0	11.5	88	706	9.8	98	22	--
APR												
08...	1300	430	1620	8.10	29.0	21.0	55	768	7.8	87	--	K14
MAY												
16...	1300	90	3370	8.10	30.0	22.0	9.5	706	7.9	99	<10	K7
JUN												
03...	1200	47	3930	8.30	33.0	27.0	22	706	9.1	125	16	K20
JUL												
22...	1230	397	1190	8.30	30.5	27.5	--	710	7.0	95	130	2700
AUG												
19...	1100	118	2500	8.40	40.0	27.0	1100	711	5.8	79	15	2000
SEP												
08...	1030	123	--	8.50	31.0	22.5	--	710	8.0	--	<10	410
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1985												
23...	2500	150	17	43	9.7	86	3	3.4	--	--	--	61
NOV												
25...	720	--	--	--	--	--	--	--	--	--	--	--
DEC												
18...	360	280	59	79	19	230	6	5.1	--	--	--	150
JAN 1986												
26...	K84	360	92	100	26	350	8	8.5	--	--	--	230
FEB												
11...	1100	310	61	90	21	320	8	5.6	--	--	--	210
MAR												
11...	200	250	34	72	18	240	7	6.1	--	--	--	160
APR												
08...	230	270	47	76	20	260	7	6.6	--	--	--	170
MAY												
16...	K3	440	160	110	40	580	12	12	340	0	0	390
JUN												
03...	110	440	210	110	40	660	14	11	293	0	0	440
JUL												
22...	K4200	--	--	--	--	--	--	--	--	199	0	--
AUG												
19...	5500	380	130	110	26	410	9	8.4	--	--	--	270
SEP												
08...	1300	--	--	--	--	--	--	--	--	--	--	--

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09466500 GILA RIVER AT CALVA, AZ--Continued

WATER QUALITY DATA

DATE	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, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1985											
23...	98	1.1	--	423	--	--	1630	--	--	0.400	--
NOV											
25...	--	--	--	--	--	--	--	--	--	0.900	--
DEC											
18...	290	1.5	37	929	940	1.3	152	0.980	0.010	0.900	0.990
JAN 1986											
26...	460	1.6	--	1370	--	--	140	--	--	1.60	--
FEB											
11...	390	1.4	--	1220	--	--	390	--	--	1.50	--
MAR											
11...	280	1.5	--	971	--	--	264	--	--	1.30	--
APR											
08...	300	1.5	38	1000	1000	1.4	178	--	<0.010	1.30	1.20
MAY											
16...	790	1.8	--	2060	--	--	40	--	--	1.20	--
JUN											
03...	910	1.8	34	2450	2400	3.3	54	0.380	0.020	0.400	0.400
JUL											
22...	--	--	--	--	--	--	--	--	--	0.900	--
AUG											
19...	470	1.7	0.7	1780	1500	2.4	2030	1.99	0.010	1.90	2.00
SEP											
08...	520	--	--	--	--	--	--	--	--	2.00	--
DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1985											
23...	0.080	--	1.7	1.8	2.2	9.7	0.990	--	--	--	--
NOV											
25...	0.060	--	0.74	0.80	1.7	7.5	0.690	--	--	--	--
DEC											
18...	0.030	0.030	0.27	0.30	1.2	5.3	0.350	0.230	0.100	0.31	30
JAN 1986											
26...	0.100	--	0.70	0.80	2.4	11	0.290	--	--	--	--
FEB											
11...	0.030	--	0.77	0.80	2.3	10	0.490	--	--	--	--
MAR											
11...	0.030	--	0.47	0.50	1.8	8.0	0.230	--	--	--	--
APR											
08...	0.080	0.060	0.42	0.50	1.8	8.0	0.410	0.090	0.090	0.28	50
MAY											
16...	0.120	--	0.38	0.50	1.7	7.5	0.090	--	--	--	--
JUN											
03...	0.060	0.050	0.64	0.70	1.1	4.9	0.090	0.020	0.010	0.03	20
JUL											
22...	0.070	--	1.4	1.5	2.4	11	0.510	--	--	--	--
AUG											
19...	<0.010	0.030	--	0.50	2.4	11	3.20	0.090	0.090	0.28	30
SEP											
08...	0.060	--	0.64	0.70	2.7	12	0.380	--	--	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN
09466500 GILA RIVER AT CALVA, AZ--Continued

WATER QUALITY DATA

DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1985											
23...	6	4	37	--	100	1	<1	35	<1	--	250
NOV 25...	7	4	82	--	340	<1	<1	33	1	--	95
DEC 18...	4	4	59	<0.5	260	<1	<1	17	1	<3	43
JAN 1986											
26...	5	5	100	--	50	1	1	13	2	--	33
FEB 11...	5	5	<100	--	340	2	<1	18	<1	--	10
MAR 11...	5	4	59	--	280	<1	<1	23	<1	--	56
APR 08...	5	4	60	<0.5	290	<1	3	11	<1	<3	52
MAY 16...	5	5	200	--	720	<1	1	4	<1	--	15
JUN 03...	5	5	200	<10	850	<1	1	14	<1	1	16
JUL 22...	11	6	45	--	180	<1	3	3	<1	--	350
AUG 19...	9	7	200	<10	500	1	<1	35	4	<1	290
SEP 08...	7	6	100	--	540	<1	<1	18	<1	--	90

DATE	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)	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)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
OCT 1985											
23...	7	4400	40	37	<1	--	1500	4	2.4	--	--
NOV 25...	4	21000	5	14	<1	--	430	4	3.3	--	--
DEC 18...	9	--	6	3	1	160	190	4		--	<10
JAN 1986											
26...	3	5200	20	6	1	--	150	20	0.20	--	--
FEB 11...	7	13000	200	7	1	--	340	20	0.10	--	--
MAR 11...	5	9600	6	11	<1	--	340	4	<0.10	--	--
APR 08...	2	--	3	22	2	170	230	5	<0.10	<0.1	<10
MAY 16...	3	770	10	3	<1	--	40	20	<0.10	--	--
JUN 03...	4	--	20	1	3	10	50	20	<0.10	<0.1	12
JUL 22...	8	110000	41	<5	<5	--	4200	9	0.20	--	--
AUG 19...	7	--	40	42	<5	230	1700	<10	0.10	<0.1	16
SEP 08...	5	12000	30	12	<5	--	430	<10	0.20	--	--

DATE	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, 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, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1985											
23...	--	<1	<1	<1	--	--	180	13	67	2710	10200
NOV 25...	--	<1	<1	<1	--	--	140	18	19	954	1060
DEC 18...	1	1	<1	<1	680	9	40	8	24	962	1310
JAN 1986											
26...	--	1	1	<1	--	--	50	20	49	376	250
FEB 11...	--	1	1	<1	--	--	60	10	77	743	602
MAR 11...	--	1	1	<1	--	--	60	10	51	785	911
APR 08...	1	<1	1	<1	660	13	50	<3	23	955	1110
MAY 16...	--	2	2	<1	--	--	10	10	79	60	15
JUN 03...	<1	2	2	<1	1400	21	20	10	25	168	21
JUL 22...	--	<1	<1	<1	--	--	460	210	78	7580	8130
AUG 19...	2	1	1	<1	990	30	200	10	95	2190	698
SEP 08...	--	<1	1	<1	--	--	260	<10	73	703	233

< Actual value is known to be less than value shown.

09468500 SAN CARLOS RIVER NEAR PERIDOT, AZ

LOCATION.--Lat 33°17'47", long 110°27'03", in SE¼ sec.36, T.1 S., R.18 E. (unsurveyed), Gila County, Hydrologic Unit 15040007, in San Carlos Indian Reservation, on U.S. Highway 70 bridge, 0.9 mi south of Peridot.

DRAINAGE AREA.--1,026 mi².

PERIOD OF RECORD.--August 1910 to January 1911 (gage heights only), April 1914 to July 1915, August to September 1915 (monthly discharge only), October 1929 to current year. Prior to October 1929 published as "at San Carlos."

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,542.29 ft above National Geodetic Vertical Datum of 1929 (Arizona Highway Department bench mark). See WSP 1713 or 1733 for history of changes prior to Feb. 1, 1942. Feb. 1, 1942, to Aug. 13, 1970, at sites 1.9 mi upstream at different datums. Aug 14, 1970, to Sept. 30, 1980, at site 1.8 mi upstream at datum 2,578.90 ft, National Geodetic Vertical Datum of 1929. Supplementary water-stage recorder Dec. 21, 1967, to July 2, 1968, at site 2.2 mi downstream at datum in use prior to Feb. 1, 1942; Jan. 31, 1979, to Sept. 30, 1980, at present site and datum.

REMARKS.--No estimated daily discharges. Records fair. Diversions above station for irrigation of about 600 acres. Small inflow from sewage treatment system about 3.6 mi upstream. Flow regulated to some extent since June 15, 1979, by Talkalai Reservoir; capacity of reservoir is about 6,000 acre-ft.

AVERAGE DISCHARGE.--57 years (water years 1930-86), 55.8 ft³/s, 40,430 acre-ft/yr; median of yearly mean discharges, 32 ft³/s, 23,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s Mar. 14, 1941, gage height, 11.4 ft, site and datum then in use, from rating curve extended above 23,000 ft³/s on basis of rate of change in storage in San Carlos Reservoir; maximum gage height 14.8 ft, Dec. 22, 1965, site and datum then in use; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	0900	2,670	6.27	Mar. 18	0130	2,710	6.27
Mar. 14	2315	2,590	6.27	July 16	2000	*3,240	*6.57

Minimum daily discharge, 5.6 ft³/s May 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	18	323	19	23	14	51	15	15	20	11	132
2	37	19	86	19	21	12	50	15	18	16	24	45
3	28	19	63	19	20	11	42	16	15	14	17	28
4	24	19	47	19	21	8.8	38	10	13	14	14	16
5	22	19	38	19	22	8.0	34	8.6	12	14	14	12
6	17	19	31	17	21	7.6	26	11	11	13	13	10
7	16	19	27	17	20	7.5	22	8.2	14	12	12	12
8	15	19	25	17	19	6.8	19	7.5	17	12	13	6.7
9	15	18	23	17	24	6.5	16	8.3	14	12	14	6.4
10	16	18	22	17	25	6.9	14	9.6	12	11	38	13
11	56	19	21	18	24	16	13	11	11	11	141	11
12	79	21	22	17	32	1250	12	11	11	11	62	10
13	52	23	21	17	36	1430	11	13	12	11	40	10
14	38	22	20	17	45	1240	11	14	13	10	55	11
15	29	20	19	17	61	1190	13	15	14	47	32	11
16	25	20	19	17	1460	489	16	13	12	235	21	13
17	25	19	18	17	1090	610	15	12	10	25	17	13
18	33	18	17	17	485	1800	19	11	11	20	14	13
19	50	18	17	17	290	971	23	11	11	17	21	12
20	39	17	17	16	174	472	23	12	10	16	20	12
21	30	18	17	15	103	250	21	12	9.6	15	16	12
22	24	19	17	16	60	207	18	8.4	9.1	15	13	12
23	21	19	17	17	39	179	14	7.6	11	22	15	13
24	19	20	17	17	34	144	13	7.9	13	16	13	29
25	17	21	17	17	27	134	17	9.4	8.6	15	13	70
26	17	21	17	17	21	126	17	11	8.3	14	87	42
27	17	280	17	17	17	109	17	6.0	8.3	13	28	32
28	16	116	17	18	15	89	16	5.8	9.4	12	54	25
29	15	69	18	19	---	71	17	5.6	10	13	153	21
30	16	89	19	19	---	65	17	7.8	8.7	13	107	19
31	17	---	18	21	---	55	---	10	---	13	73	---
TOTAL	874	1056	1067	543	4229	10986.1	635	323.7	352.0	702	1165	672.1
MEAN	28.2	35.2	34.4	17.5	151	354	21.2	10.4	11.7	22.6	37.6	22.4
MAX	79	280	323	21	1460	1800	51	16	18	235	153	132
MIN	15	17	17	15	15	6.5	11	5.6	8.3	10	11	6.4
AC-FT	1730	2090	2120	1080	8390	21790	1260	642	698	1390	2310	1330

CAL YR	1985	TOTAL	22971.1	MEAN	62.9	MAX	1250	MIN	7.2	AC-FT	45560
WTR YR	1986	TOTAL	22604.9	MEAN	61.9	MAX	1800	MIN	5.6	AC-FT	44840

GILA RIVER BASIN

09469000 SAN CARLOS RESERVOIR AT COOLIDGE DAM, AZ

LOCATION.--Lat 33°10'32", long 110°31'38", in NW¼ sec.17, T.3 S., R.18 E. (unsurveyed), Gila County, Hydrologic Unit 15040005, in San Carlos Indian Reservation, at right intake tower of Coolidge Dam on Gila River.

DRAINAGE AREA.--12,886 mi².

REVISED RECORDS.--WSP 1049: 1929, 1934, 1937-38. WSP 1283: Drainage area.

PERIOD OF RECORD.--November 1928 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Jan. 15, 1937, series of stakes with tops at known elevations for reference points on right bank about 1,000 ft upstream from dam. Jan. 15, 1937, to Dec. 31, 1947, water-stage recorder at present site at datum 0.72 ft lower.

REMARKS.--Reservoir is formed by concrete multiple-dome dam. Dam completed Oct. 25, 1928; storage began Nov. 15, 1928. Usable capacity (from capacity table computed by San Carlos Irrigation District, based on an estimate of sediment deposited since 1966; used since Jan. 1, 1982) 935,000 acre-ft between elevations 2,382.63 ft, sill of lowest outlet gate, and 2,512.3 ft, crest of spillway. No dead storage. Figures given herein represent usable contents. Reservoir is used to store water for irrigation of San Carlos project and for power development, dependent on irrigation demands. Spill over Coolidge Dam because of capacity storage has occurred April 22 to May 5, 1979, Feb. 24 to Mar. 13, 1980, Oct. 4-23, 28-31, Dec. 3-13, 1983, Jan. 2 to June 5, 1985.

COOPERATION.--Wire-weight gage readings furnished by U.S. Bureau of Indian Affairs.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,090,000 acre-ft Feb. 26 to Mar. 6, 1980; maximum elevation observed, 2,520.3 ft Feb. 28, 1980; no usable contents at times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 905,000 acre-ft Mar. 24 to Apr. 7, elevation, 2,510.6 ft; minimum, 602,000 acre-ft Sept. 29, 30, elevation, 2,490.7 ft.

Capacity table (elevation, in feet, and usable contents, in acre-ft)

2,490	592,000	2,505	812,000
2,495	660,000	2,510	895,000
2,500	734,000	2,515	982,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	696000	778000	804000	830000	842000	890000	905000	885000	837000	764000	696000	624000
2	696000	779000	806000	830000	842000	890000	905000	885000	835000	760000	694000	624000
3	696000	781000	807000	830000	842000	890000	905000	883000	832000	757000	693000	622000
4	696000	781000	809000	830000	842000	890000	905000	882000	830000	754000	690000	621000
5	697000	782000	810000	832000	842000	890000	905000	880000	829000	752000	685000	621000
6	697000	782000	810000	832000	844000	890000	905000	878000	825000	749000	682000	619000
7	698000	784000	812000	832000	844000	890000	905000	877000	824000	746000	679000	618000
8	698000	784000	814000	834000	844000	890000	904000	875000	822000	743000	676000	617000
9	700000	784000	814000	834000	845000	888000	902000	873000	820000	742000	675000	617000
10	700000	785000	815000	834000	845000	888000	902000	872000	817000	738000	672000	615000
11	701000	787000	815000	834000	845000	888000	902000	872000	815000	734000	669000	614000
12	703000	789000	815000	835000	847000	888000	902000	870000	812000	732000	668000	614000
13	710000	789000	817000	835000	847000	888000	900000	868000	810000	729000	665000	612000
14	715000	790000	819000	835000	848000	890000	900000	867000	807000	726000	663000	611000
15	718000	790000	819000	835000	850000	893000	900000	865000	806000	724000	660000	611000
16	719000	790000	820000	835000	852000	895000	898000	865000	803000	722000	658000	611000
17	724000	792000	820000	837000	855000	897000	897000	863000	801000	720000	655000	610000
18	734000	792000	822000	837000	862000	900000	897000	862000	798000	719000	652000	610000
19	745000	792000	822000	837000	868000	902000	897000	860000	795000	718000	649000	610000
20	752000	793000	822000	837000	872000	904000	895000	858000	793000	716000	647000	608000
21	757000	793000	824000	838000	875000	904000	895000	857000	790000	715000	644000	607000
22	760000	793000	824000	838000	880000	904000	893000	855000	789000	713000	643000	606000
23	764000	793000	825000	838000	883000	904000	893000	854000	785000	712000	641000	604000
24	767000	795000	825000	838000	885000	905000	892000	852000	782000	710000	638000	604000
25	770000	796000	827000	838000	888000	905000	892000	850000	781000	709000	636000	604000
26	771000	798000	827000	838000	888000	905000	890000	848000	778000	707000	633000	603000
27	773000	800000	829000	840000	890000	905000	888000	847000	774000	706000	630000	603000
28	774000	800000	829000	840000	890000	905000	888000	844000	771000	704000	628000	603000
29	776000	801000	829000	840000	---	905000	887000	842000	770000	701000	626000	602000
30	778000	803000	829000	840000	---	905000	885000	840000	767000	700000	625000	602000
31	778000	---	830000	840000	---	905000	---	839000	---	698000	624000	---
MAX	778000	803000	830000	840000	890000	905000	905000	885000	837000	764000	696000	624000
MIN	696000	778000	804000	830000	842000	888000	885000	839000	767000	698000	624000	602000
(*)	2502.8	2504.4	2506.1	2506.7	2509.7	2510.6	2509.4	2506.6	2502.1	2497.6	2492.3	2490.7
(**)	+84000	+25000	+27000	+10000	+50000	+15000	-20000	-46000	-72000	-69000	-74000	-22000
CAL YR 1985	MAX	975000	MIN	681000	**	-77000						
WTR YR 1986	MAX	905000	MIN	602000	**	-92000						

* Elevation in feet, at end of month.

** Change in contents, in acre-feet.

GILA RIVER BASIN

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09469500 GILA RIVER BELOW COOLIDGE DAM, AZ

LOCATION.--Lat 33°10'10", long 110°31'50", in SW¼ sec.17, T.3 S., R.18 E. (unsurveyed), Pinal County, Hydrologic Unit 15050100, on left bank 2,200 ft downstream from Coolidge Dam.

DRAINAGE AREA.--12,886 mi².

PERIOD OF RECORD.--July to October 1899, April 1900 to March 1902, July to September 1902, December 1902 to December 1904, January to May 1905 (gage heights only), June to November 1905; August 1910 to February 1911 (gage heights only); April 1914 to current year. Published as "at San Carlos" 1899-1911, as "near San Carlos" 1914-26, and as "at Coolidge Dam" 1927-38.

REVISED RECORDS.--WSP 629: 1915-16. WSP 1049: 1899-1904. WSP 1149: 19M), 1921, 1922(M), 1923, 1924(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 2,309.33 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 5, 1911, nonrecording gage at various sites and datums upstream from mouth of San Carlos River. Apr. 29, 1914, to Mar. 8, 1937, water-stage recorder at various sites within 1 mi upstream from present site at different datums. Mar. 27, 1979 to Oct. 10, 1980, and since Oct. 4, 1983, supplementary water-stage recorder at site on left bank 1,000 ft upstream at datum 2,309.5 ft, NGVD, used above discharges at approximately 1,570 ft³/s, maximum capacity of parshall flume.

REMARKS.--No estimated daily discharges. Records excellent except those below 20 ft³/s and above 1,570 ft³/s, which are fair. Flow regulated by San Carlos Reservoir since Nov. 15, 1928. (See sta 09469000.) Record includes flow of Warm Springs, which enters between dam and gage. Large diversions above San Carlos Reservoir for irrigation, metallurgical treatment of ore, and municipal supply; about 69,000 acres of land was irrigated, a considerable portion by pumping from ground water.

AVERAGE DISCHARGE (adjusted for storage in San Carlos Reservoir).--74 years (water years 1901, 1904, 1915-86) 382 ft³/s, 276,800 acre-ft/yr; median of yearly mean discharges, 230 ft³/s, 167,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1914-28: Maximum discharge, 130,000 ft³/s Jan. 20, 1916, estimated on basis of peak discharge near Solomon and at Kelvix; no flow at times. 1928-86: Maximum discharge, 5,020 ft³/s Oct. 6, 1983, gage height, 10.7 ft, at supplementary gage; no flow at times prior to 1938; minimum daily since 1938, 0.40 ft³/s in several years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,330 ft³/s July 4, 7-9; minimum daily, 4.7 ft³/s Nov. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	7.0	152	108	125	512	652	654	947	1280	1200	911
2	59	7.3	152	99	124	551	653	654	946	1280	1200	837
3	30	7.3	150	97	95	563	638	690	946	1290	1200	752
4	6.2	7.3	130	98	63	654	614	715	933	1330	1200	674
5	6.0	7.3	76	100	54	700	603	752	924	1320	1200	599
6	6.0	7.3	56	100	54	713	636	789	925	1320	1200	599
7	6.0	6.0	54	104	54	792	572	799	925	1330	1230	599
8	6.0	4.7	54	105	54	859	598	798	925	1330	1250	601
9	6.3	4.8	60	102	54	898	597	752	940	1330	1250	603
10	6.5	4.8	68	101	27	936	578	724	994	1320	1250	585
11	6.9	4.8	61	101	9.5	951	564	724	1020	1280	1250	572
12	6.0	4.8	55	102	10	951	555	693	1040	1260	1250	530
13	6.0	4.8	57	115	11	951	556	674	1080	1260	1250	510
14	6.0	4.8	59	136	12	889	557	673	1110	1260	1250	486
15	7.0	4.8	61	152	13	849	558	688	1120	1270	1250	474
16	7.1	4.8	36	149	11	848	575	721	1120	1280	1260	476
17	7.1	4.8	22	125	9.5	819	556	717	1140	1280	1260	443
18	7.3	4.8	27	97	9.5	693	568	735	1180	1280	1260	404
19	7.3	4.8	29	97	9.5	621	577	750	1190	1270	1260	391
20	6.4	5.1	22	97	9.8	585	593	751	1200	1260	1240	358
21	6.0	5.3	23	96	34	565	602	750	1200	1250	1230	342
22	6.1	5.3	23	115	101	562	601	792	1200	1240	1200	308
23	6.5	103	23	127	127	553	617	822	1210	1230	1180	293
24	6.6	152	75	118	180	551	627	838	1220	1210	1160	294
25	6.6	152	108	119	235	573	629	845	1220	1200	1150	292
26	6.6	152	121	120	261	677	646	886	1240	1200	1140	297
27	6.6	152	142	121	368	706	655	901	1250	1200	1110	294
28	6.6	152	167	123	429	698	655	899	1250	1200	1070	267
29	6.6	152	177	124	---	698	654	914	1260	1200	1000	234
30	6.6	152	179	124	---	699	654	940	1270	1190	929	195
31	6.6	---	132	124	---	679	---	949	---	1190	911	---
TOTAL	325.5	1289.7	2551	3496	2543.8	22296	18140	23989	32925	39140	36790	14220
MEAN	10.5	43.0	82.3	113	90.8	719	605	774	1097	1263	1187	474
MAX	59	152	179	152	429	951	655	949	1270	1330	1260	911
MIN	6.0	4.7	22	96	9.5	512	555	654	924	1190	911	195
AC-FT	646	2560	5060	6930	5050	44220	35980	47580	65310	77630	72970	28210
CAL YR 1985	TOTAL	391578.2	MEAN	1073	MAX	4310	MIN	4.7	AC-FT	776700		
WTR YR 1986	TOTAL	197706.0	MEAN	542	MAX	1330	MIN	4.7	AC-FT	392100		

GILA RIVER BASIN

09470000 GILA RIVER AT WINKELMAN, AZ

LOCATION.--Lat 33°00'06", long 110°45'55", in NW¼NE¼ sec.13, T.5 S., R.15 E., Gila County, Hydrologic Unit 15050100, on right bank 1 mi north of Winkelman, 2.2 mi upstream from San Pedro River, and 29 mi downstream from Coolidge Dam.

DRAINAGE AREA.--13,268 mi², of which 382 mi² is below Coolidge Dam.

PERIOD OF RECORD.--September 1917 to June 1918, September 1941 to September 1980, July 1984 to current year.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,921.76 ft above National Geodetic Vertical Datum of 1929. Sept. 10, 1917, to June 27, 1918, nonrecording gage at bridge 1.4 mi downstream at different datum. September 1941 to Jan. 5, 1964, at site about 400 ft upstream at datum 0.81 ft lower. Supplementary nonrecording gage 1.3 mi downstream since Aug. 9, 1963, at datum 13.68 ft lower; supplementary water-stage recorder Jan. 6, 1964, to Nov. 24, 1975, at bridge 1.4 mi downstream at datum 14.76 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1 to Mar. 4 and Sept. 3-30. Records good except for periods of missing record, which are poor. Large diversions above station for irrigation, metallurgical treatment of ore, and municipal supply, but none between Coolidge Dam and this station. About 69,000 acres irrigated in the basin above Coolidge Dam, a considerable portion by pumping from ground water. Flow regulated by San Carlos Reservoir (See sta 09469000).

AVERAGE DISCHARGE (adjusted for storage in San Carlos Reservoir).--41 years (water years 1942-80, 1986), 319 ft³/s, 231,100 acre-ft/yr; median of yearly mean discharges, 190 ft³/s, 138,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,000 ft³/s of which 500 ft³/s was released by Coolidge Dam, Aug. 9, 1944, gage height, 18.40 ft, from rating curve extended above 2,900 ft³/s on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge during period Oct. 1980 to June 1984, 17,000 ft³/s, Oct. 2, 1983, gage height 16.0 ft, from flood mark, from rating curve extended above 8,000 ft³/s, (no significant release from Coolidge Dam).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,050 ft³/s, Aug. 30, gage height, 10.81 ft, unadjusted for release from Coolidge Dam; minimum daily, 20 ft³/s Nov. 20-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	27	160	137	130	450	681	670	992	1290	1250	1060
2	69	26	160	110	132	530	675	671	992	1300	1250	970
3	73	26	160	102	130	570	659	674	992	1310	1250	870
4	48	26	160	102	100	590	650	713	988	1330	1250	780
5	40	25	122	102	77	726	635	729	965	1310	1240	700
6	35	25	90	103	70	745	646	777	964	1300	1240	620
7	35	25	70	103	70	777	643	808	965	1300	1250	620
8	35	24	68	106	70	888	610	812	961	1310	1270	620
9	34	24	68	107	70	948	635	806	964	1310	1270	620
10	34	24	74	104	70	996	618	745	994	1310	1270	620
11	34	23	81	104	45	1240	614	739	1060	1300	1270	600
12	33	23	75	104	30	1280	600	733	1070	1290	1270	590
13	33	23	70	104	30	1500	597	695	1100	1290	1270	560
14	33	22	70	118	30	1750	596	691	1160	1290	1260	530
15	32	22	73	145	30	1360	596	691	1180	1300	1270	500
16	32	22	75	165	30	1090	600	707	1180	1310	1270	490
17	32	21	53	155	30	1270	602	741	1190	1310	1280	490
18	31	21	40	118	30	1460	591	732	1200	1310	1280	460
19	31	21	45	101	30	1000	601	755	1220	1300	1280	420
20	31	20	47	101	30	825	602	762	1230	1300	1270	410
21	30	20	40	101	30	701	613	761	1230	1350	1260	370
22	30	20	42	101	50	673	614	768	1230	1310	1250	360
23	30	20	42	118	104	640	616	830	1230	1310	1200	320
24	29	110	42	133	133	628	624	846	1250	1280	1190	310
25	29	160	87	122	190	620	629	865	1260	1260	1170	310
26	29	160	110	123	255	648	629	876	1260	1260	1150	310
27	28	160	126	130	278	727	639	930	1270	1250	1130	310
28	28	160	150	130	380	726	645	931	1270	1250	1080	310
29	28	160	175	130	---	725	655	933	1270	1250	1160	280
30	27	160	185	130	---	720	665	962	1290	1250	1630	250
31	27	---	190	130	---	725	---	992	---	1250	1070	---
TOTAL	1105	1600	2950	3639	2654	27528	18780	24345	33927	40090	38550	15660
MEAN	35.6	53.3	95.2	117	94.8	888	626	785	1131	1293	1244	522
MAX	73	160	190	165	380	1750	681	992	1290	1350	1630	1060
MIN	27	20	40	101	30	450	591	670	961	1250	1070	250
AC-FT	2190	3170	5850	7220	5260	54600	37250	48290	67290	79520	76460	31060
CAL YR 1985	TOTAL	405723	MEAN	1112	MAX	4310	MIN	20	AC-FT	804800		
WTR YR 1986	TOTAL	210828	MEAN	578	MAX	1750	MIN	20	AC-FT	418200		

09471000 SAN PEDRO RIVER AT CHARLESTON, AZ

LOCATION.--Lat 31°37'33", long 110°10'26", in NE¼NE¼ sec.11, T.21 S., R.21 E., Cochise County, Hydrologic Unit 15050202, in Spanish land grant of San Juan de las Boquillas y Nogales, at downstream side of pier near center of highway bridge, 0.3 mi south of Charleston, 1.5 mi upstream from Charleston damsite, and 9 mi upstream from Babocomari River.

DRAINAGE AREA.--1,219 mi², of which 696 mi² is in Mexico.

PERIOD OF RECORD.--January and February 1904 (gage heights only); March 1904 to August 1906; November 1910 to December 1911 (gage heights only); September 1912 to current year. Monthly discharge only October 1926 to May 1928 and December 1933 to April 1935, published in WSP 1313. Published as "near Lewis Springs" 1910-11, and as "near Fairbank" 1911-26.

REVISED RECORDS.--WSP 1119: 1939(M). WSP 1213: 1914, 1916(M), 1918(M), 1919, 1920(M), 1922-23(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,954.01 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 1, 1942, nonrecording gage or water-stage recorder at various sites within 6.5 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Oct. 1-16, 19-26, May 15-21, July 13, 19-27, and Sept. 1-8, 18-28. Records good except for periods of estimated daily record, which are poor. Diversions above station, mostly by pumping from ground water, for irrigation of 3,200 acres in 1978, excluding an unknown amount in Mexico. Record shows flow available at Charleston damsite.

AVERAGE DISCHARGE.--75 years (water years 1905, 1913-86), 59.7 ft³/s, 43,250 acre-ft/yr; median of yearly mean discharges, 48 ft³/s, 34,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 98,000 ft³/s Sept. 28, 1926, gage height, 21.9 ft, site and datum then in use, by slope-area measurement of peak flow; minimum since 1928, 0.30 ft³/s July 14-16, 1982, gage height, 1.83 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 14	1930	3,290	6.58	Aug. 29	1800	3,450	6.60
Aug. 18	0230	*5,020	*7.20				

Minimum discharge, 1.4 ft³/s June 20, July 1; minimum gage height, 1.61 ft, June 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	60	18	38	26	23	23	22	9.5	3.8	1.4	52	80
2	44	18	36	26	23	23	23	9.5	5.2	11	18	65
3	44	17	35	24	23	22	23	9.0	4.0	5.4	14	60
4	44	18	34	24	24	22	22	8.0	3.4	21	13	55
5	42	18	34	24	23	22	22	7.0	3.0	29	12	50
6	41	17	34	24	23	20	23	6.4	7.0	13	26	45
7	35	17	34	23	24	19	22	6.1	4.6	8.2	288	40
8	32	16	34	23	23	19	23	6.4	2.8	5.4	82	35
9	26	17	34	23	29	19	23	6.1	2.4	5.8	34	30
10	24	17	34	20	35	19	22	6.4	2.2	6.1	43	30
11	24	18	34	23	40	20	20	5.8	2.2	177	60	38
12	21	18	34	23	40	22	22	5.2	2.4	29	63	26
13	20	18	34	23	34	20	17	4.6	2.4	5.0	36	21
14	18	18	32	23	34	20	18	4.6	2.2	408	28	18
15	16	18	31	23	32	22	18	4.5	2.2	121	22	15
16	177	18	30	23	31	22	14	4.5	1.8	247	19	13
17	946	19	30	23	31	23	12	4.5	2.2	291	129	12
18	290	18	30	23	29	26	12	4.5	2.4	368	1700	12
19	150	20	30	22	29	26	12	4.5	2.4	140	169	12
20	75	22	29	20	28	24	12	4.5	2.2	70	59	12
21	60	20	29	20	28	24	12	4.5	1.8	30	40	11
22	50	22	29	20	26	23	12	4.0	1.8	20	71	11
23	40	23	29	20	26	22	12	3.8	2.2	15	59	11
24	35	24	29	20	20	22	11	3.8	2.6	15	43	11
25	35	18	29	20	23	20	11	3.8	2.6	15	30	11
26	35	70	29	20	24	19	10	3.0	2.5	15	182	10
27	32	42	26	20	23	19	10	2.8	2.2	15	127	10
28	26	47	26	22	23	20	10	2.8	2.2	13	118	10
29	23	46	26	20	---	20	10	2.8	2.2	12	728	10
30	20	40	26	20	---	20	10	3.2	1.8	9.9	1010	9.4
31	18	---	26	20	---	22	---	3.8	---	9.1	265	---
TOTAL	2503	712	965	685	771	664	490	159.9	82.7	2131.3	5540	773.4
MEAN	80.7	23.7	31.1	22.1	27.5	21.4	16.3	5.16	2.76	68.8	179	25.8
MAX	946	70	38	26	40	26	23	9.5	7.0	408	1700	80
MIN	16	16	26	20	20	19	10	2.8	1.8	1.4	12	9.4
AC-FT	4960	1410	1910	1360	1530	1320	972	317	164	4230	10990	1530

CAL YR	1985	TOTAL	18491.6	MEAN	50.7	MAX	1950	MIN	1.2	AC-FT	36680
WTR YR	1986	TOTAL	15477.3	MEAN	42.4	MAX	1700	MIN	1.4	AC-FT	30700

09471550 SAN PEDRO RIVER NEAR TOMBSTONE, AZ

LOCATION.--Lat 31°45'03", long 110°12'02", in SE¼ sec.28, T.19 S., R.21 E. (unsurveyed), Cochise County, Hydrologic Unit 15050202, in Spanish land grant of San Juan de las Boquillas y Nogales, on right bank 0.5 mi downstream from Willow Wash, 2.6 mi north of Fairbank, and 8 mi northwest of Tombstone.

DRAINAGE AREA.--1,740 mi² approximately, of which 696 mi² is in Mexico.

PERIOD OF RECORD.--April 1967 to September 1986 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 3,780 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Diversions above station, mostly by pumping from ground water, for irrigation of 3,200 acres in 1978, excluding an unknown amount in Mexico.

AVERAGE DISCHARGE.--19 years, 55.5 ft³/s, 40,210 acre-ft/yr; median of yearly mean discharges, 41 ft³/s, 29,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,200 ft³/s Oct. 9, 1977, gage height, 11.40 ft, from rating curve extended above 4,900 ft³/s on basis of slope-area measurements at gage heights 8.89 ft and 11.40 ft; no flow at times during most summers.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*), from rating curve extended above 4,900 ft³/s as explained above:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 18	0430	*4,410	*6.56

No flow June 21, 22, June 24 to July 4, 6-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	26	41	33	27	30	18	9.6	1.9	.00	21	247
2	65	28	39	32	28	29	18	9.6	3.2	.00	21	141
3	26	27	41	33	27	28	17	9.1	3.0	.00	9.0	84
4	12	26	38	31	29	28	17	8.2	2.2	.00	12	58
5	10	24	38	30	29	28	18	7.4	1.5	.08	11	44
6	8.7	24	36	30	28	25	18	6.6	1.6	.00	13	40
7	7.8	21	36	30	29	25	17	6.0	3.0	.00	232	33
8	72	21	35	29	29	24	15	6.1	1.3	.00	143	33
9	97	20	35	29	34	23	14	6.0	.48	.00	31	29
10	45	19	35	28	36	22	14	5.8	.39	.00	69	25
11	40	17	34	28	44	22	14	5.5	.32	77	66	33
12	28	17	35	28	47	23	13	5.0	.32	97	55	21
13	22	18	34	28	44	23	13	4.5	.25	7.4	50	17
14	19	18	34	29	41	25	12	4.0	.23	310	51	14
15	17	18	34	30	39	24	12	3.6	.20	212	49	12
16	173	18	34	29	36	21	12	3.3	.20	240	56	9.2
17	1130	19	34	29	35	20	12	3.2	.14	341	97	7.5
18	302	20	34	29	34	21	11	3.0	.10	505	2060	7.3
19	125	19	34	28	33	22	11	2.9	.10	176	314	7.0
20	76	18	34	27	32	21	11	2.8	.10	154	84	6.6
21	55	18	35	27	31	22	11	2.6	.00	91	48	6.5
22	43	17	35	26	32	22	10	2.1	.00	62	57	6.4
23	38	18	34	25	31	22	10	1.7	.10	54	66	9.6
24	35	19	35	25	32	22	11	1.7	.00	46	52	7.9
25	34	23	35	26	30	21	11	1.6	.00	31	48	5.6
26	33	53	35	25	31	19	11	1.2	.00	20	210	5.5
27	31	37	35	25	30	19	10	1.0	.00	11	145	5.3
28	28	46	35	25	31	18	10	.77	.00	9.5	173	4.9
29	27	43	34	25	---	18	9.9	.82	.00	6.8	670	4.6
30	25	42	33	24	---	17	10	2.0	.00	5.6	1410	4.5
31	28	---	33	25	---	18	---	2.5	---	4.7	430	---
TOTAL	2678.5	734	1094	868	929	702	390.9	130.19	20.63	2461.08	6753.0	929.4
MEAN	86.4	24.5	35.3	28.0	33.2	22.6	13.0	4.20	.69	79.4	218	31.0
MAX	1130	53	41	33	47	30	18	9.6	3.2	505	2060	247
MIN	7.8	17	33	24	27	17	9.9	.77	.00	.00	9.0	4.5
AC-FT	5310	1460	2170	1720	1840	1390	775	258	41	4880	13390	1840
CAL YR	1985	TOTAL	21810.47	MEAN	59.8	MAX	2050	MIN	.00	AC-FT	43260	
WTR YR	1986	TOTAL	17690.70	MEAN	48.5	MAX	2060	MIN	.00	AC-FT	35090	

09472000 SAN PEDRO RIVER NEAR REDINGTON, AZ

LOCATION.--Lat 32°22'50", long 110°26'45", in NE¼NW¼ sec.19, T.12 S., R.19 E., Cochise County, Hydrologic Unit 15050203, on left bank, 0.3 mi upstream from Cochise-Pima County line, 4.3 mi southeast of Redington, and 30 mi north of Benson.

DRAINAGE AREA.--2,939 mi², of which 696 mi² is in Mexico.

PERIOD OF RECORD.--June 1943 to June 1947, July 1950 to current year (monthly discharge only, July 1954 to March 1955). Also extremes for water years 1948-50, published in WSP 1179.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder, and, since Aug. 26, 1981, crest-stage gage. Datum of gage is 2,930.04 ft above National Geodetic Vertical Datum of 1929. June 1943 to June 1947, and Oct. 1, 1962, to June 27, 1963, at present site at datum 7.49 ft higher. July 1950 to Sept. 30, 1962, at site 400 ft upstream at datum 10.47 ft higher. Supplementary water-stage recorder 50 ft upstream at same datum since June 29, 1977.

REMARKS.--Estimated daily discharges: Nov. 12-24. Records fair except those below 25 ft³/s, which are poor. Diversions above station for irrigation of about 10,800 acres in 1978, excluding an unknown amount in Mexico. Diversion above gage into formerly used ditch on right bank was placed in operation in January 1972; diversion was observed Jan. 23, Apr. 8, and June 30.

AVERAGE DISCHARGE.--39 years (water years 1944-46, 1951-86), 48.1 ft³/s, 34,850 acre-ft/yr; median of yearly mean discharges, 31 ft³/s, 22,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 28,600 ft³/s Aug. 2, 1951, gage height, 20.2 ft, present site and datum, from rating curve extended above 16,000 ft³/s on basis of slope-area measurement of peak flow, maximum gage height 21.60 ft, Oct. 2, 1983; no flow at times in most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1906, about 90,000 ft³/s Sept. 28, 1926, gage height, 29.0 ft, present site and datum, from floodmark, computed on basis of peak discharge of same flood for station at Charleston and for Gila River at Kelvin.

EXTREMES FOR CURRENT YEAR.--Peak discharge greater than base discharge of 3,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 18	1100	*2,140	*12.4

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	28	24	7.3	29	24	26	.00	.00	.00	50	123
2	38	26	21	7.3	34	24	25	.00	.00	.00	51	78
3	34	24	20	7.3	37	24	24	.00	.00	.00	51	48
4	34	23	19	7.3	39	25	24	.00	.00	3.0	51	47
5	30	21	17	7.3	40	13	24	.00	.00	6.1	49	45
6	28	19	11	7.3	39	.00	24	.00	.00	3.1	52	46
7	27	18	.00	7.3	37	.00	23	.00	.00	3.1	51	42
8	30	18	.00	7.3	34	.00	13	.00	.00	2.5	96	38
9	28	18	.00	7.3	35	.00	.00	.00	.00	2.5	84	37
10	35	17	.00	7.3	35	.00	.00	.00	.00	2.5	59	33
11	45	17	.00	7.3	34	1.4	.00	.00	.00	2.5	63	30
12	38	17	.00	7.3	35	.00	.00	.00	.00	2.5	69	26
13	37	16	.00	7.3	35	.00	.00	.00	.00	24	62	25
14	36	16	.00	7.8	38	7.8	.00	.00	.00	22	147	23
15	36	16	.00	7.8	36	15	.00	.00	.00	95	63	18
16	66	16	.00	7.8	35	.02	.00	.00	.00	166	36	14
17	245	15	.00	7.6	33	41	.00	.00	.00	110	226	9.3
18	328	15	.00	7.4	33	130	.00	.00	.00	138	1140	7.5
19	113	15	.00	7.5	32	91	.00	.00	.00	144	560	6.8
20	69	15	.00	7.5	31	49	.00	.00	.00	95	154	6.5
21	55	14	.00	7.5	29	35	.00	.00	.00	84	83	6.3
22	50	14	.00	3.5	28	32	.00	.00	.00	84	56	6.4
23	46	14	.00	.00	28	30	.00	.00	.00	79	41	7.6
24	43	13	.00	.00	28	30	.00	.00	.00	67	36	17
25	41	13	.00	.00	27	30	.00	.00	.00	58	28	10
26	40	13	4.0	.00	26	29	.00	.00	.00	55	51	8.5
27	39	12	7.4	.00	26	29	.00	.00	.00	53	143	8.0
28	37	16	7.3	.00	26	28	.00	.00	.00	53	59	7.2
29	36	22	7.3	.00	---	28	.00	.00	.00	52	249	6.8
30	33	24	7.3	.00	---	27	.00	.00	.00	51	437	6.6
31	30	---	7.3	7.3	---	26	---	.00	---	50	331	---
TOTAL	1803	525	152.60	166.60	919	769.22	183.00	.00	.00	1507.80	4628	787.5
MEAN	58.2	17.5	4.92	5.37	32.8	24.8	6.10	.00	.00	48.6	149	26.2
MAX	328	28	24	7.8	40	130	26	.00	.00	166	1140	123
MIN	27	12	.00	.00	26	.00	.00	.00	.00	.00	28	6.3
AC-FT	3580	1040	303	330	1820	1530	363	.0	.0	2990	9180	1560
CAL YR 1985	TOTAL	19388.70	MEAN	53.1	MAX	760	MIN	.00	AC-FT	38460		
WTR YR 1986	TOTAL	11441.72	MEAN	31.3	MAX	1140	MIN	.00	AC-FT	22690		

09473000 ARAVAIPA CREEK NEAR MAMMOTH, AZ

LOCATION.--Lat 32°50'37", long 110°37'09", in NW¼NW¼ sec.9, T.7 S., R.17 E., Pinal County, Hydrologic Unit 15050203, on right bank 6 mi upstream from mouth and 9 mi north of Mammoth.

DRAINAGE AREA.--541 mi².

PERIOD OF RECORD.--May 1931 to December 1942 (published as "near Feldman"), May 1966 to current year. Monthly discharge only July 1941 to December 1942, published in WSP 1313.

REVISED RECORDS.--WDR AZ-68-1: 1967. WDR AZ-82-1: 1968, 1969, 1973, 1979 (M).

GAGE.--Water-stage recorder and since March 1980, crest-stage gage. Elevation of gage is 2,345 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 1, 1981 to Oct. 1, 1983 gage at site 300 ft upstream at datum 4.19 ft higher. Prior to Oct. 1, 1981, at datum 1.00 ft higher. May 1931 to December 1942 at site 0.3 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Mar. 26 to Apr. 6 and May 22 to June 11. Records fair except for periods of estimated daily discharge, which are poor. Diversions for irrigation of several hundred acres above station.

AVERAGE DISCHARGE.--31 years, 35.8 ft³/s, 25,940 acre-ft/yr; median of yearly mean discharges, 22 ft³/s, 15,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge since at least 1931, 70,800 ft³/s Oct. 1, 1983, from slope-area measurement of peak flow, gage height, 16.76 ft, from profile past gage; minimum, 0.3 ft³/s Aug. 30, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of 20,000 ft³/s occurred Aug. 2, 1919, at site of former gaging station 6 mi downstream, operated April 1919 to September 1921, gage height, 6.3 ft, from floodmark, site and datum then in use, from rating curve extended above 5,100 ft³/s on basis of velocity-area study.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,500 ft³/s and maximum (*), from rating curve extended above 130 ft³/s on the basis of slope area measurement at gage height 16.76 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 14	1130	*1,060	*4.34

Minimum daily discharge, 16 ft³/s, July 31, Aug. 1, 9, 12, 14, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	30	70	26	55	24	45	25	22	19	16	117
2	31	29	46	26	61	24	42	26	22	19	19	34
3	30	30	34	26	28	24	38	26	22	21	28	29
4	30	30	29	26	29	24	36	25	21	24	20	24
5	29	30	34	26	41	24	34	23	21	26	18	22
6	28	30	28	27	34	24	32	25	20	25	17	21
7	29	30	29	28	51	24	30	26	20	22	18	21
8	28	31	25	26	50	24	29	28	20	24	19	21
9	30	30	25	29	265	24	28	26	19	29	16	22
10	35	29	26	28	176	23	28	26	19	19	18	24
11	52	30	26	28	69	90	28	26	19	19	17	21
12	33	35	28	27	51	164	28	26	19	18	16	21
13	33	33	28	26	40	344	28	25	19	18	19	20
14	30	29	28	26	31	529	27	27	19	18	16	20
15	29	29	27	26	31	329	27	27	19	20	48	20
16	31	28	38	26	135	166	26	27	19	25	22	21
17	41	29	43	28	104	523	26	27	19	25	19	20
18	33	29	27	30	63	589	26	27	19	24	26	20
19	31	28	27	23	41	369	27	27	19	21	20	19
20	30	28	26	23	38	225	26	27	19	20	18	20
21	29	28	26	23	34	152	27	27	19	25	16	19
22	28	28	26	23	32	106	26	26	18	26	17	20
23	29	28	25	23	32	97	26	26	18	166	18	22
24	31	28	26	29	28	90	26	26	19	41	18	177
25	31	46	26	25	26	84	26	25	21	27	22	38
26	30	236	26	25	24	80	26	25	20	23	25	27
27	30	98	25	26	24	70	25	24	18	20	33	24
28	30	47	26	25	24	63	26	24	19	20	48	23
29	30	39	26	23	---	58	25	24	19	18	36	22
30	30	144	26	23	---	53	27	23	19	17	88	22
31	29	---	26	23	---	48	---	23	---	16	32	---
TOTAL	983	1319	928	799	1617	4468	871	795	586	835	763	931
MEAN	31.7	44.0	29.9	25.8	57.7	144	29.0	25.6	19.5	26.9	24.6	31.0
MAX	52	236	70	30	265	589	45	28	22	166	88	177
MIN	28	28	25	23	24	23	25	23	18	16	16	19
AC-FT	1950	2620	1840	1580	3210	8860	1730	1580	1160	1660	1510	1850
CAL YR	1985	TOTAL	16613	MEAN	45.5	MAX	309	MIN	21	AC-FT	32950	
WTR YR	1986	TOTAL	14895	MEAN	40.8	MAX	589	MIN	16	AC-FT	29540	

09473100 SAN PEDRO RIVER BELOW ARAVAIPA CREEK NEAR MAMMOTH, AZ

WATER-QUALITY RECORDS

LOCATION.--Lat 32°51'03", long 110°43'27", in SE¼NE¼SE¼ sec.5, T.7 S., R.16 E., Pinal County, Hydrologic Unit 15050203, at former gaging station, 1.0 mi downstream from mouth of Aravaipa Creek, 10 mi north of Mammoth, and 11 mi upstream from mouth.

DRAINAGE AREA.--4,360 mi²; of which 696 mi² is in Mexico.

PERIOD OF RECORD.--

CHEMICAL QUALITY DATA: October 1980 to September 1986 (discontinued).

SUSPENDED SEDIMENT DATA: October 1980 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(31625)	(31673)	
DEC 1985													
19...	1445	25	1210	7.80	--	19.5	40	708	8.0	95	--	--	
FEB 1986													
10...	1435	149	568	8.30	--	15.5	680	705	9.0	98	820	1700	
MAR													
20...	1145	361	500	8.50	--	16.0	79	712	8.2	89	K1000	K600	
AUG													
06...	1110	12	1140	8.20	35.0	25.5	55	702	7.3	97	K1900	6700	
DATE		HARD- NESS (MG/L AS CACO3) (00900)	NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
DEC 1985													
19...	340	130	100	21	140	3	5.5	256	0	208	370	50	
FEB 1986													
10...	190	59	55	12	50	2	3.1	156	0	128	130	16	
MAR													
20...	160	41	46	10	37	1	2.9	142	0	114	99	12	
AUG													
06...	320	100	100	18	130	3	4.8	269	0	220	340	43	
DATE		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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	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) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
DEC 1985													
19...	1.0	37	858	860	1.2	0.510	0.010	0.520	0.060	0.070	0.24	0.30	
FEB 1986													
10...	0.80	29	378	370	0.51	--	<0.010	0.500	0.040	0.050	1.7	1.7	
MAR													
20...	0.70	30	322	310	0.44	--	<0.010	0.370	<0.010	<0.010	--	0.90	
AUG													
06...	2.3	37	838	810	1.1	0.440	0.010	0.450	0.150	0.020	0.25	0.40	
DATE		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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)
DEC 1985													
19...	0.060	0.020	0.030	0.09	240	4	60	<0.5	<1	<1	<3	100	
FEB 1986													
10...	0.510	0.050	0.050	0.15	30	3	29	<0.5	<1	<1	<3	9	
MAR													
20...	0.130	0.060	0.050	0.15	50	<1	29	<0.5	<1	<1	<3	9	
AUG													
06...	0.140	0.030	0.020	0.06	--	--	--	--	--	--	--	--	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09473100 SAN PEDRO RIVER BELOW ARAVAIPA CREEK NEAR MAMMOTH, AZ--Continued

WATER QUALITY DATA

DATE	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)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	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)
DEC 1985 19...	4100	<1	160	140	<0.1	30	5	1	<1	1400	7	39
FEB 1986 10...	23	2	45	8	<0.1	<10	<1	1	<1	610	<6	7
MAR 20...	30	<1	37	10	<0.1	10	1	<1	1	480	<6	10
AUG 06...	--	--	--	--	--	--	--	--	--	--	--	--

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985 26...	1415	214	--	2220	1280
DEC 19...	1445	25	22	405	27
JAN 1986 22...	1145	27	12	66	4.9
FEB 10...	1435	149	43	1760	708
MAR 10...	1020	28	23	254	19
20...	1145	361	72	6700	6530
APR 07...	1130	31	34	103	8.5
MAY 02...	0945	21	19	77	4.3
JUN 26...	0930	11	10	64	2.0
JUL 15...	0830	9.5	53	117	3.0
AUG 06...	1110	12	23	616	20
SEP 12...	1130	16	9	450	19

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE WATER (DEG C) (00010)	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
MAR 1986 20...	1145	361	16.0	0	14	36	46	59	75	87	96	100

< Actual value is known to be less than value shown.

09474000 GILA RIVER AT KELVIN, AZ

LOCATION.--Lat 33°06'10", long 110°58'33", in NE¼NW¼ sec.12, T.4 S., R.13 E., Pinal County, Hydrologic Unit 15050100, on left bank at Kelvin, 500 ft downstream from Mineral Creek, 18 mi downstream from San Pedro River, and 19 mi upstream from Ashurst-Hayden Dam.

DRAINAGE AREA.--18,011 mi², of which 5,125 mi² is below Coolidge Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1911 to current year.

REVISED RECORDS.--WSP 329: 1911. WSP 609: 1916(M). WSP 629: 1914-17. WSP 1119: 1913, 1915, 1917(M), 1921(M), 1922-23, 1927(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,745.02 ft above National Geodetic Vertical Datum of 1929. Prior to June 15, 1914, and Dec. 1, 1914, to Aug. 31, 1915, nonrecording gages at several sites within 2 mi of present site at different datums. Sept. 1, 1915, to Sept. 30, 1963, water-stage recorder at site 900 ft downstream at datum 1.80 ft lower. Since Jan. 16, 1985, supplementary water-stage recorder at same site.

REMARKS.--Estimated daily discharges: Oct. 5-17 and Oct. 23 to Nov. 4. Records good except for periods of estimated daily record, which are poor. Large diversions above station for irrigation, of which about 90 percent is above Coolidge Dam. About 82,000 acres irrigated, a considerable portion by pumping from ground water. Flow regulated by San Carlos Reservoir 49 mi upstream since Nov. 15, 1928. (See sta 09469000.) San Pedro River contributes major portion of unregulated inflow.

AVERAGE DISCHARGE (adjusted for storage in San Carlos Reservoir).--75 years, 505 ft³/s, 365,900 acre-ft/yr; median of yearly mean discharges, 340 ft³/s, 246,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1911-28: Maximum discharge, about 132,000 ft³/s Jan. 20, 1916, gage height, 19.5 ft, site and datum then in use, from rating curve extended above slope-area measurement at gage height, 16.2 ft for flood of Sept. 28, 1926; no flow Feb. 25, 1913.

1929-86: Maximum discharge, 100,000 ft³/s Oct. 2, 1983, gage height, 33.0 ft from floodmark, from rating curve extended above 12,000 ft³/s and discharge computed at Hayden Railroad Bridge; minimum daily, 0.1 ft³/s June 25, 1961.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 14	2200	4,040	9.58
Mar. 18	0415	*4,270	*9.83

Minimum daily discharge, 57 ft³/s, Nov. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	58	340	188	199	501	813	630	901	1260	1100	1490
2	192	58	266	163	216	599	804	622	889	1270	1100	1150
3	166	58	251	159	189	641	793	625	888	1280	1110	973
4	145	58	245	153	171	668	769	663	883	1330	1120	841
5	120	58	232	152	152	783	743	685	859	1260	1130	757
6	100	57	196	152	131	786	750	741	851	1250	1130	687
7	90	57	169	150	129	785	764	770	858	1250	1120	667
8	80	58	160	148	131	886	683	776	854	1260	1170	652
9	75	58	154	149	159	939	726	781	856	1260	1180	656
10	70	58	151	151	438	982	691	731	884	1250	1260	642
11	80	58	152	148	266	1240	682	725	955	1220	1230	612
12	90	65	161	148	185	1380	651	714	975	1210	1220	604
13	85	70	153	146	152	1750	630	667	1010	1210	1220	543
14	75	68	145	154	138	2040	625	641	1050	1200	1230	522
15	75	63	142	170	141	2150	625	636	1080	1210	1270	495
16	75	63	138	188	155	1340	620	653	1090	1240	1270	488
17	130	63	134	189	394	2080	631	693	1100	1290	1250	486
18	303	63	113	180	265	3330	602	692	1110	1280	1380	450
19	360	62	105	152	203	2040	608	718	1150	1300	2340	415
20	216	62	105	150	179	1430	615	730	1150	1300	1650	402
21	163	64	101	149	163	1070	630	728	1150	1300	1350	367
22	130	63	97	145	150	933	626	724	1150	1320	1280	356
23	110	63	97	151	186	834	623	776	1150	1290	1210	329
24	100	82	96	170	233	796	641	785	1190	1220	1190	360
25	85	180	104	161	273	770	648	798	1190	1160	1180	351
26	75	389	143	161	328	786	636	799	1190	1140	1190	317
27	70	346	155	160	371	870	637	843	1220	1130	1260	313
28	65	252	174	161	467	862	644	847	1230	1120	1170	307
29	60	231	194	162	---	855	649	843	1230	1120	1180	283
30	60	271	206	164	---	849	636	864	1250	1110	2080	256
31	60	---	210	171	---	846	---	896	---	1100	1620	---
TOTAL	3781	3156	5089	4945	6164	35821	20195	22796	31346	38140	40190	16771
MEAN	122	105	164	160	220	1156	673	735	1045	1230	1296	559
MAX	360	389	340	189	467	3330	813	896	1250	1330	2340	1490
MIN	60	57	96	145	129	501	602	622	851	1100	1100	256
AC-FT	7500	6260	10090	9810	12230	71050	40060	45220	62170	75650	79720	33270
CAL YR 1985	TOTAL	446911	MEAN	1224	MAX	4430	MIN	57	AC-FT	886400		
WTR YR 1986	TOTAL	228394	MEAN	626	MAX	3330	MIN	57	AC-FT	453000		

GILA RIVER BASIN

09474000 GILA RIVER AT KELVIN, AZ--Continued

WATER-QUALITY RECORDS

LOCATION.--Water samples collected at Florence-Kelvin road bridge 200 ft upstream from Mineral Creek, and 700 ft upstream from gaging station.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1976.

WATER TEMPERATURES: December 1950 to September 1976.

SUSPENDED-SEDIMENT DISCHARGE: January 1958 to September 1976, daily; October 1976 to current year monthly.

REMARKS.--No inflow from Mineral Creek between sampling point and gaging station except during infrequent periods of heavy local rains. Unpublished daily specific conductance measurements for period December 1950 to September 1964 available from district office in Tucson, Ariz.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE WATER (DEG C) (00010)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985					
05...	1445	58	18.0	448	70
DEC					
05...	1440	239	14.0	183	118
JAN 1986					
03...	1230	159	15.0	102	44
FEB					
04...	1300	170	13.0	380	174
MAR					
03...	1210	638	14.5	608	1050
19...	1000	1940	12.0	5460	28600
APR					
01...	1000	812	14.0	357	783
MAY					
01...	1642	629	18.0	127	216
JUN					
05...	1140	865	21.0	1090	2550
JUL					
01...	1100	1280	19.0	351	1210
AUG					
07...	1410	1110	20.5	713	2140
SEP					
02...	1110	1160	22.0	3560	11100

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
MAR 1986								
19...	88	31	44	69	88	92	97	100

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL

DATE	BED MAT. SIEVE DIAM. % FINER THAN .062 MM (80164)	BED MAT. SIEVE DIAM. % FINER THAN .125 MM (80165)	BED MAT. SIEVE DIAM. % FINER THAN .250 MM (80166)	BED MAT. SIEVE DIAM. % FINER THAN .500 MM (80167)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM (80174)
MAR 1986											
19...	0	3	13	27	50	69	83	93	100	100	100

GILA RIVER BASIN

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DIVERSION FROM GILA RIVER

09475500 FLORENCE-CASA GRANDE CANAL, NEAR FLORENCE, AZ

LOCATION.--Lat 33°05'15", long 111°17'10", in NE¼NE¼ sec.14, T.4 S., R.10 E., Pinal County, Hydrologic Unit 15050100, on left bank at China Wash, 2.6 mi downstream from head of Ashurst-Hayden Dam and 7.5 mi northeast of Florence.

PERIOD OF RECORD.--January 1928 to current year (monthly diversions only). Published as a supplement to records for Gila River at Ashurst-Hayden Dam, 1928-80.

GAGE.--Water-stage recorder and Parshall flume. Prior to Jan. 12, 1937, water-stage recorder 900 ft downstream from Ashurst-Hayden Dam.

REMARKS.--Records show monthly diversion from the Gila River at Ashurst-Hayden Dam for irrigation of land under the 100,000 acre San Carlos Project. Diversion records are those at the canal gaging station at the flume 2.6 mi downstream from dam; values are adjusted for sluicing through the dam or from the canal and pumping of water into the canal between the dam and the flume, but are not adjusted for natural losses. Adjusted values show water available at Ashurst-Hayden Dam, except for spill over the dam or water sluiced through the dam during times of flood runoff.

COOPERATION.--Pumping records furnished by Bureau of Indian Affairs.

MONTHLY DIVERSIONS, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Discharge, in cubic feet per second			Diversions in acre-feet	Water sluiced above flume (acre-feet)
	Maximum	Minimum	Mean		
October.....	341	0	62.6	3,840	0
November.....	390	0	47.8	2,850	0
December.....	327	87	163	10,000	0
CAL YR 1985.....	1,360	0	636	460,760	2,400
January.....	209	139	157	9,660	0
February.....	383	134	205	11,410	0
March.....	1,280	441	892	54,820	198
April.....	799	573	634	37,710	0
May.....	863	584	681	41,890	0
June.....	1,170	830	1,000	59,510	135
July.....	1,270	1,120	1,190	73,350	169
August.....	1,390	1,000	1,200	73,790	1,580
September.....	1,140	260	535	31,850	50
WTR YR 1986.....	1,390	0	657	410,680	2,130

GILA RIVER BASIN

09479500 GILA RIVER NEAR LAVERN, AZ

LOCATION.--Lat 33°15'25", long 112°09'59", in SW¼NW¼ sec.16, T.2 S., R.2 E., Pinal County, Hydrologic Unit 15050100, in Gila River Indian Reservation, on left abutment of highway bridge, 2.1 mi upstream from Santa Cruz River, 2.6 mi south of Komatke, and 7.3 mi south of Laveen.

DRAINAGE AREA.--20,615 mi², of which 696 mi² is in Mexico.

PERIOD OF RECORD.--January 1940 to September 1946, December 1947 to current year.

GAGE.--Water-stage recorder above concrete diversion dam. Datum of gage is 1,018.90 ft above National Geodetic Vertical Datum of 1929. Since July 9, 1969, supplementary water-stage recorder on overflow channel at highway bridge 0.2 mi south at same datum. Oct. 16, 1940, to July 8, 1969, supplementary staff gage or water-stage recorder on overflow channel at datum 0.23 ft lower.

REMARKS.--No estimated daily discharges. Records fair. Records include flow over dam and in overflow channel. Large diversions above station for irrigation. Most low flow is waste water from irrigated lands and from Chandler, Arizona treatment plant (1979-83). Flow partly regulated by storage in San Carlos Reservoir. (See else where in this report.)

AVERAGE DISCHARGE.--44 years (water years 1941-46, 1949-86), 36.0 ft³/s, 26,080 acre-ft/yr; median of yearly mean discharges, 12 ft³/s, 8,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,000 ft³/s Oct. 4, 1983, gage height, 12.08 ft main gage, 12.34 ft overflow gage, result of flow routing computation; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10 ft³/s, Dec. 12 and Feb. 10, gage height, 3.93 ft main gage and no flow passed the overflow gage for the entire year; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	2.5	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	2.6	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	2.1	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.86	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.47	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	8.1	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.11	.00	.67	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	5.1	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.37	1.3	1.9	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.37	.21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	2.2	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	2.9	1.7	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	2.2	.73	.00	.00	2.2	.00	.00	.00	.00	.00	.00
18	.00	.64	.91	.00	.00	.51	.00	.00	.00	.00	.00	.00
19	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	1.6	.00	.00	.00	.00	.00	.00	.00	1.6	.00	.00
22	.00	.98	1.6	.00	.00	.00	.00	.00	.00	.06	.00	.00
23	.00	.00	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.59	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.10	.51	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.90	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.62	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	1.8	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	2.1	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.74	13.65	18.24	8.06	9.24	2.71	.00	.00	.00	1.66	.00	.00
MEAN	.024	.45	.59	.26	.33	.087	.00	.00	.00	.054	.00	.00
MAX	.37	2.9	5.1	2.6	8.1	2.2	.00	.00	.00	1.6	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1.5	27	36	16	18	5.4	.0	.0	.0	3.3	.0	.0
CAL YR 1985	TOTAL	96646.50	MEAN	265	MAX	1950	MIN	.00	AC-FT	191700		
WTR YR 1986	TOTAL	54.30	MEAN	.15	MAX	8.1	MIN	.00	AC-FT	108		

09480000 SANTA CRUZ RIVER NEAR LOCHIEL, AZ

LOCATION.--Lat 31°21'19", long 110°35'20", in SW¼ sec.11, T.24 S., R.17 E. (unsurveyed), Santa Cruz County, Hydrologic Unit 15050301, on southern border of Spanish land grant of San Rafael, near left bank on downstream side of pier of bridge on county road, 1.7 mi upstream from international boundary and 2.5 mi northeast of Lochiel.

DRAINAGE AREA.--82.2 mi².

PERIOD OF RECORD.--January 1949 to current year.

REVISED RECORDS.--WSP 1733: 1951.

GAGE.--Water-stage recorder. Elevation of gage is 4,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Sept. 4-23, 25-29. Records fair except for periods of estimated daily discharge, which are poor. Small diversions for irrigation of 200 acres above station, mostly by pumping from ground water.

AVERAGE DISCHARGE.--37 years, 4.17 ft³/s, 3,020 acre-ft/yr; median of yearly mean discharges, 2.3 ft³/s, 1,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s Oct. 9, 1977 and Aug. 15, 1984, gage height, 10.21 ft and 10.2 ft, from rating curve extended above 1,600 ft³/s on basis of slope-area measurement at gage height 10.21 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 29	1945	*4,210	*8.35

Minimum daily discharge, 0.28 ft³/s, June 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	1.2	1.7	1.5	3.5	1.3	.84	.91	.67	.83	7.5	15
2	1.5	1.2	1.6	1.5	1.7	1.2	.79	.91	.69	.55	1.1	14
3	1.3	1.2	1.6	1.5	1.4	1.2	.73	.87	.67	.50	.72	13
4	1.3	1.2	1.5	1.5	1.5	1.2	.77	.83	.70	.51	.64	12
5	1.3	1.2	1.5	1.5	1.6	1.2	.78	.80	.68	.46	.66	11
6	1.2	1.2	1.5	1.5	1.3	1.2	.76	.76	.67	.43	.66	9.0
7	1.2	1.2	1.6	1.5	1.3	1.2	.70	.72	.67	.43	.68	8.0
8	1.4	1.2	1.6	1.5	1.5	1.2	.66	.71	.64	.69	.88	7.0
9	1.4	1.2	1.6	1.6	7.5	1.2	.66	.74	.63	.50	.73	6.0
10	1.3	1.3	1.5	1.6	2.0	1.2	.65	.77	.63	.45	.75	5.0
11	1.4	1.3	1.6	1.6	1.5	1.2	.66	.76	.62	.44	36	4.0
12	1.3	1.3	1.7	1.6	1.5	1.2	.69	.71	.61	.46	21	4.0
13	1.3	1.4	1.6	1.6	1.4	1.2	.66	.67	.60	.44	1.1	3.0
14	1.3	1.3	1.5	1.6	1.4	1.2	.62	.68	.61	3.2	.95	3.0
15	1.2	1.3	1.5	1.6	1.4	1.2	.62	.65	.50	1.6	.84	2.0
16	3.5	1.3	1.5	1.6	1.4	1.2	.63	.64	.44	1.7	6.1	2.0
17	2.8	1.4	1.5	1.6	1.4	1.3	.62	.63	.42	1.0	13	2.0
18	1.7	1.5	1.5	1.6	1.3	1.2	.63	.65	.39	.76	11	2.0
19	1.5	1.5	1.5	1.6	1.3	1.2	.63	.60	.34	.69	.95	2.0
20	1.4	1.5	1.5	1.6	1.3	1.2	.64	.58	.29	.66	.81	2.0
21	1.4	1.5	1.5	1.6	1.3	1.1	.65	.56	.28	.67	.80	2.0
22	1.3	1.5	1.5	1.6	1.3	1.2	.68	.53	.29	.68	.72	2.0
23	1.3	1.5	1.5	1.6	1.3	1.1	.77	.54	.31	.66	.74	2.0
24	1.2	1.6	1.5	1.4	1.3	1.1	.78	.56	.41	.61	.82	8.0
25	1.2	1.7	1.5	1.3	1.3	1.1	.72	.55	.45	.60	.83	5.0
26	1.2	2.9	1.5	1.3	1.3	1.1	.67	.58	.46	.59	14	4.0
27	1.2	1.8	1.5	1.3	1.3	1.1	.62	.57	.47	.59	6.0	4.0
28	1.2	1.7	1.5	1.3	1.3	1.0	.61	.55	.53	.61	1.4	4.0
29	1.2	1.6	1.5	1.3	---	.95	1.4	.64	.57	.59	560	4.0
30	1.2	1.9	1.5	1.3	---	.90	.92	.75	.68	.61	55	4.1
31	1.2	---	1.5	9.7	---	.86	---	.71	---	.60	17	---
TOTAL	44.4	43.6	47.6	54.9	47.6	35.71	21.56	21.13	15.92	23.11	763.38	165.1
MEAN	1.43	1.45	1.54	1.77	1.70	1.15	.72	.68	.53	.75	24.6	5.50
MAX	3.5	2.9	1.7	9.7	7.5	1.3	1.4	.91	.70	3.2	560	15
MIN	1.2	1.2	1.5	1.3	1.3	.86	.61	.53	.28	.43	.64	2.0
AC-FT	88	86	94	109	94	71	43	42	32	46	1510	327

CAL YR	1985	TOTAL	2419.00	MEAN	6.63	MAX	96	MIN	1.1	AC-FT	4800
WTR YR	1986	TOTAL	1284.01	MEAN	3.52	MAX	560	MIN	.28	AC-FT	2550

09480500 SANTA CRUZ RIVER NEAR NOGALES, AZ

LOCATION.--Lat 31°20'40", long 110°51'03", in NW¼ sec.18, T.24 S., R.15 E. (unsurveyed), Santa Cruz County, Hydrologic Unit 15050301, in Spanish land grant of Maria Santisima del Carmen, on left bank 0.8 mi downstream from international boundary and 5.5 mi east of Nogales.

DRAINAGE AREA.--533 mi², of which 348 mi² is in Mexico.

PERIOD OF RECORD.--March to November 1907 and April 1909 to December 1912 (discharge measurements and fragmentary gage-height record), January 1913 to June 1922 (October 1915 to September 1916 monthly discharge only), May 1930 to December 1933, July 1935 to current year. Water-year estimates for 1913, 1915-16, 1920-22, 1930, 1934-35, published in WSP 1733.

REVISED RECORDS.--WSP 959: 1935(M). WSP 1213: 1915-16, 1930-32(M), 1934(M), 1936-37(M). WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,702.54 ft above National Geodetic Vertical Datum of 1929 (levels by International Boundary and Water Commission). Prior to June 30, 1922, nonrecording gage or water-stage recorder at various sites 5 to 6 mi downstream at different datums.

REMARKS.--Estimated daily discharges: Sept. 6-8, 17-23, 27-29. Records poor. Diversions above station of about 4,300 acre-ft/yr for irrigation of about 2,150 acres in Mexico in 1977. Diversion 19 mi upstream for municipal supply of city of Nogales, Sonora, began in 1949; diversion in 1968 totaled 3,500 acre-ft/yr.

AVERAGE DISCHARGE.--67 years (water years 1913-22, 1930-86), 28.8 ft³/s, 20,870 acre-ft/yr; median of yearly mean discharges, 19 ft³/s, 13,800 acre-ft/yr.

EXTREMES FOR PERIOD 1930-85.--Maximum discharge, 31,000 ft³/s Oct. 9, 1977, gage height, 15.5 ft, from rating curve extended above 1,660 ft³/s on basis of slope-area measurement of peak flow; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 30	0345	*2,440	*6.85

Minimum daily discharge, 0.03 ft³/s June 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	20	72	21	19	25	14	3.6	1.4	7.5	11	69
2	12	19	49	21	22	25	14	3.1	1.4	4.5	44	47
3	10	19	35	21	23	24	13	2.8	1.3	3.4	42	43
4	11	19	32	21	23	28	13	2.5	1.4	3.2	12	40
5	9.4	18	29	20	21	30	13	2.3	1.5	2.3	7.5	38
6	8.3	16	27	20	18	29	13	2.2	1.2	1.7	6.9	32
7	7.9	15	26	19	19	28	12	2.1	1.2	1.4	6.2	28
8	11	15	24	18	21	28	12	2.2	1.1	1.7	30	25
9	10	15	24	18	159	26	12	2.2	1.3	1.6	13	48
10	13	16	23	17	85	26	12	2.2	1.4	3.3	21	37
11	12	16	24	17	54	31	11	2.0	1.4	29	24	35
12	8.3	17	27	17	48	29	11	1.8	1.4	4.2	61	32
13	6.6	17	24	17	40	28	11	1.5	1.6	2.8	32	29
14	6.6	16	23	17	32	29	10	1.5	1.7	25	21	27
15	6.5	14	23	17	29	27	8.2	1.2	1.8	327	18	25
16	13	14	23	16	27	25	7.0	1.1	2.1	367	50	24
17	97	14	22	16	26	31	6.9	.91	2.7	404	42	23
18	60	14	21	16	25	51	6.9	.78	2.4	285	35	22
19	35	13	21	16	25	72	6.8	.67	1.5	97	29	21
20	30	13	21	16	25	42	7.2	.58	1.0	40	22	20
21	26	13	21	15	25	37	7.1	.46	.82	24	20	19
22	29	13	21	15	26	36	6.7	.45	.69	21	17	18
23	30	13	21	14	25	33	6.2	.61	.34	20	14	18
24	29	14	21	14	25	29	6.1	.73	.46	19	14	49
25	24	18	22	14	24	25	5.5	.70	.72	17	22	49
26	21	135	22	14	24	20	5.1	.74	.24	16	30	24
27	20	59	22	14	24	18	4.9	.80	.03	15	44	21
28	19	35	22	15	25	17	4.5	.71	.47	14	47	19
29	19	30	22	15	---	16	4.4	.68	1.7	14	170	18
30	18	33	22	16	---	16	4.2	1.4	2.3	12	824	17
31	18	---	21	16	---	15	---	1.4	---	11	109	---
TOTAL	634.6	683	807	523	939	896	268.7	45.92	38.57	1794.6	1838.6	917
MEAN	20.5	22.8	26.0	16.9	33.5	28.9	8.96	1.48	1.29	57.9	59.3	30.6
MAX	97	135	72	21	159	72	14	3.6	2.7	404	824	69
MIN	6.5	13	21	14	18	15	4.2	.45	.03	1.4	6.2	17
AC-FT	1260	1350	1600	1040	1860	1780	533	91	77	3560	3650	1820

CAL YR	1985	TOTAL	31437.6	MEAN	86.1	MAX	3050	MIN	1.1	AC-FT	62360
WTR YR	1986	TOTAL	9385.99	MEAN	25.7	MAX	824	MIN	.03	AC-FT	18620

09482000 SANTA CRUZ RIVER AT CONTINENTAL, AZ

LOCATION.--Lat 31°52'17", long 110°58'46", in SE¼SE¼ sec.11, T.18 S., R.13 E. (unsurveyed), Pima County, Hydrologic Unit 15050301, in Spanish land grant of San Ignacio de la Canoa, on right bank 0.8 mi northeast of Green Valley Post Office, and 1.5 mi north of Continental. Prior to Feb. 13, 1981, at site 1.5 mi upstream.

DRAINAGE AREA.--1,682 mi², revised, of which 395 mi² is in Mexico.

PERIOD OF RECORD.--May 1940 to December 1946, October 1951 to current year (monthly discharge only for 1985-86), discontinued. Low-flow records not equivalent prior to Feb. 13, 1981, due to undetermined amount of underflow between sites.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder and crest-stage gages. Datum of gage is 2,819.07 ft above National Geodetic Vertical Datum of 1929. Prior to Feb. 13, 1981, at site 1.5 mi upstream. July 21, 1940 to Sept. 8, 1965 at datum 17.28 ft higher; Sept. 8, 1965 to present at datum 13.21 ft higher. Old site used as supplementary gage until Oct. 29, 1985.

REMARKS.--Estimated daily discharges: Nov. 27 to Dec. 16. Records poor. Irrigation above station of about 12,500 acres including about 2,300 acres in Mexico, mostly by pumping from ground water.

AVERAGE DISCHARGE.--41 years, 26.8 ft³/s, 19,420 acre-ft/yr; median of yearly mean discharges, 9.5 ft³/s, 6,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,000 ft³/s Oct. 2, 1983, gage height, 16.34 ft from rating curve extended above 530 ft³/s on basis of float-area measurement at gage height 7.75 ft and slope-area measurement of peak flow, maximum gage height 16.70 ft Oct. 9, 1977, site and datum then in use; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 16	1715	*840	*5.27

No flow for most of year.

MONTHLY DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Total	Mean	Runoff in acre-feet
October	48.52	1.57	96
November	11.00	.37	22
December	32.00	1.03	63
CAL YR 1985	15,057.47	41.3	29,870
January	0	0	0
February	23.40	.84	46
March	0	0	0
April	0	0	0
May	0	0	0
June	0	0	0
July	77.00	2.48	153
August	120.08	3.87	238
September	0	0	0
WTR YR 1986	312.00	.85	619

GILA RIVER BASIN

09486100 CANADA DEL ORO NEAR ORACLE JUNCTION, AZ

LOCATION.--Lat 32°33'54", long 110°50'48", in NE&SE&NE& sec.13, T.10 S., R.14 E., Pinal County, Hydrologic Unit 15050301, on right bank 1.5 mi upstream from Golden Dam, 5.1 mi east of Oracle Junction and 12 mi upstream from Big Wash.

DRAINAGE AREA.--42.3 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 3,400 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 9, 1986 at site 20 ft downstream at datum 1.34 ft lower.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 2,800 ft³/s Oct. 2, 1983, gage height, 8.09 ft, from crest-stage gage; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 75 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 17	1630	112	3.40	July 21	1700	98	2.25
Apr. 6	0515	107	3.38	Aug. 27	1215	*256	*3.19

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.7	5.8	1.8	2.4	9.1	26	1.5	.00	.00	.00	5.3
2	2.1	1.6	5.0	1.6	3.8	9.3	22	1.3	.00	.00	.00	3.7
3	1.9	1.5	4.4	1.6	2.4	9.6	19	1.1	.00	.00	.00	2.7
4	1.6	1.4	3.9	1.6	3.8	8.7	16	.92	.00	.00	.00	2.0
5	1.6	1.4	3.6	1.5	4.9	8.1	14	.81	.00	.00	.00	1.3
6	1.5	1.3	3.3	1.4	3.8	7.4	14	.73	.00	.00	.00	1.1
7	1.4	1.2	3.0	1.4	6.5	6.8	12	.66	.00	.00	.00	.83
8	1.5	1.2	2.8	1.3	8.5	6.3	10	.69	.00	.00	.00	.69
9	1.7	1.2	2.6	1.3	37	5.9	9.1	.65	.00	.00	.00	.66
10	4.7	1.2	2.5	1.4	20	5.5	8.4	.56	.00	.00	.00	.64
11	9.4	1.2	2.6	1.4	13	14	7.7	.52	.00	.00	.00	.55
12	5.9	2.5	3.2	1.3	11	11	6.8	.45	.00	.00	.00	.37
13	4.8	3.2	2.7	1.3	10	9.7	6.1	.37	.00	.00	.00	.32
14	4.2	2.0	2.4	1.3	11	24	5.7	.34	.00	.00	.00	.24
15	3.8	1.6	2.4	1.3	16	24	5.3	.28	.00	1.2	.00	.18
16	4.4	1.4	2.3	1.2	45	18	4.9	.24	.00	.03	.00	.14
17	11	1.3	2.4	1.2	37	73	4.5	.19	.00	.00	.00	.08
18	9.7	1.3	2.3	1.2	26	83	4.1	.14	.00	.00	.00	.03
19	8.3	1.2	2.3	1.2	23	60	3.7	.13	.00	.00	.00	.03
20	7.5	1.2	2.2	1.2	21	48	3.6	.12	.00	.00	.00	.00
21	7.2	1.2	2.1	1.2	18	41	3.3	.10	.00	13	.00	.00
22	6.7	1.2	2.0	1.1	15	37	2.9	.09	.00	2.4	.00	.00
23	6.2	1.2	1.9	1.1	12	35	2.8	.09	.00	.35	.00	.00
24	5.8	1.2	1.9	1.1	11	35	2.5	.09	.00	.07	.00	3.4
25	3.7	2.4	1.9	1.1	9.6	38	2.3	.07	.00	.03	.07	1.2
26	2.2	35	1.9	1.1	9.1	38	2.1	.03	.00	.00	.79	.53
27	2.1	18	1.9	1.1	9.1	41	1.9	.01	.00	.00	44	.33
28	1.9	11	1.8	1.1	9.1	45	1.8	.00	.00	.00	24	.19
29	1.7	8.0	1.8	1.0	---	42	1.7	.00	.00	.00	12	.17
30	1.6	6.1	1.8	1.0	---	34	1.6	.00	.00	.00	13	.15
31	1.6	---	1.8	1.0	---	29	---	.00	---	.00	7.8	---
TOTAL	129.0	115.9	82.5	39.4	399.0	856.4	225.8	12.18	.00	17.08	101.66	26.83
MEAN	4.16	3.86	2.66	1.27	14.2	27.6	7.53	.39	.00	.55	3.28	.89
MAX	11	35	5.8	1.8	45	83	26	1.5	.00	13	44	5.3
MIN	1.3	1.2	1.8	1.0	2.4	5.5	1.6	.00	.00	.00	.00	.00
AC-FT	256	230	164	78	791	1700	448	24	.0	34	202	53

CAL YR	1985	TOTAL	3957.55	MEAN	10.8	MAX	77	MIN	.00	AC-FT	7850
WTR YR	1986	TOTAL	2005.75	MEAN	5.50	MAX	83	MIN	.00	AC-FT	3980

GILA RIVER BASIN

175

09489000 SANTA CRUZ RIVER NEAR LAVERN, AZ

LOCATION.--Lat 33°13'56", long 112°10'08", in NE¼NE¼ sec.29, T.2 S., R.2 E., Pinal County, Hydrologic Unit 15050303, in Gila River Indian Reservation, on downstream side of highway bridge, 3.4 mi upstream from mouth, 4.3 mi south of Komatke, and 9 mi south of Laveen.

DRAINAGE AREA.--8,581 mi².

PERIOD OF RECORD.--January 1940 to September 1946, December 1947 to current year.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,020.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Nov. 29 to Dec. 3, Dec. 6-11. Records poor. Many diversions above station, mostly by pumping from ground water, for municipal uses and for irrigation of about 240,000 acres, not including San Carlos Project. Much of the low flow passing this station is drainage and wasteway return from irrigated lands upstream and pumpage from ground water.

AVERAGE DISCHARGE.--44 years (water years 1941-46, 1949-86), 22.0 ft³/s, 15,940 acre-ft/yr; median of yearly mean discharges, 11 ft³/s, 8,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s Oct. 4, 1983, gage height, 19.74 ft, from flow-routing computation; no flow for most of time in recent years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 380 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 21	0430	456	11.23

No flow for most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.92	.00	.60	.00	.00	.00	.00	.00	.00	.00	.00	4.7
2	.19	.00	.50	.00	.00	.00	.00	.00	.00	.00	.00	3.0
3	.00	.00	.40	.00	.00	.00	.00	.00	.00	.00	.00	2.1
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.85
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.9
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.6
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.71
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.4
9	.00	.00	.00	.00	41	.00	.00	.00	.00	.00	.00	45
10	4.8	.00	.00	.00	11	.00	.00	.00	.00	.00	.00	47
11	1.3	.00	23	.00	13	.00	.00	.00	.00	.00	.00	3.0
12	.75	5.9	55	.00	7.0	.00	.00	.00	.00	.00	.00	1.2
13	.22	4.9	45	.00	4.6	.39	.00	.00	.00	.00	.00	.43
14	.01	1.5	13	.00	3.0	3.5	.00	.00	.00	.00	.00	.06
15	.00	.47	6.6	.00	2.6	4.0	.00	.00	.00	.00	.00	.00
16	.93	.07	7.3	.00	4.8	2.9	.00	.00	.00	.00	.00	2.4
17	1.7	.00	7.8	.00	4.1	52	.00	.00	.00	.00	.00	3.8
18	8.6	.00	5.6	.00	2.0	7.6	.00	.00	.00	.00	.00	2.2
19	2.4	.00	2.4	.00	1.5	2.4	.00	.00	.00	.00	.00	1.7
20	.68	.00	1.4	.00	.99	1.5	.00	.00	.00	15	.00	1.1
21	.14	.00	1.1	.47	.79	.92	.00	.00	.00	201	.00	.36
22	.00	.00	.93	1.5	.65	.69	.00	.00	.00	67	.00	.03
23	.00	.00	.80	.89	.51	.47	.00	.00	.00	14	.00	.00
24	.00	.00	.65	.63	.43	.36	.00	.00	.00	4.4	.00	.00
25	.00	.03	.51	.47	.34	.26	.00	.00	.00	1.9	.00	1.1
26	.00	38	.42	.38	.24	.17	.00	.00	.00	.61	20	2.7
27	.00	1.2	.35	.23	.11	.07	.00	.00	.00	.07	17	1.3
28	.00	2.1	.25	.07	.01	.00	.00	.00	.00	.00	7.9	.70
29	.00	1.3	.16	.00	---	.00	.00	.00	.00	.00	4.7	.38
30	.00	.70	.08	.00	---	.00	.00	.00	.00	.00	19	.25
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.70	---
TOTAL	22.64	56.17	173.85	4.64	98.67	77.23	.00	.00	.00	303.98	69.30	133.97
MEAN	.73	1.87	5.61	.15	3.52	2.49	.00	.00	.00	9.81	2.24	4.47
MAX	8.6	38	55	1.5	41	52	.00	.00	.00	201	20	47
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	45	111	345	9.2	196	153	.0	.0	.0	603	137	266

CAL YR	1985	TOTAL	4355.66	MEAN	11.9	MAX	972	MIN	.00	AC-FT	8640
WTR YR	1986	TOTAL	940.45	MEAN	2.58	MAX	201	MIN	.00	AC-FT	1870

GILA RIVER BASIN

09489082 NORTH FORK THOMAS CREEK NEAR ALPINE, AZ

LOCATION.--Lat 33°40'31", long 109°16'13", in NW¼SW¼ sec.20, T.4 N., R.30 E., Greenlee County, Hydrologic Unit 15060101, on left bank, in Apache Sitgreaves National Forest, 3.0 mi upstream from confluence with Beaver Creek and 14 mi southwest of Alpine, Arizona.

DRAINAGE AREA.--0.73 mi².

PERIOD OF RECORD.--October 1985 to September 1986.

GAGE.--Water stage recorder and V-notch weir. Elevation of gage is 8,380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 24 to Mar. 3, 17, 18, 26. Records good except for periods of estimated daily record, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 0.64 ft³/s Apr. 2, 1986, gage height, 0.45 ft; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.64 ft³/s Apr. 2, gage height, 0.45 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.02	.00	.00	.00	.13	.51	.07	.01	.00	.01	.00
2	.02	.01	.00	.00	.00	.14	.58	.06	.01	.00	.01	.00
3	.02	.01	.00	.00	.00	.15	.57	.05	.00	.00	.01	.00
4	.02	.01	.00	.00	.00	.16	.48	.05	.00	.00	.00	.00
5	.02	.01	.00	.00	.00	.16	.42	.04	.00	.00	.00	.00
6	.02	.01	.00	.00	.00	.16	.38	.04	.00	.00	.00	.00
7	.03	.01	.00	.00	.00	.16	.38	.04	.00	.00	.00	.00
8	.02	.01	.00	.00	.00	.15	.41	.03	.00	.00	.00	.00
9	.02	.01	.00	.00	.00	.15	.42	.03	.00	.00	.00	.00
10	.02	.01	.00	.00	.00	.15	.38	.03	.00	.00	.00	.00
11	.02	.01	.00	.00	.00	.14	.34	.02	.00	.00	.00	.00
12	.02	.01	.00	.00	.00	.13	.31	.02	.00	.00	.00	.00
13	.02	.00	.00	.00	.00	.13	.28	.02	.00	.00	.00	.00
14	.01	.00	.00	.00	.01	.12	.25	.02	.00	.00	.00	.00
15	.01	.00	.00	.00	.03	.12	.22	.02	.00	.00	.00	.00
16	.02	.00	.00	.00	.05	.12	.22	.02	.00	.00	.00	.00
17	.03	.00	.00	.00	.06	.11	.21	.01	.00	.00	.00	.00
18	.03	.00	.00	.00	.09	.10	.20	.01	.00	.00	.00	.00
19	.03	.00	.00	.00	.13	.10	.18	.01	.00	.00	.00	.00
20	.03	.00	.00	.00	.12	.10	.17	.01	.00	.00	.00	.00
21	.03	.00	.00	.00	.13	.11	.15	.01	.00	.00	.00	.00
22	.03	.00	.00	.00	.12	.13	.15	.01	.00	.00	.00	.00
23	.03	.00	.00	.00	.12	.16	.14	.01	.00	.00	.00	.00
24	.04	.00	.00	.00	.12	.21	.13	.01	.00	.00	.00	.00
25	.04	.00	.00	.00	.12	.28	.12	.01	.00	.00	.00	.00
26	.03	.00	.00	.00	.12	.32	.11	.01	.00	.00	.00	.00
27	.03	.00	.00	.00	.13	.37	.10	.01	.00	.00	.00	.00
28	.03	.00	.00	.00	.13	.40	.09	.01	.00	.00	.00	.01
29	.03	.00	.00	.00	---	.44	.08	.01	.00	.00	.00	.01
30	.02	.00	.00	.00	---	.47	.07	.01	.00	.00	.00	.01
31	.02	---	.00	.00	---	.47	---	.01	---	.00	.00	---
TOTAL	.76	.13	.00	.00	1.48	6.04	8.05	.71	.02	.00	.03	.03
MEAN	.025	.004	.00	.00	.053	.19	.27	.023	.001	.00	.001	.001
MAX	.04	.02	.00	.00	.13	.47	.58	.07	.01	.00	.01	.01
MIN	.01	.00	.00	.00	.00	.10	.07	.01	.00	.00	.00	.00
AC-FT	1.5	.3	.0	.0	2.9	12	16	1.4	.04	.0	.06	.06

WTR YR 1986 TOTAL 17.25 MEAN .047 MAX .58 MIN .00 AC-FT 34

09489500 BLACK RIVER BELOW PUMPING PLANT, NEAR POINT OF PINES, AZ

LOCATION.--Lat 33°28'36", long 109°45'48", in W sec.32, T.2 N., R.25 E. (unsurveyed), Graham County, Hydrologic Unit 15060101, in San Carlos Indian Reservation on left bank 0.9 mi downstream from Phelps Dodge Corp. pumping plant, 1.3 mi downstream from Freezeout Creek, 8 mi northwest of Point of Pines, and 63 mi upstream from confluence with White River.

DRAINAGE AREA.--560 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 5,725 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 24-28, Mar. 16-20, 25, 26. Records good. Water is diverted at pumping plant 0.9 mi upstream and pumped into headwaters of Willow Creek (tributary of Eagle Creek) for mining, metallurgical treatment of ores, and domestic supply in vicinity of Morenci. (See sta 09445000.)

AVERAGE DISCHARGE (adjusted for diversion to Willow Creek).--33 years, 226 ft³/s, 163,700 acre-ft/yr; median of yearly mean discharges, 180 ft³/s, 130,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,900 ft³/s Oct. 19, 1972, gage height, 18.0 ft, from flood-marks, from rating curve extended above 5,000 ft³/s; minimum daily, 2.6 ft³/s July 5, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	0230	979	4.23	Mar. 29	1830	1,260	4.64
Feb. 28	unknown	680	3.8	Apr. 3	0400	*1,460	*4.93
Mar. 17	unknown	1,300	4.65				

Minimum daily discharge, 26 ft³/s June 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	116	77	122	59	69	651	984	158	56	39	32	87
2	100	77	91	57	87	624	1200	146	58	52	35	100
3	98	77	108	52	98	658	1280	143	61	71	40	73
4	92	77	115	53	100	619	1090	136	59	62	36	60
5	82	71	109	48	91	581	940	129	60	50	34	58
6	75	67	108	50	68	543	842	122	54	43	31	50
7	69	64	111	49	83	516	820	114	45	37	31	44
8	69	61	96	56	63	492	811	108	42	40	34	41
9	72	59	90	67	72	478	755	104	40	59	38	50
10	81	57	90	61	77	484	683	96	39	56	113	55
11	112	57	89	46	71	472	616	89	37	47	52	59
12	113	60	107	44	67	421	564	84	37	39	56	51
13	102	66	89	42	77	517	529	79	36	35	58	45
14	89	67	89	42	83	571	491	73	34	33	49	42
15	82	64	90	45	106	594	445	69	34	39	43	39
16	77	55	90	48	653	626	415	66	32	58	41	38
17	111	58	91	41	602	1130	417	66	31	64	40	37
18	184	61	92	43	632	974	376	66	32	58	43	35
19	177	59	92	45	743	710	335	65	31	54	38	34
20	173	51	90	45	754	542	299	61	29	76	35	32
21	135	52	78	46	718	608	270	59	28	89	33	31
22	121	58	53	50	566	834	251	57	27	103	31	32
23	110	54	50	54	495	997	240	56	26	92	30	30
24	102	52	55	53	459	1100	243	54	27	81	34	43
25	95	61	56	54	500	1120	242	53	33	65	36	68
26	87	97	54	52	583	1120	231	50	38	54	36	60
27	85	147	53	51	644	1100	220	49	38	46	70	57
28	79	142	52	52	678	1060	205	47	42	41	72	41
29	77	122	50	52	---	1140	185	46	35	38	68	38
30	77	130	50	53	---	1190	170	46	37	34	74	36
31	77	---	52	57	---	1070	---	50	---	33	110	---
TOTAL	3119	2200	2562	1567	9239	23542	16149	2541	1178	1688	1473	1466
MEAN	101	73.3	82.6	50.5	330	759	538	82.0	39.3	54.5	47.5	48.9
MAX	184	147	122	67	754	1190	1280	158	61	103	113	100
MIN	69	51	50	41	63	421	170	46	26	33	30	30
AC-FT	6190	4360	5080	3110	18330	46700	32030	5040	2340	3350	2920	2910
(*)	116	88.3	98.0	68.2	344	775	555	97.8	57.9	72.6	63.6	63.9
(**)	7110	5250	6020	4200	19120	47690	33010	6010	3450	4470	3910	3800

CAL YR	1985	TOTAL	166817	MEAN	457	MAX	5670	MIN	37	AC-FT	330900	*	473	**	342200
WTR YR	1986	TOTAL	66724	MEAN	183	MAX	1280	MIN	26	AC-FT	132300	*	200	**	144000

* Adjusted for Willow Creek Diversion from Black River near Morenci.

GILA RIVER BASIN

09490500 BLACK RIVER NEAR FORT APACHE, AZ

LOCATION.--Lat 33°42'46", long 110°12'40", in NW¼ sec.12, T.4 N., R.20 E. (unsurveyed), Gila County, Hydrologic Unit 15060101, on downstream side of first pier from right on highway bridge, 5 mi upstream from confluence with White River and 14 mi west of Fort Apache.

DRAINAGE AREA.--1,232 mi².

PERIOD OF RECORD.--October 1912 to December 1915, September 1916, October 1917 to January 1918, April 1918, October 1957 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1914-15, drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,345 ft above National Geodetic Vertical Datum of 1929, river-profile map. November 1912 to July 1918, nonrecording gages or water-stage recorders at several sites within 1 mi of present site at various datums.

REMARKS.--Estimated daily discharges: Nov. 15, Mar. 17-19, 21-27. Records good. One transbasin diversion for industrial and municipal use (see record of Willow Creek diversion from Black River, near Morenci). Negligible storage in several small recreational lakes.

AVERAGE DISCHARGE.--32 years (water years 1913-15, 1958-86), 423 ft³/s, 306,500 acre-ft/yr; median of yearly mean discharges, 360 ft³/s, 261,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,200 ft³/s Oct. 2, 1983, gage height, 24.80 ft, from rating curve extended above 8,500 ft³/s on basis of slope-area measurements at gage heights 22.33 ft and 24.80 ft; minimum daily, 11 ft³/s July 6, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*), from rating curve extended above 8,500 ft³/s on the basis of slope-area measurement at gage height of 22.33 ft and 24.80 ft:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1730	1,410	5.57	Mar. 18	unknown	2,940	7.25
Feb. 16	0445	*12,600	*13.78				

Minimum daily discharge, 47 ft³/s June 22-24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	218	113	679	92	93	1060	1700	334	99	70	62	166
2	169	112	328	100	106	999	1790	321	108	70	59	143
3	148	107	255	99	131	999	2310	304	101	87	59	146
4	139	106	247	95	153	978	1890	293	123	108	76	123
5	129	105	243	93	153	925	1630	283	106	105	79	106
6	116	101	221	92	137	879	1440	270	99	110	73	96
7	108	97	206	88	128	829	1330	252	94	89	64	91
8	101	93	192	87	118	810	1340	236	87	78	65	82
9	103	91	173	82	135	778	1260	220	78	73	63	79
10	114	89	164	79	132	775	1180	208	74	89	66	80
11	359	87	155	83	136	810	1080	192	72	90	103	95
12	340	91	148	87	125	874	978	177	69	86	158	93
13	232	100	136	82	174	1250	906	166	65	75	130	89
14	185	107	106	80	354	1730	855	157	62	71	116	81
15	157	107	118	79	1150	1940	789	149	58	89	93	76
16	140	97	129	80	6790	1480	739	143	55	76	85	73
17	139	93	148	82	2690	1960	703	139	53	117	79	69
18	222	90	120	81	1690	2570	682	137	51	137	79	67
19	289	93	115	77	1540	1900	618	133	50	119	81	63
20	267	93	110	78	1450	1250	565	129	51	113	77	61
21	220	87	107	79	1370	1260	524	121	50	117	68	59
22	191	82	105	79	1180	1440	492	116	47	135	62	57
23	172	84	101	80	940	1600	479	110	47	152	60	58
24	158	86	99	84	835	2300	471	107	47	157	59	85
25	146	86	96	86	815	1890	465	103	53	130	71	177
26	136	187	95	86	892	1880	446	100	59	111	83	113
27	127	718	96	86	998	1860	423	95	62	95	85	111
28	119	413	94	85	1050	1840	406	92	67	85	129	91
29	114	296	93	85	---	1870	378	90	68	78	154	81
30	110	726	91	86	---	2160	351	90	76	72	217	75
31	109	---	90	89	---	1910	---	91	---	67	149	---
TOTAL	5277	4737	5060	2641	25465	44806	28220	5358	2131	3051	2804	2786
MEAN	170	158	163	85.2	909	1445	941	173	71.0	98.4	90.5	92.9
MAX	359	726	679	100	6790	2570	2310	334	123	157	217	177
MIN	101	82	90	77	93	775	351	90	47	67	59	57
AC-FT	10470	9400	10040	5240	50510	88870	55970	10630	4230	6050	5560	5530

CAL YR	1985	TOTAL	244704	MEAN	670	MAX	9540	MIN	57	AC-FT	485400
WTR YR	1986	TOTAL	132336	MEAN	363	MAX	6790	MIN	47	AC-FT	262500

GILA RIVER BASIN

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09492400 EAST FORK WHITE RIVER NEAR FORT APACHE, AZ

LOCATION.--Lat 33°49'20", long 109°48'50", in SE¼ sec.16, T.5 N., R.24 E. (unsurveyed), Apache County, Hydrologic Unit 15060102, in Fort Apache Indian Reservation, on left bank 600 ft downstream from highway bridge, 0.1 mi upstream from Rock Creek and 10 mi east of Fort Apache.

DRAINAGE AREA.--38.8 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 6,050 ft above National Geodetic Vertical Datum of 1929, by barometer. Prior to Dec. 29, 1960, at site 600 ft upstream at datum 12.78 ft higher. Dec. 29, 1960, to Sept. 28, 1962, at site 600 ft upstream at datum 12.92 ft higher.

REMARKS.--Estimated daily discharges: Nov. 15-24, Dec. 10-19, Jan. 8-11, and Feb. 4-12. Records good except for periods with ice effect, Nov. 15-24, Dec. 10-19, and Feb. 4-12, which are poor.

AVERAGE DISCHARGE.--29 years, 37.0 ft³/s, 26,810 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,700 ft³/s Oct. 1, 1983, gage height, 5.40 ft, from rating curve extended above 1,000 ft³/s; minimum daily, 4.0 ft³/s Nov. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 29	1930	152	1.95	Aug. 27	1330	112	2.12
July 16	1500	154	2.09	Sept. 24	0630	110	2.11

Minimum daily discharge, 17 ft³/s Jan. 7-30, June 22, 23, 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	24	23	19	19	56	124	107	33	18	30	52
2	29	23	24	18	20	54	141	106	33	19	28	46
3	26	22	24	18	19	50	120	110	32	19	29	41
4	25	21	24	18	19	45	101	124	30	31	31	37
5	23	21	24	18	19	42	88	118	29	27	30	34
6	22	20	23	18	19	42	81	103	28	22	28	32
7	23	20	22	17	19	42	87	88	27	20	26	29
8	22	19	22	17	19	41	89	73	26	27	27	31
9	23	19	22	17	19	42	94	63	25	48	34	32
10	36	19	21	17	19	40	91	57	24	37	37	32
11	48	19	21	17	19	38	87	53	23	32	34	29
12	45	21	21	17	19	38	86	51	22	30	44	27
13	40	20	20	17	19	36	88	52	21	27	47	26
14	37	19	20	17	20	34	91	55	21	27	44	25
15	34	18	20	17	23	33	91	55	20	52	38	24
16	34	18	20	17	62	35	101	55	20	94	34	23
17	39	18	19	17	42	36	99	57	19	92	38	22
18	39	18	19	17	41	35	91	53	19	77	41	21
19	37	18	19	17	42	34	80	51	19	70	33	20
20	36	18	18	17	45	35	76	51	18	71	29	20
21	34	18	18	17	45	40	86	52	18	64	27	19
22	31	18	18	17	38	49	103	51	17	59	26	19
23	29	18	18	17	36	59	114	49	17	67	32	19
24	28	18	18	17	39	69	111	46	20	57	32	55
25	27	21	18	17	46	78	103	43	19	50	30	33
26	26	36	19	17	56	90	104	40	18	46	30	29
27	25	29	19	17	60	106	105	39	17	42	49	26
28	24	26	18	17	59	116	100	38	17	39	61	24
29	24	24	18	17	---	137	98	36	20	36	62	23
30	23	24	18	17	---	139	102	38	18	33	65	21
31	24	---	13	18	---	126	---	35	---	31	57	---
TOTAL	944	627	627	535	902	1817	2932	1949	670	1364	1153	871
MEAN	30.5	20.9	20.2	17.3	32.2	58.6	97.7	62.9	22.3	44.0	37.2	29.0
MAX	48	36	24	19	62	139	141	124	33	94	65	55
MIN	22	18	18	17	19	33	76	35	17	18	26	19
AC-FT	1870	1240	1240	1060	1790	3600	5820	3870	1330	2710	2290	1730
CAL YR 1985	TOTAL	19229	MEAN	52.7	MAX	401	MIN	18	AC-FT	38140		
WTR YR 1986	TOTAL	14391	MEAN	39.4	MAX	141	MIN	17	AC-FT	28540		

GILA RIVER BASIN

09494000 WHITE RIVER NEAR FORT APACHE, AZ

LOCATION.--Lat 33°44'11", long 110°09'58", in SE¼ sec.32, T.4 N., R.21 E. (unsurveyed), Gila County, Hydrologic Unit 15060102, in Fort Apache Indian Reservation, on right bank 2,200 ft downstream from highway bridge, 4.5 mi upstream from confluence with Black River, and 11 mi west of Fort Apache.

DRAINAGE AREA.--632 mi².

PERIOD OF RECORD.--October 1917 to September 1918 (published as "at Wanslee's Ranch"), October 1957 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WRD Ariz. 1971: 1967(M).

GAGE.--Water-stage recorder. Datum of gage is 4,365.99 ft above National Geodetic Vertical Datum of 1929. Oct. 12, 1917, to Aug. 31, 1918, nonrecording gage at site 2,100 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Nov. 7-12, Apr. 1-4, May 22 to June 24, Sept. 8, 9, 13-23, 30. Records good except for estimated daily discharges, which are fair. Small diversions above station for irrigation of about 1,460 acres. Negligible storage above station in several small recreational lakes.

AVERAGE DISCHARGE.--30 years, 209 ft³/s, 151,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft³/s Dec. 18, 1978, gage height, 15.71 ft, from rating curve extended above 7,800 ft³/s on basis of slope-area measurement of peak flow; no flow July 18-21, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	0745	1,800	5.89	Aug. 27	1500	3,780	8.20
Mar. 30	0400	1,110	4.80				

Minimum daily discharge, 54 ft³/s, June 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	179	136	197	120	107	428	824	386	157	67	71	202
2	180	131	193	116	114	414	833	389	153	75	69	176
3	161	127	193	112	115	400	819	392	145	78	70	146
4	145	123	195	112	118	377	791	420	139	123	64	131
5	133	118	186	108	113	361	728	431	134	190	64	119
6	126	116	183	108	112	346	666	398	127	124	60	110
7	122	113	173	106	109	337	675	368	122	99	62	106
8	133	112	164	97	104	329	652	342	117	89	66	103
9	125	111	158	94	127	326	644	305	113	134	67	100
10	154	109	155	98	121	322	608	274	110	123	80	116
11	412	108	131	100	114	339	556	258	106	100	76	110
12	305	117	146	96	119	322	532	252	103	91	127	104
13	249	123	121	94	129	324	512	244	99	85	116	97
14	219	119	113	96	138	345	498	236	96	86	95	90
15	199	106	125	96	142	319	476	233	91	100	89	86
16	187	108	132	95	858	343	463	232	88	144	75	78
17	218	112	125	92	561	462	450	230	83	223	69	73
18	217	114	124	92	480	392	431	229	79	204	92	68
19	199	108	122	93	470	365	409	227	75	182	84	65
20	186	98	121	92	499	350	387	222	71	192	69	64
21	175	104	119	93	506	403	386	218	67	199	64	63
22	165	108	117	93	420	482	389	215	64	170	61	63
23	155	104	115	92	382	562	403	210	59	177	61	74
24	148	105	114	93	308	664	420	203	56	156	75	207
25	141	112	114	91	362	718	403	196	76	132	88	179
26	135	254	114	89	415	794	392	189	73	117	69	126
27	131	336	112	90	434	857	395	184	59	107	275	116
28	130	245	111	91	437	907	376	179	54	98	215	108
29	129	210	109	90	---	1020	365	175	62	90	248	104
30	128	240	109	92	---	1040	370	172	64	80	217	103
31	126	---	111	98	---	908	---	163	---	73	200	---
TOTAL	5412	4127	4302	3029	7914	15556	15853	8172	2842	3908	3138	3287
MEAN	175	138	139	97.7	283	502	528	264	94.7	126	101	110
MAX	412	336	197	120	858	1040	833	431	157	223	275	207
MIN	122	98	109	89	104	319	365	163	54	67	60	63
AC-FT	10730	8190	8530	6010	15700	30860	31440	16210	5640	7750	6220	6520
CAL YR 1985	TOTAL	142456	MEAN	390	MAX	5130	MIN	53	AC-FT	282600		
WTR YR 1986	TOTAL	77540	MEAN	212	MAX	1040	MIN	54	AC-FT	153800		

GILA RIVER BASIN

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09495000 FORESTDALE CREEK DIVERSION FROM SHOW LOW CREEK, NEAR SHOW LOW, AZ

LOCATION.--Lat 34°10'40", long 110°00'56", in SE¼NW¼ sec.16, T.9 N., R.22 E., Navajo County, Hydrologic Unit 15020005, in Sitgreaves National Forest, on right bank 170 ft downstream from terminal structure of Show Low Creek diversion works, 4,350 ft west of pumping plant on Show Low Lake, and 5 mi south of Show Low.

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

GAGE.--Water-stage recorders and V-notch sharp-crested weir. Datum of gage is 6,621.57 ft above National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark).

REMARKS.--Estimated daily discharges: Feb. 25 to Mar. 3. Records excellent. Entire flow consists of water pumped from Show Low Lake, in Little Colorado River basin, into headwaters of Forestdale Creek in Gila River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 28 ft³/s June 2, 3, 5, 1973, Mar. 17-25, 27-30, Apr. 2-15, Apr. 18 to May 5, 1975; no flow for most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	.00	.00	17	17	.00	14	.00	.00	.00	.00
2	9.8	13	.00	.00	17	17	.00	14	5.0	.00	.00	.00
3	10	13	.00	.00	17	17	.00	14	13	.00	.00	.00
4	13	13	.00	.00	17	17	.00	14	13	.00	.00	.00
5	13	13	.00	.00	17	17	.00	14	13	.00	.00	.00
6	13	13	.00	.00	17	17	.00	14	13	.00	.00	.00
7	13	13	.00	.00	17	17	.00	14	13	.00	.00	.00
8	13	13	.00	.00	17	17	.00	14	13	.00	.00	.00
9	13	13	.00	.00	17	17	11	14	13	.00	.00	.00
10	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
11	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
12	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
13	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
14	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
15	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
16	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
17	13	13	.00	.00	17	17	18	14	13	.00	.00	.00
18	13	13	.00	.00	17	18	16	14	13	.00	.00	.00
19	13	13	.00	.00	17	18	14	14	5.1	.00	.00	.00
20	13	13	.00	.00	17	18	14	14	.00	.00	.00	.00
21	13	13	.00	.00	17	18	14	14	.00	.00	.00	.00
22	13	12	.00	.00	17	18	14	14	.00	.00	.00	.00
23	13	13	.00	9.6	17	18	14	14	.00	.00	.00	.00
24	13	13	.00	17	17	18	14	14	.00	.00	.00	.00
25	13	13	.00	17	17	18	14	14	.00	.00	.00	.00
26	13	13	.00	17	17	18	14	14	.00	.00	.00	.00
27	13	4.8	.00	17	17	18	14	14	.00	.00	.00	.00
28	13	.00	.00	17	17	9.5	14	14	.00	.00	.00	.00
29	13	.00	.00	17	---	.00	14	14	.00	.00	.00	.00
30	13	.00	.00	17	---	.00	14	7.4	.00	.00	.00	.00
31	13	---	.00	17	---	.00	---	.00	---	.00	.00	---
TOTAL	396.8	341.80	.00	145.60	476	478.50	339.00	413.40	218.10	.00	.00	.00
MEAN	12.8	11.4	.00	4.70	17.0	15.4	11.3	13.3	7.27	.00	.00	.00
MAX	13	13	.00	17	17	18	18	14	13	.00	.00	.00
MIN	9.8	.00	.00	.00	17	.00	.00	.00	.00	.00	.00	.00
AC-FT	787	678	.0	289	944	949	672	820	433	.0	.0	.0
CAL YR	1985	TOTAL	2533.60	MEAN	6.94	MAX	23	MIN	.00	AC-FT	5030	
WTR YR	1986	TOTAL	2809.20	MEAN	7.70	MAX	18	MIN	.00	AC-FT	5570	

GILA RIVER BASIN

09496500 CARRIZO CREEK NEAR SHOW LOW, AZ

LOCATION.--Lat 33°59'09", long 110°16'52", in sec.24, T.7 N., R.19 E. (unsurveyed), Gila County, Hydrologic Unit 15060104, in Fort Apache Indian Reservation, on right bank 500 ft upstream from bridge on U.S. Highway 60, 1 mi downstream from Corduroy Creek, 23 mi southwest of Show Low, and 24 mi upstream from mouth.

DRAINAGE AREA.--439 mi².

PERIOD OF RECORD.--June 1951 to June 1961, June 1967 to June 1976, October 1975 to June 1976 (monthly discharges only), April 1977 to current year.

REVISED RECORDS.--WRD Ariz. 1968: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,749.52 ft above National Geodetic Vertical Datum of 1929. Prior to June 1976 at site on bridge pier 400 ft downstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 13-18, Jan. 7, 8, Feb. 11, Sept. 5-30. Records good. Diversions for irrigation above station of less than 300 acres. Records include trans basin diversion from Show Low Creek. (See sta 09495000.)

AVERAGE DISCHARGE.--26 years (water years 1952-60, 1968-75, 1978-86), 55.4 ft³/s, 40,140 acre-ft/yr; median of yearly mean discharges, 31 ft³/s, 22,500 acre-ft/yr, unadjusted for transbasin diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,500 ft³/s Jan. 18, 1952, gage height, 12.08 ft, at site then in use, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement of peak flow, maximum gage height, 15.1 ft Dec. 18, 1978, from high-water mark; minimum daily discharge, 0.2 ft³/s July 12, 1951, Sept. 21, 1959, at site then in use.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1951, about 23,000 ft³/s Dec. 30, 1965, gage height, 13.0 ft, from floodmark at site then in use, from rating curve extended above 2,000 ft³/s on basis of slope-area measurement at gage height 12.08 ft at site then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 8	1530	*2,830	*6.06

Minimum daily discharge, 3.2 ft³/s July 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	27	58	16	31	34	26	24	12	9.2	3.8	11
2	27	25	42	16	32	34	34	24	10	7.1	3.9	10
3	21	25	42	15	29	37	47	24	8.8	5.6	4.5	14
4	19	25	41	15	30	36	40	24	17	5.3	4.3	7.5
5	20	25	37	15	30	34	30	23	19	5.5	4.3	6.0
6	21	24	31	15	29	33	25	23	18	4.9	5.8	6.0
7	24	24	26	13	28	33	25	23	18	4.4	6.7	6.0
8	23	25	23	12	30	32	24	23	17	4.7	101	6.0
9	24	25	21	13	34	33	20	23	17	5.3	12	6.5
10	32	25	20	14	32	33	25	23	17	4.3	10	7.5
11	55	26	19	13	29	46	34	22	17	3.7	8.7	7.2
12	49	37	22	13	31	48	34	22	17	3.4	9.9	5.7
13	33	33	19	13	30	54	33	21	16	3.2	13	5.7
14	28	30	18	13	30	78	32	21	16	4.1	7.4	5.7
15	26	29	17	13	31	92	32	21	16	29	6.0	6.3
16	26	27	16	13	237	88	32	21	15	11	5.5	5.9
17	34	27	15	13	299	140	32	21	16	9.3	5.4	5.0
18	30	27	15	13	236	176	31	21	16	7.8	5.2	4.5
19	26	26	16	13	177	154	29	21	15	6.9	4.5	4.5
20	26	25	16	13	115	127	27	20	12	19	4.2	4.7
21	25	26	16	13	84	125	27	20	5.9	16	3.7	4.7
22	24	25	16	13	66	132	26	20	4.7	11	3.6	4.7
23	24	25	16	12	55	116	26	20	4.1	12	3.9	5.2
24	24	25	15	15	49	94	26	20	4.4	8.0	5.3	20
25	24	28	15	26	44	75	26	20	4.9	6.7	4.9	10
26	24	51	15	27	40	61	25	19	5.5	5.9	11	8.5
27	24	48	15	28	38	53	24	19	4.6	5.6	9.6	7.5
28	24	37	14	28	36	48	24	19	4.2	4.6	14	7.2
29	24	27	14	28	---	39	24	19	5.0	4.3	12	6.8
30	24	87	14	28	---	29	24	21	5.2	4.1	41	6.8
31	25	---	15	31	---	26	---	21	---	4.1	14	---
TOTAL	852	916	679	523	1932	2140	864	663	358.3	236.0	349.1	217.1
MEAN	27.5	30.5	21.9	16.9	69.0	69.0	28.8	21.4	11.9	7.61	11.3	7.24
MAX	55	87	58	31	299	176	47	24	19	29	101	20
MIN	19	24	14	12	28	26	20	19	4.1	3.2	3.6	4.5
AC-FT	1690	1820	1350	1040	3830	4240	1710	1320	711	468	692	431

CAL YR	1985	TOTAL	28571.0	MEAN	78.3	MAX	1720	MIN	14	AC-FT	56670
WTR YR	1986	TOTAL	9729.5	MEAN	26.7	MAX	299	MIN	3.2	AC-FT	19300

09497500 SALT RIVER NEAR CHRYSOTILE, AZ

LOCATION.--Lat 33°47'53", long 110°29'57", in sec.25, T.5 N., R.17 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in San Carlos Indian Reservation, on left bank 1,200 ft upstream from bridge on U.S. Highway 60, 5.7 mi northeast of Chrysotile, 8 mi upstream from Cibecue Creek, and 33 mi downstream from confluence of Black and White Rivers.

DRAINAGE AREA.--2,849 mi².

PERIOD OF RECORD.--September 1924 to current year (monthly discharge only July to December 1954).

REVISED RECORDS.--WSP 859: 1926-27, 1929-30, 1934, 1936. WSP 899: 1927, 1932, 1937, 1938(M). WSP 1313: 1925-26(M), 1929-30(M), 1935-36(M), 1944(M). WSP 1343: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,354.57 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: June 10-23. Records good. Several diversions for irrigation above station of about 3,100 acres, one diversion into the basin (see record of Forestdale Creek diversion from Show Low Creek, near Show Low), and one diversion out of the basin (see record of Willow Creek diversion from Black River, near Morenci).

AVERAGE DISCHARGE.--62 years, 659 ft³/s, 477,400 acre-ft/yr; median of yearly mean discharges, 550 ft³/s, 398,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 70,400 ft³/s Dec. 18, 1978, gage height, 17.35 ft, from rating curve extended above 52,000 ft³/s; minimum, 49 ft³/s July 6, 7, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood peak of 74,000 ft³/s occurred prior to 1924 and is believed to be the peak of the flood of Jan. 19, 1916, gage height, 18 ft, from floodmarks, from rating curve extended above 52,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Feb. 16	1000	*14,000	8.85	Apr. 3	0915	3,540	5.06
Mar. 18	0615	5,140	5.88	Aug. 27	2245	3,590	5.09

Minimum daily discharge, 170 ft³/s June 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	508	347	1570	300	306	1400	2610	736	319	206	212	449
2	457	356	863	306	319	1340	2640	736	338	233	206	454
3	405	349	687	310	340	1290	3410	736	333	216	219	390
4	365	343	628	304	371	1290	2890	736	326	246	219	364
5	342	342	625	296	390	1200	2430	736	318	361	228	325
6	324	338	594	292	369	1140	2090	730	300	339	216	293
7	310	333	556	290	371	1080	1920	722	285	280	204	272
8	305	330	518	282	335	1040	1900	681	274	242	197	257
9	310	328	490	277	368	1010	1820	575	268	238	311	251
10	333	327	461	264	386	995	1730	528	261	281	219	270
11	655	331	443	273	369	1060	1620	489	257	280	228	280
12	948	349	425	275	356	1110	1500	455	245	254	333	268
13	659	399	416	274	374	1320	1400	432	237	239	368	253
14	528	382	349	268	480	1790	1320	417	229	235	345	242
15	458	381	333	268	1380	2430	1260	410	221	325	286	231
16	416	355	369	267	7320	1820	1180	401	214	315	249	221
17	432	358	380	266	4500	2020	1140	393	207	379	227	207
18	486	360	376	265	2460	4000	1110	395	199	456	249	205
19	589	355	351	263	2070	2740	1030	382	192	432	246	200
20	565	344	344	260	2000	1780	955	369	186	389	230	195
21	509	340	334	261	1900	1610	893	360	182	425	211	188
22	456	352	329	262	1670	1810	867	356	176	423	199	187
23	422	343	324	263	1350	2200	861	349	172	397	193	188
24	398	349	315	263	1190	2480	883	341	170	428	250	334
25	380	359	308	268	1130	2690	871	335	178	378	215	495
26	365	420	308	272	1190	2770	845	324	202	331	271	373
27	352	1280	305	276	1320	2780	822	312	194	296	498	312
28	343	1090	303	279	1390	2790	799	304	185	271	725	287
29	338	810	299	279	---	2840	776	299	192	254	602	258
30	339	854	294	280	---	3230	755	295	196	236	560	239
31	335	---	295	291	---	2970	---	311	---	221	508	---
TOTAL	13632	13204	14192	8594	36004	60025	44327	14645	7056	9606	9224	8488
MEAN	440	440	458	277	1286	1936	1478	472	235	310	298	283
MAX	948	1280	1570	310	7320	4000	3410	736	338	456	725	495
MIN	305	327	294	260	306	995	755	295	170	206	193	187
AC-FT	27040	26190	28150	17050	71410	119100	87920	29050	14000	19050	18300	16840
CAL YR 1985	TOTAL	461323	MEAN	1264	MAX	15400	MIN	179	AC-FT	915000		
WTR YR 1986	TOTAL	238997	MEAN	655	MAX	7320	MIN	170	AC-FT	474100		

GILA RIVER BASIN

09497800 CIBECUE CREEK NEAR CHRYSOTILE, AZ

LOCATION.--Lat 33°50'35", long 110°33'25", in E sec.8, T.5 N., R.17 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in Fort Apache Indian Reservation, on right bank 0.5 mi upstream from mouth and 7 mi north of Chrysotile.

DRAINAGE AREA.--295 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,200 ft above National Geodetic Vertical of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Small diversions for irrigation in the vicinity of the village of Cibecue.

AVERAGE DISCHARGE.--27 years, 47.5 ft³/s, 34,410 acre-ft/yr; median of yearly mean discharges, 36 ft³/s, 26,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,200 ft³/s Sept. 2, 1977, gage height, 17.3 ft, on basis of slope-area measurement of peak flow; minimum daily, 4.1 ft³/s Aug. 17-19, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 15	1645	*2,780	5.92	Aug. 25	1830	2,350	5.56
Aug. 17	2100	1,330	4.56	Sept. 24	0215	1,070	4.26

Minimum daily discharge, 16 ft³/s June 19-21, 26-30, and Sept. 17-23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	32	77	32	30	50	64	24	25	18	20	26
2	33	30	63	30	28	48	66	24	23	41	38	28
3	29	30	58	30	27	47	58	22	27	43	50	24
4	29	29	59	30	28	47	56	21	28	22	24	22
5	28	29	63	30	29	44	53	21	23	24	24	21
6	28	28	64	30	27	42	51	21	21	20	22	19
7	30	28	60	29	27	42	50	21	20	19	24	19
8	28	28	57	29	29	40	47	23	20	18	63	18
9	31	28	53	29	34	40	44	23	19	21	48	19
10	47	28	50	28	32	41	44	23	19	18	60	19
11	98	35	49	28	29	52	42	22	19	18	34	18
12	34	99	50	28	28	51	41	21	19	18	41	18
13	31	44	45	28	27	60	40	21	18	17	33	18
14	29	32	42	28	27	112	39	22	18	30	36	17
15	29	30	41	28	30	87	37	22	18	359	33	17
16	29	29	40	28	163	52	37	22	18	56	35	17
17	105	29	39	28	79	132	36	21	32	150	109	16
18	39	29	38	28	110	98	36	21	18	30	82	16
19	35	28	37	27	122	64	36	21	16	123	47	16
20	37	28	36	27	118	59	35	20	16	78	41	16
21	35	27	35	27	114	63	33	20	16	97	38	16
22	33	27	35	27	107	84	31	20	17	55	38	16
23	33	27	35	27	99	112	29	21	17	29	37	16
24	32	27	34	27	89	125	29	21	17	26	37	262
25	31	30	33	27	76	124	28	22	17	24	195	36
26	31	125	33	27	62	118	27	21	16	23	42	30
27	31	91	33	27	59	109	27	21	16	22	22	27
28	30	92	33	27	54	100	27	21	16	22	41	23
29	29	87	32	27	---	92	26	21	16	21	99	21
30	30	306	32	27	---	77	25	22	16	20	52	20
31	30	---	31	28	---	69	---	23	---	19	34	---
TOTAL	1125	1512	1387	873	1684	2281	1194	669	581	1481	1499	851
MEAN	36.3	50.4	44.7	28.2	60.1	73.6	39.8	21.6	19.4	47.8	48.4	28.4
MAX	105	306	77	32	163	132	66	24	32	359	195	262
MIN	28	27	31	27	27	40	25	20	16	17	20	16
AC-FT	2230	3000	2750	1730	3340	4520	2370	1330	1150	2940	2970	1690
CAL YR 1985	TOTAL	26727	MEAN	73.2	MAX	880	MIN	18	AC-FT	53010		
WTR YR 1986	TOTAL	15137	MEAN	41.5	MAX	359	MIN	16	AC-FT	30020		

GILA RIVER BASIN

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09497980 CHERRY CREEK NEAR GLOBE, AZ

LOCATION.--Lat 33°49'40", long 110°51'20", in SW $\frac{1}{4}$ sec.30, T.6 N., R.15 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in Tonto National Forest, on right bank 0.2 mi upstream from Devils Chasm, 13 mi upstream from mouth, and 30 mi north of Globe.

DRAINAGE AREA.--200 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,200 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 17, 1979, at site 125 ft downstream at datum 2.95 ft lower.

REMARKS.--Estimated daily discharges: Aug. 15-26, Aug. 27 to Sept. 6, 24-26. Records good.

AVERAGE DISCHARGE.--21 years, 42.4 ft³/s, 30,720 acre-ft/yr; median of yearly mean discharges, 23 ft³/s, 16,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Jan. 17, 1979, gage height, unknown, from slope-area measurement of peak flow; minimum daily, 2.4 ft³/s Sept. 17, 22, 25, 29, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 750 ft³/s and maximum (*), from rating curve extended above 390 ft³/s on basis of slope-conveyance computations:

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	1230	1,090	5.82	Feb. 16	0900	1,310	6.17
Nov. 30	0445	*1,690	6.68				

Minimum daily discharge, 5.6 ft³/s Sept. 18-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	14	183	18	17	20	39	12	10	8.2	7.8	55
2	11	13	108	17	16	19	42	12	9.8	15	9.7	70
3	11	13	81	17	14	19	38	12	9.8	10	12	30
4	10	13	65	16	13	18	35	11	9.6	11	8.9	15
5	10	13	53	16	13	17	32	11	9.1	8.9	9.0	10
6	10	12	46	16	13	16	30	11	8.8	7.8	8.8	7.3
7	10	12	40	16	13	15	28	11	8.5	7.5	11	6.9
8	10	12	36	15	13	14	26	11	8.5	7.8	18	6.6
9	11	12	33	15	21	14	25	11	8.4	7.3	24	6.6
10	13	12	31	15	20	16	23	11	8.3	7.0	29	7.1
11	12	12	32	15	18	35	23	11	8.2	6.9	18	6.3
12	11	23	34	14	17	66	21	11	8.1	6.7	16	6.2
13	11	29	30	14	20	160	21	10	7.8	6.5	15	6.1
14	10	21	27	14	30	237	19	10	7.6	6.5	12	5.9
15	10	19	27	14	70	226	19	10	7.6	12	22	5.9
16	12	17	27	14	735	191	18	10	7.7	10	17	5.9
17	157	17	26	13	264	484	17	10	8.0	18	12	5.7
18	80	16	26	13	154	350	17	9.9	7.7	31	13	5.6
19	66	15	25	13	97	284	17	9.7	7.4	13	11	5.6
20	29	15	25	13	70	219	16	9.5	7.2	11	9.8	5.6
21	22	14	25	13	52	201	16	9.4	7.2	16	9.1	5.6
22	19	14	25	13	42	184	15	9.5	7.2	12	8.3	5.6
23	17	14	24	13	37	145	14	9.2	7.2	18	7.6	5.8
24	15	14	23	13	32	114	14	9.1	7.8	18	21	14
25	14	30	22	12	28	94	14	9.0	8.2	12	16	9.1
26	14	503	20	12	26	79	14	8.7	7.8	9.5	14	9.1
27	14	239	20	12	24	65	13	8.7	7.2	8.8	17	8.8
28	13	106	19	12	22	56	13	8.8	7.1	8.5	18	8.4
29	13	73	18	12	---	51	13	8.7	7.2	8.3	25	8.6
30	13	666	18	12	---	46	12	10	7.2	8.2	110	8.5
31	13	---	18	14	---	42	---	13	---	8.0	120	---
TOTAL	673	1983	1187	436	1891	3497	644	318.2	242.2	339.4	650.0	356.8
MEAN	21.7	66.1	38.3	14.1	67.5	113	21.5	10.3	8.07	10.9	21.0	11.9
MAX	157	666	183	18	735	484	42	13	10	31	120	70
MIN	10	12	18	12	13	14	12	8.7	7.1	6.5	7.6	5.6
AC-FT	1330	3930	2350	865	3750	6940	1280	631	480	673	1290	708

CAL YR	1985	TOTAL	18712.1	MEAN	51.3	MAX	666	MIN	6.5	AC-FT	37120
WTR YR	1986	TOTAL	12217.6	MEAN	33.5	MAX	735	MIN	5.6	AC-FT	24230

GILA RIVER BASIN

09498400 PINAL CREEK AT INSPIRATION DAM NEAR GLOBE, AZ

LOCATION.--Lat 33°34'23", long 110°54'02", in NE¼NW¼SE¼ sec.26, T.3 N., R.14 E., Gila County, Hydrologic Unit 15060103, in Tonto National Forest, on right bank 20 ft upstream from Inspiration Dam, 3.8 mi upstream from mouth, and 14 mi northwest of the town of Globe.

DRAINAGE AREA.--195 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is about 2,725 ft above National Geodetic Vertical Datum of 1929, from topographic map.

AVERAGE DISCHARGE.--6 years (water years 1981-86), 12.9 ft³/s, 9,350 acre-ft/yr.

REMARKS.--Estimated daily discharges: Oct. 1 to Nov. 25, Sept. 11-30. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,920 ft³/s July 9, 1981 (from weather records), gage height, 5.05 ft, from high-water mark; minimum daily, 1.5 ft³/s Mar. 10-14, 1981.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Aug. 25	unknown	*1,220	a3.17

Minimum daily discharge, 4.1 ft³/s Jan. 14.
a From crest stage gage.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	9.7	7.9	7.4	9.0	9.6	16	11	6.9	10	11	11
2	9.6	9.7	7.4	7.4	9.0	9.6	16	10	7.4	10	11	10
3	9.6	9.7	7.4	7.9	9.0	9.6	15	10	7.4	10	11	10
4	9.6	9.7	7.4	8.4	9.0	9.6	14	11	7.4	11	11	10
5	9.6	9.7	7.4	8.4	9.0	9.6	14	11	7.4	11	11	10
6	9.6	9.7	6.9	8.4	8.4	9.6	14	10	7.4	10	10	10
7	9.6	9.7	6.9	7.9	9.0	9.6	14	10	7.4	10	10	10
8	9.6	9.7	6.9	7.9	10	9.6	13	10	7.4	10	11	10
9	9.6	9.7	6.9	8.4	12	9.6	13	9.6	7.4	10	11	11
10	9.6	9.7	6.9	9.0	11	9.6	13	9.6	7.4	10	14	11
11	9.6	9.7	6.9	6.9	10	13	12	9.0	7.4	10	6.4	11
12	9.6	9.7	6.9	6.4	9.6	11	13	9.0	6.9	10	5.6	10
13	9.6	9.7	6.9	5.6	9.6	12	13	9.0	6.9	10	5.2	10
14	9.6	9.7	6.9	4.1	9.6	12	13	9.6	6.9	11	6.0	10
15	9.6	9.7	6.9	4.8	12	12	12	10	6.9	12	7.4	10
16	9.6	9.7	6.4	5.2	12	12	12	9.6	6.9	12	7.4	10
17	9.6	9.7	6.4	5.6	12	53	12	9.0	6.9	12	8.4	10
18	9.6	9.7	6.9	6.0	12	51	12	9.0	6.9	12	8.4	10
19	9.6	9.7	7.4	6.4	12	26	12	9.0	6.9	12	8.4	10
20	9.6	9.7	7.4	6.4	11	23	12	9.0	6.9	14	8.4	10
21	9.6	9.7	7.4	6.9	11	18	12	8.4	6.9	15	6.9	10
22	9.6	9.7	7.4	6.9	11	17	12	8.4	6.9	15	6.9	10
23	9.6	9.7	6.9	6.9	11	26	12	8.4	6.9	14	6.9	10
24	9.6	9.7	6.9	6.9	11	15	12	8.4	6.9	13	8.4	10
25	9.6	9.7	6.4	6.9	11	12	12	8.4	6.9	12	78	10
26	9.6	12	6.4	6.9	9.6	12	12	7.9	6.9	12	19	10
27	9.6	12	6.4	6.9	9.6	13	12	7.4	6.9	12	12	10
28	9.6	8.4	6.9	6.9	9.6	13	12	7.4	7.4	12	7.4	10
29	9.6	9.0	6.9	6.9	---	15	12	6.9	7.4	12	14	10
30	9.6	9.6	6.9	6.9	---	15	12	6.9	7.4	12	10	10
31	9.6	---	7.4	7.4	---	15	---	6.9	---	11	11	---
TOTAL	297.6	293.5	216.9	214.9	289.0	492.0	385	279.8	213.5	357	363.1	304
MEAN	9.60	9.78	7.00	6.93	10.3	15.9	12.8	9.03	7.12	11.5	11.7	10.1
MAX	9.6	12	7.9	9.0	12	53	16	11	7.4	15	78	11
MIN	9.6	8.4	6.4	4.1	8.4	9.6	12	6.9	6.9	10	5.2	10
AC-FT	590	582	430	426	573	976	764	555	423	708	720	603

CAL YR	1985	TOTAL	6239.6	MEAN	17.1	MAX	150	MIN	4.8	AC-FT	12380
WTR YR	1986	TOTAL	3706.3	MEAN	10.2	MAX	78	MIN	4.1	AC-FT	7350

GILA RIVER BASIN

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09498400 PINAL CREEK AT INSPIRATION DAM NEAR GLOBE, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1979 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)
NOV 1985 25...	1400	9.7	2910	8.00	12.5	15.0	1.0	686	8.7
FEB 1986 28...	1350	9.8	2900	8.10	23.5	20.0	1.0	693	7.9
MAY 23...	1115	8.7	3030	8.00	28.0	24.5	1.0	688	8.0
AUG 19...	1100	8.5	2900	7.90	36.0	26.0	1.6	695	7.2
DATE	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)
NOV 1985 25...	98	4.0	148	0	119	1500	51	2850	9
FEB 1986 28...	97	4.4	145	0	124	1900	90	2950	3
MAY 23...	107	4.1	142	0	116	1800	93	3090	9
AUG 19...	99	4.3	149	0	122	1900	100	3080	11
DATE	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV 1985 25...	1	4	29	100	<1	17000	<10	28	0.73
FEB 1986 28...	2	8	15	130	3	20000	30	5	0.13
MAY 23...	1	4	17	100	2	20000	20	6	0.14
AUG 19...	2	2	12	200	<5	25000	30	11	0.25

< Actual value is known to be less than value shown.

09498500 SALT RIVER NEAR ROOSEVELT, AZ

LOCATION.--Lat 33°37'10", long 110°55'15", in SE¼NE¼ sec.9, T.3 N., R.14 E. (unsurveyed), Gila County, Hydrologic Unit 15060103, in Tonto National Forest on left bank 100 ft downstream from bridge on State Highway 288, 0.3 mi downstream from Pinal Creek, 1 mi upstream from diversion dam for power canal, 14 mi east of village of Roosevelt, and 17 mi upstream from Roosevelt Dam.

DRAINAGE AREA.--4,306 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1913 to current year (monthly discharge only January to September 1913) see WSP 1313.

REVISED RECORDS.--WSP 1049: 1914, 1916, 1918-19, 1926. WSP 1343: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,177.14 ft above National Geodetic Vertical Datum of 1929. Prior to 1925, nonrecording gage at diversion dam about 1 mi downstream at different datum. Nonrecording gage at present site and datum 1925 to Jan. 17, 1935. May 20, 1955, to July 30, 1959, supplementary water-stage recorder at diversion dam.

REMARKS.--No estimated daily discharges. Records good. Several small diversions for irrigation of about 4,000 acres above station and two trans basin diversions above station, one into basin from Show Low Creek and one out of basin to Willow Creek. Records show inflow to Roosevelt Lake. Tonto Creek also contributes to Roosevelt Lake; see records elsewhere in this report.

AVERAGE DISCHARGE.--73 years, 901 ft³/s, 652,800 acre-ft/yr; median of yearly mean discharges, 710 ft³/s, 514,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117,000 ft³/s Mar. 14, 1941, gage height, 24.4 ft, from rating curve extended above 55,000 ft³/s on basis of velocity-area studies and float-area measurements at 66,000 ft³/s and 102,000 ft³/s; maximum gage height, 29.35 ft Dec. 19, 1978; minimum discharge, 59 ft³/s all or part of each day, July 1-4, 7-12, 1955.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 42 ft³/s was reported Aug. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1415	4,060	10.16	Mar. 18	1400	5,780	11.00
Feb. 16	1745	*13,300	*13.72				

Minimum daily discharge, 196 ft³/s June 23-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	700	413	1850	358	368	1610	3030	908	382	234	244	572
2	636	414	1260	358	395	1570	2830	913	386	249	231	503
3	587	417	875	358	396	1510	3410	912	398	297	263	479
4	531	413	788	358	419	1510	3400	894	391	290	267	429
5	488	405	779	358	451	1440	2830	884	382	306	254	408
6	457	397	743	365	470	1380	2480	895	366	381	258	373
7	432	388	692	366	441	1320	2270	859	341	363	242	345
8	417	384	652	364	427	1270	2230	820	327	329	235	330
9	409	376	621	358	427	1240	2150	788	311	297	269	320
10	436	370	571	351	455	1210	2050	731	295	279	371	316
11	513	362	548	347	461	1280	1910	688	284	306	287	323
12	844	387	545	349	435	1370	1770	646	271	310	295	330
13	771	447	510	353	414	1500	1660	615	260	295	405	326
14	631	434	482	352	437	2150	1570	589	251	290	418	312
15	561	413	420	346	766	3310	1500	569	241	339	464	301
16	521	409	411	343	6080	2440	1420	550	231	715	388	290
17	516	397	442	343	6530	2770	1330	534	227	534	429	277
18	579	391	481	344	3570	5000	1280	519	232	589	413	270
19	620	391	473	343	2800	4000	1240	510	218	548	335	266
20	641	390	450	342	2600	2750	1150	488	207	581	313	260
21	609	387	448	338	2410	2250	1080	463	201	533	285	256
22	561	386	434	340	2180	2350	1030	447	198	608	269	252
23	525	385	428	340	1880	2710	1000	441	196	546	251	247
24	499	380	424	339	1550	2990	1010	436	196	490	255	378
25	480	371	411	340	1430	3200	1020	432	196	492	327	463
26	466	1170	414	341	1390	3270	1000	419	202	428	398	491
27	449	1670	391	344	1480	3230	976	404	223	376	351	392
28	437	1580	360	348	1590	3190	965	394	233	337	1020	353
29	426	1050	358	349	---	3170	946	384	224	308	813	333
30	418	2180	358	351	---	3380	921	373	231	284	832	311
31	413	---	358	354	---	3400	---	370	---	263	784	---
TOTAL	16573	17557	17977	10840	42252	73770	51458	18875	8101	12197	11966	10506
MEAN	535	585	580	350	1509	2380	1715	609	270	393	386	350
MAX	844	2180	1850	366	6530	5000	3410	913	398	715	1020	572
MIN	409	362	358	338	368	1210	921	370	196	234	231	247
AC-FT	32870	34820	35660	21500	83810	146300	102100	37440	16070	24190	23730	20840
CAL YR	1985	TOTAL	577160	MEAN	1581	MAX	18600	MIN	251	AC-FT	1145000	
WTR YR	1986	TOTAL	292072	MEAN	800	MAX	6530	MIN	196	AC-FT	579300	

GILA RIVER BASIN

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09498500 SALT RIVER NEAR ROOSEVELT, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--April 1958 to October 1967, January 1976 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: April 1958 to October 1967.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, DIS- SOLVED	OXYGEN DEMAND, CHEM- ICAL	COLI- FORM, FECAL, 0.7	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(NTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(PER- CENT SATUR- ATION) (00301)	(HIGH LEVEL) (MG/L) (00340)	UM-MF (COLS. / 100 ML) (31625)	
OCT 1985													
29...	1400	428	1900	8.50	31.5	20.0	5.4	708	9.0	107	15	K11	
NOV													
26...	1030	745	2100	8.42	14.0	11.0	--	704	9.8	97	26	730	
DEC													
20...	1115	452	1940	8.40	12.0	6.0	1.1	712	11.6	100	23	K1	
JAN 1986													
30...	1220	344	2810	8.50	19.0	9.0	--	706	11.1	104	24	<1	
FEB													
27...	1255	1460	760	8.41	26.0	15.0	20	705	9.4	101	24	K3	
MAR													
27...	1250	3200	410	8.30	28.0	14.5	--	706	9.6	102	26	K23	
APR													
24...	1155	1030	972	8.42	26.5	19.0	2.2	704	8.6	101	<10	K5	
MAY													
22...	1310	443	1790	8.60	31.0	23.0	--	702	9.2	117	15	K2	
JUN													
19...	1400	213	3000	8.40	43.0	28.0	1.7	710	8.2	114	37	K1	
JUL													
22...	1330	672	1760	8.20	34.0	24.0	--	705	7.0	91	81	1300	
AUG													
18...	1230	375	1900	7.90	34.5	28.5	2400	708	--	--	26	--	
SEP													
24...	1100	313	2800	8.10	18.5	19.5	--	700	8.2	98	24	390	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1985													
29...	K8	270	110	70	22	290	8	6.6	--	--	156	100	
NOV													
26...	2000	--	--	--	--	--	--	--	225	1.0	186	--	
DEC													
20...	K2	300	110	81	23	280	7	6.0	220	2.0	180	120	
JAN 1986													
30...	K1	--	--	--	--	--	--	--	233	14	215	--	
FEB													
27...	K16	130	32	36	10	100	4	3.3	118	1.0	103	50	
MAR													
27...	K67	--	--	--	--	--	--	--	88	0	72	--	
APR													
24...	K4	150	42	40	11	130	5	3.4	121	2.0	101	56	
MAY													
22...	K4	--	--	--	--	--	--	--	143	12	140	--	
JUN													
19...	<1	340	190	87	29	460	11	10	168	6.0	146	150	
JUL													
22...	1200	--	--	--	--	--	--	--	162	0	131	--	
AUG													
18...	9700	260	100	71	19	300	8	7.7	184	0	147	120	
SEP													
24...	83	--	--	--	--	--	--	--	--	--	168	--	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09498500 SALT RIVER NEAR ROOSEVELT, AZ--Continued

WATER QUALITY DATA

DATE	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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDEED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 1985											
29...	460	0.20	18	1070	1100	1.5	17	1.30	--	--	0.40
NOV											
26...	--	--	--	--	--	--	--	<0.100	0.110	0.49	0.60
DEC											
20...	460	0.20	--	1070	--	--	9	<0.100	0.040	0.26	0.30
JAN 1986											
30...	--	--	--	--	--	--	--	<0.100	0.030	0.27	0.30
FEB											
27...	170	0.20	--	451	--	--	37	<0.100	0.030	0.27	0.30
MAR											
27...	--	--	--	--	--	--	--	<0.100	0.020	0.38	0.40
APR											
24...	210	0.20	--	534	--	--	5	<0.100	0.010	0.19	0.20
MAY											
22...	--	--	--	--	--	--	--	<0.100	0.040	0.26	0.30
JUN											
19...	790	0.20	--	1680	--	--	6	<0.100	0.040	0.36	0.40
JUL											
22...	--	--	--	--	--	--	--	0.200	0.160	0.84	1.0
AUG											
18...	480	0.30	--	1240	--	--	2700	0.500	0.080	2.3	2.4
SEP											
24...	--	--	--	--	--	--	--	<0.100	0.070	0.63	0.70

DATE	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	ARSENIC TOTAL (UG/L AS AS) (01002)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
OCT 1985											
29...	1.7	7.5	0.030	5	4	51	<0.5	170	<1	<1	10
NOV											
26...	--	--	0.130	5	5	<100	--	180	<1	<1	11
DEC											
20...	--	--	0.020	5	4	44	--	150	<1	<1	5
JAN 1986											
30...	--	--	0.020	6	5	<100	--	240	<1	<1	9
FEB											
27...	--	--	0.100	3	2	28	--	70	1	<1	7
MAR											
27...	--	--	0.110	2	1	120	--	30	<1	<1	<1
APR											
24...	--	--	0.030	2	2	25	--	90	<1	<1	3
MAY											
22...	--	--	0.020	4	4	41	--	140	1	<1	9
JUN											
19...	--	--	0.030	5	5	--	--	270	<1	1	20
JUL											
22...	1.2	5.3	0.230	6	4	71	--	120	<1	1	5
AUG											
18...	2.9	13	3.80	15	4	<100	--	180	1	<1	12
SEP											
24...	--	--	0.130	6	6	100	--	240	<1	1	3

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09498500 SALT RIVER NEAR ROOSEVELT, AZ--Continued

WATER QUALITY DATA

DATE	CHROMIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	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)	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)
OCT 1985											
29...	<1	<3	10	20	270	3	4	<10	190	270	190
NOV											
26...	<1	--	14	1	2700	10	2	1	--	450	150
DEC											
20...	1	--	5	<1	100	4	<1	<1	--	400	380
JAN 1986											
30...	1	--	3	1	110	10	3	1	--	500	510
FEB											
27...	<1	--	8	3	1200	20	14	<1	--	240	120
MAR											
27...	<1	--	14	3	2600	36	3	1	--	130	51
APR											
24...	<1	--	5	2	310	7	1	1	--	190	140
MAY											
22...	<1	--	4	1	30	<3	2	<1	--	330	280
JUN											
19...	<1	--	5	2	110	20	<5	<5	--	640	590
JUL											
22...	2	--	53	9	36000	500	16	<5	--	1100	110
AUG											
18...	<1	--	200	5	79000	370	100	<5	--	5200	120
SEP											
24...	<1	--	30	3	3500	10	6	<5	--	820	490

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	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, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1985											
29...	<0.10	<10	<1	<1	<1	680	<6	40	22	13	15
NOV											
26...	<0.10	--	<1	<1	<1	--	--	<10	10	112	225
DEC											
20...	<0.10	--	<1	<1	<1	--	--	<10	17	10	12
JAN 1986											
30...	<0.10	--	<1	<1	<1	--	--	10	<10	6	5.6
FEB											
27...	<0.10	--	<1	<1	<1	--	--	20	6	51	201
MAR											
27...	<0.10	--	<1	<1	<1	--	--	<10	<3	108	933
APR											
24...	<0.10	--	<1	<1	<1	--	--	<10	7	11	31
MAY											
22...	<0.10	--	<1	<1	4	--	--	<10	8	2	2.4
JUN											
19...	0.20	--	<1	<1	<1	--	--	20	20	12	6.9
JUL											
22...	0.10	--	<1	<1	<1	--	--	110	10	1320	2400
AUG											
18...	0.40	--	<1	<1	<1	--	--	450	30	4060	4110
SEP											
24...	<0.10	--	<1	<1	<1	--	--	30	<10	90	76

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09498503 SOUTH FORK PARKER CREEK NEAR ROOSEVELT, AZ

LOCATION.--Lat 33°47'50", long 110°57'35", in NE¼NW¼ sec.7, T.5 N., R.14 E., Gila County, Hydrologic Unit 15060103, in Tonto National Forest, 1.5 mi upstream from confluence with Pocket Creek, and 12 mi northeast of Roosevelt.

DRAINAGE AREA.--1.09 mi².

PERIOD OF RECORD.--November 1985 to September 1986. Prior to November 1985, station operated by the U.S. Forest Service (records unpublished).

GAGE.--Water-stage recorder and Cippoletti weir. Elevation of gage is 5,440 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 24 to Mar. 4, 16-18, 26, 27, May 16-20, Sept. 11, 27. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 60 ft³/s, Feb. 16, gage height, 3.73 ft; no flow for many days.

EXTREMES FOR THE PERIOD OF NOVEMBER 1985 TO SEPTEMBER 1986.--Maximum discharge, 60 ft³/s, Feb. 16, gage height, 3.73 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	3.7	.41	.32	.52	1.2	.31	.11	.00	.00	.87
2	---	---	2.8	.37	.26	.52	1.1	.30	.07	.00	.00	.56
3	---	---	2.6	.37	.23	.52	.95	.30	.07	.00	.00	.41
4	---	---	2.1	.37	.29	.45	.88	.30	.05	.00	.00	.30
5	---	---	1.5	.37	.30	.44	.85	.30	.04	.00	.00	.22
6	---	---	1.3	.37	.26	.44	.72	.30	.01	.00	.00	.22
7	---	---	1.1	.37	.24	.41	.67	.30	.00	.00	.00	.22
8	---	---	.90	.37	.24	.38	.67	.30	.00	.00	.00	.17
9	---	---	.88	.37	.30	.37	.60	.30	.00	.00	.00	.15
10	---	---	.80	.37	.30	.42	.59	.30	.00	.00	.00	.15
11	---	---	.75	.31	.23	.56	.55	.30	.00	.00	.00	.15
12	---	---	.74	.30	.22	.67	.52	.30	.00	.00	.00	.15
13	---	---	.67	.30	.29	.84	.52	.30	.00	.00	.00	.15
14	---	---	.67	.30	.37	1.2	.52	.30	.00	.00	.00	.14
15	---	---	.67	.30	4.2	1.5	.52	.30	.00	.00	.00	.14
16	---	.37	.74	.30	21	2.1	.48	.30	.00	.00	.00	.11
17	---	.36	.74	.30	4.0	2.7	.45	.22	.00	.00	.00	.07
18	---	.30	.74	.30	2.3	3.4	.44	.15	.00	.00	.00	.07
19	---	.30	.76	.30	1.6	4.4	.44	.15	.00	.00	.00	.07
20	---	.30	.84	.30	1.2	5.3	.43	.15	.00	.00	.00	.07
21	---	.30	.74	.30	.94	6.5	.40	.15	.00	.00	.00	.07
22	---	.30	.72	.30	.84	7.6	.37	.15	.00	.00	.00	.07
23	---	.29	.67	.29	.70	7.5	.63	.15	.00	.00	.00	.08
24	---	.24	.62	.26	.67	7.0	.37	.15	.00	.00	.00	.18
25	---	3.1	.56	.22	.59	5.9	.37	.14	.00	.00	.00	.14
26	---	20	.52	.22	.59	4.7	.33	.12	.00	.00	.00	.13
27	---	2.0	.52	.22	.59	3.6	.37	.11	.00	.00	.00	.15
28	---	1.3	.52	.22	.59	2.6	.37	.07	.00	.00	.00	.15
29	---	1.4	.46	.22	---	2.0	.37	.07	.00	.00	.71	.15
30	---	13	.44	.24	---	1.6	.34	.09	.00	.00	6.2	.15
31	---	---	.44	.24	---	1.4	---	.15	---	.00	2.2	---
TOTAL	---	---	31.21	9.48	43.66	77.54	17.02	6.83	.35	.00	9.11	5.66
MEAN	---	---	1.01	.31	1.56	2.50	.57	.22	.012	.00	.29	.19
MAX	---	---	3.7	.41	.21	7.6	1.2	.31	.11	.00	6.2	.87
MIN	---	---	.44	.22	.22	.37	.33	.07	.00	.00	.00	.07
AC-FT	---	---	62	19	87	154	34	14	.7	.0	18	11

09499000 TONTO CREEK ABOVE GUN CREEK, NEAR ROOSEVELT, AZ

LOCATION.--Lat 33°58'48", long 111°18'10", in SW¼NE¼ sec.2, T.7 N., R.10 E., Gila County, Hydrologic Unit 15060105, in Tonto National Forest, on left bank 600 ft upstream from Gun Creek, 17 mi upstream from high-water line of Roosevelt Lake, and 24 mi northwest of Roosevelt.

DRAINAGE AREA.--675 mi².

PERIOD OF RECORD.--December 1940 to current year.

REVISED RECORDS.--WSP 1283: Drainage area. WDR AZ-80-1: 1978-79(M).

GAGE.--Water-stage recorder. Datum of gage is 2,523.14 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Small diversions above station for irrigation.

AVERAGE DISCHARGE.--45 years (water years 1942-86), 157 ft³/s, 113,700 acre-ft/yr; median of yearly mean discharges, 92 ft³/s, 66,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 61,400 ft³/s Jan. 17, 1979 and Feb. 15, 1980, gage height, 17.0 ft, maximum gage height, 18.2 ft Sept. 5, 1970; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,700 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	1345	8,930	7.99	Mar. 14	2345	2,480	6.77
Nov. 30	0900	*10,900	*8.33	Mar. 17	2230	10,800	8.32
Feb. 16	0915	4,980	7.37	Aug. 28	2245	6,200	7.57

Minimum daily discharge, 7.7 ft³/s June 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	25	882	44	36	60	119	27	24	21	11	67
2	29	25	392	44	38	58	122	27	21	30	10	44
3	30	24	252	44	35	55	122	26	20	18	9.8	33
4	28	22	193	44	33	53	109	25	20	25	8.6	28
5	28	22	158	43	33	51	99	24	20	31	8.8	28
6	26	22	129	43	33	48	93	24	18	22	13	24
7	27	21	113	42	33	46	87	23	17	17	17	17
8	27	21	96	40	33	45	81	24	14	16	13	16
9	27	21	88	39	45	44	74	24	12	14	33	15
10	27	21	80	39	53	44	71	23	12	14	13	15
11	33	24	75	39	47	74	67	22	13	13	12	14
12	37	259	80	38	43	384	64	22	12	11	32	14
13	33	251	77	37	45	896	61	22	11	11	13	13
14	29	122	70	37	60	1180	57	21	10	10	16	14
15	27	90	67	37	106	1400	54	20	11	10	15	12
16	23	73	64	37	2170	607	55	20	11	11	16	11
17	74	64	63	37	799	5600	48	20	10	18	17	8.8
18	188	61	60	36	408	4760	40	20	9.3	27	21	11
19	87	58	59	36	306	2910	40	20	8.4	19	17	10
20	63	53	57	35	229	1360	40	19	8.2	20	14	9.4
21	52	48	56	35	189	944	38	18	8.6	22	13	8.9
22	45	44	54	34	141	754	31	18	8.7	77	11	8.9
23	40	42	53	34	111	584	32	19	8.3	51	10	10
24	37	41	51	34	98	439	32	17	7.8	33	31	15
25	33	46	49	33	86	343	33	15	7.7	27	21	17
26	32	4320	49	33	78	292	32	16	8.2	23	40	18
27	31	1230	48	31	73	256	30	17	8.6	18	128	16
28	27	433	47	31	65	221	29	17	11	15	290	15
29	23	247	46	31	---	187	29	16	10	14	344	15
30	25	3580	45	32	---	160	27	17	10	13	296	15
31	24	---	44	34	---	134	---	21	---	12	142	---
TOTAL	1242	11310	3597	1153	5426	23989	1816	644	370.8	663	1636.2	543.0
MEAN	40.1	377	116	37.2	184	774	60.5	20.8	12.4	21.4	52.8	18.1
MAX	188	4320	882	44	2170	5600	122	27	24	77	344	67
MIN	23	21	44	31	33	44	27	15	7.7	10	8.6	8.8
AC-FT	2460	22430	7130	2290	10760	47580	3600	1280	735	1320	3250	1080
CAL YR	1985	TOTAL	78599.0	MEAN	215	MAX	5610	MIN	12	AC-FT	155900	
WTR YR	1986	TOTAL	52390.0	MEAN	144	MAX	5600	MIN	7.7	AC-FT	103900	

09501000 RESERVOIR SYSTEM ON SALT RIVER AT AND BELOW ROOSEVELT DAM, AZ

LOCATION.--This system comprises four storage reservoirs created by four separate dams on Salt River, Hydrologic Unit 15060106: Roosevelt Lake, formed by Roosevelt Dam in sec.20, T.4 N., R.12 E. (unsurveyed), on State Highway 88; Apache Lake, formed by Horse Mesa Dam, 17 mi downstream from Roosevelt Dam; Canyon Lake, formed by Mormon Flat Dam, 27 mi downstream from Roosevelt Dam; Saguaro Lake, formed by Stewart Mountain Dam, 37 mi downstream from Roosevelt Dam. Contents given herein are combined contents of the four reservoirs.

DRAINAGE AREA.--6,211 mi², at Stewart Mountain Dam.

PERIOD OF RECORD.--April 1910 to current year. Prior to October 1934, monthend contents only, published in WSP 1313. Evaporation: April 1958 to June 1963.

REVISED RECORDS.--WSP 1283: Drainage area. WRD Ariz. 1975: 1974.

GAGES.--Roosevelt Lake, water-stage indicator in powerplant connected to long distance transmitter on lake (water-stage recorder prior to Jan. 1, 1967); Apache Lake, water-stage indicator in powerplant connected to long distance transmitter on lake since April 1949 (prior to that date, nonrecording gage or reference mark); Canyon and Saguaro Lakes, mercury column gages.

REMARKS.--Total capacity of the four reservoirs is 1,710,000 acre-ft, divided as follows: Roosevelt Lake, 1,337,000 acre-ft; Apache Lake, 245,000 acre-ft; Canyon Lake, 58,000 acre-ft; Saguaro Lake, 70,000 acre-ft. Dead storage negligible. Dams forming these reservoirs were built as follows: Roosevelt 1905-11; Horse Mesa 1924-27; Mormon Flat 1923-26; Stewart Mountain 1928-30. The four dams forming these reservoirs completely develop the fall in the Salt River from Roosevelt Lake to Stewart Mountain Dam. Elevation of water surface varies from 1,422.0 ft, sill of lowest outlet in Stewart Mountain Dam, to 2,136 ft, top of spillway gates in raised position on Roosevelt Dam. See 1978 to 1980 reports for dates of spill prior to 1981 water year. Records given herein represent usable contents. Water from this system is used for irrigation of Salt River Valley and for generation of power.

COOPERATION.--Records of daily contents furnished by Salt River Valley Water Users' Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents of system, 1,764,000 acre-ft May 22, 1941; minimum, 20,680 acre-ft Sept. 16, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum contents of system, 1,694,000 acre-ft Apr. 10-16; minimum, 1,338,000 acre-ft Sept. 29, 30.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 08:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1409000	1429000	1484000	1448000	1442000	1540000	1687000	1679000	1619000	1530000	1455000	1382000
2	1408000	1430000	1490000	1448000	1443000	1543000	1689000	1678000	1617000	1528000	1452000	1381000
3	1408000	1430000	1493000	1447000	1444000	1547000	1690000	1677000	1615000	1524000	1449000	1380000
4	1407000	1431000	1496000	1447000	1444000	1549000	1692000	1675000	1612000	1522000	1446000	1378000
5	1406000	1432000	1498000	1446000	1445000	1552000	1693000	1674000	1609000	1520000	1443000	1377000
6	1406000	1432000	1500000	1446000	1446000	1555000	1693000	1673000	1606000	1518000	1440000	1375000
7	1406000	1433000	1501000	1445000	1447000	1557000	1693000	1671000	1604000	1515000	1437000	1373000
8	1406000	1433000	1504000	1444000	1448000	1559000	1693000	1670000	1601000	1514000	1434000	1370000
9	1405000	1433000	1505000	1443000	1450000	1562000	1693000	1668000	1598000	1511000	1432000	1368000
10	1405000	1434000	1502000	1443000	1452000	1564000	1694000	1666000	1595000	1508000	1429000	1366000
11	1405000	1434000	1499000	1442000	1453000	1568000	1694000	1665000	1592000	1505000	1427000	1364000
12	1406000	1435000	1497000	1442000	1453000	1571000	1694000	1664000	1589000	1502000	1424000	1362000
13	1406000	1436000	1494000	1441000	1455000	1574000	1694000	1662000	1586000	1499000	1421000	1360000
14	1407000	1437000	1492000	1440000	1455000	1578000	1694000	1661000	1583000	1495000	1419000	1358000
15	1409000	1437000	1489000	1440000	1457000	1584000	1694000	1659000	1580000	1493000	1416000	1356000
16	1411000	1438000	1485000	1439000	1462000	1591000	1694000	1657000	1577000	1490000	1413000	1354000
17	1413000	1439000	1482000	1438000	1483000	1599000	1693000	1654000	1574000	1488000	1410000	1352000
18	1415000	1440000	1479000	1438000	1494000	1614000	1692000	1652000	1570000	1485000	1408000	1351000
19	1416000	1440000	1476000	1438000	1502000	1630000	1691000	1650000	1567000	1483000	1406000	1349000
20	1418000	1441000	1474000	1437000	1508000	1640000	1690000	1648000	1564000	1480000	1403000	1347000
21	1420000	1441000	1472000	1437000	1513000	1645000	1689000	1646000	1561000	1479000	1400000	1345000
22	1421000	1442000	1470000	1437000	1517000	1651000	1688000	1643000	1558000	1478000	1397000	1343000
23	1422000	1442000	1468000	1437000	1522000	1654000	1687000	1641000	1555000	1477000	1394000	1342000
24	1423000	1443000	1466000	1437000	1525000	1659000	1685000	1638000	1551000	1476000	1391000	1341000
25	1424000	1444000	1463000	1437000	1529000	1663000	1684000	1636000	1549000	1474000	1388000	1340000
26	1424000	1449000	1462000	1437000	1531000	1668000	1684000	1634000	1546000	1472000	1385000	1340000
27	1425000	1459000	1458000	1438000	1534000	1672000	1683000	1632000	1543000	1470000	1383000	1340000
28	1426000	1464000	1456000	1439000	1537000	1675000	1681000	1630000	1540000	1467000	1381000	1339000
29	1427000	1468000	1454000	1439000	---	1678000	1681000	1627000	1536000	1464000	1382000	1338000
30	1428000	1474000	1451000	1440000	---	1681000	1680000	1625000	1533000	1461000	1382000	1338000
31	1429000	---	1449000	1441000	---	1685000	---	1622000	---	1459000	1382000	---
MAX	1429000	1474000	1505000	1448000	1537000	1685000	1694000	1679000	1619000	1530000	1455000	1382000
MIN	1405000	1429000	1449000	1437000	1442000	1540000	1680000	1622000	1533000	1459000	1381000	1338000
(*)	+20000	+55000	-36000	-6000	+98000	+147000	-8000	-60000	-89000	-75000	-73000	-45000
CAL YR 1985	MAX	1702000	MIN	1405000	*	-123000						
WTR YR 1986	MAX	1694000	MIN	1338000	*	-72000						

* Change in contents, in acre-feet (from 0800 first of month).

NOTE.--Contents at 0800 Oct. 1, 1986, 1,337,000 acre-feet. Prior to Oct. 1, 1972 contents were given at 2400.

GILA RIVER BASIN

195

09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ
(National stream-quality accounting network station)

LOCATION.--Lat 33°33'10", long 111°34'33", in NW¼NW¼ sec.6, T.2 N., R.8 E. (unsurveyed), Maricopa County, Hydrologic Unit 15060106, on left bank 3.5 mi downstream from Stewart Mountain Dam and 6 mi upstream from Verde River.

DRAINAGE AREA.--6,232 mi² of which 21 mi² is below Stewart Mountain Dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1930 to current year. Monthly discharge only for some periods, published in WSP 1313. Published as "at Stewart Mountain Dam" 1934-41.

REVISED RECORDS.--WSP 1343: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,370 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 27, 1934, at site 3.2 mi upstream at different datum. Sept. 27, 1934, to Jan. 20, 1950, at site 2.8 mi upstream at datum 1,396.33 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by four reservoirs above station. (See elsewhere in this report.) Entire flow (except during infrequent periods of extreme flooding) is diverted at Granite Reef Dam, 10 mi downstream, for irrigation in Salt River Valley and for municipal use by the city of Phoenix.

AVERAGE DISCHARGE.--56 years, 978 ft³/s, 708,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75,200 ft³/s Feb. 15, 1980, gage height, 25.0 ft, from highwater mark inside gage well, from rating curve extended above 10,000 ft³/s defined by known release rates from Stewart Mountain Dam and recorded gage heights; maximum daily discharge, 64,000 ft³/s Feb. 16, 1980; no flow at times in recent years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,020 ft³/s Apr. 5; minimum daily, 1.8 ft³/s Mar. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	914	6.9	5.5	760	6.9	4.3	2230	1440	1580	1710	1740	1070
2	912	6.7	5.5	750	5.6	4.3	2210	1500	1590	1740	1750	1060
3	908	6.7	5.8	742	5.1	4.3	2200	1480	1730	1720	1660	1170
4	686	6.7	6.3	743	4.9	4.3	2480	1440	1770	1660	1600	1240
5	565	6.7	6.4	744	4.5	4.3	3020	1330	1710	1410	1710	1320
6	513	6.7	7.5	749	4.7	4.3	2790	1380	1690	1380	1710	1330
7	484	6.5	8.9	747	4.9	4.3	2050	1450	1690	1450	1660	1250
8	576	6.4	8.6	754	5.2	4.1	1840	1320	1690	1570	1680	1240
9	569	6.3	1230	753	7.7	4.1	1870	1460	1670	1710	1710	1270
10	565	5.9	2200	751	5.8	3.8	1870	1350	1700	1790	1630	1230
11	448	5.4	2200	638	5.3	1.8	1720	1280	1760	1810	1620	1310
12	319	6.9	2210	602	5.0	295	1610	1320	1750	1790	1590	1360
13	332	5.8	2190	642	5.0	619	1530	1390	1720	1810	1620	1280
14	141	5.5	2210	774	4.9	565	1660	1410	1760	1830	1680	1160
15	18	5.5	2220	845	5.1	435	1660	1480	1750	1750	1710	1030
16	12	5.5	2220	853	6.0	353	1650	1480	1660	1730	1700	1110
17	10	5.5	2220	700	5.1	217	1780	1420	1760	1770	1690	1050
18	10	5.5	2040	447	4.9	33	1730	1500	1810	1740	1600	1090
19	10	5.5	1760	464	4.8	20	1700	1540	1820	1710	1670	1100
20	10	5.2	1750	487	4.7	122	1700	1550	1780	1680	1700	1180
21	7.2	5.1	1750	522	4.6	605	1730	1680	1750	1470	1690	1120
22	7.2	5.2	1750	501	4.7	777	1710	1750	1740	1410	1730	985
23	7.2	5.2	1760	460	4.7	902	1660	1670	1610	1200	1690	874
24	6.9	5.2	1750	438	4.8	1100	1650	1580	1640	1210	1630	765
25	6.9	5.2	1750	27	4.6	1240	1590	1500	1630	1480	1640	748
26	6.9	5.4	1750	9.1	4.3	1440	1520	1390	1770	1470	1580	612
27	6.9	5.5	1750	7.2	4.3	1520	1310	1430	1820	1570	1590	729
28	6.9	5.5	1750	6.6	4.3	1690	1240	1520	1770	1590	1600	664
29	6.9	5.5	1750	6.2	---	1880	1340	1670	1730	1730	1430	616
30	6.9	5.5	1740	6.1	---	1880	1410	1740	1710	1740	1220	689
31	6.9	---	1290	6.0	---	2050	---	1630	---	1750	1160	---
TOTAL	8078.8	175.1	43294.5	15934.2	142.4	17786.9	54460	46080	51560	50380	50390	31652
MEAN	261	5.84	1397	514	5.09	574	1815	1486	1719	1625	1625	1055
MAX	914	6.9	2220	853	7.7	2050	3020	1750	1820	1830	1750	1360
MIN	6.9	5.1	5.5	6.0	4.3	1.8	1240	1280	1580	1200	1160	612
AC-FT	16020	347	85870	31610	282	35280	108000	91400	102300	99930	99950	62780
CAL YR 1985	TOTAL	743752.4	MEAN	2038	MAX	15200	MIN	5.1	AC-FT	1475000		
WTR YR 1986	TOTAL	369933.9	MEAN	1014	MAX	3020	MIN	1.8	AC-FT	733800		

09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily record of specific conductance and water temperature collected at Stewart Mountain Dam, 3.5 mi upstream from gaging station.

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1982, March 1983 to current year.

WATER TEMPERATURES: December 1950 to September 1982, March 1983 to current year.

REMARKS.--No flow between specific conductance sampling point and gaging station except during infrequent periods of heavy local rains. Unpublished daily specific conductance measurements for period December 1950 to September 1964, available from district office in Tucson, Ariz.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 2,490 microsiemens Aug. 20, 1951; minimum daily observed, 470 microsiemens Feb. 10, 1980.

WATER TEMPERATURES: Maximum daily observed, 29.0°C Aug. 24, 26, 27, 1951, Sept. 11, 12, 1969; minimum daily observed, 9.0°C Feb. 1, 1979.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 876 microsiemens July 14; minimum daily observed, 665 microsiemens Dec. 28-30, Jan. 3, 4.

WATER TEMPERATURES: Maximum daily observed, 24.0°C several days in June, July, Aug., Sept.; minimum daily observed, 13.0°C Jan. 10, 24.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS. / 100 ML) (31625)	
								(MM OF HG) (00025)	(MG/L) (00300)	(00301)	(31625)	
NOV 1985 06...	1615	6.5	661	8.25	26.0	20.0	11	725	8.2	96	K13	
JAN 1986 23...	1110	456	678	8.30	16.5	13.0	2.7	729	10.5	104	<1	
MAR 20...	1040	13	691	8.40	18.0	16.0	1.7	736	8.6	90	K5	
MAY 29...	0945	1700	803	8.19	34.5	19.5	2.0	723	8.4	97	K8	
JUL 23...	1230	1200	810	8.20	43.0	25.5	2.7	725	9.5	123	K7	
SEP 23...	0915	902	842	8.02	22.5	22.0	3.0	722	6.1	74	K5	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT DIS- SOLVED MG/L AS CACO3) (00902)	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)	BICAR- BONATE IT-FLD MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3) (00410)
NOV 1985 06...	K13	150	19	41	11	89	3	3.5	157	0	125	
JAN 1986 23...	K14	150	40	41	11	77	3	2.9	132	0	105	
MAR 20...	K17	150	28	41	11	84	3	3.2	144	1.0	120	
MAY 29...	47	150	33	42	11	92	3	3.2	143	0	117	
JUL 23...	K5	150	52	42	12	98	4	3.5	--	--	103	
SEP 23...	31	160	46	45	12	99	4	3.4	142	0	117	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

WATER QUALITY DATA

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)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
NOV 1985 06...	47	140	0.30	15	409	420	0.56	4	<0.010	<0.100	<0.100
JAN 1986 23...	47	120	0.30	16	374	380	0.51	--	<0.010	<0.100	<0.100
MAR 20...	50	130	0.30	12	387	400	0.53	2	<0.010	<0.100	<0.100
MAY 29...	50	140	0.20	16	441	430	0.60	--	<0.010	<0.100	<0.100
JUL 23...	51	150	0.20	17	464	440	0.63	1	<0.010	<0.100	<0.100
SEP 23...	*220	*37	*2.0	16	579	500	0.79	4	<0.010	<0.100	<0.100

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
NOV 1985 06...	0.020	0.030	0.18	0.20	0.030	0.010	0.030	0.09	--	3	3
JAN 1986 23...	0.040	0.040	0.26	0.30	0.030	0.030	0.020	0.06	--	3	3
MAR 20...	0.010	0.020	0.39	0.40	0.020	0.010	0.020	0.06	<10	3	3
MAY 29...	0.020	0.020	0.38	0.40	0.060	0.010	<0.010	--	--	2	2
JUL 23...	0.020	0.030	0.38	0.40	0.020	0.010	<0.010	--	<10	3	3
SEP 23...	0.020	0.030	0.28	0.30	0.030	0.030	0.030	0.09	--	3	--

DATE	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	CADMIUM TOTAL RECOV- ERABLE (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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	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)
NOV 1985 06...	38	<0.5	<1	<1	4	<1	<3	2	1	--
JAN 1986 23...	44	--	<1	<1	4	<1	--	3	3	110
MAR 20...	37	<0.5	<1	<1	8	<1	<3	5	2	--
MAY 29...	240	--	<1	<1	<1	<1	--	17	2	60
JUL 23...	49	<0.5	<1	<1	<1	<1	<3	14	4	--
SEP 23...	--	--	<1	--	4	--	--	10	--	--

DATE	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)	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)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
NOV 1985 06...	<3	<1	<1	60	30	13	<0.10	<0.1	<10	1
JAN 1986 23...	7	<1	<1	--	20	3	<0.10	--	--	--
MAR 20...	8	1	2	57	30	7	<0.10	<0.1	<10	2
MAY 29...	17	5	<1	--	20	6	<0.10	--	--	--
JUL 23...	4	<5	<5	69	30	9	0.10	<0.1	<10	<1
SEP 23...	--	<5	--	--	40	--	<0.10	--	--	--

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

WATER QUALITY DATA

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	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, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985 06...	<1	<1	<1	300	<6	<10	5	45	7	0.12
JAN 1986 23...	<1	<1	<1	--	--	20	8	89	8	9.8
MAR 20...	<1	<1	<1	310	<6	<10	12	58	5	0.18
MAY 29...	<1	<1	<1	--	--	<10	6	69	4	18
JUL 23...	<1	<1	<1	340	<6	20	14	73	4	13
SEP 23...	<1	--	--	--	--	20	--	--	6	15

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	691	---	---	670	---	---	698	760	800	849	850	840
2	677	---	---	668	---	---	680	765	800	857	855	845
3	675	---	---	665	---	---	681	751	800	858	850	829
4	675	---	---	665	---	---	690	760	800	859	---	841
5	673	---	---	668	---	---	693	762	801	859	845	830
6	676	---	---	670	---	---	697	762	860	869	832	838
7	---	---	---	674	---	---	702	765	860	869	832	841
8	677	---	---	680	---	---	707	776	860	869	852	839
9	677	---	---	680	---	---	715	776	851	869	851	840
10	674	---	700	676	---	---	721	782	850	869	857	833
11	674	---	692	680	---	---	721	782	850	859	840	850
12	677	---	691	680	---	---	700	778	850	849	855	840
13	678	---	689	676	---	709	721	782	850	850	845	831
14	---	---	686	675	---	700	729	788	850	876	845	832
15	---	---	681	676	---	699	---	788	850	855	840	831
16	---	---	683	680	---	701	734	784	850	860	859	840
17	---	---	675	681	---	701	740	795	850	---	852	839
18	---	---	680	680	---	---	745	787	851	849	841	830
19	---	---	674	680	---	---	745	789	852	851	855	840
20	---	---	670	680	---	---	745	785	853	844	834	830
21	---	---	669	675	---	701	756	790	853	851	859	831
22	---	---	---	680	---	699	758	794	852	855	855	839
23	---	---	672	680	699	---	755	790	852	855	850	829
24	---	---	---	681	697	---	750	790	860	850	851	836
25	---	---	678	---	---	699	750	790	848	851	839	841
26	---	---	671	---	---	702	756	798	860	850	839	841
27	---	---	669	---	---	700	760	798	851	850	833	839
28	---	---	665	---	---	700	768	801	860	855	850	831
29	---	---	665	---	---	700	760	798	844	850	846	831
30	---	---	665	---	---	695	760	797	861	842	831	842
31	---	---	668	---	---	699	---	800	---	851	832	---

W.Y. 1986 MAXIMUM 876 MINIMUM 665

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09502000 SALT RIVER BELOW STEWART MOUNTAIN DAM, AZ--Continued

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	---	---	14.0	---	---	17.0	17.0	19.0	24.0	22.0	22.0
2	22.0	---	---	14.0	---	---	17.0	17.0	19.0	21.0	22.0	22.0
3	22.0	---	---	14.0	---	---	17.0	17.0	19.0	21.0	22.0	22.0
4	22.0	---	---	14.0	---	---	16.0	17.0	20.0	21.0	---	22.0
5	21.0	---	---	14.0	---	---	16.0	18.0	20.0	21.0	22.0	22.0
6	21.0	---	---	14.0	---	---	16.0	17.0	20.0	21.0	22.0	22.0
7	---	---	---	14.0	---	---	16.0	17.0	20.0	21.0	22.0	23.0
8	21.0	---	---	14.0	---	---	16.0	17.0	20.0	21.0	23.0	23.0
9	21.0	---	---	14.0	---	---	16.0	17.0	20.0	21.0	22.0	23.0
10	21.0	---	16.0	13.0	---	---	16.0	17.0	20.0	21.0	22.0	23.0
11	20.0	---	15.0	14.0	---	---	16.0	17.0	20.0	21.0	22.0	22.0
12	20.0	---	15.0	14.0	---	---	16.0	18.0	20.0	21.0	23.0	22.0
13	20.0	---	15.0	14.0	---	14.0	16.0	18.0	20.0	21.0	23.0	23.0
14	---	---	15.0	14.0	---	14.0	16.0	19.0	20.0	22.0	23.0	23.0
15	---	---	15.0	14.0	---	14.0	---	19.0	20.0	22.0	23.0	23.0
16	---	---	15.0	14.0	---	14.0	16.0	19.0	20.0	22.0	24.0	24.0
17	---	---	14.0	14.0	---	14.0	16.0	19.0	20.0	22.0	24.0	24.0
18	---	---	14.0	15.0	---	---	16.0	19.0	20.0	22.0	24.0	24.0
19	---	---	15.0	14.0	---	---	16.0	19.0	20.0	23.0	24.0	23.0
20	---	---	15.0	14.0	---	---	16.0	19.0	21.0	23.0	23.0	22.0
21	---	---	14.0	15.0	---	14.0	16.0	18.0	21.0	22.0	24.0	22.0
22	---	---	---	15.0	---	14.0	16.0	19.0	21.0	23.0	24.0	22.0
23	---	---	14.0	15.0	14.0	---	18.0	19.0	21.0	24.0	23.0	22.0
24	---	---	---	13.0	14.0	---	18.0	19.0	21.0	24.0	23.0	22.0
25	---	---	15.0	---	---	14.0	18.0	19.0	23.0	23.0	23.0	22.0
26	---	---	14.0	---	---	14.0	18.0	19.0	23.0	22.0	23.0	22.0
27	---	---	14.0	---	---	14.0	17.0	19.0	23.0	22.0	23.0	22.0
28	---	---	14.0	---	---	17.0	17.0	19.0	23.0	22.0	22.0	22.0
29	---	---	14.0	---	---	17.0	18.0	19.0	24.0	22.0	23.0	22.0
30	---	---	14.0	---	---	16.0	17.0	19.0	24.0	22.0	22.0	22.0
31	---	---	14.0	---	---	17.0	---	19.0	---	22.0	22.0	---

W.Y. 1986 MAXIMUM 24.0 MINIMUM 13.0

GILA RIVER BASIN

09503700 VERDE RIVER NEAR PAULDEN, AZ

LOCATION.--Lat 34°53'40", long 112°20'32", in SW¼SE¼ sec.39, T.18 N., R.1 W. (revised), Yavapai County, Hydrologic Unit 15060202, in Prescott National Forest, on right bank 0.3 mi upstream from Verde Valley Ranch, 7 mi east of Paulden, 8 mi upstream from Hell Canyon, 8 mi downstream from Granite Creek, and 10 mi downstream from Sullivan Lake.

DRAINAGE AREA.--2,530 mi², approximately (includes 373 mi² in Aubrey Valley Playa, a closed basin).

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

REVISED RECORDS.--WDR AZ-83-1: 1981.

GAGE.--Water-stage recorder. Elevation of gage is 4,117 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 25-27. Records good except for daily discharges above 27 ft³/s, which are fair. Diversions and storage above station for irrigation and municipal use. Several observations of water temperature and specific conductance were made during the year. Recording rain gage and satellite telemeter at station.

AVERAGE DISCHARGE.--23 years, 43.3 ft³/s, 31,370 acre-ft/yr; median of yearly mean discharges, 30 ft³/s, 21,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,700 ft³/s Feb. 20, 1980, gage height, 12.72 ft, from rating curve extended above 7,600 ft³/s on basis of slope-conveyance and step-backwater analysis; maximum gage height, 12.89 ft Sept. 24, 1983; minimum daily discharge, 15 ft³/s May 13-23, 1964.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1315	*1,460	*5.76

Minimum daily discharge, 25 ft³/s May 17, 20, 21, 25-28, June 9-28, July 1, 6, 9-14, 16-19, July 30 to Aug. 2, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	27	193	26	28	28	29	26	26	25	25	31
2	26	28	61	26	28	28	29	26	27	26	25	27
3	26	28	37	26	28	28	28	26	30	26	26	27
4	26	28	31	26	28	28	28	26	28	26	26	27
5	26	28	29	26	28	28	28	26	26	26	26	27
6	27	28	28	26	28	28	28	26	26	25	26	27
7	27	28	28	26	28	28	28	26	26	26	25	27
8	27	28	27	26	29	28	28	26	26	26	29	28
9	27	28	27	27	29	28	28	26	25	25	28	28
10	27	28	27	27	28	28	28	26	25	25	26	27
11	27	28	27	27	28	28	28	26	25	25	26	27
12	27	30	27	27	28	28	28	26	25	25	27	27
13	27	28	27	27	28	28	28	26	25	25	26	27
14	27	28	27	27	28	45	28	26	25	25	27	27
15	26	28	27	27	30	54	28	26	25	26	26	27
16	27	28	27	27	31	50	28	26	25	25	26	27
17	27	28	27	27	81	45	28	25	25	25	26	27
18	27	28	26	27	48	104	28	26	25	25	27	28
19	26	28	26	27	34	69	28	26	25	25	26	28
20	26	28	26	27	29	49	27	25	25	26	26	28
21	26	28	26	27	28	37	27	25	25	27	26	28
22	27	28	26	27	28	31	27	26	25	28	26	29
23	27	28	26	27	28	29	27	26	25	27	26	30
24	27	28	26	27	28	28	28	26	25	26	29	29
25	27	32	26	27	28	28	26	25	25	26	29	29
26	27	34	26	28	28	28	26	25	25	26	27	28
27	27	43	26	28	28	28	26	25	25	26	27	28
28	27	36	26	28	28	28	26	25	25	26	29	28
29	27	31	26	28	---	28	26	26	26	26	37	28
30	27	461	26	28	---	28	26	26	26	25	28	28
31	27	---	26	28	---	28	---	26	---	25	35	---
TOTAL	828	1310	1041	835	871	1101	826	799	767	796	844	834
MEAN	26.7	43.7	33.6	26.9	31.1	35.5	27.5	25.8	25.6	25.7	27.2	27.8
MAX	27	461	193	28	81	104	29	26	30	28	37	31
MIN	26	27	26	26	28	28	26	25	25	25	25	27
AC-FT	1640	2600	2060	1660	1730	2180	1640	1580	1520	1580	1670	1650

CAL YR	1985	TOTAL	12229	MEAN	33.5	MAX	461	MIN	25	AC-FT	24260
WTR YR	1986	TOTAL	10852	MEAN	29.7	MAX	461	MIN	25	AC-FT	21520

09504000 VERDE RIVER NEAR CLARKDALE, AZ

LOCATION.--Lat 34°51'08", long 112°03'55", in NW¼SE¼ sec.17, T.17 N., R.3 E., Yavapai County, Hydrologic Unit 15060202, in Prescott National Forest, on left bank 1.7 mi downstream from Sycamore Creek and 5.6 mi north of Clarkdale.

DRAINAGE AREA.--3,520 mi², approximately (includes 373 mi² in Aubrey Valley Playa, a closed basin).

PERIOD OF RECORD.--June 1915 to October 1916, May 1917 to July 1921, April 1965 to current year.

REVISED RECORDS.--WSP 1213: 1917, 1920.

GAGE.--Water-stage recorder. Elevation of gage is 3,500 ft above National Geodetic Vertical Datum of 1929. June 1915 to June 1921 at site 2.5 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Dec. 6-12, Mar. 16-30, Apr. 4-7. Records good except for estimated daily discharges, Dec. 6-12, which are fair, and Mar. 16-30, Apr. 4-7, which are poor.

AVERAGE DISCHARGE.--25 years (water years 1916, 1918-20, 1966-86), 200 ft³/s, 144,900 acre-ft/yr; median of yearly mean discharges, 157 ft³/s, 114,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 50,600 ft³/s Feb. 21, 1920, gage height, 19.1 ft, site and datum then in use, from rating curve extended above 2,500 ft³/s on basis of float-area measurement at 35,000 ft³/s; minimum daily, 55 ft³/s Aug. 31, Sept. 1, 1920.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0100	*5,880	7.27
Mar. 23	unknown	2,160	4.04

Minimum daily discharge, 78 ft³/s Aug. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	87	1080	84	95	99	135	95	91	88	78	102
2	90	87	426	86	95	99	1080	95	91	86	79	95
3	89	87	264	87	95	97	621	95	96	89	80	88
4	89	87	336	87	95	95	291	94	101	88	81	85
5	89	87	220	87	95	95	220	93	97	88	84	84
6	88	87	160	87	95	95	160	94	94	84	83	82
7	95	87	140	87	97	97	120	95	91	83	82	80
8	92	87	117	87	98	97	108	95	90	85	81	90
9	91	88	97	87	100	101	103	95	89	84	94	100
10	92	89	93	88	101	102	101	94	89	83	89	89
11	96	89	93	89	100	109	101	94	89	82	84	85
12	94	100	93	89	99	105	101	94	88	82	83	84
13	92	95	88	89	99	116	101	94	88	79	83	84
14	90	90	86	89	99	261	100	93	87	118	91	83
15	89	89	84	89	104	520	99	93	87	106	127	83
16	92	89	82	89	112	470	98	94	87	99	93	83
17	89	89	81	89	126	380	97	93	87	88	83	82
18	89	89	81	89	401	420	97	93	87	84	88	83
19	89	88	81	89	1180	580	97	93	86	83	83	82
20	89	87	81	89	914	680	97	92	86	82	80	82
21	89	87	79	89	423	1220	97	92	86	85	81	82
22	89	87	79	89	222	1800	96	92	86	112	82	85
23	89	89	79	89	154	1800	95	92	86	98	81	92
24	89	89	79	90	130	1220	95	91	87	90	93	100
25	89	101	79	91	113	690	95	91	85	86	88	95
26	89	338	80	91	104	360	95	91	85	84	132	91
27	89	341	79	91	102	227	95	91	85	82	167	88
28	89	169	79	92	101	171	95	90	85	82	130	86
29	87	134	80	93	---	147	95	91	86	81	111	85
30	87	2770	81	93	---	177	95	91	89	81	104	85
31	87	---	82	93	---	156	---	91	---	80	93	---
TOTAL	2786	5983	4659	2758	5549	12586	4880	2881	2661	2722	2888	2615
MEAN	89.9	199	150	89.0	198	406	163	92.9	88.7	87.8	93.2	87.2
MAX	96	2770	1080	93	1180	1800	1080	95	101	118	167	102
MIN	87	87	79	84	95	95	95	90	85	79	78	80
AC-FT	5530	11870	9240	5470	11010	24960	9680	5710	5280	5400	5730	5190
CAL YR 1985	TOTAL	61859	MEAN	169	MAX	2770	MIN	79	AC-FT	122700		
WTR YR 1986	TOTAL	52968	MEAN	145	MAX	2770	MIN	78	AC-FT	105100		

GILA RIVER BASIN

09504430 OAK CREEK AT SEDONA, AZ

LOCATION.--Lat 34 51'42", long 111 45'40", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.18, T.17 N., R.6 E., Coconino County, Hydrologic Unit 15060202, on left bank 290 ft downstream from State Highway 179 bridge in Sedona, 28 mi southwest of Flagstaff, and 35.1 mi upstream from mouth.

DRAINAGE AREA.--233 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,169.20 ft above National Geodetic Vertical Datum of 1929 (Arizona Department of Transportation bench mark).

REMARKS.--No estimated daily discharge. Records fair. Many diversions above and below station for irrigation.

AVERAGE DISCHARGE.--5 years, 106 ft³/s, 76,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 20,700 ft³/s Mar. 12, 1982, gage height, 15.64 ft from outside floodmark, from rating curve extended above 5,000 ft³/s on the basis of slope-conveyance study; minimum daily, 19 ft³/s June 12, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 900 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0500	2,950	7.65	Mar. 22	2115	1,450	6.13
Nov. 29	2330	*4,980	*9.15	Apr. 2	0200	2,200	7.00
Feb. 18	2200	1,330	5.96				

Minimum daily discharge, 19 ft³/s June 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	31	457	31	29	71	582	32	29	28	29	28
2	28	31	266	31	30	67	1240	32	30	28	29	29
3	28	32	322	31	30	62	413	32	65	28	30	26
4	29	32	322	32	34	59	202	33	38	148	31	26
5	29	32	179	32	30	60	131	32	31	75	29	25
6	30	32	122	31	30	60	93	32	29	40	26	24
7	45	32	95	31	29	58	76	32	29	34	28	25
8	31	32	77	32	30	58	57	32	29	33	26	30
9	30	32	65	30	31	57	51	32	30	38	26	43
10	38	32	55	30	29	63	50	32	28	31	27	31
11	37	34	47	31	29	83	48	32	20	30	26	29
12	31	65	44	30	29	75	45	32	19	28	27	27
13	31	39	41	31	29	114	44	32	27	28	26	25
14	32	33	40	32	29	215	43	31	28	31	27	24
15	32	32	38	32	40	251	42	28	27	34	26	24
16	34	31	37	30	129	267	41	28	27	45	27	23
17	32	31	36	30	241	216	38	28	27	34	25	22
18	32	30	36	31	706	188	38	29	27	33	25	22
19	32	30	36	32	777	241	37	29	27	34	25	22
20	32	30	35	32	536	366	37	29	28	86	24	22
21	32	31	35	31	264	654	36	29	27	71	23	22
22	32	30	35	31	150	884	36	28	27	109	25	27
23	32	31	34	31	109	881	34	29	28	64	26	41
24	32	30	34	32	92	771	33	28	28	43	27	74
25	33	487	33	31	82	580	33	28	28	37	26	344
26	33	1590	33	31	76	452	33	28	28	35	33	261
27	33	414	33	32	74	320	33	28	29	32	39	82
28	32	139	33	32	71	207	33	29	28	32	35	54
29	32	750	32	31	---	263	32	28	28	31	29	43
30	31	1460	32	29	---	241	32	28	28	31	30	36
31	31	---	32	30	---	120	---	30	---	30	27	---
TOTAL	995	5635	2716	963	3765	8004	3643	932	874	1381	859	1511
MEAN	32.1	188	87.6	31.1	134	258	121	30.1	29.1	44.5	27.7	50.4
MAX	45	1590	457	32	777	884	1240	33	65	148	39	344
MIN	28	30	32	29	29	57	32	28	19	28	23	22
AC-FT	1970	11180	5390	1910	7470	15880	7230	1850	1730	2740	1700	3000
CAL YR	1985	TOTAL	37855	MEAN	104	MAX	1640	MIN	21	AC-FT	75090	
WTR YR	1986	TOTAL	31278	MEAN	85.7	MAX	1590	MIN	19	AC-FT	62040	

GILA RIVER BASIN

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09504500 OAK CREEK NEAR CORNVILLE, AZ

LOCATION.--Lat 34°45'52", long 111°53'25", in NW¼SW¼ sec.23, T.16 N., R.4 E., Yavapai County, Hydrologic Unit 15060202, on right bank 250 ft downstream from county highway bridge, 0.2 mi upstream from Page Springs, 4 mi northeast of Cornville, and 15 mi upstream from mouth.

DRAINAGE AREA.--357 mi².

PERIOD OF RECORD.--July 1940 to September 1945, April 1948 to current year.

REVISED RECORDS.--WSP 1149: 1948(M). WRD Ariz. 1974: 1973.

GAGE.--Water-stage recorder and crest stage gage. Elevation of gage is 3,470 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to March 10, 1981, at site 250 ft upstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Numerous diversions above and below station for irrigation.

AVERAGE DISCHARGE.--43 years, 90.8 ft³/s, 65,780 acre-ft/yr; median of yearly mean discharges, 76 ft³/s, 55,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,400 ft³/s Feb. 19, 1980, gage height, 16.30 ft, maximum gage height, 16.48 ft, Sept. 5, 1970; minimum discharge, 6 ft³/s July 27, 1940.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1885, 23 ft in March 1938, from floodmarks (upstream side of bridge).

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0645	3,190	7.19	Apr. 2	0430	1,860	5.93
Nov. 30	0145	*6,480	*9.61				

Minimum daily discharge, 20 ft³/s June 28, Aug. 1, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	32	542	41	36	43	257	26	24	24	20	39
2	26	31	365	46	36	42	1240	25	23	21	21	33
3	25	32	294	45	33	40	472	24	114	23	20	32
4	25	32	401	45	33	39	249	24	114	87	29	30
5	25	30	220	41	33	38	161	25	41	108	41	28
6	24	31	149	40	32	37	104	25	33	38	26	27
7	46	31	108	39	34	37	77	26	30	28	25	27
8	34	30	92	39	34	38	62	27	30	26	23	29
9	29	30	83	40	36	38	54	26	27	24	24	78
10	29	30	71	40	36	43	48	25	25	34	23	40
11	45	32	60	40	35	73	45	24	25	22	24	35
12	33	137	56	38	34	56	43	24	25	21	23	33
13	30	68	52	37	34	75	42	25	23	21	24	31
14	30	42	50	35	34	159	40	23	21	21	37	31
15	29	38	48	36	36	209	39	23	21	23	44	31
16	32	36	43	36	60	270	39	23	21	86	29	31
17	32	36	41	35	199	353	35	24	21	37	27	30
18	31	35	40	35	362	235	34	24	23	29	27	29
19	30	36	40	34	636	205	34	23	23	28	26	29
20	30	36	39	34	405	236	31	22	22	46	25	29
21	30	36	40	34	244	419	31	22	21	59	27	30
22	30	35	39	34	134	652	30	23	22	141	24	33
23	31	35	39	34	87	741	28	22	23	74	29	42
24	31	36	39	35	67	722	28	22	22	43	29	102
25	31	112	39	34	55	512	27	22	23	34	30	297
26	31	1700	39	34	50	417	27	22	22	30	111	364
27	32	504	39	35	45	306	27	22	21	26	200	131
28	32	195	40	35	43	218	27	23	20	25	111	68
29	32	129	42	34	---	174	26	22	23	24	47	50
30	31	2030	41	34	---	271	25	21	26	24	47	43
31	32	---	43	35	---	147	---	22	---	22	42	---
TOTAL	952	5617	3234	1154	2903	6845	3382	731	909	1249	1235	1832
MEAN	30.7	187	104	37.2	104	221	113	23.6	30.3	40.3	39.8	61.1
MAX	46	2030	542	46	636	741	1240	27	114	141	200	364
MIN	24	30	39	34	32	37	25	21	20	21	20	27
AC-FT	1890	11140	6410	2290	5760	13580	6710	1450	1800	2480	2450	3630

CAL YR	1985	TOTAL	37775	MEAN	103	MAX	2030	MIN	17	AC-FT	74930
WTR YR	1986	TOTAL	30043	MEAN	82.3	MAX	2030	MIN	20	AC-FT	59590

GILA RIVER BASIN

09505220 ROCKY GULCH NEAR RIMROCK, AZ

LOCATION.--Lat 34°44'49, long 111°29'38", in SE¼NW¼ sec.27, T.16 N., R.8 E., Coconino County, Hydrologic Unit 15060202, in Coconino National Forest, on right bank, on headwaters of Rocky Gulch, and 7 mi northwest of Rimrock.

DRAINAGE AREA.--1.40 mi².

PERIOD OF RECORD.--October 1985 to September 1986. Prior to October 1985, station operated by the U.S. Forest Service (records unpublished).

GAGE.--Water-stage recorder and concrete flume. Elevation of gage is 6,750 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Feb. 25-28, Mar. 17, 18, 26. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24 ft³/s Apr. 2, 1986, gage height, 1.20 ft; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft³/s, Apr. 2, gage height, 1.20 ft; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.05	.07	1.0	.02	.00	.03	3.1	.03	.0	.0	.0	.0
2	.05	.07	.82	.12	.00	.03	7.6	.03	.0	.01	.0	.0
3	.03	.06	3.3	.00	.00	.03	2.1	.03	.0	.0	.0	.0
4	.03	.03	1.5	.02	.01	.03	1.1	.03	.0	.0	.0	.0
5	.03	.00	.78	.04	.00	.03	.68	.03	.0	.0	.0	.0
6	.04	.00	.41	.05	.01	.03	.38	.03	.0	.0	.0	.0
7	.09	.01	.21	.06	.00	.03	.25	.03	.0	.0	.0	.0
8	.07	.02	.16	.02	.00	.03	.19	.03	.0	.0	.0	.0
9	.06	.03	.12	.0	.00	.03	.16	.03	.0	.0	.0	.0
10	.04	.01	.08	.0	.00	.08	.14	.03	.0	.0	.0	.0
11	.07	.0	.22	.09	.00	.13	.11	.03	.0	.0	.0	.0
12	.07	.05	.22	.03	.00	.24	.11	.03	.0	.0	.0	.0
13	.06	.03	.07	.02	.00	.46	.08	.03	.01	.0	.0	.0
14	.04	.03	.05	.04	.00	.73	.07	.03	.0	.0	.0	.0
15	.03	.03	.08	.00	.01	1.1	.07	.03	.0	.0	.0	.0
16	.03	.03	.13	.0	.17	1.6	.07	.03	.0	.0	.0	.00
17	.03	.03	.07	.01	1.3	2.5	.07	.03	.0	.0	.0	.00
18	.03	.03	.0	.00	5.5	5.0	.07	.03	.0	.0	.0	.00
19	.03	.09	.0	.0	7.0	4.2	.03	.03	.0	.0	.0	.00
20	.03	.07	.0	.00	4.9	5.4	.03	.03	.0	.0	.0	.00
21	.03	.02	.0	.01	1.8	7.4	.03	.03	.0	.01	.0	.00
22	.03	.02	.05	.02	.81	9.2	.03	.03	.0	.04	.0	.00
23	.03	.03	.05	.01	.54	8.6	.03	.03	.0	.00	.0	.0
24	.03	.02	.0	.01	.45	6.0	.03	.03	.0	.0	.0	.0
25	.03	.97	.15	.0	.37	3.6	.03	.03	.0	.0	.02	.05
26	.03	2.6	.14	.01	.28	2.8	.03	.03	.02	.0	.0	.08
27	.04	.65	.16	.0	.20	1.9	.03	.03	.01	.0	.0	.03
28	.05	.22	.14	.0	.11	1.1	.03	.03	.0	.0	.0	.02
29	.05	.26	.11	.01	---	3.3	.03	.03	.0	.0	.0	.01
30	.05	1.9	.04	.0	---	1.4	.03	.03	.0	.0	.0	.0
31	.05	---	.01	.0	---	.67	---	.01	---	.0	.0	---
TOTAL	1.33	7.38	10.07	.59	23.46	67.68	16.71	.91	.04	.06	.02	.19
MEAN	.043	.25	.32	.019	.84	2.18	.56	.029	.001	.002	.001	.006
MAX	.09	2.6	3.3	.12	7.0	9.2	7.6	.03	.02	.04	.02	.08
MIN	.03	.00	.00	.00	.00	.03	.03	.01	.00	.00	.00	.00
AC-FT	2.6	15	20	1.2	47	134	33	1.8	.08	.1	.04	.4

WTR YR 1986 TOTAL 128.44 MEAN .35 MAX 9.2 MIN .00 AC-FT 255

GILA RIVER BASIN

205

09505260 MONTEZUMA WELL OUTLET NEAR RIMROCK, AZ

LOCATION.--Lat 34°38'53", long 111°45'02", in NE¼, sec.31, T.15 N., R.6 E., Yavapai County, Hydrologic Unit 15060202, in Montezuma Castle National Monument, on left bank 100 ft downstream from outlet of Montezuma Well, and 2.5 mi northeast of Rimrock.

PERIOD OF RECORD.--1948-59, 1961, 1976 (three or less discharge measurements each year); April 1977 to current year.

GAGE.--Water-stage recorder and sharp-crested weir. Elevation of gage is 3,560 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 22 to Feb. 5, May 21-25, and June 20-24. Records good except those during Jan. 22 to Feb. 5, when flow was diverted into Wet Beaver Creek above the gage, which are fair. No diversions between outlet and gage since June 1977 when gate was removed.

AVERAGE DISCHARGE.--9 years (water years 1978-86), 2.24 ft³/s, 1,620 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3.2 ft³/s Apr. 4, 8-20, July 17-23, 26-31, Aug. 6, 7, 13-16, 21, 1979; minimum daily, 0.90 ft³/s Oct. 4, 1985.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2.8 ft³/s Apr. 3-23; minimum daily, 0.90 ft³/s Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.0	1.0	1.2	2.4	2.5	2.7	2.5	2.4	2.3	2.7	2.1
2	.95	1.0	1.0	1.2	2.4	2.6	2.7	2.5	2.4	2.3	2.7	2.0
3	.95	1.1	1.0	1.2	2.4	2.6	2.8	2.6	2.4	2.3	2.7	1.9
4	.90	1.2	1.0	1.2	2.5	2.6	2.8	2.5	2.4	2.3	2.6	1.9
5	.95	1.2	1.0	1.3	2.5	2.6	2.8	2.5	2.4	2.3	2.5	1.9
6	1.0	1.1	1.0	1.6	2.5	2.6	2.8	2.5	2.4	2.3	2.5	1.9
7	1.0	1.0	1.0	1.7	2.5	2.6	2.8	2.5	2.3	2.2	2.5	1.9
8	1.0	1.0	1.0	1.7	2.5	2.6	2.8	2.5	2.3	2.2	2.5	1.9
9	1.1	1.0	1.0	1.7	2.5	2.6	2.8	2.5	2.2	2.2	2.5	1.9
10	1.2	1.0	1.0	1.7	2.5	2.6	2.8	2.5	2.2	2.3	2.5	1.9
11	1.2	1.0	1.0	1.7	2.5	2.6	2.8	2.5	2.2	2.3	2.5	1.9
12	1.2	.95	1.0	1.7	2.5	2.6	2.8	2.5	2.2	2.3	2.5	1.9
13	1.2	.95	1.0	1.9	2.5	2.6	2.8	2.5	2.2	2.3	2.4	1.9
14	1.2	.95	1.0	2.1	2.5	2.6	2.8	2.5	2.2	2.3	2.4	1.9
15	1.2	.95	1.0	2.3	2.5	2.6	2.8	2.5	2.2	2.3	2.4	1.8
16	1.2	1.0	1.1	2.3	2.5	2.6	2.8	2.4	2.2	2.3	2.4	1.8
17	1.2	1.0	1.1	2.2	2.5	2.6	2.8	2.4	2.2	2.3	2.4	1.7
18	1.2	1.0	1.1	2.2	2.5	2.6	2.8	2.4	2.1	2.3	2.5	1.7
19	1.2	1.0	1.2	2.2	2.5	2.6	2.8	2.4	2.1	2.4	2.5	1.6
20	1.2	1.0	1.2	2.2	2.5	2.6	2.8	2.4	2.1	2.5	2.3	1.5
21	1.2	1.0	1.2	2.2	2.5	2.6	2.8	2.4	2.1	2.6	2.3	1.5
22	1.2	1.0	1.2	2.2	2.5	2.6	2.8	2.4	2.1	2.7	2.4	1.4
23	1.2	1.0	1.2	2.2	2.5	2.6	2.8	2.4	2.1	2.7	2.3	1.4
24	1.2	1.0	1.2	2.2	2.5	2.7	2.6	2.4	2.1	2.6	2.3	1.4
25	1.2	1.0	1.2	2.2	2.5	2.7	2.6	2.4	2.1	2.7	2.3	1.4
26	1.2	1.0	1.2	2.3	2.5	2.7	2.6	2.4	2.2	2.7	2.3	1.4
27	1.2	1.0	1.2	2.3	2.5	2.7	2.6	2.3	2.2	2.6	2.1	1.4
28	1.2	1.0	1.2	2.3	2.5	2.7	2.5	2.4	2.2	2.6	2.1	1.4
29	1.2	1.0	1.2	2.3	---	2.7	2.5	2.4	2.2	2.6	2.1	1.4
30	1.0	1.0	1.2	2.3	---	2.7	2.5	2.4	2.3	2.7	2.1	1.4
31	1.0	---	1.2	2.3	---	2.7	---	2.4	---	2.7	2.1	---
TOTAL	34.85	30.40	33.9	60.1	69.7	81.3	82.1	75.9	66.7	75.2	74.4	51.1
MEAN	1.12	1.01	1.09	1.94	2.49	2.62	2.74	2.45	2.22	2.43	2.40	1.70
MAX	1.2	1.2	1.2	2.3	2.5	2.7	2.8	2.6	2.4	2.7	2.7	2.1
MIN	.90	.95	1.0	1.2	2.4	2.5	2.5	2.3	2.1	2.2	2.1	1.4
AC-FT	69	60	67	119	138	161	163	151	132	149	148	101
CAL YR 1985	TOTAL	591.65	MEAN	1.62	MAX	2.4	MIN	.90	AC-FT	1170		
WTR YR 1986	TOTAL	735.65	MEAN	2.02	MAX	2.8	MIN	.90	AC-FT	1460		

09505350 DRY BEAVER CREEK NEAR RIMROCK, AZ

LOCATION.--Lat 34°43'43", long 111°46'30", in NE¼NW¼ sec.1, T.15 N., R.5 E., Yavapai County, Hydrologic Unit 15060202, in Coconino National Forest, on left upstream abutment of abandoned highway bridge, 400 ft upstream from present State Highway 179 and 5.5 mi north of Rimrock.

DRAINAGE AREA.--142 mi².

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

REVISED RECORDS.--WRD Ariz. 1969: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,694.38 ft above National Geodetic Vertical Datum of 1929 (Arizona Highway Department bench mark).

REMARKS.--Estimated daily discharges: Dec. 16 to Feb. 15, Mar. 8-10, Apr. 13-20. Records good except for estimated days, which are poor. No known diversions above station.

AVERAGE DISCHARGE.--26 years, 48.8 ft³/s, 35,360 acre-ft/yr; median of yearly mean discharges, 36 ft³/s, 26,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,600 ft³/s Sept. 5, 1970, gage height, 14.35 ft, from rating curve extended above 6,000 ft³/s on basis of computation of peak flow over weir at gage height 9.07 ft and 9.69 ft and slope-area measurement at gage height 14.35 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0515	3,330	6.57	Mar. 22	2100	1,270	4.93
Nov. 30	0130	*4,340	7.19	Apr. 2	0245	3,500	6.68
Feb. 18	2100	1,140	4.81				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	205	.00	.00	12	328	.00	.00	.00	.00	.41
2	.00	.00	131	.00	.00	8.4	1350	.00	.00	.00	.00	.05
3	.00	.00	156	.00	.00	5.7	222	.00	.00	.00	.00	.02
4	.00	.00	167	.00	.00	3.9	93	.00	.00	.00	.00	.00
5	.00	.00	85	.00	.00	2.2	49	.00	.00	.00	.00	.00
6	.00	.00	49	.00	.00	1.2	26	.00	.00	.00	.00	.00
7	.00	.00	30	.00	.00	.72	15	.00	.00	.00	.00	.00
8	.00	.00	20	.00	.00	.60	9.6	.00	.00	.00	.00	.00
9	.00	.00	13	.00	.00	.40	6.3	.00	.00	.00	.00	1.0
10	.00	.00	9.9	.00	.00	.15	4.1	.00	.00	.00	.00	.09
11	.00	.00	6.7	.00	.00	46	2.4	.00	.00	.00	.00	.02
12	.00	10	3.8	.00	.00	56	1.4	.00	.00	.00	.00	.00
13	.00	1.2	1.9	.00	.00	160	1.3	.00	.00	.00	.00	.00
14	.00	.20	1.0	.00	.00	352	1.1	.00	.00	.00	.00	.00
15	.00	.02	.81	.00	.00	279	.80	.00	.00	.00	.00	.00
16	.00	.00	.07	.00	181	273	.50	.00	.00	.63	.00	.00
17	.00	.00	.04	.00	299	262	.20	.00	.00	.00	.00	.00
18	.00	.00	.02	.00	514	211	.08	.00	.00	.00	.00	.00
19	.00	.00	.01	.00	617	212	.05	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	516	311	.03	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	204	445	.02	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	92	582	.02	.00	.00	3.2	.00	.00
23	.00	.00	.00	.00	55	528	.01	.00	.00	.05	.00	.33
24	.00	.00	.00	.00	39	445	.01	.00	.00	.00	.00	4.9
25	.00	423	.00	.00	37	353	.01	.00	.00	.00	.00	.14
26	.00	1370	.00	.00	33	329	.01	.00	.00	.00	.87	30
27	.00	194	.00	.00	25	258	.01	.00	.00	.00	26	9.4
28	.00	67	.00	.00	17	163	.00	.00	.00	.00	3.0	3.0
29	.00	41	.00	.00	---	380	.00	.00	.00	.00	.14	.53
30	.00	1180	.00	.00	---	234	.00	.00	.00	.00	.04	.07
31	.00	---	.00	.00	---	85	---	.00	---	.00	.46	---
TOTAL	.00	3286.42	880.25	.00	2629.00	5999.27	2110.95	.00	.00	3.88	30.51	49.96
MEAN	.00	110	28.4	.00	93.9	194	70.4	.00	.00	.13	.98	1.67
MAX	.00	1370	205	.00	617	582	1350	.00	.00	3.2	26	30
MIN	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00
AC-FT	.0	6520	1750	.0	5210	11900	4190	.0	.0	7.7	61	99

CAL YR	1985	TOTAL	19490.65	MEAN	53.4	MAX	1370	MIN	.00	AC-FT	38660
WTR YR	1986	TOTAL	14990.24	MEAN	41.1	MAX	1370	MIN	.00	AC-FT	29730

GILA RIVER BASIN

207

09505800 WEST CLEAR CREEK NEAR CAMP VERDE, AZ

LOCATION.--Lat 34°32'19", long 111°41'36", in NW¼NW¼ sec.11, T.13 N., R.6 E., Yavapai County, Hydrologic Unit 15060203, in Coconino National Forest, on left bank at Bull Pen Ranch, 11 mi upstream from mouth, and 9 mi east of Camp Verde.

DRAINAGE AREA.--241 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--21 years, 70.2 ft³/s, 50,860 acre-ft/yr; median of yearly mean discharges, 54 ft³/s, 39,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 22,400 ft³/s Dec. 18, 1978, gage height, 11.6 ft, from floodmarks and rating curve extended above 2,700 ft³/s, on basis of slope-area measurements at gage heights 8.3 ft and 10.15 ft; minimum daily, 11 ft³/s Aug. 1, 22, 1986.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Mar. 18	2000	*885	*5.42

Minimum daily discharge, 11 ft³/s Aug. 1, 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	17	127	18	18	24	51	19	18	17	11	15
2	18	17	93	18	18	22	45	19	18	16	13	14
3	18	17	81	18	18	21	65	19	17	19	13	14
4	17	17	87	18	20	21	73	19	17	29	13	14
5	17	16	85	18	19	20	53	18	17	33	13	13
6	17	16	57	18	20	19	44	19	16	21	14	13
7	21	16	45	18	19	18	39	19	16	19	14	13
8	20	16	36	17	18	18	35	19	16	17	13	14
9	20	17	32	17	20	20	32	19	16	16	13	16
10	20	18	30	18	19	20	30	19	16	16	14	15
11	20	18	28	17	18	23	28	19	15	16	14	15
12	19	26	26	17	18	28	27	18	15	15	16	15
13	18	24	24	17	18	115	26	18	15	15	17	15
14	19	21	23	18	18	253	25	18	15	15	15	15
15	19	18	21	18	20	244	24	18	15	36	14	14
16	20	18	21	18	170	257	24	18	15	22	14	14
17	18	18	20	18	188	238	23	18	14	19	16	14
18	18	18	20	18	544	401	23	18	12	17	16	14
19	18	18	20	18	533	224	22	18	12	16	15	14
20	17	18	20	18	246	180	22	17	13	18	14	15
21	17	17	19	18	152	266	22	17	15	24	14	15
22	18	17	19	18	90	335	21	17	15	69	11	17
23	17	17	19	17	58	274	21	17	15	41	12	19
24	17	18	19	17	45	216	21	16	15	20	14	24
25	17	20	19	17	37	163	21	16	15	15	17	24
26	17	180	19	17	33	132	20	16	16	16	17	21
27	17	178	19	17	29	109	20	16	16	15	21	18
28	17	98	18	17	27	84	20	16	16	14	16	18
29	17	57	18	17	---	69	20	16	17	13	16	19
30	17	302	18	17	---	57	20	17	17	12	18	17
31	17	---	18	18	---	52	---	17	---	12	16	---
TOTAL	561	1268	1101	545	2433	3923	917	550	465	643	454	478
MEAN	18.1	42.3	35.5	17.6	86.9	127	30.6	17.7	15.5	20.7	14.6	15.9
MAX	21	302	127	18	544	401	73	19	18	69	21	24
MIN	17	16	18	17	18	18	20	16	12	12	11	13
AC-FT	1110	2520	2180	1080	4830	7780	1820	1090	922	1280	901	948
CAL YR 1985	TOTAL	22579	MEAN	61.9	MAX	1990	MIN	14	AC-FT	44790		
WTR YR 1986	TOTAL	13338	MEAN	36.5	MAX	544	MIN	11	AC-FT	26460		

09507500 FOSSIL CREEK DIVERSIONS TO CHILDS POWERPLANT, NEAR CAMP VERDE, AZ

LOCATION.--Lat 34°22'06", long 111°39'56", in NE&SW¼ sec.20, T.11 N., R.7 E., Yavapai County, Hydrologic Unit 15060203, at head of Stehr Lake, 2.3 mi northeast of Childs powerplant, 4.4 mi by flume downstream from Irving powerplant, and 17 mi southeast of Camp Verde.

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

GAGE.--Water-stage recorder and weir in concrete flume. Datum of gage is 3,716.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharge. Records good. Record is obtained at the head of Stehr Lake, a regulatory basin, and shows the water used by Childs powerplant. Most of the flow originates at Fossil Springs, which are fairly constant. Diversion is made from Fossil Creek 8 mi upstream from this station and is first used by Irving powerplant. A second diversion from Fossil Creek enters the flume below Irving powerplant. Based on estimates and records for previous years, the flow through the Irving powerplant is estimated to be about 99 percent of the record published herewith.

AVERAGE DISCHARGE.--34 years, 43.2 ft³/s, 31,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 58 ft³/s Aug. 1, 2, 1982; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	47	45	44	44	46	45	44	47	46	46	45	47
2	46	45	44	43	46	45	43	47	45	46	45	48
3	46	45	42	44	46	45	43	46	45	46	45	48
4	46	45	43	45	46	45	43	45	45	46	45	48
5	46	44	43	45	46	44	43	45	45	46	45	48
6	46	44	43	44	46	44	43	46	45	46	45	47
7	46	44	44	44	45	44	43	45	45	46	45	46
8	46	44	44	44	45	44	43	43	46	46	45	46
9	46	45	44	44	46	43	43	46	47	46	45	47
10	46	45	44	45	45	44	43	46	47	46	45	46
11	46	45	43	45	45	43	43	46	47	46	45	46
12	46	44	44	45	45	42	43	45	48	46	41	46
13	45	43	44	45	46	42	42	46	47	46	49	45
14	45	45	44	45	46	41	43	48	46	46	48	45
15	45	45	44	44	46	42	38	48	46	46	49	46
16	45	44	44	44	46	44	46	47	45	46	49	47
17	45	44	36	44	46	45	47	46	46	37	49	47
18	45	44	44	45	45	44	47	47	46	46	49	46
19	45	44	45	45	44	42	47	41	45	47	49	46
20	45	44	45	45	45	43	47	46	46	46	49	46
21	45	44	45	44	45	43	47	46	46	46	49	46
22	45	44	45	44	45	44	47	47	46	46	49	46
23	45	43	45	45	45	45	47	47	47	45	49	46
24	44	43	45	45	45	45	47	46	47	46	49	46
25	45	43	45	45	45	43	47	45	47	45	48	45
26	45	45	45	40	44	44	46	45	47	45	48	45
27	46	44	45	44	45	44	46	46	47	46	48	45
28	46	44	45	46	45	43	46	45	47	45	48	45
29	45	44	45	46	---	43	47	46	47	45	48	33
30	45	44	45	46	---	44	47	46	47	46	48	40
31	45	---	38	46	---	43	---	46	---	45	47	---
TOTAL	1409	1326	1356	1380	1270	1352	1341	1421	1386	1412	1458	1368
MEAN	45.5	44.2	43.7	44.5	45.4	43.6	44.7	45.8	46.2	45.5	47.0	45.6
MAX	47	45	45	46	46	45	47	48	48	47	49	48
MIN	44	43	36	40	44	41	38	41	45	37	41	33
AC-FT	2790	2630	2690	2740	2520	2680	2660	2820	2750	2800	2890	2710
CAL YR	1985	TOTAL	16662.2	MEAN	45.6	MAX	51	MIN	9.2	AC-FT	33050	
WTR YR	1986	TOTAL	16479	MEAN	45.1	MAX	49	MIN	33	AC-FT	32690	

GILA RIVER BASIN

209

09507580 EAST VERDE RIVER DIVERSION FROM CLEAR CREEK, NEAR PINE, AZ

LOCATION.--Lat 34°25'04", long 111°15'47", in NW¼NE¼ sec.23, T.12 N., R.10 E. (unsurveyed), Gila County, Hydrologic Unit 15060203, on East Verde River at mouth of Mail Creek, 0.9 mi southeast of Washington Park, and 11 mi east of Pine.

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

GAGE.--Water-stage recorder and weir in concrete flume. Datum of gage is 5,774 ft above National Geodetic Vertical Datum of 1929, (Phelps Dodge Corporation reference mark).

REMARKS.--No estimated daily discharges. Records excellent. Diversion is 9.5 mi northeast from Blue Ridge Reservoir, on East Clear Creek, in the Little Colorado River basin, to the East Verde River in the Gila River basin.

AVERAGE DISCHARGE.--20 years (water years 1967-86) 13.4 ft³/s, 9,710 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 34 ft³/s Apr. 19, 29, May 5-7, 10, 12, 15, 18, June 2, 1969; no flow for long periods each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	16	13	.00	.00	.00	.00	16	15	23	23	14
2	14	16	13	.00	.00	.00	.00	15	15	23	23	23
3	14	16	8.0	.00	.00	.00	.00	16	15	24	23	23
4	14	16	1.0	.00	.00	.00	.00	15	9.6	23	23	23
5	14	16	.15	.00	.00	.00	.00	16	7.6	24	23	23
6	13	16	.15	.00	.00	.00	.00	15	15	23	24	23
7	7.2	16	.15	.00	.00	.00	.00	16	15	24	23	23
8	15	16	.12	.00	.00	.00	.00	15	15	23	23	23
9	16	16	.10	.00	.00	.00	.00	15	15	24	23	23
10	16	16	.10	.00	.00	.00	.00	16	15	24	24	23
11	16	16	.10	.00	.00	.00	.00	15	15	23	23	24
12	16	16	.05	.00	.00	.00	.00	15	15	24	24	23
13	16	16	.05	.00	.00	.00	.00	16	16	24	23	23
14	17	14	.01	.00	.00	.00	.00	15	15	23	23	23
15	16	14	.00	.00	.00	.00	.00	15	14	24	23	23
16	16	14	.00	.00	.00	.00	.00	14	5.7	24	23	23
17	15	14	.00	.00	.00	.00	.00	15	16	23	23	23
18	14	15	.00	.00	.00	.00	.00	15	15	24	23	23
19	14	15	.00	.00	.00	.00	.00	15	15	23	23	22
20	14	13	.00	.00	.00	.00	.00	15	19	24	23	23
21	16	13	.00	.00	.00	.00	.00	15	24	23	23	22
22	14	13	.00	.00	.00	.00	.00	15	24	24	23	23
23	16	13	.00	.00	.00	.00	.00	15	24	23	23	22
24	16	13	.00	.00	.00	.00	.00	15	24	24	23	23
25	16	13	.00	.00	.00	.00	4.6	15	23	23	22	22
26	16	13	.00	.00	.00	.00	14	15	24	24	23	23
27	16	13	.00	.00	.00	.00	16	15	24	23	23	23
28	16	13	.00	.00	.00	.00	16	15	23	24	23	22
29	16	13	.00	.00	---	.00	15	15	24	23	23	23
30	16	13	.00	.00	---	.00	16	15	23	23	23	23
31	16	---	.00	.00	---	.00	---	15	---	24	9.5	---
TOTAL	465.2	437	35.98	.00	.00	.00	81.60	470	519.9	729	701.5	677
MEAN	15.0	14.6	1.16	.00	.00	.00	2.72	15.2	17.3	23.5	22.6	22.6
MAX	17	16	13	.00	.00	.00	16	16	24	24	24	24
MIN	7.2	13	.00	.00	.00	.00	.00	14	5.7	23	9.5	14
AC-FT	923	867	71	.0	.0	.0	162	932	1030	1450	1390	1340
CAL YR	1985	TOTAL	2141.04	MEAN	5.87	MAX	17	MIN	.00	AC-FT	4250	
WTR YR	1986	TOTAL	4117.18	MEAN	11.3	MAX	24	MIN	.00	AC-FT	8170	

GILA RIVER BASIN

09507980 EAST VERDE RIVER NEAR CHILDS, AZ

LOCATION.--Lat 34°17'00", long 111°38'50", in sec.21, T.11 N., R.7 E. (unsurveyed), Gila County Hydrologic Unit 15060203, in Tonto National Forest, on left bank 1.3 mi upstream from mouth and 6 mi southeast of Childs.

DRAINAGE AREA.--328 mi².

PERIOD OF RECORD.--September 1961 to December 1965, May 1967 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,500 ft above National Geodetic Vertical Datum (NGVD) of 1929, from topographic map. Sept. 1, 1961, to Dec. 15, 1965, at site 1 mi upstream at elevation of 2,600 ft above NGVD of 1929, datum raised 0.38 ft Oct. 4, 1963. May 25, 1967, to July 20, 1972, at present site at datum 1.29 ft higher.

REMARKS.--Estimated daily discharges: Nov. 12-14, 26, 30. Records good. Since September 30, 1965, records include transbasin diversions from east Clear Creek to headwaters of East Verde River. (See sta 09507580 and 09398300.)

AVERAGE DISCHARGE.--19 years (water years 1968-86), 75.4 ft³/s, 54,630 acre-ft/yr; median of yearly mean discharges, 64 ft³/s, 46,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,500 ft³/s Sept. 5, 1970, gage height, 20.5 ft, present datum, from profile past gage, from rating curve extended above 960 ft³/s on basis of slope-area measurements at gage heights 10.11 and 20.5 ft, present datum; minimum daily, 0.20 ft³/s June 19 to July 8, 1963, July 21-28, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 600 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0415	1,760	5.20	Mar. 18	0115	726	3.49
Nov. 30	0715	633	3.29				

Minimum daily discharge, 7.3 ft³/s June 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	20	144	16	13	12	44	10	18	24	21	68
2	24	20	86	16	13	12	40	11	15	26	27	32
3	24	20	65	16	13	11	38	12	19	45	27	26
4	22	20	58	16	13	13	35	12	22	35	29	29
5	22	20	48	15	13	13	30	13	21	89	25	28
6	22	20	38	15	12	12	28	14	25	40	27	26
7	24	20	32	15	13	12	25	15	14	32	26	25
8	24	20	28	15	13	11	23	17	15	30	24	25
9	20	19	26	15	16	11	22	19	16	28	122	28
10	25	19	24	15	18	12	20	22	13	26	47	30
11	32	19	23	15	16	23	20	22	12	25	35	28
12	31	60	28	14	14	127	18	22	12	24	33	26
13	26	83	26	14	13	202	18	18	12	23	33	25
14	25	49	23	14	13	268	17	15	11	23	35	25
15	25	36	21	14	14	221	17	16	13	22	29	24
16	26	29	20	14	16	90	16	19	14	25	28	24
17	44	28	20	14	19	354	15	18	12	30	27	23
18	59	28	19	13	17	458	14	19	9.2	27	39	23
19	33	26	19	13	16	303	14	22	7.3	27	32	23
20	28	25	19	13	16	144	14	22	8.3	38	28	23
21	24	28	19	13	17	105	14	21	9.7	39	27	23
22	23	25	19	13	16	101	13	20	12	49	25	24
23	23	24	18	13	16	102	13	20	16	41	26	28
24	20	24	18	13	15	101	12	19	15	31	30	39
25	19	29	17	13	14	99	11	17	17	28	29	41
26	19	914	17	13	13	91	12	16	25	26	30	37
27	19	228	17	12	13	85	11	16	25	24	32	33
28	19	109	17	12	12	76	14	15	24	23	32	29
29	19	76	17	12	---	70	19	15	24	23	45	28
30	19	346	16	12	---	60	12	17	24	22	146	28
31	19	---	16	13	---	49	---	20	---	22	185	---
TOTAL	784	2384	958	431	407	3248	599	534	480.5	967	1301	871
MEAN	25.3	79.5	30.9	13.9	14.5	105	20.0	17.2	16.0	31.2	42.0	29.0
MAX	59	914	144	16	19	458	44	22	25	89	185	68
MIN	19	19	16	12	12	11	11	10	7.3	22	21	23
AC-FT	1560	4730	1900	855	807	6440	1190	1060	953	1920	2580	1730
CAL YR	1985	TOTAL	21772.7	MEAN	59.7	MAX	914	MIN	5.3	AC-FT	43190	
WTR YR	1986	TOTAL	12964.5	MEAN	35.5	MAX	914	MIN	7.3	AC-FT	25720	

GILA RIVER BASIN

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09508300 WET BOTTOM CREEK NEAR CHILDS, AZ
(Hydrologic bench mark station)

LOCATION.--Lat 34°09'39", long 111°41'32", in sec.36, T.9 N., R.6 E. (unsurveyed), Gila County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 1.4 mi upstream from mouth and 13 mi south of Childs.

DRAINAGE AREA.--36.4 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WRD Ariz. 1970: 1968(M).

GAGE.--Water-stage recorder. Elevation of gage is 2,320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--19 years (water years 1968-86), 15.3 ft³/s, 11,100 acre-ft/yr; median of yearly mean discharges, 8.4 ft³/s, 6,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,830 ft³/s Feb. 19, 1980, gage height, 16.0 ft, from high-water mark in gage well, from rating curve extended above 3,000 ft³/s on basis of slope-area measurements at gage heights 9.77, 14.18, and 15.66 ft; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0500	*1,260	*7.57	July 21	2115	152	5.41
Mar. 18	0015	278	5.86	Aug. 30	0115	149	5.40

No flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	.38	48	3.3	.67	.85	5.3	.55	.46	.00	.67	42
2	.64	.31	32	3.1	.67	.76	6.0	.54	.46	.00	1.2	16
3	.56	.29	23	3.0	.66	.69	5.5	.51	.46	.00	1.1	8.9
4	.48	.27	17	2.9	.69	.62	4.2	.46	.46	.32	.72	5.7
5	.40	.25	13	2.8	.64	.60	3.6	.48	.32	.34	.78	3.6
6	.35	.22	9.7	2.6	.67	.55	3.3	.48	.18	.14	.78	2.8
7	.50	.21	7.9	2.4	.73	.52	3.1	.51	.05	.09	.89	2.1
8	.36	.20	6.5	2.3	.78	.48	2.8	.61	.01	.08	.85	1.5
9	.32	.19	5.1	2.0	.95	.45	2.5	.60	.00	.11	.76	1.3
10	.41	.18	4.1	1.8	1.2	.60	2.3	.55	.00	.00	.66	1.6
11	.50	.19	3.8	1.7	1.3	5.7	2.0	.46	.00	.00	.59	1.4
12	.42	10	5.8	1.5	1.6	15	1.8	.46	.00	.00	.68	1.1
13	.51	21	6.4	1.5	1.4	26	1.6	.38	.00	.00	.62	1.0
14	.63	12	10	1.4	1.3	60	1.3	.38	.00	.00	.57	.88
15	.48	8.0	16	1.3	1.2	76	1.2	.38	.00	.00	.56	.76
16	1.7	5.3	21	1.3	2.3	39	1.1	.38	.00	.00	.50	.66
17	1.2	3.8	21	1.1	7.9	192	.99	.46	.00	1.1	.42	.59
18	7.3	3.1	18	1.1	7.6	170	.94	.38	.00	.21	.48	.55
19	6.0	2.6	17	1.0	5.5	124	.94	.38	.00	.18	.47	.51
20	3.6	2.2	16	.99	4.0	77	.88	.32	.00	.18	.28	.46
21	2.7	1.7	14	.97	3.3	54	.82	.26	.00	28	.30	.48
22	2.1	1.4	12	.89	2.8	40	.75	.38	.00	67	.43	.55
23	1.5	1.2	10	.85	2.3	29	.72	.32	.00	57	.35	.80
24	1.1	1.0	9.4	.82	2.0	22	.68	.32	.00	21	.52	1.6
25	.90	2.1	8.1	.75	1.6	16	.66	.32	.00	10	.54	1.1
26	.77	408	7.2	.72	1.3	13	.66	.26	.00	6.2	1.2	3.6
27	.64	100	6.1	.70	1.1	10	.60	.22	.00	3.7	6.6	5.1
28	.57	46	5.0	.71	.92	8.6	.62	.18	.00	2.7	6.5	3.2
29	.51	29	4.3	.66	---	7.7	.59	.10	.00	1.9	4.0	2.4
30	.45	66	3.7	.67	---	7.0	.57	.14	.00	1.2	56	1.6
31	.42	---	3.4	.71	---	5.7	---	.38	---	.89	19	---
TOTAL	38.79	727.09	384.5	47.54	57.08	1003.82	58.02	12.15	2.40	202.34	109.02	113.84
MEAN	1.25	24.2	12.4	1.53	2.04	32.4	1.93	.39	.080	6.53	3.52	3.79
MAX	7.3	408	48	3.3	7.9	192	6.0	.61	.46	.67	.56	.42
MIN	.32	.18	3.4	.66	.64	.45	.57	.10	.00	.00	.28	.46
AC-FT	77	1440	763	94	113	1990	115	24	4.8	401	216	226
CAL YR 1985	TOTAL	4294.91	MEAN	11.8	MAX	408	MIN	.00	AC-FT	8520		
WTR YR 1986	TOTAL	2756.59	MEAN	7.55	MAX	408	MIN	.00	AC-FT	5470		

GILA RIVER BASIN

09508300 WET BOTTOM CREEK NEAR CHILDS, AZ--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCHI FECAL, KF AGAR (COLS. PER 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(31625)	(31673)	
NOV 1985													
14...	1230	13	105	8.00	12.0	10.0	19	705	10.2	98	84	240	
FEB 1986													
13...	1200	1.5	230	8.60	15.5	10.0	1.3	705	10.6	102	K10	K28	
MAY													
16...	1245	0.46	310	8.10	29.0	21.0	1.6	697	8.7	107	K18	740	
AUG													
13...	1245	0.62	330	7.51	35.0	28.0	0.40	698	8.0	111	40	2400	
DATE		HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3)	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3	SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	
		(00900)	(00902)	(00915)	(00925)	(00930)	(00931)	(00935)	(99440)	(99445)	(00410)	(00945)	(00940)
NOV 1985													
14...	37	0	10	3.0	6.7	0.5	1.0	--	--	44	8.7	3.0	
FEB 1986													
13...	82	0	22	6.6	17	0.8	1.0	--	--	94	6.4	6.6	
MAY													
16...	110	0	30	8.9	21	0.9	1.4	153	0	125	5.9	6.3	
AUG													
13...	100	0	28	8.5	23	1	3.4	162	0	133	4.3	8.4	
DATE		FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N)	PHCS- PHORUS, TOTAL (MG/L AS P)
		(00950)	(00955)	(70300)	(70301)	(70303)	(00613)	(00631)	(00610)	(00608)	(00605)	(00625)	(00665)
NOV 1985													
14...	0.70	20	76	80	0.10	0.010	<0.100	0.040	0.030	0.36	0.40	0.030	
FEB 1986													
13...	1.5	30	151	150	0.21	<0.010	<0.100	0.020	0.030	--	<0.20	<0.010	
MAY													
16...	1.6	36	188	190	0.26	<0.010	<0.100	0.010	0.030	0.29	0.30	<0.010	
AUG													
13...	1.9	36	189	190	0.26	<0.010	<0.100	<0.010	0.010	--	0.30	0.010	
DATE		PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4)	ALUM- INUM, DIS- SOLVED (UG/L AS AL)	ARSENIC DIS- SOLVED (UG/L AS AS)	BARIUM, DIS- SOLVED (UG/L AS BA)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE)	CADMIUM DIS- SOLVED (UG/L AS CD)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR)	COBALT, DIS- SOLVED (UG/L AS CO)	COPPER, DIS- SOLVED (UG/L AS CU)	
		(00666)	(00671)	(00660)	(01106)	(01000)	(01005)	(01010)	(01025)	(01030)	(01035)	(01040)	
NOV 1985													
14...	0.030	0.010	0.03	590	3	17	<0.5	<1	<1	<3	3		
FEB 1986													
13...	<0.010	<0.010	--	10	8	25	<0.5	<1	<1	<3	3		
MAY													
16...	<0.010	0.010	0.03	--	--	--	--	--	--	--	--	--	
AUG													
13...	0.020	0.020	0.06	--	--	--	--	--	--	--	--	--	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09508300 WET BOTTOM CREEK NEAR CHILDS, AZ--Continued

WATER QUALITY DATA

DATE	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)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	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)
NOV 1985 14...	180	1	10	9	<0.1	<10	1	<1	<1	50	<6
FEB 1986 13...	17	5	26	5	<0.1	<10	2	<1	<1	120	<6
MAY 16...	--	--	--	--	--	--	--	--	--	--	--
AUG 13...	--	--	--	--	--	--	--	--	--	--	--
DATE	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985 14...	10	--	--	--	--	--	--	--	--	--	--
FEB 1986 13...	4	--	--	--	--	--	--	--	--	1	0.00
MAY 16...	--	--	--	--	--	--	--	--	--	0	0.00
AUG 13...	--	1.3	<0.4	2.9	<0.4	2.2	<0.4	0.05	0.45	3	0.00

< Actual value is known to be less than value shown.

09508500 VERDE RIVER BELOW TANGLE CREEK, ABOVE HORSESHOE DAM, AZ

LOCATION.--Lat 34°04'23", long 111°42'56", in sec.35, T.9 N., R.6 E. (unsurveyed), Yavapai County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 1.3 mi downstream from Tangle Creek and 9 mi upstream from Horseshoe Dam.

DRAINAGE AREA.--5,872 mi², includes 373 mi² in Aubrey Valley Playa, a closed basin.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,029.0 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. About 12,500 acres above station are irrigated by surface water and ground water. Low flow slightly regulated by powerplant 32 mi above station, using water from Fossil Creek. This station is above all major reservoirs on Verde River.

AVERAGE DISCHARGE.--41 years, 567 ft³/s, 410,800 acre-ft/yr; median of yearly mean discharges, 440 ft³/s, 319,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 94,800 ft³/s Feb. 15, 1980, gage height, 21.41 ft; minimum discharge, 48 ft³/s June 17, 1956, July 18, 19, 1958, caused by power regulation on Fossil Creek; minimum daily discharge, 61 ft³/s July 18, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1924, 100,000 ft³/s Mar. 3, 1938, gage height, 19.0 ft, from floodmarks, based on comparison with peak discharge at other stations on Verde River.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	2200	7,340	10.52	Mar. 22	2130	5,010	9.23
Nov. 30	1945	*10,300	11.73	Apr. 2	2000	5,300	9.41
Feb. 19	2200	4,670	9.01	Aug. 26	1915	4,640	8.99

Minimum daily discharge, 125 ft³/s June 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	260	243	4960	318	252	347	862	162	137	154	164	499
2	241	238	2620	317	255	324	1770	163	193	191	149	430
3	228	235	1620	318	262	315	3920	158	210	218	162	305
4	212	241	1220	313	260	301	1990	156	289	318	147	269
5	196	246	1420	308	270	281	1210	158	434	297	146	242
6	202	237	1060	306	266	259	861	163	396	335	155	220
7	220	230	790	304	275	250	656	156	300	335	182	203
8	240	229	632	302	274	239	534	165	250	283	190	194
9	265	239	535	302	299	239	449	164	233	253	270	191
10	273	257	472	298	312	270	396	166	187	230	226	213
11	291	257	435	295	297	326	358	167	167	221	179	257
12	304	325	425	294	291	415	322	166	154	186	181	243
13	310	438	392	294	287	703	300	165	150	170	183	235
14	298	465	372	294	284	1450	296	155	149	164	193	229
15	284	375	366	296	289	2620	274	152	145	165	195	212
16	315	338	361	298	308	2120	236	156	143	179	210	199
17	322	321	356	296	812	2620	224	157	140	455	224	192
18	351	307	355	296	1310	3520	215	165	138	475	222	178
19	330	299	344	292	2730	3160	200	166	137	342	249	176
20	310	301	341	291	3620	2130	199	173	135	292	220	178
21	286	300	340	289	2830	2360	192	160	133	309	209	178
22	277	297	338	290	1630	3860	187	157	129	407	191	183
23	272	291	335	288	1010	4140	174	159	128	750	188	199
24	272	287	335	288	718	3690	177	155	126	599	234	262
25	262	310	335	285	570	3110	167	153	125	411	238	283
26	258	4260	330	282	486	2410	161	150	125	327	660	338
27	252	4300	328	280	428	1920	161	149	127	280	458	493
28	251	2010	325	279	381	1500	156	144	159	255	349	452
29	245	1130	320	261	---	1140	164	143	153	233	476	367
30	241	3820	318	247	---	1140	169	141	148	216	497	322
31	243	---	314	254	---	1190	---	137	---	195	543	---
TOTAL	8311	22826	22694	9075	21006	48349	16980	4881	5440	9245	7890	7942
MEAN	268	761	732	293	750	1560	566	157	181	298	255	265
MAX	351	4300	4960	318	3620	4140	3920	173	434	750	660	499
MIN	196	229	314	247	252	239	156	137	125	154	146	176
AC-FT	16480	45280	45010	18000	41670	95900	33680	9680	10790	18340	15650	15750
CAL YR	1985	TOTAL	241469	MEAN	662	MAX	8590	MIN	113	AC-FT	479000	
WTR YR	1986	TOTAL	184639	MEAN	506	MAX	4960	MIN	125	AC-FT	366200	

GILA RIVER BASIN

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09508500 VERDE RIVER BELOW TANGLE CREEK ABOVE HORSESHOE DAM, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORDS.--October 1980 to current year.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN DEMAND, CHEM- ICAL	COLI- FORM, FECAL,	
		(CFS) (000061)	(US/CM) (000095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(NTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(PER- CENT SATUR- ATION) (00301)	(HIGH LEVEL) (MG/L) (00340)	0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 1985												
18...	1345	350	615	8.50	22.5	20.0	1.5	710	7.9	94	<10	K18
NOV												
14...	1400	454	600	8.52	15.0	11.0	--	711	10.4	101	15	130
DEC												
12...	1500	418	525	8.40	10.0	9.0	3.8	712	10.6	98	<10	<1
JAN 1986												
16...	1350	293	610	8.25	22.5	12.0	--	716	10	98	<10	K3
FEB												
13...	1430	289	590	8.40	18.5	12.0	1.1	712	10.4	104	12	K23
MAR												
13...	1205	862	550	8.40	22.5	13.0	--	708	9.4	96	26	77
APR												
15...	1400	262	515	8.55	26.0	20.0	17	708	10.6	126	16	K8
MAY												
16...	1615	155	649	8.50	30.0	24.0	--	705	8.2	106	<10	K10
JUN												
18...	1600	137	615	8.52	36.0	28.0	4.5	703	7.5	104	<10	K7
JUL												
15...	1400	167	568	8.60	31.5	28.0	--	705	7.5	105	20	--
AUG												
13...	1430	190	545	8.45	29.0	29.0	36	705	7.1	101	<10	52
SEP												
11...	1530	272	604	8.52	27.0	24.0	--	707	7.0	90	24	110
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (000900)	HARD- NESS CALCIUM DIS- SOLVED (MG/L AS CA) (000915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (000925)	SODIUM, DIS- SOLVED (MG/L AS NA) (000930)	SODIUM AD- SORP- TION RATIO (000931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (000935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (000945)
OCT 1985												
18...	--	250	16	45	33	36	1	2.8	--	--	232	63
NOV												
14...	64	--	--	--	--	--	--	--	--	--	227	--
DEC												
12...	K3	240	25	50	27	26	0.8	2.2	255	1.0	212	39
JAN 1986												
16...	<1	--	--	--	--	--	--	--	317	0	258	--
FEB												
13...	K41	260	12	50	33	34	0.9	2.4	--	--	249	58
MAR												
13...	63	--	--	--	--	--	--	--	248	2.0	200	--
APR												
15...	84	240	8	48	28	29	0.8	2.4	267	5.0	224	51
MAY												
16...	K62	--	--	--	--	--	--	--	271	2.0	226	--
JUN												
18...	84	250	48	43	35	46	1	3.2	244	2.0	204	93
JUL												
15...	--	--	--	--	--	--	--	--	237	4.0	206	--
AUG												
13...	52	240	36	41	33	38	1	3.1	245	1.0	203	79
SEP												
11...	110	--	--	--	--	--	--	--	249	2.0	207	--

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09508500 VERDE RIVER BELOW TANGLE CREEK ABOVE HORSESHOE DAM, AZ--Continued

WATER QUALITY DATA

DATE	CHLORIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	ARSENIC TOTAL (UG/L AS AS) (01002)
OCT 1985												
18...	22	0.30	352	8	<0.100	0.020	0.28	0.30	--	--	0.030	18
NOV												
14...	--	--	--	--	<0.100	0.040	0.36	0.40	--	--	0.060	17
DEC												
12...	15	0.30	307	1	0.100	0.020	0.28	0.30	0.40	1.8	0.040	16
JAN 1986												
16...	--	--	--	--	<0.100	0.010	0.29	0.30	--	--	0.020	18
FEB												
13...	20	0.30	344	1	<0.100	0.030	0.27	0.30	--	--	0.010	18
MAR												
13...	--	--	--	--	<0.100	0.020	0.38	0.40	--	--	0.130	16
APR												
15...	15	0.20	326	1	<0.100	0.020	0.28	0.30	--	--	0.030	18
MAY												
16...	--	--	--	--	<0.100	0.020	0.28	0.30	--	--	0.010	21
JUN												
18...	27	0.40	396	45	<0.100	0.020	0.38	0.40	--	--	0.040	20
JUL												
15...	--	--	--	--	<0.100	0.020	0.28	0.30	--	--	0.030	20
AUG												
13...	24	0.30	308	44	<0.100	0.020	--	<0.20	--	--	0.130	22
SEP												
11...	--	--	--	--	<0.100	0.090	--	<0.20	--	--	0.130	19

DATE	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHROMIUM, 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)
OCT 1985												
18...	17	87	180	1	<1	7	<1	7	2	190	<3	6
NOV												
14...	16	92	150	7	<1	30	<1	3	2	1100	3	2
DEC												
12...	16	79	120	<1	<1	18	<1	3	1	300	5	<1
JAN 1986												
16...	18	84	150	<1	<1	4	<1	4	5	70	<3	1
FEB												
13...	17	85	170	1	<1	24	<1	4	3	150	<3	<1
MAR												
13...	14	75	110	1	<1	14	2	18	3	2200	5	3
APR												
15...	17	81	140	<1	<1	6	2	20	6	150	<3	5
MAY												
16...	20	73	180	<1	<10	4	<1	7	3	200	13	3
JUN												
18...	20	76	220	<1	<1	10	6	11	1	910	<3	<5
JUL												
15...	21	66	190	<1	1	10	<1	16	3	390	5	5
AUG												
13...	22	74	200	<1	<1	10	<1	8	2	1400	5	<5
SEP												
11...	19	77	180	1	<1	6	<1	13	6	2100	4	110

DATE	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)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)	SEDIMENT, SUS- PENDED (MG/L) (80154)	SEDIMENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1985											
18...	<1	20	5	<0.10	1	1	<1	30	11	10	9.5
NOV											
14...	<1	30	4	<0.10	2	2	<1	30	<3	50	61
DEC											
12...	2	30	4	<0.10	<1	1	<1	100	10	12	14
JAN 1986											
16...	<1	10	<1	0.10	1	1	1	20	24	1	0.79
FEB											
13...	<1	20	3	<0.10	1	1	<1	<10	7	2	1.6
MAR											
13...	2	80	6	<0.10	1	1	<1	30	<3	97	226
APR											
15...	<1	20	<1	<0.10	<1	1	<1	50	10	8	5.7
MAY											
16...	<1	20	3	<0.10	1	1	<1	20	26	12	5.0
JUN											
18...	<5	30	3	<0.10	1	1	<1	20	15	42	16
JUL											
15...	8	10	3	<0.10	1	1	<1	30	24	--	--
AUG											
13...	<5	50	5	<0.10	<1	<1	<1	30	19	59	30
SEP											
11...	<5	80	6	<0.10	<1	<1	<1	20	23	72	53

< Actual value is known to be less than value shown.

09509500 RESERVOIR SYSTEM ON VERDE RIVER AT AND BELOW HORSESHOE DAM, AZ

LOCATION.--This system comprises two storage reservoirs created by Horseshoe and Bartlett Dams on Verde River, Hydrologic Unit 15060203. Gages on Horseshoe Reservoir, formed by Horseshoe Dam, lat 33°59'05", long 111°42'35", in sec.2, T.7 N., R.6 E. (unsurveyed); and Bartlett Reservoir, formed by Bartlett Dam, lat 33°49'05", long 111°37'52", in sec.34, T.6 N., R.7 E. (unsurveyed).

DRAINAGE AREA.--6,185 mi², at Bartlett Dam.

PERIOD OF RECORD.--July 1939 to current year. Prior to 1946 published as Bartlett Reservoir at Bartlett Dam.

REVISED RECORDS.--WSP 1283: Drainage area.

GAGE.--Water-stage recorders on dam structures. Datum of gage on Horseshoe Reservoir is 1,900.00 ft and on Bartlett Reservoir 1,599.46 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1964, Bartlett Reservoir gage datum was 10.00 ft higher.

REMARKS.--Horseshoe Reservoir is formed by earthfill and rockfill dam; dam completed and storage began Nov. 15, 1945. Bartlett Reservoir is formed by concrete multiple-arch dam; dam completed May 1939 and storage began Feb. 5, 1939. Total capacity of the two reservoirs (capacity tables dated 1978, based on survey in 1977-78) is 309,600 acre-ft divided as follows: Horseshoe Reservoir, 131,400 acre-ft between elevations 1,915.0 ft - sill of outlet gage - and 2,026.0 ft - top of spillway gates; Bartlett Reservoir, 178,200 acre-ft between elevations 1,619.46 ft - 10 ft above sill of outlet gates - and 1,797.46 ft - top of spillway gates. No dead storage. There was no spillage over Bartlett Dam during 1986 water year. Records given herein represent usable contents. Water is used for irrigation of Salt River Valley and for municipal supply.

COOPERATION.--Capacity tables furnished by Salt River Valley Water Users' Association.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents of system, 318,000 acre-ft May 9, 1973; no storage at times when natural flow of river was passed through reservoir system.

EXTREMES FOR CURRENT YEAR.--Maximum contents of system, 299,000 acre-ft Apr. 13-16; minimum, 175,000 acre-ft Nov. 13, 19-24.

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 24:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	203000	188000	212000	223000	213000	222000	280000	293000	285000	260000	257000	253000
2	204000	188000	217000	223000	213000	220000	283000	293000	285000	259000	256000	253000
3	204000	187000	219000	223000	214000	219000	289000	293000	284000	258000	255000	253000
4	202000	187000	220000	222000	213000	217000	292000	292000	284000	258000	255000	253000
5	201000	186000	222000	222000	213000	215000	294000	292000	284000	258000	254000	253000
6	200000	185000	223000	222000	211000	213000	295000	292000	284000	258000	253000	253000
7	199000	184000	224000	222000	211000	211000	296000	291000	283000	258000	253000	253000
8	198000	183000	224000	222000	210000	209000	297000	291000	283000	258000	252000	253000
9	197000	182000	225000	221000	210000	207000	298000	291000	283000	258000	252000	252000
10	196000	181000	225000	221000	209000	206000	298000	291000	282000	258000	252000	252000
11	197000	179000	225000	221000	209000	205000	298000	290000	282000	258000	252000	252000
12	197000	178000	225000	221000	208000	206000	298000	290000	280000	258000	252000	252000
13	198000	178000	225000	220000	208000	207000	299000	290000	280000	257000	252000	252000
14	197000	178000	225000	220000	208000	201000	299000	290000	279000	257000	252000	252000
15	197000	178000	225000	220000	208000	214000	299000	289000	278000	256000	252000	251000
16	196000	177000	225000	220000	208000	218000	299000	289000	277000	256000	251000	251000
17	197000	177000	225000	219000	209000	223000	298000	289000	276000	256000	251000	251000
18	196000	177000	225000	219000	211000	228000	298000	289000	274000	256000	251000	251000
19	196000	176000	225000	220000	214000	232000	297000	289000	273000	256000	251000	250000
20	196000	175000	225000	220000	219000	236000	297000	288000	271000	256000	251000	250000
21	196000	175000	225000	220000	223000	240000	296000	288000	270000	257000	251000	250000
22	195000	175000	225000	220000	225000	246000	296000	288000	268000	257000	250000	250000
23	194000	175000	225000	220000	226000	253000	295000	288000	268000	258000	250000	250000
24	193000	175000	224000	219000	226000	259000	295000	287000	266000	259000	250000	249000
25	192000	176000	224000	219000	226000	264000	295000	287000	266000	259000	250000	249000
26	192000	184000	224000	218000	225000	268000	294000	287000	265000	259000	251000	249000
27	192000	192000	224000	217000	224000	271000	294000	287000	264000	259000	251000	250000
28	191000	195000	224000	216000	223000	273000	294000	286000	263000	259000	251000	250000
29	191000	198000	224000	215000	---	276000	293000	286000	262000	259000	251000	250000
30	190000	204000	223000	214000	---	277000	293000	285000	260000	259000	252000	249000
31	189000	---	223000	213000	---	279000	---	285000	---	258000	253000	---
MAX	204000	204000	225000	223000	226000	279000	299000	293000	285000	260000	257000	253000
MIN	189000	175000	212000	213000	208000	201000	280000	285000	260000	256000	250000	249000
(**)	-14000	+15000	+19000	-10000	+10000	+56000	+14000	-8000	-25000	-2000	-5000	-4000
CAL YR 1985	MAX	309000	MIN	175000	**	+13000						
WTR YR 1986	MAX	299000	MIN	175000	**	+46000						

** Change in contents, in acre-feet.

GILA RIVER BASIN

09510000 VERDE RIVER BELOW BARTLETT DAM, AZ
(National stream-quality accounting network station)

LOCATION.--Lat 33°48'30", long 111°39'46", in NW¼ sec.5, T.5 N., R.7 E. (unsurveyed), Maricopa County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 2.1 mi downstream from Bartlett Dam, 4.0 mi upstream from Camp Creek, and 16 mi east of town of Cave Creek.

DRAINAGE AREA.--6,188 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1888 to current year. (Monthly discharge only August 1888 to December 1903, and January 1910 to September 1913. For some periods prior to December 1903 gage heights, discharge measurements, and daily discharge hydrograph are published in reports of the Geological Survey.) Prior to October 1941, published under different names as follows: "near Fort McDowell," "at mouth," "above Salt River," "at McDowell," "at McDowell near Lehi," "near McDowell," and "above Camp Creek, near McDowell."

REVISED RECORDS.--WSP 1049: 1893, 1913-14, 1917-18, 1926-27, 1929. WSP 1213: 1915-16. WSP 1283: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,572.34 ft above National Geodetic Vertical Datum of 1929. Gage at present site and datum Jan. 1, 1942, to Sept. 30, 1961, Dec. 30, 1965, to Mar. 10, 1971, and Oct. 1, 1978, to the present; Mar. 2 to Sept. 30, 1978, used as supplementary gage, and Feb. 18, 1975, to Feb. 28, 1978, supplementary water-stage recorder at site 30 ft upstream at same datum. Oct. 1, 1961, to Dec. 29, 1965, and Mar. 11, 1971, to Sept. 30, 1973, water-stage recorder at site 1.9 mi upstream at datum 1,600 ft, from topographic map; at same site at datum 2.00 ft higher, Oct. 1, 1973, to Mar. 3, 1975, and 3.00 ft higher, Oct. 1, 1961, to Dec. 29, 1965, and Mar. 11, 1971, to Sept. 30, 1973. Feb. 17, 1925, to Dec. 31, 1941, water-stage recorder at two sites within 0.5 mi upstream from Camp Creek, at various datums. Prior to Feb. 17, 1925, nonrecording gages at several sites about 20 mi downstream from present location at various datums.

REMARKS.--No estimated daily discharges. Records good. About 12,500 acres above station are irrigated by surface water and ground water. Flow completely regulated by Bartlett Reservoir since Feb. 5, 1939, and Horseshoe Reservoir since Nov. 15, 1945 (see preceding page), except during periods of spill. Water diverted downstream for municipal supply of city of Phoenix, and for irrigation in Fort McDowell Indian Reservation. Remainder (except during infrequent periods of extreme flooding) is diverted at Granite Reef Dam on Salt River 27 mi downstream for irrigation in Salt River Valley, and for municipal use by the city of Phoenix.

AVERAGE DISCHARGE (adjusted for storage in Bartlett and Horseshoe Reservoirs).--98 years, 681 ft³/s, 493,400 acre-ft/yr; median of yearly mean discharge, 540 ft³/s, 391,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--1888-1939: Maximum discharge not determined, probably over 150,000 ft³/s Feb. 24, 1891; minimum daily, 29 ft³/s July 11, 13, 1901. Floods of Nov. 27, 1905, and Mar. 4, 1938, reached maximum discharges of 96,000 ft³/s and 95,000 ft³/s, respectively.

1939-86: Maximum discharge, 101,000 ft³/s Mar. 2, 1978; no flow at Bartlett Dam at times when gates in dam were closed.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,160 ft³/s Mar. 7; minimum daily, 21 ft³/s Feb. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	558	187	423	569	980	88	225	223	703	626	244
2	43	477	208	423	207	964	88	220	249	668	626	244
3	127	489	343	424	21	1040	89	218	351	473	571	268
4	762	536	497	424	335	1040	89	218	422	270	426	260
5	766	509	464	424	759	1120	89	218	447	232	402	258
6	732	494	408	425	779	1150	91	218	466	236	509	257
7	599	539	385	425	670	1160	72	218	389	238	428	255
8	596	581	402	426	644	1120	48	218	390	239	399	253
9	553	686	416	426	544	1060	48	219	372	240	360	251
10	477	871	409	427	481	981	165	218	357	276	259	251
11	147	859	398	428	452	872	303	218	509	325	257	250
12	63	819	438	429	422	329	223	218	602	238	258	249
13	77	597	453	430	478	94	225	218	550	282	260	247
14	593	546	444	430	500	94	235	219	514	416	257	266
15	586	495	427	431	437	93	226	219	568	403	294	275
16	428	550	417	433	313	89	213	221	569	425	343	272
17	426	454	417	432	281	233	349	218	605	398	260	268
18	486	472	418	400	418	402	520	219	754	314	260	265
19	410	501	419	273	471	480	482	220	880	243	260	262
20	385	515	419	203	502	303	344	219	884	219	260	260
21	423	524	419	307	498	73	351	219	754	149	308	259
22	502	461	419	326	534	92	372	219	738	166	466	256
23	577	421	420	293	576	92	289	220	603	194	455	282
24	610	373	420	470	630	92	258	220	556	193	356	283
25	610	340	420	716	711	91	256	220	458	193	250	279
26	557	217	421	704	792	91	254	219	498	193	248	275
27	524	204	421	722	874	90	251	219	635	193	247	271
28	473	255	422	681	948	90	268	220	701	193	251	268
29	490	244	422	758	---	89	250	259	699	274	248	266
30	563	205	423	824	---	88	229	346	698	519	246	480
31	593	---	421	731	---	88	---	269	---	614	246	---
TOTAL	14215	14792	12597	14668	14846	14580	6765	7009	16441	9719	10636	8074
MEAN	459	493	406	473	530	470	225	226	548	314	343	269
MAX	766	871	497	824	948	1160	520	346	884	703	626	480
MIN	37	204	187	203	21	73	48	218	223	149	246	244
AC-FT	28200	29340	24990	29090	29450	28920	13420	13900	32610	19280	21100	16010
CAL YR	1985	TOTAL	218565	MEAN	599	MAX	4970	MIN	4.5	AC-FT	433500	
WTR YR	1986	TOTAL	144342	MEAN	395	MAX	1160	MIN	21	AC-FT	286300	

09510000 VERDE RIVER BELOW BARTLETT DAM, AZ--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to December 1981, March 1982 to September 1982, April 1983 to current year.
WATER TEMPERATURES: December 1950 to December 1981, March 1982 to September 1982, April 1983 to current year.

REMARKS.--Unpublished daily specific conductance measurements for period December 1950 to September 1964 available from district office in Tucson, Ariz.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 958 microsiemens Nov. 10, 1956; minimum daily observed, 160 microsiemens Feb. 29, 1980.

WATER TEMPERATURES: Maximum daily observed, 32.0°C July 18, Aug. 14, 1951; minimum daily observed, 5.0°C Jan. 30, 1952.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum daily observed, 502 microsiemens Dec. 3; minimum daily observed, 340 microsiemens Oct. 21.

WATER TEMPERATURES: Maximum daily observed, 25.0°C on several days in Sept.; minimum daily observed, 11.0°C on many days in Nov., Jan., Feb., and Mar.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(00340)	
NOV 1985												
22...	1045	395	435	8.38	15.0	13.0	--	723	10.6	106	12	
JAN 1986												
24...	1115	339	461	8.50	18.0	11.0	18	724	11.4	109	--	
MAR												
21...	1045	67	461	8.58	23.0	12.0	--	731	11.8	114	50	
MAY												
27...	1205	221	474	8.50	34.5	15.0	4.5	717	12.6	133	--	
JUL												
28...	1230	195	463	8.00	36.0	21.0	3.2	720	12.1	144	--	
SEP												
29...	1155	269	407	8.52	28.5	24.0	2.2	719	8.8	112	--	
DATE		COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOC- CI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)
NOV 1985												
22...	K1	54	--	--	--	--	--	--	--	--	--	--
JAN 1986												
24...	<1	72	200	13	40	24	26	0.8	2.4	207	10	
MAR												
21...	K2	63	--	--	--	--	--	--	--	232	5.0	
MAY												
27...	K1	50	200	0	40	24	25	0.8	2.4	261	1.0	
JUL												
28...	K10	K4	190	34	38	23	24	0.8	2.9	190	0	
SEP												
29...	K3	95	160	2	31	21	21	0.7	2.5	196	1.0	
DATE		ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV 1985												
22...	191	--	--	--	--	--	--	--	--	--	--	<0.100
JAN 1986												
24...	186	40	17	0.30	19	268	290	0.36	17	0.010	<0.100	
MAR												
21...	196	--	--	--	--	--	--	--	--	--	--	<0.100
MAY												
27...	212	44	16	0.30	18	282	300	0.38	7	<0.010	<0.100	
JUL												
28...	155	38	14	0.30	18	280	250	0.38	1	<0.010	<0.100	
SEP												
29...	162	30	11	0.30	18	288	230	0.39	4	<0.010	<0.100	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

09510000 VERDE RIVER BELOW BARTLETT DAM, AZ--Continued

WATER QUALITY DATA

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)
NOV 1985 22...	--	0.130	--	0.17	0.30	0.070	--	--	--	--	13
JAN 1986 24...	<0.100	0.030	0.020	0.37	0.40	0.040	0.010	0.020	0.06	<10	12
MAR 21...	--	0.030	--	0.37	0.40	0.020	--	--	--	--	11
MAY 27...	<0.100	0.020	0.030	0.38	0.40	0.030	0.020	0.020	0.06	<10	10
JUL 28...	<0.100	0.010	0.060	0.69	0.70	0.040	0.020	0.020	0.06	<10	13
SEP 29...	<0.100	0.040	0.020	1.2	1.2	<0.010	0.010	<0.010	--	--	11

DATE	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
NOV 1985 22...	12	48	--	100	<1	<1	7	<1	--	5	1
JAN 1986 24...	11	51	<0.5	--	<1	<1	3	2	<3	1	2
MAR 21...	11	49	--	120	<1	<1	15	<1	--	6	1
MAY 27...	10	50	<0.5	--	<1	<1	4	<1	<3	4	2
JUL 28...	13	49	<0.5	--	<1	<1	2	2	<3	13	5
SEP 29...	--	--	--	--	<1	--	1	--	--	5	--

DATE	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS SE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	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)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
NOV 1985 22...	580	<3	<1	<1	--	200	280	<0.10	--	--	--
JAN 1986 24...	--	6	4	<1	24	50	5	<0.10	<0.1	<10	<1
MAR 21...	410	4	<1	1	--	40	13	<0.10	--	--	--
MAY 27...	--	9	<1	1	23	40	14	<0.10	<0.1	<10	2
JUL 28...	--	<3	5	<5	25	100	58	0.30	<0.1	<10	2
SEP 29...	--	--	<5	--	--	30	--	<0.10	--	--	--

DATE	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	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, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
NOV 1985 22...	<1	<1	<1	--	--	20	<3	87	5	5.3
JAN 1986 24...	<1	<1	<1	590	<6	10	4	93	17	16
MAR 21...	1	1	<1	--	--	20	9	80	9	1.6
MAY 27...	<1	<1	<1	560	<6	<10	15	80	8	4.8
JUL 28...	<1	<1	<1	540	<6	20	16	84	5	2.6
SEP 29...	<1	--	--	--	--	<10	--	37	8	5.8

< Actual value is known to be less than value shown.

09510000 VERDE RIVER BELOW BARTLETT DAM, AZ--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	409	363	501	458	470	475	482	465	461	459	424	411
2	397	360	501	452	469	470	481	460	459	410	461	430
3	397	359	502	460	---	470	485	463	459	410	465	409
4	397	359	501	460	466	477	457	462	---	419	380	400
5	399	359	500	461	467	478	440	432	380	393	380	403
6	400	359	500	465	461	498	487	461	390	408	420	412
7	397	360	500	465	458	481	435	414	388	400	448	402
8	395	358	500	467	467	482	483	398	380	400	402	401
9	353	360	480	472	477	490	457	403	382	405	392	405
10	367	359	499	470	460	486	431	392	395	390	385	409
11	355	360	449	473	471	476	430	399	381	405	370	402
12	359	357	448	479	445	450	425	407	387	409	355	400
13	369	359	451	479	446	466	429	393	403	471	381	408
14	365	359	450	480	460	440	431	429	398	425	359	406
15	365	471	453	480	448	465	466	413	423	441	380	410
16	366	479	450	478	449	471	471	412	389	447	395	410
17	360	482	446	474	441	480	460	454	383	439	429	405
18	350	477	443	475	456	479	465	445	418	460	403	405
19	361	479	439	471	478	487	470	473	390	420	414	411
20	350	477	441	469	479	487	468	409	399	439	433	415
21	340	480	440	469	479	490	465	427	399	430	412	414
22	359	479	443	470	478	493	460	444	400	412	418	410
23	349	480	445	470	471	455	465	415	382	420	405	411
24	361	476	440	470	477	460	465	420	389	440	420	410
25	360	483	439	470	478	486	460	429	381	468	401	409
26	360	489	438	473	471	492	460	428	388	434	390	408
27	360	485	442	470	471	481	460	415	380	470	410	409
28	360	491	441	475	471	486	459	462	395	465	397	410
29	360	495	445	474	---	487	460	461	395	429	430	410
30	360	495	449	470	---	487	471	448	400	429	387	409
31	360	---	450	470	---	488	---	465	---	425	395	---

W.Y. 1986 MAXIMUM 502 MINIMUM 340

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.0	12.0	14.0	12.0	11.0	11.0	13.0	15.0	17.0	14.0	---	17.0
2	24.0	12.0	14.0	12.0	11.0	11.0	13.0	15.0	17.0	14.0	15.0	17.0
3	24.0	12.0	14.0	12.0	---	11.0	13.0	15.0	17.0	14.0	15.0	17.0
4	24.0	12.0	14.0	12.0	11.0	12.0	13.0	14.0	---	14.0	16.0	17.0
5	24.0	12.0	14.0	11.0	11.0	11.0	13.0	13.0	15.0	15.0	16.0	17.0
6	23.0	12.0	14.0	11.0	11.0	12.0	13.0	16.0	16.0	15.0	16.0	17.0
7	23.0	12.0	14.0	11.0	11.0	12.0	13.0	16.0	16.0	15.0	16.0	17.0
8	---	12.0	14.0	11.0	12.0	12.0	15.0	16.0	16.0	15.0	16.0	17.0
9	23.0	11.0	14.0	12.0	12.0	12.0	12.0	16.0	16.0	15.0	16.0	25.0
10	23.0	11.0	14.0	12.0	13.0	12.0	12.0	16.0	16.0	15.0	16.0	25.0
11	22.0	11.0	---	12.0	11.0	12.0	12.0	16.0	16.0	15.0	16.0	25.0
12	22.0	11.0	14.0	12.0	11.0	12.0	13.0	16.0	16.0	15.0	16.0	25.0
13	22.0	11.0	14.0	13.0	11.0	12.0	13.0	16.0	16.0	15.0	16.0	25.0
14	22.0	11.0	14.0	12.0	11.0	11.0	15.0	16.0	16.0	15.0	16.0	25.0
15	13.0	11.0	14.0	12.0	11.0	11.0	16.0	17.0	16.0	16.0	16.0	25.0
16	14.0	11.0	13.0	12.0	11.0	11.0	16.0	17.0	14.0	16.0	16.0	25.0
17	13.0	11.0	13.0	12.0	11.0	11.0	15.0	17.0	14.0	16.0	16.0	25.0
18	13.0	11.0	13.0	12.0	11.0	11.0	16.0	17.0	14.0	16.0	16.0	25.0
19	13.0	11.0	13.0	12.0	11.0	14.0	16.0	17.0	14.0	16.0	16.0	25.0
20	12.0	11.0	13.0	12.0	12.0	14.0	15.0	17.0	14.0	16.0	17.0	25.0
21	12.0	11.0	13.0	12.0	11.0	15.0	15.0	17.0	14.0	16.0	17.0	25.0
22	12.0	11.0	13.0	12.0	12.0	15.0	15.0	17.0	14.0	16.0	17.0	25.0
23	12.0	11.0	13.0	12.0	11.0	16.0	15.0	17.0	14.0	16.0	16.0	25.0
24	12.0	11.0	13.0	13.0	11.5	16.0	15.0	17.0	14.0	16.0	16.0	25.0
25	12.0	14.0	13.0	11.5	11.5	15.0	15.0	17.0	14.0	16.0	16.0	22.0
26	12.0	14.0	12.0	13.0	11.0	15.0	15.0	17.0	14.0	16.0	16.0	22.0
27	12.0	14.0	12.0	12.0	11.0	15.0	15.0	17.0	14.0	16.0	16.0	22.0
28	12.0	14.0	12.0	12.0	11.0	15.0	15.0	18.0	14.0	16.0	16.0	22.0
29	12.0	14.0	12.0	12.0	---	15.0	15.0	18.0	14.0	16.0	17.0	22.0
30	12.0	14.0	12.0	11.0	---	15.0	17.0	17.0	14.0	16.0	17.0	22.0
31	12.0	---	12.0	11.0	---	14.0	---	17.0	---	---	17.0	---

W.Y. 1986 MAXIMUM 25.0 MINIMUM 11.0

GILA RIVER BASIN

09510070 WEST FORK SYCAMORE CREEK ABOVE MCFARLAND CANYON, NEAR SUNFLOWER, AZ

LOCATION.--Lat 33°57'38", long 111°29'12", in SE¼SW¼ sec.12, T.7 N., R.8 E. (unsurveyed), Maricopa County, Hydrologic Unit 15060203, in Tonto National Forest, on left bank 0.2 mi upstream from McFarland Canyon and 6.8 mi north of Sunflower.

DRAINAGE AREA.--4.58 mi².

PERIOD OF RECORD.--October 1965 to September 1974, October 1982 to May 1986 (discontinued).

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,380 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 12-18. Records good.

AVERAGE DISCHARGE.--13 years (water years 1966-74, 1983-86) 1.18 ft³/s, 855 acre-ft/yr; median of yearly mean discharges, 0.54 ft³/s, 390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,700 ft³/s Sept. 5, 1970, gage height, 5.50 ft, from rating curve extended above 68 ft³/s on basis of slope-area measurement of peak flow; no flow for several days each year.

EXTREMES FOR CURRENT PERIOD.--Peak discharges greater than base discharge of 10 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	0430	*12	*2.47

Minimum daily discharge, .01 ft³/s Oct. 18-25, Oct. 28 to Nov. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.01	5.0	.24	.28	.20	.66	.14	---	---	---	---
2	.03	.02	3.1	.22	.20	.19	.58	.13	---	---	---	---
3	.03	.02	2.3	.22	.19	.18	.53	.13	---	---	---	---
4	.03	.02	1.6	.21	.18	.17	.49	.12	---	---	---	---
5	.03	.02	1.3	.20	.18	.16	.45	.12	---	---	---	---
6	.02	.03	1.0	.19	.17	.15	.40	.12	---	---	---	---
7	.02	.03	.82	.18	.17	.15	.38	.12	---	---	---	---
8	.02	.02	.69	.17	.18	.15	.35	.12	---	---	---	---
9	.03	.02	.59	.17	.24	.14	.33	.11	---	---	---	---
10	.04	.02	.49	.17	.25	.19	.31	.11	---	---	---	---
11	.02	.02	.53	.17	.24	.90	.29	.10	---	---	---	---
12	.02	.06	.52	.17	.25	.56	.28	.10	---	---	---	---
13	.02	.05	.42	.16	.28	.79	.27	.10	---	---	---	---
14	.02	.04	.40	.17	.29	1.7	.26	.10	---	---	---	---
15	.02	.04	.42	.17	.36	2.8	.25	.09	---	---	---	---
16	.02	.05	.46	.17	1.6	3.0	.25	.09	---	---	---	---
17	.04	.06	.46	.17	1.1	5.3	.23	.09	---	---	---	---
18	.01	.06	.48	.16	1.1	6.3	.22	.08	---	---	---	---
19	.01	.06	.50	.16	1.0	8.1	.22	.07	---	---	---	---
20	.01	.07	.47	.16	.83	6.3	.21	.07	---	---	---	---
21	.01	.07	.44	.16	.64	4.6	.21	.07	---	---	---	---
22	.01	.07	.41	.16	.51	3.5	.20	.06	---	---	---	---
23	.01	.07	.36	.16	.44	2.7	.19	.06	---	---	---	---
24	.01	.07	.35	.16	.36	2.1	.18	.06	---	---	---	---
25	.01	.65	.33	.16	.30	1.6	.18	.05	---	---	---	---
26	.02	6.5	.30	.16	.27	1.3	.17	.05	---	---	---	---
27	.02	3.8	.28	.16	.24	1.1	.16	.04	---	---	---	---
28	.01	2.2	.27	.15	.21	.96	.16	.04	---	---	---	---
29	.01	1.5	.25	.15	---	.85	.15	.04	---	---	---	---
30	.01	8.6	.25	.17	---	.72	.14	.04	---	---	---	---
31	.01	---	.24	.18	---	.64	---	.06	---	---	---	---
TOTAL	.60	24.25	25.03	5.40	12.06	57.50	8.70	2.68	---	---	---	---
MEAN	.019	.81	.81	.17	.43	1.85	.29	.086	---	---	---	---
MAX	.04	8.6	5.0	.24	1.6	8.1	.66	.14	---	---	---	---
MIN	.01	.01	.24	.15	.17	.14	.14	.04	---	---	---	---
AC-FT	1.2	48	50	11	24	114	17	5.3	---	---	---	---

CAL YR 1985 TOTAL 381.67 MEAN 1.05 MAX 11 MIN .00 AC-FT 757

GILA RIVER BASIN

223

09510100 EAST FORK SYCAMORE CREEK NEAR SUNFLOWER, AZ

LOCATION.--Lat 33°56'58", long 111°27'39", in NE¼SE¼ sec. 18, T.7 N., R.9 E., Maricopa County, Hydrologic Unit 15060203, in Tonto National Forest, on left bank 1.7 mi upstream from confluence with West Fork and 6.0 mi north of Sunflower.

DRAINAGE AREA.--4.49 mi².

PERIOD OF RECORD.--July 1961 to May 1986 (discontinued). Low-flow records not equivalent prior to Nov. 10, 1964, owing to undetermined amount of underflow between sites.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,140 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Nov. 10, 1964, at site 0.2 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Mar. 14-25, Apr. 12-23. Records good except for estimated daily discharges, which are fair. No storage or diversion above station.

AVERAGE DISCHARGE.--25 years (water years 1962-86), 0.962 ft³/s, 697 acre-ft/yr; median of yearly mean discharges, 0.44 ft³/s, 320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s Sept. 5, 1970, gage height, 9.50 ft, from profile past gage, from rating curve extended above 130 ft³/s on basis of slope-area measurements at gage heights 5.07 and 9.50 ft; no flow at times most years.

EXTREMES FOR CURRENT PERIOD.--Maximum discharge, 15 ft³/s Nov. 30, gage height, 2.01 ft; minimum daily, .01 ft³/s Oct. 1-9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	1.2	.19	.14	.15	.36	.08	---	---	---	---
2	.01	.02	.66	.18	.13	.15	.28	.08	---	---	---	---
3	.01	.02	.40	.17	.13	.14	.27	.07	---	---	---	---
4	.01	.02	.32	.17	.14	.14	.26	.06	---	---	---	---
5	.01	.02	.29	.17	.13	.14	.24	.06	---	---	---	---
6	.01	.02	.26	.17	.13	.13	.23	.05	---	---	---	---
7	.01	.02	.24	.13	.12	.13	.21	.05	---	---	---	---
8	.01	.02	.19	.14	.14	.12	.22	.05	---	---	---	---
9	.01	.02	.19	.15	.25	.12	.20	.05	---	---	---	---
10	.04	.02	.21	.15	.26	.21	.19	.04	---	---	---	---
11	.03	.02	.21	.14	.23	1.1	.18	.04	---	---	---	---
12	.03	.44	.32	.15	.25	.75	.18	.04	---	---	---	---
13	.02	.07	.29	.14	.29	.92	.18	.03	---	---	---	---
14	.02	.05	.29	.14	.30	1.6	.17	.03	---	---	---	---
15	.02	.04	.29	.15	.38	2.4	.17	.03	---	---	---	---
16	.02	.04	.26	.15	2.4	3.0	.17	.03	---	---	---	---
17	.08	.05	.25	.14	.90	5.0	.17	.03	---	---	---	---
18	.02	.05	.24	.14	.60	7.0	.16	.03	---	---	---	---
19	.02	.05	.25	.13	.47	7.0	.16	.02	---	---	---	---
20	.02	.05	.24	.13	.39	5.4	.16	.02	---	---	---	---
21	.02	.05	.24	.13	.33	2.5	.16	.02	---	---	---	---
22	.02	.05	.22	.12	.28	1.7	.15	.02	---	---	---	---
23	.02	.05	.22	.12	.24	1.2	.15	.02	---	---	---	---
24	.02	.04	.20	.12	.22	.90	.13	.02	---	---	---	---
25	.02	1.1	.20	.12	.20	.52	.13	.02	---	---	---	---
26	.02	5.7	.19	.11	.19	.53	.12	.02	---	---	---	---
27	.02	1.0	.18	.11	.18	.49	.11	.02	---	---	---	---
28	.02	.52	.17	.11	.16	.44	.10	.02	---	---	---	---
29	.02	.40	.18	.10	---	.44	.09	.02	---	---	---	---
30	.02	5.0	.17	.14	---	.39	.09	.02	---	---	---	---
31	.02	---	.18	.16	---	.38	---	.02	---	---	---	---
TOTAL	.63	14.97	8.75	4.37	9.58	45.09	5.39	1.11	---	---	---	---
MEAN	.020	.50	.28	.14	.34	1.45	.18	.036	---	---	---	---
MAX	.08	5.7	1.2	.19	2.4	7.0	.36	.08	---	---	---	---
MIN	.01	.02	.17	.10	.12	.12	.09	.02	---	---	---	---
AC-FT	1.2	30	17	8.7	19	89	11	2.2	---	---	---	---
CAL YR 1985	TOTAL	224.21	MEAN	.61	MAX	8.6	MIN	.01	AC-FT	445		

09510200 SYCAMORE CREEK NEAR FORT MCDOWELL, AZ

LOCATION.--Lat 33°41'39", long 111°32'28", in sec.16, T.4 N., R.8 E. (unsurveyed), Maricopa County, Hydrologic Unit 15060203, in Tonto National Forest, on right bank 0.7 mi southwest of Sugarloaf Mountain, 9 mi northeast of Fort McDowell, 10 mi upstream from mouth, and 25 mi northeast of Scottsdale.

DRAINAGE AREA.--164 mi².

PERIOD OF RECORD.--December 1960 to current year. Prior to Oct. 1, 1963, published as "near McDowell."

REVISED RECORDS.--WRD Ariz. 1970: Drainage area.

GAGE.--Water-stage recorder, a crest-stage gage, and a concrete control. Datum of gage is 1,759.33 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1970, at datum 0.16 ft lower.

REMARKS.--Estimated daily discharges: Sept. 6-28. Records fair.

AVERAGE DISCHARGE.--25 years (water years 1962-86), 30.9 ft³/s, 22,390 acre-ft/yr; median of yearly mean discharges, 14 ft³/s, 10,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,200 ft³/s Sept. 5, 1970, gage height, 19.7 ft, from profile past gage, from rating curve extended above 3,600 ft³/s on basis of slope-area measurements at gage heights 15.0, 16.0, and 19.7 ft; no flow at times in most years.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0930	1,340	3.72	Feb. 16	0930	739	2.82
Nov. 30	0615	1,020	3.29	Mar. 17	0430	*3,000	5.59

No flow June 24-28, 30, July 13-20, Sept. 8-11, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	.84	98	5.1	4.4	11	21	4.0	3.6	.05	.39	.32
2	1.3	.84	53	5.0	4.5	9.5	21	3.9	3.5	.14	.39	.25
3	1.2	.84	35	4.8	4.3	9.1	19	3.8	3.9	1.9	.28	.19
4	1.2	.84	24	4.7	4.3	8.4	16	3.5	3.9	2.8	.19	.16
5	.96	.84	17	4.6	4.1	8.0	15	3.4	3.6	2.0	.18	.07
6	.94	.83	13	4.4	4.0	7.8	13	3.4	3.5	1.1	.18	.02
7	.87	.88	10	4.4	3.7	7.4	13	3.5	3.1	.85	.22	.01
8	.84	1.1	9.0	4.2	3.6	7.2	11	3.6	3.8	.91	.28	.00
9	.84	1.1	8.2	4.2	16	7.0	10	3.6	4.1	.45	.30	.00
10	.91	1.1	7.4	4.2	18	6.9	9.6	3.7	4.1	.27	.29	.00
11	1.0	1.4	9.3	3.9	11	104	9.5	3.7	3.9	.11	.35	.00
12	.88	2.5	21	3.9	8.8	190	9.2	3.5	3.6	.01	.37	.01
13	.84	1.8	14	3.8	8.2	165	8.7	3.3	3.2	.00	.32	.02
14	.81	1.5	11	3.7	8.5	181	8.1	3.2	2.2	.00	.33	.01
15	.79	1.2	10	4.0	15	185	8.1	3.3	1.5	.00	.32	.01
16	.82	1.2	9.7	3.8	370	113	7.8	3.3	1.7	.00	.31	.02
17	.76	1.3	9.5	3.7	133	1080	7.3	3.2	.86	.00	.30	.02
18	.90	.86	9.2	3.7	78	452	6.9	3.2	.50	.00	.30	.03
19	.78	.94	8.8	3.7	54	282	6.5	3.2	.39	.00	.30	.03
20	.67	.84	8.3	3.7	42	186	6.5	3.1	.29	.00	.23	.02
21	.67	.75	8.0	3.6	33	121	6.5	3.2	.20	.80	.18	.03
22	.67	.77	7.7	3.5	26	90	6.2	3.8	.14	1.1	.21	.04
23	.67	.84	7.4	3.6	22	69	5.9	4.4	.06	6.0	.20	.08
24	.67	.84	7.0	3.6	19	56	4.8	4.5	.00	1.7	.25	.14
25	.67	.94	6.6	3.6	16	48	4.8	4.1	.00	.67	.23	.11
26	.67	447	6.2	3.4	14	41	4.6	3.6	.00	.29	.23	.10
27	.70	102	5.8	3.4	12	35	4.3	3.3	.00	.27	.25	.05
28	.67	37	5.5	3.5	11	31	4.3	3.3	.00	.47	3.9	.03
29	.67	19	5.5	3.4	---	28	4.3	3.2	.01	.46	1.4	.00
30	.67	350	5.4	3.5	---	25	4.0	3.4	.00	.45	.43	.16
31	.74	---	5.4	4.0	---	22	---	3.6	---	.44	.37	---
TOTAL	26.18	981.89	455.9	122.6	948.4	3586.3	276.9	109.8	55.65	23.24	13.48	1.93
MEAN	.84	32.7	14.7	3.95	33.9	116	9.23	3.54	1.85	.75	.43	.064
MAX	1.4	447	98	5.1	370	1080	21	4.5	4.1	6.0	3.9	.32
MIN	.67	.75	5.4	3.4	3.6	6.9	4.0	3.1	.00	.00	.18	.00
AC-FT	52	1950	904	243	1880	7110	549	218	110	46	27	3.8

CAL YR	1985	TOTAL	8808.34	MEAN	24.1	MAX	447	MIN	.04	AC-FT	17470
WTR YR	1986	TOTAL	6602.27	MEAN	18.1	MAX	1080	MIN	.00	AC-FT	13100

GILA RIVER BASIN

225

09511300 VERDE RIVER NEAR SCOTTSDALE, AZ

LOCATION.--Lat 33°33'34", long 111°40'09", in NW¼NE¼SE¼ sec.31, T.3 N., R.7 E., Maricopa County, Hydrologic Unit 15060203, in Salt River Indian Reservation, on right bank, at downstream side of Verde Plant intake structure, 1.5 mi downstream from State Highway 87 (Beeline highway) 0.75 mi north of city of Phoenix water treatment plant, 1.1 mi upstream from mouth and 16 mi northeast of the city of Scottsdale.

DRAINAGE AREA.--6,600 mi², approximately.

PERIOD OF RECORD.--February 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,320.31 ft above National Geodetic Vertical Datum of 1929. Prior to October 1, 1980 at site 1.6 mi upstream on State Highway 87 bridge at different datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Bartlett and Horseshoe Reservoirs (see sta 09509500) except during periods of spill or floodflow below Bartlett Dam. About 12,500 acres above reservoirs are irrigated by surface water and ground water. Below reservoirs water is diverted for municipal supply of city of Phoenix, and for irrigation of an undetermined acreage in Fort McDowell Indian Reservation. Remainder (except during infrequent period of extreme flooding) is diverted at Granite Reef Dam on Salt River, 6 mi downstream, for irrigation in Salt River Valley and for municipal use by the city of Phoenix.

AVERAGE DISCHARGE.--25 years, 668 ft³/s, 484,000 acre-ft/yr; median of yearly mean discharges, 480 ft³/s, 348,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 98,000 ft³/s Feb. 16, 1980, on basis of flood routing, gage height, not determined; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,070 ft³/s Mar. 6, 7; minimum daily, 39 ft³/s Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	567	225	376	538	887	87	208	230	614	489	206
2	46	465	215	377	386	843	86	206	234	631	498	203
3	55	444	254	381	128	944	84	202	267	504	493	205
4	354	500	420	385	81	955	84	200	333	326	402	209
5	675	495	452	386	538	1020	86	201	359	252	301	212
6	699	464	403	383	683	1070	91	198	402	237	370	212
7	622	471	367	377	607	1070	88	197	349	234	369	208
8	552	545	362	375	587	1060	74	199	332	226	312	208
9	547	529	387	373	555	1020	58	197	329	221	308	207
10	534	786	389	372	450	976	54	197	288	219	246	207
11	349	786	410	370	427	871	208	197	343	275	214	203
12	147	844	424	370	383	631	206	196	458	239	209	199
13	113	614	439	368	404	206	199	197	471	221	200	198
14	259	522	420	368	446	164	201	197	400	290	215	205
15	561	475	414	367	437	160	215	196	444	321	197	217
16	445	504	394	365	363	145	177	196	450	334	247	214
17	369	449	394	366	273	622	214	193	446	354	215	218
18	449	413	394	365	342	701	353	194	539	291	197	215
19	410	443	393	292	402	578	399	193	657	239	190	216
20	364	453	389	214	458	555	314	192	739	222	181	217
21	361	478	387	223	447	234	264	193	617	194	179	221
22	425	442	388	268	477	176	301	193	614	157	272	224
23	509	392	386	253	505	153	268	193	539	170	320	232
24	550	350	381	265	537	133	229	193	504	176	308	254
25	578	358	381	564	601	120	225	196	403	175	217	251
26	528	406	378	587	658	106	223	195	395	159	200	248
27	502	247	377	601	742	105	223	192	487	163	186	234
28	455	268	375	585	804	101	227	191	582	165	206	238
29	445	268	376	617	---	98	226	191	603	166	248	240
30	508	292	378	694	---	94	219	252	611	303	206	260
31	554	---	376	684	---	90	---	276	---	462	202	---
TOTAL	13004	14270	11728	12571	13259	15888	5683	6221	13425	8540	8397	6581
MEAN	419	476	378	406	474	513	189	201	447	275	271	219
MAX	699	844	452	694	804	1070	399	276	739	631	498	260
MIN	39	247	215	214	81	90	54	191	230	157	179	198
AC-FT	25790	28300	23260	24930	26300	31510	11270	12340	26630	16940	16660	13050
CAL YR	1985	TOTAL	216397	MEAN	593	MAX	4890	MIN	9.0	AC-FT	429200	
WTR YR	1986	TOTAL	129567	MEAN	355	MAX	1070	MIN	39	AC-FT	257000	

GILA RIVER BASIN

09512200 SALT RIVER TRIBUTARY IN SOUTH MOUNTAIN PARK, AT PHOENIX, AZ

LOCATION.--Lat 33°20'49", long 112°05'03", in NE¼NE¼ sec.18, T.1 S., R.3 E., Maricopa County, Hydrologic Unit 15060106, in South Mountain Park, on left bank 6.5 mi south of Phoenix main post office.

DRAINAGE AREA.--1.75 mi².

PERIOD OF RECORD.--January 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,405.20 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges and no flow for the entire year. Records good. No storage or diversion above station.

AVERAGE DISCHARGE.--25 years, 0.009 ft³/s, 6.5 acre-ft/yr; median of yearly mean discharges, 0.00 ft³/s, 0.0 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 670 ft³/s Sept. 4, 1965, gage height, 9.70 ft, from floodmarks, from rating curve extended above 31 ft³/s on basis of measurements of peak flow through culvert at gage heights 5.80, 9.09, and 9.52 ft; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--No flow for entire year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.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	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.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	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CAL YR 1985	TOTAL	.20	MEAN	.001	MAX	.20	MIN	.00	AC-FT	.4		
WTR YR 1986	TOTAL	.00	MEAN	.00	MAX	.00	MIN	.00	AC-FT	.0		

GILA RIVER BASIN

227

09512280 CAVE CREEK BELOW COTTONWOOD WASH NEAR CAVE CREEK, AZ

LOCATION.--Lat 33°53'14", long 111°57'12", in SE¼SE¼SW¼ sec.4, T.6 N., R.4 E., Maricopa County, Hydrologic Unit 15060106, on left bank 1,500 ft downstream from Cottonwood Creek and 3.7 mi north of town of Cave Creek.

DRAINAGE AREA.--82.7 mi².

PERIOD OF RECORD.--October 1980 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. No regulation or diversion above station.

AVERAGE DISCHARGE.--6 years, 6.72 ft³/s, 4,870 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,720 ft³/s Nov. 30, 1982, gage height, 6.86 ft; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Feb. 19, 1980, reached a stage of 10.4 ft present datum, from flood marks, discharge, 7,020 ft³/s.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0500	*746	*3.39

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.7	1.4	1.0	1.5	.92	1.7	.17	.00	.00	.00	.00
2	1.2	1.9	4.3	1.0	1.2	.92	1.6	.15	.00	.00	.00	.00
3	.85	1.7	2.5	1.1	1.0	.92	1.4	.14	.00	.00	.00	.00
4	.79	1.7	1.9	1.1	1.3	.87	1.3	.09	.00	.00	.00	.00
5	.64	1.7	1.5	1.1	1.0	.89	1.2	.08	.00	.00	.00	.00
6	.42	1.7	1.3	1.1	.92	.85	1.1	.06	.00	.00	.00	.00
7	.34	1.7	1.4	1.1	.92	.85	1.0	.06	.00	.00	.00	.00
8	.34	1.9	1.4	1.0	.99	.85	.98	.06	.00	.00	.00	.00
9	.34	1.9	1.4	1.0	2.1	.85	.92	.06	.00	.00	.00	.00
10	1.1	1.9	1.2	1.1	1.9	1.2	.92	.06	.00	.00	.00	.00
11	3.5	2.1	1.8	1.1	1.3	1.6	.92	.06	.00	.00	.00	.00
12	3.1	1.1	3.7	1.1	1.1	1.8	.87	.06	.00	.00	.00	.00
13	2.4	8.2	2.7	1.0	1.0	1.2	.79	.06	.00	.00	.00	.00
14	2.4	5.5	2.3	1.1	1.0	2.3	.74	.05	.00	.00	.00	.00
15	2.4	3.7	2.1	1.1	1.2	2.4	.74	.03	.00	.00	.00	.00
16	2.5	3.3	1.9	1.1	2.5	8.3	.73	.00	.00	.00	.00	.00
17	3.9	3.1	1.9	1.0	1.7	7.8	.67	.00	.00	.00	.00	.00
18	4.1	3.1	1.9	1.1	1.3	2.7	.71	.00	.00	.00	.00	.00
19	3.5	2.9	1.9	1.1	1.2	1.2	.71	.00	.00	.00	.00	.00
20	3.3	2.9	1.9	1.0	1.1	7.2	.69	.00	.00	.00	.00	.00
21	2.8	2.9	1.6	1.0	1.0	5.2	.65	.00	.00	.00	.00	.00
22	2.6	2.9	1.4	1.0	1.0	4.0	.58	.00	.00	.00	.00	.00
23	2.4	2.9	1.3	1.0	1.0	3.3	.51	.00	.00	.22	.00	.00
24	2.2	2.9	1.2	1.1	1.0	2.9	.41	.00	.00	.00	.00	.00
25	1.9	5.4	1.1	1.2	1.0	2.8	.35	.00	.00	.00	.00	.00
26	1.4	15.8	1.1	1.1	1.0	2.6	.29	.00	.00	.00	.00	.00
27	1.4	1.4	1.1	1.1	1.0	2.2	.28	.00	.00	.00	.00	.00
28	1.4	7.0	1.0	1.1	.93	2.1	.26	.00	.00	.00	.15	.00
29	1.4	3.6	1.0	.93	---	2.0	.20	.00	.00	.00	.00	.00
30	1.4	1.9	1.0	1.0	---	1.8	.17	.00	.00	.00	.00	.00
31	1.4	---	1.0	1.2	---	1.7	---	.00	---	.00	.00	---
TOTAL	58.82	282.2	65.8	33.03	34.16	265.22	23.39	1.19	.00	16.22	.15	.00
MEAN	1.90	9.41	2.12	1.07	1.22	8.56	.78	.038	.00	.52	.005	.00
MAX	4.1	15.8	1.4	1.2	2.5	7.8	1.7	.17	.00	.16	.15	.00
MIN	.34	1.7	1.0	.93	.92	.85	.17	.00	.00	.00	.00	.00
AC-FT	117	560	131	66	68	526	46	2.4	.0	32	.3	.0

CAL YR	1985	TOTAL	1066.18	MEAN	2.92	MAX	15.8	MIN	.00	AC-FT	2110
WTR YR	1986	TOTAL	780.18	MEAN	2.14	MAX	15.8	MIN	.00	AC-FT	1550

GILA RIVER BASIN

09512400 CAVE CREEK AT PHOENIX, AZ

LOCATION.--Lat 33°34'56", long 112°06'43", in SW¼ sec.24, T.3 N., R.2 E., Maricopa County, Hydrologic Unit 15060106, on downstream side of bridge at Peoria Avenue in Phoenix, 0.7 mi upstream from Arizona Canal.

DRAINAGE AREA.--252 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,236.37 ft above National Geodetic Vertical Datum of 1929 (from Salt River Valley Water Users' Association temporary bench mark). Prior to July 31, 1974, at site 60 ft upstream at datum 6.93 ft higher.

REMARKS.--Estimated daily discharges: Oct. 11, 17, Nov. 12, 27, 28, and Dec. 12. Records fair. Peak flow regulated from 161 mi² by Cave Creek Dam 12 mi upstream.

AVERAGE DISCHARGE.--29 years, 3.80 ft³/s, 2,750 acre-ft/yr; median of yearly mean discharges, 1.1 ft³/s, 800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,080 ft³/s - including 345 ft³/s released from Cave Creek Dam - Dec. 19, 1967, gage height, 11.23 ft, present datum; no flow for most of time each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,170 ft³/s, Aug. 28, gage height, 7.91 ft; no flow for most of the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	62	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.73	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	22	40	.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	.70	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	20	.00	.00	.00	1.6	2.1	.00	.00	.00	.00	.00	.00
17	.68	.00	.00	.00	.00	1.4	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	219	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	2.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	177	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	50	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	83.41	270.40	40.00	.00	1.60	4.20	.00	.00	.00	.00	227.00	.00
MEAN	2.69	9.01	1.29	.00	.057	.14	.00	.00	.00	.00	7.32	.00
MAX	62	219	40	.00	1.6	2.1	.00	.00	.00	.00	177	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	165	536	79	.0	3.2	8.3	.0	.0	.0	.0	450	.0
CAL YR	1985	TOTAL	681.35	MEAN	1.87	MAX	219	MIN	.00	AC-FT	1350	
WTR YR	1986	TOTAL	626.61	MEAN	1.72	MAX	219	MIN	.00	AC-FT	1240	

GILA RIVER BASIN

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09512500 AGUA FRIA RIVER NEAR MAYER, AZ

LOCATION.--Lat 34°18'55", long 112°03'48", in NW¼SE¼ sec.20, T.11 N., R.3 E., Yavapai County, Hydrologic Unit 15070102, on left bank at Sycamore damsite, 700 ft downstream from Big Bug Creek and 12 mi southeast of Mayer.

DRAINAGE AREA.--588 mi².

PERIOD OF RECORD.--January 1940 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,434 ft above National Geodetic Vertical Datum of 1929 (levels by Maricopa County Municipal Water Conservation District No. 1).

REMARKS.--Estimated daily discharges: Oct. 1-7, Nov. 27-29, Dec. 2-11, Mar. 17-20, July 4-16, July 24 to Aug. 10, Sept. 10-23. Records fair except for estimated daily discharges, which are poor. Diversions above station for mining and irrigation of about 600 acres. Perry Canal, which previously headed 300 ft above the gage, was washed out on July 11, 1977, and was not rebuilt.

AVERAGE DISCHARGE.--46 years, 22.7 ft³/s, 16,450 acre-ft/yr; median of yearly mean discharges, 13 ft³/s, 9,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,100 ft³/s Feb. 19, 1980, from rating curve extended above 3,400 ft³/s on basis of slope-area measurement of peak flow, gage height, 15.76 ft, from mean of surge, inside high-water mark 16.03 ft, floodmark 18.97 ft; negligible flow at times during the summer months in most previous years when entire flow was diverted to Perry Canal above station and flow past gage was seepage only.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0500	*3,970	6.80
July 20	2115	3,740	6.67

Minimum daily discharge, 1.7 ft³/s, July 17-19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.7	139	7.7	6.1	5.7	14	4.8	29	11	5.7	55
2	2.1	2.6	32	7.7	6.0	5.7	14	4.8	8.5	118	5.7	5.0
3	2.0	2.6	11	7.7	5.8	5.9	15	4.6	4.3	24	5.7	3.7
4	1.9	2.5	11	7.7	7.0	5.7	12	4.2	3.5	3.5	5.7	3.2
5	1.9	2.4	11	7.6	6.4	5.5	10	4.2	3.2	2.1	5.7	3.0
6	2.0	2.4	11	7.3	6.2	4.2	9.1	4.0	3.1	2.1	5.7	2.9
7	2.1	2.4	11	7.3	6.1	5.3	8.4	3.8	3.0	2.1	5.7	2.8
8	1.9	2.4	11	7.3	6.1	5.5	7.2	4.2	2.9	2.1	5.7	6.8
9	2.0	2.5	11	7.0	6.6	5.8	6.1	4.2	2.8	2.1	5.7	21
10	2.7	2.5	11	6.9	6.5	6.6	7.5	3.8	2.8	2.1	5.7	3.8
11	3.3	2.8	11	6.9	6.2	11	7.6	3.5	2.8	2.1	15	3.8
12	2.8	83	12	6.9	6.4	13	7.2	3.4	2.7	2.1	10	3.8
13	2.6	18	11	6.9	6.2	64	7.3	3.3	2.7	2.1	4.5	3.8
14	2.5	11	11	6.8	6.2	167	7.0	3.2	2.7	2.1	26	3.8
15	2.4	7.4	11	6.9	6.9	226	6.4	3.0	2.7	2.1	4.2	3.8
16	2.5	6.4	11	6.9	7.9	78	6.8	2.7	2.7	2.1	1.9	3.8
17	2.8	6.1	11	6.8	8.4	385	6.8	2.6	2.7	1.7	7.2	3.8
18	2.8	5.9	11	6.5	7.6	114	7.1	2.6	2.7	1.7	17	3.8
19	2.8	5.7	11	6.1	7.3	86	7.3	2.7	2.7	1.7	2.5	3.8
20	3.0	5.7	9.9	5.9	7.0	80	7.3	2.3	2.8	209	2.2	3.8
21	2.8	5.7	9.4	5.9	6.5	86	7.1	2.3	2.8	58	2.2	3.8
22	2.8	5.7	9.2	5.7	6.2	100	6.9	2.3	2.9	40	2.1	3.8
23	2.7	5.7	8.9	5.7	5.9	104	6.6	2.2	2.8	197	2.2	3.8
24	2.7	5.7	8.2	5.9	5.7	92	6.0	2.2	2.8	7.0	2.4	4.0
25	2.6	16	7.7	5.8	5.7	65	5.8	2.1	2.9	5.7	2.4	3.7
26	2.6	1100	7.3	5.8	5.7	46	5.6	2.0	2.8	5.7	2.3	3.7
27	2.6	67	7.6	5.8	5.7	44	5.5	2.0	2.8	5.7	3.8	3.5
28	2.6	10	7.7	5.6	5.7	31	5.4	1.9	2.8	5.7	2.4	3.6
29	2.6	16	7.7	5.4	---	26	5.1	1.9	2.9	5.7	5.0	3.6
30	2.6	531	7.7	5.7	---	19	5.0	2.0	2.9	5.7	3.1	3.6
31	2.6	---	7.7	5.7	---	14	---	56	---	5.7	36	---
TOTAL	77.7	1939.8	458.0	203.8	180.0	1906.9	233.1	148.8	118.7	737.7	211.4	182.3
MEAN	2.51	64.7	14.8	6.57	6.43	61.5	7.77	4.80	3.96	23.8	6.82	6.08
MAX	3.3	1100	139	7.7	8.4	385	15	56	29	209	36	55
MIN	1.9	2.4	7.3	5.4	5.7	4.2	5.0	1.9	2.7	1.7	1.9	2.8
AC-FT	154	3850	908	404	357	3780	462	295	235	1460	419	362

CAL YR 1985	TOTAL	5698.3	MEAN	15.6	MAX	1100	MIN	.80	AC-FT	11300
WTR YR 1986	TOTAL	6398.2	MEAN	17.5	MAX	1100	MIN	1.7	AC-FT	12690

09512600 TURKEY CREEK NEAR CLEATOR, AZ

LOCATION.--Lat 34°16'56", long 112°12'25", in SW¼SW¼SE¼ sec.36, T.11 N., R.1 E. (unsurveyed), Yavapai County, Hydrologic Unit 15070102, in Prescott National Forest, on right bank 0.7 mi upstream from Forest Route 259, 1.5 mi east of Cleator, and 9.3 mi south of Mayer.

DRAINAGE AREA.--89.4 mi².

PERIOD OF RECORD.--October 1979 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 3,140 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated mean daily discharges: Feb. 15 to Mar. 12, June 1, 2, July 1-3, Aug. 6-8, 11, 12, 14, 18, 31, and Sept. 1, 3-23, 27. Records fair except for estimated daily discharges, which are poor.

AVERAGE DISCHARGE.--7 years, 16.0 ft³/s, 11,590 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,230 ft³/s Feb. 19, 1980, gage height, 11.51 ft, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement of peak flow; no flow for many days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 5, 1970, reached a stage of about 16 ft, from floodmarks, discharge, about 9,000 ft³/s, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement at gage height 11.51 ft.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 30	1415	407	3.20	July 2	unknown	3,270	8.09
June 1	1900	*4,110	*9.49				

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	25	1.1	.87	.00	17	.58	102	26	.00	.09
2	.00	.00	13	1.1	1.8	.00	14	.49	2.5	200	.01	.09
3	.00	.00	12	1.1	1.8	.00	13	.44	.48	41	.12	.00
4	.00	.00	17	1.0	1.7	.00	11	.40	.47	2.2	.00	.00
5	.00	.00	11	1.0	1.7	.00	10	.37	.32	.55	.00	.00
6	.00	.00	9.0	.99	1.7	.00	9.3	.34	.18	.24	5.3	.00
7	.00	.00	7.4	.91	1.5	.00	8.4	.35	.14	.12	1.1	.00
8	.00	.00	6.0	.90	1.3	.00	7.2	.35	.10	.05	.26	.00
9	.00	.00	4.8	.83	1.6	.00	6.4	.34	.05	.03	.13	3.1
10	.00	.00	3.5	.82	2.1	.00	6.0	.32	.02	.03	.01	.08
11	.00	.00	2.9	.75	1.7	60	5.1	.31	.01	.02	7.5	.01
12	.00	.00	3.3	.75	1.5	46	4.9	.30	.00	.01	1.5	.00
13	.00	.00	3.0	.75	1.3	60	4.3	.29	.00	.01	.95	.00
14	.00	.00	2.4	.76	1.3	41	3.6	.27	.00	.00	.50	.00
15	.00	.00	2.3	.87	1.2	27	3.4	.29	.00	.00	.39	.00
16	.00	.00	2.2	1.1	1.0	41	2.8	.25	.00	.00	.21	.00
17	.00	.00	2.0	1.1	.83	94	2.6	.18	.00	.00	2.3	.00
18	.00	.00	1.7	1.1	.42	70	2.4	.16	.00	.00	7.1	.00
19	.00	.00	1.6	.91	.24	46	2.2	.09	.00	.00	.51	.00
20	.00	.00	1.6	.91	.15	41	2.1	.04	.00	.00	.21	.00
21	.00	.00	1.4	.91	.02	53	1.8	.01	.00	.00	.09	.00
22	.00	.00	1.3	.89	.01	69	1.5	.02	.00	.06	.03	.00
23	.00	.00	1.3	.83	.00	66	1.1	.00	.00	.27	.03	.00
24	.00	.00	1.5	.81	.00	54	.91	.00	.00	1.6	.11	.10
25	.00	.00	1.4	.75	.00	43	.91	.00	.00	.21	.05	.11
26	.00	20	1.2	.77	.00	39	.88	.00	.00	.04	.05	.09
27	.00	13	1.1	.81	.00	31	.80	.00	.00	.01	.10	.02
28	.00	5.8	1.1	.75	.00	21	.75	.00	.00	.0	.07	.01
29	.00	3.6	1.1	.75	---	19	.72	.00	.00	.00	.06	.00
30	.00	127	1.1	.75	---	16	.66	.00	.00	.00	.10	.00
31	.00	---	1.1	.75	---	14	---	.00	---	.00	.10	---
TOTAL	.00	169.40	145.3	27.52	25.74	951.00	145.73	6.19	106.27	272.45	28.89	3.70
MEAN	.00	5.65	4.69	.89	.92	30.7	4.86	.20	3.54	8.79	.93	.12
MAX	.00	127	25	1.1	2.1	94	17	.58	102	200	7.5	3.1
MIN	.00	.00	1.1	.75	.00	.00	.66	.00	.00	.00	.00	.00
AC-FT	.0	336	288	55	51	1890	289	12	211	540	57	7.3

CAL YR	1985	TOTAL	2745.68	MEAN	7.52	MAX	127	MIN	.00	AC-FT	5450
WTR YR	1986	TOTAL	1882.19	MEAN	5.16	MAX	200	MIN	.00	AC-FT	3730

GILA RIVER BASIN

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09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ

LOCATION.--Lat 34°00'56", long 112°10'02", in NW¼NW¼ sec.28, T.8 N., R.2 E., Yavapai County, Hydrologic Unit 15070102, on right bank 2.5 mi southwest of Rock Springs and 10 mi upstream from Lake Pleasant.

DRAINAGE AREA.--1,130 mi², approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year (monthly discharge only, October 1973 to September 1974).
Low-flow records not equivalent prior to Oct. 1, 1974, due to spring flow in streambed between sites in use.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,800 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1974, at site 600 ft upstream at datum 10.00 ft higher (now used as supplementary gage).

REMARKS.--No estimated daily discharges. Records fair.

AVERAGE DISCHARGE.--16 years, 92.7 ft³/s, 67,160 acre-ft/yr; median of yearly mean discharges, 43 ft³/s, 31,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 59,500 ft³/s Feb. 19, 1980, gage height, 21.08 ft recorded, 28.15 ft from floodmark, from rating curve extended above 21,000 ft³/s on basis of slope-area measurement at gage height 27.2 ft; no flow at times each year prior to October 1974; since October 1974, no flow May 27 to July 12, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,800 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	1000	*3,220	*10.73

Minimum daily discharge, 0.68 ft³/s June 28, gage height, 3.96 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.7	2.5	353	16	8.9	13	40	4.5	47	.99	1.1	13
2	2.5	2.4	160	16	8.9	13	41	4.3	112	4.3	1.0	24
3	2.5	2.3	97	16	8.9	13	39	3.8	32	200	1.1	9.9
4	2.4	2.2	71	16	8.9	12	36	3.6	15	33	1.1	5.6
5	2.4	2.1	58	15	8.9	12	31	3.5	8.6	11	.96	2.7
6	2.4	2.1	45	15	9.6	12	28	3.4	6.0	4.7	.97	1.8
7	2.7	2.1	35	14	9.9	12	26	3.3	4.8	3.0	.95	1.5
8	2.7	2.3	32	13	10	11	24	3.5	4.0	2.3	.86	1.4
9	2.6	2.4	28	13	12	9.2	22	3.4	3.6	1.8	.84	91
10	3.0	2.3	24	13	12	9.5	20	3.3	3.2	1.6	.86	29
11	3.7	2.5	23	13	12	25	19	3.3	2.9	1.4	.85	9.8
12	3.2	47	28	12	11	73	18	3.3	2.6	1.2	120	4.5
13	2.8	72	24	11	10	132	16	3.3	2.4	1.0	28	2.3
14	2.7	21	22	11	9.1	153	14	3.2	2.1	.90	7.8	1.7
15	2.4	9.8	20	13	8.7	219	13	3.2	1.9	.87	2.9	1.5
16	2.3	5.9	19	13	11	164	12	3.2	1.8	1.9	10	1.4
17	2.5	4.1	18	12	43	405	11	3.1	1.5	2.7	4.3	1.2
18	2.4	3.5	17	12	45	450	11	3.1	1.4	1.9	2.1	1.2
19	2.4	3.2	17	11	36	261	10	3.1	1.2	5.1	6.4	1.0
20	2.3	2.9	17	11	28	190	9.7	3.1	1.1	1.7	4.9	1.0
21	2.2	2.9	17	11	22	157	9.0	3.0	1.0	142	2.2	1.0
22	2.2	2.7	17	10	19	165	8.0	3.1	.97	173	1.7	1.2
23	2.1	2.6	17	9.9	17	172	7.4	3.0	1.0	95	1.5	1.6
24	2.0	2.5	18	9.8	14	153	6.9	3.1	.98	36	1.5	3.1
25	2.1	19	17	9.7	14	123	6.5	3.2	.94	14	1.3	2.8
26	2.0	1550	17	9.6	14	102	6.3	3.2	.98	6.3	1.2	2.8
27	2.0	319	17	9.5	13	80	5.8	3.0	.81	3.0	32	2.8
28	2.0	99	17	9.2	13	68	5.5	3.0	.74	2.1	19	2.8
29	2.0	51	16	8.9	---	56	5.3	3.0	.96	1.7	12	2.8
30	2.0	693	16	8.9	---	50	4.9	3.2	1.3	1.4	33	2.8
31	2.1	---	16	8.9	---	45	---	3.8	---	1.2	11	---
TOTAL	75.3	2936.3	1293	371.4	437.8	3359.7	506.3	103.1	264.78	757.06	313.39	229.2
MEAN	2.43	97.9	41.7	12.0	15.6	108	16.9	3.33	8.83	24.4	10.1	7.64
MAX	3.7	1550	353	16	45	450	41	4.5	112	200	120	91
MIN	2.0	2.1	16	8.9	8.7	9.2	4.9	3.0	.74	.87	.84	1.0
AC-FT	149	5820	2560	737	868	6660	1000	204	525	1500	622	455
CAL YR 1985	TOTAL	15415.42	MEAN	42.2	MAX	1550	MIN	.68	AC-FT	30580		
WTR YR 1986	TOTAL	10647.33	MEAN	29.2	MAX	1550	MIN	.74	AC-FT	21120		

GILA RIVER BASIN

09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ--Continued

WATER-QUALITY RECORDS

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

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(31625)	(31673)	
OCT 1985													
30...	1040	2.1	665	8.25	22.0	21.0	2.7	713	--	--	K9	K16	
NOV													
20...	1000	3.4	689	8.42	12.0	9.0	1.6	719	10.7	98	28	65	
DEC													
19...	1030	19	623	8.42	20.0	10.5	0.50	722	11.1	105	K6	22	
JAN 1986													
28...	1045	12	668	8.41	19.5	12.0	0.50	715	10.5	105	K1	K20	
FEB													
25...	1135	14	608	8.58	28.0	17.0	1.0	721	9.8	108	K2	K18	
MAR													
25...	1005	142	411	8.48	21.5	14.0	12	716	10.5	108	K20	93	
MAY													
07...	1130	3.6	591	8.58	16.5	20.5	1.0	713	11.8	141	K1	<1	
JUN													
02...	1005	71	326	7.83	28.5	18.5	850	713	7.6	87	28000	29000	
24...	0930	1.0	741	8.21	35.0	25.5	1.5	714	8.6	113	31	49	
JUL													
24...	1230	37	385	8.00	34.5	25.0	2500	715	6.6	85	4200	K4900	
AUG													
19...	0930	8.9	645	8.42	35.5	26.0	28	714	7.8	103	380	98	
SEP													
24...	0940	3.4	620	8.40	18.0	18.5	17	714	9.0	103	--	380	
DATE		HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE WH WAT TOTAL FIELD MG/L AS HCO3 (00440)	CAR- BONATE WH WAT TOTAL FIELD MG/L AS CO3 (00445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT 1985													
30...	250	0	57	26	49	1	2.7	--	--	291	81	42	
NOV													
20...	260	24	59	28	48	1	1.9	280	4	240	81	42	
DEC													
19...	240	22	54	25	42	1	2.0	260	4	212	82	31	
JAN 1986													
28...	250	13	56	27	46	1	2.1	270	10	241	84	41	
FEB													
25...	240	12	53	25	44	1	2.0	240	17	219	56	33	
MAR													
25...	160	5	38	16	23	0.8	14	180	4	152	45	17	
MAY													
07...	210	5	48	23	43	1	2.0	230	14	211	59	30	
JUN													
02...	130	26	*35	*11	*17	0.7	4.2	130	0	100	*41	*12	
24...	240	14	55	24	45	1	2.5	270	0	222	73	34	
JUL													
24...	150	42	40	11	20	0.7	3.0	130	0	102	51	13	
AUG													
19...	250	23	57	26	46	1	2.8	270	5	225	71	31	
SEP													
24...	220	10	50	24	42	1	2.5	260	1	218	60	28	

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

* Value verified.

09512800 AGUA FRIA RIVER NEAR ROCK SPRINGS, AZ--Continued

WATER QUALITY DATA

DATE	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, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P) (00666)
OCT 1985												
30...	0.40	27	412	460	0.56	0.200	<0.100	0.20	0.40	1.8	0.060	0.050
NOV												
20...	0.40	28	408	440	0.55	<0.100	<0.100	<0.20	--	--	0.050	0.040
DEC												
19...	0.40	24	352	390	0.48	<0.100	<0.100	0.30	--	--	0.040	0.030
JAN 1986												
28...	0.40	23	402	430	0.55	<0.100	<0.100	0.30	--	--	0.050	0.050
FEB												
25...	0.40	22	368	390	0.50	<0.100	<0.100	0.30	--	--	0.040	0.040
MAR												
25...	0.40	21	260	270	0.35	<0.100	<0.100	0.40	--	--	0.060	0.040
MAY												
07...	0.30	19	368	370	0.50	<0.100	<0.100	0.30	--	--	0.020	0.030
JUN												
02...	0.20	11	218	200	0.30	0.600	0.550	4.8	5.4	24	0.650	0.230
24...	0.40	26	391	390	0.53	<0.100	<0.100	0.20	--	--	0.050	0.040
JUL												
24...	0.30	18	251	220	0.34	0.400	0.430	3.4	3.8	17	4.30	0.180
AUG												
19...	0.40	29	380	400	0.52	<0.100	<0.100	0.40	--	--	0.120	0.070
SEP												
24...	0.40	27	405	360	0.55	<0.100	<0.100	3.3	--	--	0.050	0.070

DATE	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV- ERABLE (UG/L AS FE) (01045)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT 1985											
30...	0.040	0.12	16	<100	190	170	<1	13	2	280	41
NOV											
20...	0.050	0.15	15	<100	140	150	<1	5	6	170	4
DEC											
19...	0.040	0.12	14	<100	160	140	<1	4	6	40	5
JAN 1986											
28...	0.040	0.12	15	<100	150	140	<1	5	5	60	4
FEB											
25...	0.040	0.12	14	<100	120	120	<1	20	4	60	4
MAR											
25...	0.030	0.09	8	<100	60	50	<1	11	7	880	46
MAY											
07...	0.020	0.06	15	100	170	130	<1	2	4	50	7
JUN											
02...	0.180	0.55	42	600	80	60	<1	2	75	72000	53
24...	0.050	0.15	15	<100	150	150	<1	17	7	220	6
JUL											
24...	0.170	0.52	77	1200	140	60	<1	27	--	110000	180
AUG											
19...	0.070	0.21	16	<100	150	160	<1	<1	10	1300	11
SEP											
24...	0.060	0.18	14	100	160	140	<1	3	22	1700	7

DATE	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT 1985											
30...	10	50	--	<1	<1	20	1.8	1.2	0.030	12	0.07
NOV											
20...	1	30	<0.10	<1	<1	20	1.9	0.3	<0.010	3	0.03
DEC											
19...	1	10	<0.10	<1	<1	<10	2.1	0.2	<0.010	1	0.05
JAN 1986											
28...	3	10	<0.10	<1	3	10	2.1	0.4	<0.010	1	0.03
FEB											
25...	2	20	<0.10	1	<1	10	1.8	0.4	<0.010	2	0.08
MAR											
25...	2	40	<0.10	<1	<1	30	3.9	0.6	<0.010	18	6.9
MAY											
07...	4	20	<0.10	<1	<1	20	1.9	0.5	<0.010	84	0.82
JUN											
02...	81	3500	0.50	<1	1	360	10	>10	<0.010	1940	373
24...	<5	80	<0.10	<1	<1	<10	2.7	0.4	<0.010	0	0.0
JUL											
24...	76	4300	--	<1	4	690	4.4	>8.0	0.040	4130	413
AUG											
19...	<5	100	<0.10	<1	<1	10	2.5	0.8	<0.010	40	0.96
SEP											
24...	<5	80	<0.10	<1	1	10	1.9	0.7	<0.010	36	0.33

< Actual value is known to be less than value shown.
> Actual value is known to be greater than value shown.

GILA RIVER BASIN

09512830 BOULDER CREEK NEAR ROCK SPRINGS, AZ

LOCATION.--Lat 33°59'55", long 112°12'57", in SE¼NW¼ sec.36, T.8 N., R.1 E., Yavapai County, Hydrologic Unit 15070102, on left bank 2.2 mi upstream from Agua Fria River, 1.5 mi southwest of Rock Springs, and 7.1 mi northwest of New River.

DRAINAGE AREA.--37.8 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,890 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 19-21 and Dec. 29 to Feb. 7. Records fair except for estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 376 ft³/s Nov. 26, 1985, gage height, 3.84 ft; minimum daily, 0.01 ft³/s, for several days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 376 ft³/s Nov. 26, gage height, 3.84 ft; minimum daily, 0.01 ft³/s, Aug. 22-26, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.16	.04	30	.64	.25	.24	1.4	.06	.09	.05	.10	.09
2	.03	.04	15	.64	.22	.24	3.2	.06	.11	.12	.10	.10
3	.03	.04	8.4	.60	.22	.24	2.1	.05	.08	.13	.10	.10
4	.02	.04	5.8	.60	.23	.20	1.3	.04	.07	.14	.09	.09
5	.02	.04	3.8	.56	.20	.18	.90	.03	.08	.12	.09	.08
6	.02	.04	2.7	.56	.20	.18	.69	.03	.08	.10	.09	.08
7	.02	.04	2.0	.52	.20	.18	.57	.03	.08	.10	.09	.08
8	.02	.04	1.6	.52	.19	.18	.51	.03	.07	.10	.09	.08
9	.02	.04	1.2	.48	.30	.18	.43	.04	.07	.09	.08	.08
10	.05	.04	1.0	.48	.37	.26	.37	.03	.05	.09	.06	.10
11	.06	.04	1.0	.48	.40	.98	.31	.03	.05	.09	.05	.09
12	.05	.19	2.0	.44	.40	4.2	.24	.03	.05	.09	.03	.06
13	.04	.09	2.0	.45	.40	11	.21	.03	.06	.08	.05	.07
14	.04	.08	1.9	.45	.40	18	.17	.03	.06	.08	.07	.08
15	.04	.08	1.6	.41	.39	35	.15	.02	.06	.08	.07	.08
16	.05	.08	1.6	.41	.48	21	.14	.02	.06	.08	.07	.08
17	.05	.08	2.0	.41	.46	22	.13	.02	.07	.08	.07	.08
18	.05	.08	2.2	.41	.44	51	.12	.02	.07	.07	.06	.08
19	.05	.08	2.0	.38	.44	30	.11	.02	.07	.07	.05	.08
20	.06	.08	1.9	.38	.44	21	.12	.02	.06	.07	.05	.08
21	.06	.08	1.8	.38	.36	17	.11	.02	.06	.07	.03	.07
22	.09	.08	1.7	.34	.35	14	.11	.02	.07	.64	.01	.05
23	.08	.08	1.5	.34	.35	11	.10	.03	.07	.18	.01	.06
24	.06	.08	1.3	.31	.35	8.5	.10	.04	.07	.13	.01	.06
25	.04	.28	1.1	.31	.31	6.7	.08	.04	.07	.13	.01	.05
26	.04	118	.97	.31	.31	5.1	.08	.04	.06	.13	.01	.05
27	.04	26	.86	.28	.31	3.6	.06	.04	.05	.13	.36	.03
28	.04	9.3	.72	.28	.24	2.6	.06	.03	.04	.13	.43	.03
29	.04	4.8	.72	.28	---	2.0	.06	.03	.04	.11	.09	.02
30	.04	68	.68	.25	---	1.6	.06	.04	.03	.10	.10	.01
31	.04	---	.68	.25	---	1.2	---	.05	---	.10	.09	---
TOTAL	1.45	227.98	101.73	13.15	9.21	289.56	13.99	1.02	1.95	3.68	2.61	2.09
MEAN	.047	7.60	3.28	.42	.33	9.34	.47	.033	.065	.12	.084	.070
MAX	.16	118	30	.64	.48	51	3.2	.06	.11	.64	.43	.10
MIN	.02	.04	.68	.25	.19	.18	.06	.02	.03	.05	.01	.01
AC-FT	2.9	452	202	26	18	574	28	2.0	3.9	7.3	5.2	4.1
CAL YR 1985	TOTAL	1434.19	MEAN	3.93	MAX	118	MIN	.01	AC-FT	2840		
WTR YR 1986	TOTAL	668.42	MEAN	1.83	MAX	118	MIN	.01	AC-FT	1330		

GILA RIVER BASIN

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09512860 HUMBUG CREEK NEAR CASTLE HOT SPRINGS, AZ

LOCATION.--Lat 33°58'02", long 112°17'34", in NW¼SE¼NE¼ sec.7, T.7 N., R.1 E., Yavapai County, Hydrologic Unit 15070102, on right bank, 3.0 mi upstream from Lake Pleasant, and 4.0 mi southeast of Castle Hot Springs.

DRAINAGE AREA.--59.9 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,790 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,030 ft³/s, Aug. 7, 1985, gage height 7.36 ft, result of a slope-area computation; no flow June 17-21, 24, 1986.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 734 ft³/s Nov. 26, gage height 6.24 ft; no flow, June 17-21, 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.11	.21	39	.46	.36	.37	4.8	.06	.16	.42	.06	.10
2	.10	.22	13	.44	1.4	.37	2.9	.06	.15	20	.05	.09
3	.10	.24	1.8	.44	1.2	.33	2.0	.05	.15	38	.07	.08
4	.10	.26	2.4	.45	.92	.34	1.5	.05	.13	1.7	.09	.07
5	.10	.34	1.6	.44	.79	.33	1.2	.06	.11	.38	.06	.06
6	.11	.32	1.2	.43	.68	.32	1.0	.06	.08	.17	.05	.06
7	.12	.30	.98	.40	.60	.31	.95	.06	.07	.13	.05	.06
8	.12	.29	.88	.37	.65	.29	.82	.07	.07	.12	.07	.06
9	.13	.29	.79	.37	.95	.30	.75	.07	.07	.10	.05	19
10	.30	.31	.71	.37	.82	.33	.69	.06	.06	.10	.06	.17
11	.23	.34	.64	.36	.74	16	.67	.07	.06	.09	.14	.09
12	.20	39	.96	.36	.68	6.0	.56	.06	.05	.09	.22	.08
13	.19	.59	.78	.33	.62	3.5	.53	.06	.04	.09	.18	.07
14	.17	.22	.70	.33	.56	33	.46	.14	.03	.09	.18	.06
15	.15	.17	.70	.36	.63	20	.40	.23	.03	.11	.15	.06
16	.18	.16	.61	.35	.76	17	.32	.17	.01	.13	.13	.06
17	.15	.15	.55	.35	.80	69	.32	.15	.00	.16	.13	.06
18	.15	.15	.49	.35	1.4	46	.28	.14	.00	.11	.17	.06
19	.15	.14	.48	.35	1.5	32	.26	.12	.00	.09	.15	.06
20	.15	.15	.52	.34	1.4	23	.23	.11	.00	.08	.10	.06
21	.18	.14	.54	.34	1.1	14	.18	.11	.00	.13	.07	.07
22	.19	.14	.54	.34	.96	14	.15	.12	.02	3.0	.03	.10
23	.19	.14	.53	.34	.88	15	.11	.13	.04	.33	.05	.18
24	.19	.15	.53	.34	.90	15	.08	.14	.00	.18	.14	.15
25	.19	42	.53	.33	.74	15	.06	.15	.07	.15	.16	.17
26	.20	141	.54	.33	.61	15	.06	.09	.08	.12	36	.15
27	.19	8.3	.52	.33	.47	14	.06	.08	.02	.10	90	.12
28	.20	.89	.50	.33	.42	9.2	.06	.07	.01	.09	11	.12
29	.20	.46	.48	.33	---	6.0	.06	.09	.06	.09	34	.11
30	.20	62	.47	.32	---	3.7	.06	.13	.08	.08	25	.10
31	.96	---	.48	.32	---	2.7	---	.16	---	.07	.24	---
TOTAL	5.90	299.07	74.45	11.30	23.54	392.39	21.52	3.12	1.65	66.50	198.85	21.68
MEAN	.19	9.97	2.40	.36	.84	12.7	.72	.10	.055	2.15	6.41	.72
MAX	.96	141	39	.46	1.5	69	4.8	.23	.16	.38	.90	.19
MIN	.10	.14	.47	.32	.36	.29	.06	.05	.00	.07	.03	.06
AC-FT	12	593	148	22	47	778	43	6.2	3.3	132	394	43
CAL YR 1985	TOTAL	1875.40	MEAN	5.14	MAX	141	MIN	.01	AC-FT	3720		
WTR YR 1986	TOTAL	1119.97	MEAN	3.07	MAX	141	MIN	.00	AC-FT	2220		

09512970 COTTONWOOD CREEK NEAR WADDELL DAM, AZ

LOCATION.--Lat 33°53'55", long 112°18'39", in SE¼SW¼SE¼ sec.36, T.7 N., R.1 W., Yavapai County Hydrologic Unit 15070102, on left bank 4 mi northwest of Waddell Dam and 1 mi upstream from the mouth at Lake Pleasant.

DRAINAGE AREA.--9.28 mi².

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

GAGE.--Water-stage recorder, crest-stage gage, and concrete control. Elevation of gage is 1,660 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharge. Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43 ft³/s (revised), Sept. 23, 1983, gage height 2.80 ft; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 35 ft³/s, Nov. 26, gage height 2.45 ft, no flow for many days.

REVISIONS.--The maximum discharge for the water year 1983 has been revised to 43 ft³/s, Sept. 23, 1983, gage height, 2.80 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.02	.07	.20	.20	.34	.00	.01	.00	.00	.00	.00
2	.00	.02	.07	.20	.20	.02	.01	.01	.00	.00	.00	.00
3	.00	.02	.14	.20	.27	.01	.01	.01	.01	.00	.00	.00
4	.00	.02	.34	.20	.20	.01	.01	.01	.01	.00	.00	.01
5	.00	.02	.34	.20	.20	.01	.01	.01	.01	.00	.00	.00
6	.00	.01	.41	.20	.20	.01	.01	.01	.00	.00	.00	.00
7	.00	.01	.34	.20	.34	.01	.01	.01	.00	.00	.00	.00
8	.01	.01	.34	.20	.41	.01	.01	.01	.00	.00	.00	.00
9	.09	.01	.34	.20	.49	.01	.01	.01	.00	.00	.00	.00
10	.09	.02	.34	.20	.41	.01	.01	.01	.00	.00	.00	.00
11	.15	.02	.41	.20	.34	.01	.01	.01	.00	.00	.00	.00
12	.09	.02	.49	.20	.56	.01	.01	.01	.00	.00	.00	.00
13	.09	.02	.41	.20	.64	.01	.01	.01	.00	.00	.00	.00
14	.04	.02	.41	.20	.64	.01	.01	.01	.00	.00	.00	.00
15	.15	.02	.34	.20	.72	.01	.01	.01	.00	.00	.00	.00
16	.08	.02	.34	.20	.64	.01	.01	.01	.00	.00	.00	.00
17	.01	.02	.34	.20	.64	.01	.01	.01	.00	.00	.00	.00
18	.01	.02	.34	.20	.72	.01	.01	.01	.00	.00	.00	.00
19	.01	.02	.34	.20	.56	.01	.01	.01	.00	.00	.00	.00
20	.01	.02	.34	.20	.49	.01	.01	.01	.00	.00	.00	.00
21	.01	.02	.27	.27	.49	.01	.01	.01	.00	.00	.00	.00
22	.01	.02	.34	.27	.49	.01	.01	.01	.00	.00	.00	.00
23	.01	.02	.34	.27	.49	.01	.01	.01	.00	.00	.00	.00
24	.01	.02	.27	.27	.41	.01	.01	.01	.00	.00	.00	.00
25	.02	1.4	.27	.20	.41	.01	.01	.01	.00	.00	.00	.00
26	.02	8.5	.27	.20	.34	.00	.01	.01	.00	.00	.00	.00
27	.02	.34	.27	.20	.34	.00	.01	.01	.00	.00	.00	.00
28	.02	.20	.27	.20	.34	.01	.01	.01	.00	.00	.00	.00
29	.02	.07	.27	.20	---	.00	.01	.01	.00	.00	.00	.01
30	.02	.07	.27	.27	---	.00	.01	.00	.00	.00	.00	.01
31	.02	---	.20	.27	---	.00	---	.00	---	.00	.00	---
TOTAL	1.02	11.02	9.53	6.62	12.18	.60	.29	.29	.03	.00	.00	.03
MEAN	.033	.37	.31	.21	.43	.019	.010	.009	.001	.00	.00	.001
MAX	.15	8.5	.49	.27	.72	.34	.01	.01	.01	.00	.00	.01
MIN	.00	.01	.07	.20	.20	.00	.00	.00	.00	.00	.00	.00
AC-FT	2.0	22	19	13	24	1.2	.6	.6	.06	.0	.0	.06
CAL YR 1985	TOTAL	47.88	MEAN	.13	MAX	8.5	MIN	.00	AC-FT	95		
WTR YR 1986	TOTAL	41.61	MEAN	.11	MAX	8.5	MIN	.00	AC-FT	83		

GILA RIVER BASIN

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09513000 AGUA FRIA RIVER AT WADDELL DAM, AZ

LOCATION.--Lat 33°51'20", long 112°15'58", in SW¼ sec.16, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, at left upstream end of Waddell Dam, and 22 mi northwest of Glendale.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--November 1910 to September 1914 (gage heights only), October 1914 to September 1919, October 1919 to September 1924 (gage heights only), October 1933 to current year (monthly discharge only). Published as "near Glendale" prior to 1920, and as "at Lake Pleasant Dam" 1920 to September 1962.

REVISED RECORDS.--WSP 1213: 1915-16, 1918-19. WSP 1343: Drainage area. WSP 1513: 1956.

GAGE.--Nonrecording gage on Lake Pleasant read once daily. Datum of gage is 1,431.2 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 30, 1924, nonrecording gage or water-stage recorder at several sites in the vicinity of diversion dam 1.5 mi downstream from Waddell Dam, at different datum.

REMARKS.--Records good. Figures given herein represent flow into Lake Pleasant. Inflow computed on basis of three factors as follows: 1. Change in contents of Lake Pleasant and in contents of small reservoir behind diversion dam 1.5 mi downstream from Lake Pleasant. 2. (a) Release from Lake Pleasant, computed from twice-daily readings by Clausen-Pierce weir rule in Beardsley Canal, checked by current-meter measurements by U.S. Geological Survey. (b) Spill from Lake Pleasant, measured over diversion dam based on staff-gage readings. See tables of diversions and spill below. 3. Effect of rainfall and evaporation on lake; evaporation assumed as 0.85 of that measured once daily in 3-ft-square land pan buried 1 ft in ground near left end of Waddell Dam. Effect of bank storage and bank release in Lake Pleasant is not taken into account. For months when inflow to lake is small and other factors relatively large, discordant figures of runoff may appear. Such discrepancies that may be attributed to inaccuracies in the capacity table, or to the fact that bank storage and bank release are not taken into account, result in quantities too large for periods of falling stage, but tend to be compensated for by quantities too small for periods of rising stage. Inaccuracies in figures of release and evaporation, which may be within reasonable limits within themselves, may result in disproportionately large inaccuracies in small figures of inflow computed as residuals. Diversions for irrigation above Lake Pleasant of probably not over 1,000 acres. Spill occurred in 1941, 1966, 1968, 1978, 1979, 1980, and 1983 water years.

COOPERATION.--Records collected and prepared in cooperation with Maricopa County Municipal Water Conservation District No. 1.

AVERAGE DISCHARGE.--58 years (water years 1915-19, 1934-86), 97.8 ft³/s, 70,860 acre-ft/yr; median of yearly mean discharges, 41 ft³/s, 29,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 105,000 ft³/s Jan. 28, 1916, gage height, 30 ft, same datum as in 1919, from floodmarks, Nov. 27, 1919, gage height, 33 ft, datum then in use, from floodmarks, from rating curve extended above 13,000 ft³/s on basis of velocity-area studies (on basis of comparative gage heights, the flood of Nov. 27, 1919, is believed to have been the greater); no flow during spring and summer of several years.

MONTHLY INFLOW TO LAKE PLEASANT; SPILL AND DIVERSIONS BELOW LAKE PLEASANT,
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Inflow to Lake Pleasant		Diversions in acre-feet	Spill in acre-feet
	Mean (cfs)	Runoff in acre-feet		
October.....	3.37	207	10.75	0
November	113	6,710	0	0
December	68.1	4,190	0	0
CAL YR 1985	60.2	43,562	49,141	1
January	19.2	1,180	0	0
February	23.9	1,330	0	0
March	117	7,190	0	0
April	0	0	4.77	0
May	0	0	0	0
June	0	0	0	0
July	0	0	0	0
August	27.2	1,670	0	0
September	.32	19	0	0
WTR YR 1986	31.1	22,496	15.52	0

09513500 LAKE PLEASANT AT WADDELL DAM, AZ

LOCATION.--Lat 35°51'20", long 112°15'58", in SW¼ sec.16, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, at left upstream end of Waddell Dam on Agua Fria River.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--February 1928 to current year (annual figures only prior to 1939). Prior to October 1963 published as "at Lake Pleasant Dam."

GAGE.--Nonrecording gage read once daily. Datum of gage is 1,431.2 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by concrete multiple-arch dam; dam completed and storage began in 1927. Capacity, 157,200 acre-ft, of which 84,300 acre-ft is between gage heights 66 ft - 32 ft above centerline of outlet works - and 146.0 ft, crest of spillway, and 72,900 acre-ft between 146.0 ft and 170.0 ft, top of spillway gates. At times, capacity is greater due to trash build-up on top of spillway gates. This condition is known to have occurred in water years 1978, 1979, 1980, and 1983. There is no storage below gage height 66 ft because of accumulated sediment. Water released from reservoir flows down river channel 1.5 mi to diversion dam where it is diverted for irrigation near Beardsley. Figures given herein represent usable storage in Lake Pleasant (based on 1979 capacity table). Contents of small reservoir formed by diversion dam is not included.

COOPERATION.--Gage-height record furnished by Maricopa County Municipal Water Conservation District No. 1.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 178,500 acre-ft Apr. 19, 1941, of which 500 acre-ft was uncontrolled storage; maximum gage height, 170.92 ft Mar. 28, 1979; no usable contents Sept. 5, 1933, July 19 to Aug. 13, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum storage, 89,100 acre-ft Mar. 27-29; maximum gage height, 147.93 ft Mar. 27; minimum contents, 59,500 acre-ft Sept. 28-30; minimum gage height, 134.28 ft Sept. 29-30.

Capacity table (gage height, in feet, and usable storage, in acre-feet)

140	70,350	160	123,300
150	94,450	170	157,200

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
OBSERVATION AT 17:00 VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73200	72500	80300	82300	82700	83400	88800	81400	73800	64300	60700	60600
2	73100	72500	80900	82400	82700	83400	88700	81400	73700	64000	60600	60500
3	73100	72400	81200	82400	82700	83400	88600	81100	73500	63800	60600	60500
4	73000	72400	81300	82400	82700	83400	88500	80800	73200	63800	60600	60400
5	73000	72400	81400	82500	82700	83400	88400	80300	72900	63600	60500	60400
6	73000	72400	81500	82500	82700	83400	88200	80100	72600	63200	60400	60400
7	73000	72400	81600	82500	82700	83400	88100	79800	72400	62900	60400	60300
8	73000	72300	81700	82500	82700	83400	87900	79500	72100	62600	60300	60300
9	72900	72300	81700	82500	82800	83400	87600	79300	71800	62300	60300	60300
10	73000	72200	81700	82500	82800	83400	87400	79100	71500	61900	60200	60300
11	73000	72200	81800	82500	82800	83500	87200	78900	71200	61700	60200	60300
12	73000	72400	81900	82500	82800	83600	86900	78800	70900	61300	60300	60300
13	73000	72400	82000	82500	82800	83700	86700	78600	70500	61000	60400	60200
14	72900	72400	82000	82500	82900	83900	86400	78400	70200	60600	60400	60200
15	72800	72400	82000	82500	82900	84200	86200	78200	69800	60200	60300	60200
16	72800	72400	82000	82500	83000	84600	85900	77800	69400	60100	60300	60100
17	72800	72400	82000	82600	83000	85200	85600	78000	69000	60100	60200	60000
18	72800	72400	82000	82600	83100	86300	85400	77400	68500	60100	60200	60000
19	72800	72300	82000	82600	83200	87000	85000	77100	68200	60100	60200	59900
20	72700	72300	82100	82600	83200	87400	84700	78900	68000	60000	60100	59800
21	72700	72300	82100	82600	83300	87700	84400	76600	67600	60000	60100	59700
22	72700	72200	82100	82600	83300	88000	84200	76400	67300	60700	60100	59700
23	72700	72200	82100	82600	83300	88400	83800	76200	67000	60900	60000	59700
24	72700	72200	82200	82600	83300	88700	83500	75900	66600	61000	60000	59700
25	72600	72300	82200	82600	83400	88900	83100	75700	66300	61000	59900	59600
26	72600	75800	82200	82600	83400	89000	82800	75500	66000	61000	59900	59600
27	72600	77600	82200	82600	83400	89100	82500	75200	65700	61000	60000	59600
28	72600	78100	82200	82600	83400	89100	82300	74900	65300	60900	60200	59500
29	72600	78300	82300	82600	---	89100	82000	74600	64900	60800	60000	59500
30	72500	78800	82300	82600	---	89000	81700	74300	64700	60800	60600	59500
31	72500	---	82300	82600	---	89000	---	74100	---	60700	60600	---
MAX	73200	78800	82300	82600	83400	89100	88800	81400	73800	64300	60700	60600
MIN	72500	72200	80300	82300	82700	83400	81700	74100	64700	60000	59900	59500
(*)	140.96	143.69	145.18	145.31	145.62	147.86	144.90	141.66	137.37	135.46	135.40	134.85
(**)	-700	+6300	+3500	+300	+800	+5600	-7300	-7600	-9400	-4000	-100	-1100

CAL YR 1985 MAX 124000 MIN 72200 ** -23700
WTR YR 1986 MAX 89100 MIN 59500 ** -13700

* Gage height, in feet, at 1700 hours on last day of month.

** Change in contents, in acre-feet.

GILA RIVER BASIN

239

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ

LOCATION.--Lat 33°49'55", long 112°16'24", in SE¼ sec.29, T.6 N., R.1 E., Maricopa County, Hydrologic Unit 15070102, 1.5 mi downstream from Lake Pleasant.

DRAINAGE AREA.--1,459 mi².

PERIOD OF RECORD.--December 1950 to September 1958, March 1982 to current year.

REMARKS.--No flow in channel or diversions to Beardsley Canal July 16 to Sept. 30, 1986.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	STREP- TOCOC- CI FECAL, KF AGAR (COLS. PER 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(31625)	(31673)	
MAR 1986													
31...	0925	83	511	8.42	22.0	16.5	4.5	723	9.7	105	35	94	
APR													
23...	0920	146	516	8.35	24.0	16.0	6.1	723	9.4	101	K20	37	
MAY													
20...	1210	101	524	8.21	34.0	18.0	5.0	721	9.0	101	K6	73	
JUN													
25...	1055	131	525	8.21	34.0	21.5	3.6	721	8.3	100	K12	180	
DATE		HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
MAR 1986													
31...	190	0	42	20	39	1	3.3	217	7.0	184	65	30	
APR													
23...	180	20	41	20	38	1	3.1	192	5.0	167	61	27	
MAY													
20...	180	9	40	20	37	1	3.2	211	0	179	62	24	
JUN													
25...	180	3	39	19	38	1	3.0	211	0	173	62	29	
DATE		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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	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)	
MAR 1986													
31...	0.60	20	318	340	0.43	<0.100	<0.100	0.50	0.030	0.010	<0.010		
APR													
23...	0.60	20	314	320	0.43	<0.100	<0.100	0.50	0.040	0.020	0.010		
MAY													
20...	0.50	20	315	310	0.43	<0.100	<0.100	0.30	0.050	0.020	0.020		
JUN													
25...	0.40	20	321	310	0.44	<0.100	<0.100	0.50	0.060	0.030	0.020		
DATE		PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV- ERABLE (UG/L AS B) (01022)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (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)	
MAR 1986													
31...	--	11	11	<100	57	80	110	<1	<1	<1	<10		
APR													
23...	0.03	11	10	<100	57	130	100	<1	<1	12	<10		
MAY													
20...	0.06	14	13	100	55	100	110	<1	<1	5	<10		
JUN													
25...	0.06	15	15	<100	53	120	110	<1	<1	<1	<10		

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09513600 AGUA FRIA RIVER BELOW WADDELL DAM, AZ--Continued

WATER QUALITY DATA

DATE	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)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)
MAR 1986											
31...	10	3	260	<3	3	1	70	1	<0.10	<0.1	<1
APR											
23...	12	3	380	<3	4	4	140	13	<0.10	<0.1	<1
MAY											
20...	6	1	450	<3	3	3	210	27	<0.10	<0.1	<1
JUN											
25...	15	2	370	5	6	<5	200	55	<0.10	<0.1	<1
DATE	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)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDEED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)	CYANIDE DIS- SOLVED (MG/L AS CN) (00723)	SEDI- MENT, SUS- PENDEED (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDEED (T/DAY) (80155)
MAR 1986											
31...	<1	<1	<1	20	5	4.4	0.6	<0.010	--	6	1.3
APR											
23...	<1	<1	<1	<10	7	5.5	0.5	<0.010	<0.01	8	3.2
MAY											
20...	<1	<1	<1	<10	9	4.6	0.6	<0.010	<0.01	10	2.7
JUN											
25...	<1	<1	<1	<10	9	5.0	0.5	<0.010	<0.01	7	2.5

< Actual value is known to be less than value shown.

GILA RIVER BASIN

241

09513780 NEW RIVER NEAR ROCK SPRINGS, AZ

LOCATION.--Lat 33°58'27", long 112°05'54", in SW¼SW¼ sec.6, T.7 N., R.3 E., Maricopa County, Hydrologic Unit 15070102, on right bank 180 ft upstream from road crossing and 6 mi southeast of Rock Springs.

DRAINAGE AREA.--67.3 mi².

PERIOD OF RECORD.--Water years 1962-65 (annual maximums only), October 1965 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 2,310 ft above National Geodetic Vertical Datum of 1929, from topographic map. Jan. 2, 1964, to Sept. 30, 1965, crest-stage gage, and Oct. 28, 1965, to Nov. 16, 1967, water-stage recorder, at same site at datum 1.00 ft higher.

REMARKS.--Estimated daily discharges: Oct. 17-20 and Jan. 17-28. Records fair except those for Jan. 17-20, which are poor.

AVERAGE DISCHARGE.--21 years, 14.4 ft³/s, 10,430 acre-ft/yr; median of yearly mean discharges, 5.3 ft³/s, 3,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,600 ft³/s Sept. 5, 1970, gage height, 13.5 ft, from profile past gage, from rating curve extended above 380 ft³/s on basis of slope-area measurements at gage heights 3.6, 4.73, 7.3, 10.7, and 13.5 ft; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 200 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0330	*3,700	6.33	Mar. 17	0245	863	4.35
Mar. 14	1200	321	3.48	July 19	1545	551	3.88

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	16	2.9	2.4	1.8	3.2	.09	.00	.00	.00	.00
2	.00	.00	11	2.9	2.3	1.7	3.3	.08	.00	.00	.00	.00
3	.00	.00	8.7	2.9	2.3	1.7	2.7	.07	.00	.00	.00	.00
4	.00	.00	7.7	2.8	2.3	1.6	2.4	.06	.00	.00	.00	.00
5	.00	.00	7.1	2.8	2.6	1.6	2.1	.05	.00	.00	.00	.00
6	.00	.00	6.4	2.8	2.5	1.5	1.8	.04	.00	.00	.00	.00
7	.00	.00	5.8	2.7	2.3	1.5	1.6	.03	.00	.00	.00	.00
8	.00	.00	5.4	2.6	2.3	1.4	1.5	.04	.00	.00	.00	.00
9	.00	.00	5.1	2.5	2.9	1.3	1.4	.04	.00	.00	.00	.00
10	.00	.00	4.6	2.5	3.3	1.7	1.3	.01	.00	.00	.00	.00
11	.00	.00	4.8	2.5	3.0	2.4	1.2	.00	.00	.00	.00	.00
12	.00	.00	7.2	2.4	2.7	2.4	1.1	.00	.00	.00	.00	.00
13	.00	.00	6.2	2.4	2.5	2.8	.93	.00	.00	.00	.00	.00
14	.00	.00	5.4	2.4	2.4	87	.79	.00	.00	.00	.00	.00
15	.00	.00	5.0	2.5	2.5	38	.67	.00	.00	.00	.00	.00
16	.00	.00	4.7	2.6	2.9	16	.52	.00	.00	.00	.00	.00
17	.00	.00	4.4	2.4	3.0	241	.39	.00	.00	.00	.00	.00
18	.00	.00	4.0	2.4	2.8	54	.33	.00	.00	.00	.00	.00
19	.00	.00	3.9	2.4	2.7	24	.29	.00	.00	20	.00	.00
20	.00	.00	3.9	2.4	2.5	16	.29	.00	.00	.39	.00	.00
21	.00	.00	3.9	2.4	2.4	12	.26	.00	.00	.00	.00	.00
22	.00	.00	3.7	2.3	2.2	9.1	.22	.00	.00	4.4	.00	.00
23	.00	.00	3.4	2.3	2.1	7.5	.19	.00	.00	.95	.00	.00
24	.00	.00	3.4	2.3	2.1	6.5	.16	.00	.00	.17	.00	.00
25	.00	.00	3.3	2.1	2.0	5.7	.15	.00	.00	.07	.00	.00
26	.00	509	3.2	2.1	1.9	5.0	.13	.00	.00	.03	.00	.00
27	.00	27	3.1	2.1	1.9	4.1	.11	.00	.00	.00	.00	.00
28	.00	13	3.1	2.0	1.9	3.4	.10	.00	.00	.00	.00	.00
29	.00	8.6	3.1	2.0	---	3.2	.10	.00	.00	.00	.00	.00
30	.00	24	3.1	2.1	---	3.0	.10	.00	.00	.00	.00	.00
31	.00	---	3.0	2.2	---	3.0	---	.00	---	.00	.00	---
TOTAL	.00	581.60	163.6	75.7	68.7	630.3	29.33	.51	.00	26.01	.00	.00
MEAN	.00	19.4	5.28	2.44	2.45	20.3	.98	.016	.00	.84	.00	.00
MAX	.00	509	16	2.9	3.3	241	3.3	.09	.00	20	.00	.00
MIN	.00	.00	3.0	2.0	1.9	1.3	.10	.00	.00	.00	.00	.00
AC-FT	.0	1150	325	150	136	1250	58	1.0	.0	52	.0	.0
CAL YR 1985	TOTAL	2409.06	MEAN	6.60	MAX	509	MIN	.00	AC-FT	4780		
WTR YR 1986	TOTAL	1575.75	MEAN	4.32	MAX	509	MIN	.00	AC-FT	3130		

09513860 SKUNK CREEK NEAR PHOENIX, AZ

LOCATION.--Lat 33°43'50", long 112°07'09", in SE¼ sec.35, T.5 N., R.2 E., Maricopa County, Hydrologic Unit 15070102, on right bank dike of Skunk Creek flood control channel, 300 ft east of frontage road of Interstate Highway 17, 3 mi north of Adobe and 20 mi north of City Hall in Phoenix.

DRAINAGE AREA.--64.6 mi².

PERIOD OF RECORD.--Water years 1960-67 (annual maximums only), October 1967 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,472.60 ft above National Geodetic Vertical Datum of 1929. May 1961 to Sept. 30, 1967, crest-stage gage at site 400 ft downstream at datum 6.67 ft lower, and Oct. 1, 1967 to Dec. 29, 1984, at site 300 ft downstream at datum 12.66 ft lower.

REMARKS.--Estimated daily discharges: Nov. 26, Mar. 15-17, July 22, Aug. 27, 28, Sept. 1, 2. Records poor.

AVERAGE DISCHARGE.--19 years, 1.62 ft³/s, 1,170 acre-ft/yr; median of yearly mean discharges, 0.71 ft³/s, 510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s Aug. 1, 1964, gage height, 10.48 ft, present datum, from rating curve extended above 6,200 ft³/s; maximum gage height, 12.24 ft Sept. 5, 1970; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Nov. 26	0630	454	2.15	Aug. 27	2230	219	1.85
July 22	0400	*906	2.53				

No flow for most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.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	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	127	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	102	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	16	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	102.00	.00	.00	.00	.00	.00	.00	.00	127.00	31.00	.00
MEAN	.00	3.40	.00	.00	.00	.00	.00	.00	.00	4.10	1.00	.00
MAX	.00	102	.00	.00	.00	.00	.00	.00	.00	127	16	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.0	202	.0	.0	.0	.0	.0	.0	.0	252	61	.0

CAL YR	1985	TOTAL	265.00	MEAN	.73	MAX	102	MIN	.00	AC-FT	526
WTR YR	1986	TOTAL	260.00	MEAN	.71	MAX	127	MIN	.00	AC-FT	516

GILA RIVER BASIN

243

09516500 HASSAYAMPA RIVER NEAR MORRISTOWN, AZ

LOCATION.--Lat 33°53'06", long 112°39'41", in SW¼SE¼ sec.3, T.6 N., R.4 W., Maricopa County, Hydrologic Unit 15070103, on left bank 600 ft downstream from mouth of San Domingo Wash, 3.0 mi northwest of Morristown and 7 mi southeast of Wickenburg.

DRAINAGE AREA.--774 mi².

PERIOD OF RECORD.--October 1938 to June 1947 (continuous-record station), 1954, 1956, 1964-81 (partial-record station). October 1981 to current year (discharge above 500 ft³/s only).

GAGE.--Water-stage recorder. Datum of gage is 1,831.16 ft above National Geodetic Vertical Datum of 1929. Crest-stage gage at same site and datum 1954, 1956, and 1964-81.

REMARKS.--Estimated daily discharges: Nov. 24-30, Mar. 2-5 and Apr. 13 to May 7. Records poor. Only daily discharges above 500 ft³/s are published.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,500 ft³/s Sept. 5, 1970, gage height, 19.0 ft, from high-water profile past gage and on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,740 ft³/s Nov. 26, gage height, 10.29 ft, from high-water mark in gage well. No daily discharges above 500 ft³/s for entire year.

GILA RIVER BASIN

09517000 HASSAYAMPA RIVER NEAR ARLINGTON, AZ

LOCATION.--Lat 33°20'50", long 112°43'30", in NW¼ sec.13, T.1 S., R.5 W., Maricopa County, Hydrologic Unit 15070104, at former U.S. Highway 80, 1.8 mi upstream from mouth and 2.8 mi northeast of Arlington.

DRAINAGE AREA.--1,470 mi², approximately.

PERIOD OF RECORD.--Water years 1961-77 (annual maximums only), October 1977 to current year (discharge above 500 ft³/s only).

GAGE.--Water-stage recorder. Datum of gage is 822.68 ft above National Geodetic Vertical Datum of 1929. Prior to Mar. 2, 1984 at datum 9.23 ft higher.

REMARKS.--No estimated daily discharges. Records poor. Only daily discharges above 500 ft³/s are published. Records do not include irrigation return flow past station except where it cannot be separated from natural flow. Small diversions above station for irrigation and livestock.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39,000 ft³/s Sept. 5, 1970, gage height, 8.40 ft, result of slope-area measurement of peak flow; no natural flow for most of time each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,610 ft³/s Nov. 26, gage height, 7.62 ft; no natural flow for most of year. No daily discharges above 500 ft³/s for entire year.

GILA RIVER BASIN

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ
(National stream-quality accounting network)

LOCATION.--Lat 33°13'45", long 112°46'00", in SE¼NE¼ sec.28, T.2 S., R.5 W., Maricopa County, Hydrologic Unit 15070101, at Gillespie Dam, 8 mi downstream from Hassayampa River. Gila Bend Canal diverts from left end, and Enterprise Canal diverts from right end of Gillespie Dam.

DRAINAGE AREA.--49,650 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1935 to November 1939 (monthly discharge only published in WSP 1313), December 1939 to September 1971 (published with records for sta 09519500, Gila River below Gillespie Dam), 1972 and 1973 (water year estimates only, listed in REMARKS for sta 09519500), October 1973 to current year. Low-flow records prior to October 1970 are not equivalent as leakage less than 5 ft³/s is not included.

09518500. Gila Bend Canal: May 1935 to September 1971, October 1973 to current year (since October 1941, monthly discharge only).

09519000. Enterprise Canal: June 1935 to September 1939 (discharge measurements and monthly estimates only), October 1939 to September 1971, April 1974 to current year (since October 1941, monthly discharge only). Published as "Gillespie Canal" prior 1951.

GAGE.--Gila Bend Canal: Water-stage recorder 200 ft downstream from headgates.

Enterprise Canal: Water-stage recorder 600 ft downstream from intake at dam.

REMARKS.--Estimated daily discharges: Oct. 1 to Jan. 30, Sept. 3-25. Records fair except those for estimated daily discharges, which are poor. Record is obtained by combining, on a daily basis, the flows of Gila Bend Canal, Enterprise Canal, and Gila River below Gillespie Dam (see sta 09519500).

Many large diversions above station for irrigation, municipal, and industrial use. Flow of Gila River and tributaries above this station is regulated by San Carlos Reservoir on Gila River - capacity, 1,073,600 acre-ft; by a series of reservoirs on Salt River - capacity, 1,755,000 acre-ft; by Bartlett and Horseshoe Reservoirs on Verde River - capacity, 317,700 acre-ft; and by Lake Pleasant on Agua Fria River - capacity, 157,600 acre-ft.

AVERAGE DISCHARGE.--51 years, 408 ft³/s, 295,600 acre-ft/yr; median of yearly mean discharges, 100 ft³/s, 72,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 124,000 ft³/s Feb. 17, 1980; no flow except for possible leakage of less than 5 ft³/s Nov. 24-27, 1966, July 14, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 881 ft³/s Jan. 4; minimum daily, 41 ft³/s July 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	178	321	312	861	399	329	246	212	132	139	119	122
2	180	320	323	858	420	365	232	217	154	78	70	101
3	209	320	338	876	362	372	248	206	166	126	168	101
4	203	320	343	881	352	355	256	209	165	127	169	101
5	204	320	344	864	390	334	199	217	139	130	130	102
6	207	320	382	778	411	336	174	204	133	130	130	100
7	208	320	399	735	416	330	193	201	124	127	88	102
8	203	320	434	735	418	292	223	203	90	127	100	104
9	207	320	456	756	423	348	251	182	86	125	126	99
10	211	320	464	749	454	354	218	184	92	108	118	98
11	256	320	493	728	460	305	216	191	98	58	131	97
12	259	320	415	726	451	458	209	217	138	41	133	127
13	259	320	417	724	432	403	207	170	156	45	122	142
14	260	325	412	702	434	392	209	171	149	93	111	120
15	261	340	413	658	425	419	190	165	147	119	103	184
16	310	339	484	514	439	424	180	166	145	113	103	152
17	308	339	579	501	444	423	173	165	137	114	108	157
18	306	339	592	496	429	453	160	169	111	119	134	156
19	305	340	583	489	443	444	161	156	87	116	145	174
20	309	359	592	487	420	394	157	138	85	113	96	151
21	308	364	670	417	419	308	165	126	61	106	90	129
22	308	374	700	450	413	329	174	121	61	426	91	169
23	306	379	716	486	420	302	197	132	86	377	108	268
24	307	379	715	564	406	324	206	139	93	320	131	225
25	307	379	704	559	359	283	171	145	93	304	155	244
26	317	347	748	420	317	261	190	173	95	184	158	273
27	319	333	764	391	319	222	189	194	91	164	138	242
28	321	322	805	355	318	257	204	172	91	174	133	240
29	317	322	826	362	---	262	257	157	109	160	131	229
30	311	322	818	382	---	274	218	148	195	134	131	219
31	311	---	807	389	---	291	---	128	---	127	130	---
TOTAL	8275	10063	17048	18893	11393	10643	6073	5378	3509	4624	3800	4728
MEAN	267	335	550	609	407	343	202	173	117	149	123	158
MAX	321	379	826	881	460	458	257	217	195	426	169	273
MIN	178	320	312	355	317	222	157	121	61	41	70	97
AC-FT	16410	19960	33810	37470	22600	21110	12050	10670	6960	9170	7540	9380
(*)	0	421	6500	11040	13540	16480	11370	9860	6230	7030	6600	4670
(**)	447	499	712	735	908	867	655	548	642	675	678	762
CAL YR 1985	TOTAL	524059.6	MEAN	1436	MAX	23300	MIN	8.6	AC-FT	1039000	* 85560	** 8370
WTR YR 1986	TOTAL	104427	MEAN	286	MAX	881	MIN	41	AC-FT	207100	* 93730	** 8130

* Diversions, in acre-feet, to Gila Bend Canal (sta 09518500). See remarks above. For records prior to 1972, see sta 09519500.

** Diversions, in acre-feet, to Enterprise Canal (sta 09519000). For records prior to 1972, see sta 09519500.

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--December 1950 to September 1971, March 1974 to current year.

Prior to October 1967, published as 09519500, Gila River below Gillespie Dam, Ariz.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1964 to September 1971, April 1974 to September 1981.

WATER TEMPERATURES: December 1950 to September 1971, April 1974 to September 1981.

REMARKS.--Unpublished daily specific conductance measurements for period December 1950 to September 1964 available from district office in Tucson, Ariz.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(00061)	(00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(00340)	(31625)	
OCT 1985													
30...	1200	313	3060	8.00	25.0	21.0	--	742	6.6	77	37	E8000	
NOV													
21...	1050	725	3190	8.10	12.0	11.0	8.5	745	10.2	96	--	170	
DEC													
18...	1000	2200	1320	7.99	7.5	11.0	--	751	8.1	75	20	130	
JAN 1986													
29...	1125	613	3220	8.15	18.0	14.0	5.9	745	10.4	104	--	K59	
FEB													
26...	1020	316	3470	8.01	19.0	18.0	--	745	5.4	59	47	73	
MAR													
26...	0950	262	3630	8.03	24.0	19.5	10	745	5.8	65	--	160	
APR													
22...	1000	205	3580	8.30	27.0	22.0	--	741	--	--	45	K41	
MAY													
21...	0935	132	4100	8.72	29.5	23.0	20	737	4.8	59	--	49	
JUN													
26...	0940	95	3880	8.69	34.5	31.5	--	739	10.3	146	57	K41	
JUL													
22...	1025	339	3900	8.60	31.0	26.0	27	744	6.9	88	--	1800	
AUG													
29...	1000	129	3930	8.10	31.5	29.5	--	741	3.7	51	10	520	
SEP													
25...	1005	251	3380	8.22	26.0	22.5	23	741	11.0	132	--	320	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS WH WAT TOT FLD MG/L AS CACO3 (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
OCT 1985													
30...	270	--	--	--	--	--	--	--	--	--	--	241	--
NOV													
21...	240	660	390	130	82	450	8	11	336	0	275	370	
DEC													
18...	560	--	--	--	--	--	--	--	204	0	166	--	
JAN 1986													
29...	84	560	300	130	58	470	9	9.8	326	0	263	380	
FEB													
26...	290	--	--	--	--	--	--	--	336	0	274	--	
MAR													
26...	130	670	420	160	65	500	9	10	304	0	245	520	
APR													
22...	260	--	--	--	--	--	--	--	312	0	246	--	
MAY													
21...	62	750	510	170	80	640	10	9.8	301	1.0	238	560	
JUN													
26...	K32	--	--	--	--	--	--	--	176	31	202	--	
JUL													
22...	260	690	360	160	70	540	9	8.9	399	2.0	330	540	
AUG													
29...	160	--	--	--	--	--	--	--	295	0	242	--	
SEP													
25...	300	630	400	150	62	460	8	9.9	--	--	227	360	

E Estimated

K Based on non-ideal colony count.

GILA RIVER BASIN

09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ--Continued

WATER QUALITY DATA

DATE	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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1985											
30...	--	--	--	--	--	--	--	--	--	13.0	--
NOV											
21...	710	1.6	25	1900	2000	2.6	28	4.95	0.350	5.40	5.30
DEC											
18...	--	--	--	--	--	--	--	--	--	2.10	--
JAN 1986											
29...	680	1.4	24	1840	1900	2.5	--	5.55	0.750	6.30	6.30
FEB											
26...	--	--	--	--	--	--	--	--	--	6.80	--
MAR											
26...	810	1.6	25	2250	2300	3.1	28	6.60	1.10	8.00	7.70
APR											
22...	--	--	--	--	--	--	--	--	--	7.80	--
MAY											
21...	920	2.0	13	2570	2600	3.5	--	7.75	0.750	8.70	8.50
JUN											
26...	--	--	--	--	--	--	--	--	--	6.90	--
JUL											
22...	770	1.7	17	2400	2300	3.3	42	8.52	0.480	9.60	9.00
AUG											
29...	--	--	--	--	--	--	--	--	--	8.40	--
SEP											
25...	660	1.5	27	2240	1900	3.0	53	6.80	1.00	7.70	7.80
DATE	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00610)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)
OCT 1985											
30...	--	--	--	7.6	21	91	3.50	--	--	--	--
NOV											
21...	9.40	8.90	0.30	9.7	15	67	3.70	3.60	3.00	9.2	<10
DEC											
18...	2.30	--	1.5	3.8	5.9	26	1.10	--	--	--	--
JAN 1986											
29...	5.90	5.80	2.6	8.5	15	66	3.00	2.90	2.60	8.0	--
FEB											
26...	5.60	--	2.2	7.8	15	65	3.00	--	--	--	--
MAR											
26...	2.60	2.50	1.7	4.3	12	54	2.50	2.20	2.00	6.1	<10
APR											
22...	0.300	--	1.8	2.1	9.9	44	2.00	--	--	--	--
MAY											
21...	0.240	0.080	3.5	3.7	12	55	1.70	0.900	0.790	2.4	--
JUN											
26...	0.130	--	2.6	2.7	9.6	42	0.800	--	--	--	--
JUL											
22...	0.110	0.090	2.2	2.3	12	53	1.40	0.920	0.930	2.9	<10
AUG											
29...	0.820	--	1.5	2.3	11	47	1.40	--	--	--	--
SEP											
25...	1.90	1.90	1.7	3.6	11	50	--	--	2.40	7.4	--
DATE	ARSENIC TOTAL (UG/L AS AS) (01002)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)
OCT 1985											
30...	11	9	100	--	1200	<1	1	14	<1	--	9
NOV											
21...	10	11	<100	<10	--	<1	<1	19	1	1	11
DEC											
18...	7	7	36	--	330	<1	<1	17	<1	--	19
JAN 1986											
29...	10	10	<100	--	--	<1	<1	8	2	--	9
FEB											
26...	11	10	100	--	1200	2	<1	19	3	--	8
MAR											
26...	10	10	100	<10	--	<1	1	11	<1	1	8
APR											
22...	10	10	100	--	1400	<1	<1	--	2	--	7
MAY											
21...	10	10	200	--	--	<1	<1	9	1	--	34
JUN											
26...	9	9	100	--	1800	<1	<1	10	2	--	7
JUL											
22...	7	7	<100	<10	--	<1	<1	9	<1	<1	25
AUG											
29...	10	9	100	--	1700	<1	<1	9	<1	--	11
SEP											
25...	8	--	--	--	--	<1	--	3	--	--	12

< Actual value is known to be less than value shown.

GILA RIVER BASIN

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09518000 GILA RIVER ABOVE DIVERSIONS, AT GILLESPIE DAM, AZ--Continued

WATER QUALITY DATA

DATE	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)	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)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
OCT 1985											
30...	6	4800	20	2	2	--	140	50	<0.10	--	--
NOV											
21...	4	--	30	3	2	170	130	60	<0.10	<0.1	6
DEC											
18...	3	4300	9	6	3	--	200	40	<0.10	--	--
JAN 1986											
29...	6	410	10	1	<1	--	160	130	<0.10	--	--
FEB											
26...	6	210	40	1	<1	--	170	190	<0.10	--	--
MAR											
26...	4	--	20	4	<1	220	230	170	<0.10	<0.1	7
APR											
22...	6	450	20	1	1	--	120	60	<0.10	--	--
MAY											
21...	3	890	20	6	1	--	140	10	<0.10	--	--
JUN											
26...	5	440	30	<5	<5	--	70	<10	<0.10	--	--
JUL											
22...	6	--	30	<5	<5	200	90	20	0.40	0.1	8
AUG											
29...	3	2300	30	<5	<5	--	140	20	0.10	--	--
SEP											
25...	--	--	--	<5	--	--	110	--	<0.10	--	--

DATE	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, 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, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
OCT 1985											
30...	--	3	3	<1	--	--	60	20	47	76	64
NOV											
21...	11	3	3	<1	2000	22	40	30	14	207	405
DEC											
18...	--	1	1	<1	--	--	30	3	80	163	968
JAN 1986											
29...	--	3	3	<1	--	--	20	20	91	20	33
FEB											
26...	--	3	4	<1	--	--	*10	20	95	22	19
MAR											
26...	9	4	4	<1	2300	25	40	20	93	53	37
APR											
22...	--	4	4	<1	--	--	10	10	91	25	14
MAY											
21...	--	6	6	<1	--	--	20	10	93	49	17
JUN											
26...	--	5	5	<1	--	--	10	20	81	30	7.7
JUL											
22...	6	5	5	<1	2400	33	20	40	93	43	39
AUG											
29...	--	5	5	<1	--	--	20	10	96	64	22
SEP											
25...	--	4	--	--	--	--	20	--	97	56	38

* Value verified.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09519500 GILA RIVER BELOW GILLESPIE DAM, AZ

LOCATION.--Lat 33°13'45", long 112°46'00", in SE¼NE¼ sec.28, T.2 S., R.5 W., Maricopa County, Hydrologic Unit 15070101, at left end of Gillespie Dam, 8 mi downstream from Hassayampa River.

DRAINAGE AREA.--49,650 mi².

PERIOD OF RECORD.--August 1921 to current year. Low-flow records prior to October 1970 are not equivalent as leakage of less than 5 ft³/s not included, and from October 1971 to September 1973, when no leakage was included. Annual estimate of leakage was listed in REMARKS for the 1972 water year. Prior to 1939, published as "at Gillespie Dam."

REVISED RECORDS.--WSP 1213: 1939. WSP 1243: 1924(M). WSP 1926: Drainage area.

GAGE.--Water-stage recorder since July 28, 1924. Datum of gage is 9.95 ft below average elevation of crest of dam, which is 753.46 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 11, 1924, depth of water read on crest at left end of dam. Nov. 11, 1924, to July 22, 1932, datum of gage was at average elevation of dam crest. July 23, 1932, to Apr. 27, 1955, datum of gage was 5.00 ft below average elevation of crest of dam. Since Apr. 2, 1974, supplementary water-stage recorder and concrete control 70 ft downstream from crest of dam at datum 5.64 ft lower than datum of base gage.

REMARKS.--Estimated daily discharges: Oct. 1 to Jan. 30. Records fair except for estimated daily discharges, which are poor. Flow consists of water passing over the dam, and through the dam, but does not include water diverted to Gila Bend or Enterprise Canals. See sta 09518000, Gila River above diversions, at Gillespie Dam, for records of flow reaching dam, and of diversions to Gila Bend and Enterprise Canals. For diversions and regulation above station, see REMARKS for sta 09518000.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 178,000 ft³/s Feb. 16, 1980, gage height, 18.81 ft, present datum; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1891, 250,000 ft³/s, estimated, in February 1891.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 600 ft³/s Jan. 1-5; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	170	320	310	600	198	29	.28	.16	.00	.00	.00	.00
2	170	320	310	600	209	70	.00	.00	.00	.00	10	.00
3	200	320	310	600	282	73	.00	.00	.00	.00	84	.00
4	200	320	310	600	246	59	.00	.00	.00	.00	34	.00
5	200	320	310	600	157	40	.00	.00	.00	.00	.00	.00
6	200	320	350	550	160	38	.00	.67	.00	.00	.00	1.4
7	200	320	350	550	140	36	.00	2.7	.00	.00	.00	2.7
8	200	320	350	550	137	6.6	.00	2.2	.00	.00	.00	5.7
9	200	320	350	550	153	50	3.5	1.7	.00	.00	.00	.82
10	200	320	350	550	206	76	.00	1.4	.00	.00	.00	.00
11	250	320	400	500	194	18	.00	2.3	.00	.00	.00	3.6
12	250	320	400	500	179	160	.00	46	.00	.00	.00	34
13	250	320	405	500	171	112	.00	15	.00	.00	.12	49
14	250	320	400	500	162	107	.00	.00	.00	.00	.00	27
15	250	320	400	500	156	129	.00	.00	.00	.00	.00	91
16	300	320	450	400	178	130	.00	.00	.00	.00	.00	58
17	300	320	450	400	189	132	.00	.00	.00	.00	.64	62
18	300	320	450	400	159	158	.00	.00	.00	.00	.08	61
19	300	320	450	400	133	153	.00	.00	.00	.00	.00	80
20	300	320	450	400	108	119	.00	.00	.00	.00	.00	62
21	300	320	500	300	112	26	.00	.00	.00	.00	.00	40
22	300	320	500	306	110	45	.00	.00	.00	279	.00	81
23	300	320	500	300	120	21	.00	.00	.00	193	.00	180
24	300	320	500	300	111	35	.00	.00	.00	138	.00	138
25	300	320	531	300	69	3.0	.00	.03	.00	119	2.0	156
26	310	320	568	200	31	52	.00	9.4	.56	6.0	.46	190
27	310	320	550	200	24	2.5	.00	35	.00	.00	.00	176
28	310	320	550	200	18	1.6	.00	12	.00	.91	.00	174
29	310	320	554	200	---	1.0	.41	1.4	12	.00	.00	162
30	310	320	552	200	---	.75	5.6	.63	36	4.9	.01	153
31	310	---	550	200	---	14	---	.20	---	.00	.00	---
TOTAL	8050	9600	13410	12956	4112	1897.45	9.79	130.79	48.56	740.81	131.31	1988.22
MEAN	260	320	433	418	147	61.2	.33	4.22	1.62	23.9	4.24	66.3
MAX	310	320	568	600	282	160	5.6	46	36	279	84	190
MIN	170	320	310	200	18	.75	.00	.00	.00	.00	.00	.00
AC-FT	15970	19040	26600	25700	8160	3760	19	259	96	1470	260	3940
CAL YR 1985	TOTAL	476997.79	MEAN	1307	MAX	23300	MIN	.09	AC-FT	946100		
WTR YR 1986	TOTAL	53074.93	MEAN	145	MAX	600	MIN	.00	AC-FT	105300		

GILA RIVER BASIN

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09519800 GILA RIVER BELOW PAINTED ROCK DAM, AZ

LOCATION.--Lat 33°04'30", long 113°00'50", in SE¼ sec.18, T.4 S., R.7 W., Maricopa County, Hydrologic Unit 15070201, on left bank 0.3 mi downstream from Painted Rock Dam and 19 mi northeast of Sentinel.

DRAINAGE AREA.--50,910 mi², approximately.

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

GAGE.--Water-stage recorder. Datum of gage is 518.69 ft above National Geodetic Vertical Datum of 1929 (levels by Army Corps of Engineers). Auxiliary gage May 5, 1969, to Mar. 30, 1973, at site 0.3 mi upstream, at datum 2.87 ft higher; Feb. 8, 1979 to current year, at site 0.3 mi upstream, at same datum.

REMARKS.--No estimated daily discharges. Records fair. Many diversions above station for irrigation. Flow above station regulated by many reservoirs, the largest of which is Painted Rock Reservoir - capacity, 2,492,000 acre-ft. (See REMARKS for sta 09518000, Gila River above diversions, at Gillespie Dam.)

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,190 ft³/s, result of a discharge measurement May 3, 1983, gage height, 9.36 ft, maximum gage height, 10.57 ft Feb. 9, 1979; no flow for many days in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 321 ft³/s, Jan. 8, 9; minimum daily, 2.1 ft³/s Oct. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	3.1	9.0	302	182	177	54	28	9.0	14	16	26
2	2.4	3.2	8.2	296	182	177	32	31	9.2	15	14	22
3	2.5	3.4	7.6	290	182	177	28	32	9.2	16	16	20
4	2.6	3.5	7.2	290	177	172	30	34	9.0	17	16	20
5	2.6	3.4	7.0	296	182	172	30	35	9.0	17	17	20
6	2.4	3.4	6.8	302	177	159	24	34	9.2	17	17	21
7	2.2	3.5	6.6	309	177	159	28	36	9.7	17	17	20
8	2.1	3.5	6.4	321	177	154	26	37	10	15	17	20
9	2.1	3.5	6.1	321	177	150	25	37	10	13	18	17
10	2.1	3.8	5.4	315	177	142	30	36	10	12	18	14
11	2.5	3.8	5.1	315	177	142	36	34	10	11	18	12
12	2.4	5.1	5.3	309	182	138	40	30	9.7	11	19	11
13	2.4	5.1	4.6	315	186	135	39	26	8.2	11	19	12
14	2.2	5.1	4.3	309	186	131	39	25	7.0	12	19	12
15	2.2	5.0	3.9	315	186	131	39	23	6.2	12	18	12
16	2.6	4.6	3.7	315	182	131	36	22	6.6	13	18	12
17	2.6	4.6	3.2	315	182	127	36	22	6.6	14	18	12
18	2.6	4.6	3.0	315	186	127	33	21	7.0	16	19	13
19	2.6	4.6	2.7	315	186	124	30	22	6.4	16	20	13
20	2.6	4.4	2.6	315	182	124	30	23	6.6	16	21	13
21	2.6	4.4	2.6	309	182	92	33	22	7.2	17	22	14
22	2.4	4.4	2.6	315	182	47	33	20	7.8	19	20	14
23	2.4	4.4	2.7	302	182	46	26	18	10	20	18	14
24	2.4	4.3	2.7	302	182	44	21	16	11	20	20	14
25	2.5	4.7	2.7	296	182	55	24	14	13	20	23	14
26	2.6	12	2.7	296	177	69	33	13	13	20	29	14
27	2.6	17	2.7	290	177	65	30	14	13	20	29	14
28	2.7	16	2.7	284	177	63	30	14	13	20	29	14
29	2.7	11	2.7	221	---	59	28	13	13	20	31	14
30	2.8	10	142	186	---	57	28	11	14	18	30	14
31	3.0	---	309	186	---	57	---	10	---	16	27	---
TOTAL	76.7	169.4	583.8	9167	5066	3603	951	753	283.6	495	633	462
MEAN	2.47	5.65	18.8	296	181	116	31.7	24.3	9.45	16.0	20.4	15.4
MAX	3.0	17	309	321	186	177	54	37	14	20	31	26
MIN	2.1	3.1	2.6	186	177	44	21	10	6.2	11	14	11
AC-FT	152	336	1160	18180	10050	7150	1890	1490	563	982	1260	916
CAL YR 1985	TOTAL	459088.9	MEAN	1258	MAX	4240	MIN	1.0	AC-FT	910600		
WTR YR 1986	TOTAL	22243.5	MEAN	60.9	MAX	321	MIN	2.1	AC-FT	44120		

GILA RIVER BASIN

09520360 GILA RIVER NEAR MOHAWK, AZ

LOCATION.--Lat 32°47'18", long 113°45'48", on section line between sec.25 and 26, T.7 S., R.15 W., Yuma County, Hydrologic Unit 15070201, in center of channel at culvert outlet at Avenue 51E, and 4.0 mi north of Mohawk.

DRAINAGE AREA.--55,430 mi², approximately.

PERIOD OF RECORD.--February to April 1966 (published in WSP 1850-C), April 1973 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 295 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to March 1983 at site 70 ft upstream at datum 6.45 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Painted Rock Dam; capacity of reservoir at Painted Rock Dam is 2,492,000 acre-ft, (see REMARKS for sta 09519800).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,270 ft³/s Apr. 30, 1980, gage height, 11.28 ft, site and datum then in use; maximum gage height, 14.20 ft June 7, 8, 1983, present site and datum; no flow most of time most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 69 ft³/s Feb. 15-16, 24, 26-28; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	58	68	8.2	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	53	67	6.5	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	51	65	5.7	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	53	51	5.1	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	53	46	4.5	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	54	48	3.8	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	55	50	3.3	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	59	51	2.7	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	61	51	2.3	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	62	52	2.0	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	64	54	1.7	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	64	53	1.2	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	66	54	.50	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	67	53	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	69	51	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	69	51	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	68	51	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	68	49	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	68	50	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	68	51	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	67	44	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	67	61	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	68	57	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	69	50	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	68	47	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	69	42	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	69	35	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	12	69	17	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	29	---	13	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	44	---	12	.00	.00	.00	.00	.00	.00
31	.00	---	.00	56	---	9.6	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	141.00	1776	1453.6	47.50	.00	.00	.00	.00	.00
MEAN	.00	.00	.00	4.55	63.4	46.9	1.58	.00	.00	.00	.00	.00
MAX	.00	.00	.00	56	69	68	8.2	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	51	9.6	.00	.00	.00	.00	.00	.00
AC-FT	.0	.0	.0	280	3520	2880	94	.0	.0	.0	.0	.0

CAL YR	1985	TOTAL	394190.57	MEAN	1080	MAX	3470	MIN	.00	AC-FT	781900
WTR YR	1986	TOTAL	3418.10	MEAN	9.36	MAX	69	MIN	.00	AC-FT	6780

09520500 GILA RIVER NEAR DOME, AZ

LOCATION.--Lat 32°45'39", long 114°25'11", in SW¼ sec.4, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, on right bank 440 ft upstream from McPhal bridge on old route of State Highway 95, 3 mi west of Dome, and 12 mi upstream from mouth.

DRAINAGE AREA.--57,850 mi², approximately - includes 373 mi² in Aubrey Valley Playa, a closed basin, but excludes all other closed basins.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1903 to current year. Monthly total, maximum, and minimum daily discharges only for January 1903 to December 1904 and January 1906 to July 1929 in WSP 918 or WSP 1313. Published as "at Yuma and Gila City" 1903, as "near Dome" 1904, and as "at Dome (Gila City)" 1905-6. Records for 1907-29 are published in WSP 918 as "at Yuma and at and near Dome."

REVISED RECORDS.--WSP 918: 1905. WSP 1733: July 1942. WSP 1926: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 139.18 ft above National Geodetic Vertical Datum of 1929. Prior to October 1903 and January 1907 to April 1929, no gage; discharge estimated. October 1903 to December 1906, principal nonrecording gage 4 mi upstream at datum 19.19 ft higher, supplemented by many nonrecording gages at different datums. May 1929 to May 31, 1981, at datum 9.00 ft higher.

REMARKS.--No estimated daily discharge. Records good. Many diversions above station for irrigation. Flow above station regulated by reservoirs at and above Painted Rock Dam; capacity of reservoir at Painted Rock Dam is 2,492,000 acre-ft. Painted Rock Reservoir, which is for flood control only, was completed in October 1959 (see also REMARKS for sta 09518000).

EXTREMES FOR PERIOD OF RECORD.--1903-29: Maximum daily discharge, 200,000 ft³/s, roughly estimated, Jan. 22, 1916. 1929-59: Maximum discharge, 20,700 ft³/s Feb. 15, 1932, gage height, 25.75 ft, present datum; no flow for part or all of most years. 1959-86: Maximum discharge, 4,820 ft³/s Sept. 18, 1963, gage height, 16.20 ft; no flow for part or all of most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 694 ft³/s Nov. 25, gage height, 11.64 ft; minimum daily, 1.1 ft³/s July 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	58	45	56	38	33	74	36	14	4.7	2.6	1.8	15
2	55	44	52	38	34	74	33	14	5.8	2.4	33	5.2
3	52	44	50	36	34	76	37	13	4.1	3.3	11	5.4
4	50	44	50	37	37	75	76	11	3.9	2.6	14	6.7
5	49	44	50	38	39	82	34	11	4.6	2.4	4.0	7.3
6	47	43	51	38	46	81	33	9.6	3.5	2.4	3.9	6.0
7	47	44	53	35	49	76	32	9.2	3.7	2.8	4.1	5.8
8	47	43	52	35	55	74	32	9.4	3.5	2.4	3.7	5.9
9	49	43	51	34	54	72	30	8.6	3.6	2.0	3.8	5.4
10	53	43	49	34	53	73	52	8.3	3.2	2.0	3.5	5.1
11	52	43	47	36	55	73	35	8.4	3.2	2.3	3.6	5.4
12	52	43	48	35	57	73	69	8.8	3.5	2.2	3.4	6.4
13	52	43	47	33	57	72	32	6.8	2.6	2.1	2.8	6.7
14	51	43	46	34	58	74	30	7.3	2.5	1.9	2.8	6.9
15	51	43	45	33	58	74	27	6.8	2.4	2.1	2.7	7.8
16	65	45	45	30	59	74	23	6.0	3.6	1.8	2.8	6.4
17	55	46	45	31	59	75	36	5.9	3.0	1.4	2.6	5.8
18	64	45	44	30	61	71	21	6.0	2.8	1.4	12	8.0
19	60	44	45	34	65	63	59	5.0	3.1	1.2	7.4	9.6
20	54	40	43	31	67	54	21	5.3	3.0	1.1	3.1	6.7
21	51	41	42	32	68	44	87	5.6	3.1	52	3.0	6.8
22	51	39	42	46	70	41	28	5.3	3.7	22	2.9	6.9
23	51	39	39	35	69	40	21	5.7	2.8	5.5	2.9	7.0
24	50	38	38	33	71	87	19	4.3	7.8	4.5	3.0	8.7
25	47	134	39	34	71	50	18	4.2	3.5	2.8	3.4	8.2
26	47	64	38	33	72	49	17	4.0	6.5	2.1	3.9	7.7
27	49	52	39	32	72	49	16	4.2	3.7	2.2	3.4	7.1
28	46	49	39	32	74	48	17	4.4	3.2	2.1	6.1	7.9
29	45	48	37	32	---	44	16	4.5	3.1	1.8	4.5	8.5
30	45	51	37	34	---	39	15	8.1	2.7	1.9	4.0	7.1
31	45	---	38	33	---	38	---	6.1	---	2.2	4.5	---
TOTAL	1590	1427	1397	1066	1597	1989	1002	230.8	110.4	141.5	167.6	213.4
MEAN	51.3	47.6	45.1	34.4	57.0	64.2	33.4	7.45	3.68	4.56	5.41	7.11
MAX	65	134	56	46	74	87	87	14	7.8	52	33	15
MIN	45	38	37	30	33	38	15	4.0	2.4	1.1	1.8	5.1
AC-FT	3150	2830	2770	2110	3170	3950	1990	458	219	281	332	423

CAL YR 1985 TOTAL 395868 MEAN 1085 MAX 3490 MIN 14 AC-FT 785200
WTR YR 1986 TOTAL 10931.7 MEAN 30.0 MAX 134 MIN 1.1 AC-FT 21690

GILA RIVER BASIN

09520500 GILA RIVER NEAR DOME, AZ--Continued
(National stream-quality accounting network station)

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1983 to September 1986 (discontinued).

WATER TEMPERATURE: October 1983 to September 1986 (discontinued).

REMARKS.--Replacement site for water quality station 09520700, Gila River near Mouth, near Yuma, AZ. Water samples for conductance and water temperatures were collected by a local observer on an approximate daily basis.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum observed, 7,000 microsiemens Aug. 15, 1984; minimum observed, 849 microsiemens Jan. 14, 1985.

WATER TEMPERATURES: Maximum observed, 40.0°C Aug. 26, 1986; minimum observed, 7.0°C Dec. 13, 1985

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum observed, 5,620 microsiemens May 30; minimum observed, 1,200 microsiemens June 25, 26.

WATER TEMPERATURES: Maximum observed, 40.0°C Aug. 26; minimum observed, 7.0°C Dec. 13.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	TUR- BID- ITY (NTU)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(00020)	(00010)	(00076)	(00025)	(00300)	(00301)	(31625)	
NOV 1985												
12...	1130	48	2350	8.30	18.0	14.5	1.9	762	11.0	109	67	
JAN 1986												
13...	1400	36	2400	8.10	23.5	12.0	0.50	767	11.8	110	K3	
MAR												
13...	1030	78	2700	8.10	16.0	14.5	11	760	10	99	K8	
MAY												
20...	1030	5.5	4000	7.90	36.0	24.5	3.0	760	11.6	141	25	
JUN												
11...	1430	4.1	2800	8.20	42.0	36.0	3.5	760	12.0	177	210	
AUG												
20...	0930	2.6	2560	7.90	38.0	30.0	22	762	9.0	120	300	
DATE		STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	HARD- NESS (MG/L AS CACO3)	HARD- NESS NONCARE WH WAT TOT FLD MG/L AS CACO3	CALCIUM DIS- SOLVED (MG/L AS CA)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG)	SODIUM, DIS- SOLVED (MG/L AS NA)	SODIUM AD- SORP- TION RATIO	POTAS- SIUM, DIS- SOLVED (MG/L AS K)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
		(31673)	(00900)	(00902)	(00915)	(00925)	(00930)	(00931)	(00935)	(99440)	(99445)	(00410)
NOV 1985												
12...	140	430	240	94	47	360	8	5.4	231	0	187	
JAN 1986												
13...	64	420	220	100	42	320	7	5.6	250	0	204	
MAR												
13...	25	510	290	120	50	350	7	7.1	261	0	205	
MAY												
20...	140	730	480	160	80	600	10	10	303	0	246	
JUN												
11...	460	510	360	110	58	330	7	8.0	190	0	152	
AUG												
20...	470	500	320	120	49	340	7	8.1	216	0	174	
DATE		SULFATE DIS- SOLVED (MG/L AS SO4)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL)	FLUO- RIDE, DIS- SOLVED (MG/L AS F)	SILICA, DIS- SOLVED (MG/L AS SIO2)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L)	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N)	
		(00945)	(00940)	(00950)	(00955)	(70300)	(70301)	(70303)	(00613)	(00631)	(00610)	
NOV 1985												
12...	410	400	0.90	12	1430	1400	1.9	0.010	<0.100	0.060		
JAN 1986												
13...	380	380	0.80	14	1440	1400	2.0	<0.010	0.200	0.080		
MAR												
13...	380	490	0.90	14	1630	1500	2.2	<0.010	<0.100	0.030		
MAY												
20...	470	930	0.80	25	2470	2400	3.4	<0.010	<0.100	0.090		
JUN												
11...	340	490	0.50	17	1580	1400	2.1	<0.010	<0.100	0.080		
AUG												
20...	360	480	0.50	19	1440	1500	2.0	<0.010	<0.100	0.090		

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

GILA RIVER BASIN

253

09520500 GILA RIVER NEAR DOME, AZ--Continued

WATER QUALITY DATA

DATE	NITRO- GEN, AM- MONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
NOV 1985 12...	0.050	0.24	0.30	0.020	0.010	0.010	0.03	<10	6	100
JAN 1986 13...	0.080	0.42	0.50	0.020	0.020	0.010	0.03	--	--	--
MAR 13...	0.040	0.67	0.70	0.120	0.020	<0.010	--	<10	9	200
MAY 20...	0.060	0.51	0.60	0.060	0.020	0.020	0.06	10	10	200
JUN 11...	0.050	0.62	0.70	0.080	0.020	0.020	0.06	--	--	--
AUG 20...	0.080	0.81	0.90	0.100	0.010	<0.010	--	--	--	--
DATE	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
NOV 1985 12...	<10	<1	2	<1	1	20	<1	140	40	--
JAN 1986 13...	--	--	--	--	--	--	--	--	--	--
MAR 13...	<10	1	1	<1	<1	40	<1	130	40	--
MAY 20...	<10	<1	<1	<1	1	30	3	170	690	<0.1
JUN 11...	--	--	--	--	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--	--	--	--	--
DATE	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985 12...	11	2	1	<1	1300	7	20	40	16	2.1
JAN 1986 13...	--	--	--	--	--	--	--	49	16	1.6
MAR 13...	10	3	2	<1	1600	15	50	44	49	10
MAY 20...	9	1	<1	<1	2400	14	<10	62	14	0.21
JUN 11...	--	--	--	--	--	--	--	--	--	--
AUG 20...	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than value shown.

GILA RIVER BASIN

09520500 GILA RIVER NEAR DOME, AZ--Continued

SPECIFIC CONDUCTANCE MICROSIEMENS/CM AT 25 DEG C, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	2290	2190	2480	2630	2710	3540	4070	4220	2810	1770	2020
2	---	2390	2180	2430	2620	2860	3600	3810	3410	2120	1770	2020
3	---	2390	2260	2380	2590	2810	2470	4040	4380	2350	1780	2020
4	---	2300	2370	2600	2570	2900	3370	4040	4160	2770	2020	2020
5	---	2300	2250	2600	2710	2470	3380	4140	3670	2770	2030	2020
6	---	2370	2130	2300	2610	2390	3530	4110	4070	2800	2030	2020
7	2220	2090	2320	2480	2630	2680	3430	4260	3060	1770	1700	2020
8	2280	2090	2280	2610	2630	2740	3350	4610	3810	2870	1700	2450
9	2210	2360	2170	2610	2620	2780	3340	4260	2630	3240	1700	2450
10	2200	2360	2220	2740	2540	2760	3210	4240	2880	3390	1700	2440
11	2190	2490	2410	2430	2570	2720	3220	3700	2420	2140	1900	2450
12	2250	2320	2410	2430	2600	2810	3010	3600	3240	2420	2380	1840
13	2280	2390	2280	2340	2610	2640	3010	4050	3400	2430	2390	1850
14	2280	2350	2370	2300	2620	2720	3150	3630	3290	2830	2390	1850
15	2300	2350	2390	2310	2620	2760	3130	3780	3770	3260	2390	1850
16	2260	2160	2400	2560	2630	2620	2890	4260	3220	3420	2380	1850
17	2220	2170	2390	2510	2590	2710	2160	3620	3670	3440	2380	1850
18	2280	2360	2400	2390	2610	2510	3410	3430	3730	3990	2810	1850
19	1560	2330	2390	2230	2630	2670	3540	3760	2510	4260	2820	1820
20	2200	2220	2360	2370	2580	3050	3540	3870	2760	4160	2810	1820
21	2240	2100	2450	2390	2680	3380	2500	3460	2540	4160	2810	1840
22	2230	2190	2450	3040	2590	3280	3690	3340	2650	1350	2610	1820
23	2280	2240	2390	2780	2590	3510	3920	2910	3320	4100	2610	1820
24	2370	2240	2490	2620	2510	1450	3930	3600	1900	2870	2610	1820
25	2270	2200	2490	2620	2510	3260	4180	3630	1200	2870	2610	1830
26	2380	1940	2530	2600	2720	3080	4170	3710	1200	2930	2560	2580
27	2060	2360	2530	2710	2810	3070	3860	3480	2220	2930	2050	2580
28	2350	2360	2370	2700	2810	3200	3860	3640	2950	2910	2050	2730
29	2140	2360	2470	2540	---	3370	3950	3980	2950	2910	2060	2730
30	2200	2310	2430	2480	---	3400	4070	5620	2800	2900	2070	2730
31	2370	---	2520	2480	---	3410	---	3920	---	2440	2050	---

W.Y. 1986 MAXIMUM 5620 MINIMUM 1200

TEMPERATURE, WATER, DEGREES CENTIGRADE, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
INSTANTANEOUS VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	17.0	15.0	17.5	13.5	18.5	20.0	19.5	34.0	25.0	33.0	28.5
2	---	14.5	15.5	11.5	14.0	17.5	16.5	26.0	34.5	28.0	35.0	27.0
3	---	14.0	13.0	12.5	12.5	17.0	15.5	19.5	25.5	32.0	36.5	33.0
4	---	15.0	14.0	14.5	12.5	17.0	15.5	19.0	26.0	28.5	28.0	36.0
5	---	17.0	14.5	14.0	11.5	17.0	16.0	16.5	32.5	31.0	34.5	29.0
6	---	15.0	12.5	13.0	11.5	17.0	17.0	18.5	31.0	28.0	29.0	37.5
7	21.0	14.5	11.5	11.0	10.0	17.5	17.0	14.5	33.0	32.5	34.0	31.0
8	19.0	14.0	11.0	9.0	9.5	18.0	17.0	15.0	34.5	34.0	32.5	34.0
9	19.0	13.5	10.5	9.5	9.5	17.0	17.5	21.0	36.0	32.0	26.0	32.5
10	19.0	13.0	8.0	9.0	8.0	17.5	18.0	19.0	35.0	34.0	28.0	28.0
11	17.0	13.5	8.0	10.0	8.0	14.0	17.5	26.0	34.0	35.0	32.0	34.0
12	17.0	13.5	8.5	9.5	9.5	13.5	17.5	19.5	33.0	32.5	29.0	30.0
13	17.0	14.5	7.0	9.0	12.0	14.0	17.0	21.0	30.0	32.0	33.0	31.0
14	20.0	16.0	7.5	16.0	12.5	14.0	18.0	20.5	35.0	28.0	30.0	27.0
15	18.0	15.0	8.5	13.5	13.5	14.5	18.5	20.5	35.0	31.5	33.5	34.0
16	20.0	12.5	8.0	11.5	14.0	15.0	22.5	19.5	34.0	31.5	27.0	20.0
17	18.0	13.0	8.0	12.0	13.0	14.5	18.0	21.0	34.0	35.0	28.0	21.0
18	19.0	12.0	8.5	12.0	15.5	15.0	18.0	20.5	32.5	37.5	34.0	21.0
19	18.0	8.0	8.0	12.5	15.5	14.0	18.0	32.0	32.5	34.0	28.5	22.5
20	19.0	7.5	8.5	12.0	14.5	13.5	18.0	32.5	31.0	30.0	33.5	31.0
21	20.0	9.0	9.5	11.5	14.0	15.0	19.0	24.5	32.0	36.0	34.0	30.0
22	17.5	9.5	9.0	11.5	13.0	15.0	21.0	20.0	32.0	31.0	33.0	28.0
23	17.5	10.5	9.0	11.5	13.5	15.5	18.0	22.5	34.0	33.0	38.0	25.0
24	18.0	12.0	8.5	11.5	15.0	17.5	18.0	30.0	35.0	32.0	32.0	20.5
25	16.5	14.5	8.0	10.5	15.5	17.5	18.0	30.5	35.0	32.5	30.0	29.0
26	18.0	14.5	9.0	10.0	16.5	17.5	17.5	31.0	27.0	32.5	40.0	30.0
27	18.5	17.0	9.5	10.5	25.0	18.0	17.0	33.0	32.0	32.0	28.0	29.0
28	18.5	17.5	9.0	10.0	23.5	19.5	17.5	32.0	32.5	37.0	36.5	30.0
29	24.5	17.5	10.0	11.0	---	18.0	18.5	32.0	28.0	32.0	33.5	20.5
30	17.5	12.5	11.0	12.0	---	18.0	19.0	24.0	33.0	38.0	32.0	29.0
31	17.5	---	11.5	13.5	---	20.0	---	30.5	---	25.0	28.5	---

W.Y. 1986 MAXIMUM 40.0 MINIMUM 7.0

COLORADO RIVER MAIN STEM

255

09521100 COLORADO RIVER BELOW YUMA MAIN CANAL
WASTEWAY, AT YUMA, AZ

LOCATION.--Lat 32°43'54", long 114°37'55", in SW¼SW¼ sec.26, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on right bank 1,000 ft downstream from Yuma Main Canal wasteway, 0.6 mi downstream from former gaging station on Colorado River at Yuma, 1.1 mi northwest of downtown post office in Yuma, 5.2 mi downstream from Gila River, and 6.4 mi upstream from northerly international boundary.

DRAINAGE AREA.--246,500 mi², approximately, including all closed basins entirely within the drainage boundary, also 3,959 mi² in Great Divide basin in southern Wyoming.

PERIOD OF RECORD.--October 1963 to current year. If records for Yuma Main Canal wasteway at Yuma (sta 09525000) and Reservation Main Drain No. 4 (sta 09530000) are subtracted from records at this station, records equivalent to those published 1902-64 as "Colorado River at Yuma" (sta 09521000) can be obtained.

GAGE.--Water-stage recorder. Datum of gage is 101.99 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, municipal, and industrial uses, and return flows from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft³/s Aug. 19, 1983, gage height, 26.67 ft; maximum gage height, 27.67 ft July 4, 1983; minimum daily discharge, 260 ft³/s Jan. 17, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum gage height since at least 1878, 34.0 ft Jan. 22, 1916, discharge, 250,000 ft³/s, at former gaging station at Yuma.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 18,400 ft³/s June 1, 4; minimum daily, 1,930 ft³/s Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9790	3260	6540	9020	11600	5270	8480	6180	18400	10400	8280	7400
2	9440	3270	5930	8240	11200	5720	8750	6220	17900	10700	7730	7630
3	8470	3210	5070	7870	10100	6320	8410	6480	18000	10800	8240	6860
4	7450	3250	4400	8570	8370	6390	8500	6670	18400	10100	8260	7000
5	6940	3160	3070	9110	5480	6650	8520	6170	17200	10600	7790	6730
6	7030	3270	2700	9050	2870	6670	8850	6260	17100	10600	7680	6090
7	6340	3060	3460	9730	1930	6230	8530	6500	16800	9240	7730	6770
8	5910	2790	4170	9310	2550	7140	8310	6750	15700	9000	7330	6270
9	6190	3100	5390	9300	6030	7640	8420	7760	13300	9000	7600	5800
10	5500	3190	5180	9280	7020	6370	8160	10100	11600	8620	7950	5560
11	5670	3500	4740	9330	7320	6080	8310	11200	11500	8280	8080	5480
12	4760	5300	5820	10400	7980	6790	7320	11300	10800	8000	7930	5730
13	4760	6210	5670	11700	8550	7080	6940	11000	10600	8640	8090	5820
14	4190	4020	5530	11500	8770	8350	5910	11600	10800	8440	8140	6480
15	3920	3750	6100	11300	8910	9520	5680	12800	11300	8090	8340	6190
16	3760	3720	6320	11000	9670	10100	6010	14400	10700	8590	8290	6170
17	3970	3950	5930	10200	9640	9620	5840	15400	10400	8300	8770	6400
18	3880	3560	6410	9170	9470	9160	5630	16500	10300	8330	8180	6390
19	4060	3600	7320	9700	9420	8820	5810	15900	9980	8260	8190	6530
20	3760	3200	8130	10500	9350	8590	6020	15600	10300	8370	7960	6460
21	3870	3240	8300	11100	9120	8640	5960	15300	10600	8220	7850	6630
22	3620	3470	8860	11500	9050	9350	5890	15500	10900	8390	8040	6500
23	3390	3670	8410	11600	9210	9400	6080	16400	10000	10700	7360	6810
24	3480	3880	8890	11900	8110	8530	5830	16500	10100	9210	6920	7390
25	3580	3870	9420	11600	6210	8130	5620	17000	10100	9450	6300	7900
26	3470	5060	8980	11600	5440	8480	6080	17200	10000	9100	6180	7940
27	3310	6490	8480	11000	4820	8640	6140	17100	10200	9400	6150	8080
28	3500	7320	8170	10900	4570	8410	6230	18000	10100	8840	6750	8520
29	3250	6900	8390	11300	---	8890	6010	18100	10700	8550	7170	7890
30	3220	6850	7500	11200	---	9540	6170	17900	10900	8550	7150	7630
31	3300	---	8020	11100	---	8700	---	17200	---	8550	7630	---
TOTAL	153740	123120	201300	319080	212760	245220	208410	390990	374680	281320	238060	203050
MEAN	4959	4104	6494	10290	7599	7910	6947	12610	12490	9075	7679	6768
MAX	9790	7320	9420	11900	11600	10100	8850	18100	18400	10800	8770	8520
MIN	3220	2790	2700	7870	1930	5270	5620	6170	9980	8000	6150	5480
AC-FT	304900	244200	399300	632900	422000	486400	413400	775500	743200	558000	472200	402700
CAL YR 1985	TOTAL	3453620	MEAN	9462	MAX	19700	MIN	2700	AC-FT	6850000		
WTR YR 1986	TOTAL	2951730	MEAN	8087	MAX	18400	MIN	1930	AC-FT	5855000		

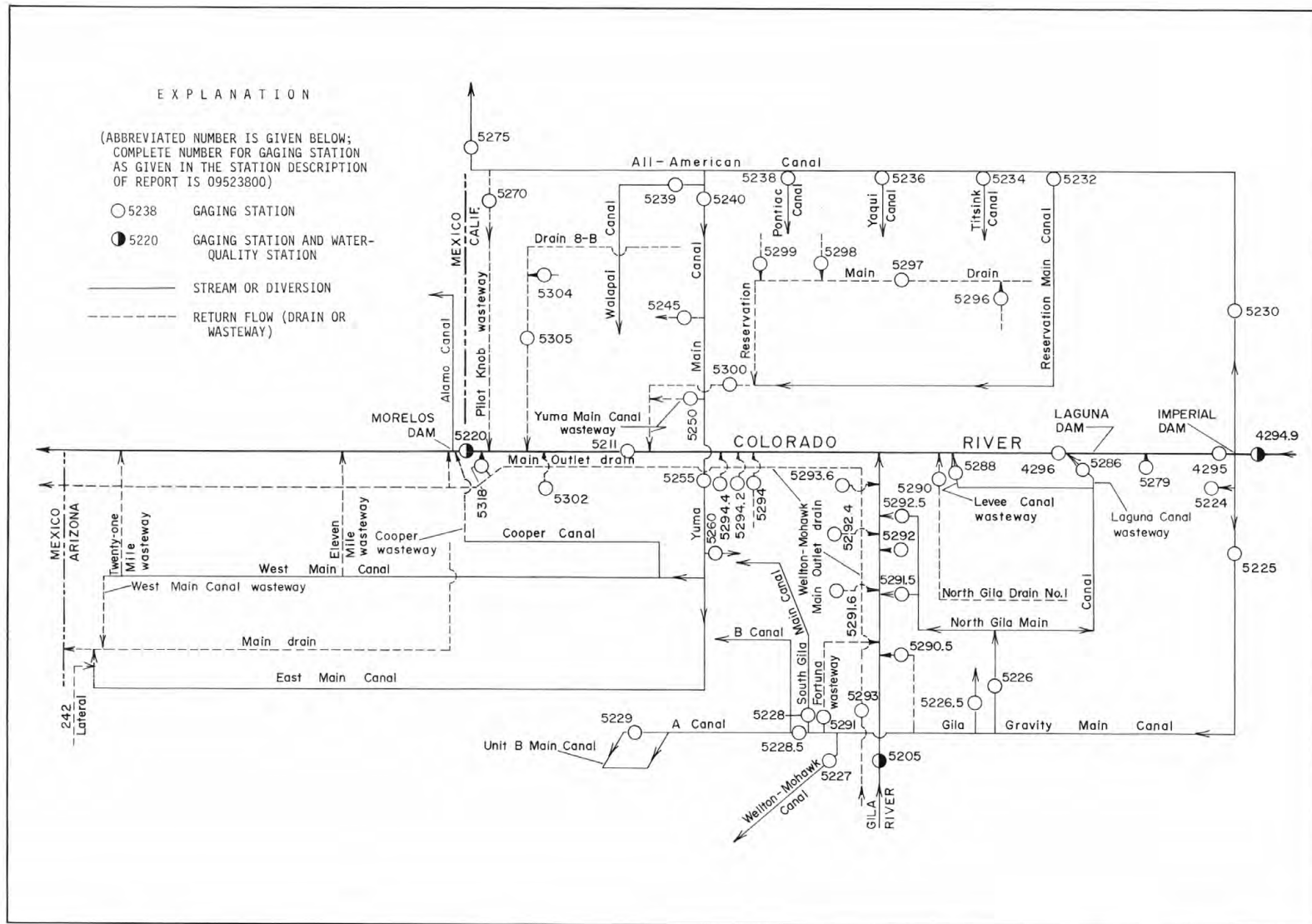


Figure 6.--Schematic diagram showing gaging stations and water-quality stations on streams, diversions, and return flows between Imperial Dam and the southerly international boundary.

COLORADO RIVER MAIN STEM

257

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY
 ABOVE MORELOS DAM, NEAR ANDRADE, CA
 (National stream-quality accounting network)

LOCATION.--Lat 32°43'07", long 114°43'05", in NE¼SE¼ sec.21, T.8 S., R.24 W., Gila and Salt River meridian, in Arizona, Yuma County, Hydrologic Unit 15030108, on left bank at northerly international boundary, 0.5 mi east of Andrade, 1.1 mi upstream from Morelos Dam, 1.1 mi downstream from Rockwood Gate, and 6.4 mi downstream from gaging station on Colorado River below Yuma Main Canal wasteway.

DRAINAGE AREA.--246,700 mi², approximately, including all closed basins entirely within the drainage boundary, also 3,959 mi² in Great Divide basin in southern Wyoming.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1950 to current year. Prior to October 1958 published as "at international boundary."

GAGE.--Water-stage recorder. Datum of gage is mean sea level, National Geodetic Vertical Datum of 1929. Supplementary water-stage recorder 1,680 ft upstream at same datum.

REMARKS.--No estimated daily discharges. This record shows water passing northerly international boundary. Minor diversions to the United States below this station by pumping from ground water for irrigation in the floodway between river and Yuma levee.

COOPERATION.--Records furnished by International Boundary and Water Commission, U.S. Section (discharge figures rounded in accordance with Geological Survey standard practice).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,600 ft³/s Aug. 20, 1983; maximum elevation, 115.65 ft Aug. 18, 19, 1983; minimum discharge, 495 ft³/s Sept. 28, 1970; minimum elevation, 101.72 ft, Nov. 2, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 24,100 ft³/s June 1; minimum daily discharge, 6,730 ft³/s Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17100	10500	15300	18400	18600	12000	14800	10800	24100	15900	13300	15000
2	16100	10800	14900	17500	19300	13100	14600	10900	23500	16100	13600	14600
3	15400	11300	14200	16500	18400	13100	14400	11100	22900	16100	14400	13900
4	14700	11300	13600	16900	15300	13000	14700	11900	22700	16200	13800	13500
5	14000	10700	12300	17900	12300	13400	15100	11400	22000	16200	13300	13200
6	14300	10800	12100	17900	8420	12800	15600	11200	22500	17200	13600	12600
7	12800	10400	12700	18500	6730	12800	15200	11100	22600	16100	13300	13200
8	12300	10200	13400	18000	7690	14100	14400	12100	22100	15200	13100	13300
9	12800	10900	14400	17800	12100	14600	13800	13000	19800	14800	13900	12800
10	13200	11700	14300	16900	13100	13500	13000	14800	18100	14500	15000	12300
11	14900	10700	14000	17100	14200	14700	13600	17400	17900	14500	13800	12200
12	14000	10800	14900	17300	14300	14400	13500	17100	17400	14600	14200	12500
13	14000	11600	14700	17000	14800	14100	13800	16200	17400	15500	15200	13000
14	13000	12200	14600	16700	15200	15100	12500	16200	17500	14500	14200	13800
15	11600	12000	15000	16900	15700	17100	12100	17700	17800	13900	14500	12900
16	10900	12400	15300	16100	16900	18600	12200	19800	16600	14900	15200	12600
17	11500	12900	14900	15500	16500	17700	11100	22100	16000	14900	16100	12900
18	11600	12600	15100	14400	15800	16800	11000	23900	15600	15100	14700	12900
19	12000	12400	16100	15000	15400	15900	11300	22600	15800	15500	14600	13100
20	12300	11800	17500	15700	14600	15800	11700	22400	16600	15700	14100	12800
21	11500	11400	18100	15900	13600	15500	11200	22500	17100	14700	14000	13200
22	10800	12000	18700	16700	13500	16500	10800	22200	17400	15100	14800	12600
23	10500	12500	18100	16800	14100	17300	10800	22500	15900	16900	14200	13300
24	10400	12900	18400	17400	13800	15400	10400	22600	15600	17100	14000	14200
25	10900	12900	19200	17700	12800	14000	10400	23200	15500	16600	13200	14500
26	10900	14400	18500	18200	12400	13900	10900	22800	15600	16400	13800	14600
27	10900	15200	18000	17000	11500	13700	12600	22200	16400	16800	14000	15300
28	10600	16100	17600	16600	11500	13700	12000	22600	16300	15700	13800	16000
29	10600	15700	17900	16700	---	15000	10900	22700	16500	15200	14100	14600
30	10100	15500	17100	17000	---	17200	10700	23100	16600	14200	14600	13900
31	10300	---	17200	17700	---	15700	---	23000	---	13500	15900	---
TOTAL	386000	366600	488100	525700	388540	460500	379100	563100	551800	479600	440300	405300
MEAN	12450	12220	15750	16960	13880	14850	12640	18160	18390	15470	14200	13510
MAX	17100	16100	19200	18500	19300	18600	15600	23900	24100	17200	16100	16000
MIN	10100	10200	12100	14400	6730	12000	10400	10800	15500	13500	13100	12200
AC-FT	765600	727200	968100	1043000	770700	913400	751900	1117000	1094000	951300	873300	803900
CAL YR	1985	TOTAL	5898500	MEAN	16160	MAX	26500	MIN	10100	AC-FT	11700000	
WTR YR	1986	TOTAL	5434640	MEAN	14890	MAX	24100	MIN	6730	AC-FT	10780000	

COLORADO RIVER MAIN STEM

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY,
ABOVE MORELOS DAM, NEAR ANDRADE, CA--Continued

WATER-QUALITY RECORDS

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

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1969 to September 1984.

REMARKS.--Unpublished chemical analyses (continuing record) for water years 1961-68 available from district office in Tucson, Ariz.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS	SPE- CIFIC CON- DUCT- ANCE	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR	TEMPER- ATURE WATER	TUR- BID- ITY	BARO- METRIC PRES- SURE	OXYGEN, DIS- SOLVED	OXYGEN, (PER- CENT SATUR- ATION)	COLI- FORM, FECAL, 0.7 UM-MF	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML)	
		(CFS) (00061)	(US/CM) (00095)	(00400)	(DEG C) (00020)	(DEG C) (00010)	(NTU) (00076)	(MM OF HG) (00025)	(MG/L) (00300)	(00301)	(COLS./ 100 ML) (31625)	(31673)	
NOV 1985													
13...	1130	11200	1020	7.80	11.0	15.0	9.7	768	9.6	95	88	130	
JAN 1986													
15...	1100	17000	1000	7.80	12.0	11.0	9.4	767	10.8	98	K18	66	
MAR													
12...	1030	14300	980	8.00	18.0	16.0	6.4	762	9.5	97	K19	77	
MAY													
21...	1130	22900	960	7.80	34.0	23.0	23	760	8.3	97	32	460	
JUN													
09...	1300	20000	970	7.80	34.0	24.5	20	760	8.2	99	20	150	
AUG													
18...	1400	14500	980	7.90	39.0	29.0	13	764	7.7	100	240	83	
DATE		HARD- NESS	CALCIUM	MAGNE- SIUM,	SODIUM,	SODIUM	POTAS- SIUM,	BICAR- BONATE	CAR- BONATE	ALKA- LITY			
		NONCARB WH WAT TOT FLD AS MG/L AS CACO3 (00900)	DIS- SOLVED (MG/L AS CA) (00915)	DIS- SOLVED (MG/L AS MG) (00925)	DIS- SOLVED (MG/L AS NA) (00930)	AD- SORP- TION RATIO (00931)	DIS- SOLVED (MG/L AS K) (00935)	IT-FLD (MG/L AS HCO3) (99440)	IT-FLD (MG/L AS CO3) (99445)	WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	
NOV 1985													
13...	300	160	77	27	100	3	3.7	179	0	138	230	86	
JAN 1986													
15...	290	140	72	26	91	2	3.7	173	0	138	230	74	
MAR													
12...	290	150	71	26	91	2	4.9	168	0	134	220	73	
MAY													
21...	290	160	72	26	89	2	4.1	161	0	134	--	--	
JUN													
09...	290	150	73	25	90	2	4.4	171	0	138	250	75	
AUG													
18...	290	150	72	26	93	2	3.4	171	0	130	240	79	
DATE		FLUO- RIDE, DIS- SOLVED	SILICA, DIS- SOLVED	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED	SOLIDS, DIS- SOLVED (TONS PER AC-FT)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE	NITRO- GEN, NITRITE DIS- SOLVED	NITRO- GEN, NO2+NO3 DIS- SOLVED	NITRO- GEN, AMMONIA DIS- SOLVED	PHOS- PHORUS, TOTAL	PHOS- PHORUS, DIS- SOLVED	PHOS- PHORUS, ORTHO, DIS- SOLVED
		(MG/L AS F) (00950)	(MG/L AS SIO2) (00955)	(MG/L) (70300)	(MG/L) (70301)	(MG/L) (70303)	(MG/L) (00530)	(MG/L AS N) (00613)	(MG/L AS N) (00631)	(MG/L AS N) (00608)	(MG/L AS P) (00665)	(MG/L AS P) (00666)	(MG/L AS P) (00671)
NOV 1985													
13...	0.40	9.9	663	620	0.90	--	--	--	--	--	--	--	--
JAN 1986													
15...	0.40	9.4	630	590	0.86	--	<0.010	0.290	0.050	0.010	<0.010	<0.010	<0.010
MAR													
12...	0.40	9.0	623	580	0.85	25	<0.010	0.290	0.030	0.090	<0.010	0.010	0.010
MAY													
21...	--	9.1	611	--	--	57	<0.010	0.200	0.070	0.100	0.010	<0.010	<0.010
JUN													
09...	0.40	9.4	--	610	0.83	57	<0.010	0.210	0.030	0.180	<0.010	<0.010	<0.010
AUG													
18...	0.30	9.9	612	610	0.83	--	<0.010	0.230	0.030	0.050	<0.010	<0.010	<0.010

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

259

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY,
ABOVE MORELOS DAM, NEAR ANDRADE, CA--Continued

WATER QUALITY DATA

DATE	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	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 TOTAL RECOV- ERABLE (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)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)
NOV 1985											
13...	--	<10	3	2	100	<0.5	<1	<1	7	<1	<3
JAN 1986											
15...	--	--	3	--	--	--	<1	--	10	--	--
MAR											
12...	0.03	10	3	2	99	0.8	<1	<1	17	1	<3
MAY											
21...	--	<10	3	2	98	<0.5	<1	<1	13	<1	<3
JUN											
09...	--	--	3	--	--	--	<1	--	15	--	--
AUG											
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	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)	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)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
NOV 1985											
13...	3	<1	<3	4	<1	45	110	10	<0.10	--	<10
JAN 1986											
15...	12	--	--	4	--	--	140	--	<0.10	--	--
MAR											
12...	11	2	3	5	1	43	130	4	<0.10	--	10
MAY											
21...	7	1	3	4	<1	44	130	2	<0.10	<0.1	10
JUN											
09...	9	--	--	4	--	--	130	--	<0.10	--	--
AUG											
18...	--	--	--	--	--	--	--	--	--	--	--

DATE	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, 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, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 1985											
13...	2	<1	2	<1	1000	<6	30	9	25	206	6230
JAN 1986											
15...	--	3	--	--	--	--	190	--	18	287	13200
MAR											
12...	<1	3	3	<1	1000	<6	30	21	8	206	7950
MAY											
21...	<1	3	3	<1	940	<6	20	9	15	426	26300
JUN											
09...	--	2	--	--	--	--	20	--	15	391	21100
AUG											
18...	--	--	--	--	--	--	--	--	23	279	10900

< Actual value is known to be less than value shown.

COLORADO RIVER MAIN STEM

09522000 COLORADO RIVER AT NORTHERLY INTERNATIONAL BOUNDARY,
ABOVE MORELOS DAM, NEAR ANDRADE, CA--Continued

ADDITIONAL NUTRIENT DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 1985							
03...	1520	15400	1030	7.80	34.0	24.0	0.400
18...	0835	11600	1080	7.90	22.0	20.5	0.200
NOV							
26...	1340	14800	1000	7.90	23.0	15.0	0.300
FEB 1986							
13...	1310	14700	980	7.80	20.5	13.0	0.300
MAR							
31...	1345	15700	989	7.80	28.5	20.0	0.300
APR							
09...	1000	14200	1000	7.80	20.5	18.5	0.200
MAY							
05...	1350	11300	1170	7.80	30.0	22.5	0.300
30...	1550	23500	924	7.80	37.0	25.0	0.200
JUN							
30...	1445	16200	961	7.80	38.0	26.5	0.200
JUL							
16...	1400	14900	970	7.90	34.0	27.0	0.300
31...	1500	13500	970	7.80	38.5	28.5	0.200
SEP							
08...	1315	13400	990	7.80	38.0	28.0	0.200
18...	1400	14500	980	7.90	39.0	29.0	0.200

DATE	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	NITRO- GEN, TOTAL (MG/L AS NO3) (71887)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)
OCT 1985						
03...	0.090	0.31	0.40	0.80	3.5	0.050
18...	0.060	0.14	0.20	0.40	1.8	0.030
NOV						
26...	0.080	0.52	0.60	0.90	4.0	0.220
FEB 1986						
13...	0.060	0.44	0.50	0.80	3.5	0.070
MAR						
31...	0.060	0.34	0.40	0.70	3.1	0.030
APR						
09...	0.050	0.35	0.40	0.60	2.7	0.040
MAY						
05...	0.080	0.32	0.40	0.70	3.1	0.040
30...	0.020	0.38	0.40	0.60	2.7	0.050
JUN						
30...	0.040	0.26	0.30	0.50	2.2	0.040
JUL						
16...	0.040	0.26	0.30	0.60	2.7	0.060
31...	0.050	0.25	0.30	0.50	2.2	0.060
SEP						
08...	0.020	0.38	0.40	0.60	2.7	0.040
18...	<0.010	--	--	--	--	--

RADIOCHEMICAL ANALYSES

DATE	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
NOV 1985								
13...	13	0.8	5.9	1.9	4.2	1.9	0.07	3.3

< Actual value is known to be less than value shown.

Two major diversions for irrigation water are located at Imperial Dam, the Gila Gravity Main Canal, and the All-American Canal. The Gila Gravity Main Canal diverts water for irrigation in the Gila Project which is located entirely in Arizona. The All-American Canal diverts water for irrigation in Imperial Valley in California and the Yuma Project in Arizona and California. Between Imperial Dam and the northerly international boundary with Mexico, water is diverted from these principal canals for the individual diversions of the Gila and Yuma Projects.

Between Imperial Dam and the northerly international boundary with Mexico, flows from irrigated areas enter the Colorado River through many drains and wasteways in Arizona and California. Other return flows enter the Gila River below the gaging station near Dome (09520500).

See figure 6 on p. 256 for schematic diagram showing location of diversions and return flows.

Diversions at and below Imperial Dam, AZ-CA

09522500. GILA GRAVITY MAIN CANAL AT IMPERIAL DAM.--See p. 265.

09522600. NORTH GILA MAIN CANAL.

LOCATION.--Water-stage recorder and sharp-crested weir, in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.23, T.7 S., R.22 W., Yuma County, Hydrologic Unit 15030107, about 700 ft downstream from turnout from Gila Gravity Main Canal and 1.2 mi south of Laguna Dam.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in North Gila Valley.

09522650. NORTH GILA MAIN CANAL NO. 2.

LOCATION.--Water-stage recorder in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.11, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, at turnout from Gila Gravity Main Canal and 3.5 mi downstream from turnout to North Gila Main Canal.

PERIOD OF RECORD.--June 1969 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in North Gila Valley.

09522700. WELLTON-MOHAWK CANAL.

LOCATION.--Two water-stage recorders to record forebay and tailrace elevations and gate openings since June 1, 1974, in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.17, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, at turnout from Gila Gravity Main Canal.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in the Dome, Wellton, and Mohawk areas of the lower Gila Valley.

COOPERATION.--Supplementary record of gate openings furnished by Wellton-Mohawk Irrigation District.

09522800. SOUTH GILA MAIN CANAL.

LOCATION.--Sparling flowmeter, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.36, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 110 ft downstream from turnout from Gila Gravity Main Canal.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in South Gila Valley.

COOPERATION.--Daily discharges furnished by Yuma Irrigation District.

09522850. GILA GRAVITY MAIN CANAL AT PUMPING PLANT.

LOCATION.--Intake consisting of 4 pumps, in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.1, T.9 S., R.22 W., Yuma County, Hydrologic Unit 15070201, at end of Gila Gravity Main Canal and head of Yuma Mesa canals.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation on Yuma Mesa and in Yuma Auxiliary Division of Yuma Valley.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation and Yuma Mesa Irrigation and Drainage District.

09522900. UNIT B MAIN CANAL.

LOCATION.--Headworks in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.9 S., R.23 W., Yuma County, Hydrologic Unit 15030108, 5 mi north-east of Somerton.

PERIOD OF RECORD.--October 1965 to current year (monthly discharge only).

REMARKS.--Record shows water available for irrigation in Yuma Auxiliary Division of the Yuma Project.

COOPERATION.--Records furnished by Yuma Mesa Irrigation and Drainage District.

09523000. ALL-AMERICAN CANAL NEAR IMPERIAL DAM.--See p. 266.

Diversions at and below Imperial Dam, AZ-CA--Continued

09523200. RESERVATION MAIN CANAL.

LOCATION.--Water-stage recorder and, since Sept. 5, 1975, gate-opening recorder, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.35, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, at turnout from All-American Canal and 5.8 mi downstream from Imperial Dam.

PERIOD OF RECORD.--August 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record computed from rated gate on turnout from All-American Canal and shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

COOPERATION.--Record of gate openings furnished by Bard Water District.

09523400. TITSINK CANAL.

LOCATION.--Water-stage recorder and Parshall flume in NE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.27, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 0.6 mi downstream from turnout from All-American Canal and 7.2 mi downstream from Imperial Dam.

PERIOD OF RECORD.--August 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09523600. YAQUI CANAL.

LOCATION.--Water-stage recorder and Parshall flume in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.31, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 700 ft downstream from turnout from All-American Canal and 11.1 mi downstream from Imperial Dam.

PERIOD OF RECORD.--June 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09523800. PONTIAC CANAL.

LOCATION.--Water-stage recorder and Parshall flume in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.1, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 500 ft downstream from turnout from All-American Canal and 13.1 mi downstream from Imperial Dam.

PERIOD OF RECORD.--August 1950 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09523900. WALAPAI CANAL.

LOCATION.--Water-stage recorder and sharp-crested weir in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.10, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 100 ft downstream from siphon-drop powerplant forebay and 4.3 mi north of Yuma.

PERIOD OF RECORD.--October 1946 to current year (monthly discharge only). Prior to October 1965 included in total diversions from All-American Canal and Yuma Main Canal above siphon-drop powerplant and published as part of sta 09524000.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

09524000. YUMA MAIN CANAL AT SIPHON-DROP POWERPLANT.--See p. 267.

09524500. DIVERSIONS FROM YUMA MAIN CANAL BETWEEN SIPHON-DROP POWERPLANT AND YUMA MAIN CANAL WASTEWAY.

LOCATION.--Turnouts for several canals diverting from Yuma Main Canal between siphon-drop powerplant, 4 mi north of Yuma, and Yuma Main Canal wasteway, 1,600 ft upstream from Colorado River siphon, in Imperial County.

PERIOD OF RECORD.--October 1940 to current year (monthly discharge only). Prior to October 1947 in WSP 1313. October 1947 to September 1965 published as supplemental table with records for Yuma Main Canal at siphon-drop powerplant.

REMARKS.--Record shows water available for irrigation in parts of Reservation Division of Yuma Project in California.

COOPERATION.--Record furnished by U.S. Bureau of Reclamation.

Diversions at and below Imperial Dam, AZ-CA--Continued

09525500. YUMA MAIN CANAL BELOW COLORADO RIVER SIPHON.--See p. 268.

09526000. DIVERSION FROM YUMA MAIN CANAL FOR MUNICIPAL SUPPLY FOR YUMA.

LOCATION.--Sparling and Venturi flowmeters, in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.35, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, on two pipelines, respectively, about 1,000 ft downstream from intake, which is at outlet of Colorado River siphon of Yuma Main Canal, on Arizona side of Colorado River at Yuma.

PERIOD OF RECORD.--June 1945 to current year (monthly discharge only). Prior to October 1973 published as a supplemental table with records for Yuma Main Canal below Colorado River siphon.

REMARKS.--Record shows water for Yuma municipal supply. Figures shown in table herewith are also included in record for Yuma Main Canal below Colorado River siphon (sta 09525500).

COOPERATION.--Records furnished by Yuma County Water Users' Association.

09527500. ALL-AMERICAN CANAL BELOW PILOT KNOB WASTEWAY.--See p. 271.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Diversions at and below Imperial Dam, AZ-CA--Continued

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	North Gila Main Canal 09522600	North Gila Main Canal No. 2 09522650	Wellton-Mohawk Canal 09522700	South Gila Main Canal 09522800	Gila Gravity Main Canal at pumping plant 09522850
October	3,540	845	19,190	3,400	13,910
November	2,790	733	16,830	2,760	11,480
December	2,290	439	11,660	2,430	9,060
CAL YR 1985	40,970	8,840	382,100	37,020	250,050
January	2,850	601	19,440	2,180	13,490
February	3,170	703	24,790	1,820	13,080
March	4,410	915	40,710	3,480	18,420
April	4,890	1,020	50,060	4,330	25,320
May	4,920	999	45,410	3,270	29,380
June	3,710	934	48,020	2,200	32,090
July	2,670	978	43,590	2,690	32,690
August	2,700	711	49,620	3,180	31,690
September	3,370	785	40,210	4,560	22,690
WTR YR 1986	41,310	9,660	409,500	36,310	253,300

Month	Unit B Main Canal 09522900	Reservation Main Canal 09523200	Titsink Canal 09523400	Yaqui Canal 09523600	Pontiac Canal 09523800
October	2,180	4,530	33	630	711
November	1,940	2,370	55	484	456
December	971	2,630	33	489	354
CAL YR 1985	32,270	47,150	551	8,940	6,390
January	1,950	3,230	46	435	497
February	1,820	3,150	45	697	332
March	2,240	5,220	76	813	591
April	3,180	6,150	86	964	532
May	3,690	4,990	78	717	511
June	3,850	4,000	59	1,000	130
July	4,140	5,430	48	1,120	414
August	3,680	4,210	94	817	772
September	2,830	3,340	35	534	590
WTR YR 1986	32,470	49,250	687	8,700	5,890

Month	Walapai Canal 09523900	Diversions from Yuma Main Canal 09524500	Diversions from Yuma Main Canal for Yuma supply 09526000
October	1,080	340	1,180
November	484	250	1,050
December	414	345	1,010
CAL YR 1985	6,820	5,820	16,520
January	472	253	1,130
February	409	502	989
March	563	753	1,290
April	777	752	1,380
May	419	507	1,670
June	328	522	1,780
July	273	396	1,770
August	335	652	1,840
September	612	621	1,420
WTR YR 1986	6,160	5,890	16,510

NOTE.--Yearly totals given above have been computed from total cfs-days and may differ slightly from the summation of monthly total acre-feet on occasion.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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09522500 GILA GRAVITY MAIN CANAL AT IMPERIAL DAM, AZ-CA

LOCATION.--Lat 32°52'34", long 114°27'18", in SE¼SW¼ sec.30, T.6 S., R.21 W., Gila and Salt River meridian, Yuma County, Hydrologic Unit 15030107, on right bank 3,200 ft downstream from intake at east end of Imperial Dam.

PERIOD OF RECORD.--August 1943 to current year.

GAGE.--Water-stage recorder. Datum of gage is 160.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good except those below 500 ft³/s, which are fair. Gila Gravity Main Canal diverts water from Colorado River at left end of Imperial Dam for irrigation of lands in the Gila Project area in Arizona. Diversions to this canal began Aug. 17, 1943. Diversions to North Gila Valley from this canal began Dec. 16, 1954.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,240 ft³/s May 25, 1965; no flow at canal intake at times in several years when intake gates were closed.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	731	780	190	350	342	715	1630	1620	850	1560	1980	1150
2	839	536	707	725	507	717	1800	1270	1520	1480	1860	1310
3	927	515	898	756	788	1430	1760	978	1480	1510	1440	1730
4	747	982	779	417	888	1570	1320	858	1700	1480	1730	1410
5	649	910	373	381	1210	1500	1110	1690	1820	786	1950	1530
6	480	976	344	881	1230	1410	834	1830	1690	1070	1970	1370
7	1090	1140	402	854	1030	1370	1410	1850	1510	1670	1870	1000
8	1270	690	223	959	717	667	1520	1520	1060	1600	1750	1770
9	1170	406	303	787	248	621	1690	1440	1460	1720	1300	1930
10	891	502	451	747	896	1630	1600	844	1860	1680	1060	2010
11	338	884	539	534	904	1600	1280	783	1660	1680	1550	1880
12	227	757	538	389	818	1360	889	1380	1660	1430	1730	1790
13	168	697	497	946	758	1240	734	1860	1780	1030	1900	1070
14	700	663	201	960	688	736	1730	2060	1230	1670	1750	749
15	845	500	142	776	659	519	1870	1780	950	1620	1800	1770
16	799	389	586	892	332	476	1940	1520	1890	1400	1180	1770
17	601	324	623	602	949	1020	1750	1030	2060	1490	1090	1570
18	559	673	792	571	1090	1170	1650	696	2050	1390	1690	1380
19	349	798	682	417	1280	1550	1350	1780	2030	1130	1710	1220
20	362	1030	474	784	1110	1560	1180	1680	1530	1060	1950	957
21	655	1050	410	921	860	1080	1820	1660	1020	1530	2040	902
22	944	755	412	804	525	614	1760	1510	1160	1360	1540	1470
23	959	463	753	869	260	768	1590	1410	1870	1120	1250	1230
24	691	332	356	628	952	1390	1820	1200	1960	1210	730	735
25	679	760	162	451	1230	1540	1610	545	1980	1200	1330	966
26	516	821	462	311	1280	1800	1220	1350	1740	715	1370	669
27	550	496	608	1030	1530	1700	1090	1710	1550	598	1420	623
28	943	213	447	917	1390	1690	1560	1700	1120	1570	1090	495
29	1140	258	435	1040	---	912	1800	1580	828	1680	1150	1370
30	1020	217	958	917	---	671	1720	1370	1450	1920	780	1230
31	987	---	586	572	---	1260	---	1220	---	1980	631	---
TOTAL	22827	19517	15333	22189	24471	36286	45037	43724	46468	43339	46591	39056
MEAN	736	651	495	716	874	1171	1501	1410	1549	1398	1503	1302
MAX	1270	1140	958	1040	1530	1800	1940	2060	2060	1980	2040	2010
MIN	168	213	142	311	248	476	734	545	828	598	631	495
AC-FT	45280	38710	30410	44010	48540	71970	89330	86730	92170	85960	92410	77470
CAL YR	1985	TOTAL	392014	MEAN	1074	MAX	2090	MIN	27	AC-FT	777600	
WTR YR	1986	TOTAL	404838	MEAN	1109	MAX	2060	MIN	142	AC-FT	803000	

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09523000 ALL-AMERICAN CANAL NEAR IMPERIAL DAM, AZ-CA

LOCATION.--Lat 32°52'17", long 114°28'47", in SE¼NW¼ sec.17, T.15 S., R.24 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on left bank 6,000 ft downstream from intake at west end of Imperial Dam and 13.7 mi upstream from turnout to Yuma Main Canal.

PERIOD OF RECORD.--October 1938 to current year. Prior to October 1939 monthly discharge only, published in WSP 1313.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above National Geodetic Vertical Datum of 1929 (subject to undetermined changes caused by earthquake of May 18, 1940). Since Aug. 21, 1952, auxiliary water-stage recorder 18.5 mi downstream from base gage.

REMARKS.--No estimated daily discharges. Records excellent. All-American Canal diverts water from Colorado River at Imperial Dam. Water is used for power development and for irrigation in Yuma, Coachella, and Imperial Valleys. Water can be released back to the river through Pilot Knob powerplant and wasteway for power, regulatory purposes, or for downstream use in Mexico. First diversion to All-American Canal began October 1938, but prior to October 1940 was used only for priming canal.

COOPERATION.--Daily discharge figures furnished by Imperial Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 14,400 ft³/s, Apr. 17, July 15, 16, 1980; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12000	12000	10300	11000	8960	12300	12000	12000	12000	12000	12100	12300
2	12000	12000	10900	11900	8980	12200	12000	12000	12000	12000	12000	12300
3	12000	12000	11000	12300	8890	12200	12100	12000	11900	11800	12000	12300
4	12000	11900	11100	12200	7700	12200	12100	12000	12000	11800	12000	12300
5	12000	11900	11400	12000	7680	12200	12200	12000	12200	11800	12000	12300
6	12000	11900	11600	11900	8470	12200	12100	12000	12100	11800	12000	12300
7	11900	12200	10900	11700	8550	12200	12000	12000	12200	12000	12000	12300
8	12000	12200	10700	12100	8120	12200	12000	12000	12100	11900	12000	12400
9	12000	12200	10700	12100	6890	12200	12000	11900	12100	11900	12000	12400
10	12000	12200	11100	12100	7710	12100	12000	11900	12100	12000	12000	12400
11	12000	11000	11100	12100	9060	12100	12000	11900	12100	12000	12100	12400
12	12000	8900	10400	11100	9050	12100	12000	12100	12000	12000	12100	12400
13	12000	8760	10600	8920	9070	12000	12000	12100	12000	12000	12100	12400
14	12100	11800	10700	8960	8980	12000	12000	12000	12000	12000	12000	12400
15	12100	12000	10200	8970	8930	12000	12000	12000	12000	12000	12000	12300
16	12100	12000	10500	8970	8980	12100	12000	12000	12000	12000	12000	12300
17	12100	12000	10900	8960	9110	12000	12000	12000	12000	11900	12000	12300
18	12100	12200	11000	8970	9110	11900	12000	12000	12000	11900	12100	12300
19	12100	12200	11100	8970	9100	12000	12000	12000	12000	11900	12200	12300
20	12100	12200	11200	8960	9110	11900	12000	12000	11900	12000	12200	12300
21	12200	12100	11200	9010	9080	12000	12000	12000	11900	12200	12200	12300
22	12200	12100	10900	9000	9080	12000	12000	12000	11800	11900	12100	12300
23	12200	12100	11100	9040	9090	11900	12000	12000	12100	9880	12100	12300
24	12100	12000	10500	8980	10100	12200	12200	12000	12100	12100	12200	12300
25	12100	11500	10400	9000	11700	12200	12200	12000	12000	12000	12200	12300
26	12100	10800	10900	9010	12300	12200	12200	12000	12000	12100	12200	12300
27	12100	10200	11000	9000	12300	12200	12200	12000	12000	12100	12200	12300
28	12000	10000	11500	8990	12300	12000	12100	12000	12000	12000	12200	12300
29	12100	10200	11300	8990	---	12000	12100	12000	12000	12000	12100	12300
30	12000	10400	12000	8970	---	12000	12100	12000	12000	12000	12100	12300
31	12000	---	11500	8980	---	12000	---	12000	---	12000	12100	---
TOTAL	373700	344960	339700	313150	258400	374800	361600	371900	360600	368980	374600	369700
MEAN	12050	11500	10960	10100	9229	12090	12050	12000	12020	11900	12080	12320
MAX	12200	12200	12000	12300	12300	12300	12200	12100	12200	12200	12200	12400
MIN	11900	8760	10200	8920	6890	11900	12000	11900	11800	9880	12000	12300
AC-FT	741200	684200	673800	621100	512500	743400	717200	737700	715200	731900	743000	733300
CAL YR	1985	TOTAL	4218630	MEAN	11560	MAX	12300	MIN	8760	AC-FT	8368000	
WCR YR	1986	TOTAL	4212090	MEAN	11540	MAX	12400	MIN	6890	AC-FT	8355000	

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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09524000 YUMA MAIN CANAL AT SIPHON-DROP POWERPLANT, NEAR YUMA, AZ

LOCATION.--Lat 32°46'36", long 114°38'05", in SE¼SE¼ sec.10, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on right bank at downstream end of powerplant, 500 ft from turnout from All-American Canal to Yuma Main Canal, 4.0 mi north of Yuma, and 14.9 mi downstream from intake of All-American Canal at Imperial Dam.

PERIOD OF RECORD.--July 1926 to current year. Prior to October 1938, monthly discharge only published in WSP 1313. Diversions from All-American Canal and Yuma Main Canal previously published with this record are listed separately in this report.

GAGE.--Water-stage recorders on two rated by-pass gates to record gate openings. Datum of gage is 136.8 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records are fair above 100 ft³/s and poor below. Discharge through bypass gates determined from relationship of forebay elevation and gate openings. Flow to Yuma Main Canal regulated by opening and closing bypass gates. Gates on All-American Canal open and close automatically to maintain a constant forebay elevation. Records of daily discharge show quantity of water diverted from All-American Canal to Yuma Main Canal, except that diverted from forebay of powerplant to Walapai Canal. (See sta 09523900.) Flow through turbines of powerplant was discontinued Dec. 8, 1972.

COOPERATION.--Gate opening changes and forebay elevations (prior to Aug. 29, 1986) furnished by Yuma County Water Users' Association.

EXTREMES.--1930 to current year: Maximum daily discharge, 2,040 ft³/s Nov. 11, 1943; no flow for several days in 1937-39, 1945.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	406	536	134	184	278	667	542	771	246	547	542	415
2	436	466	172	154	88	316	613	723	243	525	599	468
3	479	265	296	258	123	274	726	593	417	334	275	519
4	553	270	405	324	146	264	758	423	502	197	238	571
5	566	263	495	263	227	325	655	463	493	228	379	565
6	466	315	485	307	505	741	260	601	491	215	453	485
7	541	690	249	334	504	735	261	687	480	267	807	392
8	578	652	31	295	367	608	303	675	371	492	887	400
9	613	481	31	284	216	522	409	596	374	626	659	460
10	529	412	31	300	254	447	814	462	432	658	305	537
11	398	401	31	293	315	363	842	303	452	580	380	511
12	477	403	31	271	376	495	745	494	456	444	367	450
13	505	425	181	315	476	576	565	619	359	294	422	437
14	544	408	361	419	407	572	495	707	330	396	742	438
15	577	436	367	460	265	392	583	813	282	521	723	591
16	670	329	321	393	155	187	779	841	409	560	535	659
17	642	220	318	254	187	216	823	569	540	541	370	595
18	537	168	400	234	294	320	771	20	610	501	368	553
19	553	250	477	181	420	383	591	20	636	516	501	517
20	564	324	501	268	617	624	322	45	561	444	607	560
21	589	479	471	447	517	671	314	41	359	450	592	465
22	599	465	375	495	421	641	400	31	250	452	508	500
23	625	385	389	389	365	505	528	240	292	521	390	370
24	645	291	251	271	369	554	815	748	490	528	328	310
25	560	261	104	252	438	695	835	660	641	537	347	413
26	474	213	136	217	624	818	739	498	627	524	416	486
27	463	167	213	306	637	783	513	607	597	419	488	483
28	490	163	340	481	646	689	416	647	555	452	524	431
29	572	139	355	425	---	561	642	627	421	557	475	483
30	641	139	276	373	---	382	756	551	461	575	410	634
31	611	---	292	325	---	418	---	429	---	564	390	---
TOTAL	16903	10416	8519	9772	10237	15744	17815	15504	13377	14465	15027	14698
MEAN	545	347	275	315	366	508	594	500	446	467	485	490
MAX	670	690	501	495	646	818	842	841	641	658	887	659
MIN	398	139	31	154	88	187	260	20	243	197	238	310
AC-FT	33530	20660	16900	19380	20310	31230	35340	30750	26530	28690	29810	29150
CAL YR 1985	TOTAL	161891	MEAN	444	MAX	918	MIN	26	AC-FT	321100		
WTR YR 1986	TOTAL	162477	MEAN	445	MAX	887	MIN	20	AC-FT	322300		

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09525000 YUMA MAIN CANAL WASTEWAY AT YUMA, AZ

LOCATION.--Lat 32°44'00", long 114°37'20", in SW¼SE¼ sec.26, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, 45 ft downstream from wasteway gates from Yuma Main Canal which are 1,645 ft upstream from intake of Colorado River siphon on Yuma Main Canal, 0.5 mi north of Yuma, and 3.2 mi downstream from siphon-drop powerplant on Yuma Main Canal.

PERIOD OF RECORD.--April 1913 to current year. Monthly discharge only for some periods, published in WSP 1313.

GAGE.--Water-stage recorder for low flows only. Datum of gage is 122.51 ft above National Geodetic Vertical Datum of 1929. Prior to Apr. 1, 1968, gate-opening record used for low flows only.

REMARKS.--No estimated daily discharges. Records good except those below 150 ft³/s, which are fair. The wasteway discharges into Colorado River in SW¼ sec.26, T.16 S., R.22 E., 1,000 ft upstream from station on Colorado River below Yuma Main Canal wasteway at Yuma. Discharges above 100 ft³/s are generally computed as difference between discharge of Yuma Main Canal at siphon-drop powerplant and Yuma Main Canal below Colorado River siphon, with deductions for small irrigation diversions from canal between these stations. Discharges below 100 ft³/s are generally computed from stage-discharge relation. Records do not include flow of Reservation Main Drain No. 4.

EXTREMES.--1930 to current year: Maximum daily discharge, 2,020 ft³/s Dec. 24, 25, 1948; no flow for several days in 1937-39, 1945, 1950, 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	15	12	12	14	12	13	10	18	16	12	13
2	18	13	12	15	20	11	12	10	14	20	12	22
3	23	13	12	14	12	13	12	10	10	32	11	16
4	14	12	12	12	22	11	12	9.7	11	33	11	13
5	14	14	12	13	20	11	12	9.2	15	18	15	16
6	14	12	12	13	12	11	13	11	16	14	20	25
7	14	19	12	12	15	11	17	10	13	13	46	19
8	14	23	136	11	12	11	13	8.7	23	13	27	24
9	16	14	45	10	13	13	13	7.1	12	13	20	23
10	17	12	15	11	12	11	12	7.3	12	13	10	22
11	14	16	15	11	12	14	12	7.7	12	14	10	30
12	13	12	12	11	12	12	12	7.7	11	22	10	21
13	13	12	13	11	12	11	11	9.6	14	19	13	12
14	12	11	9.3	11	12	11	11	9.9	16	15	17	11
15	12	11	8.6	16	16	11	11	7.7	21	20	33	16
16	11	18	12	16	21	14	11	7.7	19	23	18	23
17	23	13	12	12	21	14	11	8.7	19	12	16	11
18	31	13	12	15	14	12	11	119	22	15	16	11
19	14	12	12	12	12	11	10	3.9	15	17	18	11
20	14	12	12	12	12	14	10	3.4	19	19	20	11
21	14	12	12	12	11	13	12	3.2	25	23	17	11
22	14	12	11	12	11	13	11	2.7	30	15	15	13
23	13	12	11	12	11	13	11	4.1	17	12	15	14
24	13	14	14	12	13	13	11	5.3	14	18	14	11
25	14	13	21	23	11	13	11	5.1	14	12	14	13
26	14	17	12	13	11	13	11	5.9	14	12	13	11
27	13	13	12	15	11	12	11	7.7	16	12	24	13
28	13	20	12	13	11	12	11	8.0	33	12	29	15
29	13	19	12	13	---	12	11	14	20	12	21	10
30	13	13	12	13	---	12	10	15	23	15	13	11
31	14	---	12	14	---	13	---	13	---	12	18	---
TOTAL	464	422	538.9	402	386	378	349	362.3	518	516	548	472
MEAN	15.0	14.1	17.4	13.0	13.8	12.2	11.6	11.7	17.3	16.6	17.7	15.7
MAX	31	23	136	23	22	14	17	119	33	33	46	30
MIN	11	11	8.6	10	11	11	10	2.7	10	12	10	10
AC-FT	920	837	1070	797	766	750	692	719	1030	1020	1090	936
CAL YR 1985	TOTAL	5167.5	MEAN	14.2	MAX	480	MIN	6.0	AC-FT	10250		
WTR YR 1986	TOTAL	5356.2	MEAN	14.7	MAX	136	MIN	2.7	AC-FT	10620		

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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09525500 YUMA MAIN CANAL BELOW COLORADO RIVER SIPHON, AT YUMA, AZ

LOCATION.--Two gages, one at each end of canal siphon passing under Colorado River. At intake, lat 32°43'49", long 114°37'09", in NE¼NE¼ sec.35, T.16 S., R.22 E., San Bernardino meridian, in California, Imperial County, Hydrologic Unit 15030107, on left bank 1,645 ft downstream from center of Yuma Main Canal wasteway gates and 3.5 mi downstream from siphon-drop power-plant. At outlet, in NW¼NE¼ sec.35, T.16 S., R.22 E., San Bernardino meridian, in Arizona, Yuma County, on right bank. Siphon crossing is 1,300 ft upstream from 4th Avenue bridge over Colorado River at Yuma.

PERIOD OF RECORD.--January 1924 to current year. Prior to October 1938, monthly discharge only published in WSP 1313. Diversion from Yuma Main Canal for municipal supply for Yuma (sta 09526000), published with this record prior to October 1973, is listed separately in this report.

REVISED RECORDS.--WSP 1713: 1958, 1959 (Yuma municipal supply).

GAGE.--Water-stage recorder at each end of siphon. Datum of each gage is 100.62 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1963, at datum 0.05 ft lower. Elevation of sill of inlet is 125.5 ft above NGVD. Prior to Oct. 29, 1938, nonrecording gages at approximately same sites, read simultaneously.

REMARKS.--No estimated daily discharges. Records good except those below 100 ft³/s, which are poor. Daily discharge computed from relation between discharge and head on siphon, which is the difference between intake and outlet gages. Records show quantity of water delivered through Colorado River siphon for irrigation in the Valley Division of the Yuma Project and for supplementary municipal supply for city of Yuma (see sta 09526000).

EXTREMES.--1930 to current year: Maximum daily discharge, 948 ft³/s Aug. 16, 1962; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	402	491	134	172	274	584	492	692	233	482	505	408
2	431	431	158	143	76	271	553	669	244	461	564	448
3	464	239	296	277	114	248	624	529	411	308	308	512
4	544	216	386	321	124	228	651	386	487	179	216	554
5	556	210	468	269	223	303	576	406	475	222	334	536
6	464	306	455	290	492	641	222	559	472	216	443	461
7	532	636	238	320	482	651	228	645	456	283	728	382
8	566	576	20	275	364	552	294	638	348	468	811	377
9	591	442	20	279	198	484	400	563	363	593	617	433
10	515	384	20	293	204	424	735	422	424	605	317	514
11	400	369	20	292	268	348	750	298	440	508	346	472
12	469	385	20	244	342	478	669	460	418	398	348	420
13	498	405	20	295	450	537	507	560	336	285	404	426
14	536	384	367	369	382	528	413	655	295	397	652	421
15	558	409	361	414	233	366	520	729	228	494	643	502
16	633	308	306	351	114	165	696	756	401	541	507	586
17	606	186	305	210	165	198	745	562	483	518	378	568
18	496	143	376	198	288	321	675	60	571	465	340	529
19	545	244	460	172	394	364	537	16	574	483	464	493
20	557	318	465	244	584	581	296	42	465	420	574	535
21	574	454	434	407	496	610	276	38	313	410	571	449
22	578	429	358	470	417	588	359	28	204	442	499	452
23	591	364	338	367	345	472	494	126	297	504	397	368
24	617	272	198	244	331	522	762	707	463	507	313	309
25	552	228	89	228	405	649	748	670	599	524	341	386
26	471	186	134	192	574	744	647	487	573	511	393	465
27	463	158	192	308	577	712	468	578	532	416	451	457
28	500	143	337	455	585	634	392	588	473	448	439	404
29	558	124	319	408	---	511	609	566	367	526	428	455
30	613	134	244	352	---	341	697	520	410	538	412	587
31	576	---	291	300	---	372	---	410	---	521	371	---
TOTAL	16456	9574	7829	9159	9501	14427	16035	14365	12355	13673	14114	13909
MEAN	531	319	253	295	339	465	534	463	412	441	455	464
MAX	633	636	468	470	585	744	762	756	599	605	811	587
MIN	400	124	20	143	76	165	222	16	204	179	216	309
AC-FT	32640	18990	15530	18170	18850	28620	31810	28490	24510	27120	28000	27590
CAL YR 1985	TOTAL	153564	MEAN	421	MAX	807	MIN	20	AC-FT	304600		
WTR YR 1986	TOTAL	151397	MEAN	415	MAX	811	MIN	16	AC-FT	300300		

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

09527000 PILOT KNOB POWERPLANT AND WASTEWAY NEAR PILOT KNOB, CA

LOCATION.--Lat 32°44'15", long 114°42'56", in NW¼SW¼ sec.25, T.16 S., R.21 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 2 mi east of summit of Pilot Knob, 6 mi west of Yuma, AZ, and 20.8 mi downstream from intake of All-American Canal at Imperial Dam.

PERIOD OF RECORD.--February 1939 to current year. Prior to October 1943 monthly discharge only, published in WSP 1313. Prior to October 1956, published as Pilot Knob wasteway near Pilot Knob.

GAGE.--Water-stage recorder in forebay on right bank of All-American Canal (also used as auxiliary gage for sta 09527500); tailrace gage with remote recorder logged hourly in control house; calibrated wicket gates for turbine flow and calibrated bypass gates for wasteway flow which are logged for each change. Datum of forebay staff gage is 150.00 ft; that of tailrace staff gage is 0.00 ft; elevation of sill of bypass gates is 147.88 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Daily discharge computed from head and gate openings on wicket gates. Records show water released through Pilot Knob powerplant and wasteway from All-American Canal and returned to Colorado River through Rockwood gates. Pilot Knob wasteway was completed in summer of 1938 and first flow occurred Feb. 5, 1939. Pilot Knob powerplant was completed in January 1957 and first flow occurred Jan. 14, 1957. See table below for monthly return flow by Pilot Knob wasteway only.

COOPERATION.--Daily discharges furnished by Imperial Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 9,930 ft³/s Dec. 6, 1985; no flow for long periods.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8060	7570	9390	9100	6560	6480	5780	4240	7070	5670	5400	7530
2	7520	7840	9490	9120	7220	7600	5500	4470	6630	5550	6050	7120
3	7560	8230	9580	8780	6370	6850	5410	4630	6200	5700	6300	7310
4	7750	8140	9620	8480	4710	6630	5980	5470	5740	6530	5840	7030
5	7590	7850	9700	9060	4600	6660	6280	5170	5730	6250	5850	7120
6	7740	7860	9930	9300	4600	6170	6760	5080	6140	7170	6200	7250
7	7030	7540	9600	9280	4580	6480	6360	5120	6650	6580	5710	7350
8	6940	7670	9600	9300	4590	7070	5770	5550	6930	5970	5850	7120
9	7230	8200	9310	8570	4610	7280	5070	5700	6810	5630	6470	6960
10	7690	8590	9000	8150	4910	7100	4270	6340	6490	5660	7110	6830
11	8690	7260	8990	8530	6280	8120	4720	6760	6240	5980	6220	6950
12	8490	4860	9000	7820	5980	7530	5570	5940	6010	6380	6640	7170
13	8440	5140	9010	5720	6110	7060	6710	5340	6290	6550	6590	7440
14	8110	8330	9020	5160	6290	7130	6310	5330	6360	5790	5880	7360
15	7570	8520	9000	5420	6840	7770	6290	5230	6730	5630	6100	6840
16	7280	8860	9120	5520	7610	7970	6220	5450	6230	5800	6610	6660
17	7560	9130	9130	5960	6900	7500	4870	6260	5920	5820	7000	6620
18	7660	8940	9120	6060	6600	6690	4950	7270	5360	6060	6540	6720
19	7700	8600	9100	6090	6120	6280	5490	6560	5560	6510	6530	6950
20	8130	8510	9130	5760	5470	6050	5960	6380	6060	6750	5990	6810
21	7520	8350	9110	5360	4720	5670	5020	6280	6380	6220	6120	6920
22	7340	8560	9100	5480	4670	5750	4460	6220	6740	6520	6660	6480
23	7330	8860	9160	5320	4950	6240	4340	6190	5940	5760	6870	6770
24	7250	9390	9170	5440	5600	5610	4100	6420	5500	7310	7280	7070
25	7410	9180	9150	5660	6510	4840	4370	6710	5540	6860	7100	6790
26	7670	9390	9160	6160	6780	4600	4870	6400	5580	7030	7500	6760
27	7850	9380	9170	5650	6410	4560	6290	5820	6380	7460	7450	7080
28	7350	9410	9170	5280	6310	5150	5700	5790	6380	6760	7030	7290
29	7290	9410	9170	5290	---	6360	4830	5680	6210	6340	7220	6680
30	7090	9430	9160	5360	---	7550	4240	6160	5940	5440	7640	6390
31	7100	---	9120	6400	---	6560	---	6680	---	5170	8120	---
TOTAL	235940	249000	286480	212580	162900	203310	162490	180640	185740	192850	203870	209370
MEAN	7611	8300	9241	6857	5818	6558	5416	5827	6191	6221	6576	6979
MAX	8690	9430	9930	9300	7610	8120	6760	7270	7070	7460	8120	7530
MIN	6940	4860	8990	5160	4580	4560	4100	4240	5360	5170	5400	6390
AC-FT	468000	493900	568200	421700	323100	403300	322300	358300	368400	382500	404400	415300
(*)	0	56	894	49400	49700	0	0	0	403	0	0	194
CAL YR 1985	TOTAL	2448480	MEAN	6708	MAX	9930	MIN	3770	AC-FT	4857000	(*)	140000
WTR YR 1986	TOTAL	2485170	MEAN	6809	MAX	9930	MIN	4100	AC-FT	4929000	(*)	100650

* Return flow, in acre-feet, by Pilot Knob Wasteway (included in daily discharge table).

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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09527500 ALL-AMERICAN CANAL BELOW PILOT KNOB WASTEWAY, CA

LOCATION.--Lat 32°44'07", long 114°43'23", in NW¼SE¼ sec.26, T.16 S., R.21 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, on left bank 0.4 mi downstream from Pilot Knob wasteway, 6 mi west of Yuma, Ariz., 15 mi upstream from turnout to Coachella Canal, and 21.2 mi downstream from intake at Imperial Dam.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Datum of gage is 150.00 ft above National Geodetic Vertical Datum of 1929. Auxiliary water-stage recorder on right bank 0.4 mi upstream used to determine head on Pilot Knob check gates (also used as forebay gage for sta 09527000, Pilot Knob powerplant and wasteway). Datum of auxiliary gage is 150.00 ft above NGVD.

REMARKS.--No estimated daily discharges. Records excellent. Water is used for power development at four sites below station and for irrigation in Coachella and Imperial Valleys.

COOPERATION.--Daily discharges furnished by Imperial Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,610 ft³/s Apr. 27, 28, 1976; no flow Jan. 4, 1967.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3260	3610	704	1450	1950	5090	5480	6730	4560	5650	5890	4090
2	3900	3430	1070	2230	1500	4270	5670	6580	4890	5720	5390	4530
3	3780	3170	1060	2670	2310	4800	5780	6510	5170	5630	5350	4310
4	3520	3280	1100	3040	2770	4990	5270	5920	5570	5010	5830	4520
5	3670	3600	1150	2360	2700	4960	5120	6210	5730	5190	5650	4480
6	3600	3580	1170	2170	3250	5070	4910	6140	5410	4400	5330	4400
7	4210	3860	1160	1970	3400	4890	5160	6140	5000	5040	5480	4390
8	4310	3890	1100	2330	3140	4390	5690	5720	4820	5400	5310	4520
9	4040	3490	1150	3030	1840	4220	6290	5670	4760	5610	4940	4650
10	3690	2980	1560	3740	2200	4400	6690	5200	5070	5680	4610	4710
11	2550	3460	1570	3280	2340	3210	6280	4860	5280	5500	5280	4700
12	2810	3460	1030	3170	2580	3760	5670	5590	5400	5210	4990	4540
13	2870	2950	1010	3000	2280	4260	4710	6030	5270	5160	4950	4270
14	3210	2900	1080	3480	2070	4200	4790	5980	5230	5760	5240	4280
15	3770	2860	639	3150	1550	3560	4740	5940	4950	5810	5080	4730
16	4040	2450	790	3090	980	3470	4620	5790	5200	5670	4750	4840
17	3840	2440	1170	2670	1740	3930	5750	5180	5400	5580	4480	4670
18	3780	2680	1200	2500	2020	4720	5730	4570	5840	5460	5020	4790
19	3670	2950	1320	2570	2440	5070	5450	5300	5660	5010	5090	4660
20	3200	3080	1430	2830	2870	5150	5210	5430	5250	4840	5470	4770
21	3750	3080	1430	3130	3740	5460	6380	5550	5070	5320	5400	4750
22	3960	2850	1230	2910	3910	5420	6740	5580	4770	4990	4990	5060
23	3980	2630	1430	3290	3770	5130	6800	5460	5650	4050	4820	4910
24	3980	2150	1070	3210	3900	5900	6930	4900	5880	4160	4490	4750
25	3900	1810	1100	3020	4530	6480	6680	4690	5750	4520	4650	4860
26	3680	1160	1600	2590	4770	6630	6360	4980	5660	4440	4250	4870
27	3570	700	1530	2900	5070	6530	5350	5480	5030	4140	4210	4590
28	3940	464	1930	3200	5210	5950	5820	5490	5020	4680	4570	4350
29	3940	613	1740	3180	---	5130	6380	5530	5260	5040	4430	4860
30	4100	673	2240	3180	---	3960	6770	5200	5470	5860	4040	5070
31	4050	---	1860	2070	---	4880	---	4980	---	6150	3610	---
TOTAL	114580	80250	39623	87410	80830	149880	173220	173330	158020	160680	153590	138920
MEAN	3696	2675	1278	2820	2887	4835	5774	5591	5267	5183	4955	4631
MAX	4510	3890	2240	3740	5210	6630	6930	6730	5880	6150	5890	5070
MIN	2550	464	639	1450	980	3210	4620	4570	4560	4050	3610	4090
AC-FT	227300	159200	78590	173400	160300	297300	343600	343800	313400	318700	304600	275500
CAL YR	1985	TOTAL	1519760	MEAN	4164	MAX	7060	MIN	464	AC-FT	3014000	
WTR YR	1986	TOTAL	1510330	MEAN	4138	MAX	6930	MIN	464	AC-FT	2996000	

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Return surface flows below Imperial Dam, AZ-CA

095250000. YUMA MAIN CANAL WASTEWAY.--See p. 268.

095270000. PILOT KNOB POWERPLANT AND WASTEWAY.--See p. 270.

09527900. MITTRY LAKE OUTLET CHANNEL.

LOCATION.--Water-stage recorder and sharp-crested weir, in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.14, T.7 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 1,000 ft upstream from outlet to Colorado River and Laguna Dam.

PERIOD OF RECORD.--October 1974 to May 1983, April 1985 to current year (monthly discharge only).

REMARKS.--Record shows return flow to Colorado River from Mittry Lake.

09528600. LAGUNA CANAL WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.14, T.7 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 1,000 ft downstream from Laguna Dam and 0.7 mi upstream from outlet to Colorado River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

09528800. LEVEE CANAL WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 1,000 ft upstream from outlet to Colorado River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

09529000. NORTH GILA DRAIN NO. 1.

LOCATION.--Water-stage recorder, in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.4, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15030107, 0.25 mi upstream from outlet to Colorado River and 5.5 mi downstream from Laguna Dam.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

09529050. NORTH GILA DRAIN NO. 3.

LOCATION.--Drain enters wasteway to Gila River in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.18, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, 1,000 ft upstream from Gila River.

PERIOD OF RECORD.--April 1962 to current year (monthly discharge only).

REMARKS.--Record shows seepage from Gila Gravity Main Canal.

09529100. FORTUNA WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in NE $\frac{1}{4}$ sec.30, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, 1.3 mi upstream from Gila River.

PERIOD OF RECORD.--October 1960 to September 1963, October 1964 to current year (monthly discharge only).

REMARKS.--Record shows waste water spilled from Gila Gravity Main Canal; flow rarely reaches Gila River.

09529150. NORTH GILA MAIN CANAL WASTEWAY.

LOCATION.--Water-stage recorder, in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.22, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 1,000 ft upstream from outlet to Gila River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

09529160. SOUTH GILA PUMP OUTLET CHANNEL NO. 3.

LOCATION.--In NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.22, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.5 mi upstream from outlet to Gila River.

PERIOD OF RECORD.--January 1965 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells in South Gila Valley.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

Return surface flows below Imperial Dam, AZ-CA--Continued

09529200. BRUCE CHURCH DRAIN.

LOCATION.--At culvert in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.21, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.2 mi upstream from outlet to Gila River.

PERIOD OF RECORD.--April 1962 to current year (monthly discharge only).

REMARKS.--Record shows seepage water from parts of secs. 15, 16, and 21 (Bruce Church Ranch).

09529240. SOUTH GILA PUMP OUTLET CHANNEL NO. 2.

LOCATION.--In SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.28, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.6 mi upstream from outlet to Gila River.

PERIOD OF RECORD.--January 1962 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells in South Gila Valley.

COOPERATION.--Record furnished by U.S. Bureau of Reclamation.

09529250. BRUCE CHURCH WASTEWAY.

LOCATION.--Water-stage recorder and sharp-crested weir, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.20, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 500 ft upstream from outlet to Gila River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows waste water from North Gila Valley Irrigation District.

09529300. WELLTON-MOHAWK MAIN OUTLET DRAIN (CONVEYANCE CHANNEL).

LOCATION.--Water-stage recorder and Parshall flume in NE $\frac{1}{4}$ NW $\frac{1}{4}$ sec.17, T.8 S., R.21 W., Yuma County, Hydrologic Unit 15070201, 7.8 mi upstream from outlet to Gila River (M.O.D.E. 1), which is 0.6 mi upstream from mouth of Gila River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from numerous wells in Wellton-Mohawk Irrigation and Drainage District to lower the water table. Flow can be discharged to the Gila River or Colorado River by any one of or combination of four outlets. These outlets are: M.O.D.E. 1 (release to Gila River about 7.8 mi below station); an overflow flume about 11.3 mi below station releases water to Colorado River; M.O.D.E. 2 (see sta 09531800) releases water to Colorado River above Morelos Dam; and M.O.D.E. 3 (see sta 09531900) releases water to Colorado River below Morelos Dam.

09529360. SOUTH GILA PUMP OUTLET CHANNEL NO. 1.

LOCATION.--In SW $\frac{1}{4}$ NE $\frac{1}{4}$ sec.30, T.8 S., R.22 W., Yuma County, Hydrologic Unit 15070201, 0.2 mi upstream from outlet to Gila River, which is 0.6 mi upstream from mouth of Gila River.

PERIOD OF RECORD.--August 1961 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells in South Gila Valley.

COOPERATION.--Record furnished by U.S. Bureau of Reclamation.

09529400. SOUTH GILA DRAIN NO. 2.

LOCATION.--Near center of sec.24, T.8 S., R.23 W., Yuma County, Hydrologic Unit 15030107, at outlet to Colorado River.

PERIOD OF RECORD.--October 1960 to current year (monthly discharge only).

REMARKS.--Record shows ground-water drainage and occasional waste water from South Gila Valley.

09529420. SOUTH GILA TERMINAL WASTEWAY.

LOCATION.--Water-stage recorder and Parshall flume, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.36, T.8 S., R.23 W., Yuma County, Hydrologic Unit 15030107, 2.0 mi upstream from outlet to Colorado River.

PERIOD OF RECORD.--March 1965 to current year (monthly discharge only).

REMARKS.--Record shows waste water from South Gila Canal of South Gila Valley.

09529440. SOUTH GILA PUMP OUTLET CHANNEL NO. 4.

LOCATION.--In NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.26, T.8 S., R.23 W., Yuma County, Hydrologic Unit 15030107, 1.5 mi upstream from outlet to Colorado River.

PERIOD OF RECORD.--July 1965 to current year (monthly discharge only).

REMARKS.--Records show water pumped from wells in South Gila Valley.

COOPERATION.--Records furnished by U.S. Bureau of Reclamation.

Return surface flows below Imperial Dam, AZ-CA--Continued

09529600. RESERVATION DRAIN NO. 7.

LOCATION.--At downstream end of culvert on State Road 24, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.33, T.15 S., R.23 E., San Bernardino Meridian, Imperial County, Hydrologic Unit 15030107, 0.5 mi upstream from outlet to Reservation Main Drain.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage water from sec.34, T.15 S., R.23 E., in Reservation Division.

09529700. RESERVATION MAIN DRAIN NO. 6.

LOCATION.--Nonrecording gage on upstream right piling of Stallnacker Road Bridge, SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.32, T.15 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows waste and drainage water from the Reservation Division.

09529800. RESERVATION DRAIN NO. 2.

LOCATION.--At upstream side of bridge on White Road, in SW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.6, T.16 S., R.23 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 0.9 mi upstream from outlet to Reservation Main Drain.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage water from sec.31, T.15 S., R.22 E., in Reservation Division.

09529900. RESERVATION DRAIN NO. 3.

LOCATION.--At Jackson Road Bridge, in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec.10, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 1.0 mi upstream from outlet to Reservation Main Drain.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage water from Reservation Division upstream from Yuma Main Canal.

09530000. RESERVATION MAIN DRAIN NO. 4.

LOCATION.--Water-stage recorder in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec.26, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 500 ft upstream from railroad culvert.

PERIOD OF RECORD.--January 1913 to April 1920, October 1921 to March 1925, January 1934 to current year (monthly discharge only) (calendar year discharge only 1934-36). Prior to October 1955, published as California drainage canal.

REMARKS.--Record shows waste and drainage water from area east of Yuma Main Canal on Reservation Division.

09530200. YUMA MESA OUTLET DRAIN.

LOCATION.--In SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec.28, T.16 S., R.22 E., San Bernardino meridian, Yuma County in Arizona, Hydrologic Unit 15030108, 0.3 mi from outlet to Colorado River.

PERIOD OF RECORD.--July 1970 to current year (monthly discharge only).

REMARKS.--Record shows water pumped from wells on the Yuma Mesa and conveyed by underground conduit to Colorado River.

COOPERATION.--Records furnished by Bureau of Reclamation.

09530400. RESERVATION DRAIN NO. 11.

LOCATION.--At outlet to Drain 8-B, in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.19, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107.

PERIOD OF RECORD.--March 1966 to current year (monthly discharge only).

REMARKS.--Record shows drainage from sec.20, T.16 S., R.22 E. in Reservation Division.

09530500. DRAIN 8-B.

LOCATION.--Enters Colorado River in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec.19, T.16 S., R.22 E., San Bernardino meridian, Imperial County, Hydrologic Unit 15030107, 4 mi downstream from outlet of Yuma Main Canal wasteway.

PERIOD OF RECORD.--March 1948 to current year (monthly discharge only). Prior to October 1955, published as Araz Drain.

REMARKS.--Record shows waste and drainage water west of Yuma Main Canal on the Reservation Division.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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Return surface flows below Imperial Dam, AZ-CA--Continued

09531800. MAIN OUTLET DRAIN EXTENSION ABOVE MORELOS DAM (M.O.D.E. 2).

LOCATION.--Water-stage recorder and Parshall flume, in NW $\frac{1}{4}$ NW $\frac{1}{4}$ sec.36, T.16 S., R.21 E., San Bernardino meridian, Yuma County in Arizona, Hydrologic Unit 15030107, at outlet to Colorado River, 1.7 mi upstream from Morelos Dam.

PERIOD OF RECORD.--November 1965 to current year (monthly discharge only).

REMARKS.--Record shows water conveyed to Colorado River, 1.7 mi above Morelos Dam, from Wellton-Mohawk Main Outlet Drain (see sta 09529300).

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

Return surface flows below Imperial Dam, AZ-CA--Continued

MONTHLY RETURN FLOWS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Mittry Lake Outlet Channel 09527900	Laguna Canal wasteway 09528600	Levee Canal wasteway 09528800	North Gila Drain No. 1 09529000	North Gila Drain No. 3 09529050	Fortuna wasteway 09529100
October	1,130	0	399	579	0	189
November	770	0	530	402	0	62
December	1,010	0	518	401	0	58
CAL YR 1985	---	13	3,880	5,800	0	1,470
January	1,230	0	474	334	0	101
February	1,100	0	397	376	0	59
March	873	0	344	419	0	133
April	1,300	0	396	549	0	46
May	1,300	0	294	681	0	43
June	1,240	0	333	598	0	104
July	978	.2	393	521	0	98
August	1,240	1.1	233	507	0	102
September	1,180	2.8	295	588	0	146
WTR YR 1986	13,350	4.1	4,610	5,960	0	1,140

Month	North Gila Main Canal wasteway 09529150	South Gila Pump Outlet Channel No. 3 09529160	Bruce Church Drain 09529200	South Gila Pump Outlet Channel No. 2 09529240	Bruce Church wasteway 09529250
October	432	633	40	980	296
November	353	1,270	14	1,870	339
December	245	1,380	6.1	1,540	336
CAL YR 1985	2,340	12,170	594	16,700	2,600
January	199	1,160	6.1	1,510	315
February	176	500	13	1,260	224
March	204	627	34	1,540	125
April	158	704	44	1,560	105
May	274	875	43	1,840	146
June	340	893	31	1,720	281
July	225	839	26	1,950	324
August	165	879	18	1,770	207
September	386	649	11	1,750	217
WTR YR 1986	3,160	10,410	286	19,280	2,910

Month	Wellton-Mohawk Main Outlet Drain 09529300	South Gila Pump Outlet Channel No. 1 09529360	South Gila Drain No. 2 09529400	South Gila Terminal wasteway 09529420	South Gila Pump Outlet Channel No. 4 09529440
October	9,720	1,650	13	108	661
November	9,770	2,310	6.0	64	774
December	10,020	2,320	6.1	50	787
CAL YR 1985	121,000	22,780	296	838	8,730
January	9,920	2,680	6.1	45	246
February	8,930	1,410	5.6	55	222
March	10,310	2,000	6.1	55	307
April	9,720	1,660	6.0	76	712
May	10,230	2,090	6.1	91	849
June	9,020	2,060	6.0	74	774
July	8,610	2,180	6.1	32	783
August	9,020	2,120	6.1	81	492
September	9,080	1,730	6.0	105	424
WTR YR 1986	114,400	24,210	79	835	7,030

NOTE.--Yearly totals given above have been computed from total cfs-days and may differ slightly from the summation of monthly total acre-feet on occasion.

DIVERSIONS AND RETURN FLOWS AT AND BELOW IMPERIAL DAM

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Return surface flows below Imperial Dam, AZ-CA--Continued

MONTHLY RETURN FLOWS, IN ACRE-FEET, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

Month	Reservation Drain No. 7 09529600	Reservation Main Drain No. 6 09529700	Reservation Drain No. 2 09529800	Reservation Drain No. 3 09529900	Reservation Main Drain No. 4 09530000	Yuma Mesa Outlet Drain 09530200
October	123	1,640	60	539	5,210	1,190
November	119	1,710	54	517	4,950	2,250
December	135	1,540	41	482	4,550	2,450
CAL YR 1985	1,460	17,240	409	4,600	49,090	29,250
January	141	1,410	34	409	4,030	1,450
February	128	1,250	31	364	3,830	1,560
March	156	1,650	49	440	5,250	1,770
April	175	1,610	42	446	5,220	2,360
May	184	1,690	46	497	4,780	3,130
June	179	1,570	52	505	4,590	1,120
July	184	1,620	64	569	4,930	1,820
August	165	1,640	73	615	5,400	1,740
September	133	1,580	78	633	4,610	2,270
WTR YR 1986	1,820	18,920	623	6,020	57,370	23,080

Month	Reservation Drain No. 11 09530400	Drain 8-B 09530500	M.O.D.E. 2 (above Morelos Dam) 09531800
October	119	970	41
November	99	978	1.5
December	101	849	2.2
CAL YR 1985	1,320	8,760	1,480
January	92	724	0
February	78	666	47
March	94	795	1.4
April	101	841	4.3
May	107	912	.6
June	115	932	0
July	124	1,060	0
August	129	1,010	0
September	125	1,120	0
WTR YR 1986	1,280	10,860	98

NOTE.--Yearly totals given above have been computed from total cfs-day and may differ slightly from the summation of monthly total acre-feet on occasion.

RIO SONOYTA BASIN

SAN SIMON WASH BASIN

09535100 SAN SIMON WASH NEAR PISINIMO, AZ

LOCATION.--Lat 32°02'39", long 112°22'13", in SE¼ sec.9, T.16 S., R.1 W. (unsurveyed), Pima County, Hydrologic Unit 15080101, in Tohono O'Odham Indian Reservation, on the right bank about 100 ft downstream from road, just upstream from Gu Vo Wash, and 3.2 mi west of Pisinimo.

DRAINAGE AREA.--569 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,830 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 10-17 and Jan. 16-21. Records good.

AVERAGE DISCHARGE.--14 years, 4.01 ft³/s, 2,910 acre-ft/yr; median of yearly mean discharges, 2.7 ft³/s, 2,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,500 ft³/s Sept. 24, 1976, gage height, 10.82 ft, from rating curve extended above 1,700 ft³/s on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 500 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 21	unknown	*943	*7.15	Aug. 26	2000	805	6.91
Aug. 21	2200	756	6.82				

No flow for most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
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	1.5
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.11
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	.26	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	2.0	.00	.00	.00	.00	.84	.00	.00	.00	.00	.29	.00
11	5.0	.00	2.7	.00	.00	6.2	.00	.00	.00	.00	.57	.00
12	1.0	.21	1.3	.00	.00	.59	.00	.00	.00	.00	.00	.00
13	.00	.00	.32	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	7.7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	6.9	.00	.00	.00	.00	.70	.00	.00	.00	.00	.00	.00
18	.19	.00	.00	.00	.00	.29	.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	30	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	398	200	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	42	116	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.78	1.1	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	.50	.00
25	.00	19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	4.2	.00	.00	.00	.00	.00	.00	.00	.00	228	.00
27	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00	20	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.1	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	78	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	11	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	3.8	---
TOTAL	22.79	23.45	4.32	.00	.00	8.62	.00	.00	.00	470.79	660.62	2.61
MEAN	.74	.78	.14	.00	.00	.28	.00	.00	.00	15.2	21.3	.087
MAX	7.7	.19	2.7	.00	.00	6.2	.00	.00	.00	398	228	1.5
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	45	47	8.6	.0	.0	17	.0	.0	.0	934	1310	5.2

CAL YR	1985	TOTAL	250.40	MEAN	.69	MAX	165	MIN	.00	AC-FT	497
WTR YR	1986	TOTAL	1193.20	MEAN	3.27	MAX	398	MIN	.00	AC-FT	2370

RIO SONOYTA BASIN

279

SAN SIMON WASH BASIN

09535300 VAMORI WASH AT KOM VO, AZ

LOCATION.--Lat 31°57'04", long 112°20'50", in NW¼ sec.14, T.17 S., R.1 W (unsurveyed), Pima County, Hydrologic Unit 15080101, in Tohono O'odham Indian Reservation, on right bank 200 ft downstream from road crossing, 0.6 mi south of Kom Vo (Santa Cruz Village) and 5 mi upstream from mouth.

DRAINAGE AREA.--1,250 mi², approximately, of which about 250 mi² is in Mexico.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Elevation of gage is 1,770 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 17, Sept. 4-7, 10-30. Records fair.

AVERAGE DISCHARGE.--14 years, 11.6 ft³/s, 8,400 acre-ft/yr; median of yearly mean discharges, 8.7 ft³/s, 6,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,400 ft³/s Oct. 3, 1983, gage height, 10.54 ft, from rating curve extended above 550 ft³/s on basis of slope-area measurement of peak flow; no flow for most of each year.

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

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
July 22	1030	621	8.47	Aug. 29	2015	*960	*9.03
Aug. 21	1900	549	8.31				

No flow for most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
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	18
2	.00	.00	.00	.00	12	.00	.00	.00	.00	.00	.00	6.6
3	.00	.00	.00	.00	8.2	.00	.00	.00	.00	.00	16	.50
4	.00	.00	.00	.00	5.6	.00	.00	.00	.00	.00	55	.00
5	.00	.00	.00	.00	3.0	.00	.00	.00	.00	.00	14	.00
6	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	4.5	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	24	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	15	5.1
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.6	6.5
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.3	.00
11	.00	.00	14	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	11	.00	.00	.00	.00	.00	.00	.00	26	.00
13	.00	.00	13	.00	.00	.00	.00	.00	.00	.00	41	.00
14	.00	.00	4.4	.00	.00	.00	.00	.00	.00	.00	18	.00
15	.00	.00	1.9	.00	.00	.00	.00	.00	.00	.00	7.6	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.1	.00
17	40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	98	.00	.00	.00	.00	.00	.00	.00	.00	6.8	.00	.00
19	14	.00	.00	.00	.00	.00	.00	.00	.00	10	.00	.00
20	2.8	.00	.00	.00	.00	.00	.00	.00	.00	2.4	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	56	105	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	307	21	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	50	7.3	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	9.6	12	.00
25	.00	11	.00	.00	.00	.00	.00	.00	.00	7.6	13	.00
26	.00	7.9	.00	.00	.00	.00	.00	.00	.00	.50	30	.00
27	.00	17	.00	.00	.00	.00	.00	.00	.00	.00	78	.00
28	.00	4.4	.00	.00	.00	.00	.00	.00	.00	.00	109	.00
29	.00	.80	.00	.00	---	.00	.00	.00	.00	.00	336	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	154	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	168	---
TOTAL	154.80	41.10	44.30	.00	28.83	.00	.00	.00	.00	449.90	1266.40	36.70
MEAN	4.99	1.37	1.43	.00	1.03	.00	.00	.00	.00	14.5	40.9	1.22
MAX	98	17	14	.00	12	.00	.00	.00	.00	307	336	18
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	307	82	88	.0	57	.0	.0	.0	.0	892	2510	73

CAL YR	1985	TOTAL	968.17	MEAN	2.65	MAX	229	MIN	.00	AC-FT	1920
WTR YR	1986	TOTAL	2022.03	MEAN	5.54	MAX	336	MIN	.00	AC-FT	4010

RIO SONOYTA BASIN

SAN SIMON WASH BASIN

09535300 VAMORI WASH AT KOM VO, AZ--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1978 to September 1986 (discontinued).

INSTRUMENTATION.--Automatic pumping sampler October 1980 to September 1981.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	
JUL 1986 21...	1350	42	150	8.30	27.0	24.0	710	711	4.6	59	K50000	
AUG 13...	1255	47	150	8.10	38.0	30.5	1100	706	6.0	87	25000	
DATE	TIME	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	BICAR- BONATE IT-FLD (MG/L HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)
JUL 1986 21...	K20000	54	0	17	2.8	7.1	0.4	8.9	85	0	68	
AUG 13...	29000	59	0	18	3.3	4.7	0.3	9.4	92	0	76	
DATE	TIME	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, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
JUL 1986 21...	9.7	3.4	0.10	7.5	120	100	0.16	0.560	0.070	0.630	0.060	
AUG 13...	8.3	2.2	0.10	12	103	100	0.14	0.320	0.050	0.370	0.060	
DATE	TIME	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	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)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	
JUL 1986 21...	0.050	1.2	1.3	0.400	0.230	0.190	0.58	90	3	46		
AUG 13...	0.030	1.5	1.6	0.290	0.280	0.230	0.71	120	3	52		
DATE	TIME	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)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	
JUL 1986 21...	0.6	1	<1	<3	14	79	<5	10	4	0.1		
AUG 13...	<0.5	<1	<1	<3	20	82	<5	11	4	<0.1		
DATE	TIME	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)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)	
JUL 1986 21...	<10	3	<1	<1	210	12	17	87	1780	202		
AUG 13...	<10	11	<1	<1	230	10	12	93	1090	138		

K Based on non-ideal colony count.

< Actual value is known to be less than value shown.

RIO SONOYTA BASIN

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09535900 QUITOBAQUITO SPRING NEAR LUKEVILLE, AZ

LOCATION.--Lat 31°56'37", long 113°01'10", in SE¼, sec.18, T.17 S., R.7 W. (unsurveyed), Pima County, Hydrologic Unit 15080102, in Organ Pipe Cactus National Monument, in spring outlet channel 50 ft downstream from first source, 500 ft downstream from second source, and 12.8 mi northwest of Lukeville.

PERIOD OF RECORD.--September 1917 (one discharge measurement, published in WSP 499), October 1981 to current year. Gage-heights and discharge measurements collected at this site, January 1974 to May 1976, are in the files of the National Park Service.

GAGE.--Water-stage recorder and V-notch weir. Elevation of gage is 1,080 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Record is for flow from the two principal spring openings. Numerous small spring openings in the area discharge downstream from the gage.

COOPERATION.--Channel upstream is maintained by National Park Service to prevent flow from bypassing gage.

AVERAGE DISCHARGE.--5 years, 0.068 ft³/s, 49 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 0.33 ft³/s Sept. 29, 1983, gage height, 1.51 ft, includes local runoff; minimum, 0.02 ft³/s Aug. 18, 1983, gage height, 1.25 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 0.16 ft³/s Oct. 16, 1300 hours, gage height, 1.42 ft, includes local runoff; minimum, 0.03 ft³/s July 8-30 and Sept. 26, 27, gage height, 1.28 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.06	.07	.07	.07	.06	.07	.07	.06	.07	.05	.06	.07
2	.06	.07	.07	.07	.07	.06	.07	.06	.07	.05	.06	.07
3	.06	.07	.07	.07	.07	.06	.07	.06	.07	.04	.06	.07
4	.06	.07	.07	.07	.07	.06	.07	.06	.07	.04	.06	.07
5	.06	.07	.07	.07	.07	.06	.07	.06	.06	.04	.06	.07
6	.06	.07	.07	.07	.07	.06	.07	.06	.06	.04	.05	.07
7	.06	.07	.07	.07	.07	.06	.07	.06	.06	.04	.05	.07
8	.06	.07	.07	.07	.07	.06	.07	.06	.06	.04	.05	.05
9	.06	.07	.07	.07	.07	.06	.07	.06	.06	.03	.07	.04
10	.07	.07	.07	.07	.07	.06	.07	.06	.06	.03	.07	.04
11	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
12	.07	.08	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
13	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
14	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
15	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
16	.08	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
17	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
18	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
19	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
20	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
21	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
22	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
23	.07	.07	.07	.07	.07	.07	.07	.06	.06	.03	.07	.04
24	.07	.07	.07	.07	.07	.07	.07	.07	.06	.03	.07	.04
25	.07	.07	.07	.07	.07	.07	.07	.07	.06	.03	.07	.04
26	.07	.07	.07	.07	.07	.07	.07	.07	.06	.03	.08	.04
27	.07	.07	.07	.07	.07	.07	.06	.07	.06	.03	.07	.04
28	.07	.07	.07	.07	.07	.07	.06	.07	.05	.03	.07	.04
29	.07	.07	.07	.07	---	.07	.06	.07	.05	.03	.07	.04
30	.07	.07	.07	.06	---	.07	.06	.07	.05	.05	.07	.04
31	.07	---	.07	.06	---	.07	---	.07	---	.07	.07	---
TOTAL	2.09	2.11	2.17	2.15	1.95	2.08	2.06	1.94	1.81	1.09	2.07	1.42
MEAN	.067	.070	.070	.069	.070	.067	.069	.063	.060	.035	.067	.047
MAX	.08	.08	.07	.07	.07	.07	.07	.07	.07	.07	.08	.07
MIN	.06	.07	.07	.06	.06	.06	.06	.06	.05	.03	.05	.04
AC-FT	4.1	4.2	4.3	4.3	3.9	4.1	4.1	3.8	3.6	2.2	4.1	2.8
CAL YR	1985	TOTAL	26.43	MEAN	.072	MAX	.09	MIN	.06	AC-FT	52	
WTR YR	1986	TOTAL	22.94	MEAN	.063	MAX	.08	MIN	.03	AC-FT	46	

SULPHUR SPRING VALLEY

WHITEWATER DRAW BASIN

09537200 LESLIE CREEK NEAR McNEAL, AZ

LOCATION.--Lat 31°35'24", long 109°30'30", in SE¼NE¼ sec.20, T.21 S., R.28 E., Cochise County, Hydrologic Unit 15080301, on right bank 10 mi east of McNeal.

DRAINAGE AREA.--79.1 mi².

PERIOD OF RECORD.--October 1969 to September 1977, July 1982 to current year.

GAGE.--Water-stage recorder and concrete control with shallow sharp-crested V-notch weir. Elevation of gage is 4,620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good.

AVERAGE DISCHARGE.--12 years (water years 1970-77, 1983-86), 1.85 ft³/s, 1,030 acre-ft/yr; median of yearly mean discharges, 1.0 ft³/s, 720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,600 ft³/s July 21, 1984, gage height, 8.54 ft, from rating curve extended above 12 ft³/s on basis of slope-area measurements at gage height 7.33 ft and 8.54 ft; of peak flow; no flow for many days in 1976 and 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, October 1977 to July 1982, 468 ft³/s, date unknown, gage height, 4.76 ft in gage well.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 100 ft³/s and maximum (*):

Date	Time	Discharge (ft ³ /s)	Gage height (ft)	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
Oct. 17	0030	461	4.71	Aug. 18	0500	*658	*4.94
July 15	2100	127	4.22				

Minimum daily, 0.58 ft³/s Aug. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	1.5	1.3	1.5	1.1	1.0	.88	.74	.70	.77	.63	.92
2	.99	1.5	1.3	1.5	1.1	1.0	.89	.75	.71	.81	.63	.91
3	.97	1.5	1.3	1.5	1.1	1.0	.87	.75	.67	.83	.63	.88
4	.92	1.5	1.3	1.5	1.2	1.0	.87	.75	.67	.83	.61	.92
5	.92	1.5	1.3	1.5	1.1	1.0	.87	.75	.67	.76	.61	.94
6	.90	1.4	1.3	1.5	1.1	1.0	.88	.75	.66	.73	.60	.97
7	.89	1.4	1.3	1.5	1.1	1.0	.90	.76	.66	.71	.60	1.0
8	1.0	1.4	1.3	1.5	1.1	1.0	.92	.78	.65	.74	.61	1.0
9	.99	1.4	1.3	1.4	1.2	1.0	.93	.79	.64	.75	.61	.99
10	.97	1.5	1.3	1.4	1.1	1.0	.97	.79	.63	.71	.61	.96
11	.97	1.5	1.3	1.4	1.1	1.0	.93	.79	.65	.67	.60	.93
12	.95	1.5	1.4	1.4	1.1	1.0	.94	.80	.63	.66	.58	.90
13	.95	1.5	1.3	1.4	1.1	1.0	.94	.80	.62	.66	.58	.89
14	.95	1.5	1.3	1.4	1.1	1.1	.97	.80	.62	.72	.83	.89
15	.94	1.4	1.3	1.5	1.1	1.0	.99	.79	.62	9.4	.71	.87
16	34	1.5	1.3	1.5	1.1	1.0	1.0	.80	.65	2.1	.82	.84
17	56	1.5	1.3	1.5	1.1	1.0	.98	.80	.64	.94	19	.88
18	18	1.4	1.3	1.5	1.1	1.0	1.0	.80	.65	.90	169	.86
19	2.1	1.4	1.4	1.4	1.1	1.0	1.1	.80	.64	.84	1.8	.87
20	2.0	1.4	1.3	1.3	1.1	1.0	1.2	.80	.61	.78	1.3	.87
21	1.9	1.4	1.3	1.3	1.1	1.0	.93	.75	.60	.73	1.0	.87
22	1.8	1.4	1.3	1.3	1.1	1.0	.85	.72	.59	.71	1.0	.87
23	1.8	1.4	1.3	1.3	1.0	1.0	.78	.71	.61	.69	.98	.98
24	1.7	1.4	1.4	1.3	1.0	1.0	.75	.71	.66	.68	.97	.97
25	1.6	1.3	1.4	1.2	1.0	1.1	.75	.73	.65	.67	.96	.93
26	1.6	1.5	1.4	1.2	1.0	1.0	.74	.70	.64	.65	.98	.92
27	1.5	1.4	1.4	1.2	1.0	.98	.74	.68	.65	.64	.96	.91
28	1.5	1.3	1.5	1.2	1.0	.95	.74	.67	.67	.64	.92	.90
29	1.5	1.3	1.5	1.2	---	.91	.77	.67	.70	.63	.97	.86
30	1.5	1.4	1.5	1.1	---	.90	.75	.70	.75	.63	.93	.82
31	1.5	---	1.5	1.1	---	.88	---	.71	---	.63	.95	---
TOTAL	144.31	43.0	41.7	42.5	30.4	30.82	26.83	23.34	19.51	32.61	211.98	27.32
MEAN	4.66	1.43	1.35	1.37	1.09	.99	.89	.75	.65	1.05	6.84	.91
MAX	56	1.5	1.5	1.5	1.2	1.1	1.2	.80	.75	9.4	169	1.0
MIN	.89	1.3	1.3	1.1	1.0	.88	.74	.67	.59	.63	.58	.82
AC-FT	286	85	83	84	60	61	53	46	39	65	420	54
CAL YR	1985	TOTAL	580.57	MEAN	1.59	MAX	56	MIN	.81	AC-FT	1150	
WTR YR	1986	TOTAL	674.32	MEAN	1.85	MAX	169	MIN	.58	AC-FT	1340	

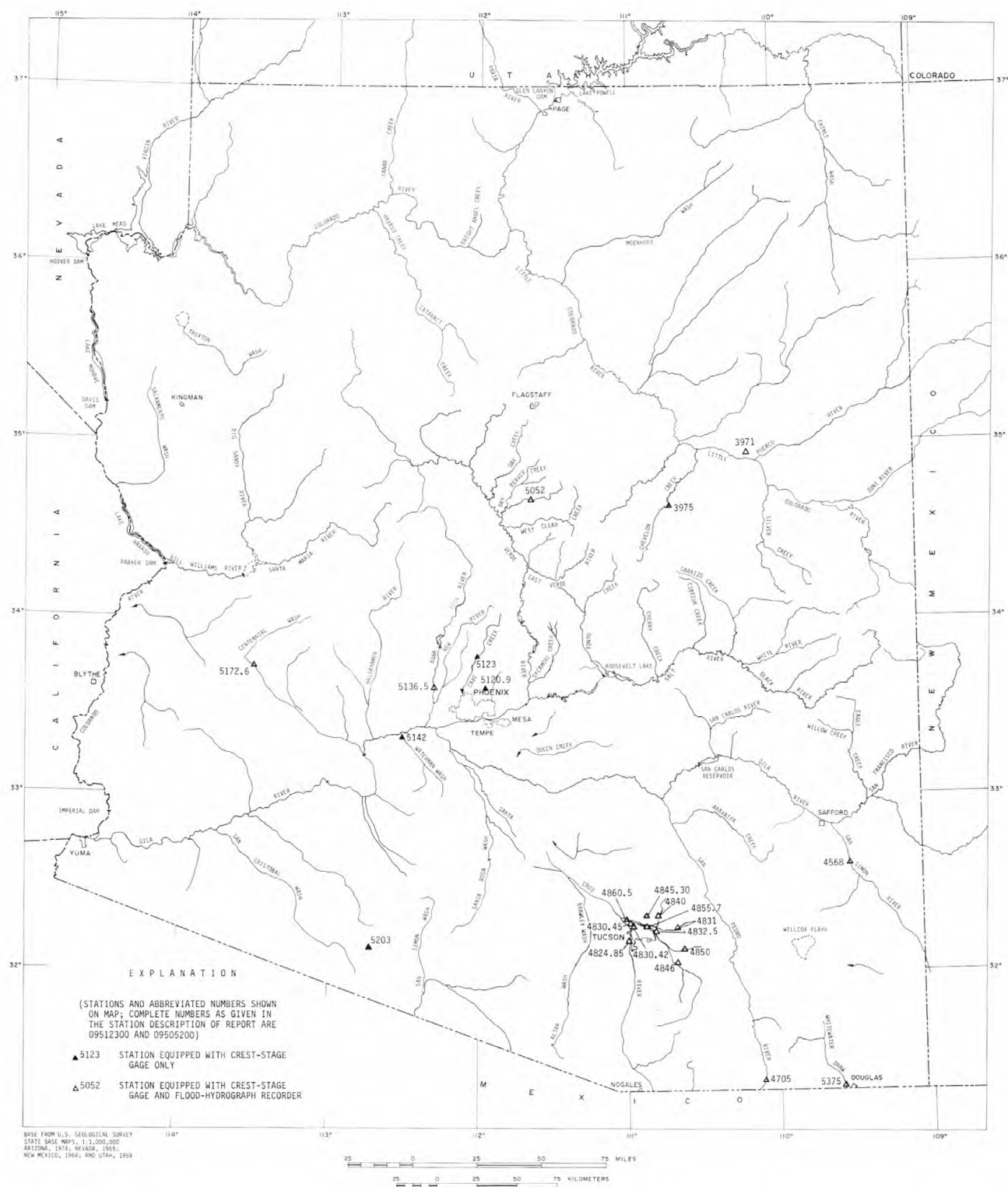


Figure 7.--Map of Arizona showing location of partial-record gaging stations.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Crest-stage partial-record stations

The following table contains annual maximum discharges of independent peaks at crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations during water year 1986

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (ft ³ /s)
Little Colorado River basin							
09397100	Leroux Wash near Holbrook, AZ	Lat 34°54'18", long 110°12'03", SE¼NE¼ sec.3, T.17 N., R.20 E., Navajo County, near center of bridge in east-bound lane of Interstate Highway 40, 0.5 mi upstream from mouth and 2.5 mi west of Holbrook.	809	1980-86	a9-20-85 7-22-86	a10.81 8.26	a5,200 1,600
09397500	Chevelon Creek below Wildcat Canyon near Winslow, AZ	Lat 34°38'11", long 110°42'49", in SW¼ sec.36, T.15 N., R.15 E., Navajo County, Sitgreaves National Forest, on right bank 0.4 mi downstream from Wildcat Canyon and 25 mi south of Winslow.	275	1947-70*, 1982-86	11-26-85	9.06	3,490
Gila River basin							
09470500	San Pedro River at Palominas, AZ	Lat 31°22'48", long 110°06'38", in SW¼SE¼ sec.33, T.23 S., R.22 E., Cochise County, near left bank on downstream side of pier of bridge on State Highway 92, 0.7 mi east of Palominas, 2.5 mi upstream from Green Brush Draw, 4.5 mi downstream from international boundary, and 12 mi southwest of Bisbee.	b741	1930-33*, 1935-41*, 1950-81*, 1982-86	8-18-86	9.55	4,000
09482485	Cholla Wash at Tucson, AZ	Lat 32°12'00", long 110°59'45", in SE¼SE¼ sec.22, T.14 S., R.13 E., Pima County, 30 ft upstream from culvert on Mission Road, at the northwest corner of the intersection of Mission Road and Silverlake Road.	1.27	1982-86	7-21-86	1.88	67
09483042	Cemetery Wash at Tucson, AZ	Lat 32°15'50", long 110°58'42", in NE¼NE¼ sec.35, T.13 S., R.13 E., Pima County, 270 ft west of U.S. Highway 89, 300 ft south of projection of Ft. Lowell Road in Tucson.	1.17	1966-86	7-15-86	2.89	264
09483045	Flowing Wells Wash at Tucson, AZ	Lat 32°15'55", long 110°59'40", in SW¼SW¼ sec.26, T.13 S., R.13 E., Pima County, at intersection of Ft. Lowell Road and Flowing Wells Road in Tucson city limits.	3.53	1971-86	7-15-86	3.70	310

See footnotes at end of the table.

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis-charge (ft ³ /s)
Gila River basin--Continued							
09483250	Rob Wash at Tucson, AZ	Lat 32°14'08", long 110°48'58", in NE¼NW¼ sec.9, T.14 S., R.15 E., Pima County, at Speedway Blvd., 0.4 mi east of Pantano Road, and 1 mi north of East Broadway in Tucson city limits.	2.08	1971-86	8-24-86	2.09	232
09484000	Sabino Creek near Tucson, AZ	Lat 32°19'00", long 110°48'35", in SE¼NE¼ sec.9, T.13 S., R.15 E., Pima County, 0.5 mi north of Coronado National Forest boundary, and 12 mi northeast of Tucson city hall.	35.5	1932-74*, 1975-86	2-16-86	2.65	910
09484530	Craycroft Wash Tributary near Tucson, AZ	Lat 32°18'05", long 110°52'13", in NW¼ sec.13, T.13 S., R.14 E., Pima County, at Paseo Arenal, 0.4 mi south of Sunrise Drive and 0.25 mi east of Craycroft Road.	0.038	1982-86	8-25-86	1.05	9.8
09484600	Pantano Wash near Vail, AZ	Lat 32°02'09", long 110°40'37", in SW¼SE¼ sec.14, T.16 S., R.16 E., Pima County, 60 ft upstream from dam, 2.2 mi southeast of Vail, and 20 mi southeast of Tucson city hall.	457	1959-74*, 1975-86	8-17-86	6.35	1,020
09485000	Rincon Creek near Tucson, AZ	Lat 32°07'46", long 110°37'32", in NW¼NE¼ sec.17, T.15 S., R.17 E., Pima County, 9 mi upstream from mouth, and 22 mi southeast of Tucson city hall.	44.8	1952-74*, 1975-86	7-15-86	5.61	1,170
09485570	Alamo Wash at Tucson, AZ	Lat 32°15'34", long 110°53'02", in SE¼SE¼NW¼ sec.35 T.13 S., R.14 E., Pima County, 600 ft downstream from Glenn Street, 0.5 mi east of the intersection of Glenn Street and Swan Road.	9.56	1979-86	7-21-86	c5.58	3,960
09486050	Roller Coaster Wash near Tucson, AZ	Lat 32°18'09", long 111°00'12", in SE¼SE¼NW¼ sec.15, T.13 S., R.13 E., Pima County, at Oracle-Jaynes Road, 0.3 mi upstream from the mouth and 1.4 mi north of Tucson city limits.	1.75	1982-86	3-20-86	2.50	76
09505200	Wet Beaver Creek near Rimrock, AZ	Lat 34°40'29", long 111°40'17", in NW¼SW¼ sec.24, T.15 N., R.6 E., Yavapai County, in Coconino National Forest, on right bank 4.5 mi northeast of Rimrock and 5.7 mi upstream from Red Tank Draw.	111	1961-82*, 1983-86	2-18-86	6.39	710
09512090	Indian Bend Wash at Shea Boulevard at Phoenix, AZ	Lat 33°35'05", long 111°58'10", in SW¼SW¼SE¼ sec.20, T.3 N., R.4 E., Maricopa County, on left bank 500 ft upstream from Shea Boulevard bridge.	41.2	1984-86	----	----	d
09512300	Cave Creek near Cave Creek, AZ	Lat 33°47'10", long 112°04'00", in SW¼ sec.12, T.5 N., R.3 E., Maricopa County, on left bank 200 ft upstream from Prescott to Mesa transmission line, 4.8 mi southwest of town of Cave Creek, and 5.0 mi upstream from Cave Creek Dam.	121	1958-67*, 1968-79, 1981-86	7-22-86	4.10	1,350
09513650	Agua Fria River at El Mirage, AZ	Lat 33°36'24", long 112°18'14", in NW¼NW¼ sec.18, T.3 N., R.1 E., Maricopa County, at Grand Avenue, 0.75 mi southeast of El Mirage.	e1,637	1963-79, 1981-86	----	----	d
09514200	Waterman Wash near Buckeye, AZ	Lat 33°19'49", long 112°30'33", in SW¼NE¼ sec.24, T.1 S., R.3 W., Maricopa County, 2.4 mi above mouth, 5.2 mi southeast of Buckeye.	403	1964-86	7-22-86	5.09	1,500

See footnotes at end of the table.

Station No.	Station name	Location	Drainage area (mi ²)	Period of record	Annual maximum		
					Date	Gage height (ft)	Dis- charge (ft ³ /s)
Gila River basin--Continued							
09517260	Centennial Wash at Narrows Dam near Salome, AZ	Lat 33°43'29", long 113°30'46", in SW¼SE¼ sec.33, T.5 N., R.12 W., La Paz County, on left bank end of Narrows Dam, 7.4 mi southeast of Salome.	684	1982-86	11-28-85	9.70	114
09520300	Alamo Wash tributary near Ajo, AZ	Lat 32°06'00", long 112°46'15", in SW¼ sec.22, T.15 S., R.5 W. (unsurveyed), Pima County, at State Highway 85, 20 mi southeast of Ajo.	.90	1963-75, 1978, 1980, 1982-86	7-21-86	2.72	210
Whitewater Draw basin							
09537500	Whitewater Draw near Douglas, AZ	Lat 31°21'08", long 109°35'04", in SW¼SE¼ sec.10, T.24 S., R.27 E., Cochise County, on downstream side of pier of bridge on U.S. Highway 80, 1.5 mi upstream from international boundary and 2 mi west of Douglas.	1,023	1947-82*, f1983-86	7-24-83 8-18-86	7.49 10.06	a170 1,540

* Operated as a continuous-record gaging station.

a Previously published figure revised.

b Includes an area of 649 mi² in Mexico.

c At different site and datum.

d No evidence of flow during year.

e Includes an area of 395 mi² in Mexico.

f Record furnished by International Boundary and Water Commission.

DISCHARGE AT PARTIAL-RECORD STATIONS AND MISCELLANEOUS SITES

Discharge measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by one asterisk (*); measurements of peak flow by two asterisks (**).

Discharge measurements made at miscellaneous sites during water year 1986

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
San Juan River basin						
Laguna Creek	Chinle Wash	Lat 36°44'57", long 110°08'08", un- surveyed, Navajo County, about 7 mi east of Kayenta.	229	1982-85	11-22-85 12-31-85 1-23-86 2-21-86 3-25-86	*10.2 *7.02 *3.91 *3.56 *2.60
Little Colorado River basin						
Lyman Canal (09385000)	Little Colorado River	Lat 34°22'05", long 109°22'55", in SW¼NE¼ sec.9, T.11 N., R.28 E., Apache County, at former gaging station, 45 ft downstream from outlet tunnel in Lyman Dam, and 9.5 mi south of St. Johns.	---	1950-54a 1955-80a 1985	10- 4-85 11- 7-85 12- 3-85 1- 7-86 2- 6-86 3- 4-86 3-21-86 4- 9-86 4-21-86 4-30-86 5-15-86 6- 4-86 6-12-86 7- 9-86 7-31-86 9- 5-86 9-18-86	0 0 0 0 0 0 0 29.4 41.6 19.6 30.8 35.1 44.8 39.6 44.7 39.2 0
Little Colorado River (09385500)	Colorado River	Lat 34°22'05", long 109°22'56", in NW¼SW¼NE¼, sec.9, T.11 N., R.28 E., Apache County, at former gaging station, 65 ft downstream from the outlet tunnel in Lyman Dam, and 9.5 mi south of St. Johns.	790	1941-54a 1955-84a 1985	10- 3-85 11- 7-85 1- 7-86 3- 4-86 4- 1-86 4- 9-86 4-30-86 6- 4-86 7- 9-86 7-31-86 9- 5-86	0.63 .45 .38 .34 .34 2.33 4.85 6.32 7.17 6.41 5.03
Little Colorado River (09385700)	Colorado River	Lat 34°27'02", long 109°21'42", in NE¼SW¼SE¼ sec.10, T.12 N., R.28 E., Apache County, 1.2 mi downstream from Salado Spring, 2.2 mi upstream from irrigation district diversion dam, and 4.2 mi upstream from State Highway 61 bridge in St. Johns.	845	1940-41, 1975-85	10- 3-85 11- 6-85 12- 3-85 1- 7-86 2- 7-86 3- 4-86 4- 1-86 4- 9-86 4-30-86 6- 3-86 7- 8-86 8- 1-86 9- 3-86	7.87 7.78 8.59 8.61 9.26 8.26 8.27 31.7 12.9 13.7 14.0 11.4 12.0
Gila River basin						
Tanque Verde Creek (09484500)	Rillito Creek	Lat 32°15'57", long 110°50'27", in SE¼SE¼ sec.30, T.13 S., R.15 E., Pima County, at Sabino Canyon Road, 1 mi downstream from Sabino Creek and 1.2 mi northeast of Tucson city limits.	219	1940-45a 1966-81b	2-20-86	45.4
Rillito Creek	Santa Cruz River	Lat 32°16'08", long 110°52'28", in NW¼SW¼ sec.25, T.13 S., R.14 E., Pima County, at bridge on Craycroft Road, 0.35 mi south of River Road, in Tucson.	---	1985	2-20-86	61.8

See footnotes at end of the table.

Stream	Tributary to	Location	Drainage area (mi ²)	Measured previously (water years)	Measurements	
					Date	Discharge (ft ³ /s)
Gila River basin--Continued						
Rillito Creek (09485700)	Santa Cruz River	Lat 32°16'15", long 110°54'50", in NW¼SE¼ sec.28, T.13 S., R.14 E., Pima County, at Dodge Blvd, 0.4 mi north of intersection of Ft. Lowell Road and Dodge Blvd, and 0.1 mi north of Tucson city limits.	871	1965-73b	2-20-86	27.4
Rillito Creek (09485800)	Santa Cruz River	Lat 32°17'15", long 110°56'37", in NE¼SE¼ sec.19, T.13 S., R.14 E., Pima County, at Campbell Ave., 0.35 mi north of Roger Road and Tucson city limits.	887	1965-69b	2-20-86	33.6
Rillito Creek	Santa Cruz River	Lat 32°17'40", long 110°58'40", in SW¼SW¼ sec.13, T.13 S., R.13 E., Pima County, at Oracle Road, 0.2 mi south of River Road, and 0.8 mi north of Tucson city limits.	918	----	2-20-86	13.5
Rillito Creek	Santa Cruz River	Lat 32°17'32", long 110°59'40", in NW¼NW¼ sec.23, T.13 S., R.13 E., Pima County, at Flowing Wells Road, 0.25 mi south of River Road, and 1 mi north of Tucson city limits.	---	----	2-20-86	.55
Salt River	Gila River	Lat 33°24'56", long 112°01'45", in sec.22, T.1 N., R.3 E., Maricopa County, at 24th Street bridge in Phoenix.	13,263	1983-85	12-12-85	1,620

a Operated as a continuous-record station.

b Operated as a crest-stage partial-record station.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LITTLE COLORADO RIVER BASIN

342453109241001 LITTLE COLORADO RIVER ABOVE SALADO SPRINGS NEAR ST. JOHNS, AZ

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)
OCT 1985 23...	1030	2.8	1950	8.00	--	10.0	680	300	190	50	230
MAR 1986 24...	0915	3.3	2430	8.90	20.0	12.0	700	480	190	54	270
DATE		SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AC-FT) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
OCT 1985 23...	4	1.4	--	378	390	240	2.0	16	1300	1.8	<0.100
MAR 1986 24...	5	15	132	218	450	260	2.3	20	1300	1.8	<0.100
DATE		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)	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)
OCT 1985 23...		<0.010	<10	<1	3	100	<10	420	<1	<1	1
MAR 1986 24...		<0.010	--	--	--	--	--	470	--	--	--
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)	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)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 1985 23...		2	20	<1	130	3	5	<1	<1	1800	20
MAR 1986 24...		--	260	--	250	--	--	--	--	--	--

< Actual value is known to be less than value shown.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES--Continued
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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LITTLE COLORADO RIVER BASIN

342600109224001 LITTLE COLORADO RIVER BELOW SALADO SPRINGS NEAR ST. JOHNS, AZ

WATER-QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)
OCT 1985 23...	1300	7.9	2950	8.20	14.5	900	470	260	60	350	5
DATE		POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WH WAT SULFATE DIS- SOLVED (MG/L AS CACO3) (00410)	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, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L AS SIO2) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	
OCT 1985 23...	22	426	620	430	2.2	17	2000	2.7	<0.100	0.010	
DATE		PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	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)	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)
OCT 1985 23...	0.03	20	4	2	<100	<10	650	1	<1	20	
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)	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)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
OCT 1985 23...		<1	600	<1	80	4	36	3	<1	2800	180

< Actual value is known to be less than value shown.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES--Continued
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

COLORADO RIVER MAIN STEM

09423550 TOPOCK MARSH INLET NEAR NEEDLES, CA.

WATER QUALITY DATA

DATE	TIME	SPECIFIC CONDUCTANCE (US/CM) (00095)	PH (STANDARD UNITS) (00400)	TEMPERATURE AIR (DEG C) (00020)	TEMPERATURE WATER (DEG C) (00010)	BAROMETRIC PRESURE (MM HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED SATURATION (MG/L) (00301)	BICARBONATE (MG/L AS HCO3) (99440)	CARBONATE (MG/L AS CO3) (99445)
AUG 1986										
27...	1600	1450	8.25	38.0	35.0	752	7.3	107	173	0
27...	1620	1450	8.25	38.0	35.0	752	7.3	107	173	0
27...	1645	1450	8.25	38.0	35.0	752	7.3	107	173	0
27...	1730	1450	8.25	38.0	35.0	752	7.3	107	173	0
DATE	ALKALINITY WH WAT TOTAL FIELD (MG/L AS CACO3) (00410)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHROMIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DIS-SOLVED (UG/L AS MO) (01060)
AUG 1986										
27...	139	4	160	240	2	<10	<10	<5	<0.1	12
27...	139	<1	10	<10	<1	<10	<10	<5	<0.1	2
27...	139	4	160	240	<1	<10	<10	<5	<0.1	8
27...	139	4	160	240	<1	<10	<10	<5	<0.1	8
DATE	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	VANADIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS-SOLVED (UG/L U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/ Y-90) (80050)
AUG 1986										
27...	1	1	<1	5	11	7.5	0.8	13	2.4	8.7
27...	<1	<1	<1	<1	<3	<0.4	<0.8	<0.5	<0.6	<0.5
27...	1	1	<1	5	12	<8.9	<0.8	12	2.6	8.6
27...	1	1	<1	6	<3	10	0.6	14	2.5	9.4
DATE	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ Y-90) (80060)	RA-226, DIS-SOLVED PLAN-CHET COUNT (PCI/L AS U) (09510)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DI-ELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDO-SULFAN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39389)
AUG 1986										
27...	2.4	0.2	5.5	<0.1	<1.0	<0.1	0.1	<0.1	<0.1	<0.1
27...	<0.6	0.1	<0.4	--	--	--	--	--	--	--
27...	2.6	0.3	7.6	<0.1	<1.0	<0.1	0.1	<0.1	<0.1	<0.1
27...	2.4	0.2	5.9	<0.1	<1.0	<0.1	0.1	<0.1	<0.1	<0.1
DATE	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39423)	LINDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOTTOM MATERIAL (UG/KG) (39758)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	PCN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39251)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	
AUG 1986										
27...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10	--
27...	--	--	--	--	--	--	--	--	--	--
27...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10	--
27...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10	--

< Actual value is known to be less than value shown.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES--Continued
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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COLORADO RIVER MAIN STEM

09424000 COLORADO RIVER NEAR TOPOCK, AZ.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)
AUG 1986 27...	1030	24000	840	7.90	31.0	20.0	750	8.1	91	154	0	124
DATE		ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	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)
AUG 1986 27...	2	100	100	69	<10	<10	<5	<0.1	5	4	2	
DATE		SILVER, DIS- SOLVED (UG/L AS AG) (01075)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1986 27...	<1	1	<3	<5.5	<0.7	4.6	2.0	3.5	2.1	0.2	4.3	

09429010 COLORADO RIVER AT PALO VERDE DAM, CA-AZ.

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS)	SPE- CIFIC CON- DUCT- ANCE (US/CM)	PH (STAND- ARD UNITS)	TEMPER- ATURE AIR (DEG C)	TEMPER- ATURE WATER (DEG C)	BARO- METRIC PRES- SURE (MM OF HG)	OXYGEN, DIS- SOLVED (MG/L)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION)	BICAR- BONATE IT-FLD (MG/L AS HCO3)	CAR- BONATE IT-FLD (MG/L AS CO3)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3
		(00061)	(00095)	(00400)	(00020)	(00010)	(00025)	(00300)	(00301)	(99440)	(99445)	(00410)
AUG 1986 28...	0900	19500	870	8.00	30.0	26.0	7760	8.3	10	156	0	127
DATE		ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	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)
AUG 1986 28...	2	100	110	<1	<10	<10	<5	<0.1	5	2	2	
DATE		SILVER, DIS- SOLVED (UG/L AS AG) (01075)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
AUG 1986 28...	<1	1	<3	7.3	<0.6	5.7	1.7	4.2	1.7	0.2	4.5	

< Actual value is known to be less than value shown.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES--Continued
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

COLORADO RIVER MAIN STEM

09429060 COLORADO RIVER INDIAN RESERVATION LOWER MAIN DRAIN NEAR PARKER, AZ

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (MG/L) (00301)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	CAR- BONATE IT-FLD (MG/L AS CO3) (99445)
AUG 1986 28...	1000	254	2500	8.00	32.0	26.5	760	6.4	81	295	0

DATE	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)
AUG 1986 28...	240	2	100	340	<1	<10	10	<5	<0.1	11	3

DATE	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)
AUG 1986 28...	1	<1	5	10	<0.1	<1.0	<0.1	3.9	<0.1	<0.1

DATE	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)
AUG 1986 28...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<0.1	<10

< Actual value is known to be less than value shown.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES--Continued
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

295

COLORADO RIVER MAIN STEM

09429220 PALO VERDE OUTFALL DRAIN NEAR PALO VERDE, CA.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	
JUN 1986 25...	1700	--	--	--	--	--	--	--	--	--	
AUG 25...	1200	574	2600	7.80	37.5	27.0	767	6.3	79	308	
DATE		CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
JUN 1986 25...	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	0	244	2	<100	540	<1	<10	10	<5	<0.1	
DATE		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)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
JUN 1986 25...	--	--	--	--	--	--	--	--	--	--	--
AUG 25...	16	3	<1	<1	5	10	<13	<0.9	9.7	1.6	
DATE		GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)
JUN 1986 25...	--	--	--	--	<0.1	<1.0	2.4	7.5	0.8	<0.1	
AUG 25...	6.1	1.5	0.1	3.8	--	--	--	--	--	--	--
DATE		ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)
JUN 1986 25...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10	
AUG 25...	--	--	--	--	--	--	--	--	--	--	--

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ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES--Continued
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

COLORADO RIVER MAIN STEM

09429290 CIBOLA LAKE OUTLET NEAR CIBOLA, AZ.

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)		
JUL 1986 02...	1500	--	--	--	--	--	--	--	--	--		
AUG 26...	0900	18	880	7.95	32.0	26.0	760	7.9	98	159		
DATE	TIME	CAR- BONATE IT-FLD AS CO3 (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	
JUL 1986 02...	--	--	--	--	--	--	--	--	--	--	--	
AUG 26...	0	127	2	100	110	<1	<10	<10	<5	<0.1	--	
DATE	TIME	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)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03516)	
JUL 1986 02...	--	--	--	--	--	--	--	--	--	--	--	
AUG 26...	5	1	2	<1	2	<3	<5.9	0.7	5.9	1.8	--	
DATE	TIME	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)	
JUL 1986 02...	--	--	--	--	--	<0.1	<1.0	0.2	1.7	<0.1	<0.1	
AUG 26...	4.5	1.7	0.2	5.2	--	--	--	--	--	--	--	
DATE	TIME	ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOT- TOM MA- TERIAL (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOT. IN BOT- TOM MA- TERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	
JUL 1986 02...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10	
AUG 26...	--	--	--	--	--	--	--	--	--	--	--	
09521100 COLORADO RIVER BELOW YUMA MAIN CANAL WASTEWAY AT YUMA, AZ												
DATE	TIME	TUR- BID- ITY (NTU) (00076)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS NONCARB WH WAT TOT FLD MG/L AS CACO3 (00902)	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)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
FEB 1986 19...	0940	6.1	13	300	0	76	27	99	3	3.9	260	94
DATE	TIME	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L) (00530)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (71887)	BORON, DIS- SOLVED (UG/L AS B) (01020)	
FEB 1986 19...	0.40	729	29	0.300	0.040	0.26	0.30	0.60	2.7	0.030	140	

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ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES--Continued
WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

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COLORADO RIVER MAIN STEM

09429300 COLORADO RIVER BELOW CIBOLA VALLEY, AZ

WATER QUALITY DATA

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	BICAR- BONATE IT-FLD (MG/L AS HCO3) (99440)	
JUN 1986 26...	1200	--	--	--	--	--	--	--	--	--	
AUG 26...	1000	19	910	8.00	32.0	25.5	764	7.7	94	161	
DATE		CAR- BONATE IT-FLD (MG/L AS CO3) (99445)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	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)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
JUN 1986 26...	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	0	130	2	100	120	<1	<10	<10	<5	<0.1	
DATE		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)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
JUN 1986 26...	--	--	--	--	--	--	--	--	--	--	--
AUG 26...	5	<1	2	<1	2	<3	5.2	<0.7	5.1	2.1	
DATE		GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)	ALDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39333)	CHLOR- DANE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39351)	DDD, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39363)	DDE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39368)	DDT, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39373)	DI- ELDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39383)
JUN 1986 26...	--	--	--	--	--	<0.1	1.0	0.7	2.8	0.6	<0.1
AUG 26...	3.8	2.0	0.2	4.5	--	--	--	--	--	--	--
DATE		ENDO- SULFAN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39389)	ENDRIN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39393)	HEPTA- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39413)	HEPTA- CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39343)	METH- OXY- CHLOR, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39481)	MIREX, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39758)	PCB, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39519)	PCN, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39251)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)
JUN 1986 26...	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<1	<1.0	<10
AUG 26...	--	--	--	--	--	--	--	--	--	--	--

< Actual value is known to be less than value shown.

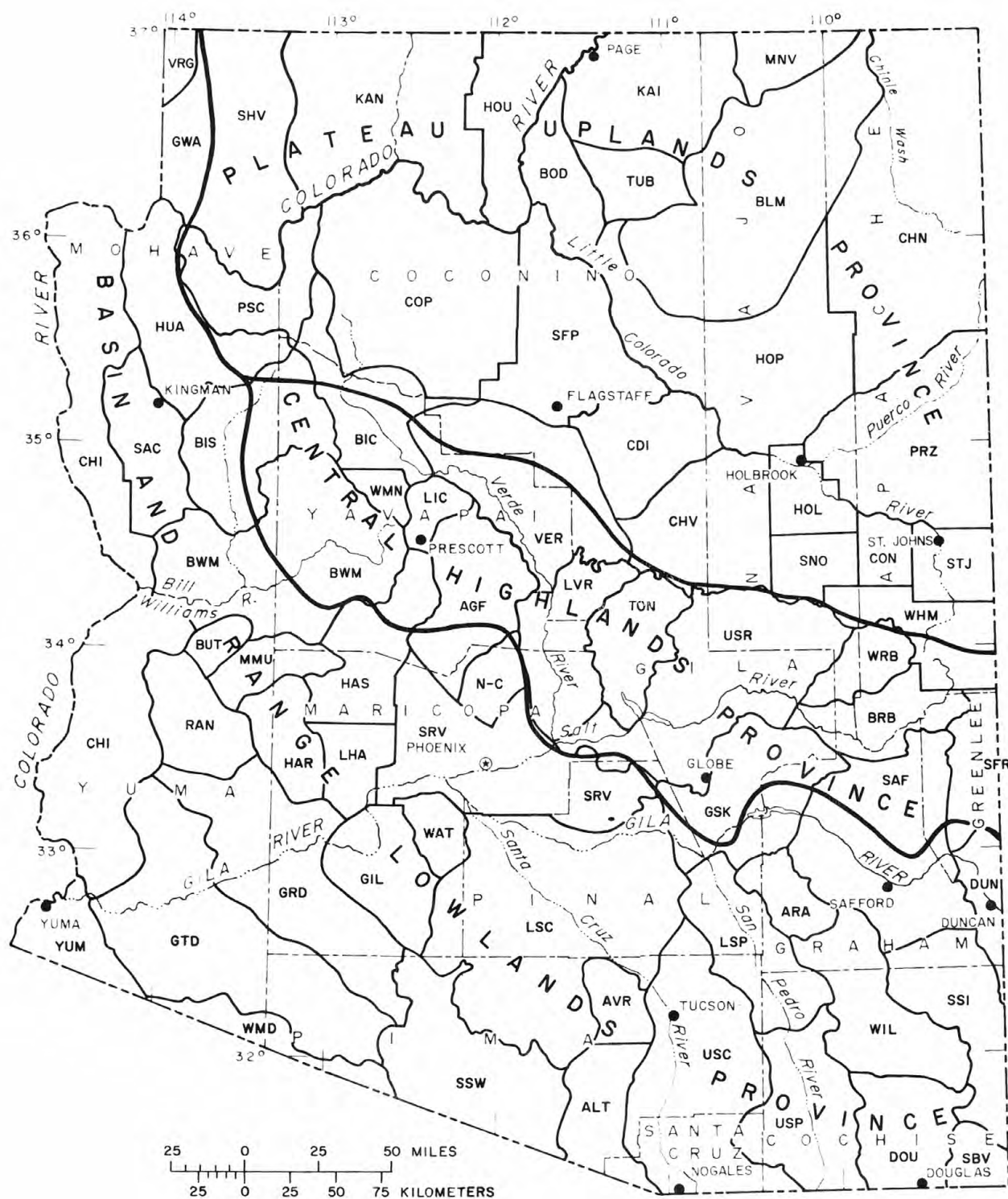


Figure 8.--Index map of ground-water areas in Arizona.

AREAS AND ABBREVIATIONS

AGF	=	Agua Fria basin	LSC	=	Lower Santa Cruz basin
ALT	=	Altar Valley	LVR	=	Lower Verde River
ARA	=	Aravaipa Valley	MMU	=	McMullen Valley
AVR	=	Avra Valley	MNV	=	Monument Valley
BIC	=	Big Chino Valley	N-C	=	New River-Cave Creek
BIS	=	Big Sandy Valley	PSC	=	Peach Springs Canyon
BWM	=	Bill Williams	PRZ	=	Puerco-Zuni
BLM	=	Black Mesa	RAN	=	Ranegras Plain
BRB	=	Black River basin	SAC	=	Sacramento Valley
BOD	=	Bodaway Mesa	SAF	=	Safford basin
BUT	=	Butler Valley	SRV	=	Salt River Valley
CDI	=	Canyon Diablo	SBV	=	San Bernardino Valley
CHV	=	Chevelon	SFP	=	San Francisco Peaks
CHN	=	Chinle	SFR	=	San Francisco River basin
COP	=	Coconino Plateau	SSI	=	San Simon basin
CHI	=	Colorado River, Hoover Dam to Imperial Dam	SSW	=	San Simon Wash
CON	=	Concho	SHV	=	Shivwits
DOU	=	Douglas basin	SNO	=	Snowflake
DUN	=	Duncan basin	STJ	=	St. Johns
GIL	=	Gila Bend basin	TON	=	Tonto basin
GRD	=	Gila River from Painted Rock Dam to Texas Hill	TUB	=	Tuba City
GSK	=	Gila River from head of San Carlos Reservoir to Kelvin	USR	=	Upper Salt River basin
GTD	=	Gila River from Texas Hill to Dome	USP	=	Upper San Pedro basin
GWA	=	Grand Wash	USC	=	Upper Santa Cruz basin
HAR	=	Harquahala Plains	VER	=	Upper Verde River
HAS	=	Hassayampa basin	VRG	=	Virgin River
HOL	=	Holbrook	WAT	=	Waterman Wash
HOP	=	Hopi	WMD	=	Western Mexican drainage
HOU	=	House Rock	WHM	=	White Mountains
HUA	=	Hualapai Valley	WRB	=	White River basin
KAI	=	Kaibito	WIL	=	Willcox basin
KAN	=	Kanab	WMN	=	Williamson Valley
LIC	=	Little Chino Valley	YUM	=	Yuma
LHA	=	Lower Hassayampa			
LSP	=	Lower San Pedro basin			

WATER LEVELS IN SELECTED WELLS IN GROUND-WATER AREAS IN ARIZONA

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
AGUA FRIA BASIN											
343157N1121354.1 (15070102)	(A-13-1)2cac	200	4,603	Stock	1973-86	82.3	4- 1-80	93.4	2- 6-81	84.7 85.5	2-27 8-25
ARAVAIPA VALLEY											
323753N1100806.1 (15050203)	(D-9-22)19dcc	---	4,280	Stock	1949, 1951-78, 1980-86	10.5	1-24-75	103.4	2-20-81	103.3	1-16
AVRA VALLEY											
320850N1111459.1 (15050304)	(D-15-11)5ccd	712	2,368	Unused	1953-57, 1959-60, 1962-86	281.1	3- 6-53	351.1	5-29-86	350.2 351.1	12- 5 5-29
BIG CHINO VALLEY											
345608N1123323.1 (15060201)	(B-18-3)23bbc	61	4,420	Unused	1952-67, 1969-86	8.9	2-10-66	18.5	5-31-55	15.4	2- 6
BIG SANDY VALLEY											
351119N1133708.1 (15030201)	(B-21-13)24bcd	404	3,620	Stock	1961-62, 1964-80, 1982-86	370.3	2- 3-78	397.2	4- -52	374.4 374.0	12-10 1- 1
BILL WILLIAMS											
342828N1125318.1 (15030203)	(B-13-6)9dcd	52	2,500	Irrigation	1945-49, 1951-57, 1959-86	14.0	1-17-45	19.9	1-19-77	15.72	1-27
BLACK MESA											
360055N1103040.1 (15020012)	04 075-00.61X16.21 Navajo Indian Res.	1,683	5,858	Unused	1972-86	323.9	2- 1-73	359.6	3-26-86	359.6	3-26
BUTLER VALLEY											
340059N1134119.1 (15030105)	(B-8-14)23cdd	500	1,600	Unused	1980-86	322.6	1-17-84	326.9	2-11-80	325.1	1-29
CANYON DIABLO											
345603N1104503.1 (15020008)	(A-18-15)28aad	500	5,180	Observation	1969-74, 1976-86	263.6	3- 7-85	268.7	1- 3-79	265.2	4-18

See footnote at end of table.

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
CHEVELON											
344106N1102806.1 (15020010)	(A-15-18)19aaa	940	6,115	Test	1973, 1976-86	838.3	1-14-77	845.1	1-23-81	844.1	3-21
355223N1105223.1 (15020008)	(A-17-14)17add	600	5,540	Stock	1964, 1968, 1970-71, 1974, 1977-78, 1980-86	405.7	4- 6-71	407.3	10-16-68	406.0	3-20
CHINLE											
361317N1093558.1 (14080204)	10 071-05.55X01.98	200	5,425	Observation	1966-67, 1969-86	16.1	3-27-85	29.4	7-12-66	16.1	3-25
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM											
333829N1141348.1 (15030106)	(B-4-19)33cca	---	917	Domestic	1974, 1976-86	25.8	1-17-85	33.2	2- 3-76	28.8	1-29
CONCHO											
342817N1093336.1 (15020002)	(A-12-26)2bda	100	6,295	Stock	1975-86	68.3	5- 6-75	106.8	4-14-81	85.11 84.4	10- 8 3-25
342555N1093216.1 (15020002)	(A-12-26)13dcd	300	5,970	Unused	1975-86	45.2	4-14-76	59.0	9-24-81	52.6 46.4	10-11 3-25
343432N1095004.1 (15020001)	(A-14-24)29ddc	335	5,640	Stock	1975-86	231.1	4- 5-83	280.5	9-22-80	245.4 242.4	10- 9 3-25
343716N1093857.1 (15020002)	(A-14-25)E12cdd2	452	5,430	Irrigation	1953-58, 1960-86	11.7	5- 1-62	32.6	1-11-77	23.8	4- 4
343623N1094032.1 (15020002)	(A-14-25)14ccd	350	5,600	Stock	1975-86	172.4	3- 5-75	226.9	9-25-81	204.5 207.7	10- 8 3-24
343601N1093558.1 (15020002)	(A-14-26)21bcc	345	5,475	Stock, Irrigation	1950, 1955, 1975-86	9.0	11- 1-50	37.1	9-24-80	31.6 25.0	10- 9 3-24
DOUGLAS BASIN											
315042N1094143.1 (15080301)	(D-18-26)28aaa2	390	4,268	Irrigation	1965-76, 1978-86	89.0	2-11-65	186.2	2- 6-86	186.2	2- 6
313826N1094023.1 (15080301)	(D-21-26)2baa	121	4,130	Unused	1947-86	36.6	8-26-47	110.5	2-16-83	104.4	2- 6
313332N1094300.1 (15080301)	(D-21-26)32dad	400	4,075	Irrigation	1946, 1954-64, 1966-76, 1978-79, 1981-86	41.2	5- 1-46	81.9	2-20-75	70.97	2- 6
312527N1093957.1 (15080301)	(D-23-26)13ccc	---	4,010	Unused	1954-69, 1971-72, 1974-75, 1978-86	53.3	1- 9-56	68.4	1-24-72	63.9	2- 6
DUNCAN BASIN											
325114N1091058.1 (15040002)	(D-7-31)4bcc	75	3,544.4	Irrigation	1939-43, 1945-86	21.9	2-19-68	41.0	8- 8-56	25.5	12- 5

See footnote at end of table.

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
GILA BEND BASIN											
330258N1123859.1 (15070101)	(C-4-4)27daa	880	745	Irrigation	1966-86	145.9	2-11-86	214.0	1-11-77	145.9	2-11
325650N1125527.1 (15070101)	(C-5-6)31cbb	1,875	718	Irrigation	1972, 1974-75, 1977, 1979-86	151.1	1-24-84	208.9	1-12-77	155.2	2-12
GILA RIVER DRAINAGE FROM PAINTED ROCK DAM TO TEXAS HILL											
330514N1132310.1 (15070210)	(C-4-11)15bab	510	691	Irrigation	1967, 1976, 1978-86	222.8	3- 8-67	297.7	2-12-81	284.7	1-29
325353N1133211.1 (150070201)	(C-6-12)19bba	1,352	383	Unused	1945-50, 1952-86	22.8	1-26-84	44.9	3-16-50	22.92	1-29
GILA RIVER FROM HEAD OF SAN CARLOS RESERVOIR TO KELVIN											
330858N1104951.1 (15050100)	(D-3-15)29aba	300	2,740	Irrigation	1952-78, 1980-86	81.6	2-25-60	102.2	9-10-57	87.8	3-24
GILA RIVER FROM TEXAS HILL TO DOME											
324625N1135406.1 (15070201)	(C-7-16)33daa	---	278	Observation	1964-86	7.4	1-16-76	21.2	1-29-64	9.4	1-29
HARQUAHALA PLAINS											
334248N1133013.1 (15070104)	(B-4-12)4cca	---	1,640	---	1963, 1965, 1967-71, 1973-74, 1978-79, 1981, 1986	388.0	1-21-71	461.6	12-30-81	451.4	12- 3
HASSAYAMPA BASIN											
340147N1124923.1 (15070103)	(B-8-5)18ccc	450	2,455	Domestic	1978-86	324.1	1-23-86	341.3	1-11-85	324.1	1-23
HOLBROOK											
345310N1100625.1 (15020002)	(A-17-21)10cba	285	5,165	Unused	1952-58, 1960-86	49.5	2-24-82	54.2	2-13-86	54.2	2-13
HOPI											
350002N1103555.1 (15020008)	(A-19-16)36dbb	610	4,890	Unused	1976-86	30.9	2- 9-79	37.4	2-10-76	34.1	4-18
HOUSE ROCK											
365942N1112925.1 (14070006)	(A-42-8)36cbc	655	3,735	Observation	1968-86	48.9b	11-15-83	388.0b	7- 2-64	55.7b	5-23

See footnote at end of table.

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
HUALAPAI VALLEY											
352740N1133555.1 (15010007)	(B-24-12)17cbc	440	4,255	Unused	1953-64, 1967-86	141.7	3-27-79	147.5	6-22-55	144.6 145.0	12- 6 1- 1
KANAB											
365403N1124528.1 (15010003)	(B-40-4)6aac	202	5,140	Irrigation	1975-76, 1978-86	79.2	1- 7-81	83.4	1- 2-83	80.8	2-26
LITTLE CHINO VALLEY											
344846N1122714.1 (15060201)	(B-17-2)N34acc	420	4,500	Unused	1950-86	3.7	4- 1-80	13.7	11-18-80	8.64 8.32	2-27 8-26
LOWER HASSASYAMPA											
332934N1125728.1 (15070104)	(B-2-7)27aab	350	1,146	Irrigation	1953, 1956, 1958-86	162.8	12- 3-53	299.6	6- 9-86	297.1 299.6	12- 3 6- 9
LOWER SAN PEDRO BASIN											
323644N1104612.1 (15050203)	(D-9-15)36bbc	92	4,500	Domestic	1949-86	19.4	2- 6-79	83.0	5-13-57	21.6	3-28
LOWER SANTA CRUZ BASIN											
330435N1120858.1 (15050303)	(D-4-2)15cbc	372	1,229	Unused	1951-86	109.5	2-12-51	368.7	1-10-78	348.1 348.9	12-17 6-10
324917N1113536.1 (15050303)	(D-7-7)11cdd	600	1,494	Irrigation	1942-57, 1959-64, 1967-86	85.9	3-11-42	299.1	3- 6-75	270.4 278.5	12-18 6-11
324035N1114123.1 (15050303)	(D-8-6)35ddd2	770	1,545	Irrigation	1949, 1951-64, 1966-86	100.8	2- 7-49	200.3	1-18-82	173.1 174.5	12-17 6-11
324312N1113330.1 (15050303)	(D-8-8)18cdd1	600	1,596	Irrigation	1942, 1949, 1952-57, 1959-60, 1962-64, 1967-86	135.5	3- 5-42	397.4	1-14-77	335.7 345.6	12-17 6-11
323753N1112046.1 (15050303)	(D-9-10)19aaa	600	1,835	Unused	1953-64, 1966-86	181.1	3-28-55	226.7	1-17-68	202.5 207.5	12- 9 5-27
323942N1110302.1 (15050100)	(D-9-13)7cbc	275	3,115	Stock	1952-79, 1981-86	43.0	9-23-55	111.5	1- 6-53	51.5 51.45	12- 5 5-29
LOWER VERDE RIVER											
341551N1111842.1 (15060203)	(A-11-10)27ddb	400	5,052	Public Supply	1975, 1979-86	87.6	1-14-86	128.7	4-12-79	87.6	1-14

See footnote at end of table.

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
McMULLEN VALLEY											
335727N1130451.1 (15070104)	(B-7-8)15baa	1,812	2,257	Irrigation	1962-65, 1967-86	479.4	1- 2-64	581.5	12- 9-85	581.5 572.0	12- 9 1- 1
NEW RIVER---CAVE CREEK											
335033N1121114.1 (15070102)	(A-6-2)30aaa	230	1,721	Stock	1976, 1979-86	194.4	11-28-84	214.0	3- 5-81	195.4 194.3	12-16 6- 6
PUERCO---ZUNI											
345620N1091040.1 (15020004)	(A-18-30)20cdd	420	6,450	Stock, Domestic	1971-86	358.8	4-18-85	366.8	1-29-76	358.8	1-23
RANEGRAS PLAIN											
334839N1135141.1 (15030105)	(B-5-15)6baa2	---	1,156	---	1979-86	227.7	1-10-79	251.4	2-12-81	232.1	1-29
SACRAMENTO VALLEY											
350937N1140442.1 (15030103)	(B-21-17)34ddb	80	3,050	Unused	1952-78, 1982-86	57.4	1-17-84	62.6	2-13-53	58.4	1-29
SAFFORD BASIN											
330240N1100311.1 (15040005)	(D-4-22)35ada	75	2,859.5	Stock	1939-44, 1946-86	5.7	2- 7-85	41.6	1-28-58	6.34	12- 2
325230N1094428.1 (15040005)	(D-6-25)25cdd	50	2,873	Irrigation	1958-61, 1968-86	13.8	5- 9-68	28.0	1-13-58	17.5	12- 6
324855N1094033.1 (15040005)	(D-7-26)22bab	90	2,951.2	Irrigation	1940-86	23.19	1-12-43	68.2	7- 1-57	25.5	12- 5
324113N1094154.1 (15040005)	(D-8-26)33ccc1	400	3,340	Irrigation	1950-86	17.0	3-13-50	83.5	3-14-75	29.7	12- 6
SALT RIVER VALLEY											
333217N1115123.1 (15060106)	(A-2-5)8aaa	1,000	1,300	Unused	1972-86	271.43	12- 8-85	313.8	5- 9-79	271.43 277.81	12- 8 1-13
333520N1115358.1 (15060106)	(A-3-4)24caa	700	1,375	Irrigation	1957, 1962-66, 1969, 1973-76, 1978-86	205.2	2-12-57	296.8	6- 3-86	292.3 296.8	12- 2 6- 3
334011N1121043.1 (15070102)	(A-4-2)20cdd	528	1,290	Irrigation	1963-67, 1969-74, 1976-86	394.6	1-25-66	446.0	6- 6-86	445.2 446.0	12-13 6- 6
332416N1123901.1 (15070101)	(B-1-4)27abb	350	988	Irrigation	1956-68, 1970, 1972-86	119.1	1- 2-85	159.5	1-14-72	119.6 119.55	12- 9 1-10

See footnote at end of table.

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
SALT RIVER VALLEY--Continued											
333052N1122024.1 (15070102)	(B-2-1)14cbb	708	1,057	Unused	1960-66, 1968-86	130.1	12-21-65	218.8	1-16-80	200.6 199.7	12-10 6- 4
331314N1113040.1 (15050100)	(D-2-8)27ddd	614	1,552	Unused	1949-54, 1957, 1964-69, 1971-72, 1976-78, 1980-86	231.7	1-19-49	524.5	6- 4-86	488.0 524.5	12-18 6- 4
SAN BERNARDINO VALLEY											
312006N1091806.1 (15080302)	(D-24-30)16ccc	100	3,800	--	1977, 1980-83, 1986	29.0	2-18-83	30.7	3- 1-85	29.5	2-13
SAN FRANCISCO PEAKS											
352823N1115013.1 (15020016)	(A-24-5)11cdb	292	7,386	Stock	1964-65, 1967-73, 1975-78, 1980-86	261.4	1- 2-81	284.4	11- 3-67	261.8	4-18
SAN SIMON BASIN											
322110N1093627.1 (15040006)	(D-12-27)32aab	250	3,980	Stock	1952-57, 1959-64, 1967-75, 1977-86	132.5	12-20-56	137.4	1- 7-86	137.4	1- 7
321200N1090945.1 (15040006)	(D-14-31)22adc	800	3,690	Irrigation	1973-86	54.68	10-17-62	131.0	3- 5-80	88.1	1- 9
SAN SIMON WASH											
315444N1115503.1 (15080101)	(D-17-4)34abd	201	2,301.4	Irrigation	1954-57, 1968-86	115.6	12-14-83	147.3	6-27-56	120.9	3-20
SNOWFLAKE											
342811N1100612.1 (15020005)	(A-13-21)34dcc2	254	5,658	Domestic	1964-69, 1971-86	98.8	12- 4-64	136.8	2-16-82	120.7	4-17
ST. JOHNS											
342700N1092512.1 (15020002)	(A-12-28)7cdb	720	5,925	Irrigation	1956-57, 1966-86	28.6	4- 6-57	55.2	9-12-75	42.9	1- 7
342548N1092503.1 (15020002)	(A-12-28)19bad	650	5,925	Irrigation	1975-81, 1984-86	17.0	4-29-80	38.8	9- 9-76	23.31 17.1	10- 8c 6- 3
343439N1092703.1 (15020002)	(A-14-27)35bdc	---	5,635	Stock	1975-81, 1984-86	81.8	5-11-78	113.6	9-25-81	106.3 106.2	10-10d 3-24
TONTON BASIN											
340458N1112118.1 (15060105)	(A-9-10)32bdb	---	3,030	Stock	1972-78, 1981-86	23.5	3- 1-73	44.0	1-31-75	36.0	1-14
TUBA CITY											
360918N1110807.1 (15020018)	03 077-7.55X6.55 Navajo Indian Res.	705	5,108	Industrial	1966, 1973-86	57.5	3-28-85	85.6	10-13-66	57.5	3-24

See footnote at end of table.

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
UPPER SAN PEDRO BASIN											
315508N1101334.1 (15050202)	(D-17-21)32bab	520	3,705	Stock	1944-86	16.9	12- 9-46	48.0	3-13-86	48.0	3-13
315335N1100901.1 (15050202)	(D-18-21)1dca	396	4,140	Stock	1961-63, 1966, 1968, 1970-86	360.5	4-20-66	393.5	3-13-86	393.5	3-13
312250N1100639.1 (15050202)	(D-23-22)33dcd2	91.5	4,225	Observation	1954-63, 1966-86	- 11.5	8-24-55	23.8	2-13-81	15.0	3-21
UPPER SANTA CRUZ BASIN											
320824N1105930.1 (15050301)	(D-15-13)11cba	224	2,457	Observation	1931-41, 1946-86	30.5	2-15-32	155.3	12-28-81	123.6	1-13
315511N1105452.1 (15050301)	(D-17-14)21acd	230	2,800	Irrigation	1971-78, 1980-86	179.8	1- 2-71	195.1	12-11-84	193.4 193.6	12- 3 5-28
312848N1105732.1 (15050301)	(D-22-13)25ddd	105	3,482	Stock	1939-45, 1947-51, 1953-61, 1963-66, 1968-70, 1972-73, 1975-79, 1981-86	39.3	12- 2-85	100.7	3-11-55	39.3 44.1	12- 2 5-28
UPPER VERDE RIVER											
344307N1115527.1 (15060202)	(A-15-4)4ddc1	250	3,355	Domestic	1959-86	36.8	8-18-59	60.4	1-25-77	57.2	1- 8
VIRGIN RIVER											
365434N1135547.1 (15010010)	(B-41-15)33cab	98	1,910	Domestic	1976, 1978-86	54.2	3- 3-82	74.6	11- 3-76	55.9	2-26
WATERMAN WASH											
331435N1122302.1 (15070101)	(C-2-1)20bad	800	1,130	Unused	1960-61, 1965, 1967, 1969-76, 1978-86	300.4	1-18-61	399.0	1-21-82	354.7 353.0	12- 2 5-30
WHITE MOUNTAINS											
341429N1100252.1 (15020005)	(A-10-22)30aba	750	6,485	Municipal	1969-86	521.6	4- 4-85	532.0	2-13-74	521.6	4- 4
WILLCOX BASIN											
321834N1095430.1 (15050201)	(D-13-24)16bbb	1,356	4,209	Observation	1942, 1944-86	29.7	5-13-42	129.4	2- 2-77	105.5	1-13

See footnote at end of table.

LATITUDE-LONGITUDE (HYDROLOGIC UNIT)	LOCAL WELL NUMBER	DEPTH OF WELL (feet)	LAND- SURFACE ALTITUDE (feet NGVD a/)	TYPE OF WELL	RECORDS AVAILABLE (Years)	WATER LEVELS, IN FEET BELOW LAND SURFACE					
						Highest	Date	Lowest	Date	1986	Date
WILLCOX BASIN--Continued											
321115N1095552.1 (15050201)	(D-14-24)30dba	---	4,187	Stock	1942, 1944-57, 1963-86	16.0	10-21-55	33.9	1-14-74	28.6	1-10
320237N1094751.1 (15050201)	(D-16-25)16add2	65	4,190	Stock	1942, 1944-57, 1959-86	27.0	2-18-69	45.2	6-12-47	43.7	1-14
WILLIAMSON VALLEY											
344636N1123944.1 (15060201)	(B-16-4)14bbb	352	4,600	Irrigation	1952-53, 1955-56, 1958-82, 1984-86	flowing	3-14-78	7.8	10-23-56	1.0	2- 7e
YUMA											
323840N1143201.1 (15030108)	(C-9-22)17dca	191	205	Observation	1945-58, 1960-86	52.5	11-15-60	97.6	9- 5-46	68.4	1-28

a/NGVD, National Geodetic Vertical Datum of 1929.

b Water level affected by changes in surface level of Lake Powell.

c Water level, 17.8 ft, 4-9-84.

d Water level, 106.1 ft, 4-30-84.

e Water level, 1.4 ft, 1-24-84.

QUALITY OF GROUND WATER

WATER-QUALITY COLLECTION
SITE INFORMATION

LOCAL WELL NUMBER	GROUND-WATER AREA	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
B-14-01 14ACC	AGF	04	025	343540	1121957	15070102	P	30.0	--
D-20-08 35BDB	ALT	04	019	313850	1112957	15050304	H	495	595
D-15-10 33DBC2	AVR	04	019	330435	1111942	--	-	598	650
B-22-07 08DDD	BIC	04	025	351750	1130140	15060201	-	704	--
B-22-07W25ADD	BIC	04	025	351552	1125729	--	-	--	--
B-23-07 26DDA	BIC	04	025	352045	1125834	--	-	--	--
B-27-07 21CDC2	BIC	04	005	354220	1130208	--	-	--	--
PEABODY 8	BLM	04	017	363130	1102545	15020018	-	--	--
PIGEON SPRINGS	BLM	04	017	360559	1101902	15020012	-	--	--
10 054-6.69X6.68	BLM	04	001	362410	1095212	14080204	S	--	--
PEABODY WELL NO.9	BLM	04	017	362333	1102500	15020018	K	--	--
02 040-08.73X10.37	BLM RES	04	017	363558	1103925	15020018	P	485	510
04 056-07.11X04.13	BLM RES	04	017	362625	1102237	15020018	Z	514	539
04 056-08.11X01.15	BLM RES	04	017	362901	1102341	15020018	Z	1950	3590
04 056-08.80X05.85	BLM RES	04	017	362456	1102423	15020018	Z	2090	3730
04 056-09.00X03.73	BLM RES	04	017	362647	1102435	14080204	Z	2150	3520
08 039-06.68X17.11	BLM RES	04	017	363007	1102212	15020018	Z	2030	3460
08 039-09.44X17.18	BLM RES	04	017	363005	1102509	15020018	Z	2050	3490
B-20-22 24DDC	CHI	04	015	350557	1133357	--	-	1820	3600
B-28-21 26BBD	CHI	04	015	354728	1143005	--	-	--	--
B-30-20 06CAC	CHI	04	015	360056	1142816	15010014	P	--	--
A-12-26 13DCD	CON	04	001	342555	1093216	15020002	U	--	--
A-12-26 19ABA	CON	04	001	342551	1093745	15020002	I	--	--
A-13-24 22BBD	CON	04	001	343048	1094754	15020002	S	--	--
A-13-26 12DDA	CON	04	001	343226	1093131	15020002	S	--	--
A-14-24 29DCC	CON	04	001	343432	1095004	15020002	S	--	--
A-14-25 14CCD	CON	04	001	343623	1094032	15020002	S	--	--
A-14-26 21BCC	CON	04	001	343601	1093558	15020002	I	103	--
B-23-07 01CCC	COP	04	005	352404	1125810	15060201	S	--	--
B-26-03 20BD	COP	04	005	353740	1123720	15010004	S	--	--
B-27-06 12BDB	COP	04	005	354438	1125233	--	-	--	--
B-30-01 28AAA2	COP	04	005	355750	1122310	15010004	H	10.0	1020
D-20-26 25CBC	DOU	04	003	313941	1093906	--	-	--	--
D-19-26 04AAA	DOU	04	003	314902	1094147	15080301	I	80.0	246
								120	475
								480	650
D-22-27 05DBB	DOU	04	003	312730	1093713	--	S	--	--
D-22-29 29ACC	DOU	04	003	312915	1092450	--	S	--	--
D-22-29 31BBC	DOU	04	003	312839	1092619	--	S	--	--
D-23-24 15CAC	DOU	04	003	312540	1095344	15080301	N	--	--
D-23-25 09BDC	DOU	04	003	312648	1094841	--	H	--	--
D-23-27 09DAB	DOU	04	003	312638	1093559	15080301	I	116	496
D-23-28 15DAC	DOU	04	003	312536	1092853	--	S	--	--
D-24-24 11DCD	DOU	04	003	312108	1095223	--	H	--	--
D-24-25 15BA	DOU	04	003	312056	1094733	--	S	--	--
D-24-26 12DAB	DOU	04	003	312124	1093902	--	S	--	--
D-24-26 16ABC	DOU	04	003	312048	1094146	--	S	--	--
3.19S.21W.02.341	DUN	35	023	324045	1085906	--	-	--	--
3.19S.21W.22.432	DUN	35	023	323806	1085940	--	-	--	--
3.20S.20W.30.142	DUN	35	023	323226	1085652	--	-	--	--
3.20S.21W.01.131	DUN	35	023	323554	1085817	--	-	--	--
3.20S.21W.17.111	DUN	35	023	323426	1090222	--	-	--	--
D-05-30 24BAA	DUN	04	011	325930	1091243	--	S	--	--
D-06-31 07DAD2	DUN	04	011	325524	1091206	--	P	--	--
D-06-31 19DCA	DUN	04	011	325335	1091225	--	I	--	--
D-06-31 26CBB	DUN	04	011	325429	1090315	--	-	--	--
D-06-32 08BDD	DUN	04	011	325535	1090526	--	-	--	--
D-07-31 04BCB	DUN	04	011	325122	1091100	15040002	-	--	--
D-07-31 32CDA	DUN	04	011	324634	1091141	--	-	--	--
D-07-32 32CBC	DUN	04	011	324643	1090549	--	-	--	--
D-09-32 09CDD	DUN	04	011	323930	1090437	--	-	--	--
D-09-32 22CCC	DUN	04	011	323742	1090352	--	-	--	--
D-10-31 11DCC	DUN	04	011	323421	1090828	--	-	--	--
D-10-31 35BCD	DUN	04	011	323112	1090850	--	-	--	--
D-10-32 21DBA2	DUN	04	011	323257	1090409	--	-	--	--
D-11-32 28BCD	DUN	04	011	322652	1090513	--	-	--	--
D-12-32 04DDD	DUN	04	011	322449	1090426	--	-	--	--
C-04-04 04DAA	GIL	04	013	330632	1123959	15070101	I	--	--
C-05-04 31ADD	GIL	04	013	325700	1124159	15070101	I	80.0	505
								505	1100
								1100	1220
C-06-06 10BCB	GIL	04	013	325518	1125211	--	-	--	--

See codes used to identify State, County, and Primary Use of Water at end of table.

WATER-QUALITY COLLECTION
SITE INFORMATION--Continued

LOCAL WELL NUMBER	GROUND-WATER AREA	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
B-03-11 08CAC	HAR	04	013	333651	1132459	15070104	I	420	--
C-01-08 06CCC2	HAR	04	013	332148	1130734	15070104	I	225	--
C-01-09 05ACC	HAR	04	013	332216	1131208	15070104	I	--	--
A-14-22 14CCA	HOL	04	017	343607	1095952	--	-	--	--
A-16-20 16BAC	HOL	04	017	344720	1101352	15020008	H	--	--
A-16-22 17CDC	HOL	04	017	344644	1100233	15020002	I	20.0	--
A-17-19 28CCB	HOL	04	017	345011	1102011	15020008	S	--	--
A-17-20 10CAA3	HOL	04	017	345308	1101253	15020008	P	90.0	--
B-02-06 20DAA	LHA	04	013	333001	1125304	15070104	I	72.0	529
B-16-02 03DDC4	LIC	04	025	344723	1122657	15060202	H	528	1010
B-17-02S34ABB	LIC	04	025	344818	1122722	15060202	I	176	--
D-04-09 04DDD	LSC	04	021	330618	1112518	--	-	--	--
D-06-03 35DDC	LSC	04	021	325101	1120004	--	-	--	--
D-03-02 24BCA	LSC	04	021	330923	1120649	--	-	--	--
D-05-03 16CCC1	LSC	04	021	325908	1120350	15050303	I	105	--
D-05-03 16CCC2	LSC	04	021	325909	1120350	15050303	I	640	--
D-05-07 23DDA	LSC	04	021	325813	1113604	--	-	--	--
D-06-04 04DDD3	LSC	04	021	325523	1115543	--	-	--	--
D-06-04 35DCC	LSC	04	021	325103	1115409	15050100	-	300	--
D-06-04N04ABB	LSC	04	021	325617	1115606	--	-	--	--
D-06-05 34BDD	LSC	04	021	325130	1114907	15050303	U	--	--
D-06-07 15ADC2	LSC	04	021	335407	1113615	--	-	--	--
D-06-08 20BDD	LSC	04	021	325316	1113228	15050100	I	115	254
D-07-06 29DDD2	LSC	04	021	324645	1114423	15050303	I	115	--
D-09-07 02CDD	LSC	04	021	323954	1113531	15050303	I	416	--
D-09-07 03ADD	LSC	04	021	324007	1113610	15050303	I	250	980
D-09-09 34DDD	LSC	04	021	323518	1112350	15050303	I	91.0	--
D-10-10 05DAB	LSC	04	021	323450	1111958	15050303	I	240	--
D-11-11 35DDD	LSC	04	019	322530	1111100	15050303	I	400	480
A-03-06 15ABB	LVR	04	013	333639	1114331	15060203	P	450	735
A-10-10 05CCB	LVR	04	007	341408	1112129	15060203	U	--	--
A-11-10 27CCB	LVR	04	007	341547	1111925	15060203	P	100	400
A-11-10 32ACD	LVR	04	007	341518	1112054	--	-	--	--
A-11-10 34DCA	LVR	04	007	341456	1111844	15060105	P	103	203
A-05-02 03DBC	N-C	04	013	334803	1120832	--	-	--	--
A-04-02 11ADB	N-C	04	013	334230	1120709	15070102	U	425	--
A-06-04 26DCC	N-C	04	013	334943	1115459	15060106	P	150	--
A-14-29 35CDC2	PRZ	04	001	343414	1091420	15020003	S	449	735
B-02-14 10CDC	RAN	04	012	333121	1134130	15030105	S	340	--
B-02-14 28CCC	RAN	04	012	332848	1134251	15030105	S	75.0	--
B-03-15 23EDB2	RAN	04	012	333525	1134644	15030105	S	300	--
B-04-14 19BAA	RAN	04	027	334054	1134429	15030105	I	290	625
B-04-15 13DAA	RAN	04	027	334121	1134501	15030105	I	300	610
B-04-15 14AAA	RAN	04	027	334147	1134603	15030105	I	610	952
B-04-15 14AAA	RAN	04	027	334147	1134603	15030105	I	275	645
B-04-16 09BDA	RAN	04	027	334219	1135450	15030105	S	645	1010
B-07-17 23CCB	RAN	04	027	335549	1140027	15030105	P	--	--
B-07-17 26BBB	RAN	04	012	335538	1140027	--	-	180	--
B-08-19 34BBB	RAN	04	012	335958	1141353	--	-	--	--
D-08-26 17DDD	SAF	04	009	324349	1094154	--	-	--	--
D-03-22 18C	SAF	04	009	331004	1100810	--	I	--	--
D-04-22 25BCB	SAF	04	009	330330	1100300	--	-	--	--
D-04-22 26DAA	SAF	04	009	330320	1100310	15040005	I	--	--
D-04-23 18ACA1	SAF	04	009	330516	1100118	15040005	-	27.0	83.0
D-04-23 18DD	SAF	04	009	330443	1100104	15040005	H	--	--
D-04-23 19BCB	SAF	04	009	330424	1100203	15040005	S	--	--
D-04-23 20CDD	SAF	04	009	330348	1100036	15040005	I	--	--
D-04-23 27DAA	SAF	04	009	330316	1095800	15040005	I	32.0	50.0
D-04-23 33BAB	SAF	04	009	330254	1095944	15040005	I	57.0	83.0
D-04-23 36BBC	SAF	04	009	330249	1095650	--	U	--	--
D-05-21 36BCB	SAF	04	009	325726	1100912	--	-	--	--
D-05-24 17ADD2	SAF	04	009	325957	1095352	--	-	--	--
D-05-24 27BBA	SAF	04	009	325832	1095238	--	-	--	--
D-05-24 29CDD2	SAF	04	009	325743	1095426	15040005	I	--	--
D-05-24 31AAA2	SAF	04	009	325739	1095455	15040005	I	15.0	44.0
D-05-24 32BDA	SAF	04	009	325726	1095420	15040005	I	23.0	48.0
D-06-23 03CCB	SAF	04	009	325608	1095913	--	-	--	--
D-06-24 03BCB	SAF	04	009	325634	1095306	15040005	I	25.0	51.0
D-06-24 13ABD2	SAF	04	009	325455	1095020	15040005	I	--	--
D-06-24 24BCD	SAF	04	009	325350	1095057	--	-	--	--
D-06-25 18DEC	SAF	04	009	325426	1094933	15040005	-	10.0	42.0
D-06-25 26BBD	SAF	04	009	325308	1094544	15040005	I	28.0	42.0
D-06-25 28DDC2	SAF	04	009	325229	1094712	--	-	54.0	110
D-06-25 30BBC2	SAF	04	009	325314	1095004	--	-	--	--

See codes used to indentify State, County, and Primary Use of Water at end of table.

QUALITY OF GROUND WATER
WATER-QUALITY COLLECTION
SITE INFORMATION--Continued

LOCAL WELL NUMBER	GROUND-WATER AREA	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
D-06-25 35DBD	SAF	04	009	325203	1094527	15040005	I	27.0	65.0
D-06-25 36CBB	SAF	04	009	325200	1094456	15040005	I	78.0	80.0
D-06-28 31DBA	SAF	04	009	325155	1093056	15040005	I	1550	1900
D-07-23 01DAA2	SAF	04	009	325111	1095618	15040005	I	1900	2160
D-07-24 04CCC	SAF	04	009	325046	1095411	15040005	P	48.0	400
D-07-24 08AAB	SAF	04	009	325042	1095419	15040005	H	--	--
D-07-24 08AAC2	SAF	04	009	325037	1095424	15040005	I	--	--
D-07-25 07CCC	SAF	04	009	324955	1095003	15040005	S	--	--
D-07-25 10AAD	SAF	04	009	325033	1094601	15040005	I	--	--
D-07-25 12ACD	SAF	04	009	325024	1094413	15040005	I	38.0	72.0
D-07-26 04BAA	SAF	04	009	325133	1094127	--	N	--	--
D-07-27 03ADD	SAF	04	009	325113	1093346	15040005	I	--	--
D-07-27 03DDA1	SAF	04	009	325054	1093345	15040005	I	--	--
D-07-27 11BBB1	SAF	04	009	325042	1093341	15040005	I	--	--
D-07-27 18DDD1	SAF	04	009	324903	1093650	15040005	U	--	--
D-07-30 28CDB	SAF	04	009	324726	1091658	--	S	--	--
D-08-22 12ADC	SAF	04	009	324518	1100246	--	-	--	--
D-08-24 35BCUNS	SAF	04	009	324137	1095202	--	-	--	--
D-08-26 08ACB	SAF	04	009	324517	1094217	--	P	--	--
D-08-26 08ACC	SAF	04	009	324508	1094223	15040005	-	--	--
D-08-27 07ABC	SAF	04	009	324527	1093656	15040006	S	--	--
D-08-30 25DCB2	SAF	04	009	324215	1091335	--	-	--	--
D-09-25 04DDUNS	SAF	04	009	324029	1094714	--	-	--	--
D-09-25 19ADUNS	SAF	04	009	323813	1094917	--	-	--	--
D-09-26 05BBC	SAF	04	009	324101	1094257	15040005	I	--	--
D-09-26 18DDA	SAF	04	009	323852	1094306	--	-	--	--
D-09-27 09ADD	SAF	04	009	324003	1093446	--	-	--	--
D-09-29 13BDC	SAF	04	009	323904	1091958	--	-	--	--
D-10-25 17B	SAF	04	009	323403	1094903	--	S	--	--
D-10-26 33BAA	SAF	04	009	323137	1094133	--	-	--	--
D-10-27 28DCD	SAF	04	009	323138	1093507	--	-	--	--
D-10-28 07CAD1	SAF	04	009	323434	1093108	--	-	--	--
D-21-32 15DCB	SBV	04	003	313546	1090413	--	-	--	--
D-24-30 14CBD	SBV	04	003	312026	1091552	15080302	I	--	--
A-11-20 32BAA	SNO	04	017	341850	1101434	15020005	I	340	--
A-11-23 19BCD	SNO	04	017	342020	1095659	15020005	H	--	--
A-12-22W31BCB	SNO	04	017	342357	1100404	15020005	I	50.0	--
A-13-19 22DBA	SNO	04	017	343014	1101846	--	-	--	--
A-13-21 26ADB2	SNO	04	017	342940	1100451	15020005	P	380	--
A-01-05 15DCB	SRV	04	013	332532	1114946	--	-	--	--
B-01-02 25BBC2	SRV	04	013	332416	1122532	--	-	--	--
D-01-06 27CDD	SRV	04	013	331826	1114345	--	-	--	--
D-01-10 35DBC	SRV	04	021	331756	1111737	--	-	--	--
A-01-06 07BCC	SRV	04	013	332643	1114711	15060106	P	497	615
								617	657
								657	697
								697	737
								737	857
								857	897
								897	977
A-01-06 17DDC	SRV	04	013	332522	1114520	15060106	P	--	--
A-02-04 30ACC	SRV	04	013	332916	1115909	15060106	I	--	--
A-02-05 36DAA	SRV	04	013	332824	1114715	15060106	I	--	--
A-03-01 27CCC	SRV	04	013	333401	1121511	15070102	I	60.0	--
B-06-03 33DCB	SRV	04	013	334848	1123429	15070102	C	--	--
D-01-09 07BDC2	SRV	04	021	332135	1112818	15050100	P	--	--
D-22-30 05CD	SRV	04	003	313225	1091838	--	S	--	--
A-02-05 14AAA	SRV RES	04	013	333126	1114816	15060106	I	--	--
D-02-04 25DDD	SRV RES	04	013	331310	1115333	15050100	I	250	575
25S/20W 34.444	SSI	35	023	320453	1085237	--	I	--	--
D-12-28 14CAA	SSI	04	003	322322	1092728	--	I	--	--
D-13-28 22DDD	SSI	04	003	321654	1092807	--	-	--	--
D-14-32 16CAB	SSI	04	003	321252	1090504	--	P	--	--
D-14-32 20CBA	SSI	04	003	321159	1090613	--	P	--	--
27S/21W17DCC	SSI	04	003	315659	1090020	00000000	S	--	--
27S/21W22.122	SSI	35	023	315701	1085832	--	S	--	--
28S/21W19.124	SSI	35	023	315128	1090117	--	S	--	--
28S/21W29.133	SSI	35	023	315023	1090101	--	H	--	--
28S/22W12.123	SSI	35	023	315319	1090240	--	S	--	--
3.26S.22W.24S212	SSI	35	023	320213	1090224	--	-	--	--
3.27S.21W.30.413	SSI	35	023	315532	1090131	--	-	--	--
A-18-19 33DDA	SSI	04	017	345445	1101925	--	-	--	--
D-09-30 33DCD	SSI	04	009	323558	1091628	--	S	--	--
D-10-28 36AAD	SSI	04	009	323124	1092533	15040006	N	--	--
D-11-26 19ADD	SSI	04	009	322751	1094324	--	S	--	--
D-11-26 23BCC	SSI	04	009	322538	1094211	--	S	--	--
D-11-29 01CDD	SSI	04	009	322958	1092020	--	S	--	--

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WATER-QUALITY COLLECTION
SITE INFORMATION--Continued

LOCAL WELL NUMBER	GROUND-WATER AREA	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
D-11-29 10AAA	SSI	04	009	322955	1092153	--	-	--	--
D-11-29 14AAA	SSI	04	009	322902	1092050	--	-	--	--
D-11-30 31CCA	SSI	04	009	322545	1091939	--	-	--	--
D-11-31 26ADC	SSI	04	011	322656	1090846	--	-	--	--
D-12-26 08DBC	SSI	04	003	322408	1094248	--	S	--	--
D-12-26 10ACC	SSI	04	003	322422	1094043	--	S	--	--
D-12-26 28BBB	SSI	04	003	322156	1094211	--	-	--	--
D-12-26 34ADC	SSI	04	003	322054	1094030	--	S	--	--
D-12-27 17DCC	SSI	04	003	322303	1093635	--	S	--	--
D-12-27 33DAA	SSI	04	003	322044	1093510	--	-	--	--
D-12-28 16CDD	SSI	04	003	322302	1092931	15040006	I	--	--
D-12-28 20ABC	SSI	04	003	322248	1093028	15040006	I	--	--
D-12-28 23CCC	SSI	04	003	322210	1092757	15040006	I	--	--
D-12-28 33CCC	SSI	04	003	322024	1092959	--	I	--	--
D-12-28 34BBC	SSI	04	003	322105	1092856	15040006	I	--	--
D-12-28 34BBC2	SSI	04	003	322102	1092858	--	-	--	--
D-12-29 25DDC	SSI	04	003	322115	1092003	15040006	S	--	--
D-13-28 03BBC	SSI	04	003	322013	1092859	--	I	--	--
D-13-28 10BCC	SSI	04	003	321907	1092859	15040006	I	290	--
D-13-28 15BCC	SSI	04	003	321814	1092858	15040006	I	--	--
D-13-28 22BCC	SSI	04	003	321721	1092860	15040006	U	--	--
D-13-29 23DBB	SSI	04	003	321708	1092122	--	I	--	--
D-13-29 25CDC	SSI	04	003	321552	1092033	15040006	-	500	--
D-13-30 03CCA	SSI	04	003	321948	1091621	--	-	--	--
D-13-30 17BBB	SSI	04	003	321829	1091844	--	-	--	--
D-13-30 36AAD	SSI	04	003	321537	1091339	--	-	--	--
D-13-30 36ADA	SSI	04	003	321535	1091344	15040006	I	--	--
D-13-31 17DDD	SSI	04	003	321742	1091137	--	S	--	--
D-13-31 18ADC	SSI	04	003	321809	1091251	--	-	--	--
D-13-31 29DDA	SSI	04	003	321607	1091141	15040006	H	--	--
D-13-31 31BBC1	SSI	04	003	321539	1091337	--	-	--	--
D-13-31 33DAA2	SSI	04	003	321527	1091034	15040006	H	602	--
D-13-31 34CBD	SSI	04	003	321518	1091021	--	-	--	--
D-14-31 02BAD	SSI	04	003	321454	1090903	--	-	--	--
D-14-31 03CDA	SSI	04	003	321424	1091002	--	-	--	--
D-14-31 09ADA1	SSI	04	003	321351	1091033	--	I	--	--
D-14-31 09ADD2	SSI	04	003	321350	1091037	--	I	--	--
D-14-31 10DBA	SSI	04	003	321342	1090947	15040006	I	--	--
D-14-31 19BAC	SSI	04	003	321210	1091320	15040006	S	200	--
D-14-31 35DDC	SSI	04	003	320949	1090857	--	-	--	--
D-14-32 11CAB	SSI	04	003	321342	1090256	--	-	--	--
D-14-32 19ACA	SSI	04	003	321212	1090639	--	-	--	--
D-15-30 17ADD	SSI	04	003	320738	1091743	--	I	--	--
D-15-31 19DBB	SSI	04	003	320638	1091300	15040006	-	380	400
D-16-31 28DBB	SSI	04	003	320020	1091031	15040006	S	--	--
D-16-31 29RACC	SSI	04	003	320026	1091140	--	-	--	--
D-16-32 21CAD	SSI	04	003	320102	1090449	--	-	--	--
D-16-32 27DDB	SSI	04	003	320006	1090321	00000000	I	--	--
D-16-32 34CAD	SSI	04	003	315917	1090343	--	-	--	--
D-17-31 26DCB	SSI	04	003	315450	1090834	--	H	--	--
D-18-32 11CBB	SSI	04	003	315227	1090300	00000000	S	--	--
D-18-32 14BDC	SSI	04	003	315136	1090302	--	-	--	--
D-18-32 33BDC2	SSI	04	003	314852	1090446	--	-	--	--
D-19-32 15ACA	SSI	04	003	314646	1090329	--	S	--	--
D-19-32 21DAC	SSI	04	003	314547	1090425	15040006	-	200	300
D-20-31 18BCB	SSI	04	003	314134	1091328	--	-	--	--
D-20-32 29ABB	SSI	04	003	314001	1090542	15040006	H	--	--
A-11-28 19ADD	STJ	04	001	342030	1092434	15020001	-	--	--
A-11-28 22BDA2	STJ	04	001	342024	1092203	15020001	U	160	550
A-11-29 07DBB	STJ	04	001	342154	1091840	15020002	S	--	--
A-12-27 35CDA BIG WHITE	STJ	04	001	342324	1092716	15020002	-	--	--
A-11-28 04CBD CCNN SP.	STJ	04	001	342240	1092318	15020002	U	--	--
A-11-28 04DBA	STJ	04	001	342247	1092252	15020002	U	--	--
A-11-29 07DBB	STJ	04	001	352154	1091840	15020006	S	--	--
A-12-28 17DCA	STJ	04	001	342603	1092355	15020002	U	--	--
A-12-28 18DDC2	STJ	04	001	342600	1092440	15020002	U	--	--
A-13-27 13A	STJ	04	001	343215	1092520	15020002	S	--	--
A-13-29 35AAA	STJ	04	001	342946	1091335	15020003	S	210	--
A-14-27 35BDC	STJ	04	001	343439	1092703	15020002	S	--	--
A-10-10 25BAB	TON	04	007	341116	1111707	--	-	--	--
A-10-10 28BCC	TON	04	007	341053	1112032	--	-	--	--
03 077-11.14X05.34	TUB RES	04	005	361021	1111159	15020018	P	--	--
D-12-12 16DDD	USC	04	019	322252	1110650	15050301	I	68.0	225
D-12-13 22BBB	USC	04	019	322248	1110037	15050301	H	--	--
D-13-14 26BBB	USC	04	019	321647	1105322	15050302	U	90.0	195
D-13-14 26CDD	USC	04	019	321558	1105305	15050302	I	.00	155
D-13-14 26DAC2	USC	04	019	321610	1105240	15050302	-	--	--
D-13-14 26DDA2	USC	04	019	321605	1105232	15050302	-	--	--
D-13-14 27ADA2	USC	04	019	321630	1105336	15050302	-	--	--

See codes used to indentify State, County, and Primary Use of Water at end of table.

QUALITY OF GROUND WATER
WATER-QUALITY COLLECTION
SITE INFORMATION--Continued

LOCAL WELL NUMBER	GROUND-WATER AREA	STATE	COUNTY	LATITUDE (DEGREES)	LONGITUDE (DEGREES)	HYDROLOGIC UNIT (OWDC)	PRIMARY USE OF WATER	TOP OF OPEN INTERVAL (FEET)	BOTTOM OF OPEN INTERVAL (FEET)
D-13-14 27BDB4	USC	04	019	321633	1105413	15050302	-	--	--
D-13-14 27CDA	USC	04	019	321602	1105408	15050302	-	--	--
D-13-14 27DDC4	USC	04	019	321555	1105345	15050302	-	--	--
D-13-14 28DAD	USC	04	019	321612	1105433	15050302	-	--	--
D-13-14 34AAA4	USC	04	019	321555	1105334	15050302	-	--	--
D-13-14 34DCC2	USC	04	019	321504	1105359	15050302	-	75.0	218
D-14-14 02BBB	USC	04	019	321457	1105327	15050302	P	150	251
D-16-15 14ACB	USC	04	019	320238	1104654	15050301	C	445	900
D-17-14 07DDD	USC	04	019	315728	1105639	15050301	I	150	728
								150	720
								700	1500
D-17-14 07DDD	USC	04	019	315728	1105639	15050301	I	1500	1500
D-19-13 29CBA	USC	04	019	314446	1110228	15050301	N	114	590
								606	890
D-19-21 12DBC	USC	04	003	314737	1100907	--	S	--	--
D-22-13 09AC UNSURV	USC	04	023	313152	1110052	15050301	S	--	--
D-24-14 05ADB2	USC	04	023	312223	1105542	15050301	N	--	--
D-21-23 29DBC	USP	04	003	313419	1100136	15050202	H	--	--
D-24-23 13ABD	USP	04	003	312052	1095729	15050202	P	--	--
D-24-23 13BAA	USP	04	003	312103	1095747	15050202	Z	--	--
D-24-23 14AAB	USP	04	003	312058	1095821	15050202	S	--	--
D-24-24 05AAA	USP	04	003	312216	1095514	15050202	S	--	--
D-24-24 08CBA	USP	04	003	312128	1095557	15050202	S	--	--
D-24-24 10DCB	USP	04	003	312113	1095333	15050202	D	--	--
D-24-24 15CCC	USP	04	003	312016	1095406	15050202	S	--	--
D-24-24 17ABB	USP	04	003	312101	1095528	15050202	H	--	--
D-24-24 17CDA	USP	04	003	312022	1095542	15050202	S	--	--
D-24-24 18ADD	USP	04	003	312043	1095609	15050202	P	--	--
D-24-24 18DBB2	USP	04	003	312034	1095632	15050202	I	--	--
NACO 1	USP	80	003	312000	1095656	15050202	P	--	--
NACO 2	USP	80	003	312000	1095316	15050202	I	--	--
A-01-15 04CBD2	USR	04	007	332717	1105019	15060103	U	114	117
								112	115
A-01-15 04CBD3	USR	04	007	332717	1105019	15060103	U	43.8	46.8
								47.0	50.0
A-01-15 04CBD4	USR	04	007	332717	1105019	15060103	U	94.1	97.1
A-01-15 04DCA	USR	04	007	332712	1104947	15060103	H	870	1090
A-01-15 04DCC1	USR	04	007	332707	1104955	15060103	U	57.6	60.6
								57.0	60.0
A-01-15 04DCC2	USR	04	007	332707	1104955	15060103	U	37.1	40.1
								36.0	39.0
A-01-15 09DBC2	USR	04	007	332629	1104958	15060103	U	79.5	82.5
								79.0	82.0
A-01-15 09DBC3	USR	04	007	332629	1104958	15060103	U	59.4	62.4
								59.0	62.0
A-01-15 09DBC4	USR	04	007	332629	1104958	15060103	U	33.3	36.3
								34.0	37.0
A-01-15 09DCD1	USR	04	007	332611	1104951	15060103	U	106	109
								106	109
A-01-15 09DCD2	USR	04	007	332611	1104951	15060103	U	61.7	64.7
								61.5	64.5
A-01-15 09DCD3	USR	04	007	332611	1104951	15060103	U	88	91
								88.0	91.0
A-01-15 09DCD5	USR	04	007	332612	1104949	15060103	U	46	56
A-01-15 09DCD6	USR	04	007	332612	1104946	15060103	U	137	157
A-01-15 15BDA	USR	04	007	332552	1104905	15060103	H	715	815
A-02-14 04ABB	USR	04	007	333305	1105000	--	S	--	--
A-02-15 07BDD1	USR	04	007	333151	1105205	15060103	U	50.6	53.6
A-02-15 07BDD2	USR	04	007	333151	1105205	15060103	U	120	123
A-02-15 07BDD3	USR	04	007	333151	1105205	15060103	U	76.8	79.8
A-02-15 20CAC	USR	04	007	332953	1105110	--	-	--	--
A-02-15 29DEC	USR	04	007	332902	1105056	15060103	P	--	--
A-02-15 29DBD1	USR	04	007	332904	1105048	15060103	U	109	112
								106	109
A-02-15 29DBD2	USR	04	007	332904	1105048	15060103	U	65.1	68.1
								62.0	65.0
A-02-15 29DBD2	USR	04	007	332904	1105048	15060103	U	65.1	68.1
								62.0	65.0
A-03-14 36DDC	USR	04	007	333308	1105249	15060103	S	--	--
C-02-01 30DBA	WAT	04	013	331330	1122350	15070101	I	300	590
								592	600
C-02-02 19AAD	WAT	04	013	331437	1122944	15070101	H	301	351
D-12-25 36CCC	WIL	04	003	322026	1094520	--	S	--	--

CODES USED TO IDENTIFY STATE, COUNTY, AND
PRIMARY USE OF WATER

State and County				Primary Use of Water	
04	Arizona	35	New Mexico	C	Commercial
	001 Apache		023 Hidalgo	D	Dewater
	003 Cochise			H	Domestic
	005 Coconino			I	Irrigation
	007 Gila	80	Mexico	K	Mining
	009 Graham		003 Sonora	N	Industrial
	011 Greenlee			P	Public supply
	012 La Paz			S	Stock
	013 Maricopa			U	Unused
	015 Mohave			Z	Other
	017 Navajo				
	019 Pima				
	021 Pinal				
	023 Santa Cruz				
	025 Yavapai				
	027 Yuma				

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986

LOCAL WELL NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (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)
AGUA FRIA BASIN										
B-14-01 14ACC	07-11-86	1000	490	7.80	19.0	220	63	15	19	0.6
ALTAR VALLEY										
D-20-08 35BDB	07-24-86	1000	402	8.00	27.5	110	37	4.4	43	2
AVRA VALLEY										
D-15-10 33DBC2	07-24-86	0730	635	7.50	29.0	140	46	7.0	70	3
BIG CHINO VALLEY										
B-22-07 08DDD	08-13-86	1215	468	7.20	24.0	230	54	22	7.4	0.2
B-22-07W25ADD	07-24-86	1545	500	7.60	16.5	230	63	17	4.8	0.1
B-23-07 26DDA	07-24-86	1700	460	8.00	19.0	220	42	27	6.9	0.2
B-27-07 21CDC2	07-24-86	1215	260	8.10	15.0	81	23	5.7	23	1
BLACK MESA										
PEABODY 8	01-23-86	1400	445	8.30	29.0	74	24	3.4	66	3
PIGEON SPRINGS	05-20-86	1500	E320	--	13.0	120	35	7.9	15	0.6
10 054-6.69X6.68	05-20-86	0830	266	7.90	8.5	110	34	7.0	5.7	0.2
PEABODY WELL NO.9	02-21-86	1130	181	9.20	31.5	10	4.0	0.08	34	5
02 040-08.73X10.37	05-20-86	1200	302	7.10	14.0	120	41	5.4	5.7	0.2
04 056-07.11X04.13	01-23-86	1500	175	9.20	32.0	10	4.0	0.03	36	5
04 056-08.11X01.15	01-23-86	1300	398	9.60	31.0	--	--	--	--	--
	01-23-86	1300	398	9.60	31.0	2	0.94	0.01	89	26
04 056-08.80X05.85	01-23-86	1600	217	9.20	31.0	10	4.1	0.04	45	6
04 056-09.00X03.73	03-25-86	1330	205	9.30	32.0	12	4.9	0.04	41	5
08 039-06.68X17.11	01-23-86	1030	182	9.10	33.5	--	--	--	--	--
	01-23-86	1030	182	9.10	33.5	12	4.7	0.04	38	5
08 039-09.44X17.18	02-21-86	1000	172	8.70	31.0	24	9.4	0.21	26	2
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM										
B-20-22 24DDC	07-23-86	1245	2400	7.60	37.5	540	190	15	230	5
B-28-21 26BBD	07-22-86	1630	562	8.20	25.5	150	28	19	50	2
B-30-20 06CAC	07-22-86	1200	1920	7.60	24.5	640	180	46	160	3
CONCHO										
A-12-26 13DCD	10-11-85	1530	--	8.60	16.0	14	4.0	1.0	210	25
A-12-26 19ABA	10-09-85	1000	178	8.20	14.5	69	14	8.3	8.0	0.4
	03-25-86	0730	180	8.50	15.0	67	13	8.3	7.7	0.4
A-13-24 22BBD	10-09-85	1600	520	7.80	16.5	220	60	18	16	0.5
A-13-26 12DDA	03-25-86	1630	2150	8.00	16.5	450	66	69	290	6
A-14-24 29DCC	10-09-85	1330	560	7.70	18.0	240	59	23	22	0.6
A-14-25 14CCD	10-08-85	1330	710	7.50	17.0	290	68	28	36	1
	03-24-86	1745	735	8.00	17.5	280	64	28	36	1
A-14-26 21BCC	10-09-85	1100	--	--	17.0	150	42	12	110	4
COCONINO PLATEAU										
B-23-07 01CCC	08-13-86	0845	398	7.40	20.0	180	39	21	6.6	0.2
B-26-03 20BD	08-12-86	1430	656	7.40	13.5	300	91	18	14	0.4
B-27-06 12BDB	08-11-86	1400	2740	7.20	14.0	1700	540	80	39	0.4
B-30-01 28AAA2	08-12-86	1000	1050	7.30	19.0	790	210	64	11	0.2
DOUGLAS BASIN										
D-20-26 25CBC	08-13-86	1430	1020	7.40	22.0	400	110	31	52	1
D-19-26 04AAA	08-13-86	1115	305	7.90	23.5	79	28	2.2	32	2
D-22-27 05DBB	09-23-86	1500	345	7.95	18.5	45	14	2.3	52	4
D-22-29 29ACC	09-25-86	1200	960	7.38	0.5	360	100	27	61	1
D-22-29 31BBC	09-26-86	1000	1170	7.10	20.0	480	140	31	78	2
D-23-24 15CAC	01-16-86	0930	1750	7.50	27.0	1000	300	69	22	0.3
D-23-25 09BDC	09-23-86	1300	1130	7.28	24.0	630	220	19	40	0.7
D-23-27 09DAB	08-13-86	1245	390	8.60	27.5	10	4.1	0.01	75	11
D-23-28 15DAC	09-25-86	1000	2220	7.19	21.0	470	95	56	71	1
D-24-24 11DCD	09-24-86	1600	1250	7.43	20.5	470	130	36	47	1
D-24-25 15BA	09-24-86	1400	700	7.03	20.5	320	100	16	16	0.4
D-24-26 12DAB	09-18-86	1730	782	7.24	22.5	330	96	23	30	0.7
D-24-26 16ABC	09-24-86	1200	555	7.34	22.0	200	55	15	23	0.7

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WH WAT TOTAL FIELD (MG/L AS CACO3) (00410)	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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
AGUA FRIA BASIN										
B-14-01 14ACC	1.0	151	86	9.1	0.20	23	--	310	1.40	0.020
ALTAR VALLEY										
D-20-08 35BDB	1.8	147	24	10	9.3	31	--	250	0.110	<0.010
AVRA VALLEY										
D-15-10 33DBC2	2.0	148	45	63	1.3	29	--	350	7.50	<0.010
BIG CHINO VALLEY										
B-22-07 08DDD	1.2	197	12	16	0.40	14	--	250	3.60	<0.010
B-22-07W25ADD	2.1	133	13	15	0.20	35	--	230	23.0	0.010
B-23-07 26DDA	1.7	178	16	22	0.30	19	--	240	3.60	<0.010
B-27-07 21CDC2	1.3	126	3.0	3.1	0.30	18	--	150	1.50	<0.010
BLACK MESA										
PEABODY 8	2.8	--	110	4.9	0.10	19	--	280	<1.60	<0.010
PIGEON SPRINGS	1.8	130	14	9.3	0.30	14	--	180	<0.100	<0.010
10 054-6.69X6.68	1.8	93	28	5.8	0.30	7.8	--	150	0.980	<0.010
PEABODY WELL NO.9	0.80	--	4.9	3.1	0.20	19	--	160	0.730	<0.010
02 040-08.73X10.37	1.6	101	14	10	<0.10	14	--	160	3.30	0.010
04 056-07.11X04.13	0.70	64	9.7	2.4	0.20	20	--	130	<0.850	<0.010
04 056-08.11X01.15	--	134	--	--	--	--	--	--	--	--
	0.70	134	28	8.0	0.20	20	--	260	<1.10	<0.010
04 056-08.80X05.85	0.70	64	12	3.6	0.20	20	--	140	<0.860	<0.010
04 056-09.00X03.73	0.70	80	12	4.2	0.20	20	--	130	1.00	0.020
08 039-06.68X17.11	--	76	--	--	--	--	--	--	--	--
	0.80	76	9.6	2.3	0.20	22	--	150	0.720	<0.010
08 039-09.44X17.18	0.90	--	8.1	2.6	0.10	22	--	110	0.970	<0.010
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM										
B-20-22 24DDC	8.8	74	41	680	2.9	46	--	1300	0.620	<0.010
B-28-21 26BED	3.7	114	72	25	0.70	25	--	290	13.0	0.010
B-30-20 06CAC	7.8	114	680	140	0.90	41	--	1300	14.0	<0.010
CONCHO										
A-12-26 13DCD	2.9	--	39	85	3.2	8.0	--	530	0.100	0.010
A-12-26 19ABA	2.7	76	4.7	3.5	<0.10	28	--	110	0.400	0.060
	2.9	83	3.8	3.0	<0.10	28	--	120	0.390	0.070
A-13-24 22BBD	2.6	164	81	16	0.20	13	--	310	<0.100	0.010
A-13-26 12DDA	2.1	232	300	350	1.3	38	--	1300	2.80	0.030
A-14-24 29DCC	3.2	148	100	26	0.30	11	--	330	<0.100	0.010
A-14-25 14CCD	4.8	181	110	48	0.40	10	--	410	<0.100	<0.010
	5.1	190	110	43	0.40	9.9	--	410	<0.100	<0.010
A-14-26 21BCC	5.4	--	49	150	0.70	9.0	--	470	<0.100	<0.010
COCONINO PLATEAU										
B-23-07 01CCC	2.9	174	5.0	10	0.20	17	--	210	2.40	<0.010
B-26-03 20BD	0.90	210	42	49	0.30	34	--	380	5.00	0.010
B-27-06 12BDB	2.5	172	1500	77	0.40	14	--	2400	8.70	<0.010
B-30-01 28AAA2	2.5	178	660	6.8	0.40	10	--	1100	0.610	<0.010
DOUGLAS BASIN										
D-20-26 25CBC	3.8	220	200	60	1.2	36	--	630	8.30	<0.010
D-19-26 04AAA	1.9	119	16	7.1	3.0	29	--	190	1.60	<0.010
D-22-27 05DBB	1.4	123	16	11	0.40	17	--	190	0.360	<0.010
D-22-29 29ACC	0.30	287	200	11	0.20	31	--	600	3.80	<0.010
D-22-29 31BBC	0.40	303	330	18	0.40	32	--	820	<0.100	<0.010
D-23-24 15CAC	2.4	377	650	20	0.50	13	1370	1300	2.20	0.010
D-23-25 09BDC	1.7	158	470	27	1.1	28	--	900	6.60	<0.010
D-23-27 09DAB	1.1	139	30	9.6	0.30	22	--	230	1.80	<0.010
D-23-28 15DAC	6.1	372	110	110	0.80	37	--	710	0.630	<0.010
D-24-24 11DCD	5.5	255	61	120	0.20	35	--	590	9.80	<0.010
D-24-25 15BA	2.0	316	13	11	0.20	25	--	380	3.40	<0.010
D-24-26 12DAB	3.1	300	18	47	0.20	28	--	430	2.10	<0.010
D-24-26 16ABC	2.5	195	17	28	0.30	24	--	280	2.40	<0.010

< Actual value is known to be less than value shown.

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
AGUA FRIA BASIN										
B-14-01 14ACC	0.06	--	1	49	<0.5	20	<1	<1	<3	<10
ALTAR VALLEY										
D-20-08 35BDB	--	--	11	110	<0.5	130	<1	<1	<3	10
AVRA VALLEY										
D-15-10 33DBC2	--	--	2	93	<0.5	100	<1	<1	<3	20
BIG CHINO VALLEY										
B-22-07 08DDD	--	--	10	52	<0.5	40	<1	<1	<3	20
B-22-07W25ADD	0.03	--	1	63	<0.5	30	<1	5	<3	<10
B-23-07 26DDA	--	--	4	300	<0.5	60	<1	<1	<3	20
B-27-07 21CDC2	--	--	2	130	<0.5	70	<1	<1	<3	<10
BLACK MESA										
PEABODY 8	--	--	--	--	--	40	--	--	--	--
PIGEON SPRINGS	--	--	--	--	--	20	--	--	--	--
10 054-6.69X6.68	--	--	--	--	--	30	--	--	--	--
PEABODY WELL NO.9	--	--	--	--	--	30	--	--	--	--
02 040-08.73X10.37	0.03	--	--	--	--	20	--	--	--	--
04 056-07.11X04.13	--	--	--	--	--	20	--	--	--	--
04 056-08.11X01.15	--	--	--	--	--	50	--	--	--	--
04 056-08.80X05.85	--	--	--	--	--	30	--	--	--	--
04 056-09.00X03.73	0.06	--	--	--	--	20	--	--	--	--
08 039-06.68X17.11	--	--	--	--	--	20	--	--	--	--
08 039-09.44X17.18	--	--	--	--	--	20	--	--	--	--
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM										
B-20-22 24DDC	--	--	<1	14	<2	570	<3	<1	<9	<30
B-28-21 26BBD	0.03	--	6	57	<0.5	140	<1	<1	<3	<10
B-30-20 06CAC	--	--	12	29	<0.5	380	<1	10	<3	<10
CONCHO										
A-12-26 13DCD	0.03	M10	1	100	10	510	1	--	1	1
A-12-26 19ABA	0.18	--	--	--	--	10	--	--	--	--
	0.21	--	--	--	--	20	--	--	--	--
A-13-24 22BBD	0.03	--	--	--	--	20	--	--	--	--
A-13-26 12DDA	0.09	--	--	--	--	470	--	--	--	--
A-14-24 29DCC	0.03	--	--	--	--	40	--	--	--	--
A-14-25 14CCD	--	--	--	--	--	60	--	--	--	--
	--	--	--	--	--	60	--	--	--	--
A-14-26 21BCC	--	--	--	--	--	110	--	--	--	--
COCONINO PLATEAU										
B-23-07 01CCC	--	--	3	94	<0.5	60	<1	<1	<3	20
B-26-03 20BD	0.03	--	2	3	<0.5	50	<1	<1	<3	20
B-27-06 12BDB	--	--	<1	7	<2	150	<3	<1	<9	<30
B-30-01 28AAA2	--	--	<1	7	<0.5	60	<1	<1	<3	10
DOUGLAS BASIN										
D-20-26 25CBC	--	--	--	--	--	70	--	--	--	--
D-19-26 04AAA	--	--	--	--	--	50	--	--	--	--
D-22-27 05DBB	--	10	6	38	--	80	<1	<1	--	--
D-22-29 29ACC	--	<10	<1	--	--	50	--	<1	--	--
C-01-09 05ACC	08-15-86	1200	1240	8.20	29.0	69	12	9.4	250	13
A-14-22 14CCA	08-05-86	1400	1790	7.05	18.5	630	160	55	26	0.5
A-16-20 16BAC	08-05-86	1115	1120	7.20	27.0	320	66	37	110	3
A-16-22 17CDC	08-05-86	1315	1270	7.20	15.5	390	100	34	95	2
A-17-19 28CCB	08-04-86	1530	3500	7.40	16.5	330	70	38	560	14
D-22-29 31BBC	--	--	--	--	--	50	--	--	--	--
D-23-24 15CAC	0.03	--	--	--	--	--	--	--	--	--
D-23-25 09BDC	--	10	<1	--	--	30	--	<1	--	--
D-23-27 09DAB	--	--	--	--	--	90	--	--	--	--
D-23-28 15DAC	--	--	--	--	--	250	--	--	--	--
D-24-24 11DCD	--	<10	2	140	--	140	<1	<1	--	--
D-24-25 15BA	--	--	--	--	--	60	--	--	--	--
D-24-26 12DAB	--	<10	<1	--	--	60	--	<1	--	--
D-24-26 16ABC	--	--	--	--	--	60	--	--	--	--

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
AGUA FRIA BASIN									
B-14-01 14ACC	13	<10	6	4	<10	--	240	<6	14
ALTAR VALLEY									
D-20-08 35BDB	<3	<10	32	<1	<10	--	380	8	7
AVRA VALLEY									
D-15-10 33DBC2	13	<10	23	6	<10	--	350	14	57
BIG CHINO VALLEY									
B-22-07 08DDD	19	<10	10	2	<10	--	120	7	14
B-22-07W25ADD	3	<10	13	<1	<10	--	320	9	34
B-23-07 26DDA	13	<10	14	2	<10	--	210	<6	210
B-27-07 21CDC2	6	<10	17	2	<10	--	360	9	89
BLACK MESA									
PEABODY 8	26	--	--	2	--	--	--	--	--
PIGEON SPRINGS	16	--	--	<1	--	--	--	--	--
10 054-6.69X6.68	12	--	--	<1	--	--	--	--	--
PEABODY WELL NO.9	11	--	--	1	--	--	--	--	--
02 040-08.73X10.37	71	--	--	1	--	--	--	--	--
04 056-07.11X04.13	14	--	--	1	--	--	--	--	--
04 056-08.11X01.15	--	--	--	--	--	--	--	--	--
	10	--	--	<1	--	--	--	--	--
04 056-08.80X05.85	5	--	--	<1	--	--	--	--	--
04 056-09.00X03.73	27	--	--	3	--	--	--	--	--
08 039-06.68X17.11	--	--	--	--	--	--	--	--	--
	10	--	--	<1	--	--	--	--	--
08 039-09.44X17.18	4	--	--	<1	--	--	--	--	--
COLORADO RIVER, HOOVER DAM TO IMPERIAL DAM									
B-20-22 24DDC	560	<30	210	33	<30	--	2300	<18	16
B-28-21 26BBD	5	<10	47	11	10	--	680	6	13
B-30-20 06CAC	21	<10	110	1	10	--	3800	16	25
CONCHO									
A-12-26 13DCD	50	1	--	10	6	1	130	--	10
A-12-26 19ABA	4	--	--	2	--	--	--	--	--
	11	--	--	<1	--	--	--	--	--
A-13-24 22BBD	700	--	--	9	--	--	--	--	--
A-13-26 12DDA	30	--	--	<10	--	--	--	--	--
A-14-24 29DCC	1100	--	--	13	--	--	--	--	--
A-14-25 14CCD	1000	--	--	23	--	--	--	--	--
	880	--	--	19	--	--	--	--	--
A-14-26 21BCC	100	--	--	33	--	--	--	--	--
COCONINO PLATEAU									
B-23-07 01CCC	12	<10	11	6	<10	--	190	8	230
B-26-03 20BD	6	<10	17	2	<10	--	550	17	21
B-27-06 12BDB	25	<30	82	<3	<30	--	7400	<18	<9
B-30-01 28AAA2	50	<10	23	8	<10	--	2000	<6	23
DOUGLAS BASIN									
D-20-26 25CBC	29	--	--	3	--	--	--	--	--
D-19-26 04AAA	<3	--	--	<1	--	--	--	--	--
D-22-27 05DBB	82	<5	27	1	--	<1	380	--	--
D-22-29 29ACC	11	<5	--	<1	--	<1	--	--	--
D-22-29 31BBC	75	--	--	4	--	--	--	--	--
D-23-24 15CAC	--	--	--	--	--	--	--	--	--
D-23-25 09BDC	6	<5	--	19	--	4	--	--	--
D-23-27 09DAB	5	--	--	2	--	--	--	--	--
D-23-28 15DAC	11	--	--	2	--	--	--	--	--
D-24-24 11DCD	7	<5	57	2	--	<1	1700	--	--
D-24-25 15BA	14	--	--	<1	--	--	--	--	--
D-24-26 12DAB	<3	<5	--	7	--	1	--	--	--
D-24-26 16ABC	4	--	--	<1	--	--	--	--	--

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL WELL NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (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)
DUNCAN BASIN										
*3.19S.21W.02.341	07-29-86	1200	698	7.10	18.5	210	63	12	72	2
*3.19S.21W.22.432	07-10-86	1400	460	8.10	24.0	39	11	2.8	84	6
*3.20S.20W.30.142	07-10-86	1530	450	8.50	29.5	15	5.0	0.51	91	11
*3.20S.21W.01.131	07-10-86	1230	455	8.40	24.5	20	6.2	0.96	92	9
*3.20S.21W.17.111	07-09-86	0900	455	8.40	22.5	15	3.9	1.2	99	12
D-05-30 24BAA	09-20-86	1300	500	7.65	23.0	180	51	12	33	1
D-06-31 07DAD2	09-20-86	1600	1020	7.65	21.0	160	47	10	140	5
D-06-31 19DCA	09-20-86	1800	580	7.41	17.0	130	40	7.6	68	3
D-06-31 26CBB	07-09-86	1830	3100	7.20	23.5	2100	560	160	150	1
	07-09-86	1330	485	7.90	22.5	120	41	4.7	51	2
D-06-32 08BDD	07-08-86	1015	575	7.70	19.0	170	53	8.2	58	2
D-07-31 04BCB	09-20-86	1100	1010	7.32	17.0	260	82	13	95	3
D-07-31 32CDA	07-08-86	1600	565	8.00	24.0	180	45	16	41	1
D-07-32 32CBC	07-08-86	1400	530	9.00	24.0	9	3.3	0.25	100	15
D-09-32 09CDD	07-09-86	1215	--	8.20	20.0	56	12	6.3	150	9
D-09-32 22CCC	07-09-86	1100	660	7.70	20.0	110	28	9.9	78	3
D-10-31 11DCC	07-08-86	1145	339	7.90	30.5	85	18	9.7	41	2
D-10-31 35BCD	07-08-86	1315	392	8.60	28.0	20	6.4	0.89	80	8
D-10-32 21DBA2	07-08-86	1000	1340	8.30	28.5	24	7.1	1.5	280	26
D-11-32 28BCD	07-10-86	0915	640	7.00	23.5	240	60	23	45	1
D-12-32 04DDD	07-10-86	1100	490	7.00	22.5	210	51	19	30	0.9
GILA BEND BASIN										
C-04-04 04DAA	08-05-86	0900	3850	7.30	28.0	910	280	50	440	7
C-05-04 31ADD	08-05-86	0745	2600	8.00	28.0	190	71	3.0	420	14
C-06-06 10BCB	08-05-86	1145	1900	8.30	32.5	100	36	2.4	320	15
HARQUAHALA PLAINS										
B-03-11 08CAC	07-31-86	0845	942	7.80	29.0	120	22	16	170	7
C-01-08 06CCC2	07-08-86	1130	1260	8.20	32.5	71	13	9.1	230	12
C-01-09 05ACC	08-15-86	1200	1240	8.20	29.0	69	12	9.4	250	13
HOLBROOK										
A-14-22 14CCA	08-05-86	1400	1790	7.05	18.5	630	160	55	26	0.5
A-16-20 16BAC	08-05-86	1115	1120	7.20	27.0	320	66	37	110	3
A-16-22 17CDC	08-05-86	1315	1270	7.20	15.5	390	100	34	95	2
A-17-19 28CCB	08-04-86	1530	3500	7.40	16.5	330	70	38	560	14
A-17-20 10CAA3	08-05-86	0930	840	7.40	16.5	280	56	35	57	2
LOWER HASSAYAMPA										
B-02-06 20DAA	07-24-86	0900	1800	7.50	24.5	300	99	13	250	7
LITTLE CHINO VALLEY										
B-16-02 03DDC4	07-11-86	1430	650	7.70	17.5	280	64	28	43	1
B-17-02S34AB	07-11-86	1300	315	8.00	20.0	120	34	9.6	14	0.6
LOWER SANTA CRUZ BASIN										
D-04-09 04DDD	07-23-86	0945	1180	7.40	22.5	270	80	18	120	3
D-06-03 35DDC	07-09-86	0915	1090	8.10	30.5	56	12	6.1	210	13
D-03-02 24BCA	07-28-86	1100	665	9.60	25.5	5	1.8	0.10	130	27
D-05-03 16CCC1	07-09-86	0730	3900	7.50	25.5	990	210	110	450	6
D-05-03 16CCC2	07-09-86	0645	505	8.30	29.0	34	8.1	3.3	96	7
D-05-07 23DDA	07-10-86	1000	2380	7.60	38.0	340	110	15	340	8
D-06-04 04DDD3	07-09-86	--	1310	7.60	25.0	380	120	19	100	2
D-06-04 35DCC	07-22-86	1230	535	7.70	28.0	70	21	4.2	77	4
D-06-04N04ABB	07-09-86	1145	630	7.80	28.5	140	44	6.0	78	3
D-06-05 34BDD	07-28-86	1515	3300	7.50	24.5	630	200	32	450	8
D-06-07 15ADC2	07-17-86	0830	1120	9.10	53.0	11	4.1	0.06	210	30
D-06-08 20BDD	08-04-86	1415	2080	7.30	25.5	830	260	42	110	2
D-07-06 29DDD2	07-10-86	0745	3040	7.30	24.5	960	310	44	260	4
D-09-07 02CDD	07-10-86	1300	950	7.60	25.5	280	89	13	71	2
D-09-07 03ADD	07-10-86	1200	590	7.60	27.0	140	45	5.8	56	2
D-09-09 34DDD	07-22-86	0915	465	7.50	28.0	120	40	4.6	46	2
D-11-11 35DDD	07-22-86	1000	930	7.20	24.0	340	110	16	58	1
LOWER VERDE RIVER										
A-03-06 15ABB	07-15-86	0915	560	7.50	32.0	180	53	11	47	2
A-10-10 05CCB	07-30-86	1100	358	6.80	--	150	38	13	13	0.5
A-11-10 27CCB	07-30-86	1415	350	6.85	18.5	130	29	15	20	0.8
A-11-10 32ACD	08-07-86	1045	635	7.40	17.0	280	69	27	16	0.4
A-11-10 34DCA	07-30-86	1600	670	6.65	17.0	160	39	14	14	0.5

* In New Mexico

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
DUNCAN BASIN										
*3.19S.21W.02.341	2.6	254	58	19	2.3	42	--	420	3.50	0.040
*3.19S.21W.22.432	1.8	160	30	17	1.8	33	--	280	0.880	<0.010
*3.20S.20W.30.142	1.3	114	46	30	2.6	27	--	270	0.150	<0.010
*3.20S.21W.01.131	1.2	113	47	31	2.7	30	--	280	0.660	<0.010
*3.20S.21W.17.111	0.80	170	14	9.0	1.8	40	--	270	6.00	0.020
D-05-30 24BAA	2.3	189	27	10	0.40	40	--	290	1.80	<0.010
D-06-31 07DAD2	3.8	177	200	65	1.1	41	--	610	1.60	<0.010
D-06-31 19DCA	2.7	167	66	19	2.0	39	--	350	0.130	0.050
D-06-31 26CBB	4.9	196	1800	48	1.5	41	--	2900	<0.100	<0.010
	4.4	167	60	7.2	1.0	27	--	300	1.10	<0.010
D-06-32 08BDD	1.9	197	79	8.7	1.0	30	--	360	0.250	<0.010
D-07-31 04BCB	3.1	209	140	75	1.8	40	--	580	2.70	<0.010
D-07-31 32CDA	3.4	134	80	36	1.2	47	--	350	2.40	<0.010
D-07-32 32CBC	0.60	139	94	5.4	0.60	23	--	310	0.880	<0.010
D-09-32 09CDD	1.6	--	75	3.2	6.1	53	--	490	1.80	0.020
D-09-32 22CCC	1.9	227	36	3.9	2.9	61	--	360	2.10	0.040
D-10-31 11DCC	3.7	121	13	13	0.70	66	--	240	3.70	<0.010
D-10-31 35BCD	1.5	138	27	13	1.3	30	--	240	1.50	<0.010
D-10-32 21DBA2	4.1	228	240	100	5.6	83	--	860	0.220	0.010
D-11-32 28BCD	3.0	265	42	14	1.2	76	--	420	0.950	0.020
D-12-32 04DDD	1.8	219	28	9.6	0.50	70	--	340	0.940	0.040
GILA BEND BASIN										
C-04-04 04DAA	9.4	170	280	1000	1.0	25	--	2200	<0.100	0.020
C-05-04 31ADD	8.1	63	190	660	4.0	26	--	1400	2.40	<0.010
C-06-06 10ECB	3.9	39	160	440	5.2	33	--	1000	<0.100	<0.010
HARQUAHALA PLAINS										
B-03-11 08CAC	4.5	279	93	65	3.4	36	--	580	3.30	0.010
C-01-08 06CCC2	3.0	148	160	170	5.0	19	--	700	5.10	<0.010
C-01-09 05ACC	2.6	214	140	160	2.9	26	--	730	4.50	<0.010
HOLBROOK										
A-14-22 14CCA	4.1	209	440	31	0.40	11	--	850	<0.100	<0.010
A-16-20 16BAC	2.1	234	130	140	0.30	12	--	640	0.120	<0.010
A-16-22 17CDC	5.1	171	270	140	0.30	12	--	760	0.980	0.020
A-17-19 28CCB	3.2	193	320	820	0.60	11	--	1900	<0.100	<0.010
A-17-20 10CAA3	2.5	173	150	69	0.40	12	--	490	0.210	<0.010
LOWER HASSAYAMPA										
B-02-06 20DAA	3.2	122	390	220	4.4	19	--	1100	20.0	<0.010
LITTLE CHINO VALLEY										
B-16-02 03DDC4	2.1	286	25	26	0.30	34	--	390	6.30	0.030
B-17-02S34ABB	1.6	110	9.6	17	0.40	31	--	180	1.80	0.010
LOWER SANTA CRUZ BASIN										
D-04-09 04DDD	3.9	150	110	200	0.70	32	--	660	3.00	<0.010
D-06-03 35DDC	2.3	222	120	110	4.6	32	--	630	4.10	<0.010
D-03-02 24BCA	2.6	148	7.6	88	7.1	1.1	--	330	<0.100	<0.010
D-05-03 16CCC1	7.5	245	830	650	1.2	32	--	2400	10.0	<0.010
D-05-03 16CCC2	2.0	114	74	23	4.4	18	--	300	2.10	<0.010
D-05-07 23DDA	3.9	81	370	470	10	28	--	1400	6.40	<0.010
D-06-04 04DDD3	3.0	118	240	170	0.40	31	--	760	14.0	<0.010
D-06-04 35DCC	2.0	105	61	43	0.60	21	--	290	3.30	<0.010
D-06-04N04ABB	2.8	122	87	60	0.40	24	--	380	2.10	<0.010
D-06-05 34BDD	2.1	229	750	460	2.4	43	--	2100	9.40	0.010
D-06-07 15ADC2	1.1	75	130	190	4.5	34	--	620	1.30	<0.010
D-06-08 20BDD	4.4	126	410	370	0.30	32	--	1300	18.0	<0.010
D-07-06 29DDD2	6.3	278	750	370	0.30	40	--	2000	30.0	<0.010
D-09-07 02CDD	3.2	129	110	80	0.50	30	--	480	26.0	<0.010
D-09-07 03ADD	2.8	138	65	34	0.50	30	--	320	7.30	<0.010
D-09-09 34DDD	1.9	131	49	17	0.60	32	--	270	2.70	<0.010
D-11-11 35DDD	2.3	198	140	76	0.30	34	--	560	9.70	0.010
LOWER VERDE RIVER										
A-03-06 15ABB	2.1	181	24	46	1.8	44	--	340	1.10	<0.010
A-10-10 05CCB	0.70	127	21	9.4	0.80	30	--	200	3.50	<0.010
A-11-10 27CCB	0.60	112	25	12	0.60	32	--	200	4.30	<0.010
A-11-10 32ACD	1.0	293	6.0	15	0.40	29	--	340	0.880	<0.010
A-11-10 34DCA	0.70	152	6.5	6.6	0.50	34	--	210	1.10	<0.010

* In New Mexico

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
DUNCAN BASIN										
*3.19S.21W.02.341	0.12	--	2	26	<0.5	120	<1	<1	<3	10
*3.19S.21W.22.432	--	--	8	8	<0.5	180	<1	1	<3	10
*3.20S.20W.30.142	--	--	11	<2	<0.5	150	<1	<1	<3	<10
*3.20S.21W.01.131	--	--	14	3	0.8	150	<1	6	<3	<10
*3.20S.21W.17.111	0.06	--	11	3	<0.5	150	<1	2	<3	<10
D-05-30 24BAA	--	<10	1	7	--	30	<1	<1	--	--
D-06-31 07DAD2	--	--	--	--	--	200	--	--	--	--
D-06-31 19DCA	0.15	20	4	23	--	110	<1	<1	--	--
D-06-31 26CBB	--	--	<1	10	<0.5	120	<1	<1	<3	<10
	--	--	<1	37	<0.5	60	<1	<1	<3	10
D-06-32 08BDD	--	--	10	18	<0.5	110	<1	<1	<3	<10
D-07-31 04BCB	--	<10	3	--	--	120	--	<1	--	--
D-07-31 32CDA	--	--	2	8	<0.5	150	<1	<1	<3	20
D-07-32 32CBC	--	--	4	<2	<0.5	100	<1	<1	<3	<10
D-09-32 09CDD	--	--	85	16	<0.5	260	<1	<1	<3	10
D-09-32 22CCC	0.12	--	17	26	<0.5	110	<1	<1	<3	20
D-10-31 11DCC	--	--	4	3	<0.5	50	<1	<1	<3	<10
D-10-31 35BCD	--	--	14	<2	<0.5	140	<1	<1	<3	<10
D-10-32 21DBA2	0.03	--	26	9	<0.5	920	<1	<1	<3	<10
D-11-32 28BCD	0.06	--	3	<2	<0.5	40	<1	<1	<3	40
D-12-32 04DDD	0.12	--	2	6	<0.5	30	<1	<1	<3	10
GILA BEND BASIN										
C-04-04 04DAA	0.06	--	--	--	--	460	--	--	--	--
C-05-04 31ADD	--	--	--	--	--	1000	--	--	--	--
C-06-06 10BCB	--	--	--	--	--	1400	--	--	--	--
HARQUAHALA PLAINS										
B-03-11 08CAC	0.03	--	4	13	<0.5	440	<1	<1	<3	20
C-01-08 06CCC2	--	--	18	4	<0.5	500	2	<1	<3	<10
C-01-09 05ACC	--	--	5	19	<0.5	480	<1	3	<3	<10
HOLBROOK										
A-14-22 14CCA	--	--	2	12	<0.5	50	<1	<1	<3	<10
A-16-20 16BAC	--	--	<1	39	<0.5	60	<1	<1	<3	<10
A-16-22 17CDC	0.06	--	<1	19	<0.5	90	<1	<1	<3	<10
A-17-19 28CCB	--	--	<1	31	<2	250	33	<1	<9	<30
A-17-20 10CAA3	--	--	<1	27	<0.5	50	<1	<1	<3	20
LOWER HASSAYAMPA										
B-02-06 20DAA	--	--	9	38	<0.5	1600	<1	11	<3	10
LITTLE CHINO VALLEY										
B-16-02 03DDC4	0.09	--	8	92	<0.5	170	<1	<1	<3	10
B-17-02S34ABB	0.03	--	13	5	<0.5	30	<1	<1	<3	<10
LOWER SANTA CRUZ BASIN										
D-04-09 04DDD	--	--	2	38	<0.5	120	<1	<1	<3	20
D-06-03 35DDC	--	--	31	3	<0.5	570	<1	<1	<3	10
D-03-02 24BCA	--	--	2	12	<0.5	400	<1	<1	<3	<10
D-05-03 16CCC1	--	--	4	32	<0.5	2500	8	<1	<3	10
D-05-03 16CCC2	--	--	14	37	<0.5	180	<1	<1	<3	<10
D-05-07 23DDA	--	--	2	18	<0.5	740	<1	<1	<3	<10
D-06-04 04DDD3	--	--	5	55	<0.5	210	<1	<1	<3	<10
D-06-04 35DCC	--	--	16	35	<0.5	120	<1	4	<3	<10
D-06-04N04ABB	--	--	5	70	<0.5	110	<1	<1	<3	<10
D-06-05 34BDD	0.03	--	8	32	<2	1200	<3	<1	<9	30
D-06-07 15ADC2	--	--	50	8	1	520	<1	<1	<3	<10
D-06-08 20BDD	--	--	1	74	<0.5	100	4	<1	<3	<10
D-07-06 29DDD2	--	--	2	42	<0.5	1300	<1	<1	<3	<10
D-09-07 02CDD	--	--	5	90	<0.5	90	<1	<1	<3	<10
D-09-07 03ADD	--	--	8	100	<0.5	90	<1	<1	<3	<10
D-09-09 34DDD	--	--	7	110	<0.5	70	2	<1	<3	10
D-11-11 35DDD	0.03	--	1	100	<0.5	60	<1	<1	<3	<10
LOWER VERDE RIVER										
A-03-06 15ABB	--	--	10	62	<0.5	90	<1	<1	<3	<10
A-10-10 05CCB	--	--	4	47	<0.5	30	<1	<1	<3	20
A-11-10 27CCB	--	--	<1	53	<0.5	20	<1	<1	<3	20
A-11-10 32ACD	--	--	1	64	<0.5	20	1	<1	<3	<10
A-11-10 34DCA	--	--	<1	38	<0.5	10	<1	<1	<3	<10

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
DUNCAN BASIN									
*3.19S.21W.02.341	<3	<10	36	<1	<10	--	260	7	82
*3.19S.21W.22.432	130	<10	39	3	<10	--	120	18	95
*3.20S.20W.30.142	210	<10	27	4	<10	--	47	16	60
*3.20S.21W.01.131	63	<10	27	5	<10	--	58	33	230
*3.20S.21W.17.111	11	<10	21	<1	<10	--	41	19	29
D-05-30 24BAA	7	<5	9	5	--	<1	420	--	--
D-06-31 07DAD2	22	--	--	<1	--	--	--	--	--
D-06-31 19DCA	10	<5	34	<1	--	<1	200	--	--
D-06-31 26CBB	3600	<10	150	800	<10	--	2300	<6	370
	10	<10	56	4	<10	--	950	<6	180
D-06-32 08BDD	14	<10	45	2	<10	--	550	7	17
D-07-31 04BCB	<3	<5	--	<1	--	1	--	--	--
D-07-31 32CDA	10	<10	28	5	<10	--	330	16	650
D-07-32 32CBC	430	<10	22	5	<10	--	52	14	64
D-09-32 09CDD	9	<10	26	2	70	--	200	140	26
D-09-32 22CCC	22	<10	48	5	<10	--	260	55	45
D-10-31 11DCC	6	<10	22	<1	<10	--	160	30	140
D-10-31 35BCD	10	10	18	<1	10	--	4	15	26
D-10-32 21DBA2	8	<10	37	<1	20	--	93	58	22
D-11-32 28BCD	5	<10	24	1	<10	--	200	35	150
D-12-32 04DDD	3	<10	14	<1	<10	--	190	25	140
GILA BEND BASIN									
C-04-04 04DAA	30	--	--	<10	--	--	--	--	--
C-05-04 31ADD	20	--	--	<10	--	--	--	--	--
C-06-06 10BCB	36	--	--	2	--	--	--	--	--
HARQUAHALA PLAINS									
B-03-11 08CAC	15	10	35	2	20	--	370	16	110
C-01-08 06CCC2	6	<10	39	2	30	--	650	59	14
C-01-09 05ACC	<3	<10	38	<1	<10	--	420	38	5
HOLBROOK									
A-14-22 14CCA	1100	<10	39	42	<10	--	560	<6	510
A-16-20 16BAC	290	<10	23	25	<10	--	480	<6	190
A-16-22 17CDC	66	<10	36	24	<10	--	800	<6	82
A-17-19 28CCB	870	30	28	4	<30	--	840	<18	870
A-17-20 10CAA3	38	<10	23	2	<10	--	450	<6	16
LOWER HASSAYAMPA									
B-02-06 20DAA	22	<10	200	<1	20	--	2000	24	7
LITTLE CHINO VALLEY									
B-16-02 03DDC4	4	<10	23	1	<10	--	800	14	100
B-17-02S34ABB	<3	<10	11	1	<10	--	270	15	9
LOWER SANTA CRUZ BASIN									
D-04-09 04DDD	4	<10	95	<1	<10	--	660	8	4
D-06-03 35DDC	<3	<10	93	<1	60	--	570	56	11
D-03-02 24BCA	210	<10	140	6	<10	--	91	8	31
D-05-03 16CCC1	20	10	340	1	<10	--	7500	19	20
D-05-03 16CCC2	<3	<10	72	1	<10	--	360	52	10
D-05-07 23DDA	15	<10	230	2	20	--	1500	<6	11
D-06-04 04DDD3	12	10	58	2	<10	--	1400	8	15
D-06-04 35DCC	<3	<10	26	<1	<10	--	400	26	<3
D-06-04N04ABB	<3	<10	42	<1	<10	--	750	10	9
D-06-05 34BDD	60	<30	170	10	<30	--	3000	<18	10
D-06-07 15ADC2	<3	<10	260	<1	30	--	72	120	6
D-06-08 20BDD	130	<10	100	25	<10	--	2700	<6	19
D-07-06 29DDD2	7	<10	91	<1	<10	--	2900	<6	15
D-09-07 02CDD	6	<10	43	1	<10	--	870	8	10
D-09-07 03ADD	11	<10	41	1	<10	--	610	9	17
D-09-09 34DDD	8	<10	12	<1	<10	--	410	10	8
D-11-11 35DDD	5	<10	41	<1	<10	--	890	<6	10
LOWER VERDE RIVER									
A-03-06 15ABB	13	<10	31	3	<10	--	420	17	8
A-10-10 05CCB	120	<10	18	10	<10	--	170	<6	130
A-11-10 27CCB	5	<10	38	3	<10	--	120	<6	46
A-11-10 32ACD	15	<10	21	6	<10	--	110	<6	4500
A-11-10 34DCA	<3	<10	28	2	<10	--	55	<6	11

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QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL WELL NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (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)
NEW RIVER-CAVE CREEK										
A-05-02 03DBC	07-10-86	1100	510	7.80	32.0	76	15	9.2	83	4
A-04-02 11ADB	07-10-86	0900	432	7.70	28.5	140	29	16	38	1
A-06-04 26DCC	07-10-86	1330	465	7.90	27.0	130	24	18	44	2
PUERCO-ZUNI										
A-14-29 35CDC2	10-11-85	1500	1800	6.80	20.0	660	200	40	130	2
RANEGRAS PLAIN										
B-02-14 10CDC	08-14-86	0945	750	8.90	30.0	18	5.4	1.0	130	14
B-02-14 28CCC	08-14-86	0815	1160	8.10	29.0	250	52	30	130	4
B-03-15 23BDB2	08-14-86	1130	770	8.50	30.0	45	9.2	5.3	130	9
B-04-14 19BAA	07-28-86	1400	1090	8.70	29.0	25	8.5	1.0	220	20
B-04-15 13DAA	07-28-86	1230	1260	8.20	31.0	46	14	2.6	240	16
B-04-15 14AAA	07-28-86	1030	1640	8.30	31.0	130	48	1.8	280	11
B-04-16 09BDA	08-14-86	1315	870	8.00	29.5	83	23	6.1	140	7
B-07-17 23CCB	07-29-86	1100	890	7.90	25.0	100	32	5.6	140	6
B-07-17 26BBB	07-29-86	1300	1500	7.70	26.0	230	68	13	230	7
B-08-19 34BBB	08-14-86	1630	450	7.70	27.0	160	55	5.5	18	0.6
SAFFORD BASIN										
D-08-26 17DDD	07-24-86	1800	1350	8.75	27.0	23	5.7	2.1	240	23
D-03-22 18C	09-30-86	1000	8400	7.38	19.5	1300	350	98	1200	15
D-04-22 25BCB	07-07-86	1315	540	7.20	19.5	100	33	4.7	64	3
D-04-22 26DAA	08-12-86	1930	468	7.30	18.5	86	27	4.4	51	3
D-04-23 18ACA1	08-12-86	1245	720	7.30	20.0	120	36	6.9	96	4
D-04-23 18DD	08-12-86	1445	1150	7.31	21.0	190	52	14	140	5
D-04-23 19BCB	08-13-86	1115	640	7.35	18.5	130	40	6.2	74	3
D-04-23 20CDD	08-12-86	1700	5420	7.55	20.0	460	97	53	850	18
D-04-23 27DAA	08-13-86	1245	4080	7.50	19.0	360	97	29	530	13
D-04-23 33BAB	06-30-86	1100	870	7.70	21.0	160	45	11	100	4
D-04-23 36BBC	08-14-86	1430	4240	7.65	31.0	330	93	23	740	18
D-05-24 27BBA	07-07-86	0900	480	7.80	25.5	150	37	14	30	1
D-05-21 36BCB	07-07-86	1445	450	8.70	31.0	12	4.3	0.35	100	13
D-05-24 17ADD2	08-06-86	1930	5300	7.30	47.0	280	96	9.0	990	27
	07-03-86	0830	5000	7.80	46.5	240	82	8.3	1000	29
D-05-24 29CDD2	08-06-86	2000	4450	7.15	18.0	560	160	40	640	12
D-05-24 31AAA2	07-25-86	1745	2950	7.30	21.0	620	170	47	520	9
D-05-24 32BDA	08-06-86	1700	1970	7.80	18.0	180	49	13	290	10
D-06-23 03CCB	07-30-86	1715	1460	9.20	26.0	3	1.0	0.20	320	79
D-06-24 03BCB	08-06-86	1430	2360	7.55	18.0	300	81	24	330	9
D-06-24 13ABD2	08-13-86	2000	2130	7.56	18.5	270	77	18	280	8
D-06-24 24BCD	07-01-86	1530	1760	7.40	18.5	290	65	30	260	7
D-06-25 18DBC	07-01-86	1700	1790	7.40	18.5	230	61	18	290	9
D-06-25 26BBD	07-20-86	1330	1780	7.70	19.0	320	80	30	410	10
D-06-25 28DDC2	07-01-86	1400	3350	7.40	18.5	600	140	60	500	9
D-06-25 30BBC2	06-30-86	1345	2490	7.70	19.5	180	40	20	470	16
D-06-25 35DBD	07-31-86	1130	4150	7.30	18.0	630	170	50	610	11
D-06-25 36CBB	07-20-86	1700	14000	7.80	46.0	280	100	7.0	2500	68
	07-07-86	1545	14200	7.90	46.5	--	--	--	--	--
D-06-28 31DBA	07-30-86	1530	950	7.50	19.5	160	47	11	99	4
D-07-23 01DAA2	07-07-86	1130	4000	8.60	27.5	140	51	1.9	780	31
D-07-24 04CCC	07-21-86	1130	--	9.10	22.0	15	5.1	0.53	61	7
D-07-24 08AAB	07-21-86	1300	575	8.33	20.0	85	27	4.3	81	4
D-07-24 08AAC2	07-21-86	1230	--	9.20	27.0	69	20	4.6	540	29
D-07-25 07CCC	07-03-86	1030	12000	8.00	29.5	770	270	24	2800	46
D-07-25 10AAD	07-31-86	1315	--	7.21	20.0	690	170	64	390	7
D-07-25 12ACD	07-19-86	2030	2070	7.10	21.0	710	210	45	430	7
D-07-26 04BAA	07-29-86	1700	12500	8.00	59.0	380	140	8.0	2800	65
D-07-27 03ADD	07-30-86	1315	1860	7.50	33.0	160	47	9.9	300	11
D-07-27 03DDA1	07-30-86	1200	910	7.60	21.0	180	53	12	100	3
D-07-27 11BBB1	07-27-86	1945	1750	8.60	47.0	9	3.3	0.29	340	50
D-07-27 18DDD1	07-29-86	1830	2600	7.40	20.0	290	80	23	330	9
D-07-30 28CDB	09-19-86	1700	1120	7.30	20.0	360	99	27	77	2
D-08-22 12ADC	08-12-86	1600	275	7.60	11.0	100	31	6.4	12	0.5
D-08-24 35BCUNS	08-12-86	1145	65	6.80	6.0	20	6.1	1.2	2.4	0.2
D-08-26 08ACB	07-25-86	1230	880	8.39	29.0	120	30	10	480	20
D-08-26 08ACC	07-25-86	1145	465	8.35	26.0	74	26	2.1	230	12
D-08-27 07ABC	07-30-86	1915	1760	9.00	26.0	7	2.4	0.20	290	51
D-08-30 25DCB2	07-01-86	1015	570	8.00	28.5	72	23	3.4	89	5
D-09-25 04DDUNS	08-12-86	0700	800	7.40	22.0	320	90	22	38	1
D-09-25 19ADUNS	08-12-86	0945	115	6.60	21.0	37	11	2.3	8.6	0.6
D-09-26 05BBC	07-21-86	1830	--	7.20	26.0	150	51	6.7	110	4
D-09-26 18DDA	07-02-86	1500	310	7.30	22.0	100	29	7.1	19	0.9
D-09-27 09ADD	07-02-86	1700	650	7.90	24.5	47	15	2.2	96	6
D-09-29 13BDC	07-01-86	0800	965	8.00	22.0	200	45	21	110	3
D-10-25 17B	08-05-86	1730	500	7.50	30.0	220	61	17	20	0.6
D-10-26 33BAA	07-02-86	1215	865	7.20	22.5	330	93	23	48	1
D-10-27 28DCD	07-02-86	0945	345	9.00	26.5	6	2.3	0.07	73	14
D-10-28 07CAD1	07-02-86	0830	1190	7.80	21.0	100	31	6.2	210	9

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
NEW RIVER-CAVE CREEK										
A-05-02 03DBC	3.7	201	17	13	3.6	51	--	320	3.50	0.010
A-04-02 11ADB	3.0	172	9.9	11	1.0	41	--	250	4.20	<0.010
A-06-04 26DCC	3.2	170	17	18	1.1	41	--	270	3.90	<0.010
PUERCO-ZUNI										
A-14-29 35CDC2	20	498	300	130	3.1	10	--	1100	<0.100	0.010
RANEGRAS PLAIN										
B-02-14 10CDC	4.7	114	87	79	8.4	31	--	420	0.410	<0.010
B-02-14 28CCC	2.8	103	160	130	0.50	31	--	600	34.0	<0.010
B-03-15 23BDB2	2.6	96	110	89	4.4	12	--	420	3.10	<0.010
B-04-14 19BAA	1.5	111	130	150	9.8	16	--	600	6.10	<0.010
B-04-15 13DAA	3.0	109	160	190	8.4	38	--	720	5.90	<0.010
B-04-15 14AAA	2.7	69	300	240	8.6	27	--	950	6.00	<0.010
B-04-16 09BDA	2.3	117	120	100	4.8	32	--	500	3.10	<0.010
B-07-17 23CCB	3.4	167	140	65	4.3	29	--	520	2.40	<0.010
B-07-17 26BBB	5.4	139	290	200	3.8	35	--	930	3.10	<0.010
B-08-19 34BBB	6.8	167	14	10	0.90	25	--	240	4.70	<0.010
SAFFORD BASIN										
D-08-26 17DDD	2.7	122	170	180	8.4	13	--	700	0.160	<0.010
D-03-22 18C	16	113	680	2200	1.1	44	--	4800	0.490	<0.010
D-04-22 25BCB	0.90	127	48	35	1.7	29	--	290	0.460	0.030
D-04-22 26DAA	1.3	96	47	42	1.1	24	--	260	0.780	0.010
D-04-23 18ACA1	1.1	175	68	55	1.8	31	--	400	1.50	0.030
D-04-23 18DD	1.1	237	96	110	1.7	35	--	590	1.60	0.030
D-04-23 19ECB	0.90	158	60	48	1.6	29	--	370	1.30	0.030
D-04-23 20CDD	2.1	331	650	1000	1.3	42	--	2900	12.0	0.050
D-04-23 27DAA	8.7	283	350	710	2.0	40	--	1900	0.170	0.060
D-04-23 33BAB	0.70	169	120	63	0.80	39	--	480	2.20	0.050
D-04-23 36BBC	30	101	200	1200	4.0	53	--	2400	1.60	0.100
D-05-24 27BBA	3.4	141	65	6.8	0.30	59	--	300	2.00	0.060
D-05-21 36BCB	0.90	124	22	20	13	15	--	250	<0.100	<0.010
D-05-24 17ADD2	12	77	410	1400	4.0	39	--	3000	0.170	<0.010
	12	81	410	1500	3.8	40	--	3100	0.130	<0.010
D-05-24 29CDD2	7.3	443	400	750	2.5	48	--	2300	7.60	0.070
D-05-24 31AAA2	9.5	353	350	720	1.9	42	--	2100	1.20	0.060
D-05-24 32BDA	4.4	273	160	280	2.5	39	--	1000	1.20	0.100
D-06-23 03CCB	0.60	447	130	98	8.7	18	--	850	<0.100	0.100
D-06-24 03BCB	5.9	264	230	390	1.7	39	--	1300	0.430	<0.010
D-06-24 13ABD2	3.8	325	170	270	2.0	42	--	1100	6.00	0.050
D-06-24 24BCD	1.0	337	170	260	1.8	47	--	1000	4.10	0.040
D-06-25 18DBC	2.6	285	180	300	1.8	42	--	1100	5.50	0.100
D-06-25 26BBB	6.0	365	250	420	5.0	57	--	2400	5.20	0.060
D-06-25 28DDC2	2.1	427	370	630	1.5	54	--	2000	14.0	0.030
D-06-25 30BBC2	1.3	389	260	400	3.0	57	--	1500	7.30	0.490
D-06-25 35DBD	6.5	428	400	750	2.2	53	--	2300	11.0	0.030
D-06-25 36CBB	12	64	660	3300	7.3	58	--	6700	<0.100	<0.010
	9.6	62	700	3500	8.0	--	--	--	<0.100	<0.010
D-06-28 31DBA	4.1	162	61	110	1.6	40	--	480	0.790	0.040
D-07-23 01DAA2	3.9	31	530	920	6.0	14	--	2300	<0.100	<0.010
D-07-24 04CCC	2.6	107	16	20	0.90	17	--	220	0.110	0.020
D-07-24 08AAB	5.9	124	59	61	0.50	19	--	360	<0.100	<0.010
D-07-24 08AAC2	2.3	36	380	590	7.3	16	--	1600	<0.100	<0.010
D-07-25 07CCC	11	34	1600	4000	6.4	14	--	8700	<0.100	<0.010
D-07-25 10AAD	2.4	372	260	570	0.70	46	--	1700	19.0	0.030
D-07-25 12ACD	3.6	376	350	600	1.3	45	--	2900	8.00	0.030
D-07-26 04BAA	16	50	1700	3000	7.6	39	--	7700	0.100	<0.010
D-07-27 03ADD	7.4	230	220	250	8.0	59	--	1000	1.50	0.040
D-07-27 03DDA1	4.1	172	68	130	1.6	39	--	510	0.640	0.040
D-07-27 11BBB1	3.6	209	250	210	11	63	--	1000	<0.100	0.010
D-07-27 18DDD1	5.8	333	210	300	3.1	61	--	1200	4.90	0.030
D-07-30 28CDB	2.8	287	150	71	1.5	68	--	670	4.60	0.020
D-08-22 12ADC	3.0	101	30	4.3	0.80	18	--	170	<0.100	<0.010
D-08-24 35BCUNS	0.50	19	8.4	0.60	<0.10	11	--	42	<0.100	<0.010
D-08-26 08ACB	4.7	148	310	480	5.6	16	--	1400	0.100	<0.010
D-08-26 08ACC	2.0	100	180	190	1.8	29	--	720	0.440	<0.010
D-08-27 07ABC	1.1	128	100	270	1.0	32	--	770	0.210	0.010
D-08-30 25DCB2	5.1	158	66	29	3.5	52	--	370	1.80	<0.010
D-09-25 04DDUNS	6.8	230	180	16	1.0	32	--	520	<0.100	<0.010
D-09-25 19ADUNS	0.80	54	4.0	2.4	0.40	21	--	83	0.120	<0.010
D-09-26 05BBC	3.5	128	130	130	2.4	61	--	570	0.650	<0.010
D-09-26 18DDA	0.90	88	44	5.4	0.80	38	--	200	2.20	0.010
D-09-27 09ADD	1.3	77	34	130	0.40	30	--	360	0.550	<0.010
D-09-29 13BDC	13	154	160	98	1.9	64	--	610	1.90	<0.010
D-10-25 17B	1.8	220	29	5.8	2.4	21	--	290	0.310	<0.010
D-10-26 33BAA	0.60	270	120	13	3.5	38	--	500	0.610	<0.010
D-10-27 28DCD	0.70	126	17	9.3	4.9	34	--	220	<0.100	0.020
D-10-28 07CAD1	2.3	233	190	100	1.6	43	--	720	4.70	0.020

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
NEW RIVER-CAVE CREEK										
A-05-02 03DBC	0.03	--	37	11	<0.5	160	<1	<1	<3	10
A-04-02 11ADB	--	--	13	22	<0.5	70	<1	<1	<3	<10
A-06-04 26DCC	--	--	7	7	<0.5	80	<1	33	<3	<10
PUERCO-ZUNI										
A-14-29 35CDC2	0.03	--	--	--	--	480	--	--	--	--
RANEGRAS PLAIN										
B-02-14 10CDC	--	--	83	<2	<0.5	670	<1	<1	<3	<10
B-02-14 28CCC	--	--	2	39	<0.5	270	<1	<1	<3	<10
B-03-15 23BDB2	--	--	35	3	<0.5	540	<1	<1	<3	<10
B-04-14 19BAA	--	--	42	19	<0.5	700	<1	49	<3	<10
B-04-15 13DAA	--	--	35	24	<0.5	810	<1	15	<3	20
B-04-15 14AAA	--	--	34	49	<0.5	870	<1	28	<3	<10
B-04-16 09BDA	--	--	32	45	<0.5	570	<1	8	<3	10
B-07-17 23CCB	--	--	10	29	<0.5	500	<1	<1	<3	10
B-07-17 26BBB	--	--	10	21	<0.5	670	<1	<1	<3	10
B-08-19 34BBB	--	--	2	110	<0.5	80	<1	<1	<3	10
SAFFORD BASIN										
D-08-26 17DDD	--	--	--	--	--	500	--	--	--	--
D-03-22 18C	--	<10	9	<100	--	1100	<1	<1	--	--
D-04-22 25BCB	0.09	--	2	38	<0.5	50	<1	<1	<3	<10
D-04-22 26DAA	0.03	--	--	--	--	50	--	--	--	--
D-04-23 18ACA1	0.09	--	--	--	--	100	--	--	--	--
D-04-23 18DD	0.09	<10	8	63	--	150	<1	<1	--	--
D-04-23 19BCB	0.09	<10	2	51	--	70	<1	<1	--	--
D-04-23 20CDD	0.15	--	--	--	--	1300	--	--	--	--
D-04-23 27DAA	0.18	<10	6	<100	--	690	<1	<1	--	--
D-04-23 33BAB	0.15	--	3	41	<0.5	120	<1	<1	<3	<10
D-04-23 36BBC	0.31	<10	12	--	--	560	--	<1	--	--
D-05-24 27BBA	0.18	--	2	78	<0.5	50	<1	<1	<3	20
D-05-21 36BCB	--	--	3	<2	<0.5	210	<1	<1	<3	10
D-05-24 17ADD2	--	<10	23	100	--	740	<1	<1	--	--
	--	--	27	56	<2	720	6	<1	<9	<30
D-05-24 29CDD2	0.21	--	--	--	--	800	--	--	--	--
D-05-24 31AAA2	0.18	--	--	--	--	520	--	--	--	--
D-05-24 32BDA	0.31	10	6	--	--	390	--	<1	--	--
D-06-23 03CCB	0.31	--	260	13	<0.5	1600	<1	<1	<3	10
D-06-24 03BCB	--	<10	5	--	--	400	--	<1	--	--
D-06-24 13ABD2	0.15	<10	3	35	--	400	1	<1	--	--
D-06-24 24BCD	0.12	--	4	76	<0.5	320	<1	<1	<3	<10
D-06-25 18DBC	0.31	--	7	30	<0.5	330	1	<1	<3	<10
D-06-25 26BBB	0.18	<10	14	--	--	680	--	<1	--	--
D-06-25 28DDC2	0.09	--	4	49	<2	660	<3	<1	<9	<30
D-06-25 30BBC2	1.5	--	77	40	<2	710	<3	<1	<9	<30
D-06-25 35DBD	0.09	<10	4	--	--	650	--	<1	--	--
D-06-25 36CBB	--	20	9	--	--	1600	--	<1	--	--
	--	--	8	--	--	1600	--	<1	--	--
D-06-28 31DBA	0.12	<10	5	--	--	100	--	<1	--	--
D-07-23 01DAA2	--	--	46	23	<2	890	<3	<1	<9	<30
D-07-24 04CCC	0.06	10	8	--	--	90	--	<1	--	--
D-07-24 08AAB	--	<10	4	--	--	110	--	--	--	--
D-07-24 08AAC2	--	<10	13	--	--	1400	--	<1	--	--
D-07-25 07CCC	--	--	66	27	<5	2400	38	<1	<30	<100
D-07-25 10AAD	0.09	<10	1	--	--	400	--	<1	--	--
D-07-25 12ACD	0.09	10	3	--	--	410	--	<1	--	--
D-07-26 04BAA	--	<10	46	--	--	4100	--	<1	--	--
D-07-27 03ADD	0.12	<10	51	--	--	450	--	<1	--	--
D-07-27 03DDA1	0.12	<10	12	--	--	90	--	<1	--	--
D-07-27 11BBB1	0.03	10	110	--	--	500	--	<1	--	--
D-07-27 18DDD1	0.09	<10	19	--	--	370	--	<1	--	--
D-07-30 28CDB	0.06	<10	2	--	--	100	--	<1	--	--
D-08-22 12ADC	--	--	<1	49	<0.5	<10	<1	<1	<3	<10
D-08-24 35BCUNS	--	--	<1	<2	<0.5	<10	<1	<1	<3	<10
D-08-26 08ACB	--	20	1	<100	--	1300	<1	<1	--	--
D-08-26 08ACC	--	20	1	12	--	160	<1	<1	--	--
D-08-27 07ABC	0.03	<10	7	--	--	180	--	<1	--	--
D-08-30 25DCB2	--	--	9	3	<0.5	110	<1	<1	<3	<10
D-09-25 04DDUNS	--	--	<1	51	<0.5	20	<1	<1	<3	10
D-09-25 19ADUNS	--	--	<1	2	<0.5	<10	<1	<1	<3	20
D-09-26 05BBC	--	<10	<1	--	--	130	--	<1	--	--
D-09-26 18DDA	0.03	--	<1	26	<0.5	20	<1	<1	<3	10
D-09-27 09ADD	--	--	<1	3	<0.5	80	<1	<1	9	10
D-09-29 13BDC	--	--	2	10	<0.5	280	1	<1	<3	<10
D-10-25 17B	--	<10	<1	--	--	<10	--	<1	--	--
D-10-26 33BAA	--	--	5	3	2	30	<1	<1	<3	20
D-10-27 28DCD	0.06	--	5	<2	<0.5	190	<1	<1	<3	<10
D-10-28 07CAD1	0.06	--	8	5	1	140	2	<1	<3	10

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
NEW RIVER-CAVE CREEK									
A-05-02 03DBC	7	<10	63	<1	20	--	310	38	13
A-04-02 11ADB	<3	<10	36	<1	<10	--	430	28	11
A-06-04 26DCC	4	<10	49	<1	<10	--	220	10	10
PUERCO-ZUNI									
A-14-29 35CDC2	670	--	--	24	--	--	--	--	--
RANEGRAS PLAIN									
B-02-14 10CDC	140	<10	54	4	10	--	41	21	12
B-02-14 28CCC	6	<10	29	5	<10	--	990	24	260
B-03-15 23BDB2	21	<10	60	5	<10	--	69	36	29
B-04-14 19BAA	8	<10	37	<1	20	--	120	86	8
B-04-15 13DAA	9	<10	52	1	10	--	200	70	7
B-04-15 14AAA	6	<10	52	2	20	--	550	72	<3
B-04-16 09BDA	27	<10	110	2	<10	--	460	29	170
B-07-17 23CCB	11	<10	66	5	20	--	1100	11	5
B-07-17 26BBB	6	<10	96	<1	<10	--	2200	11	5
B-08-19 34BBB	8	<10	22	7	<10	--	880	<6	1100
SAFFORD BASIN									
D-08-26 17DDD	25	--	--	2	--	--	--	--	--
D-03-22 18C	60	<5	640	620	--	8	3900	--	--
D-04-22 25BCB	18	<10	92	1	<10	--	220	9	30
D-04-22 26DAA	25	--	--	<1	--	--	--	--	--
D-04-23 18ACA1	62	--	--	<1	--	--	--	--	--
D-04-23 18DD	5	<5	160	1	--	<1	470	--	--
D-04-23 19BCB	5	<5	110	<1	--	<1	330	--	--
D-04-23 20CDD	60	--	--	10	--	--	--	--	--
D-04-23 27DAA	60	<5	350	20	--	<1	1100	--	--
D-04-23 33BAB	5	<10	55	<1	<10	--	310	7	5
D-04-23 36BBC	30	<5	--	10	--	<1	--	--	--
D-05-24 27BBA	11	<10	20	2	<10	--	360	14	34
D-05-21 36BCB	79	<10	71	4	<10	--	49	<6	19
D-05-24 17ADD2	50	<5	1400	<10	--	<1	1400	--	--
	10	<30	1200	2	30	--	1500	30	25
D-05-24 29CDD2	50	--	--	150	--	--	--	--	--
D-05-24 31AAA2	170	--	--	180	--	--	--	--	--
D-05-24 32BDA	15	<5	--	57	--	<1	--	--	--
D-06-23 03CCB	36	<10	91	2	10	--	46	<6	31
D-06-24 03BCB	20	<5	--	40	--	2	--	--	--
D-06-24 13ABD2	<3	<5	140	<1	--	2	680	--	--
D-06-24 24BCD	5	<10	190	<1	<10	--	830	20	12
D-06-25 18DBC	4	<10	180	<1	<10	--	750	18	4
D-06-25 26BBD	20	<5	--	<10	--	3	--	--	--
D-06-25 28DDC2	<9	<30	430	<3	<30	--	2000	<18	15
D-06-25 30BBC2	13	<30	270	<3	<30	--	780	87	<9
D-06-25 35DBD	20	<5	--	<10	--	4	--	--	--
D-06-25 36CBB	160	<5	--	100	--	<1	--	--	--
	--	--	--	--	--	--	--	--	--
D-06-28 31DBA	14	<5	--	2	--	<1	--	--	--
D-07-23 01DAA2	19	40	830	12	70	--	2100	<18	<9
D-07-24 04CCC	33	<5	--	2	--	<1	--	--	--
D-07-24 08AAB	10	<5	--	29	--	<1	--	--	--
D-07-24 08AAC2	10	<5	--	30	--	<1	--	--	--
D-07-25 07CCC	90	110	3000	78	<100	--	1200	<6	83
D-07-25 10AAD	50	<5	--	<10	--	4	--	--	--
D-07-25 12ACD	20	<5	--	<10	--	3	--	--	--
D-07-26 04BAA	80	<5	--	100	--	<1	--	--	--
D-07-27 03ADD	8	<5	--	1	--	<1	--	--	--
D-07-27 03DDA1	9	<5	--	<1	--	<1	--	--	--
D-07-27 11BBB1	7	<5	--	5	--	<1	--	--	--
D-07-27 18DDD1	30	<5	--	<10	--	1	--	--	--
D-07-30 28CDB	16	<5	--	7	--	<1	--	--	--
D-08-22 12ADC	17	<10	10	5	<10	--	100	<6	4
D-08-24 35BCUNS	<3	<10	<4	1	<10	--	27	<6	4
D-08-26 08ACB	40	<5	680	10	--	<1	1500	--	--
D-08-26 08ACC	10	<5	140	<1	--	<1	44	--	--
D-08-27 07ABC	76	<5	--	3	--	<1	--	--	--
D-08-30 25DCB2	5	<10	70	<1	<10	--	270	12	120
D-09-25 04DDUNS	260	<10	22	170	40	--	270	<6	4
D-09-25 19ADUNS	<3	<10	5	<1	<10	--	41	<6	4
D-09-26 05BBC	160	<5	--	6	--	<1	--	--	--
D-09-26 18DDA	11	<10	14	2	<10	--	160	<6	73
D-09-27 09ADD	350	<10	100	9	<10	--	43	<6	1400
D-09-29 13BDC	7	<10	170	2	10	--	570	10	37
D-10-25 17B	23	<5	--	<1	--	<1	--	--	--
D-10-26 33BAA	22	<10	39	3	<10	--	270	<6	120
D-10-27 28DCD	35	<10	53	5	<10	--	21	<6	37
D-10-28 07CAD1	52	<10	110	5	<10	--	48	30	150

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL WELL NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (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)
SAN BERNARDINO VALLEY										
D-21-32 15DCB	07-30-86	1130	160	5.90	17.0	52	15	3.5	8.2	0.5
D-24-30 14CBD	08-18-86	1630	--	--	--	--	--	--	--	--
	08-20-86	1445	--	--	--	--	--	--	--	--
	08-20-86	1845	--	--	--	--	--	--	--	--
	08-21-86	1520	--	--	--	--	--	--	--	--
SNOWFLAKE										
A-11-20 32BAA	08-06-86	1415	375	7.80	15.5	240	60	21	5.0	0.1
A-11-23 19BCD	08-06-86	0900	320	7.60	14.5	140	28	18	17	0.6
A-12-22W31BCB	08-04-86	1400	488	7.00	18.0	270	58	30	14	0.4
A-13-19 22DBA	08-06-86	1030	455	7.50	20.5	210	49	21	8.1	0.3
A-13-21 26ADB2	08-05-86	0800	1040	7.10	15.0	110	23	13	15	0.6
SALT RIVER VALLEY										
A-01-05 15DCB	11-07-85	0945	1140	7.70	24.0	240	58	24	130	4
B-01-02 25BBC2	07-24-86	1045	2280	7.80	37.0	100	34	4.4	390	17
D-01-06 27CDD	07-23-86	0700	1820	7.30	28.0	600	170	42	91	2
D-01-10 35DBC	07-16-86	1345	1290	7.20	23.0	640	190	40	45	0.8
A-01-06 07BCC	11-07-85	1230	1340	7.60	22.0	220	55	20	180	5
A-01-06 17DDC	11-07-85	1400	1420	7.70	27.0	180	44	17	210	7
A-02-04 30ACC	07-16-86	--	1390	8.00	23.5	200	36	27	230	7
A-02-05 36DAA	11-15-85	1000	1360	7.60	21.0	250	61	24	190	5
A-03-01 27CCC	07-14-86	0900	1630	7.50	23.5	630	150	62	59	1
B-06-03 33DCB	07-09-86	1415	655	8.30	26.0	140	33	13	72	3
D-01-09 07BDC2	07-16-86	0845	530	9.00	49.0	3	1.2	0.08	110	28
D-22-30 05CD	09-25-86	1330	467	8.30	21.0	46	6.7	7.0	92	6
A-02-05 14AAA	07-11-86	1000	2350	7.60	25.0	350	89	31	200	5
D-02-04 25DDD	07-15-86	1300	4950	6.90	24.5	1100	310	75	500	7
SAN SIMON BASIN										
*25S/20W 34.444	09-21-86	1630	803	7.70	20.0	160	55	5.9	94	3
D-12-28 14CAA	08-20-86	1700	2520	7.20	22.0	920	280	53	130	2
D-13-28 22DDD	08-21-86	1415	500	7.69	30.0	100	32	5.4	57	3
D-14-32 16CAB	09-12-86	1330	590	7.72	27.5	80	30	1.3	92	5
D-14-32 20CBA	09-12-86	1500	2850	7.17	23.0	670	200	40	340	6
*27S/21W17DCC	09-26-86	1400	360	7.78	17.0	130	47	3.8	24	0.9
*27S/21W22.122	09-26-86	1500	470	8.05	23.0	56	21	0.90	72	4
*28S/21W19.124	09-26-86	1200	320	8.03	25.0	87	32	1.7	34	2
*28S/21W29.133	09-26-86	1800	582	7.80	22.0	190	70	3.3	40	1
*28S/22W12.123	09-25-86	1830	253	7.50	20.0	76	26	2.7	21	1
*26S.22W.24S212	07-17-86	1400	375	7.50	23.0	110	41	2.4	35	2
*27S.21W.30.413	07-16-86	1630	250	8.20	22.0	98	33	3.6	18	0.8
D-09-30 33DCD	09-19-86	1030	2000	7.68	24.0	170	41	16	310	11
D-10-28 36AAD	07-10-86	1430	1540	8.50	42.0	18	6.4	0.43	320	35
D-11-26 19ADD	08-19-86	1500	260	6.99	40.0	90	26	6.0	23	1
D-11-26 23BCC	07-28-86	2030	--	7.20	24.0	110	30	7.4	28	1
D-11-29 01CDD	09-19-86	1300	1200	8.89	27.0	5	1.9	0.05	230	47
D-11-29 10AAA	07-10-86	1115	7550	8.50	25.5	--	--	--	--	--
D-11-29 14AAA	07-10-86	0915	1590	9.30	27.5	3	0.98	0.08	430	120
D-11-30 31CCA	07-28-86	1800	1560	7.75	26.0	310	110	7.4	210	5
D-11-31 26ADC	07-08-86	1515	474	7.00	23.5	160	44	11	37	1
D-12-26 08DBC	08-11-86	1645	430	7.29	29.0	130	40	6.1	44	2
D-12-26 10ACC	08-11-86	1815	330	7.30	23.0	80	27	3.1	32	2
D-12-26 28BBB	07-17-86	1645	420	7.80	23.0	62	16	5.2	67	4
D-12-26 34ADC	07-28-86	1900	--	7.60	23.0	200	61	12	34	1
D-12-27 17DCC	08-07-86	1600	510	7.92	26.0	64	21	2.9	71	4
D-12-27 33DAA	07-15-86	1400	4400	7.60	26.5	150	43	9.2	39	1
D-12-28 16CDD	08-20-86	1430	412	7.99	28.0	77	28	1.6	47	2
D-12-28 20ABC	07-28-86	1600	504	7.60	24.0	140	44	6.5	46	2
D-12-28 23CCC	08-20-86	1845	611	8.69	34.5	20	7.7	0.23	110	11
D-12-28 33CCC	08-19-86	1800	440	7.66	29.0	100	33	5.3	55	2
D-12-28 34BBC	08-20-86	1130	418	8.24	31.5	56	20	1.5	72	4
D-12-28 34BBC2	07-14-86	1245	1440	7.20	21.5	510	160	27	89	2
	08-20-86	1230	1550	7.16	21.0	550	170	29	92	2
D-12-29 25DDC	07-18-86	1000	1580	7.90	23.0	130	29	13	280	11
D-13-28 03BBC	08-21-86	0900	464	7.98	32.0	86	30	2.6	55	3
D-13-28 10BCC	08-21-86	1200	375	8.16	36.5	65	23	1.9	48	3
D-13-28 15BCC	08-21-86	1045	313	8.13	36.0	53	17	2.5	48	3
D-13-28 22BCC	08-21-86	1530	272	8.83	37.0	13	4.3	0.44	51	7
D-13-29 23DBB	09-08-86	1300	1050	7.32	22.0	290	97	11	75	2
D-13-29 25CDC	09-08-86	1430	480	8.95	37.0	--	2.0	<0.10	110	--
D-13-30 03CCA	07-17-86	1430	800	7.70	2.5	100	27	8.4	150	7
D-13-30 17BBB	07-14-86	1515	1210	7.50	21.0	310	90	21	150	4
D-13-30 36AAD	07-17-86	1215	2450	7.60	20.0	650	210	30	330	6
D-13-30 36ADA	09-09-86	1630	3150	7.20	19.0	760	240	40	390	6

* In New Mexico

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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 CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
SAN BERNARDINO VALLEY										
D-21-32 15DCB	4.8	33	32	2.5	0.10	43	--	130	<0.100	<0.010
D-24-30 14CBD	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
SNOWFLAKE										
A-11-20 32BAA	1.3	228	20	5.7	<0.10	11	--	260	0.540	<0.010
A-11-23 19BCD	3.0	138	9.2	14	<0.10	30	--	200	4.80	0.030
A-12-22W31BCB	4.4	270	18	4.0	0.10	31	--	320	0.270	<0.010
A-13-19 22DBA	1.3	171	38	10	0.10	12	--	240	0.540	<0.010
A-13-21 26ADB2	2.7	98	35	10	0.10	22	--	180	0.140	<0.010
SALT RIVER VALLEY										
A-01-05 15DCB	4.3	141	42	270	0.20	28	--	640	0.490	0.010
B-01-02 25BBC2	4.8	91	150	550	5.2	26	--	1200	4.40	<0.010
D-01-06 27CDD	6.3	82	150	420	0.30	34	--	970	6.70	<0.010
D-01-10 35DBC	3.4	250	380	50	0.50	41	--	900	0.960	<0.010
A-01-06 07BCC	4.4	189	50	270	0.20	25	--	720	2.20	0.010
A-01-06 17DDC	4.6	146	53	340	1.5	30	--	790	2.30	0.010
A-02-04 30ACC	3.8	251	150	230	3.9	18	--	850	4.30	<0.010
A-02-05 36DAA	5.0	245	75	230	0.30	22	--	750	4.80	0.030
A-03-01 27CCC	3.7	205	130	310	0.20	32	--	870	12.0	<0.010
B-06-03 33DCB	2.9	148	82	58	1.8	28	--	380	1.00	<0.010
D-01-09 07BDC2	0.40	141	13	44	0.60	32	--	290	5.70	<0.010
D-22-30 05CD	5.2	215	16	5.5	0.60	19	--	280	<0.100	0.010
A-02-05 14AAA	5.7	144	97	360	0.30	30	--	900	13.0	<0.010
D-02-04 25DDD	8.9	206	650	1000	0.90	37	--	2700	8.10	<0.010
SAN SIMON BASIN										
*25S/20W 34.444	2.4	160	130	45	1.3	33	--	460	8.10	<0.010
D-12-28 14CAA	3.6	150	340	450	0.60	36	--	1400	17.0	<0.010
D-13-28 22DDD	2.3	123	57	41	0.20	26	--	290	0.290	<0.010
D-14-32 16CAB	3.2	115	120	25	3.7	34	--	380	0.940	<0.010
D-14-32 20CBA	9.1	216	850	230	3.4	56	--	1900	3.20	<0.010
*27S/21W17DCC	1.7	145	25	7.0	1.8	43	--	240	0.190	<0.010
*27S/21W22.122	3.2	185	26	6.6	6.2	44	--	290	0.910	<0.010
*28S/21W19.124	1.9	124	9.0	11	4.6	69	--	240	0.920	<0.010
*28S/21W29.133	2.1	83	120	30	3.7	62	--	380	3.50	<0.010
*28S/22W12.123	1.2	95	7.2	10	1.7	34	--	160	0.790	0.010
*26S.22W.24S212	2.1	149	33	7.4	2.9	35	--	250	0.530	<0.010
*27S.21W.30.413	1.6	114	7.3	8.9	0.30	31	--	170	0.620	<0.010
D-09-30 33DCD	12	200	460	200	4.1	72	--	1200	1.50	<0.010
D-10-28 36AAD	3.1	155	290	200	10	55	--	980	<0.100	<0.010
D-11-26 19ADD	1.2	110	21	14	3.1	34	--	190	0.810	0.020
D-11-26 23BCC	1.3	132	8.8	13	4.0	45	--	220	1.70	<0.310
D-11-29 01CDD	2.1	211	230	54	17	71	--	780	<0.100	0.010
D-11-29 10AAA	8.5	0	1700	1400	27	--	--	--	<0.100	0.030
D-11-29 14AAA	1.8	450	310	120	16	77	--	1200	<0.100	0.080
D-11-30 31CCA	6.5	101	610	37	4.8	38	--	1100	0.360	<0.010
D-11-31 26ADC	5.3	178	37	9.9	0.90	62	--	310	0.630	0.050
D-12-26 08DBC	1.5	204	9.8	11	0.70	47	--	280	0.660	<0.010
D-12-26 10ACC	3.2	118	10	10	0.70	29	--	190	2.70	<0.010
D-12-26 28BBB	0.80	149	16	18	1.2	29	--	240	3.60	<0.010
D-12-26 34ADC	1.5	152	26	47	1.0	29	--	300	7.60	<0.010
D-12-27 17DCC	5.3	152	34	23	1.4	28	--	280	5.40	<0.010
D-12-27 33DAA	2.3	167	22	20	1.3	37	--	270	0.750	<0.010
D-12-28 16CDD	2.0	85	50	32	0.50	31	--	240	0.960	<0.010
D-12-28 20ABC	1.9	120	47	48	0.50	31	--	300	2.00	<0.010
D-12-28 23CCC	2.7	69	110	68	1.1	24	--	380	0.790	<0.010
D-12-28 33CCC	1.6	152	32	26	0.60	36	--	280	0.580	--
D-12-28 34BBC	2.0	62	77	39	0.30	22	--	270	0.820	--
D-12-28 34BBC2	3.4	190	140	250	0.30	34	--	820	11.0	0.010
	3.2	186	160	250	0.30	34	--	850	12.0	<0.010
D-12-29 25DDC	4.7	209	460	51	3.6	61	--	1000	0.200	<0.010
D-13-28 03BBC	3.2	63	88	43	0.40	24	--	280	0.910	<0.010
D-13-28 10BCC	2.4	92	46	29	0.10	29	--	230	1.40	<0.010
D-13-28 15BCC	1.6	106	23	23	0.10	27	--	210	1.50	0.010
D-13-28 22BCC	1.6	89	20	18	0.30	21	--	190	0.290	<0.010
D-13-29 23DBB	2.4	163	140	110	0.80	33	--	570	7.70	<0.010
D-13-29 25CDC	0.60	128	80	18	2.5	25	--	--	0.440	0.010
D-13-30 03CCA	1.8	260	140	25	6.0	62	--	580	0.550	<0.010
D-13-30 17BBB	3.1	213	330	48	1.3	51	--	820	1.00	<0.010
D-13-30 36AAD	5.6	270	720	230	8.0	49	--	1700	5.80	<0.010
D-13-30 36ADA	5.6	244	970	250	4.0	50	--	2100	6.40	<0.010

* In New Mexico

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
SAN BERNARDINO VALLEY										
D-21-32 15DCB	--	--	<1	4	<0.5	20	<1	<1	<3	20
D-24-30 14CBD	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--	--
SNOWFLAKE										
A-11-20 32BAA	--	--	5	210	<0.5	20	<1	<1	<3	20
A-11-23 19BCD	0.09	--	<1	34	<0.5	<10	<1	<1	<3	<10
A-12-22W31BCB	--	--	<1	190	<0.5	30	<1	<1	<3	<10
A-13-19 22DBA	--	--	<1	65	<0.5	20	<1	<1	<3	10
A-13-21 26ADB2	--	--	2	61	<0.5	20	<1	<1	<3	<10
SALT RIVER VALLEY										
A-01-05 15DCB	0.03	--	--	--	--	140	--	--	--	--
B-01-02 25BBC2	--	--	49	59	1	740	5	1	<3	<10
D-01-06 27CDD	--	--	1	130	<0.5	180	<1	<1	<3	10
D-01-10 35DBC	--	--	1	36	1	60	<1	<1	<3	<10
A-01-06 07BCC	0.03	--	--	--	--	140	--	--	--	--
A-01-06 17DDC	0.03	--	--	--	--	270	--	--	--	--
A-02-04 30ACC	--	--	8	61	<0.5	2200	<1	<1	<3	<10
A-02-05 36DAA	0.09	--	9	74	--	150	--	<1	--	--
A-03-01 27CCC	--	--	2	170	<0.5	180	<1	<1	<3	10
B-06-03 33DCB	--	--	2	65	<0.5	300	<1	<1	<3	<10
D-01-09 07BDC2	--	--	7	8	0.5	70	<1	<1	<3	10
D-22-30 05CD	0.03	<10	2	<2	--	50	<1	<1	--	--
A-02-05 14AAA	--	--	5	64	<0.5	160	2	<1	<3	10
D-02-04 25DDD	--	--	2	50	0.9	1100	16	<1	<3	<10
SAN SIMON BASIN										
*25S/20W 34.444	--	<10	2	--	--	70	--	<1	--	--
D-12-28 14CAA	--	--	--	--	--	160	--	--	--	--
D-13-28 22DDD	--	--	--	--	--	30	--	--	--	--
D-14-32 16CAB	--	--	--	--	--	80	--	--	--	--
D-14-32 20CBA	--	<10	4	<100	--	390	<1	<1	--	--
*27S/21W17DCC	--	<10	3	15	--	40	<1	<1	--	--
*27S/21W22.122	--	<10	6	<2	--	110	<1	<1	--	--
*28S/21W19.124	--	--	--	--	--	50	--	--	--	--
*28S/21W29.133	--	<10	3	11	--	40	<1	<1	--	--
*28S/22W12.123	0.03	--	--	--	--	20	--	--	--	--
*26S.22W.24S212	--	--	3	2	<0.5	40	<1	<1	<3	20
*27S.21W.30.413	--	--	1	30	<0.5	20	<1	<1	<3	20
D-09-30 33DCD	--	<10	24	21	--	690	<1	<1	--	--
D-10-28 36AAD	--	--	53	8	<0.5	360	<1	<1	<3	<10
D-11-26 19ADD	0.06	<10	2	--	--	20	--	<1	--	--
D-11-26 23BCC	--	20	<1	--	--	50	--	<1	--	--
D-11-29 01CDD	0.03	10	26	--	--	410	--	<1	--	--
D-11-29 10AAA	0.09	--	170	--	--	3000	--	<1	--	--
D-11-29 14AAA	0.25	--	230	2	<0.5	1100	<1	<1	<3	<10
D-11-30 31CCA	--	--	21	22	<0.5	440	<1	<1	<3	<10
D-11-31 26ADC	0.15	--	4	17	<0.5	40	<1	<1	<3	20
D-12-26 08DBC	--	--	--	--	--	60	--	--	--	--
D-12-26 10ACC	--	<10	3	--	--	40	--	<1	--	--
D-12-26 28BBD	--	--	14	4	<0.5	130	<1	<1	<3	30
D-12-26 34ADC	--	<10	<1	29	--	50	<1	<1	--	--
D-12-27 17DCC	--	--	--	--	--	210	--	--	--	--
D-12-27 33DAA	--	--	1	110	<0.5	50	<1	<1	<3	20
D-12-28 16CDD	--	<10	<1	--	--	40	--	<1	--	--
D-12-28 20ABC	--	--	1	25	<0.5	50	<1	<1	<3	<10
D-12-28 23CCC	--	--	--	--	--	70	--	--	--	--
D-12-28 33CCC	--	--	--	--	--	30	--	--	--	--
D-12-28 34BBC	--	--	--	--	--	30	--	--	--	--
D-12-28 34BBC2	0.03	--	<1	81	<0.5	50	<1	<1	<3	10
	--	<10	<1	81	--	60	5	<1	--	--
D-12-29 25DDC	--	--	3	13	<0.5	1300	<1	<1	<3	<10
D-13-28 03BBC	--	--	--	--	--	30	--	--	--	--
D-13-28 10BCC	--	--	--	--	--	20	--	--	--	--
D-13-28 15BCC	0.03	--	--	--	--	20	--	--	--	--
D-13-28 22BCC	--	--	--	--	--	30	--	--	--	--
D-13-29 23DBB	--	<10	<1	--	--	60	--	3	--	--
D-13-29 25CDC	0.03	--	--	--	--	90	--	--	--	--
D-13-30 03CCA	--	--	12	20	<0.5	200	<1	<1	<3	10
D-13-30 17BBB	--	--	3	28	<0.5	470	<1	<1	<3	10
D-13-30 36AAD	--	--	4	59	<2	140	<3	<1	<9	<30
D-13-30 36ADA	--	--	--	--	--	160	--	--	--	--

* In New Mexico

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
SAN BERNARDINO VALLEY									
D-21-32 15DCB	63	<10	6	5	<10	--	55	<6	490
D-24-30 14CBD	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
	--	--	--	--	--	--	--	--	--
SNOWFLAKE									
A-11-20 32BAA	11	<10	11	6	<10	--	90	<6	21
A-11-23 19BCD	8	<10	5	2	<10	--	160	12	16
A-12-22W31BCB	5	<10	16	2	<10	--	310	8	4
A-13-19 22DBA	5	<10	12	10	<10	--	200	<6	260
A-13-21 26ADB2	<3	<10	8	2	<10	--	140	6	5
SALT RIVER VALLEY									
A-01-05 15DCB	<3	--	--	<1	--	--	--	--	--
B-01-02 25BEC2	8	<10	230	<1	20	--	1100	27	<3
D-01-06 27CDD	100	<10	100	2	<10	--	2400	<6	12
D-01-10 35DBC	14	<10	28	2	<10	--	660	<6	57
A-01-06 07BCC	10	--	--	<1	--	--	--	--	--
A-01-06 17DDC	5	--	--	<1	--	--	--	--	--
A-02-04 30ACC	6	<10	130	<1	60	--	1700	30	8
A-02-05 36DAA	9	<1	--	<1	--	2	--	--	--
A-03-01 27CCC	8	<10	32	<1	<10	--	2000	6	20
B-06-03 33DCB	7	<10	40	3	20	--	330	9	110
D-01-09 07BDC2	11	<10	67	<1	<10	--	6	37	14
D-22-30 05CD	15	<5	13	6	--	<1	130	--	--
A-02-05 14AAA	10	<10	110	<1	<10	--	940	<6	14
D-02-04 25DDD	19	10	260	2	<10	--	3300	8	22
SAN SIMON BASIN									
*25S/20W 34.444	11	<5	--	<1	--	<1	--	--	--
D-12-28 14CAA	40	--	--	<10	--	--	--	--	--
D-13-28 22DDD	8	--	--	<1	--	--	--	--	--
D-14-32 16CAB	7	--	--	<1	--	--	--	--	--
D-14-32 20CBA	30	<5	370	10	--	8	2900	--	--
*27S/21W17DCC	20	<5	38	3	--	<1	330	--	--
*27S/21W22.122	12	<5	110	1	--	<1	130	--	--
*28S/21W19.124	14	--	--	<1	--	--	--	--	--
*28S/21W29.133	33	<5	110	5	--	<1	630	--	--
*28S/22W12.123	36	--	--	3	--	--	--	--	--
*26S.22W.24S212	6	<10	47	<1	<10	--	320	<6	480
*27S.21W.30.413	16	<10	15	3	<10	--	230	<6	46
D-09-30 33DCD	99	<5	450	3	--	19	7	--	--
D-10-28 36AAD	42	10	380	5	10	--	43	34	7
D-11-26 19ADD	10	<5	--	<10	--	<1	--	--	--
D-11-26 23BCC	410	<5	--	18	--	1	--	--	--
D-11-29 01CDD	10	<5	--	<1	--	<1	--	--	--
D-11-29 10AAA	--	--	--	--	--	--	--	--	--
D-11-29 14AAA	6	<10	34	<1	<10	--	4	<6	8
D-11-30 31CCA	9	<10	220	4	10	--	1400	12	45
D-11-31 26ADC	130	<10	28	47	<10	--	280	19	51
D-12-26 08DBC	31	--	--	5	--	--	--	--	--
D-12-26 10ACC	600	<5	--	33	--	<1	--	--	--
D-12-26 28BBD	99	<10	54	3	<10	--	170	29	120
D-12-26 34ADC	8	<5	21	1	--	1	360	--	--
D-12-27 17DCC	34	--	--	7	--	--	--	--	--
D-12-27 33DAA	8	<10	25	3	<10	--	290	<6	160
D-12-28 16CDD	4	<5	--	<1	--	1	--	--	--
D-12-28 20ABC	<3	<10	29	1	<10	--	320	<6	7
D-12-28 23CCC	12	--	--	<1	--	--	--	--	--
D-12-28 33CCC	4	--	--	<1	--	--	--	--	--
D-12-28 34BBC	28	--	--	3	--	--	--	--	--
D-12-28 34BBC2	5	<10	34	1	<10	--	1000	<6	4
	<3	<5	37	<1	--	4	1000	--	--
D-12-29 25DDC	120	<10	99	11	<10	--	870	8	840
D-13-28 03BBC	12	--	--	<1	--	--	--	--	--
D-13-28 10BCC	6	--	--	<1	--	--	--	--	--
D-13-28 15BCC	9	--	--	<1	--	--	--	--	--
D-13-28 22BCC	27	--	--	<1	--	--	--	--	--
D-13-29 23DBB	20	<5	--	10	--	2	--	--	--
D-13-29 25CDC	10	--	--	20	--	--	--	--	--
D-13-30 03CCA	21	<10	61	3	<10	--	660	17	<3
D-13-30 17BBB	110	<10	61	4	<10	--	990	8	21
D-13-30 36AAD	10	<30	210	<3	<30	--	2500	<18	14
D-13-30 36ADA	40	--	--	10	--	--	--	--	--

* In New Mexico

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL WELL NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (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)
SAN SIMON BASIN--Continued										
D-13-31 17DDD	09-10-86	1500	364	7.89	28.5	150	43	11	130	5
D-13-31 18ADC	07-15-86	1300	670	7.70	21.0	140	41	10	110	4
D-13-31 29DDA	09-11-86	1400	364	7.73	28.0	82	29	2.4	48	2
D-13-31 31BBC1	07-17-86	1415	2050	6.30	19.5	580	170	36	270	5
D-13-31 33DAA2	09-12-86	0830	540	7.56	27.5	140	50	4.2	64	2
D-13-31 34CBD	07-15-86	1030	350	8.20	24.5	77	27	2.2	42	2
D-14-31 02BAD	07-30-86	1400	384	7.75	29.0	71	25	2.0	50	3
D-14-31 03CDA	07-15-86	1000	4190	7.10	20.5	1100	370	46	580	8
D-14-31 09ADA1	09-11-86	1930	4700	7.41	19.5	780	250	39	730	12
D-14-31 09ADD2	09-11-86	1730	1900	7.37	20.0	340	110	17	260	6
D-14-31 10DBA	07-05-86	0800	3230	7.30	20.0	780	260	30	490	8
D-14-31 19BAC	09-09-86	1130	480	8.10	27.0	32	11	0.99	88	7
D-14-31 35DCC	07-15-86	1130	6900	7.40	27.0	200	65	8.6	29	0.9
D-14-32 11CAB	07-18-86	0815	820	7.60	22.0	140	38	11	110	4
	09-12-86	1130	860	7.61	26.0	140	39	11	120	5
D-14-32 19ACA	07-17-86	0815	650	7.60	24.5	210	72	7.3	43	1
D-15-30 17ADD	09-09-86	1345	800	7.23	18.0	380	120	19	18	0.4
D-15-31 19DBB	07-17-86	1100	590	7.40	24.0	240	78	11	28	0.8
D-16-31 28DBB	09-27-86	1400	760	7.39	21.0	360	120	14	17	0.4
D-16-31 29RACC	07-29-86	1600	785	7.40	21.0	400	130	18	18	0.4
D-16-32 21CAD	07-30-86	0930	319	7.85	22.0	120	43	3.4	16	0.7
D-16-32 27DDB	09-12-86	1700	481	7.61	21.0	180	64	4.9	19	0.6
D-16-32 34CAD	07-16-86	0930	610	7.60	21.5	140	49	4.2	18	0.7
D-17-31 26DCB	09-27-86	1300	530	7.03	17.0	240	83	7.9	12	0.4
D-18-32 11CBB	09-27-86	1100	530	7.03	17.0	90	31	3.1	27	1
D-18-32 14BDC	07-16-86	1530	400	7.60	19.5	140	49	4.3	34	1
D-18-32 33BDC2	07-16-86	1300	208	6.80	19.0	55	17	2.9	23	1
D-19-32 15ACA	09-27-86	1000	310	7.93	22.0	130	46	4.5	13	0.5
D-19-32 21DAC	09-25-86	1700	165	7.12	21.0	43	13	2.6	15	1
D-20-31 18BCB	07-16-86	1130	260	7.35	24.0	79	23	5.2	18	0.9
D-20-32 29ABB	07-16-86	0900	310	7.80	24.0	81	23	5.8	30	2
D-20-32 29ABB	09-25-86	1530	300	7.85	23.0	82	23	5.9	31	2
ST. JOHNS										
A-11-28 19ADD	03-17-86	1200	--	--	--	--	--	--	--	--
A-11-28 22BDA2	03-16-86	1200	--	--	--	--	--	--	--	--
A-11-29 07DBB	10-11-85	1200	3250	7.30	24.0	930	270	62	350	5
A-12-27 35CDA BIG WHITE COR	03-16-86	1200	--	--	--	--	--	--	--	--
A-11-28 04CBD CCNN SP.	03-17-86	1200	--	--	--	--	--	--	--	--
A-11-28 04DBA	03-17-86	1200	--	--	--	--	--	--	--	--
A-11-29 07DBB	10-11-85	1200	--	--	--	--	--	--	--	--
A-12-28 17DCA	10-23-85	1200	--	--	--	--	--	--	--	--
A-12-28 18DDC2	03-24-86	1045	3250	7.90	12.0	1000	300	60	370	5
A-13-27 13A	10-10-85	1600	1630	8.30	11.0	170	43	15	300	10
	03-24-86	1215	1650	8.60	17.0	170	41	16	320	11
A-13-29 35AAA	03-25-86	1415	3800	6.50	18.0	1300	360	89	380	5
A-14-27 35BDC	10-10-85	1430	2050	7.80	16.5	310	86	22	350	9
	03-24-86	1615	1850	7.80	17.0	220	60	16	340	10
TONTON BASIN										
A-10-10 25BAB	08-07-86	0815	695	6.80	15.5	310	71	31	32	0.8
A-10-10 28BCC	08-07-86	0930	1240	7.00	17.5	520	130	47	39	0.8
TUBA CITY										
03 077-11.14X05.34	05-19-86	1645	257	8.00	17.0	94	30	4.6	11	0.5
UPPER SANTA CRUZ BASIN										
D-12-12 16DDD	07-11-86	1400	518	7.30	25.5	170	55	8.9	37	1
D-12-13 22BBB	07-22-86	1200	295	7.90	23.5	97	30	5.4	20	0.9
D-13-14 26BBB	09-08-86	1305	720	7.55	25.0	250	80	13	36	1
D-13-14 26CDD	09-09-86	1100	225	7.00	17.5	81	29	2.1	12	0.6
D-13-14 26DAC2	08-26-86	1500	255	6.90	21.0	99	34	3.4	9.6	0.4
D-13-14 26DDA2	08-26-86	1000	405	7.30	20.5	170	59	6.3	14	0.5
D-13-14 27ADA2	08-27-86	1200	603	7.60	24.0	190	59	10	43	1
D-13-14 27BDB4	08-28-86	1030	317	6.90	16.5	140	46	5.0	9.0	0.4
	09-08-86	1545	215	7.00	17.5	90	31	3.1	7.2	0.3
D-13-14 27CDA	08-25-86	1115	360	7.80	20.5	95	36	1.2	36	2
D-13-14 27DDC4	08-27-86	0915	275	7.70	21.0	82	31	1.1	25	1
D-13-14 28DAD	08-25-86	1430	235	7.90	18.0	110	40	1.9	13	0.6
D-13-14 34AAA4	09-09-86	0830	267	7.40	19.0	59	22	1.0	29	2
D-13-14 34DCC2	09-08-86	1100	605	7.20	24.0	190	64	6.4	55	2
D-14-14 02BBB	07-22-86	1430	475	7.50	23.0	120	42	4.7	46	2
D-16-15 14ACB	07-23-86	0715	965	7.70	25.0	400	120	24	58	1
D-17-14 07DDD	07-23-86	0945	565	7.50	26.5	160	56	5.7	42	1
D-19-13 29CEA	07-24-86	--	880	7.60	21.0	380	120	19	45	1
D-19-21 12DBC	09-23-86	1000	345	7.71	22.5	130	29	14	23	0.9
D-22-13 09AC UNSURV	07-23-86	1230	780	7.30	23.5	320	98	19	36	0.9
D-24-14 05ADB2	07-23-86	1430	635	7.00	21.0	230	72	12	39	1

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
SAN SIMON BASIN--Continued										
D-13-31 17DDD	4.7	141	210	67	5.4	64	--	620	2.00	<0.010
D-13-31 18ADC	3.0	201	110	40	4.8	70	--	510	1.40	0.010
D-13-31 29DDA	2.1	122	43	8.8	2.3	35	--	240	0.450	<0.010
D-13-31 31BBC1	3.9	205	670	140	4.4	58	--	1500	4.10	<0.010
D-13-31 33DAA2	2.5	128	110	23	2.0	39	--	370	1.30	<0.010
D-13-31 34CBD	2.2	121	44	13	2.1	31	--	240	0.260	<0.010
D-14-31 02BAD	2.4	112	43	16	2.6	34	--	240	0.480	<0.010
D-14-31 03CDA	14	264	1600	410	3.9	52	--	3200	20.0	<0.010
D-14-31 09ADA1	8.8	306	1500	470	5.3	46	--	3200	11.0	<0.010
D-14-31 09ADD2	4.9	148	510	120	3.6	43	--	1200	3.20	0.010
D-14-31 10DBA	8.1	242	1000	120	4.0	42	--	2100	20.0	<0.010
D-14-31 19BAC	2.3	108	82	16	8.0	62	--	340	0.170	<0.010
D-14-31 35DCC	2.1	125	110	11	0.40	38	--	340	1.50	<0.010
D-14-32 11CAB	2.5	169	100	71	1.0	32	--	470	8.30	<0.010
	2.6	166	94	72	1.2	35	--	480	2.90	0.010
D-14-32 19ACA	2.9	101	140	36	1.1	36	--	400	2.10	<0.010
D-15-30 17ADD	0.90	226	170	6.8	0.30	25	--	500	0.230	<0.010
D-15-31 19DBB	1.3	126	110	41	0.50	46	--	390	0.630	<0.010
D-16-31 28DBB	1.1	180	180	14	0.50	28	--	480	0.390	<0.010
D-16-31 29RACC	1.5	197	200	7.7	0.80	33	--	530	0.800	<0.010
D-16-32 21CAD	1.5	100	37	10	0.40	31	--	200	1.60	<0.010
D-16-32 27DDB	1.5	100	68	22	0.20	30	--	270	1.40	<0.010
D-16-32 34CAD	1.4	10	85	9.6	0.30	30	--	200	24.0	0.100
D-17-31 26DCB	0.60	155	97	3.9	0.60	29	--	330	<0.100	<0.010
D-18-32 11CBB	1.6	112	7.8	13	2.6	45	--	200	0.550	<0.010
D-18-32 14BDC	2.8	142	21	13	3.3	70	--	280	3.20	<0.010
D-18-32 33BDC2	2.1	60	12	11	0.80	57	--	160	3.40	0.090
D-19-32 15ACA	1.4	109	42	5.1	0.20	28	--	210	0.170	<0.010
D-19-32 21DAC	1.9	53	6.8	9.7	0.60	56	--	140	1.20	0.020
D-20-31 18ECB	3.0	48	61	9.2	0.30	13	--	160	<0.100	<0.010
D-20-32 29ABB	4.0	124	12	4.3	2.3	47	--	200	0.620	<0.010
D-20-32 29ABB	4.2	128	13	4.3	2.4	48	--	210	0.380	<0.010
ST. JOHNS										
A-11-28 19ADD	--	--	--	--	--	--	--	--	--	--
A-11-28 22BDA2	--	--	--	--	--	--	--	--	--	--
A-11-29 07DBB	23	522	720	460	2.9	11	--	2200	<0.100	0.010
A-12-27 35CDA BIG WHITE COR	--	--	--	--	--	--	--	--	--	--
A-11-28 04CBD CCNN SP.	--	--	--	--	--	--	--	--	--	--
A-11-28 04DBA	--	--	--	--	--	--	--	--	--	--
A-11-29 07DBB	--	--	--	--	--	--	--	--	--	--
A-12-28 17DCA	--	--	--	--	--	--	--	--	--	--
A-12-28 18DDC2	21	480	640	400	3.5	30	--	2100	<0.100	<0.010
A-13-27 13A	7.5	436	260	87	1.8	21	--	1000	1.10	<0.010
	6.9	456	280	75	2.2	19	--	1200	0.810	0.010
A-13-29 35AAA	28	638	780	500	2.4	13	--	2600	<0.100	<0.010
A-14-27 35BDC	10	318	430	210	1.8	8.5	--	1300	1.80	<0.010
	9.6	300	410	170	2.0	8.2	--	1200	2.50	<0.010
TONTON BASIN										
A-10-10 25BAB	0.50	307	31	13	0.30	28	--	390	0.700	0.040
A-10-10 28BCC	0.70	361	33	150	0.20	26	--	640	4.80	0.010
TUBA CITY										
03 077-11.14X05.34	1.3	76	19	5.4	0.20	9.8	--	130	4.70	0.010
UPPER SANTA CRUZ BASIN										
D-12-12 16DDD	2.3	124	55	27	0.30	32	--	290	4.20	<0.010
D-12-13 22BBB	1.5	119	11	6.0	0.30	36	--	180	3.40	0.010
D-13-14 26BBB	2.5	127	13	97	0.60	43	480	360	16.0	<0.010
D-13-14 26CDD	1.2	83	16	3.5	0.30	24	136	140	0.920	0.030
D-13-14 26DAC2	1.9	100	12	4.2	0.20	19	137	140	0.520	0.020
D-13-14 26DDA2	2.3	168	22	10	0.30	20	245	230	0.430	0.020
D-13-14 27ADA2	2.5	180	23	43	0.40	39	363	330	6.20	<0.010
D-13-14 27BDB4	2.1	124	25	3.0	0.20	17	197	180	--	--
	1.9	82	15	2.2	0.30	18	132	130	0.610	0.050
D-13-14 27CDA	1.5	137	27	8.7	0.50	28	241	220	1.50	<0.010
D-13-14 27DDC4	1.3	112	16	4.2	0.20	27	187	170	1.20	<0.010
D-13-14 28DAD	1.4	114	17	3.2	0.20	28	187	170	1.10	<0.010
D-13-14 34AAA4	1.0	92	20	10	0.30	24	183	160	0.950	0.020
D-13-14 34DCC2	2.1	218	42	16	0.20	38	370	350	3.40	<0.010
D-14-14 02BBB	1.5	186	39	10	0.10	35	--	300	3.10	<0.010
D-16-15 14ACB	2.5	193	300	21	0.20	30	--	670	1.10	<0.010
D-17-14 07DDD	2.5	127	100	13	0.60	32	--	330	3.60	<0.010
D-19-13 29CBA	2.7	216	220	21	0.40	34	--	590	4.10	<0.010
D-19-21 12DBC	1.4	161	5.8	4.7	0.50	27	--	200	0.870	<0.010
D-22-13 09AC UNSURV	3.2	179	200	14	0.40	33	--	510	0.590	0.070
D-24-14 05ADB2	2.8	215	44	30	0.50	34	--	370	5.20	0.380

< Actual value is known to be less than value shown.

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO ₄) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
SAN SIMON BASIN--Continued										
D-13-31 17DDD	--	<10	9	--	--	190	--	<1	--	--
D-13-31 18ADC	0.03	--	4	19	<0.5	120	<1	<1	<3	30
D-13-31 29DDA	--	--	--	--	--	50	--	--	--	--
D-13-31 31BBC1	--	--	6	37	<0.5	170	<1	<1	<3	10
D-13-31 33DAA2	--	<10	3	--	--	70	--	<1	--	--
D-13-31 34CBD	--	--	3	42	<0.5	50	<1	<1	<3	<10
D-14-31 02BAD	--	--	6	35	<0.5	40	<1	<1	<3	20
D-14-31 03CDA	--	--	3	42	0.7	1100	4	<1	<3	<10
D-14-31 09ADA1	--	--	--	--	--	390	--	--	--	--
D-14-31 09ADD2	0.03	<10	5	--	--	190	--	<1	--	--
D-14-31 10DBA	--	--	4	31	<2	470	<3	<1	<9	<30
D-14-31 19BAC	--	<10	23	--	--	140	--	<1	--	--
D-14-31 35DCC	--	--	2	42	<0.5	20	<1	<1	<3	30
D-14-32 11CAB	--	--	2	7	<0.5	280	<1	<1	<3	40
	0.03	<10	3	--	--	310	--	<1	--	--
D-14-32 19ACA	--	--	2	110	<0.5	40	<1	<1	<3	30
D-15-30 17ADD	--	--	--	--	--	<10	--	--	--	--
D-15-31 19DEB	--	--	1	15	<0.5	20	<1	<1	<3	20
D-16-31 28DBB	--	<10	<1	--	--	10	--	<1	--	--
D-16-31 29RACC	--	--	<1	33	<0.5	20	<1	<1	<3	20
D-16-32 21CAD	--	--	1	31	<0.5	10	<1	<1	<3	<10
D-16-32 27DDB	--	<10	1	--	--	20	--	<1	--	--
D-16-32 34CAD	0.31	--	<1	33	<0.5	10	<1	<1	<3	10
D-17-31 26DCB	--	<10	<1	32	--	<10	<1	<1	--	--
D-18-32 11CBB	--	--	--	--	--	40	--	--	--	--
D-18-32 14BDC	--	--	8	10	<0.5	30	<1	<1	<3	10
D-18-32 33BDC2	0.28	--	1	10	<0.5	20	<1	<1	<3	20
D-19-32 15ACA	--	--	--	--	--	10	--	--	--	--
D-19-32 21DAC	0.06	--	--	--	--	20	--	--	--	--
D-20-31 18BCB	--	--	<1	39	<0.5	10	1	<1	<3	20
D-20-32 29ABB	--	--	3	10	<0.5	30	<1	<1	<3	<10
D-20-32 29ABB	--	<10	4	--	--	40	--	<1	--	--
ST. JOHNS										
A-11-28 19ADD	--	--	--	--	--	--	--	--	--	--
A-11-28 22BDA2	--	--	--	--	--	--	--	--	--	--
A-11-29 07DBB	0.03	<10	11	<100	<10	730	1	--	1	1
A-12-27 35CDA BIG WHITE COR	--	--	--	--	--	--	--	--	--	--
A-11-28 04CBD CCNN SP.	--	--	--	--	--	--	--	--	--	--
A-11-28 04DBA	--	--	--	--	--	--	--	--	--	--
A-11-29 07DBB	--	--	--	--	--	--	--	--	--	--
A-12-28 17DCA	--	--	--	--	--	--	--	--	--	--
A-12-28 18DDC2	--	--	--	--	--	660	--	--	--	--
A-13-27 13A	0.03	--	--	--	--	980	--	--	--	--
	--	--	--	--	--	910	--	--	--	--
A-13-29 35AAA	--	--	--	--	--	670	--	--	--	--
A-14-27 35BDC	--	--	--	--	--	280	--	--	--	--
	--	--	--	--	--	240	--	--	--	--
TONTON BASIN										
A-10-10 25BAB	0.12	--	<1	45	<0.5	30	<1	<1	<3	<10
A-10-10 28BCC	0.03	--	<1	140	<0.5	30	<1	<1	<3	20
TUBA CITY										
03 077-11.14X05.34	0.03	--	--	--	--	30	--	--	--	--
UPPER SANTA CRUZ BASIN										
D-12-12 16DDD	--	--	1	71	<0.5	60	<1	<1	<3	<10
D-12-13 22BBB	0.03	--	<1	37	<0.5	20	<1	<1	<3	50
D-13-14 26BBB	--	--	--	--	--	--	--	--	--	--
D-13-14 26CDD	0.09	--	--	--	--	--	--	--	--	--
D-13-14 26DAC2	0.06	--	--	--	--	--	--	--	--	--
D-13-14 26DDA2	0.06	--	--	--	--	--	--	--	--	--
D-13-14 27ADA2	--	--	--	--	--	--	--	--	--	--
D-13-14 27BDB4	--	--	--	--	--	--	--	--	--	--
	0.15	--	--	--	--	--	--	--	--	--
D-13-14 27CDA	--	--	--	--	--	--	--	--	--	--
D-13-14 27DDC4	--	--	--	--	--	--	--	--	--	--
D-13-14 28DAD	--	--	--	--	--	--	--	--	--	--
D-13-14 34AAA4	0.06	--	--	--	--	--	--	--	--	--
D-13-14 34DCC2	--	--	--	--	--	--	--	--	--	--
D-14-14 02BBB	--	--	<1	140	<0.5	40	<1	<1	<3	10
D-16-15 14ACB	--	--	4	25	<0.5	90	<1	<1	<3	10
D-17-14 07DDD	--	--	5	63	<0.5	70	<1	<1	<3	20
D-19-13 29CBA	--	--	5	49	<0.5	80	<1	<1	<3	10
D-19-21 12DEC	--	<10	2	--	--	60	--	<1	--	--
D-22-13 09AC UNSURV	0.21	--	4	55	<0.5	70	<1	<1	<3	<10
D-24-14 05ADB2	1.2	--	9	26	<0.5	90	<1	<1	<3	10

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
SAN SIMON BASIN--Continued									
D-13-31 17DDD	40	<5	--	<1	--	2	--	--	--
D-13-31 18ADC	160	<10	160	18	<10	--	1100	8	120
D-13-31 29DDA	4	--	--	<1	--	--	--	--	--
D-13-31 31BBC1	22	<10	140	3	<10	--	2500	10	72
D-13-31 33DAA2	7	<5	--	<1	--	1	--	--	--
D-13-31 34CBD	19	<10	35	4	<10	--	470	<6	240
D-14-31 02BAD	3	<10	56	2	<10	--	440	7	7
D-14-31 03CDA	35	<10	380	<1	<10	--	3800	<6	15
D-14-31 09ADA1	30	--	--	10	--	--	--	--	--
D-14-31 09ADD2	14	<5	--	4	--	4	--	--	--
D-14-31 10DBA	10	<30	240	<3	<30	--	2400	<18	15
D-14-31 19BAC	20	<5	--	1	--	<1	--	--	--
D-14-31 35DCC	4	<10	26	1	<10	--	910	<6	9
D-14-32 11CAB	7	<10	46	12	<10	--	660	10	330
	15	<5	--	4	--	5	--	--	--
D-14-32 19ACA	5	<10	56	4	<10	--	1200	<6	230
D-15-30 17ADD	190	--	--	6	--	--	--	--	--
D-15-31 19DBB	7	<10	33	27	<10	--	310	<6	280
D-16-31 28DBB	17	<5	--	9	--	1	--	--	--
D-16-31 29RACC	4	<10	15	10	<10	--	530	<6	130
D-16-32 21CAD	<3	<10	25	3	<10	--	420	<6	10
D-16-32 27ddb	11	<5	--	<1	--	1	--	--	--
D-16-32 34CAD	13	<10	24	1	<10	--	410	<6	20
D-17-31 26DCB	13	<5	14	11	--	<1	910	--	--
D-18-32 11CBB	26	--	--	5	--	--	--	--	--
D-18-32 14BDC	4	<10	39	<1	<10	--	390	6	110
D-18-32 33BDC2	52	<10	6	4	<10	--	120	<6	240
D-19-32 15ACA	27	--	--	14	--	--	--	--	--
D-19-32 21DAC	13	--	--	2	--	--	--	--	--
D-20-31 18BCB	9	<10	4	77	<10	--	150	<6	2600
D-20-32 29ABB	17	<10	36	<1	<10	--	99	12	84
D-20-32 29ABB	9	<5	--	2	--	<1	--	--	--
ST. JOHNS									
A-11-28 19ADD	--	--	--	--	--	--	--	--	--
A-11-28 22BDA2	--	--	--	--	--	--	--	--	--
A-11-29 07DBB	20	<1	--	40	2	<1	2400	--	10
A-12-27 35CDA BIG WHITE COR	--	--	--	--	--	--	--	--	--
A-11-28 04CBD CCNN SP.	--	--	--	--	--	--	--	--	--
A-11-28 04DBA	--	--	--	--	--	--	--	--	--
A-11-29 07DBB	--	--	--	--	--	--	--	--	--
A-12-28 17DCA	--	--	--	--	--	--	--	--	--
A-12-28 18DDC2	30	--	--	120	--	--	--	--	--
A-13-27 13A	16	--	--	3	--	--	--	--	--
	97	--	--	80	--	--	--	10	--
A-13-29 35AAA	11000	--	--	70	--	--	--	--	--
A-14-27 35BDC	70	--	--	10	--	--	--	--	--
	16	--	--	3	--	--	--	--	--
TONTON BASIN									
A-10-10 25BAB	6	<10	8	1	<10	--	500	<6	20
A-10-10 28BCC	24	<10	10	3	<10	--	930	8	230
TUBA CITY									
03 077-11.14X05.34	5	--	--	<1	--	--	--	--	--
UPPER SANTA CRUZ BASIN									
D-12-12 16DDD	5	<10	15	<1	<10	--	470	7	15
D-12-13 22BBB	20	<10	12	26	<10	--	200	<6	180
D-13-14 26BBB	--	--	--	--	--	--	--	--	--
D-13-14 26CDD	--	--	--	--	--	--	--	--	--
D-13-14 26DAC2	--	--	--	--	--	--	--	--	--
D-13-14 26DDA2	--	--	--	--	--	--	--	--	--
D-13-14 27ADA2	--	--	--	--	--	--	--	--	--
D-13-14 27BDB4	--	--	--	--	--	--	--	--	--
D-13-14 27CDA	--	--	--	--	--	--	--	--	--
D-13-14 27DDC4	--	--	--	--	--	--	--	--	--
D-13-14 28DAD	--	--	--	--	--	--	--	--	--
D-13-14 34AAA4	--	--	--	--	--	--	--	--	--
D-13-14 34DCC2	--	--	--	--	--	--	--	--	--
D-14-14 02BBB	5	20	12	4	<10	--	240	<6	8900
D-16-15 14ACB	5	<10	38	18	<10	--	1300	<6	47
D-17-14 07DDD	<3	<10	57	<1	<10	--	460	<6	20
D-19-13 29CBA	6	20	62	2	<10	--	780	<6	15
D-19-21 12DBC	15	<5	--	3	--	<1	--	--	--
D-22-13 09AC UNSURV	37	<10	15	11	<10	--	750	<6	22
D-24-14 05ADB2	6	<10	16	11	<10	--	270	<6	560

< Actual value is known to be less than value shown.

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL WELL NUMBER	DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	PH (STAND- ARD UNITS) (00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS (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)
UPPER SAN PEDRO BASIN										
D-21-23 29DBC	09-22-86	1030	743	7.66	23.0	350	120	13	15	0.4
D-24-23 13ABD	12-11-85	1240	415	7.80	20.5	180	58	8.0	19	0.6
D-24-23 13BAA	12-11-85	0935	400	7.85	21.0	150	50	7.0	25	0.9
D-24-23 14AAB	12-11-85	1810	432	7.55	20.0	190	62	8.9	15	0.5
D-24-24 05AAA	01-06-86	1400	438	7.85	21.0	180	44	16	20	0.7
D-24-24 08CBA	01-07-86	1045	1500	7.40	19.5	770	250	34	34	0.6
D-24-24 10DCB	12-09-85	1530	1610	7.20	19.0	890	230	77	40	0.6
D-24-24 15CCC	12-11-85	1550	420	7.60	20.0	160	53	5.5	27	1
D-24-24 17ABB	01-07-86	1730	1950	7.05	20.0	1100	350	45	36	0.5
D-24-24 17CDA	12-10-85	1645	618	7.42	19.0	280	92	13	11	0.3
D-24-24 18ADD	01-08-86	1305	559	7.62	21.0	230	76	10	21	0.6
D-24-24 18DBB2	12-10-85	1230	497	7.60	18.5	210	70	9.3	21	0.7
NACO 1	01-14-86	1500	374	7.55	17.0	150	49	6.7	19	0.7
NACO 2	01-14-86	1530	420	7.62	22.0	150	50	7.0	25	0.9
UPPER SALT RIVER BASIN										
A-01-15 04CBD2	03-26-86	0955	7800	3.59	17.0	2000	380	260	170	2
A-01-15 04CBD3	11-19-85	1120	3440	4.30	15.0	1900	540	130	90	0.9
A-01-15 04CBD4	07-09-86	1400	6000	3.83	17.0	2000	440	210	110	1
A-01-15 04DCA	11-21-85	1300	386	7.25	23.0	160	42	13	24	0.9
A-01-15 04DCC1	03-25-86	1745	1230	6.90	16.0	590	190	29	33	0.6
A-01-15 04DCC2	11-20-85	1515	560	6.97	14.0	230	69	14	28	0.8
A-01-15 09DBC2	03-27-86	1135	7400	3.58	17.0	1700	340	200	160	2
	11-19-85	1445	6600	3.45	17.0	--	--	--	--	--
A-01-15 09DBC3	07-10-86	0950	5900	3.68	16.5	2000	460	200	100	1
A-01-15 09DBC4	11-19-85	1335	3240	3.83	18.0	1700	510	110	99	1
A-01-15 09DCD1	11-20-85	0855	10600	3.50	17.5	--	--	--	--	--
	07-08-86	0910	9750	3.70	17.0	2300	390	330	110	1
	11-20-85	0950	7300	3.40	17.0	--	--	--	--	--
A-01-15 09DCD2	03-26-86	1345	10800	3.57	18.0	2200	350	330	200	2
A-01-15 09DCD3	07-08-86	1130	5150	3.62	18.5	1900	480	180	140	1
A-01-15 09DCD5	07-08-86	1340	4300	6.04	18.0	1100	310	68	690	10
A-01-15 09DCD6	12-17-85	1600	395	7.25	18.5	140	37	11	12	0.5
A-01-15 15BDA	07-14-86	1730	1770	7.20	25.0	700	150	80	91	2
A-02-14 04ABB	07-07-86	1530	3230	6.16	--	2100	620	140	80	0.8
A-02-15 07BDD1	07-07-86	1640	1160	7.31	19.0	620	190	34	31	0.6
A-02-15 07BDD2	07-07-86	1720	3230	6.15	17.5	2200	630	140	78	0.8
A-02-15 20CAC	11-21-85	1130	610	7.25	19.0	300	84	23	21	0.5
A-02-15 29DBC	01-07-86	1200	3350	6.60	16.0	2100	700	89	54	0.5
A-02-15 29DBD1	03-25-86	1305	3850	4.78	17.5	1800	470	150	93	1
A-02-15 29DBD2	11-21-85	0930	4200	4.05	16.5	--	--	--	--	--
	07-09-86	0950	4700	4.17	17.0	2300	640	180	110	1
	11-21-85	0930	4200	4.05	16.5	--	--	--	--	--
A-02-15 29DBD2	07-09-86	0950	4700	4.17	17.0	2300	640	180	110	1
A-03-14 36DDC	07-15-86	1445	742	7.08	29.0	310	96	18	48	1
WATERMAN WASH										
C-02-01 30DBA	07-24-86	1300	2130	8.20	33.5	95	28	5.6	350	16
C-02-02 19AAD	07-08-86	0913	1240	7.90	28.5	50	17	1.6	220	14
WILLCOX BASIN										
D-12-25 36CCC	07-28-86	1745	--	7.40	22.0	520	130	47	130	3

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- I- FIER	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY WH WAT TOTAL FIELD MG/L AS CACO3 (00410)	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)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)
UPPER SAN PEDRO BASIN										
D-21-23 29DBC	2.0	162	210	11	0.30	21	--	490	0.460	<0.010
D-24-23 13ABD	2.1	176	11	20	0.30	32	240	260	2.50	<0.010
D-24-23 13BAA	1.9	172	12	15	0.30	30	234	250	2.10	0.010
D-24-23 14AAB	1.2	164	19	14	0.20	34	270	250	4.20	0.010
D-24-24 05AAA	2.2	156	11	18	0.50	22	243	230	8.10	0.010
D-24-24 08CBA	5.2	162	650	22	0.30	27	1220	1100	3.00	0.020
D-24-24 10DCB	19	256	710	30	0.30	31	1340	1300	6.50	0.010
D-24-24 15CCC	2.0	167	13	21	0.40	22	216	250	2.20	0.010
D-24-24 17ABB	4.7	246	850	30	0.20	30	1650	1500	3.40	0.010
D-24-24 17CDA	3.0	183	60	40	0.30	30	340	360	4.20	<0.010
D-24-24 18ADD	2.7	171	71	21	0.30	31	354	340	4.40	0.010
D-24-24 18DBB2	2.1	193	13	30	0.20	33	276	300	3.50	<0.010
NACO 1	1.1	171	6.6	8.1	0.20	33	228	230	0.800	0.020
NACO 2	1.4	192	9.6	7.6	0.20	32	256	250	1.70	0.020
UPPER SALT RIVER BASIN										
A-01-15 04CBD2	8.8	0	6800	--	22	110	--	--	--	--
A-01-15 04CBD3	1.3	0	1700	90	9.7	78	--	--	<0.100	0.010
A-01-15 04CBD4	8.0	0	4900	170	0.30	99	--	--	--	--
A-01-15 04DCA	3.5	152	8.6	14	0.30	22	--	220	0.570	0.010
A-01-15 04DCC1	1.9	176	410	31	0.20	25	--	830	--	--
A-01-15 04DCC2	1.3	140	100	18	0.30	24	--	340	3.40	0.010
A-01-15 09DBC2	7.6	0	6100	--	21	60	--	--	--	--
A-01-15 09DBC3	--	0	--	--	--	--	--	--	--	--
A-01-15 09DBC4	7.0	0	5000	200	0.20	110	--	--	--	--
A-01-15 09DCD1	6.8	0	2200	90	8.4	88	--	--	<0.100	0.010
A-01-15 09DCD2	--	0	--	--	--	--	--	--	--	--
A-01-15 09DCD3	12	0	9900	530	0.30	90	--	--	--	--
A-01-15 09DCD4	7.1	0	5800	190	0.30	--	--	--	<0.100	0.090
A-01-15 09DCD5	9.6	0	8600	--	36	120	--	--	--	--
A-01-15 09DCD6	6.4	0	3900	160	0.20	110	--	--	--	--
A-01-15 15BDA	31	83	2400	160	1.0	37	--	3800	--	--
A-02-14 04ABB	6.6	124	6.0	17	0.20	30	--	190	0.980	0.010
A-02-15 07BDD1	2.9	364	160	270	0.70	56	--	1000	7.40	<0.010
A-02-15 07BDD2	4.1	120	2000	85	0.10	57	--	3100	--	--
A-02-15 07BDD3	2.7	150	450	21	0.30	29	--	850	--	--
A-02-15 20CAC	4.2	103	1900	87	0.40	61	--	3000	--	--
A-02-15 29DBC	2.3	178	130	13	0.30	28	--	410	1.10	0.020
A-02-15 29DBD1	5.1	221	1900	51	0.10	27	--	3000	0.180	0.010
A-02-15 29DBD2	7.2	7	2500	130	10	69	--	3900	--	--
A-02-15 29DBD2	--	0	--	--	--	--	--	--	--	--
A-02-15 29DBD2	7.7	0	2900	140	2.5	80	--	--	--	--
A-02-15 29DBD2	--	0	--	--	--	--	--	--	--	--
A-02-15 29DBD2	7.7	0	2900	140	2.5	80	--	--	--	--
A-03-14 36DDC	5.2	219	150	28	0.50	32	--	510	1.70	<0.010
WATERMAN WASH										
C-02-01 30DBA	6.7	72	130	480	2.4	17	--	1100	8.20	<0.010
C-02-02 19AAD	4.7	70	100	240	5.8	17	--	650	5.50	<0.010
WILLCOX BASIN										
D-12-25 36CCC	1.0	251	110	270	1.3	41	--	880	16.0	<0.010

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

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WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	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)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, HEXA- VALENT, DIS- SOLVED (UG/L AS CR) (01032)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
UPPER SAN PEDRO BASIN										
D-21-23 29DBC	--	<10	<1	200	--	60	<1	<1	--	--
D-24-23 13ABD	--	--	--	--	--	--	--	--	--	--
D-24-23 13BAA	0.03	--	--	--	--	--	--	--	--	--
D-24-23 14AAB	0.03	--	--	--	--	--	--	--	--	--
D-24-24 05AAA	0.03	<10	2	250	<0.5	--	<1	--	<3	6
D-24-24 08CBA	0.06	<10	1	43	<0.5	--	1	--	<3	1
D-24-24 10DCB	0.03	<10	1	35	<0.5	--	<1	--	<3	6
D-24-24 15CCC	0.03	--	--	--	--	--	--	--	--	--
D-24-24 17ABB	0.03	<10	<1	26	<0.5	--	<1	--	<3	6
D-24-24 17CDA	--	--	--	--	--	--	--	--	--	--
D-24-24 18ADD	0.03	--	--	--	--	--	--	--	--	--
D-24-24 18DBB2	--	--	--	--	--	--	--	--	--	--
NACO 1	0.06	--	--	--	--	--	--	--	--	--
NACO 2	0.06	--	--	--	--	--	--	--	--	--
UPPER SALT RIVER BASIN										
A-01-15 04CBD2	--	--	--	<100	150	480	260	--	1200	98000
A-01-15 04CBD3	0.03	8900	<1	21	33	100	32	--	1100	18000
A-01-15 04CBD4	--	100000	--	12	120	460	190	--	--	71000
A-01-15 04DCA	0.03	--	--	--	--	50	--	--	--	--
A-01-15 04DCC1	--	<10	--	35	<0.5	50	<1	--	<3	10
A-01-15 04DCC2	0.03	<100	<1	43	<0.5	50	<1	--	<3	10
A-01-15 09DBC2	--	--	--	<100	140	440	280	--	1100	96000
A-01-15 09DBC3	--	130000	--	11	110	360	210	--	--	68000
A-01-15 09DBC4	0.03	14000	<1	17	49	100	22	--	--	17000
A-01-15 09DCD1	--	--	--	--	--	--	--	--	--	--
A-01-15 09DCD2	0.28	300000	--	9	190	760	480	--	--	140000
A-01-15 09DCD3	--	--	<1	--	--	--	--	--	--	--
A-01-15 09DCD5	--	96000	--	<100	200	590	430	--	--	130000
A-01-15 09DCD6	--	--	--	14	91	370	150	--	--	55000
A-01-15 15BDA	0.03	460	--	16	5	110	12	--	<9	2000
A-02-14 04ABB	--	--	--	--	--	20	--	--	--	--
A-02-15 07BDD1	--	60	--	29	2	60	4	--	<9	<10
A-02-15 07BDD2	--	20	--	21	<0.5	20	<1	--	<3	<10
A-02-15 07BDD3	--	20	--	28	<2	60	4	--	<9	<30
A-02-15 20CAC	0.06	--	--	--	--	20	--	--	--	--
A-02-15 29DBC	0.03	--	--	--	--	40	--	--	--	--
A-02-15 29DBD1	--	16000	--	71	46	150	52	--	970	23000
A-02-15 29DBD2	--	--	--	--	--	--	--	--	--	--
A-02-15 29DBD2	--	11000	--	15	50	240	57	--	--	25000
A-02-15 29DBD2	--	--	--	--	--	--	--	--	--	--
A-02-15 29DBD2	--	11000	--	15	50	240	57	--	--	25000
A-03-14 36DDC	--	--	--	--	--	60	--	--	--	--
WATERMAN WASH										
C-02-01 30DBA	--	--	4	46	1	600	5	3	<3	10
C-02-02 19AAD	--	--	7	44	<0.5	460	<1	<1	<3	<10
WILLCOX BASIN										
D-12-25 36CCC	--	<10	3	--	--	180	--	<1	--	--

< Actual value is known to be less than value shown.

QUALITY OF GROUND WATER

WATER-QUALITY, WATER YEAR OCTOBER 1985 TO SEPTEMBER 1986--Continued

LOCAL IDENT- IFIER	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)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	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)
UPPER SAN PEDRO BASIN									
D-21-23 29DBC	66	<5	32	19	--	<1	860	--	--
D-24-23 13ABD	--	--	--	--	--	--	--	--	--
D-24-23 13BAA	--	--	--	--	--	--	--	--	--
D-24-23 14AAB	--	--	--	--	--	--	--	--	--
D-24-24 05AAA	<3	2	32	4	<10	<1	530	<6	1100
D-24-24 08CBA	120	1	38	65	<10	3	2300	<6	30
D-24-24 10DCB	9	3	34	2	<10	3	1700	<6	840
D-24-24 15CCC	--	--	--	--	--	--	--	--	--
D-24-24 17ABB	4	3	46	13	<10	2	3300	<6	1000
D-24-24 17CDA	--	--	--	--	--	--	--	--	--
D-24-24 18ADD	--	--	--	--	--	--	--	--	--
D-24-24 18DBB2	--	--	--	--	--	--	--	--	--
NACO 1	--	--	--	--	--	--	--	--	--
NACO 2	--	--	--	--	--	--	--	--	--
UPPER SALT RIVER BASIN									
A-01-15 04CBD2	--	<200	460	52000	<200	--	1500	400	12000
A-01-15 04CBD3	140000	40	240	61000	<30	--	2000	21	3800
A-01-15 04CBD4	1100000	250	400	45000	<30	--	1600	210	7700
A-01-15 04DCA	8	--	--	<1	--	--	--	--	--
A-01-15 04DCC1	32	<10	18	3	<10	--	560	<6	26
A-01-15 04DCC2	44	<10	9	11	<10	--	240	<6	14
A-01-15 09DBC2	1360000	<200	450	45000	<200	--	820	1300	12000
A-01-15 09DBC3	1000000	120	390	43000	<30	--	1500	200	8300
A-01-15 09DBC4	150000	<30	220	39000	<30	--	2100	25	1900
A-01-15 09DCD1	--	--	--	--	--	--	--	--	--
A-01-15 09DCD2	2370000	210	630	63000	<90	--	1100	510	18000
A-01-15 09DCD3	--	--	--	--	--	--	--	--	--
A-01-15 09DCD5	2000000	<3	570	65000	<250	--	970	450	18000
A-01-15 09DCD6	660000	100	380	37000	<30	--	1600	170	6900
A-01-15 09DCD6	76000	<30	560	8700	<30	--	1600	<18	980
A-01-15 15BDA	20	--	--	34	--	--	--	--	--
A-02-14 04ABB	28	--	--	27	--	--	--	--	--
A-02-15 07BDD1	250	<30	170	36000	<30	--	2200	<18	53
A-02-15 07BDD2	170	10	23	44	<10	--	810	<6	26
A-02-15 07BDD3	180	<30	190	45000	<30	--	2100	<18	190
A-02-15 20CAC	14	--	--	5	--	--	--	--	--
A-02-15 29DBC	1000	--	--	500	--	--	--	--	--
A-02-15 29DBD1	340000	100	270	51000	<30	--	1900	57	2900
A-02-15 29DBD2	--	--	--	--	--	--	--	--	--
A-02-15 29DBD2	430000	130	280	64000	<30	--	2300	67	3800
A-02-15 29DBD2	--	--	--	--	--	--	--	--	--
A-02-15 29DBD2	430000	130	280	64000	<30	--	2300	67	3800
A-03-14 36DDC	6	--	--	5	--	--	--	--	--
WATERMAN WASH									
C-02-01 30DBA	7	<10	98	<1	10	--	1900	21	6
C-02-02 19AAD	5	<10	120	1	<10	--	500	14	43
WILLCOX BASIN									
D-12-25 36CCC	41	<5	--	3	--	5	--	--	--

< Actual value is known to be less than value shown.

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
<i>Length</i>		
inches (in)	2.54×10^1 2.54×10^{-2}	millimeters (mm) meters (m)
feet (ft)	3.048×10^{-1}	meters (m)
miles (mi)	1.609×10^0	kilometers (km)
<i>Area</i>		
acres	4.047×10^3 4.047×10^{-1} 4.047×10^{-3}	square meters (m ²) square hectometers (hm ²) square kilometers (km ²)
square miles (mi ²)	2.590×10^0	square kilometers (km ²)
<i>Volume</i>		
gallons (gal)	3.785×10^0 3.785×10^0 3.785×10^{-3}	liters (L) cubic decimeters (dm ³) cubic meters (m ³)
million gallons	3.785×10^3 3.785×10^{-3}	cubic meters (m ³) cubic hectometers (hm ³)
cubic feet (ft ³)	2.832×10^1 2.832×10^{-2}	cubic decimeters (dm ³) cubic meters (m ³)
cfs-days	2.447×10^3 2.447×10^{-3}	cubic meters (m ³) cubic hectometers (hm ³)
acre-feet (acre-ft)	1.233×10^3 1.233×10^{-3} 1.233×10^{-6}	cubic meters (m ³) cubic hectometers (hm ³) cubic kilometers (km ³)
<i>Flow</i>		
cubic feet per second (ft ³ /s)	2.832×10^1 2.832×10^1 2.832×10^{-2}	liters per second (L/s) cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
gallons per minute (gal/min)	6.309×10^{-2} 6.309×10^{-2} 6.309×10^{-5}	liters per second (L/s) cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
million gallons per day	4.381×10^1 4.381×10^{-2}	cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s)
<i>Mass</i>		
tons (short)	9.072×10^{-1}	megagrams (Mg) or metric tons

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